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CHAPTER 21.07: DEVELOPMENT AND DESIGN STANDARDS

21.07.060 TRANSPORTATION AND CONNECTIVITY

A. Purpose

The purpose of this section 21.07.060 is to support the creation of a safe and highly connected transportation system within the municipality in order to provide choices for drivers, bicyclists, and pedestrians; increase effectiveness of municipal service delivery; promote walking and bicycling; connect neighborhoods to each other and to local destinations such as employment, schools, parks, and shopping centers; reduce vehicle miles of travel and travel times; improve air quality; reduce emergency response times; support the pattern of designated land uses; mitigate the traffic impacts of new development; create road and trail connectivity to free up arterial capacity while protecting neighborhood identity and safety; and, in high-volume traffic corridors, maintain an adequate degree of crossings for local circulation and minimize road and traffic impacts on adjacent uses.

B. Applicability

The standards of this section 21.07.060 shall apply to all development in the municipality.

C. Traffic Impact Mitigation

1. Traffic Impact Analysis Required

The transportation system for new development shall be capable of supporting the proposed development in addition to the existing uses in the area. Evaluation of system capacity shall be undertaken through a traffic impact analysis (TIA), which should consider the following factors without limitation: street capacity and level of service; vehicle access and loading; on-street parking impacts; the availability of transit service and connections to transit; impacts on adjacent neighborhoods; and traffic safety including pedestrian safety. Unless the traffic engineer issues a substantiated written finding, based on location of the project and professional judgment, that there is no need for a TIA, a traffic impact analysis (TIA) shall be required with applications for development review and approval when:

a. Thresholds established in the traffic department's *Policy on Traffic Impact Analyses* are met;

b. A TIA is required by the planning and zoning commission or assembly as a condition of any land use application approved pursuant to the requirements of this title;

c. Any case where the traffic engineer determines that the previous TIA for the property is out of date and no longer accurate—in such case the TIA shall not be less than two years old;

d. Any case where increased land use intensity will result in substantially increased traffic generation or reduction of the existing level of service on affected streets by at least one service level; or

e. Any case in which the traffic engineer determines that a TIA should be required because of other traffic concerns that may be affected by the proposed development.

2. TIA and Development Review Process

a. Prior to the development of a required TIA, there shall be a scoping meeting that includes the traffic department, the applicant, and all other relevant parties.

b. The development and review of a TIA shall be according to the traffic department's *Policy on Traffic Impact Analyses*.

c. When state-owned roads are involved, the applicant shall coordinate with the state department of transportation and public facilities, and the development of a TIA shall follow state regulations as defined in 17 AAC 10.095.

3. Traffic Mitigation Measures

The applicant shall, as part of the traffic impact analysis, recommend measures to minimize and/or mitigate the anticipated impacts and determine the adequacy of the development's planned access points. Mitigation measures shall be acceptable to the traffic engineer and may include, without limitation: an access management plan; transportation demand management measures; a reduction in the intensity or size of the proposed development; street improvements on or off the site; phasing of the proposed development to coincide with, and not outpace, the necessary upgrades to off-site infrastructure; placement of pedestrian, bicycle, or transit facilities on or off the site; or other capital improvement projects such as traffic calming infrastructure or capacity improvements.

D. Streets and On-Site Vehicular Circulation

1. Street Standards

All streets shall meet the standards and requirements set forth in subsections 21.08.030F.2., *Street Grades*, 21.08.030F.3., *Street Alignment,* and 21.08.030F.4. *Street Intersections*.

2. Parking Lots

In addition to complying with the standards in this subsection 21.07.060D., parking areas shall comply with the standards set forth in section 21.07.090, *Off-Street Parking and Loading.*

3. Street Connectivity

a. ***Purpose***

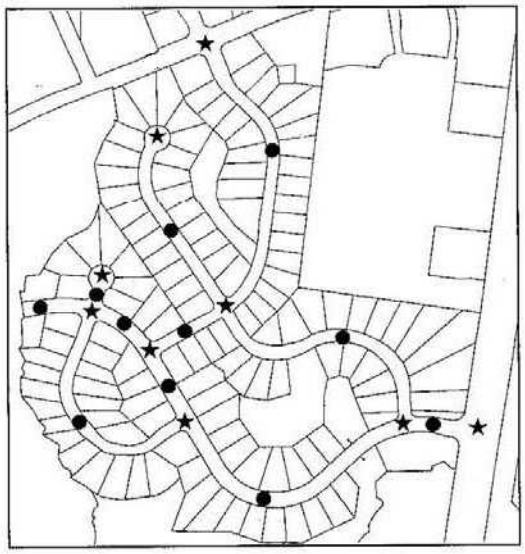
Street and block patterns should include a clear hierarchy of well-connected streets that distribute local traffic over multiple streets, providing multiple direct connections for neighborhood residents to and between local destinations, and avoid traffic congestion on principal routes. Within each residential development, the access and circulation system should accommodate the safe, efficient, and convenient movement of vehicles, bicycles, and pedestrians through the development; provide ample opportunities for linking adjacent neighborhoods, properties, and land uses; and be designed in such a way as to limit and discourage cut-through traffic and protect the new development and adjacent development from adverse impacts. This section is not intended to increase speed limits in neighborhoods, create opportunities for cut-through traffic, or encourage freight movement through residential areas.

b. ***Internal Street Connectivity (Connectivity Index)***

i. All development shall achieve a connectivity index of 1.2 or greater.

ii. The connectivity index for a development is calculated by dividing its links by its nodes. Figure 21.07-1, *Calculation of Connectivity*, provides an example of how to calculate the connectivity index. Nodes (stars) exist at street intersections and cul-de-sac heads within the development. Links (circles) are stretches of road that connect nodes. Street stub-outs are considered as links. In the diagram, there are 11 links (circles) and nine nodes (stars); therefore the connectivity index is 1.22 (11/9 = 1.22).

FIGURE 21.07-1: CALCULATION OF CONNECTIVITY



iii. The connectivity index standard of 1.2 or greater may be reduced by the director if the developer demonstrates it is impossible or impracticable to achieve due to topographic conditions, natural features, or adjacent existing development patterns.

iv. Whenever cul-de-sac streets are created, at least one 10 foot wide pedestrian access easement shall be provided, to the extent reasonably feasible, between each cul-de-sac head or street turnaround and the closest adjacent street or pedestrian walkway. This requirement shall not apply where it would result in damage to or intrusion into significant natural areas such as stream corridors, wetlands, and steep slope areas, or if the configuration of existing adjacent development prevents such a connection.

c. ***External Street Connectivity***

i. The arrangement of streets in a development shall provide for the alignment and continuation of existing or proposed streets into adjacent lands in those cases in which the adjacent lands are undeveloped and intended for future development or in which the adjacent lands are developed and include opportunities for such connections. Vehicular and/or pedestrian connections to adjacent municipal parks or municipal lands designated as parks shall be required as determined or unless waived by the director of the parks and recreation department.

ii. Street rights-of-way shall be extended to or along adjoining property boundaries such that a roadway connection or street stub shall be provided for development at least every 1,500 feet for each direction (north, south, east, and west) in which development abuts vacant lands. The director may waive this requirement where the configuration of existing adjacent development, topography, or the presence of sensitive natural areas makes compliance impractical.

d. ***Vehicular Access to Public Streets***

Any development of more than 100 residential units or additions to existing developments such that the total number of units exceeds 100 shall be required to provide vehicular access to at least four public streets to the extent reasonably feasible as determined by the director and the traffic engineer, due to topography, natural features, or the configuration of existing adjacent developments.

e. ***Connections to Vacant Land***

Where new development is adjacent to land likely to be developed or redeveloped in the future, all streets, sidewalks, trails, walkways, and access ways in the development's proposed street system shall continue through to the boundary lines of the site of new development, as determined by the director and the traffic engineer, to provide for the orderly subdivision of such adjacent land or the transportation and access needs of the community. In addition, all redevelopment and street improvement projects shall take advantage of opportunities for retrofitting existing streets to provide increased vehicular and pedestrian connectivity.

f. ***Neighborhood Protection from Cut-through Traffic***

Street connections shall connect neighborhoods to each other and to local destinations such as schools, parks, greenbelt trail systems, and shopping areas, while minimizing neighborhood cut-through vehicle traffic movements that are non-local in nature. Configuration of local and internal streets and traffic calming measures shall be used to discourage use of the local street system for cut-through collector or arterial vehicle traffic.

E. Standards for Pedestrian Facilities

1. Purpose

The purpose of this section is to provide convenient, safe, and regular pedestrian facilities along streets and within and between developments. Such facilities create a healthful built environment in which individuals have opportunities to incorporate physical activity, such as walking or bicycling, into their daily routine. Injuries and fatalities are reduced when interactions between pedestrians and vehicles are minimized. Adequate pedestrian facilities meet community goals for mobility and access, as well as for providing transportation choices. Safe pedestrian access for students to their schools is also an essential purpose of these standards.

2. Sidewalks

a. All sidewalks shall be designed to comply with the standards of the *Design Criteria Manual* (DCM) and *Municipality of Anchorage Standard Specifications* (MASS).

b. In all class A zoning districts, sidewalks shall be installed on both sides of all new streets (local, collector, arterial, public or private, including loop streets and cul-

de-sacs). Where indicated in the comprehensive plan, a trail may replace a sidewalk on one side.

c. In class B [RESERVED SUBSECTION TO ESTABLISH THAT WHERE CLASS A AND CLASS B DISTRICTS ARE INTERSPERSED, IF THE CLASS B DISTRICTS ARE PREDOMINANT IN THE AREA THEN CLASS B DISTRICT PROVISIONS SHALL APPLY] zoning districts, sidewalks, walkways, and trails shall be provided in accordance with the comprehensive plan. In all cases, pedestrian facilities shall be provided on at least one side of collector and arterial streets.

d. The requirements of 2.b. and 2.c. shall not apply in steep-slope areas where sidewalks on one side of the street may be approved by the director to reduce excessive slope disturbance, adverse impacts on natural resources, and potential soil erosion and drainage problems.

e. Development on lots along existing streets in class A zoning districts shall install sidewalks in the following situations:

i. In R-4, R-4A, commercial, and mixed-use districts.

ii. Along streets identified in Appendix A of the *Anchorage Pedestrian Plan* as "missing sidewalk" or "inadequate sidewalk", with a total point rating of five or higher.

3. Through-Block Connections

Within new developments, pedestrian ways, crosswalks, or multi-purpose trails no less than five feet in width shall be constructed near the center and entirely through any block that is 900 feet or more in length. This standard may be waived during a site plan review, if justified by the decision-making body.

4. On-Site Pedestrian Walkways

a. ***Continuous Pedestrian Access***

Pedestrian walkways are intended to form a convenient on-site circulation system that minimizes conflict between pedestrians and traffic at all points of pedestrian access to on-site parking and building entrances. This subsection E.4. does not apply to single- and two-family development. (Illustrate)

b. ***On-Site Pedestrian Connections***

The following walkways shall be provided. Where one walkway fulfills more than one requirement, only one walkway need be provided. If they can provide a relatively direct route, public pedestrian facilities such as public sidewalks shall satisfy any or all of the requirements below.

i. A walkway shall connect the primary entrance to the abutting primary street frontage. No walkway need be provided if that frontage is a restricted access street or a frontage road, unless there is a trail or other pedestrian facility to which access can be provided along the restricted access street or frontage road, in which case a walkway shall connect to that pedestrian facility. The walkway shall be the shortest practical distance between the entrance and the street, and generally no more than 133 percent of the straight line distance.

ii. All primary building entrances on a site shall be connected by a walkway. This includes multiple primary entrances into one building, and primary entrances in separate buildings on a site.

iii. A walkway shall connect all primary entrances to all bus stops adjacent to the site.

iv. Where abutting property has developed or is likely to develop with a compatible use, the decision-making body may require a walkway from all primary entrances to the lot line nearest the abutting lot, in a location most likely to provide convenient pedestrian access to the (existing or anticipated future) development on the adjacent lot.

c. ***Walkway Clear Width***

The minimum width of a required pedestrian walkway shall be five feet of unobstructed clear width, excluding vehicular overhang, except where otherwise stated in this title. A walkway that provides access to no more than four residential dwelling units may provide an unobstructed clear width of three feet.

d. ***Walkways and Parking***

i. Where an on-site pedestrian walkway system or required pedestrian area abuts a parking lot or internal street or driveway, the pedestrian facility shall be clearly marked and physically separated from the parking lot or drive, through the use of an upright curb of six inches in height, bollards spaced a maximum of six feet apart, or other physical buffer approved by the traffic engineer; and a change of paving materials distinguished by color, texture, textured edge, or other edge, or striping.

ii. The vehicle overhang established in table 21.07-9, *Parking Angle, Stall And Aisle Dimensions*, shall not encroach into the minimum required walkway width or area.

iii. Where an on-site pedestrian walkway crosses an internal street or driveway, the crosswalk shall be clearly marked and delineated through a change in paving materials distinguished by color, texture, textured edge, other edge, or striping, and shall meet the requirements of the Americans with Disabilities Act.

5. Trails

All trails shall meet the following requirements in addition to the standards contained in the *Areawide Trails Plan*, *Design Criteria Manual* (DCM), and *Municipality of Anchorage Standard Specifications* (MASS)*:*

a. All trail connections shall be well-signed with destination and directional signing as approved by the traffic engineer or the parks director as appropriate.

b. Trails shall be designed in such a manner that motor vehicle crossings can be eliminated or significantly minimized.

c. Trails that connect to the street system shall do so in a safe and convenient manner as determined by the traffic engineer.

6. Use and Maintenance of Sidewalks, Walkways, and Trails

a. ***Restrictions on Use***

Sidewalks, walkways, and trails are intended to provide pedestrian access. Vehicle parking, snow storage, garbage containers, merchandise storage or display, utility boxes and poles, signs, trees, and other obstructions shall not encroach into the required minimum clear width of any required sidewalk, trail, walkway, or other pedestrian way. Pedestrian amenities including bollards are exempt from this requirement.

b. ***Maintenance and Snow Removal***

Walkways required by this title shall be maintained in usable condition throughout the year, including snow and ice removal as appropriate. Sidewalks shall be maintained in a usable condition in accordance with AMC title 24.

F. Pedestrian Amenities

1. Purpose

The purpose of this section is to define and provide standards for pedestrian amenities that may be required or included in a menu of choices to meet a requirement, or listed as a special feature that can count toward a bonus incentive anywhere in this title. For example, another section of this title may list a pedestrian amenity as a special feature for which bonus floor area may be granted. The standards contained in this section give predictability for applicants, decision-makers, and the community for the minimum acceptable standards for pedestrian amenities. It also ensures the amenities will improve and enhance the community to the benefit of all, and respond to the northern latitude climate. This title provides flexibility to encourage and allow for creativity and unique situations through the alternative equivalent compliance and minor modifications process.

2. Applicability

Pedestrian amenities shall meet the minimum standards of this section in order to be credited toward a requirement, menu choice, or as a special feature bonus incentive of this title.

3. Walkway

A walkway is a surface, either improved or not, for the purpose of pedestrian and other non-motorized use, which connects two points and is not aligned along a vehicular public right-of-way. A walkway may be in a publicly dedicated pedestrian easement. Examples include pedestrian connections within one development site, mid-block, between subdivisions, or leading from streets to public amenities, such as schools or parks.

a. A walkway shall have a minimum unobstructed clear width of five feet, except where otherwise stated in this title. A walkway that provides access to no more than four residential dwelling units may have an unobstructed clear width of three feet.

b. Walkways shall be improved in accordance with subsection 21.08.050H.

4. Primary Pedestrian Walkway

A primary pedestrian walkway is intended to provide an unobstructed clear width of at least eight feet for pedestrian movement with additional space incorporating features along the walkway such as storefront sidewalk space, room for residential stoops or building foundation plantings, and peripheral space that accommodates landscaping, furniture, and utilities. As established generally in subsection F.1 and F. 2 above, the standards of this subsection apply only where the specific term "primary pedestrian

walkway" is listed as a requirement, menu choice, or special feature that counts toward a bonus. Thus subsection is not a generally applicable requirement for other large walkways.

a. A primary pedestrian walkway shall be developed as a continuous pedestrian route extending for at least 50 feet.

b. A primary pedestrian walkway shall have an unobstructed clear width of at least eight feet. Where adjacent to a ground-floor building elevation it shall also have a sidewalk storefront or building interface zone a minimum of two feet in width for foundation landscaping or three feet in width of sidewalk space for opening doors or seating and transition pedestrian spaces. In addition, a buffer space of at least four feet in width shall be incorporated as part of the walkway when abutting any street or vehicle area, to accommodate street trees, landscaping beds, light poles, utilities, benches, and other objects to be kept clear of the walkway.

c. At least one of the following pedestrian features shall be provided for every 50 feet of length along a primary pedestrian walkway: formal seating, such as benches, which accommodates at least two people; informal seating, such as steps or low walls, which accommodates at least four people; and spaces suitable for standing and talking which include objects to lean against or edge spaces along irregular building facades.

d. A primary pedestrian walkway shall be illuminated with pedestrian scale lighting.

e. A primary pedestrian walkway shall directly connect to surrounding public streets and sidewalks, and be publicly accessible at all times.

5. Ice-Free (Heated) Walkway

An ice-free (heated) walkway has a heated surface for the full extent of the walkway clear width. The walkway shall be maintained as ice-free at all times in areas required to be publicly accessible, and otherwise during all hours of operation of an establishment.

6. Plaza or Courtyard

A plaza is an open space which is designed to be used for relaxation, conversation, eating, or other outdoor activities.

a. A plaza shall contain at least one pedestrian feature for each 200 square feet of plaza or courtyard area. Pedestrian features include formal seating such as benches or chairs which accommodate at least two people; informal seating such as steps, pedestals, low walls, and similar areas suitable for sitting, which accommodate at least four people; 10 landscaping units; and objects such as fountains, kiosks (no more than one), and art work.

b. A plaza shall be visible and directly accessible from the public sidewalk and at no point be more than five feet above nor more than 12 feet below the curb level of the nearest street.

c. A plaza shall be unobstructed to the sky except for certain permitted obstructions such as canopies or awnings, landscaping, or ornamental features such as fountains and flag poles.

d. A plaza shall be positioned so that at least two-thirds of its area receives at least four hours of direct or reflected sunlight on March 21 and September 21. A plaza

or courtyard may be credited towards a requirement, menu choice, or bonus as long as it meets this standard. The director may reduce this requirement in cases where topography or vegetation shadow the site. Reductions shall be the minimal action that would address these factors.

7. Housing Courtyard

A housing courtyard may be created when a multifamily building or buildings are arranged or configured to enclose and frame a common private open space. To receive credit as a housing courtyard, the space shall achieve the following:

a. The residential building(s) shall enclose a clearly defined courtyard open space. The structure(s) surrounding the housing courtyard may, for example, form an O, L, or U shaped enclosure.

b. A courtyard shall incorporate at least 50 percent of the common private open space required for the development by section 21.07.030, up to a maximum requirement of 2,000 square feet.

c. The minimum inside dimension of a housing courtyard shall be 15 feet on lots up to 60 feet wide, and 20 feet on all other lots, exclusive of balconies, porches, or private open spaces exclusively serving individual dwelling units.

d. A courtyard shall comply with the plaza requirement for pedestrian features, and with the common private open space standards of section 21.07.030.

e. All individual dwelling units around the perimeter of a courtyard shall have windows, entrances, and/or transitional spaces such as porches or balconies that face the courtyard.

f. For purposes of sunlight access and wind protection, the height of the enclosing or surrounding building(s) shall not exceed 45 feet. A perimeter structure may be taller if stepped back at a ratio of at least five feet of run for every three feet of rise above 45 feet, on at least 65 percent of the courtyard perimeter.

g. A courtyard shall have a solar orientation as defined by this title in terms of openings in the courtyard and the lower height of surrounding buildings.

h. To attain wind protection benefits of enclosed space, the width and length dimensions of a courtyard shall be no greater than four times the height of the surrounding building(s).

8. Transit Stop or Transit Shelter

A transit stop or transit shelter shall meet or exceed the minimum design standards established by the transit facilities design guidelines in the *Design Criteria Manual*.

9. Pedestrian Shelter such as a Canopy, Awning, or Marquee

A pedestrian shelter is a roof-like structure extending out from the building face that provides year round overhead protection from precipitation and wind, and that can provide visual interest and wayfinding orientation to primary entrances, passenger loading areas, or waiting areas. Pedestrian shelter may be composed of awnings, canopies, marquees, cantilevered overhangs, colonnades, or similar overhangs along the pedestrian route.

a. A pedestrian shelter shall have a minimum dimension of six feet measured horizontally from the building wall, or shall extend to a line two feet from the curb line of the street or nearest motor vehicle area, whichever is less.

b. A pedestrian shelter shall have a minimum vertical clearance of eight feet and a maximum vertical clearance of 12 feet, except that a pedestrian shelter that projects out more than eight feet measured horizontally from the building wall shall have a maximum vertical clearance of 16 feet.

c. A pedestrian shelter may be indented as necessary to accommodate street trees, landscaping beds, street lights, bay windows, or similar building accessories. A pedestrian shelter shall not extend out to within three feet of the center of the main trunk of a street tree.

d. A pedestrian shelter shall incorporate architectural design features of the building from which it is supported.

10. Arcade (or Building Recess)

An arcade is a covered passageway created by the overhanging upper portion of the building along a sidewalk or walkway to provide a sheltered area at grade level. An arcade is usually separated from the adjacent street, sidewalk/walkway, or pedestrian space by a line of supporting columns or arches. A ground level building recess without supporting columns may also receive credit if it achieves the following standards:

a. An arcade shall be developed as a continuous covered space extending along a street, plaza, or courtyard or other pedestrian open space. An arcade shall be open for its entire length to the street or pedestrian open space, except for building columns.

b. An arcade shall have a minimum vertical clearance of no less than 12 feet, and on average no greater than 18 feet.

c. An arcade shall have a minimum horizontal walkway clear width of eight feet between the building and any supporting columns, and a maximum covered width of 20 feet.

d. An arcade shall not at any point be above the level of the adjacent sidewalk, walkway, or pedestrian open space (whichever is higher). The width and spacing of the supporting columns shall be such that maximum visibility is maintained.

e. The spacing and rhythm of the supporting columns shall relate to the structural or architectural pattern of the building and shall be consistent along the length of the arcade.

f. No off-street parking spaces, passenger loading zones, driveways, or off-street loading berths are permitted anywhere within an arcade or within 10 feet of any portion thereof, unless the decision-making body determines that such activity will not adversely affect the air quality or functioning of the arcade. In no event shall such vehicular areas be eligible for credit as part of the arcade.

g. An arcade shall be publicly accessible at all times.

11. Atrium, Galleria, or Winter Garden

An atrium, galleria, or winter garden is a publicly accessible sunlit interior space suited for year-round public use, and which takes advantage of windows and sunlight access to provide brightness, orientation, and visual connections to the outdoors.

a. An atrium, galleria, or winter garden shall be developed and maintained as a temperature controlled, publicly accessible space furnished with features and amenities that encourage its use.

b. An atrium, galleria, or winter garden shall contain at least one pedestrian feature for each 200 square feet of gross floor area. Pedestrian features include formal seating such as benches or chairs which accommodate at least two people; informal seating such as steps, pedestals, low walls, and similar areas suitable for sitting which accommodate at least four people; 10 landscaping units; and objects such as fountains, kiosks (no more than one), and art work.

c. An atrium, galleria, or winter garden shall be co-located with primary entrances and pedestrian activity areas, and either adjoin or directly connect to a publicly accessible sidewalk or open space.

d. The publicly accessible portion of the atrium, galleria, or winter garden shall be at least 400 square feet, with a minimum dimension of 16 feet.

e. At least half of an atrium, galleria, or winter garden's ceiling area and at least a portion of its wall area shall consist of transparent glazing.

f. An atrium, galleria, or winter garden shall be exposed to direct an/or reflected sun for at least four hours daily for eight months of the year.

12. Sun Pocket (or Sun Trap)

A sun pocket or sun trap is a pedestrian space that captures direct and reflected sunlight. A sun pocket shall be a clearly defined open space partly sheltered by building walls, fences, or landscape features, such as a C, L, or U shaped semi-enclosure. The protected space shall contain at least 250 square feet of pedestrian area that is exposed to direct and reflected sunlight access for at least six hours on March 21 and September 21.

13. Reflected Sunlight

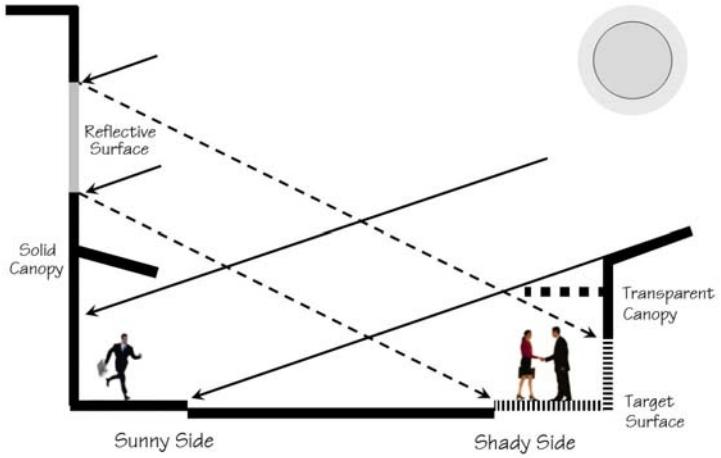
Reflected sunlight as a pedestrian amenity is created by a light-colored, partially reflective, upper-story façade surface that redirects sunlight radiation to pedestrian spaces and walkways to brighten or increase the comfort level in those spaces.

a. The reflective façade surface shall have a solar orientation.

b. The reflective façade surface shall have a reflectance of at least 50 percent and no greater than 75 percent in order to avoid excessive glare.

c. The reflective façade surface shall be an upper floor above ground-level.

d. Reflected sunlight shall fall on at least 400 square feet of a publicly accessible walkway, open space, and/or abutting ground-level wall area for at least four hours on March 21 and September 21.



14. Sheltered Transition Space

A sheltered transition space is an outdoor or glass covered space such as café seating along a building façade that provides a comfortable transition between indoor areas and unsheltered outdoor spaces.

a. A sheltered transition space shall be a minimum of 400 square feet.

b. A sheltered transition space shall comply with the dimensional standards for pedestrian shelter or arcade.

c. A sheltered transition space shall contain a minimum of one pedestrian feature, such as formal seating, informal seating, a tree, planter, fountain, kiosk, bollard to lean on, bike rack, or art work for each 80 square feet of gross floor area.

d. A sheltered transition space shall not obstruct the minimum clear width of the adjoining walkway or sidewalk.

15. Bicycle Parking Facilities

a. Required bicycle parking or a sign leading thereto shall be located in an area visible from a primary entrance area and no farther from a primary entrance than the closest motor vehicle parking space, not including designated accessible parking, carpool, or vanpool spaces. It may also be located inside the building served, in a location that is easily accessible for bicycles.

b. A required bicycle parking space shall include a securely fixed structure that allows the bicycle wheel and frame to be locked to the facility, and that supports the bicycle frame in a stable position without damage to the bicycle, or shall be in a bicycle locker, lockable bicycle enclosure, or lockable room.

c. A required bicycle parking space shall be a minimum of six feet long and two feet wide.

d. The surfacing of bicycle parking facilities shall be designed and maintained to be clear of mud and snow.

e. Bicycle parking shall not obstruct pedestrian walkways, building access, or use areas.

21.07.070 NEIGHBORHOOD PROTECTION STANDARDS

A. Purpose and Relationship to Other Requirements

This section provides for transitions between nonresidential and residential uses, through discretionary approval criteria that may be applied in combination with other development standards in this chapter 21.07, in order to provide significantly more protection for neighborhoods from the impacts of adjacent development and to conform to the goals and policies of the comprehensive plan. This section makes available a menu of additional tools to use in discretionary approvals to protect residential neighborhoods from potential adverse impacts of adjacent nonresidential uses, including limitations on hours of operation, noise, and lighting.

B. Discretionary Conditions

A decision-making body through application of this section shall:

1. Make findings regarding the potential adverse impact that is anticipated by the proposed development;

2. Propose conditions that are specifically related and commensurate to the anticipated impacts identified in the findings; and

3. Propose conditions that are the minimum necessary to avoid or mitigate the anticipated impacts identified in the findings.

C. Nonresidential Development Adjacent to Existing Residential Use

As a condition of the approval of any conditional use permit, site plan review, subdivision, or variance of any nonresidential use located in or within 300 feet of any residential district, the decision-making body shall be authorized to impose conditions that are necessary to reduce or minimize any potential adverse impacts on residential property. Such conditions must be based on findings which support the imposed condition as required by subsection 21.07.070B., and may include but are not limited to the following:

1. Hours of operation and deliveries;

2. Location on a site of activities that generate potential adverse impacts on adjacent uses, such as noise and glare;

3. Placement of trash receptacles, compactors, or recycling;

4. Location and screening of loading and delivery areas, garages, vehicle fleet parking, or vehicle maintenance areas;

5. Lighting location, intensity, and hours of illumination;

6. Placement and illumination of outdoor vending machines, telephones, or similar outdoor services and activities;

7. Additional landscaping and screening to mitigate adverse impacts;

8. Height restrictions to preserve light and privacy;

9. Ventilation and control of odors and fumes;

10. Paving to control dust; and

11. Location and orientation of changeable type or illuminated signs, to protect residential character and privacy and views from residential units.

D. Residential Development Adjacent To Existing Nonresidential Use

When a residential development is proposed adjacent to an existing commercial or industrial use, the decision-making body may impose neighborhood protection standards, including but not limited to increased landscaping, traffic calming measures, and requiring the residential development to be configured and dwelling units located to minimize potential conflicts with or adverse impacts from the existing nonresidential development. Any required mitigation measures shall be installed and maintained by the residential development, not the existing commercial or industrial use.

21.07.080 LANDSCAPING, SCREENING, AND FENCES

A. Purpose

This section is intended to ensure that new landscaping and the retention of existing vegetation is an integral part of all development and that it contributes added high quality to development, retains and increases property values, and improves the environmental and aesthetic character of the community. It is also the intent of this section to provide flexible requirements that encourage and allow for creativity in landscape design. Specific purposes include to:

1. Improve the general appearance of the municipality, its aesthetic appeal and identity, and the image of its street corridors and urban districts;

2. Encourage a pleasant visual character for new development which recognizes aesthetics and safety issues;

3. Unify development and enhance and define public and private spaces;

4. Improve compatibility between land uses by reducing the visual and operational impacts of more intensive uses upon adjacent properties;

5. Promote the use of existing vegetation and retention of trees, woodlands, habitat, and urban forest;

6. Reduce runoff and erosion, control dust, and preserve air and water quality; and

7. Encourage use of native plants or provide landscaping that is compatible with the climate and natural setting of the municipality and can provide desired effects even during harsh urban and winter conditions.

B. Exemption for Temporary Uses

Unless required under section 21.05.080, temporary uses in accordance with section 21.05.080 are exempt from the requirements of this section.

C. Landscape Plan

All landscaping and screening required under this section 21.07.080 shall be reflected on a landscape plan. All development, except for single-family, two-family, three-family, and four-family homes on individual lots, shall have a landscape plan prepared by a licensed landscape architect registered by the state of Alaska or another design professional as allowed by state legislation. The landscape plan shall be reviewed and approved by the decision-making body. A landscape plan may be combined with any land clearing, vegetation protection, erosion control, or snow removal plan required for compliance with other sections of this title. Where a landscape plan is required under this title, the plan shall include the information specified in the title 21 user's guide.

D. Cross-reference to Other Requirements

Any use required to provide landscaping or screening pursuant to the district-specific standards of chapter 21.04 or the use-specific standards of chapter 21.05 shall provide such landscaping or screening. In the event of a conflict between the requirements of chapter 21.04 or 21.05 and the requirements of this section 21.07.080, the more restrictive provisions shall govern.

E. Landscaping

1. General Description of Minimum Landscaping Requirements

Four types of landscaping may be required for a development, depending on the use and zoning district of the property and adjacent properties, and the portion of the property involved. These types of landscaping are: (1) site perimeter landscaping, (2) parking lot landscaping, (3) site enhancement landscaping, and (4) tree requirements for new residential development. Minimum requirements for these landscaping types are set forth in subsections 21.07.080F.5., 6., 7., and 8. below.

2. Determining Required Landscaping

a. Both existing and installed landscaping are assigned a unit value in table 21.07-1. Table 21.07-3 provides the number of units per linear foot of frontage that is required for each level of site perimeter landscaping, as well as the minimum width and minimum average widths of the landscaped areas. Other types of landscaping state the units per square foot that is required to be installed in a certain area.

b. By multiplying the applicable frontage or area by the units required per linear or square foot, the total number of required units is calculated. If the resultant number contains a fraction, the next highest whole number shall be used. Applying any secondary requirements of the landscaping type (for example, a minimum number of units required to be trees), the landscape designer may choose the allocation of landscape units from table 21.07-1 and arrange them in the landscape area.

c. In some instances, landscaping or screening requirements for a particular area, such as a fence requirement, may result in exceeding the minimum perimeter unit requirement listed in table 21.07-3.

3. Shared Credit among Landscaping Types

Credit for one type of landscaping may be applied to another, within the following parameters:

a. Landscaping provided to meet a site perimeter landscaping requirement may be used to satisfy a requirement for parking lot perimeter landscaping, or vise versa, along the same lot line or street frontage;

b. Trees retained or planted as part of a tree requirement under subsection 21.07.080F.8. may count toward other types of landscaping required under subsections 21.07.080F.5 through F.7., where the tree location coincides with the required landscape areas;

c. Where one type of required landscaping area coincides with another, the stricter provisions shall apply unless otherwise specified in this section; and

d. Site enhancement and interior parking lot landscaping may not be counted toward site perimeter or parking lot perimeter landscaping. Interior parking lot landscaping requirements may not be met by any other type of landscaping.

4. Landscape Units Awarded

To provide for flexibility, allow design creativity, and encourage retention of existing trees on a site, the required amount of planting material for site enhancement, site perimeter, parking lot, or tree retention landscaping is based on a "landscape units" point system. The number of units awarded to each landscaping element is listed in table 21.07-1 below.

TABLE 21.07-1: LANDSCAPE UNITS AWARDED

Landscape Material[1]	Landscape Units Awarded	
	Newly Installed	Existing Retained[2]
Landmark tree[3]	n/a	25
Evergreen tree, >10 ft high	12	15
Evergreen tree, >8 – 10 ft high	9	11
Evergreen tree, 6 – 8 ft high	6	8
Deciduous tree, >4" caliper[4]	20	20
Deciduous tree, >3" to 4" caliper[4]	12	15
Deciduous tree, 2.5" caliper[4]	8	10
Deciduous Tree, 2" caliper or multi-stem (at least one stem at 2" caliper)[4]	4	5
Deciduous shrub, 36" to 48" high	1	1.2
Deciduous shrub, 24" to 35" high	0.8	1
Deciduous shrub, 18" to 23" high	0.5	0.6
Evergreen shrub, 10" to 18" high	1	1.2
Perennials/ground cover (per #1 container)	0.25 per container	
Topsoil (4" depth) and lawn seeding	1.2 per 100 sq ft	
Earthen berm (seeding or cover), minimum 18" high	0.15 per linear foot	
Hardscape Material	**Units Awarded**	
Ornamental screening fence (between 4 ft. and 6 ft. high)	0.3 per linear foot	
Ornamental metal fence (3 to 4 feet high)	1.7 per linear foot	
Ornamental wall (approx. 3 feet high)	1.6 per linear foot	
Decorative seat walls (approx. 18" high)	2 per linear foot	
Ornamental pavers	0.12 per sq ft	

TABLE 21.07-1: LANDSCAPE UNITS AWARDED	
Landscape boulders, with at least 3' x 3' above grade level	2 per boulder
Landscape lighting, sculpture, art, water feature, winter city feature, and/or gazebo or similar structure/landmark	As determined by UDC

Retained Existing Vegetation Mass[5]	Bonus Landscaping Units Awarded[6]
300+ square feet with a minimum of 3 trees including deciduous trees of 4" caliper or greater and/or evergreen trees of at least 6 feet in height	15 percent
500+ square feet with a minimum of 5 trees including deciduous trees of 4" caliper or greater and/or evergreen trees of at least 6 feet in height	20 percent
800+ square feet with a minimum of 8 trees including deciduous trees of 4" caliper or greater and/or evergreen trees of at least 6 feet in height	25 percent

NOTES:

[1] See subsection 21.07.080G.1. for information about plant materials.

[2] Points awarded for retained vegetation may only be applied to the lot line, street frontage, or interior area where the vegetation is found. A pre-inspection and written statement from a municipal arborist or other qualified individual designated by the director is required to indicate if the retained trees are healthy and will likely survive given the activities that will be occurring around them.

[3] Refer to the definition of a "landmark tree" in chapter 21.14. A written statement from a municipal arborist or other qualified individual designated by the director is required to qualify a tree as a landmark tree and to indicate if the tree is healthy and will likely survive given the activities that will be occurring around it.

[4] Measurements of caliper are described in the definition of "caliper" in chapter 21.14. If a tree caliper measurement is in-between the tree caliper categories of this table, the next lower tree caliper category shall be used.

[5] In order to receive landscaping units for a retained existing vegetation mass, the complete mass including the native undergrowth shall be preserved in its current condition.

[6] To calculate bonus landscaping units, determine the total landscape unit value of eligible trees within a retained vegetation mass. Multiply this total landscape unit value times the percentage indicated to obtain the number of bonus landscaping units.

5. Site Perimeter Landscaping

a. *Purpose*

Site perimeter landscaping separates land uses of different characteristics or intensities, to minimize the effects of one land use on another. It reduces unwanted views and other impacts of a land use on adjacent properties. Perimeter landscaping can also mark the interface between public streets and individual property, soften the visual impacts of development on public streets, and help to frame the municipality's streetscapes with trees and vegetation. Four levels of site perimeter landscaping are provided to accommodate a variety of land uses at a variety of intensities. Refer to table 21.07-3 for specifications regarding each landscaping level. The intent of each level is described below:

i. *L1 Edge Treatment*

Edge Treatment perimeter landscaping is used to define the perimeter of small parking lots located within the DT districts. It is applied where a minimal visual break or buffer is adequate to soften the impacts of a use. It consists of ground covers, perennials, wildflowers, shrubs, trees, fencing, walls, and/or other hardscape elements.

ii. *L2 Visual Enhancement*

Visual enhancement perimeter landscaping uses a combination of distance and low level landscaping to soften the visual impacts of a use

or development, or where visibility between areas is more important than a visually obscuring screen. It is applied between certain land uses, on the perimeter of parking areas, and along streets, where it helps to frame the municipality's streetscapes with consistent treatments of trees and vegetation.

iii. *L3 Buffer*
Buffer perimeter landscaping is intended to provide physical and visual separation between uses or developments. It provides enough width so that trees may be clustered to provide greater visual buffering.

iv. *L4 Screening*
L4 screening perimeter landscaping is employed as the highest level separation where there are incompatible land uses or land uses that are sharply different in terms of scale, type of use, or pattern of use. It is also used along freeways where there are incompatible uses. L4 screening landscaping is intended to provide a substantial visual barrier between incompatible or sharply different land uses and to protect major visual corridors and entrance gateways into the community.

b. ***Applicability of Site Perimeter Landscaping***
Site perimeter landscaping shall be provided along the perimeter property line of development sites in accordance with table 21.07-2, except for the following:

i. At approved points of pedestrian or vehicle access;

ii. On individual single-family and two-family lots that are not being developed as part of a subdivision, unless required elsewhere in this title.

TABLE 21.07-2: APPLICABILITY OF SITE PERIMETER LANDSCAPING
Required Level of Site Perimeter Landscaping (Levels 2, 3, or 4)

Abutting District or Street / District Of Proposed Development	R-6, R-8, R-9, R-10, TA	R-1, R-1A, R-2A, R-2D, R-5, R-7	R-2M, R-2F	R-3	R-4, R-4A	PLI	NMU, CMU, B-1A	RMU	B-3, RO	I-1, MC	I-2, MI	PR	Freeway [7]	Arterial, Expressway	Collector	Local Street
R-6, R-8, R-9, R-10, TA		L3	L3	L3	L3	L3	L3	L3	L3	L3	L3		L4	L3		
R-1, R-1A, R-2A, R-2D, R-5, R-7	L3		L3	L3	L3	L3	L3	L3	L3	L3	L3		L4	L3	L2	
R-2M, R-2F	L3	L3		L2	L3	L3	L3	L3	L3	L3	L3		L4	L3	L2	
R-3	L3	L3	L2[10]		L2[10]	L3	L2	L3	L2	L3	L3		L4	L3	L2	L2
R-4, R-4A	L3	L3	L3	L2[10]		L3	L2	L3	L2	L3	L3		L4	L3[12]	L2[12]	L2[12]
PLI	L3	L3	L3	L3	L3		L2	L2	L2	L2	L2	L2[11]	L4	L2	L2	L2
NMU, CMU, B-1A [8]	L3	L3	L3	L2	L2	L2		L2	L2	L2	L2	L3	L4	L2[12]	L2[12]	L2[12]
RMU [8]	L3	L3	L3	L3	L3	L2	L2		L2	L2	L2	L2	L4	L2[12]	L2[12]	L2[12]
B-3, RO [8, 9]	L3	L3	L3	L2	L2	L2	L2	L2		L2	L2	L3	L4	L2	L2	L2
I-1, MC	L3	L3	L3	L3	L3	L2	L2	L2	L2			L3	L4	L2	L2	L2
I-2, MI	L3	L3	L3	L3	L3	L2	L2	L2	L2			L3	L4	L2	L2	L2
PR						L2	L3	L3	L3	L3	L3		L4	L2	L2	L2
AF	L3	L3	L3	L3	L3	L2	L2	L2	L2			L3				

NOTES: [7] Refer to subsection 21.07.080E.5.d.

[8] Refer to subsection 21.07.080E.5.e.

[9] [APPLICABILITY OF PREDOMINANT ZONING PROVISION – RESERVED]

[10] The L2 requirement only applies on lots greater than one acre.

[11] L2 landscaping shall be required only when the use on the PLI land is a commercial use, an industrial use, or a use from the public safety facility, transportation facility, or utility facility use categories.

[12] Refer to subsection 21.07.080E.5.f.

c. ***Specifications for Site Perimeter Landscaping***

In any area where site perimeter landscaping is required according to table 21.07-2, the planting requirements in table 21.07-3 shall apply. The amount of landscaping required in table 21.07-3 is measured per linear foot of property line or street frontage. Vehicular and pedestrian access points shall not be subtracted from the linear frontage in calculations of the amount of landscaping required. If there are driveways along the frontage or property line, required landscaping shall be condensed into the remaining site perimeter landscaping area.

d. ***L4 Screening Landscaping Requirements along Freeways***

i. L4 screening landscaping requirements along freeways shall apply to any lot abutting the right-of-way of a freeway designated in the Official Streets and Highways Plan, on roadway sections built to freeway design standards with full grade separations of intersecting streets, or to streets functioning as frontage roads for such freeways. Lots abutting the following freeway segments are subject to L4 screening landscaping requirements of this section:

(A) Seward Highway between Tudor Road and Potter Valley Road;

(B) Glenn Highway between Boniface parkway and the municipal boundary; and

(C) Minnesota Drive/O'Malley Road between International Airport Road and the Old Seward Highway.

ii. The L4 screening landscaping requirements are replaced with the L3 buffer landscaping requirements in the following situations:

(A) Any lot whose area, less the 30 foot setback area for the L4 screening area, is less than the minimum lot area required in the zoning district; or

(B) Any lot whose depth, excluding all setbacks required by this title, is less than 100 feet.

TABLE 21.07-3: SPECIFICATIONS FOR SITE PERIMETER LANDSCAPING

Requirement	L1 Edge Treatment	L2 Visual Enhancement	L3 Buffer	L4 Screening
Total landscape units required per linear foot of property line or street frontage	0.40 units per linear foot	0.60 units per linear foot	1.1 units per linear foot	2.2 units per linear foot
Minimum number of landscape units that shall be trees	0.10 units per linear foot unless waived by the decision-making body[13]	0.30 units per linear foot	0.50 units per linear foot	1.2 units per linear foot

TABLE 21.07-3: SPECIFICATIONS FOR SITE PERIMETER LANDSCAPING				
Requirement	**L1 Edge Treatment**	**L2 Visual Enhancement**	**L3 Buffer**	**L4 Screening**
Minimum number of landscape units that shall be evergreen trees	none	Allowed but not required	0.30 units per linear foot	0.9 units per linear foot
Minimum number of landscape units that shall be shrubs	0.20 units per linear ft, utilizing a hedge, ornamental fence, and/or ornamental wall	0.12 units per linear foot	0.25 units per linear foot	0.6 units per linear foot
Planting area width (minimum average)	3 ft	8 ft	15 ft	30 ft.
Planting area width (minimum at any point)	3 ft except a minimum 100 sq ft area is required for each tree	8 ft	12 ft	25 ft
[13] The petitioner shall demonstrate to the approving authority that the space on the site is too constrained to install trees. If trees are not required by the approving authority, the landscaping units that would otherwise be used for trees shall be applied to other items listed in table 21.07-1.				

e. ***Residential Uses in Commercial and Mixed-Use Districts***
Household living uses in the NMU, CMU, RMU, R-O, and B-3 districts shall be subject to the R-4 and R-4A districts' site perimeter landscaping requirements in table 21.07-2, except that mixed-use dwellings may adhere to the site perimeter landscaping requirements of either the underlying commercial or mixed-use zoning or the R-4 and R-4A districts.

f. ***Alternate Street Frontage Landscaping***
As an alternative to the street frontage site perimeter landscaping requirements of table 21.07-2, nonresidential and mixed-use development in the NMU, CMU, RMU, B-1A, R-4, and R-4A districts may instead comply with the mixed-use district sidewalk streetscape landscaping standards in subsection 21.04.050G.

g. ***Additional Standards for Site Perimeter Landscaping***

i. Minimum width of planting beds shall be measured from back of curb to back of curb or landscape edging.

ii. Vehicle overhang allowance area, as measured in table 21.07-9, shall not extend into the minimum required planting bed width.

iii. In order to reduce solar shadowing of abutting residential properties in the spring and fall months, the director may waive evergreen tree requirements along north lot lines that abut residential or mixed-use districts, where the lot line runs within 30 degrees of east-west.

iv. If perimeter landscaping includes a fence or wall and abuts a public street right-of-way, the landscape bed shall be located between the fence or wall and the street right-of-way.

v. No sign of any kind, other than one real estate sign per site no larger than six square feet, is permitted along freeways within the planting area of L4 screening perimeter landscaping.

vi. Existing natural vegetation in the required L4 screening perimeter landscaping area shall not be disturbed and shall be augmented with additional landscaping if L4 screening requirements are not met. If existing vegetation is disturbed, it shall be restored, to the extent possible, to its original condition.

vii. When L3 perimeter landscaping is being applied along a lot line which abuts residential development, evergreen trees shall be placed to visually buffer the points at which obtrusive elements such as on-site storage could otherwise be seen from the abutting residential use. Trees and shrubs shall also provide continuous coverage along the length of the landscape bed.

viii. When L4 screening landscaping is being applied along a lot line which abuts residential development, freeways, and associated frontage roads, evergreen trees shall be used to visually screen the most obtrusive elements such as storage areas from view of the abutting residential use or freeway. Trees and shrubs shall also provide continuous coverage along the length of the landscape bed.

6. Parking Lot Landscaping

a. *Purpose*

Parking lot landscaping softens the view and breaks up the visual impact of extensive paved surfaces associated with multifamily residential and nonresidential development. It also contributes to storm water management, provides orientation to entrances, increases outdoor comfort levels, and mitigates wind and dust in large parking areas. Parking lot landscaping is intended as a visual buffer that softens visual impacts, not a barrier that eliminates natural surveillance. It consists of perimeter and interior parking lot landscaping.

b. *Applicability of Parking Lot Landscaping*

Parking lot perimeter landscaping requirements shall apply to parking lots with six or more parking spaces that are accessory to any multifamily or nonresidential building or use, and to parking lots that are the principal use on a site. Parking lot interior landscaping requirements shall apply to parking lots of 20 or more parking spaces.

c. *Parking Lot Perimeter Landscaping*

Parking lot perimeter landscaping shall be required for all applicable parking lots which are adjacent to a lot line as provided below. This landscaping shall be provided along applicable lot lines except at approved points of vehicular or pedestrian access, although the entire parking lot frontage, including vehicular or pedestrian access points shall be used to calculate the required landscaping.

i. *General Requirement*
The perimeter of a parking area, which includes its appurtenant driveways, shall utilize the following schedule at the lot line indicated:

TABLE 21.07-4: PARKING LOT PERIMETER LANDSCAPING REQUIREMENTS

Use Of Development Site Based On The Use Of Abutting Or Adjacent Sites	Landscaping Requirement Along The Indicated Lot Line
(A) Nonresidential use abutting a residential use or a nonresidential use adjacent to a residential use directly across an alley.	L3 buffer landscaping[14]
(B) Multifamily residential use abutting a single-family residential use	L3 buffer landscaping[15]
(C) Any side of a parking lot perimeter not addressed in (A) or (B) above.	L2 visual enhancement landscaping[16]

NOTE: [14] For the side of a parking lot adjacent to a residential use across an alley, an ornamental screening fence and L2 landscaping may be used in the place of L3 buffer landscaping.

[15] For the side of a parking lot adjacent to a single-family residential use across an alley, an ornamental screening fence and L2 landscaping may be used in the place of L3 buffer landscaping.

[16] For parking lots with less than 40 spaces located in the DT districts, L1 edge treatment landscaping may be used to meet parking lot perimeter landscaping requirements.

ii. *Continuous Low Visual Buffer and Edge*
To ensure a defined parking lot edge along community streets and sidewalks, and a more consistent low visual buffer against parked vehicles, a continuous planting of shrubs, a low ornamental fence/wall and/or a landscaped berm shall be provided along the length of the landscape bed where parking lot perimeter landscaping is applied along a public street or abutting a residential property. In such cases, a minimum of 0.25 landscape units per linear foot shall be shrubs, earthen berm, or an ornamental fence/wall for parking lot perimeter landscaping abutting a street or residentially zoned lot. Such installation shall be no less than three feet and no more than four feet in height along streets, and no less than four feet and no more than six feet in height abutting a residentially zoned lot.

iii. *Multiple Lots Developed Together*
Where multiple lots are being developed under a common site plan or a joint parking/circulation plan, the parking lot perimeter landscaping along an interior lot line may be allowed to be shared between the two abutting uses or waived altogether, subject to approval by the director.

iv. *Standards for Parking Lot Perimeter Landscaping*
Parking lot perimeter landscaping shall meet the specifications and standards of perimeter landscaping in 21.07.080F.5.c. and 5.g.

d. ***Parking Lot Interior Landscaping***

i. *Amount Required*
Parking lot interior landscaping shall be required for all development with 40 or more exterior surface parking spaces, as follows:

(A) *40 to 70 spaces*
An area equal to at least five percent of the surface of the parking area on the site, including appurtenant driveways, shall be devoted to landscaping.

(B) *71 to 100 spaces*
An area equal to at least seven and one half percent of the surface of the parking area on the site, including appurtenant driveways. shall be devoted to landscaping.

(C) *More than 100 spaces*
An area equal to at least 10 percent of the surface of the parking area on the site, including appurtenant driveways shall be devoted to landscaping.

ii. *Minimum Landscaping Area Size*
The minimum size of any interior planting area shall average eight feet wide (minimum seven feet wide at any point) measured from back-of-curb and shall be 150 square feet in area. Vehicle overhang allowance area as measured in table 21.07-9 shall not extend into the minimum required planting bed.

iii. *More Than 25 Spaces in a Single Line*
Where there are more than 25 parking spaces in a single line, a parking lot interior landscaping area averaging at least eight feet in width (minimum seven feet wide at any point) and at least the depth of a parking space shall be used to break up these lines of parking into component parts of no more than 25 parking spaces in a single line.

iv. *Landscaping Break for Every Three Drive Aisles*
In parking lots over 100 spaces, for every three drive aisles within the lot, there shall be a landscaping bed averaging at least eight feet wide (minimum seven feet wide at any point), parallel to the drive aisles, and which extends the length of the abutting drive aisles. Landscaped peninsulas or end islands shall not be included in the calculation of the average width.

v. *Minimum Stocking Requirements*
In any required interior parking lot landscaping area, a minimum of eight landscape units per 100 square feet (0.08 units per square foot) of planting area shall be provided, with at least half of the landscape units being trees.

vi. *Natural Surveillance and Safety*
Good visibility in parking lots is important for both security and traffic safety reasons. Plants and trees that restrict visibility, such as tall shrubs and low branching trees, should be avoided. Therefore, parking lot interior landscaping shall, to the extent reasonably feasible, minimize vegetation and solid or semi-open fences between three feet and seven feet above grade. Berms used as part of interior landscaping areas shall not exceed three feet in height.

7. Site Enhancement Landscaping

a. ***Purpose***

Site enhancement landscaping increases the number of plant materials and seasonal color on open areas of a site, prevents erosion and dust by covering bare or disturbed areas, and reduces and cleans storm water runoff. It includes foundation plantings, front, side and rear-yard plantings, common area plantings, and allowable hardscape materials. It enhances the appearance and function of the building and site and reinforces its continuity with the surrounding properties.

b. ***Applicability of Site Enhancement Landscaping***

All ground surfaces on any development site that are not devoted to buildings, structures, drives, walks, off-street parking or other authorized uses or installations, and not otherwise devoted to landscaping required by this chapter, shall be provided with site enhancement landscaping.

c. ***Specifications for Site Enhancement Landscaping***

In any area where site enhancement landscaping is required, a minimum of one landscape unit per 50 square feet (0.02 units per square foot) of planting area shall be provided. However, all applicable areas shall, at a minimum, be covered with landscape or hardscape material as provided in table 21.07-1.

8. Trees in Residential Developments

a. ***Purpose***

This section is a tree requirement for residential development. It encourages the retention of trees, minimizes the impact of tree loss during construction, and promotes a sustained presence of trees and woodlands in urbanized areas of the municipality. Trees are an important characteristic of the municipality, providing economic support of local property values; enhancing the municipality's natural beauty and identity; reinforcing the pleasant physical character of residential neighborhoods; protecting anadromous fish and wildlife habitat; ameliorating impacts of development on drainage, soil erosion, air quality, and water quality; sheltering from inclement weather; providing shade and transpiration cooling in summer; and providing visual buffering of urban development.

b. ***Applicability of Tree Requirement***

The tree requirement applies to residential development except for single- and two-family lots that were platted before [effective date of this title]. It does not apply to the removal of dead, diseased or naturally fallen trees or vegetation, or trees or vegetation that are a threat to the public health, safety, or welfare.

c. ***Minimum Tree Density***

As defined in table 21.07-1, 165 tree landscape units per acre are required in new residential developments.

i. Up to 35 percent of the total number of required units may be located within a separate tract or tracts held in common ownership by a homeowners association or comparable entity.

ii. All individual lots in a subdivision shall have at least three trees, with at least one tree located in the front yard of each lot.

d. ***Tree Retention and Planting***

Tree density may consist of retained trees, installed trees, or a combination of retained and installed trees. Trees to be retained shall be depicted on the landscape plan. Where site characteristics or construction preferences do not support tree preservation, tree plantings may be used to satisfy this standard.

F. General Landscaping Requirements and Standards

All required landscaping, screening or fences shall comply with the following standards:

1. Plant Materials

a. ***Plant Choices and Quality***

All plant material utilized in meeting landscaping and screening requirements shall be hardy for its site in terms of wind, temperatures, soils, light, and moisture requirements as referenced in the title 21 user's guide. In all cases the plant materials shall be living and free of defects and of normal health, height, and spread as defined by the *American Standard for Nursery Stock, ANSI Z60.1*, latest available edition, American Nursery and Landscaping Association. Plants may be nursery grown or transplanted from the wild or native stands, provided the plants meet all ANSI Z60.1 standards. Non-native plant species identified as invasive by the state of Alaska or U.S. Department of Agriculture shall not be used. Plants, seeds, and soils shall be from sources that screen for invasive species and diseases.

b. ***Tree Plantings***

Planted and transplanted trees shall be mulched with shredded bark mulch or rock mulch two to four inches in depth, with no bark mulch within four inches of the base of the trunk. Species selection and spacing of trees to be planted shall be such that it provides for the eventual mature size of the trees. Soil type, soil conditions, and other site constraints shall be considered when selecting species for planting or transplanting. Evergreen trees installed shall meet a minimum 5:3 height to spread ratio.

2. Planting Location

Tree planting shall take into consideration the growth habits of each species and shall allow adequate space for healthy growing conditions.

a. ***Utility Easements***

i. Required landscaping areas may overlap with utility easements if all applicable landscaping requirements of this title are met within these areas.

ii. The utility must make a good faith effort to provide written notice to the affected residents at least one week prior to disturbance of the landscaping, except for power restoration or in case of emergencies involving life or safety. The utility is not responsible for replacement of disturbed landscaping within the utility easements, but the utility shall stabilize the disturbed area to prevent erosion.

b. ***Visibility Clearance Areas***

All landscaping and screening materials shall comply with the visibility clearance requirements of AMC title 9.

3. Planting Beds and Vegetation Areas

a. *Protection of Landscaping*

All required landscaped areas, particularly trees and shrubs, shall be protected from potential damage by adjacent uses such as parking and storage areas. Concrete barrier curbs or other approved barriers at least six inches high shall be provided between vehicular use areas and landscaped areas. Landscaped areas shall be marked or otherwise made to be visible during snow removal operations.

b. *Tree Retention Area Protection*

Tree retention areas used toward landscaping requirements under this section 21.07.080 shall be adequately protected from damage through adherence to the following:

i. *Construction Fence*

A construction fence shall be placed around each tree or grouping of trees to be retained at or beyond the edge of the tree protection zone, defined as outside the critical root zones of the trees to be retained (refer to definition of *tree protection zone* in section 21.14.030). The fence shall be placed before construction starts and remain in place until construction is complete. The fence shall be a minimum of four feet high and of materials suitable to remain for the duration of construction.

ii. *Development Limitations in Tree Retention Areas*

Within the tree protection zone of each tree or grouping of trees, the following development is not allowed:

(A) Grade change, excavations, or cut and fill, either during or after construction;

(B) New impervious surfaces;

(C) Utility or drainage field placement;

(D) Attachment of objects to a tree designated for retention;

(E) Staging or storage of materials and equipment, vehicle maneuvering areas, or other activities likely to cause soil compaction or above-ground damage;

(F) Placement, storage, or dumping of solvents, soil deposits, excavated material, concrete washout, or the like.

iii. *Subsequent Landscaping Work*

Any landscaping done in the tree protection zone subsequent to the removal of construction barriers shall be accomplished with light machinery or hand labor.

c. *Ground Cover and Mulches*

i. Planting beds containing trees and shrubs shall use mulches. These mulches may consist of shredded bark or mineral mulches that do not become compacted. The mulch must be selected to: moderate soil temperatures and reduce freeze-thaw cycles; keep soil from compacting;

conserve soil moisture; reduce weed competition; and keep trunks safer from mowers and weed-trimmers. The mulched area should not incorporate non-permeable sheeting or any material that repels water.

ii. For areas of the site outside of planting beds and subject to site enhancement landscaping, ground cover plants such as lawn grasses shall be planted to provide continuous ground coverage within three years.

d. ***Berms***

Berms may be incorporated into any required landscaping or screening area. Berms for on-site landscaping shall not be placed in a public right of way, and shall not interfere with natural drainage or cause water to be drained onto streets. No installed berm shall have a slope of greater than 3:1 for mown areas or greater than 2:1 for planted berms.

4. Installation of Landscaping

a. ***Timing***

All required landscaping and screening shall be installed by the developers. All landscaping shall be installed before a certificate of zoning compliance is issued. If a certificate of zoning compliance is requested between September and May, then the certificate shall be conditioned upon the landscaping being installed before the following August 31.

b. ***Surety***

A letter of credit, escrow, performance bond, or other surety approved by the municipal attorney for proper installation of the landscaping and equal in value to 120 percent of the value of the installed landscaping, as determined by a bonded, licensed landscape contractor, shall be provided to the director prior to the installation of the landscaping. This bond shall remain in place with the director for at least 24 months after installation to ensure survival and proper maintenance of the landscaping in accordance with this section. After the landscaping has been installed for 24 months, and an inspection has found that the required landscaping is in good health, the surety shall be released. The bonding requirement established in this subsection may be waived for a landscaping area that meets the irrigation standards of subsection G.6.b. below.

c. ***Survival***

Any landscape element that dies, is removed, or is seriously damaged shall be replaced based on the requirements of subsection 21.07.080G.6.a. before the following August 31.

5. Use of Landscaped Areas

Except as specifically allowed elsewhere in this title, no structure, motor vehicle area, snow storage, or paved area may be located in areas required for landscaping.

6. Maintenance and Replacement

a. ***Maintenance***

Trees, shrubs, other vegetation, irrigation systems, fences, and other landscaping, screening, and fencing elements shall be considered as elements of a development in the same manner as other requirements of this title. The property owner shall be responsible for regularly maintaining all landscaping elements in good condition. All landscaping shall, to the extent reasonably

feasible, be maintained free from disease, weeds, and litter. Any landscape element that dies, is removed, or is seriously damaged shall be replaced with the same type and size landscape element that is shown on the approved landscape plan for the site. In addition, the landscape units lost with a dead or removed tree shall be recovered through a replacement tree and other plantings as needed to recapture the total landscape units that were lost. All landscaping, screening, and fencing materials and structures shall be repaired and replaced when necessary to maintain them in a structurally sound condition.

b. ***Irrigation***

To ensure that plants will survive, particularly during the critical two-year establishment period when they are most vulnerable to lack of watering, the bonding requirement established in subsection 21.07.080G.4. above may be waived by the director for any landscaping area that will be irrigated by one of the following:

i. A below-ground irrigation system with automatic controller that has been installed in compliance with an approved permit or by a certified irrigation contractor who certifies that the irrigation system was constructed to national standards; or

ii. An irrigation system designed and approved by a licensed landscape architect as part of the landscape plan, which provides sufficient water to ensure that the plants will become established.

G. Screening

1. Purpose

Screening consists of landscaping, the retention of natural vegetation, or the use of physical structures to block views of specific activities or specific parts of a property or structure. Applicants are encouraged to locate the types of features listed in this section where they are not visible from abutting streets and abutting uses or lots as specified below, so that screening is unnecessary.

2. Refuse Collection

In order to improve the image of the municipality's streets and neighborhoods, refuse collection receptacles shall be adequately screened from abutting streets. These receptacles shall also be located where they can be conveniently and safely accessed by the intended users and by refuse collection vehicles.

a. ***Applicability***

The following standards shall apply to all refuse collection receptacles of all development, except for the Chugiak-Eagle River area where this section is reserved for inclusion in chapter 21.10. Refuse collection receptacles that abut an alley are exempted from the screening standards of this subsection. For purposes of this section, the term "refuse collection receptacles" includes dumpsters, garbage cans, debris piles, or grease containers, but does not include public trash receptacles for pedestrians placed in the right-of-way, public drop-off recycling receptacles, or waste receptacles for temporary uses such as construction sites. This section also does not apply to refuse collection receptacles that are stored indoors and brought outdoors on garbage pickup days.

b. ***Residential Dwellings***

i. In class A districts:

(A) Except as allowed below, single-family (attached and detached), two-family, townhouse, and three-unit multifamily dwellings on lots less than 40,000 square feet shall not have dumpsters.

(B) A group of three or more dwellings may share a dumpster if the following criteria are met:

(1) The dumpster is bear-proof;

(2) The Alaska Department of Fish and Game determines that a bear-proof dumpster would reduce the potential for problem bears in the neighborhood; and

(3) The dumpster is located and screened in accordance with the standards below.

(C) Single-family, two-family, townhouse, or three-unit multifamily dwellings on lots less than 40,000 square feet may have a dumpster if the dumpster is serviced from an alley.

ii. In class B districts, dumpsters are permitted and shall be screened in accordance with the standards below. [RESERVED—PREDOMINANT ZONING PROVISION]

iii. Notwithstanding all other requirements of this section, garbage cans and recycling bins that are 96 cubic feet or smaller are considered screened if they are not visible (except on garbage pickup days) from the abutting street from which vehicular access to the residence is taken.

c. ***Site Plans***

Site plans for applicable development shall include the proposed location and type of refuse receptacle screening that will be used and the access provisions for service trucks. If a screening enclosure is necessary pursuant to G.2.e. below, the site plan shall include the construction details of the enclosure to ensure the dimensions comply with the service provider's standards. Site plans with refuse receptacles in alleys shall identify the location of the refuse receptacle and the methods with which the receptacle shall be contained in its identified location.

d. ***Location***

Outdoor refuse collection receptacles shall not be located in any required front setback and shall, to the extent reasonably feasible and depending on the size, location, and configuration of the site, and need for access by refuse collection vehicles, be set back from the front plane of the principal structure. Refuse collection receptacles shall not be located within any area used to meet the minimum landscaping or parking requirements and loading berth requirements of this chapter, or be located in a manner that obstructs or interferes with any designated vehicular or pedestrian circulation routes onsite.

e. ***Screening***

i. Each refuse collection receptacle shall be screened from view from abutting streets. The screening may be achieved by buildings, fences, landscaping, or a refuse collection receptacle screening enclosure.

ii. If a screening enclosure is necessary to meet the standards of this subsection, the screening enclosure shall consist of a durable, three-sided, screening structure. If the refuse collection receptacle is visible through the open side of the screening structure from the abutting streets, the opening shall be screened with a sight-obscuring gate. The enclosure and any gate shall be maintained in working order to function as a screening structure. The gate shall remain closed except to allow for trash pick-up.

f. ***Maintenance of Refuse Collection Receptacle***

The lids of receptacles in screening enclosures without roof structures shall remain closed except when being accessed by users or refuse service trucks, and shall be maintained in working order.

g. ***Procedure for Obtaining an Administrative Variance for Refuse Receptacle Location***

i. If a site was developed prior to [effective date] and compliance with the location requirements of subsection 2.d. above is either physically impossible or would result in noncompliance with other requirements of this title, the property owner may apply for an administrative variance from this section.

ii. An applicant for an administrative variance from this section shall submit the information specified in the user's guide.

iii. The director may grant an administrative variance from the location requirements of subsection 2.d. above with the following limitations:

(A) The director may allow the reduction of no more than two required parking spaces.

(B) The director shall not waive any requirements of subsection 2.e., *Screening.*

(C) If the variance allows a refuse receptacle to be placed in required landscaping, the total required landscape units for the area shall not be reduced.

(D) Any variance shall not result in an encroachment into a public right-of-way.

iv. The director shall make written findings and conclusions for each administrative variance request.

v. If the request for an administrative variance is denied, the applicant may apply for a variance under section 21.03.240.

h. ***Amortization of Nonconforming Refuse Collection Receptacles***
Existing dumpsters that are located at residential uses indicated in subsection 21.07.080G.2.b. shall be removed within 18 months from the effective date of this title. Sites with refuse collection receptacles that are subject to the location and screening requirements of subsections 21.07.080G.2.d. and G.2.e. shall meet the requirements of this section within five years from the effective date of this title.

3. Service and Off-Street Loading Areas

a. ***Applicability***
This standard is intended to mitigate visual and noise impacts of service and off-street loading areas on abutting residential uses and neighborhoods, and streets. The standards shall apply to all service and off-street loading areas serving nonresidential uses that are visible from a street or a nonindustrial zoning district.

b. ***Standard***
Applicable non-enclosed service and off-street loading areas shall be screened as follows:

i. A wall or fence at least eight feet high shall be located along at least one exposed edge of the service or loading area that is parallel to vehicles/trailers parked in the service or loading area. The wall or fence shall extend the length of the longest vehicle/trailer anticipated to be parked in the service or loading area.

ii. Additional landscaping shall be provided along the site perimeter at the location of the service or loading area to visually obscure the area from the abutting street or property.

iii. An alternate screening plan may be approved by the director if the proposed plan effectively screens the service or loading area from abutting streets and nonindustrial districts.

H. Fences

1. Applicability
The provisions of this subsection 21.07.080H. shall apply to all construction, substantial reconstruction, or replacement of fences, retaining walls not required for support of a principal or accessory structure, or any other linear barrier intended to delineate different portions of a lot or to separate lots from each other. The provisions of this subsection do not apply to temporary fencing for construction, emergencies, or special public events or performance areas.

2. Location
A fence may be constructed within property boundaries, or at the lot line, subject to the limitations in this section. No fence shall be installed so as to block or divert a natural drainage flow onto or off of any other property.

3. Maximum Height
Unless specifically required elsewhere in this title for screening fences, fences shall not exceed the maximum heights set forth below. Such maximum heights shall be measured from the top of any retaining wall, or if no retaining wall has been constructed, then from

natural grade. Unless specifically allowed by this title, no fence shall exceed eight feet in height.

a. In the R-1, R-1A, R-2A, R-2D, R-2F, R-2M, R-3, R-4, R-4A, R-5, and R-7 districts, fences in front setbacks shall not exceed four feet in height. Fences in secondary front setbacks that abut a street of arterial or greater classification may be up to eight feet in height. Fences in side or rear setbacks shall not exceed six feet in height.

b. In the R-6, R-8, R-9, and R-10 districts, fences in front setbacks shall not exceed six feet in height if the fencing material is sight-obscuring. Examples of non-sight obscuring fencing include chain-link and split rail fencing.

c. In the B-1A, R-O, NMU, CMU, and RMU districts, fences in front setbacks shall not exceed four feet in height.

d. In the B-3 and MC districts, fences in front setbacks shall not exceed six feet in height.

e. Fences in front setbacks in nonresidential districts shall be located interior to any required landscaping.

f. Enclosures provided as a part of a permitted tennis court, ball field, or other recreational facility shall be exempt from the height restrictions of this section.

4. Finished Appearance Outward

Whenever any fence will be visible from adjacent streets, and whenever a fence is installed as part of required site perimeter or parking lot perimeter landscaping and is visible from adjacent properties, it shall be installed so that the more finished side (i.e., the side with fewer or no visible structural framing or bracing elements) faces outward from the lot on which it is installed.

5. Prohibited Materials

Fences made of debris, junk, or waste materials are prohibited, unless such materials have been recycled and reprocessed into building materials marketed to the general public and resembling new building materials, unless approved by the director.

21.07.090 OFF-STREET PARKING AND LOADING

A. Purpose

This section establishes off-street parking and loading requirements as a necessary part of the development and use of land, to ensure the safe and adequate flow of traffic in the public street system, and to ensure that parking areas are designed to perform in a safe, efficient manner. It is also the intent of this section to attenuate the adverse visual, environmental, and economic impacts of parking areas, and to achieve a compact and efficient land use pattern. Specific purposes include to:

1. Ensure that off-street parking, loading, and access demands will be met without adversely affecting other nearby land uses and neighborhoods;

2. Provide for safe and orderly circulation and parking in parking and loading facilities, and minimize conflicts between pedestrians and vehicles;

3. Encourage the efficient use of land and avoid the encumbrance of more space than is necessary for parking;

4. Improve the visual appearance of public street corridors by encouraging buildings and other attractive site features to become more prominent relative to parking areas;

5. Provide for better pedestrian movement and encourage alternative modes of transportation by reducing the expanses of parking that must be traversed between destinations;

6. Support a balanced transportation system that is consistent with cleaner air and water, greater transportation choices, and efficient infill and redevelopment; and

7. Allow flexibility in addressing vehicle parking, loading, and access, including providing for reductions and alternatives to minimum parking requirements.

B. Applicability

1. Generally

a. The off-street parking and loading standards of this section 21.07.090 shall apply to all development in the municipality including changes of use.

b. Except for the off-street loading requirements of subsection 21.07.090G., all other requirements of this section shall apply to Girdwood unless specifically preempted in chapter 21.09.

c. Except when specifically exempted, the requirements of this section shall apply to all temporary parking lots and parking lots that are a principal use on a site.

2. Expansions, Relocations, and Enlargements

A site to which a building is relocated shall provide the required parking and loading spaces. An expansion or enlargement that is an increase in the floor area or other measure of off-street parking and loading requirements shall provide spaces as required for the increase.

3. Use of Required Parking Spaces

Required parking spaces shall be available for the parking of passenger automobiles by residents, occupants, customers, visitors, or employees of the use. Required parking spaces may not be assigned, leased, or rented in any way to a use on another site, or to anyone who is not a resident, occupant, customer, guest, or employee, except for shared parking situations. See subsection 21.07.090F.16. Also, required parking spaces shall not be used for the parking of equipment or for storage of goods or inoperable vehicles.

4. Regulation of Parking Space Use

The providers of required off-street parking spaces may reasonably control the users thereof by means that may include, but are not limited to, restricting all parking to the users of the facility; parking lot attendants; control gates; tow-away areas; areas for exclusive use by employees, tenants or staff; areas restricted for use by customers or visitors; and imposing time limitations on users. Fees may be charged for the use of required parking, subject to approval of the traffic engineer. Prior to approval of the permit the traffic engineer may review all methods of control and may disapprove of any restriction such as fees that adversely affects the purpose of this section. The

municipality may enforce any approved parking plan or restrictions through any of the code enforcement provisions set forth in chapter 21.13, *Enforcement.*

5. Parking Nonconformities

When a site is out of compliance as to the number of required or allowed parking spaces, section 21.12.060, *Characteristics of Use*, applies.

C. Computation of Parking and Loading Requirements

1. Fractions

When measurements of the number of required or allowed parking spaces result in a fractional number after subtracting for parking reductions or alternatives, the fraction shall be rounded as provided in section 21.14.020M., *Fractions*.

2. Multiple Uses

The number of parking spaces is computed based on the uses on the site. When there are two or more uses on a site, the required or allowed parking for the site is the sum of the required or allowed parking for the individual uses. For shared parking, see subsection 21.07.090F.16. below.

3. Area Measurements

Unless otherwise specified in table 21.07-5, all square footage-based parking and loading standards shall be computed on the basis of gross floor area of the use in question. For the purposes of this section, all gross floor area shall be counted in such measurement, except for floor area dedicated for parking spaces; driveways; circulation aisles; loading areas; or enclosed and isolated floor area exclusively for HVAC mechanical equipment serving the building, provided such area is located in a mechanical penthouse or topmost floor of a multistory building. The traffic engineer may also waive the floor area for HVAC mechanical equipment occupying another story in the building, provided the majority of such story (including the mechanical equipment) is non-habitable floor area.

4. Occupancy Load Factors

Where parking requirements for assembly rooms or other uses are based on maximum capacity under provisions of AMC title 23, the occupancy load factors of AMC title 23 shall not be adjusted.

5. Additional Computation Standards

a. *Off-Street Loading Space*

Required off-street loading space shall not be included as off-street parking spaces in computation of required or allowed number of off-street parking spaces, unless approved by the traffic engineer pursuant to subsection G.5. below.

b. *Fleet Vehicle Parking*

For the purpose of calculating parking requirements, fleet vehicle parking shall not count against either the minimum or maximum requirements.

c. *Areas that Count Toward Minimum but Not Maximum Parking Requirements*

For the purpose of calculating parking requirements, the following types of parking spaces shall not count against the maximum parking requirement, but shall count toward the minimum requirement:

i. Accessible parking spaces;

ii. Passenger loading zones including taxi cab stands;

iii. Vanpool and carpool parking spaces;

iv. Parking spaces provided as the required parking for a use on another parcel through a municipally approved shared parking or off-site parking agreement; and

v. Parking structures, underground parking, and parking within, above, or beneath the building(s) it serves.

D. Parking Lot Layout and Design Plan

1. Applicability

For all commercial, industrial, institutional, multifamily and townhouse residential developments, the applicant shall submit a parking facility layout, circulation, and design plan for review and approval by the traffic engineer. The plan shall contain sufficient detail to enable the traffic engineer and the director to verify compliance with this section 21.07.090. Subject to approval of the traffic engineer, the parking layout and design plan may be combined with other plans required under this title, such as the landscaping plan required in 21.07.080, *Landscaping, Screening, and Fences*.

2. Minimum Plan Requirements

a. The parking facility layout, circulation, and design plan shall be prepared by a design professional and stamped by a professional registered with the Alaska State Board of Registration for Architects, Engineers, and Land Surveyors, except that parking lots with fewer than 20 parking spaces shall be exempt.

b. The director and traffic engineer shall establish the minimum submittal requirements for such plans that will enable staff to adequately review and ensure compliance with the standards and requirements of this section 21.07.090. Such submittal requirements, to be included in the user's guide, shall include but not be limited to elements such as placement and dimensions of spaces, landscaping, pedestrian and vehicle circulation, snow storage, lighting, loading and trash collection areas, and drainage.

c. The traffic engineer shall ensure that provisions have been made for minimum interference with street traffic flow and safe interior vehicular and pedestrian circulation, transit, and parking.

E. Off-Street Parking Requirements

1. Minimum Number of Spaces Required

Unless otherwise expressly stated in this title, off-street parking spaces shall be provided in accordance with table 21.07-5, *Off-Street Parking Spaces Required* and subsection E.2. below. Reductions, exemptions, and alternatives to the required minimum number of parking spaces are provided in subsection 21.07.090F. below.

2. Minimum of Three Parking Spaces

Where a use is required to provide off-street parking and the amount specified in table 21.07-5 would result in fewer than three spaces being required for the use, the use shall provide at least three parking spaces including one van-accessible parking space

pursuant to subsection 21.07.090J. Where there are multiple uses located on a site, the uses may share the accessible space as long as the requirements of subsection 21.07.090J.1. are met. Parking reductions in subsection 21.07.090F. shall also comply with this subsection E.2. The minimum of three parking spaces shall not apply to residential household living uses, community gardens, parks and open space, utility substations, or fueling stations and food and beverage kiosks that are exclusively for drive-through customers.

TABLE 21.07-5: OFF-STREET PARKING SPACES REQUIRED
("du" = dwelling unit; "sf" = square feet; "gfa" = gross floor area)

Use Category	Use Type	Minimum Spaces Required	See Loading Subsection 21.07.090G.
RESIDENTIAL USES			
Household Living	Dwelling, mixed-use, multiple-family, single-family attached, two-family, and townhouse	1 per studio or efficiency or one bedroom du Add 0.5 spaces for each additional bedroom Add 0.25 guest parking spaces for each multifamily du with single-family or two-family style construction Add 0.15 guest parking spaces for each multifamily du with townhouse style construction	**X**
	Dwelling, single-family detached	2 per du up to 2,400 square feet; 3 per du over 2,400 square feet, including any unfinished area which may be converted to living area	
	Accessory dwelling unit (ADU)	See subsection 21.05.070D.	
	All other household living uses	2 per du	
Group Living	Assisted living facility (9+ client capacity)	1 per 4 beds plus 1 per 350 sf of office area plus requirement for dwelling, if located in a dwelling	**X**
	Correctional community residential center	1 per 2,000 sf gfa	**X**
	Habilitative care facility	1 per 400 sf gfa, and 1 passenger loading space, reserved for pickup and delivery of adults, per 800 sf gfa	**X**
	Roominghouse	0.6 per guestroom	
	Transitional living facility	1 per 2 beds plus 1 per 4 persons in principal assembly area based on maximum occupancy provisions of AMC title 23	
PUBLIC/INSTITUTIONAL USES			
Adult Care	Adult care facility, 3-8 persons	1 per 400 sf gfa, and 1 passenger loading space, reserved for pickup and delivery of adults, per 2,000 sf gfa (plus requirement for principal use, if approved as accessory use)	

TABLE 21.07-5: OFF-STREET PARKING SPACES REQUIRED
("du" = dwelling unit; "sf" = square feet; "gfa" = gross floor area)

Use Category	Use Type	Minimum Spaces Required	See Loading Subsection 21.07.090G.
	Adult care facility, 9+ persons	1 per 400 sf gfa, and 1 passenger loading space, reserved for pickup and delivery of adults, per 2,000 sf gfa	X
Child Care	Child care home	No additional requirements beyond those required for the dwelling unit If the establishment is for fewer than 9 children and is not located in a dwelling, then the requirement is as provided in subsection 21.07.090E.2.	
	Child care center, 9-15 children	1 space in addition to what is required for the dwelling	
	Child care center, more than 15 children	1 per 400 sf gfa, and 1 passenger loading space, reserved for pickup and delivery of children, per 800 sf gfa	
Community Service	Community center or religious assembly	1 per 4 persons in principal assembly area based on maximum occupancy provisions of AMC title 23	X
	Cemetery or mausoleum	See subsection 21.07.090E.3.	
	Crematorium	1 per 4 persons in the main chapel based on maximum occupancy provisions of AMC title 23	
	Family self-sufficiency service	1 per 300 sf gfa	
	Government administration and civic buildings	1 per 300 sf gfa	X
	Homeless and transient shelter	1 per 300 sf administrative area, and 1 per 20 pillows	
	Neighborhood recreation center	See subsection 21.07.090E.3.	
Cultural Facility	Aquarium	1 per 500 sf gfa	X
	Botanical gardens	See subsection 21.07.090E.3.	X
	Library	1 per 400 sf gfa	X
	Museum or cultural center	1 per 400 sf gfa	X
	Zoo	1 per 5,000 sf of site area	X
	All other uses	1 per 400 sf gfa or 1 per 10,000 sf of site area for outdoor uses	X
Educational Facility	Boarding school	See subsection 21.07.090E.3.	X
	College and university	See subsection 21.07.090E.3.	X
	Computer-aided learning center	1 per 300 sf of enclosed floor space	X

TABLE 21.07-5: OFF-STREET PARKING SPACES REQUIRED
("du" = dwelling unit; "sf" = square feet; "gfa" = gross floor area)

Use Category	Use Type	Minimum Spaces Required	See Loading Subsection 21.07.090G.
	Elementary school and middle school	1 per 6 students, based on State of Alaska EED capacity provisions	**X**
	High school	6 per classroom Where the traffic engineer has reason to believe that, based on similar or comparable schools, parking study data, or other information, that parking demand for the proposed high school development is likely to exceed the requirement, the traffic engineer may require up to 1 parking space per 3 students, based on State of Alaska EED capacity provisions.	**X**
	Instructional services	6 per classroom, plus 1 per 300 square feet of dance or other training area	**X**
	Vocational or trade school	1 per 2 students based on maximum occupancy provisions of AMC title 23	**X**
Health Care Facility	Health services, including outpatient medical and dental offices, co-located with a hospital/ hospital campus	1 per 250 sf gfa	**X**
	Other health services, including outpatient medical and dental offices	1 per 300 sf gfa	
	Hospital/ health care facility	1 per 2 beds, based on maximum capacity, plus 1 per 350 sf of office and administrative area	**X**
	Nursing facility	1 per 4 beds, based upon maximum capacity.	**X**
Park and Open Area	Community garden	1 per 5,000 sf of lot area	
	Park and open space, public or private	See subsection 21.07.090E.3. Playfields (soccer, baseball, etc.) shall have minimum of 25 spaces per field, unless otherwise approved by the traffic engineer, for up to four fields. Facilities with more than four fields shall be subject to the determination of the traffic engineer.	
Public Safety Facility	All uses	See subsection 21.07.090E.3.	
Transportation Facility	All uses	See subsection 21.07.090E.3.	
	Railroad freight terminal	See subsection 21.07.090E.3.	

TABLE 21.07-5: OFF-STREET PARKING SPACES REQUIRED
("du" = dwelling unit; "sf" = square feet; "gfa" = gross floor area)

Use Category	Use Type	Minimum Spaces Required	See Loading Subsection 21.07.090G.
	Railroad passenger terminal	See subsection 21.07.090E.3.	
Utility Facility	Utility facility	1 per 1,000 sf gfa	
	Utility substation	See subsection 21.07.090E.3.	
Communica-tion Structures	All uses	None	
COMMERCIAL USES			
Agricultural Uses	Commercial horticulture	See subsection 21.07.090E.3.	
Animal Sales, Service & Care	Animal shelter	1 per 400 sf gfa	
	Kennel, commercial	1 per 800 sf gfa	
	Large domestic animal facility, principal use	1 per 4 seats or 1 per stall, whichever is greater	
	Retail and pet services	1 per 300 sf gfa	
	Veterinary clinic	1 per 600 sf gfa	
Assembly	Civic/convention center	1 per 4 persons in assembly areas based on maximum occupancy provisions of AMC title 23	**X**
	Club/lodge/meeting hall	1 per 4 persons in assembly areas based on maximum occupancy provisions of AMC title 23.	**X**
Entertainment and Recreation	Amusement establishment Bowling alley Bingo parlor	Indoor entertainment facility: 1 per 300 sf gfa 4 per bowling lane 1 per 4 persons in assembly areas based on maximum occupancy provisions of AMC title 23.	
	Entertainment facility, major	See subsection 21.07.090E.3.	
	Fitness and recreational sports center	1 per 300 sf gfa	
	General outdoor recreation, commercial	See subsection 21.07.090E.3.	**X**
	Golf course	4 per green	
	Golf driving range	0.5 per tee	
	Motorized sports facility	1 per 2 spectator seats in a structure such as a grandstand, stadium; or 1 per 2,000 sf of site area; whichever is greater	**X**

TABLE 21.07-5: OFF-STREET PARKING SPACES REQUIRED
("du" = dwelling unit; "sf" = square feet; "gfa" = gross floor area)

Use Category	Use Type	Minimum Spaces Required	See Loading Subsection 21.07.090G.
	Movie theater	1 per 4 persons based on maximum occupancy provisions of AMC title 23	
	Nightclub	1 per 3 persons based on maximum capacity under provisions of AMC title 23	X
	Shooting range, outdoor	1 per target area, or 1 per 5 seats, whichever is greater	
	Skiing facility, alpine	See subsection 21.07.090E.3.	
	Theater company or dinner theater	1 per 4 persons based on maximum capacity under provisions of AMC title 23	
Food and Beverage Service	Bar	1 per 100 sf gfa	X
	Food and beverage kiosk	0 per establishment, plus vehicle queuing spaces	
	Restaurant	1 per 100 sf gfa and outdoor seating area 1 per 125 sf gfa for drive-through restaurants (plus vehicle queuing spaces)	X
Office	Financial institution	1 per 350 sf gfa (plus vehicle queuing spaces if drive-through is provided)	
	Office, business or professional	1 per 350 sf gfa	X
	Broadcasting facility	1 per 350 sf gfa	
Personal Service, Repair, and Rental	Business service establishment	1 per 500 sf gfa	X
	Pharmacy/Drugstore and Video Rental Store	1 per 400 sf gfa (plus vehicle queuing spaces if drive-through is provided)	
	Dry-cleaning drop-off site/Mail Package Service/Locksmith Shop	1 per 600 sf gfa, (plus vehicle queuing spaces if drive-through is provided)	
	Funeral services	1 per 4 persons in main assembly areas based on maximum occupancy provisions of AMC title 23	X
	Small equipment rental	1 per 400 sf gfa	
	All other uses	1 per 300 sf gfa	X
Retail Sales	Auction house	1 per 300 sf gfa	X
	Convenience store	1 per 350 sf gfa	X
	Farmers market	1 per 250 sf, with a minimum of 6	
	Fueling station	1 per attendant for stand-alone fueling stations; also refer to subsection 21.07.090H. for queuing requirement	

TABLE 21.07-5: OFF-STREET PARKING SPACES REQUIRED
("du" = dwelling unit; "sf" = square feet; "gfa" = gross floor area)

Use Category	Use Type	Minimum Spaces Required	See Loading Subsection 21.07.090G.
	Retail sales of large or bulky merchandise such as furniture, home appliance, or flooring store	1 per 800 sf gfa	X
	General retail	1 per 350 sf gfa	X
	Grocery or food store	1 per 250 sf gfa	X
	Liquor store, bicycle shop	1 per 400 sf gfa	X
	Building materials store	1 per 600 sf gfa and outdoor display area	X
	Pawnshop	1 per 350 sf gfa	X
Vehicles and Equipment	Aircraft and marine vessel sales	1 per 7,000 sf outdoor display/sales area; 1 per 400 sf indoor floor area	X
	Vehicle parts and supplies	1 per 400 sf gfa; 1 per 7,000 sf outdoor display/sales area	X
	Vehicle – large and small, sales Vehicle – large and small, rental	1 per 7,000 sf outdoor display/sales area; 1 per 400 sf indoor floor area 1 per 400 sf of indoor floor area	X
	Vehicle service and repair, major and minor	0.5 per car wash bay; 4 per other service bay (provided that all vehicles in custody of operator of business for purpose of service, repair or storage shall be stored on premises or on a separate off-street parking lot or building)	
Visitor Accom-modations	Camper park	1 space per 10 recreational vehicle or tent camping spaces	
	Extended-stay lodgings	1 per guestroom or one bedroom unit; 1.25 per two bedroom unit; 1.5 per three bedroom or more unit, plus 1 per 4 persons in meeting rooms based on maximum occupancy provisions of AMC title 23.	X
	Hostel	1 per 600 sf gfa	
	Hotel, motel and inn	0.9 per guestroom, plus 1 per 4 persons in meeting rooms based on maximum occupancy provisions of AMC title 23.	X
	Recreational and vacation camp	See subsection 21.07.090E.3.	
INDUSTRIAL USES[17]			
Industrial Service[17]	Data processing facility	1 per 1,000 sf gfa	X

TABLE 21.07-5: OFF-STREET PARKING SPACES REQUIRED
("du" = dwelling unit; "sf" = square feet; "gfa" = gross floor area)

Use Category	Use Type	Minimum Spaces Required	See Loading Subsection 21.07.090G.
	Dry cleaning establishment	1 per 750 sf dry cleaning plant area plus 1 per 600 sf of customer service area	
	General industrial service	1,000-3,000 sf gfa: 1 per 750 sf gfa; Add 1 space per each 1,000 sf gfa above 3,000 sf gfa, up to 5,000 sf gfa; Add 1 space per each 1,500 sf gfa above 5,000 sf gfa, up to 50,000 sf gfa; Add 1 space per each 2,000 sf gfa above 50,000 sf gfa	
	Governmental service	1 per 600 sf gfa	**X**
	Heavy equipment, sales and rental	1 per 400 sf indoor floor area	**X**
	Research laboratory	1 per 300 sf gfa	
Manufacturing and Production[17]	Cottage Crafts	1 per 600 sf gfa	**X**
	Commercial food production	1 per 400 sf gfa for catering; 1 per 800 sf gfa for food processing	
	Manufacturing (heavy and light)	1,000-3,000 sf gfa: 1 per 750 sf gfa; Add 1 space per each 1,000 sf gfa above 3,000 sf gfa, up to 5,000 sf gfa; Add 1 space per each 1,500 sf gfa above 5,000 sf gfa,	
	Natural resource extraction	See subsection 21.07.090E.3.	
Marine Facility[17]	Aquaculture	See subsection 21.07.090E.3.	
	Facility for combined marine and general construction	See subsection 21.07.090E.3.	
	Marine operations	See subsection 21.07.090E.3.	
	Marine wholesaling	1 per 800 sf gfa	
Warehouse and Freight Movement[17]	Bulk storage of hazardous materials	See subsection 21.07.090E.3.	
	Impound yard	1 per 500 sf gfa, plus 1 per 5,000 sf of outdoor storage area	
	Motor freight terminal	see Warehouse	
	Self-storage facility	1 per 75 units, plus vehicle queuing spaces for security gate. Aisles suitable for temporary loading and unloading may be counted as required parking stalls in accordance with table 21.07-5 as determined by the traffic engineer.	**X**

TABLE 21.07-5: OFF-STREET PARKING SPACES REQUIRED
("du" = dwelling unit; "sf" = square feet; "gfa" = gross floor area)

Use Category	Use Type	Minimum Spaces Required	See Loading Subsection 21.07.090G.
	Storage yard	1 per 2,000 sf of outdoor storage area	
	Warehouse	1,000-10,000 sf gfa: 1 per 1,000 sf gfa; Add 1 space per each 1,250 sf gfa above 10,000 sf gfa, up to 50,000 sf gfa; Add 1 space per each 1,500 sf gfa above 50,000 sf gfa,	
	Wholesale establishment	1 per 800 sf gfa	
Waste and Salvage	All uses	See subsection 21.07.090E.3.	

NOTES: [17] The off-street parking requirements for industrial uses in this schedule A shall not include space devoted to office or other non-industrial related use. Where a warehousing or industrial facility contains office or other non-industrial related use, off-street parking for such spaces shall be computed using the requirements set forth in this table.

3. Uses Not Listed or that Have No Specific Requirement

In the case of a use or category of uses not listed in table 21.07-5, or that is listed without a specific requirement, the requirements for off-street parking facilities shall be determined by the director and the traffic engineer. Such determination shall be based upon the requirements for the use specified in table 21.07-5 that is most nearly comparable to the unspecified use, traffic engineering principles, and/or parking studies. Any parking study prepared by the applicant shall include estimates of parking demand based on recommendations of the Institute of Transportation Engineers (ITE), or other acceptable estimates as approved by the traffic engineer, and shall include other reliable data collected from uses or combinations of uses that are the same as or comparable with the proposed use. Comparability shall be determined by density, scale, bulk, area, type of activity, and location. The study shall document the source of data used to develop the recommendations.

4. Maximum Number of Spaces Permitted

a. *Purpose*

The purpose of this subsection is to establish an upper limit on the number of parking spaces allowed in order to promote efficient use of land, enhanced urban design, a safe and walkable pedestrian environment, alternative modes of transportation, and to protect air and water quality. Exceptions and flexibility procedures are provided where the required limit on the number of parking spaces is problematic for a certain use.

b. *Applicability*

For any use categorized as a public/institutional or commercial use in table 21.05-1 or table 21.05-2, *Tables of Allowed Uses*, the maximum number of off-street vehicle parking spaces shall be as provided below. Temporary parking, the uses "parking lot, principal use" and "parking structure, principal use", and uses in the Educational Facility, Parks and Open Areas, Transportation Facility, and Utility Facility use categories are exempt.

c. ***Maximum Number of Spaces***
Developments may provide a maximum of one parking space per 250 square feet of gross floor area, or 125 percent of the minimum number of parking spaces required in table 21.07-5, whichever is greater.

d. ***Increased Landscaping in Large Parking Lots***
Development sites with more than 160 parking spaces required in table 21.07-5 and that are proposed to have more than the minimum number of parking spaces required in table 21.07-5 shall increase the overall amount of area devoted to parking lot interior landscaping area in the parking lot as provided in table 21.07-6 below. This shall apply to uses which utilize the exceptions offered in subsection 4.e. below.

TABLE 21.07-6: INCREASE IN PARKING LOT INTERIOR LANDSCAPING

Number of Off-Street Parking Spaces Provided as a Percentage of the Required Minimum Number of Spaces	Required Amount of Parking Lot Interior Landscaping as a Percentage of the Surface of the Parking Area on the Site Including Appurtenant Driveways
111 to 125 percent	10 percent
Greater than 125 percent	13 percent

e. ***Exceptions***

i. Restaurants without a drive-through, dinner theaters, and bars may provide up to 200 percent of the minimum number of parking spaces required in table 21.07-5.

ii. If application of the maximum parking standard would result in fewer than six parking spaces, the development shall be allowed six parking spaces.

iii. Exceptions to the maximum parking requirement may be allowed by the traffic engineer and the director in situations that meet all of the following criteria:

(A) The applicant provides a parking demand study of similar sites in the municipality that demonstrates that parking demand cannot be accommodated within the maximum number of parking spaces allowed or through any of the available parking reductions and alternatives such as on-street parking, shared parking with nearby uses, or incentives for alternatives to single-occupancy vehicle use;

(B) The request is the minimum necessary variation from the standards; and

(C) If located in a mixed-use district, the proposed site plan is, in the judgment of the director, supportive of high levels of existing or planned transit and pedestrian activity.

5. Parking Location
Except as provided in subsection 21.07.090F., all required parking shall be on the same lot as the use served. However, required parking may be on an abutting or adjacent lot

provided the zoning district in which the lot is located allows for off-street parking as a permitted principal use, site plan review use, or conditional use; in which case there shall be a parking agreement which meets the requirements of subsection F.1. below.

F. Parking Reductions and Alternatives

The traffic engineer and director may approve reductions and alternatives to providing the number of off-street parking spaces required by table 21.07-5, and/or to the circulation and dimensional standards of subsections H.9. and H.10., in accordance with the following standards.

1. Parking Agreements

A parking reduction or alternative shall require a written parking agreement between the property owner(s) and the municipality, except where expressly stated otherwise.

a. *Recordation*

The municipality shall record the parking agreement at the district recorder's office as a covenant that runs with the land and is binding on the owner and all successors and assigns for as long as the required number of off-street parking spaces is not provided as a result of the parking reduction or alternative. All parties involved in the parking reduction or alternative shall participate in the parking agreement. Recordation of the agreement shall take place before issuance of an entitlement requiring a parking reduction or alternative.

b. *Content*

The form and content of the parking agreement shall be approved by the director. It shall guarantee installation and maintenance of any required improvements by the owner, and/or the owner's continued participation in any parking management strategy required for a parking reduction. The parking agreement shall assure future implementation of a contingency plan by the owner if so ordered by the traffic engineer. The contingency plan may include strategies such as installation of parking, payment to the municipality for the full cost of providing the required parking, transportation demand management programs, or other parking management strategies identified in the parking reductions or alternatives of this section.

c. *Termination*

If for any reason the parking agreement terminates, owners and all successors and assigns who are parties to the parking agreement shall comply with all provisions of this title governing the required number of off-street parking spaces.

2. Calculation of Parking Reductions

a. *Multiple Reductions*

A development may be eligible for multiple reductions from the required number of parking spaces. The total impact of parking reductions shall be calculated as being multiplicative and not additive where a development is eligible for more than one. For example, if one reduction is 20 percent, and a second reduction is an additional 15 percent, their combined reduction shall be calculated as 80 percent times 85 percent equals 68 percent, or a 32 percentage point total reduction, rather than adding 20 percent plus 15 percent equals 35 percent. This is because the 15 percent reduction applies to a base that is already reduced 20 percent.

b. ***Minimum Reduction Credit of One Space***
If the total approved reduction from the required number of parking spaces for a development is calculated to be a reduction of less than one parking space, it shall be credited as a reduction of one parking space.

3. Qualifying Site Development
Uses shall provide the following enhancements to be eligible for any reduction in the number of required parking spaces, except where stated otherwise. The qualifying site criteria shall not be required for the following parking reductions and alternatives: land banking, stacked and tandem parking, or smaller parking spaces for low-turnover uses. Industrial uses, public safety facilities, transportation facilities, and utility facilities are exempt from the qualifying site development criteria.

a. ***Street Oriented Building***
Primary entrances and/or windows providing visual access shall comprise at least 15 percent of the area of any street facing building elevation. For nonresidential uses, windows providing visual access and/or primary entrances shall comprise at least 50 percent of the length and 25 percent of the ground-floor wall area of any street facing building elevation.

b. ***Walkway to the Street***
A walkway meeting the requirements of section 21.07.060 shall connect at least one primary entrance to a street.

c. ***Parking Facility Location***
For buildings constructed after [effective date], parking facilities including driveways shall comprise no more than one-third of the area between the street property line and the street facing building elevation, and garage doors shall comprise no more than one-third of the length of the street facing building elevation. These requirements apply to no more than two street frontages.

d. ***Private Open Space***
For developments that are required to provide private open space, an additional 40 square feet of private open space that meets the requirements of subsection 21.07.030 shall be provided for each reduction of one parking space. This shall be common private open space in the case of multifamily and mixed-use dwellings.

e. ***Cross Access to Adjacent Properties***
The director and the traffic engineer may determine there is potential for driveway or walkway cross-access to abutting properties and may require a cross-access facility and/or easement within the subject property to the site boundary.

4. Downtown
Uses located in DT-1, DT-2, and DT-3 districts are exempt from providing off-street parking spaces. However, if parking is provided, all other standards of this section shall apply in the DT districts. Notwithstanding the provisions of F.1. and F.2. above, parking agreements and qualifying site criteria shall not be required for this exemption.

5. Residences in Walking Distance to Downtown

Residential household uses located north of 15th Avenue, west of Orca Street, east of L Street, and south of Ship Creek are eligible for a reduction of up to 25 percent of the minimum number of required parking spaces.

6. Mixed-Use Districts

Uses located in the NMU, CMU, RMU, MT-1, MT-2, and R-4A districts are eligible for a reduction of up to 10 percent of the minimum number of required parking spaces.

7. Residences in Center City Neighborhoods

a. Residential household uses located in center city neighborhoods are eligible for a reduction of up to 10 percent of the minimum number of required parking spaces.

b. For the purposes of this provision, the center city area is bounded to the north by Elmendorf Air Force Base, to the south by Tudor Road, to the east by Ingra Street and the Seward Highway, and to the west by Minnesota Drive. Any part of Fairview, South Addition, Government Hill, or Mountain View community council is also in the eligible area.

c. This reduction recognizes proximity to employment centers, characteristics such as traditional street grids and development patterns, household characteristics, emphasis on walkable northern city environments, and lower parking demand in these areas.

8. Uses Adjacent to Transit Service

A use is eligible for a reduction of up to five percent of the minimum number of required parking spaces if it is located within 800 feet of the street right-of-way centerline of any municipal public transit route, subject to approval by the traffic engineer and the director. The public transportation department may require a public use easement or transit stop and/or transit shelter improvements if the subject property abuts an existing or planned transit stop. If the public transportation department requires such an easement or improvements, then the use is eligible for an additional reduction of two percent or one more parking space, whichever is greater.

9. Rideshare Programs

A nonresidential use is eligible to substitute participation in municipal rideshare programs for up to a maximum of five percent of the minimum number of required parking spaces. The land area that would otherwise be needed in order to provide the required number of parking spaces shall be set aside on the site to provide for the future construction of a parking area in conformance with subsection 21.07.090F.12., *Land Banking*.

a. ***Carpool***

Every designated carpool space may count as 1.8 spaces toward meeting the minimum number of required spaces. The carpool spaces shall be those closest to the primary entrance or elevator, but not closer than accessible spaces or those signed for exclusive customer/visitor use. Signs shall be posted indicating these spaces are reserved for carpool use. The traffic engineer shall consult with the public transportation department in providing carpool spaces and the location of carpool parking.

b. ***Vanpool***

For every vanpool purchased or leased by the applicant for employee use operated through the municipal rideshare program, the number of required

parking spaces shall be reduced by up to six spaces. The traffic engineer may require a safe and convenient designated vanpool passenger loading zone.

10. Transit Pass Benefits

A use in which the owner or employer offers transit passes cost-free to all employees or residents is eligible for a parking reduction of up to 10 percent of the minimum number of required parking spaces. The use shall be located within 800 feet of the street right-of-way centerline of any municipal transit route. The public transportation department may require a public use easement or transit stop and/or transit shelter improvements if the subject property abuts an existing or planned transit stop. If the public transportation department requires such an easement or improvements, then the use is eligible for an additional reduction of two percent or one more parking space, whichever is greater.

11. Parking Cash-Outs

A use is eligible for a reduction of up to 10 percent of the minimum number of required parking spaces if it implements a parking cash-out program by which commuters are provided the option to choose between free parking and its equivalent cash value for using an alternative mode of travel.

12. Land Banking

Subject to approval by the traffic engineer and the director, the land area that would otherwise be needed in order to provide up to 25 percent of the minimum number of required parking spaces may be set aside on the site to provide for the future construction of a parking facility. The applicant shall submit a parking demand study prepared in a form and manner prescribed by the traffic engineer that indicates the reduced parking area will accommodate expected parking needs, and an alternate site plan to be approved by the traffic engineer that accommodates the parking that would be required without the land banked parking reduction. The area set aside shall be landscaped with site enhancement landscaping and/or pedestrian amenities approved by the director. The parking agreement shall guarantee that, if the director and the traffic engineer determine at some point in the future that additional parking spaces are needed, the owner shall construct parking on the land banked area in conformance with the alternate site plan.

13. Affordable Housing

Affordable housing units that are deed-restricted for households having an income at the time of initial occupancy of 30 percent or less of median family income are eligible for a reduction of up to 30 percent of the minimum number of required parking spaces. Affordable housing units for low income households having an income at the time of initial occupancy of 60 percent or less of median family income are eligible for a reduction of up to 15 percent of the minimum number of required parking spaces. The affordable housing units shall be consistent with the standards of subsection 21.07.100H., *Standards for Affordable Housing*.

14. Senior Housing

Dwelling units that meet the definition of senior housing are eligible for a reduction of up to 15 percent of the minimum number of required parking spaces. Dwelling units that meet the definition of senior housing that is intended for, and solely occupied by, persons 62 years of age or older are eligible for a reduction of up to 25 percent of the minimum number of required parking spaces. The agreement to provide a dwelling as housing for older persons is an obligation that runs with the land and is binding on subsequent property owners for as long as the required parking is not provided.

15. Housing Density

Residential household uses are eligible for a reduction of one percent of the minimum number of required parking spaces for every four dwellings per acre above a net density of 40 dwellings per acre on the site, up to a maximum reduction of 20 percent of the minimum number of required parking spaces.

16. Shared Parking

Shared use of required parking spaces may occur where two or more uses on the same or separate sites are able to share the same parking spaces because their peak parking demands occur at different times. The traffic engineer and director may approve shared parking facilities for uses with different peak business periods if the shared parking complies with all of the following standards:

a. ***Shared Parking Study***

The applicant shall submit a shared parking study to the director that demonstrates the feasibility of shared parking. The study shall be provided in a form established by the traffic engineer and shall be made available to the public. The study shall demonstrate that any parking reduction requested will not result in the spillover of parking onto other properties or public streets, by, at a minimum, addressing the following: the size and type of the proposed development, location of required parking, the composition of tenants, the anticipated rate of parking turnover, and the anticipated peak parking and traffic loads for all uses that will be sharing off-street parking spaces.

b. ***Calculation of Parking Spaces Required***

The shared parking study shall follow one of the following procedures:

i. The method under subsection 16.c.;

ii. The most current published procedures of the Urban Land Institute or the Institute of Transportation Engineers; or

iii. Other procedures as specifically approved by the traffic engineer.

c. ***Alternative Calculation Method***

For each use sharing the parking facility, calculate the number of off-street parking spaces required for that use in table 21.07-5. Multiply that number across the row for its land use in table 21.07-7, *Shared Parking Credit*, to determine the typical parking required for that use during the eight time periods. For each time period, add the resulting products for each of the uses sharing the parking. The column total that generates the highest number of parking spaces then becomes the shared parking requirement. This represents the time period with the highest total parking demand.

TABLE 21.07-7: SHARED PARKING CREDIT

Land Uses[18]	Weekday Time Periods				Weekend Time Periods			
	7 am to 6 pm	6 pm to 1 am	1 am to 3 am	3 am to 7 am	7 am to 6 pm	6 pm to 1 am	1 am to 3 am	3 am to 7 am
Residential	65%	100%	100%	100%	75%	90%	10%	100%
Religious Assembly	25%	50%	0%	0%	100%	50%	0%	0%
Health Services	100%	30%	5%	5%	100%	0%	0%	0%

TABLE 21.07-7: SHARED PARKING CREDIT								
Land Uses[18]	**Weekday Time Periods**				**Weekend Time Periods**			
	7 am to 6 pm	6 pm to 1 am	1 am to 3 am	3 am to 7 am	7 am to 6 pm	6 pm to 1 am	1 am to 3 am	3 am to 7 am
Assembly	100%	50%	5%	5%	100%	50%	5%	5%
Fitness Center	90%	100%	60%	60%	100%	100	80%	80%
Movie Theater	60%	100%	0%	0%	80%	100%	0%	0%
Bar or Nightclub	40%	100%	90%	0%	50%	100%	90%	0%
Restaurant	80%	100%	50%	50%	85%	100%	25%	25%
Restaurant - Fast Food	100%	90%	15%	15%	100%	80%	15%	15%
Office or Financial	100%	10%	0%	5%	15%	0%	0%	0%
Retail Sales / Services	100%	80%	0%	0%	100%	60%	0%	0%
Visitor Accommodations	75%	100%	100%	100%	75%	100%	100%	100%

NOTES: [18] If one or more of the land uses proposed to make use of shared parking facilities do not conform to the land use classifications in this table, as determined by the director, then the applicant shall submit sufficient data to indicate the periods of peak parking demand for the uses. Based on this information, the traffic engineer shall determine the appropriate shared parking requirement.

d. ***Distance to Parking Spaces***

Shared parking spaces for residential units shall be located within 500 feet of the dwelling unit entrance they serve. Shared spaces for other uses shall be within 800 feet of a primary entrance of the uses served. The traffic engineer and the director may approve a portion of shared parking spaces at a greater distance based on factors such as the pedestrian environment, availability of attendant parking, weather protection, and the type of use served.

e. ***Pedestrian Connection***

Clear and safe pedestrian walkways shall connect the shared parking facility and the primary entrances of the uses it serves. The traffic engineer may require pedestrian street crossing improvements.

f. ***Separation by Streets***

Separation of a use and its shared parking facility by a local street is allowed. Separation by a collector street shall be subject to approval by the traffic engineer. Separation by a street designated in the *Official Streets and Highways Plan* as a higher classification street than a collector is prohibited.

g. ***Residential Neighborhoods***

A nonresidential use shall not participate in a shared parking facility that is located in a residential district, if the use itself is not permitted in the residential district.

h. ***Instructional Signs***

The shared parking facility shall provide instructional signs on the premises indicating the availability of the facility for patrons of the uses it serves.

i. ***Shared Parking Plan***
A shared parking plan shall be submitted for review and approval by the traffic engineer and the director. The shared parking plan may be combined with other parking plans required by this title.

j. ***Changes in Use or Shared Parking Facility***
Any subsequent change to the shared parking facility or in use type shall require a review by the department and the traffic engineer for compliance with this section, including proof that sufficient parking will be available. Any change shall be approved prior to being implemented.

k. ***Expiration***
Notwithstanding F.1.a. above, a shared parking agreement may be recorded for a time certain period, not to be less than ten years. At the end of the life of the agreement, property owners who are parties to the agreement shall comply with all provisions of this code governing the required number of off-street parking spaces.

17. Off-Site Parking
The traffic engineer and the director may approve the location of required parking spaces on a separate lot from the principal use if the off-site parking complies with all of the following standards:

a. ***Accessible Parking Spaces***
Required accessible parking spaces shall not be located off-site.

b. ***Location***
The maximum distance between off-site parking spaces and the use(s) served shall be the same as provided in subsection 21.07.090F.16.d. for sharing parking spaces (measured along the shortest legal pedestrian route). Off-site parking spaces shall not be separated from the use served by a collector or greater class right-of-way, unless approved by the traffic engineer.

c. ***Pedestrian Connection***
Clear and safe pedestrian walkways shall connect the off-site parking facility and the primary entrance(s) of the uses served. The traffic engineer may require sidewalk or pedestrian crossing improvements to enhance pedestrian safety or mobility to and from the off-site parking.

d. ***Instructional Signs***
Instructional signs shall be posted on the principal site providing notice of the availability and location of additional parking. The off-site parking facility shall provide instructional signs indicating the availability of the facility for patrons of the uses it serves.

e. ***Residential Neighborhoods***
A nonresidential use shall not participate in an off-site parking facility that is located in a residential district, if the use itself is not permitted in the residential district.

18. District Parking
The traffic engineer may reduce the minimum number of required off-street parking spaces for uses within the boundaries of a municipally recognized public parking district

that provides off-site parking facilities to serve an area. To determine eligibility for this reduction or the size of the reduction to be allowed, the traffic engineer shall consider factors such as:

a. Peak hours of use and turnover rate;

b. The ability of the use to meet the parking requirement through other means;

c. The availability of spaces in the nearby district parking facility;

d. The relative distance to the use from the district parking facility; and

e. Measures provided by the applicant to ensure employee and patron use of the district parking facility, and ease and safety of pedestrian access.

19. On-Street Curb Parking

If approved by the traffic engineer, on-street curb parking spaces in the street or right-of-way abutting the frontage of the site may be counted toward the minimum required number of off-street parking spaces. In addition, as determined by the traffic engineer, a portion of the remaining on-street curb parking spaces located within the maximum distance provided in subsection 21.07.090F.16.d. for shared parking spaces may be counted toward the minimum required off-street parking spaces, in an amount consistent with a fair apportionment of on-street curb parking spaces among the properties on the street. Upon approval, each on-street curb space may be substituted for one required off-street space. The provisions apply only to street frontages where on-street curb parking is allowed. Determination of the location and dimensions of on-street curb parking spaces to be counted toward the parking requirement shall be the authority of the traffic engineer based on a review of the situation. The street curb next to on-street parking spaces shall be a vertical curb (not a rolled curb), and a sidewalk shall extend the full length of the subject property.

20. Stacked and Tandem Parking

a. ***Nonresidential Uses***

Stacked and tandem parking spaces for nonresidential uses are allowed to count toward the minimum number of required spaces if the owner ensures through the parking agreement that attendant parking is provided for such spaces. An accessible passenger loading zone shall be provided with attendant parking services at or near a primary entrance. Availability of this service shall be conspicuously posted inside and outside the primary entrance. The traffic engineer may waive the parking attendant requirement for automated parking structures.

b. ***Residential Uses***

Two required parking spaces for any residential dwelling may be arranged in tandem or stacked one above the other using a car stacker, so long as parking required for the dwelling unit is arranged independently from parking serving any other dwelling unit, with unobstructed vehicle access for at least one of the spaces required for each dwelling unit, and the owner assigns the two spaces toward the same dwelling and enforces their assigned use.

21. Smaller Parking Spaces for Parking Structures and Low-Turnover Uses

If approved by the traffic engineer, up to 20 percent of the total number of required parking spaces located in a parking structure and/or designated for employee or resident

parking only may be eight feet six inches wide, subject to the requirements of table 21.07-9, *Parking Space and Aisle Dimensions*. Such spaces shall be signed for employee or resident parking only.

22. Bicycle Parking

A use is eligible to permanently or seasonally substitute bicycle parking spaces for required automobile parking spaces. Each automobile parking space shall be replaced by a minimum of six bicycle parking spaces not required by this title. Bicycle parking spaces shall comply with the standards of subsection 21.07.060F.15. and be separated from motor vehicle areas by bollards or other physical buffer approved by the traffic engineer.

23. Other Eligible Reductions or Alternatives

The traffic engineer and the director may approve any parking reduction or other alternative in addition to the choices above, or that increases the percentage reduction in any of the choices above, if the applicant demonstrates to the satisfaction of the traffic engineer and the director that the proposed parking management strategy will protect surrounding neighborhoods, and maintain traffic circulation patterns at least the same extent as would strict compliance with otherwise applicable off-street parking standards. Additional parking management strategies may include, for example, transportation demand programs, car sharing, unbundled parking, or a combination of strategies. The applicant shall provide a parking demand study prepared in a form and manner prescribed by the traffic engineer that demonstrates a reduction is appropriate based on the expected parking needs of the development, availability of transit, and similar factors. It shall be determined that:

a. The use will be adequately served by the proposed parking due to project location, transportation characteristics of the persons residing, working, or visiting the site, or because the applicant has undertaken a program or strategy that will reduce parking demand at the site; and

b. Parking demand generated by the project will not exceed the capacity of or have a detrimental impact on the supply of on-street parking in the surrounding area.

G. Off-Street Loading Requirements

No building or structure used for any use specified in the loading column of table 21.07-5 shall be erected, nor shall any such existing building or structure be altered so as to increase its gross floor area by 25 percent or more, without prior provision for off-street loading berth in conformance with the following minimum requirements:

1. Types of Loading Berths

Required off-street loading shall be provided in berths that conform to the following minimum specifications:

a. Type A berths shall be at least 60 feet long by 10 feet wide by 14 feet six inches high, inside dimensions.

b. Type B berths shall be at least 30 feet long by 10 feet wide by 14 feet six inches high, inside dimensions.

c. Type C berths shall be located in the rear of a lot and utilize part of an adjacent alley. The building setback shall be a minimum of five feet from the property line along the alley for the entire width of the lot.

2. Number of Spaces

The following numbers and types of berths shall be provided for the specified uses in table 21.07-8, *Off-Street Loading Berths*; provided, however, that, in any DT district, or in any mixed-use district where an alley is available that is not shared with any adjacent R-1, R-1A, R-2A, R-2D, R-2F, R-2M, or R-3 zoned residential lot, one type C berth may be substituted for one type B berth. The uses specified in this subsection shall include all structures designed, intended, or arranged for such use.

TABLE 21.07-8: OFF-STREET LOADING BERTHS

Use	Aggregate Gross Floor Area (square feet) or Number of Dwelling Units	Berths Required	Type
Residential Uses			
Multifamily and mixed-use dwellings	50-149 dwelling units	1	B
	150-249 dwelling units	2	B
	Each additional 100 dwelling units or portion thereof	1 additional	B
Public/Institutional Uses			
Cultural facilities	24,000--50,000	1	B
	50,001--100,000	2	B
	Over 100,000, each additional 50,000 or fraction thereof	1 additional	B
Educational facilities	Over 25,000	1	B
Health care facilities	25,000--100,000	1	B
	Over 100,000	2	B
Railroad freight terminals and other transportation facilities	12,000--36,000	1	A
	36,001--60,000	2	A
	60,001--100,000	3	A
	Each additional 50,000 or fraction thereof	1 additional	A
Commercial Uses			
Assembly uses	25,000--150,000	1	B
	150,001--400,000	2	B
	Each additional 250,000 or fraction thereof	1 additional	B
All commercial establishments not otherwise specified	10,000 --24,000	1	B
	24,001--50,000	2	B
	50,001--100,000	3	B
	Over 100,000, each additional 50,000 or fraction thereof	1 additional	B

TABLE 21.07-8: OFF-STREET LOADING BERTHS			
Use	**Aggregate Gross Floor Area (square feet) or Number of Dwelling Units**	**Berths Required**	**Type**
Visitor accommodations, health services, and office uses	25,000--40,000	1	B
	40,001--100,000	2	B
	Each additional 100,000 or fraction thereof	1 additional	B
Industrial Uses			
All industrial uses	12,000--36,000	1	A
	36,001--60,000	2	A
	60,001--100,000	3	A
	Each additional 50,000 or fraction thereof	1 additional	A

3. Uses Not Specifically Mentioned

In the case of a use not specifically mentioned in this section, the requirements for off-street loading berths shall be the same as the use mentioned in this section which, in the opinion of the director, is most similar to the use not specifically mentioned.

4. Concurrent Different Uses

When any proposed structure will be used concurrently for different purposes, the loading requirements shall be the total requirements for each use based upon its aggregate gross floor area, unless otherwise approved by the traffic engineer and the director.

5. Location of Off-Street Loading Facilities

Off-street loading facilities required under this title shall be in all cases on the same lot or parcel of land as the structure they are intended to serve, except as provided in subsection 21.07.090G.1.c. for type C loading berths. Where parking facilities are not allowed between a building and a street, loading berths are also not allowed.

6. Manner of Using Loading Areas

No loading berth shall be so located that a parked vehicle or tractor-trailer using such loading berth projects into anystreet or across a required pedestrian facility or sidewalk. Loading berths shall be provided with access to an alley, or, if no alley abuts the lot, with access to a street. Any required front, side, or rear setback may be used for loading unless otherwise prohibited by this title. Design and location of entrances and exits for required off-street loading berths shall be subject to the approval of the traffic engineer.

7. Signs

The owners of the property shall provide, locate, and maintain loading signs as specified by the traffic engineer. Such signs shall not be counted against allowed advertising sign area or number.

H. Parking and Loading Facility Design Standards

1. Purpose

The parking and loading facility design standards promote vehicle areas which are safe, efficient, convenient, and attractive for motorists and pedestrians. Parking facility locations within a site are encouraged to be located elsewhere than the front area between the building and its street frontage, in order to enhance the function, character,

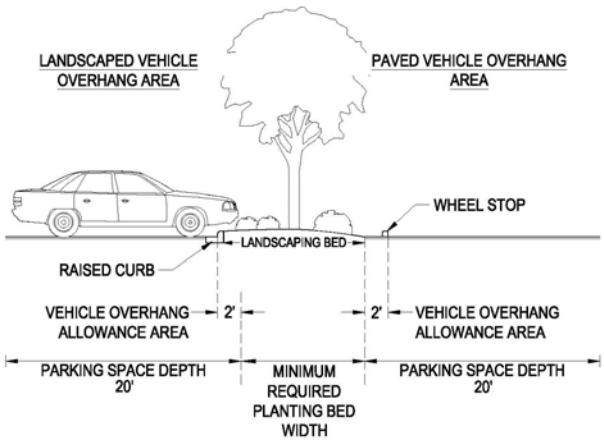
and walkability of the area. These design standards also enhance the compatibility of parking and loading facilities with their surroundings.

2. Applicability

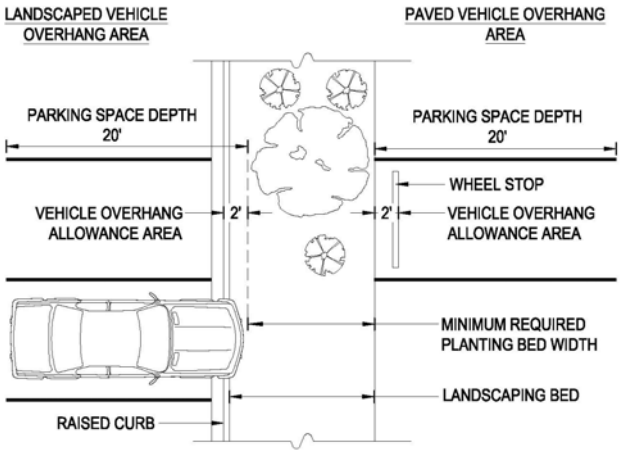
These standards apply to any parking facility or loading facility including all parking spaces in a development, except where stated otherwise. A temporary parking lot shall comply with all applicable development requirements of this title for surface parking lots and parking lot landscaping, except when associated with another temporary use permitted pursuant to section 21.05.080.

3. Landscaping and Screening

Parking and loading facilities shall comply with the landscaping provisions of section 21.07.080. If the loading facilities are adjacent to the lot line, a maximum of 35 percent of one sode of the loading area perimeter landscaping and the site perimeter landscaping may be replaced by a screening fence of a minimum height of six feet. That area for the proposed screening fencing shall only be located where adjacent to a loading area and/or dumpster screening area, and shall not be located adjacent to a residentially zoned parcel or a street. Provisions for location and screening of refuse containers and other elements are in section 21.07.080. No automobile or bicycle parking facility or loading facility shall be permitted in any required landscaping area. No vehicle overhang allowance area, as measured in table 21.07-9, may extend into the minimum required planting bed width of required landscaping. See figures that follow.



VEHICLE OVERHANG AND REQUIRED LANDSCAPING
SECTION VIEW (90° ANGLE PARKING SPACE)



VEHICLE OVERHANG AND REQUIRED LANDSCAPING
PLAN VIEW (90° ANGLE PARKING SPACE)

4. Drainage and Storm Water Management

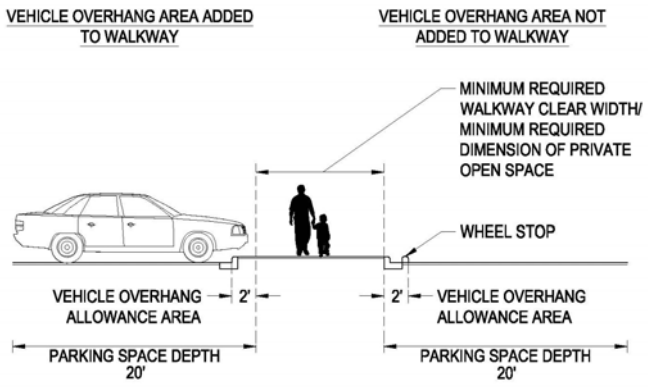
Parking and loading facilities shall comply with the parking and loading related provisions of section 21.07.040, *Drainage, Storm Water Treatment, Erosion Control, and Prohibited Discharges*.

5. Exterior Lighting

Parking and loading areas shall comply with the exterior lighting provisions of section 21.07.100.

6. Pedestrian Access and Circulation

Parking and loading facilities shall comply with the provisions of subsection 21.07.060E., *Pedestrian Facilities*. No vehicle overhang allowance area, as measured in table 21.07-9, may extend into the minimum required dimension of required walkways, pedestrian areas, or private open space. See figure that follows.



VEHICLE OVERHANG AND REQUIRED PEDESTRIAN FACILITIES

7. Relationship to Buildings

a. *Nonresidential Buildings*

Parking spaces and parking aisles shall be separated from any nonresidential building by a walkway or site enhancement landscaping planting area, or both, of at least four feet in width. Other motor vehicle areas shall also be subject to this requirement only where the traffic engineer determines it necessary for a safe pedestrian walkway route between a building entrance or parking areas. Otherwise, loading berths, rear service areas, motor vehicle entrance and service bays, queuing lanes, and drive-throughs are exempt.

b. *Multifamily Residential Buildings*

Parking spaces, driveways, and circulation aisles shall be separated from any multifamily residential building façade by a site enhancement landscaping planting area of at least five feet in width, and allowing breaks for garage entrances. The area shall be planted with a minimum of 0.4 units of landscaping material per linear foot.

8. Location of Parking Lots within the Site

The location of parking and vehicle areas within the proposed development site shall be in accordance with the following standards for each use specified, except when an alternate configuration is approved by the traffic engineer and the director.

a. *Single-Family, Two-Family, and Townhouse Dwellings*

Single-family, two-family, townhouse, multifamily, and mixed-use dwellings shall comply with parking, driveway, and garage related provisions of section 21.07.110.

b. *Development in Mixed-Use Districts*

Vehicle areas are not allowed between the street and the portion of the building that complies with any of the maximum street setbacks established in section 21.06.020, *Dimensional Standards Tables*.

9. Vehicular Access and Circulation

Parking lots and structures shall be designed for a safe and orderly flow of traffic throughout the site, as provided in the subsections that follow.

a. *Key Elements*

The parking facility layout, circulation, and design plan shall address the following elements as they relate to parking lots, including but not limited to: fire lanes, emergency access, drive-throughs, queuing spaces, passenger loading zones, pedestrian circulation, and loading berths.

b. *Circulation Patterns*

Internal circulation patterns and the location and traffic direction of all circulation aisles, driveways, and queuing lanes shall be designed and maintained in accordance with the municipal driveway standards currently established by the traffic engineer, and with accepted principles of traffic engineering and safety, per the traffic engineer's review based on the current manuals of the Institute of Transportation Engineers and the Urban Land Institute, and the *Manual of Uniform Traffic Control Devices* or the successor documents. Circulation patterns within parking facilities shall be well defined with pavement marking and signage, vertical curbs, landscaping, landscaped islands, and/or other similar features. In order to define circulation and provide better sight distance, curbed end islands shall be required at the end of each row of parking spaces. Where

loading facilities are required, commercial truck circulation shall be considered, and truck turning radii shall be shown on the parking facility layout, circulation, and design plan when required by the traffic engineer.

c. ***Parking Spaces Along Major Site Entrance Drives***
The provision, location, design, and dimensions of parking spaces on a major access driveway that serves as an entry or exit for a large establishment with multiple lots, tracts, or businesses, shall conform to municipal standards for on-street parking and be subject to review and approval by the traffic engineer.

d. ***Parking Area Entries/Driveways***
Entries and driveways providing access to parking areas shall conform to the municipal driveway standards currently established by the traffic engineer. Access to roads owned by the state of Alaska requires department of transportation and public facilities approval and a current valid state of Alaska driveway permit. Ingress and egress to parking facilities shall be designed to maintain adequate sight distance and safety and as prescribed in the municipal driveway standards. Residential driveway entrances shall comply with subsection 21.07.110H.3., *Driveway Width*.

e. ***Parking and Maneuvering***
All circulation aisles, driveways, and vehicle maneuvering areas required by this section shall be located entirely off-street and on the property unless specifically provided otherwise by this section.

i. *Access to Parking Spaces*
To ensure safe and efficient vehicular access to parking spaces, each required off-street parking space shall open directly on a parking aisle or driveway of such width and design as provided in table 21.07-9 and the illustrations that follow the table. Adequate ingress and egress to each parking space shall be provided without backing more than 25 feet.

ii. *Maneuvering Area*
Off-street parking facilities shall be designed with sufficient maneuvering room so that all maneuvers associated with the parking shall occur in the off-street parking facility, and that all vehicles enter the abutting street in a forward motion.

iii. *Single- and Two-Family Dwellings Exempted*
Single- and two-family dwellings and townhouses shall be exempted from this subsection.

iv. *Loading Berth Maneuvering*
Vehicle maneuvering for loading berths shall be subject to the requirements of subsection 21.07.090G.6., *Manner of Using Loading Areas*.

f. ***Dead-End Parking Aisles***
Dead-end parking aisles may be allowed only with the approval of the traffic engineer.

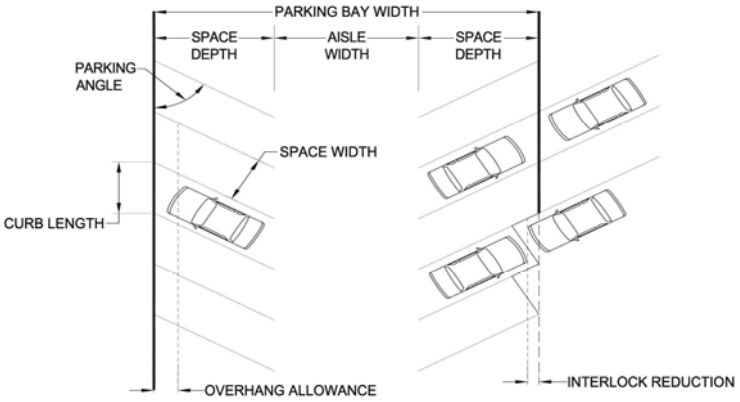
g. ***Alleys***
Subject to safety approval by the traffic engineer, the usable portion of an alley may be credited as circulation and/or parking aisle space.

h. ***Cross Access and Joint Access with Adjacent Sites***
The plan shall show existing parking and circulation patterns on adjacent properties and potential connections. Required parking areas serving a site, whether located on that same lot or on an adjacent lot, may be connected by means of a common access driveway within or between the interior of such lots. Applicants are encouraged to provide shared vehicle and pedestrian access to adjacent properties for convenience, safety, and efficient circulation. An access easement shall be provided on the plat, or a shared access agreement running with the land shall be recorded by the municipality, as approved and executed by the director, guaranteeing the continued availability of the shared access between the properties.

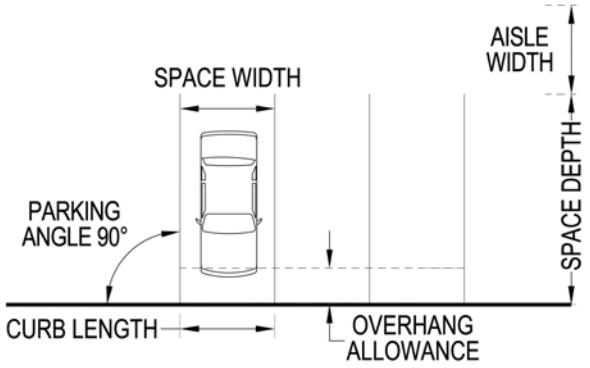
10. Dimensions of Parking Spaces and Aisles
The minimum dimensions for parking spaces and parking aisles shall be as provided in table 21.07-9, and calculated as depicted in the figures that follow the table. The minimum parking space width shall be 9'0" except as provided elsewhere in this section. The parking configuration stated in the following table and figures shall apply to all off-street parking, except as stated elsewhere in this section.

TABLE 21.07-9 PARKING ANGLE, STALL, AND AISLE DIMENSIONS

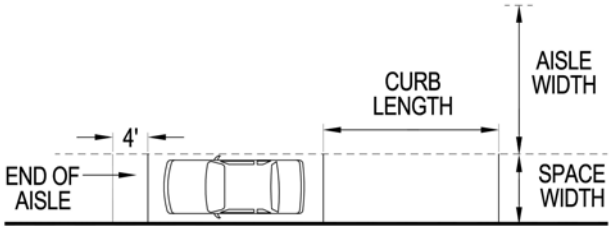
Parking Angle	Space Width	Curb Length (Width Projection)	Space Depth (Vehicle Projection)	Aisle Width 1-way	Aisle Width 2-way	Typical Parking Bay Width (Module)	Interlock Reduction	Over-hang Allowance
0 (parallel)	8' 6"	23' 0"	8' 6"	12' 6"	24	41' 0"	0' 0"	0' 0"
	9' 0"	23' 0"	9' 0"	12' 0"	24	42' 0"	0' 0"	
	9' 6"	23' 0"	9' 6"	12' 0"	24	43' 0"	0' 0"	
	10' 0"	23' 0"	10' 0"	12' 0"	24	44' 0"	0' 0"	
45	8' 6"	12' 0"	18' 9"	12' 6"	24	61' 6"	3' 0"	1' 5"
	9' 0"	12' 9"	20' 6"	12' 0"	24	65' 0"	3' 2"	
	9' 6"	13' 5"	20' 10"	12' 0"	24	65' 9"	3' 4"	
	10' 0"	14' 2"	21' 3"	12' 0"	24	66' 5"	3' 6"	
60	8' 6"	9' 10"	19' 10"	18' 6"	24	63' 8"	2' 2"	1' 8"
	9' 0"	10' 5"	21' 10"	18' 0"	24	67' 8"	2' 3"	
	9' 6"	10' 12"	22' 1"	18' 0"	24	68' 2"	2' 5"	
	10' 0"	11' 7"	22' 4"	18' 0"	24	68' 8"	2' 6"	
75	8' 6"	8' 10"	19' 7"	19' 6"	24	63' 2"	1' 1"	1' 11"
	9' 0"	9' 4"	21' 8"	19' 0"	24	67' 4"	1' 2"	
	9' 6"	9' 10"	21' 9"	18' 6"	24	67' 7"	1' 3"	
	10' 0"	10' 4"	21' 11"	18' 0"	24	67' 10"	1' 5"	
90	8' 6"	8' 6"	18' 0"	23' 6"	24	60' 0"	0' 0"	2' 0"
	9' 0"	9' 0"	20' 0"	23' 0"	24	64' 0"	0' 0"	
	9' 6"	9' 6"	20' 0"	22' 0"	24	64' 0"	0' 0"	
	10' 0"	10' 0"	20' 0"	22' 0"	24	64' 0"	0' 0"	



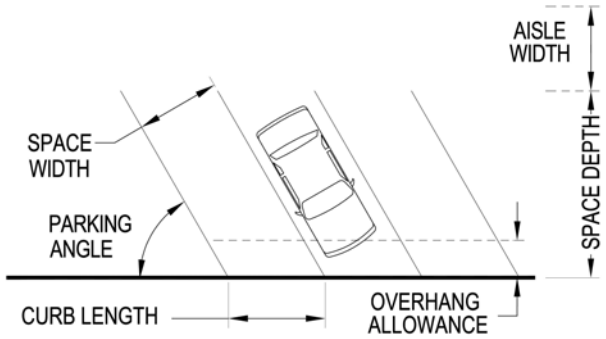
PARKING DIMENSIONS



90° PARKING SPACES



PARALLEL PARKING SPACES



ANGLE PARKING SPACES
(45°, 60° or 75°)

a. ***Parking Angle***

Parking angles between zero and 45 degrees and between 75 and 90 degrees are not permitted, except as approved by the traffic engineer. Angles between 45 and 75 degrees are permitted. The dimensions for such angles shall be calculated by the applicant using a method prescribed by the traffic engineer.

b. ***Parking Aisle Width***

Where the parking angle differs across a one-way parking aisle, the greater required parking aisle width shall be provided.

c. ***Reduction in Parking Space Depth Due to Interlock***

Parking space depth (vehicle projection) may be reduced through the use of interlock between angled parking bays as shown in the parking dimensions figure. The amount of reduction in the parking space depth shall be as provided in the interlock reduction column of table 21.07-9. The parking angle of the abutting parking bays shall be equal in order to use the interlock reduction.

d. ***Overhang Allowance with a Parking Space***

The maximum overhang allowance shall be as shown in table 21.07-9 and the figures that follow it. The distance between the end of the parking space and the face of any raised curb or wheel stop used in the parking space shall be equal to (no greater or less than) the overhang allowance provided in table 21.07-9. The relationship between the overhang allowance and adjacent required landscaping and pedestrian facilities is established in subsections 21.07.090H.3. and H.6. Surfacing options for the overhang allowance area of the parking space are provided in subsection 21.07.090H.14.d., *Paving*.

e. ***Parking Spaces Abutting a Wall, Fence, or Other Obstruction***

Minimum required parking space dimensions shall be clear of all obstructions, other than wheel and curb stops and structural columns that meet the requirements of subsection 10.f. below. When the length of a parking space abuts a wall, fence, or other obstruction, the required width of the parking space shall be increased by one foot for each side with an obstruction. The parking space angle and dimension requirements shall apply to the inside dimension of a parking space abutting an obstruction.

f. ***Structural Columns***
A structural column may encroach into the width of a parking space by up to one foot if the column is located within four feet of either end of the parking space. Such column shall not be located within one foot of the drive aisle.

g. ***Minimum Vertical Clearance***
A minimum height of 14 feet shall be maintained clear of obstructions from any parking lot surface to any structure or landscape feature above that may interfere with the safe passage of vehicles. The minimum vertical clearance for a structured parking facility, carport, or garage shall be seven feet four inches, except as follows:

i. The minimum vertical clearance for van accessible parking spaces, access aisles serving them, and vehicle routes to the van accessible spaces shall be eight feet two inches.

ii. The minimum vertical clearance for passenger loading zones including vehicular pull-up spaces, access aisles serving them, and a vehicular route between an entrance and exit and the passenger loading zone shall be nine feet six inches.

h. ***Smaller Parking Spaces for Low Turnover Uses***
Reduced parking space dimensions may be approved by the traffic engineer pursuant to subsection F.22. above.

i. ***Recreational Vehicle Spaces***
Parking spaces for recreational vehicles, if provided and delineated, shall be a minimum of 10 feet wide by 40 feet long.

11. Parking Facility Maintenance

a. Paved surface parking lots with 20 or more spaces shall be cleaned annually including once following spring melt prior to June 1 or as snowmelt conditions permit, in a manner that meets air quality and water quality standards.

b. On-site storm water detention and runoff facilities serving parking facility runoff shall be cleaned and maintained in a functional manner.

c. Grit or oil and water separator devices shall be cleaned and maintained in a functional manner.

12. Maximum Grade of Surface Parking Lots

The maximum grade for any parking space or circulation aisle shall be five percent, except that for accessible spaces the maximum grade shall be two percent, as required by the Americans with Disabilities Act. Circulation aisles that are covered or heated may have an increased maximum grade with the approval of the traffic engineer.

13. Paving

a. ***Material***
Except as provided below, all parking spaces, loading berths, driveways, and other motor vehicle driving surfaces shall be paved and maintained with dustless, all-weather, hard materials appropriate for the municipality's sub-arctic environment, and equal in strength to two inches municipal Type E asphaltic concrete and a base material suitable for the intended traffic, to standards

prescribed by the municipal engineer or as otherwise approved by the municipal engineer.

b. ***Exceptions for Small Parking Lots in Class B Districts***
Parking lots of 10 spaces or fewer in class B districts may instead be surfaced with a layer of crushed rock of no more than one inch in diameter, to a minimum depth of three inches.

c. ***Exceptions for Some Vehicle Storage Areas***
Outdoor vehicle storage areas associated with a self-storage facility use; storage, sales, or rental of heavy equipment; seasonal large vehicle storage; and tractor trailer storage areas not used for loading berths, loading berth maneuvering, access to bay doors, site access, or parking, need not be paved. Such areas are still subject to the drainage requirements of subsection 21.07.040.

d. ***Exceptions for Parks and Open Spaces***
Subject to review and approval by the traffic engineer and municipal engineer, some required parking spaces for parks facilities that are demonstrated to have a highly variable seasonal demand need not be paved.

e. ***Paving Alternatives***
Pervious alternatives to the specified surface may be used, subject to approval by the municipal engineer. All surfacing shall control dust, treat storm water to municipal standards, and be such that rock and other debris is not tracked off-site. If, after construction, the municipal engineer determines that the alternative is not adhering to these requirements, the surface shall be replaced.

f. ***Landscaping in Lieu of Paving***
The vehicle overhang allowance portion of the parking space depth as measured in table 21.07-9 and illustrated in the figures following the table, may be landscaped with a low-growth, hardy plant material in lieu of paving, allowing a bumper overhang while maintaining the required parking dimensions. Landscaped overhang allowance areas may be contiguous with required landscaping but shall not be counted toward the minimum required planting bed width.

g. ***Exception for Temporary Parking Lots***
Temporary parking lots associated with another temporary use pursuant to section 21.05.080, need not be paved, unless required by the municipal engineer.

I. Passenger Loading Zones

All institutional, entertainment, and commercial uses such as schools/daycare, stadiums, and theaters that have high-volume peak traffic volumes shall provide an area for drop-offs and pick-ups that meets the following requirements:

1. Passenger Loading Zone
In addition to the required minimum number of parking spaces established in subsection 21.07.090E., the traffic engineer may require one or more passenger loading zone spaces, depending on the type, intensity, and traffic patterns of the proposed use. The passenger loading zone for large commercial establishments or other intensive uses may be required by the traffic engineer to include one or more spaces dedicated to taxi cabs and/or other specialized high occupancy vehicles.

2. Passenger Loading Zone Dimensions

Any passenger loading zone that is provided for a development shall consist of one or more passenger drop-off/pick-up spaces parallel to the driveway or circulation aisle adjacent to the building. Each space shall be a minimum of 20 feet in length and eight or more feet in width, with an access aisle at least five feet wide abutting the full length of the space. As an alternative, subject to approval of the traffic engineer, a passenger loading zone may consist of one or more parking spaces that meets the accessible parking space dimensional standards of subsection 21.07.090J.7.

3. Plan

The parking facility layout, circulation, and design plan shall show the location and design of proposed passenger loading zones. For certain intensive uses, the traffic engineer may require the plan to include a traffic control plan addressing projected usage, hours of operation, peak loading/unloading time, plans for directing traffic, safety measures, and other information deemed necessary by the traffic engineer to designing a safe and well-functioning drop-off area.

4. Accessible Route

An accessible pedestrian route to the building or facility entrance shall be provided pursuant to subsection 21.07.090J.8., *Accessible Routes*.

5. Schools

Passenger loading zones shall be required for schools (public or private). Length, location, and design of the passenger loading zones shall be approved by the traffic engineer.

J. Accessible Parking Spaces

1. Required Number of Accessible Parking Spaces

A portion of the total number of parking spaces provided in each parking facility for commercial, industrial, public and institutional, multifamily, and mixed-use residential uses shall be accessible parking spaces. The number of accessible parking spaces shall be determined based on the total number of parking spaces provided, in accordance with table 21.07-10, *Accessible Parking Spaces*, except where otherwise stated in this section.

TABLE 21.07-10: ACCESSIBLE PARKING SPACES

Total Parking Spaces Provided	Total Accessible Spaces Required	Number of Accessible Spaces that shall be Van-Accessible
1 to 25	1	1
26 to 50	2	1
51 to 75	3	1
76 to 100	4	1
101 to 150	5	1
151 to 200	6	1
201 to 300	7	2
301 to 400	8	2
401 to 500	9	2

TABLE 21.07-10: ACCESSIBLE PARKING SPACES		
Total Parking Spaces Provided	**Total Accessible Spaces Required**	**Number of Accessible Spaces that shall be Van-Accessible**
501 to 1000	2 percent of total	1 for every 6 accessible spaces
1001 and over	20 plus 1 for each 100 over 1000	1 for every 6 accessible spaces

2. Passenger Loading Zones Attendant Parking

If passenger loading zones are provided, then at least one passenger loading zone shall be an accessible passenger loading zone. The requirements of table 21.07-10 do not apply to attendant parking spaces.

3. Multifamily and Mixed-use Residential

Two percent, but not less than one space, of the parking spaces provided for a multifamily or mixed-use residential development with type A and type B dwelling units as defined in AMC title 23 shall be accessible.

4. Medical Facilities

At least 10 percent of patient and visitor parking spaces provided to serve hospital outpatient facilities shall be accessible. At least 20 percent of patient and visitor parking spaces provided to serve rehabilitation facilities and outpatient physical therapy facilities shall be accessible.

5. Location

Accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible primary entrance. The accessible route of travel shall not pass behind parking spaces. In parking facilities that do not serve a particular building, accessible parking spaces shall be located on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility. In buildings with multiple accessible primary entrances with adjacent parking, accessible parking spaces shall be dispersed and located closest to the accessible entrances.

6. Location—Exceptions

In multilevel parking structures, van accessible parking spaces are permitted to be located on one level. Accessible parking spaces shall be permitted to be located in different parking facilities if it is demonstrated to the traffic engineer that substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance(s), parking fee, and user convenience.

7. Dimensions

Car accessible spaces shall be at least eight feet wide with an access aisle at least five feet wide abutting the space. Van accessible spaces shall be at least eight feet four inches wide with an abutting access aisle at least eight feet in width. Accessible parking space access aisles shall be part of an accessible walkway route to the building or facility entrance as specified in subsection J.8. below, *Accessible Routes*. Two accessible parking spaces may share a common access aisle. Accessible parking spaces and access aisles shall have surface slopes not exceeding two percent in all directions.

8. Accessible Routes

a. ***Location***

At least one accessible route to the building or facility entrance shall be provided from accessible parking and passenger loading zones.

b. ***Surface Textures***

Ground surfaces along accessible routes shall be stable, firm, and slip-resistant.

c. ***Changes in Levels***

Changes in level up to one-fourth inch may be vertical and without edge treatment. Changes in level between one-fourth inch and one-half inch shall be beveled with a slope no greater than one to two. Changes in level greater than one-half inch shall be accomplished by means of a ramp.

d. ***Gratings***

If gratings are located in walking surfaces on an accessible route, then they shall have spaces no greater than one-half inch wide in one direction. If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

e. ***Ramps***

ADA ramps cannot protrude into the ADA access aisle. Ramp details shall be included on the plans.

9. Signs and Striping

Each accessible parking space shall be designated as reserved by pavement markings and a sign showing the symbol of accessibility. Van-accessible spaces shall have an additional sign reading "Van-Accessible" mounted below the symbol of accessibility.

a. Signs shall be located so that they do not obstruct the ramps or other pedestrian access.

b. An accessible-parking sign detail shall be included in the plan submittal per M.A.S.S.

c. All accessible spaces and aisles shall be striped with blue paint to color specifications prescribed by the *Manual of Uniform Traffic Control Devices*, including the total length of the curb encompassing the accessible parking space and accessible aisle.

10. Implementation of ADA

Regulations may be promulgated under section 21.03.210, *Title 21–Text Amendments,* to implement the requirements of Americans with Disabilities Act of 1991 as it may be amended or interpreted by federal regulation.

11. Standards for Parking as Principal Use

Where a parking structure or lot is a permitted principal or conditional use and is not providing required parking for another principal use, accessible parking spaces in accordance with this section shall be provided.

K. Bicycle Parking Spaces

All nonresidential, multifamily, and mixed-use dwelling developments with more than 40 parking spaces required in table 21.07-5 shall provide at least four bicycle parking spaces, or a number of

bicycle parking spaces equal to three percent of the number of required automobile parking spaces, whichever is greater.

L. Vehicle Queuing Spaces

The vehicle queuing space requirements of this section shall apply unless otherwise expressly approved by the traffic engineer:

1. General

Uses of land and structures requiring vehicles and customers waiting in vehicles for service at drive-through facilities, pump stations, auto service bays, or similar uses, shall provide sufficient queuing spaces within the site to avoid impeding traffic movement in the public right-of-way. Such uses shall demonstrate to the traffic engineer that sufficient in-line waiting spaces are provided on-site as part of the parking plan to ensure the queue does not extend into the adjacent street, and that queuing minimizes interference with parking facility circulation aisles.

2. Minimum Number of Queuing Spaces Leading to Service Window

In addition to the minimum number of required off-street parking spaces, any use listed in table 21.07-11, *Vehicle Queuing Spaces*, shall provide the number of on-site queuing spaces indicated in the table for each service window. The required number of queuing spaces does not include the vehicle space to be provided at the pick-up window, teller machine, or other station where the service occurs.

TABLE 21.07-11: VEHICLE QUEUING SPACES

Activity Type	Minimum Queuing Spaces
Financial institution teller lane	4 in advance of teller or window
Automated teller machine drive-through	3 in advance of teller machine
Restaurant drive-through	With no ordering board/window, 4 before pick-up window; with ordering board/window, 4 in advance of ordering board plus 4 between ordering board or window and pick-up window
Car wash bay, automatic	5 in advance of entrance to car wash bay
Car wash bay or stall, self-service	2 in advance of entrance to car wash bay or stall
Food and beverage kiosk	3 in advance of pick-up Window
Fueling station pump island	2 at each end of pump island lane
Security gate entrance for self storage or vehicle storage facility	The queuing lane in advance of the security gate shall measure a minimum of 50 feet in length and 24 feet in width. The width of the self-storage security gate is excluded.
Parking garage or structure	See subsection 21.07.090M., *Structured Parking*
School	See subsection 21.07.090I., *Passenger Loading Zones*
Other use with lane of vehicle queuing spaces	Determined by traffic engineer.

3. Queuing Lanes Leaving the Use

Queuing lanes shall be integrated with the on-site circulation and shall merge with the circulation aisle instead of exiting directly into a public right-of-way, except where the traffic engineer approves otherwise. The queuing lane may merge directly into a driveway, subject to approval by the traffic engineer. A minimum of 30 feet of queuing

lane shall be required between the service window, bay, or station, and the point of vehicle egress to the adjacent parking facility circulation aisle, street, or right-of-way, however the traffic engineer may require more. The length and design of the queuing lane leaving a car wash bay or stall shall ensure the water and ice from vehicles do not adversely affect adjacent streets, storm drainage systems, or the safe circulation of vehicles and pedestrians.

4. Queuing Dimensions

Queuing lanes shall have a minimum width of 10 feet along straight portions and 12 feet along curved segments. Queuing spaces shall have a minimum length of 20 feet.

5. Traffic Circulation Conflicts

Queuing spaces shall not interfere with on- or off-site traffic movements or movements into or out of off-street parking and loading areas.

6. Delineation

Queuing spaces shall be delineated from other queuing lanes, driveways, internal circulation and parking aisles, loading areas, and refuse collection areas by striping, curbing, landscaping, alternative paving materials, or raised medians. Walk-in customer crosswalks across queuing lanes shall be avoided to the extent reasonably feasible and permitted upon approval by the traffic engineer. If approved, such crosswalks shall provide mitigation such as warning signage aimed at both the pedestrian and vehicle.

7. Exceptions

The traffic engineer may approve a reduction in the number of required queuing spaces or other departure from the queuing space requirements if documentation prepared by a traffic engineering professional demonstrates to the satisfaction of the traffic engineer that the change is appropriate and consistent with the intent of the requirements. The applicant shall enter into an agreement with the municipality which is recorded, runs with the use of the land, and ensures continuation of the alternative strategy and the future implementation of contingency measures if ordered by the traffic engineer.

M. Structured Parking

1. Purpose and Applicability

Parking structures and structured parking within occupied buildings shall comply with the provisions of this subsection, in order to be compatible with the architectural character and quality of adjacent buildings; avoid adverse impacts to abutting sidewalks or residential properties; use color, massing, and other architectural features to reduce apparent bulk; and screen potential visual impacts from garage lighting or parked vehicles. It is also the intent of this section to ensure safe and convenient vehicle access and parking, and to avoid impeding traffic on adjacent streets and pedestrian facilities. The requirements which follow do not apply to garages for individual dwellings.

2. Ground Floor Use

In the CMU, RMU, R-4, and R-4A districts along streets that have been specifically designated in the comprehensive plan as a main street, transit street, mixed-use street, or with a similar street typology, ground-floor structured parking shall be enclosed along that street frontage by a first-story habitable space that:

a. Has a minimum depth of 25 feet;

b. Extends the full length of the building elevation facing the designated street, excluding pedestrian and vehicle entrances and exits, stairwells, elevators, and centralized payment booths;

c. Is designed and used for residential, public/institutional, office, retail, or other commercial use; and

d. Includes ground floor windows providing visual access and/or primary entrances that comprise at least 25 percent of the ground level wall area.

3. Façade Treatment

The street-facing façade of a parking structure shall have a repeating pattern that includes no less than three instances of either (1) color change, (2) texture change, (3) material module change, or (4) expression of an architectural or structural bay through a change in plane no less than 12 inches in width, such as an offset, reveal, or projecting rib. At least one of these elements shall repeat at an interval of not more than 30 feet. The director may approve an alternative design to this standard if the applicant can demonstrate an alternative building design that significantly articulates a wall plane.

4. Screening

Ground level structured parking within a building shall be screened by a wall or façade or other architectural treatment consistent with the rest of the building in terms of style, detail, and materials. The perimeter of each parking structure floor above ground level shall have an opaque screen or other screening mechanism to shield vehicle headlights from public view. The screen shall be at least 3.5 feet high measured from the finished floor elevation. An architectural treatment, such as a finished fascia, shall be provided to shield any unfinished structural elements such as electrical elements, exposed metal beams, and mechanical appurtenances. Lights visible from the exterior of the structure shall be covered or screened with a diffusing lens and oriented to minimize the visual impact on adjacent streets and properties.

5. Landscaping

The perimeter of a parking structure shall be planted with L1 edge treatment landscaping in any downtown or mixed-use district, or with L2 visual enhancement landscaping in any other district, except at points of vehicular and pedestrian entrance and exit, where the structure abuts an alley right-of-way, where the structure directly abuts another building, or where there is a ground floor use that meets the standards of subsection M.2. above.

6. Ingress and Egress

a. Non-automated parking structures designed to provide more than 500 parking spaces shall have at least two vehicle entrance driveways and two vehicle exit driveways.

b. Vehicle entrance driveways shall provide a minimum of one queuing space in addition to the vehicle space at the ticket dispenser or access reader, unless a traffic analysis indicates more queuing is needed. Such queuing space(s) shall meet the standards of subsection 21.07.090L., *Queuing Spaces*.

c. Vehicle exit driveways shall provide a minimum of 30 feet of on-site vehicle queuing that does not interfere with any parking stalls, rights-of-way, access easements, pedestrian facilities, or private streets.

7. Maximum Gradients

The maximum gradient of parking aisles shall be six percent. The grade of non-parking ramps shall be no greater than 12 percent, and shall comply with the requirements of Americans with Disabilities Act of 1991 as it may be amended or interpreted by federal regulation. Where special circumstances warrant, the traffic engineer may approve steeper grades according to accepted engineering practices, subject to special conditions of approval such as an ice-free (heated) ramp surface.

8. Layout and Internal Circulation

The configuration of parking and dimensions within a non-automated parking structure shall be subject to the requirements of table 21.07-9, except that a modified layout and internal circulation pattern may be approved by the traffic engineer when it can be shown that a structure meets the design guidelines of the latest Urban Land Institute, Parking Institute, or Institute of Transportation Engineers manuals.

9. Automated Parking Structures

a. Automated parking structures shall require a traffic analysis and be subject to review and approval by the traffic engineer.

b. Automated parking structures are exempt from the parking stall and aisle dimensions and vertical clearance requirements of this section.

c. Automated parking structures shall be located wholly within an enclosed building and shall not be visible from outside the building or facility.

d. Automated parking structures shall be operated as attendant parking.

21.07.100 EXTERIOR LIGHTING

[RESERVED]