

**ARTICLE 1200
PARKING, LOADING, AND INTERNAL ROADWAYS**

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1200.01 PURPOSE

Proper design of, and access to, parking facilities, loading facilities and internal roadways shall be required in order to protect the public health, safety, and welfare. It is the intent of this section to facilitate adequate parking, loading and internal roadways within all zoning districts by:

- A. Providing ample parking stalls of adequate dimensions with appropriate aisle widths;
- B. Providing an efficient traffic movement pattern with adequate turning radii;
- C. Maintaining a pleasant appearance;
- D. Designing convenient parking locations;
- E. Integrating parking with the character of the development; and
- F. Promoting the functional efficiency of all land uses by requiring off-street parking, loading facilities and internal roadways consistent with modern standards.

1200.02 GENERAL PROVISIONS

- A. The provision and maintenance of required off-street parking, loading and internal roadway facilities are continuing obligations of the property owner. Required parking spaces shall be provided as required and made available for use, or an escrow fund or bond shall be established for providing them before final inspection and approval is completed by the Planning Officer.
- B. In all zoning districts, when a building other than a single-family dwelling, is “substantially expanded” or structurally altered, or a new building is constructed, or the use of an existing building is changed, off-street parking, loading spaces and internal roadways shall be provided according to the requirements set forth in this article or an escrow fund or bond shall be established prior to occupancy.
 - 1. When several uses occupy a single structure or lot, the total required parking shall be the sum of the requirements of the individual uses and further, when a building or use is planned or constructed in such a manner that a choice of parking requirements could be made, the use which requires the greatest number of parking spaces shall govern.
 - 2. When there is a change in the use of a building or parcel of land, the difference between the number of required parking spaces for the new use and the number required for the previous legal use according to this article, even if spaces were not available for the previous use, shall be provided. However, when the increased intensity of a commercial or industrial building requires two (2) or less new spaces, no additional parking spaces shall be required. These two (2) spaces exemption also shall apply in the case of enlargement or structural alteration of a commercial or industrial building. For a building containing both residential and commercial or industrial uses, the portion of the building in each respective type of use shall be considered as if it were a separate building for the purpose of applying this exemption.
 - 3. When an existing structure is “substantially expanded”, additional parking spaces, as required in Section 1200.04, shall be required based on the overall square footage of the structure. “Substantial expansion” shall be indicated in the table below:

When an existing structure is...	A substantial expansion is...
0-1,000 square feet	50% or greater
1,001-10,000 square feet	40% or greater
10,001- 25,000 square feet	30% or greater
25,001-50,000 square feet	20% or greater
50,001 square feet and larger	10% or greater

- C. In all zoning districts, required off-street parking shall be located on the premises intended to be served, unless a special permit for a restricted accessory parking area is obtained from the Board of Zoning Appeals in accordance with appropriate district regulations and the provisions of Article 1100 - Special Permit Uses.
- D. Required parking spaces shall be available for parking of vehicles of residents, customers, and employees and shall not be used for storage of vehicles or materials or for the exclusive parking of vehicles used in conducting the business or use, and shall not be used for selling, repairing, or servicing. Exceptions to this restriction shall include the seasonal sale of Christmas trees and sidewalk sales by existing on-site permitted uses.
- E. No parking shall be permitted in any required front setback, except for a single-family dwelling or a duplex, any of which may have up to two spaces in the front setback. In no case shall more than 60 percent of the front setback be paved. When parking areas are provided on a separate lot, the front setback requirements shall be determined as if applied to a one-story structure within the zoning district where it is located.
- F. In Commercial and Industrial Districts, off-street parking facilities may be provided collectively by two (2) or more establishments in the same building or several buildings. The establishments may be the same use or different uses. The collective parking must be a common area open to all users of all establishments using the collective provision. The spaces provided collectively may be reduced to seventy-five (75) percent of the sum of the requirements computed separately.
- G. A parking plan, drawn to scale, indicating how the off-street parking requirements are to be met, shall accompany an application for a multi-family and non-residential building permit. The plan shall show all elements necessary to indicate that the parking requirement is being fulfilled, and shall include at least the following:
 - 1. Delineation and stall measurements of individual parking spaces; and
 - 2. Circulation area necessary to serve spaces;
 - 3. Access to streets and property to be served;
 - 4. Curb cuts;
 - 5. Dimensions, continuity, and type of screening;
 - 6. Grading, drainage, and surfacing details;
 - 7. Delineation of obstacles to parking and circulation in finished parking area;
 - 8. Specifications as to signs and bumper guards;
 - 9. Identification of required handicapped parking spaces; and
 - 10. Landscaping.
- H. Non-compliance with any part of this article shall be subjected to the enforcement and financial penalties provisions as described in Article 2000, Administration and Enforcement.

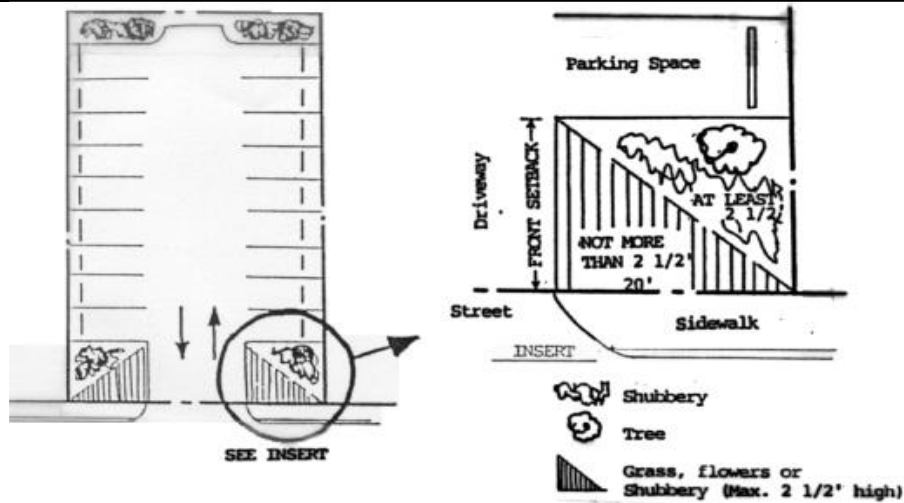
1200.03 DETAILED STANDARDS FOR INTERNAL ROADWAYS, OFF-STREET PARKING AND LOADING AREAS

All internal roadways, parking and loading areas shall be developed and maintained as follows:

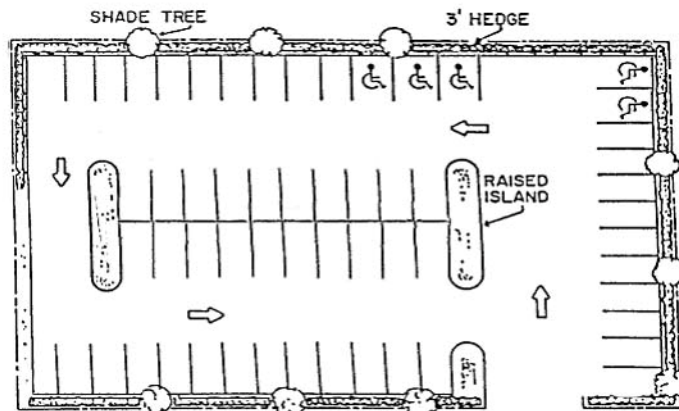
- A. **Composition.** Driveways and areas used for loading, parking, and internal roadways for multi-family, non-residential land uses, and residential lease communities shall have a surface which is durable, all weather, and paved of either asphalt or concrete. However, residential lease communities with less than five (5) single family dwellings as well as Recreational Vehicle (RV) Parks may construct areas for loading, parking, internal roadways, and Recreational Vehicle (RV) pads from gravel. Gravel roads shall not be less than twenty-two (22) feet in width. All graveled areas shall not be less than six (6) inches in depth of compacted limestone gravel.

	Multi-Family/Residential Lease Community	Non-Residential
Cul-de-Sacs (minimum)	25 ft. road pavement radius	35 ft. road pavement radius
Gradient (maximum)	<ul style="list-style-type: none"> ▪ 20% ▪ 6% for the first 60 feet from an intersection off the parking entrance from a roadway. ▪ 8% for off street parking areas All grades 15% and above must have the grade verified by an engineer and the certification submitted to the Planning Commission prior to pouring concrete or placement of asphalt. 	<ul style="list-style-type: none"> ▪ 10% ▪ 6% leveling area at intersection for 60 feet, measured from the nearest edge of pavement of intersecting road. ▪ 8% for off street parking areas
Paving Requirements	<p>Concrete</p> <ul style="list-style-type: none"> ▪ 20 ft. width ▪ 6" depth Concrete shall meet ASTM standards and have a minimum 28-day compressive strength of 4,000 psi. ▪ reinforced with fiber compound, mesh or bar; reinforcing shall be 6-gauge mesh having a maximum 6" x 6" spacing pattern or reinforcement bars as may be approved by the county engineer. ▪ minimum of 4" gravel base to allow for proper drainage and leveling. ▪ All joints shall be no more than 12' apart. ▪ All cold joints must be keyed or pinned with a minimum of 1/2" dowel bars, 30" long, spaced 24" apart. <p>Asphaltic</p> <ul style="list-style-type: none"> ▪ 20 ft. width. ▪ depth of asphalt and base aggregate in accordance with standards of WV Flexible Pavement Council, with a minimum of base filter fabric conforming to WVDOH requirements installed under the base aggregate ▪ After roads are paved, grade and backfill against the road. 	<p>Concrete</p> <ul style="list-style-type: none"> ▪ 24 ft. width ▪ 6" depth Concrete shall meet ASTM standards and have a minimum 28-day compressive strength of 4,000 psi. ▪ reinforced with fiber compound, mesh or bar; reinforcing shall be 6-gauge mesh having a maximum 6" x 6" spacing pattern or reinforcement bars as may be approved by the county engineer. ▪ minimum of 4" gravel base to allow for proper drainage and leveling. ▪ All joints shall be no more than 12' apart. ▪ All cold joints must be keyed or pinned with a minimum of 1/2" dowel bars, 30" long, spaced 24" apart. <p>Asphaltic</p> <ul style="list-style-type: none"> ▪ 24 ft. width. ▪ depth of asphalt and base aggregate in accordance with standards of WV Flexible Pavement Council, with a minimum of base filter fabric conforming to WVDOH requirements installed under the base aggregate. ▪ After roads are paved, grade and backfill against the road.
Bridges, culverts, curbs & gutters	As required by the Planning Commission	As required by the Planning Commission
Curb Radius	Internal/Major Roads 35 ft. Internal/Minor Roads 30 ft. Intersection/County or State – WVDOH Rules & Regulations Driveway Manual	All Internal Roads 40 ft. Intersection/County or State – WVDOH Rules & Regulations Driveway Manual

- B. **Traffic Flow.** Driveways and areas for loading, parking, and the maneuvering of vehicles within all multi-family and non-residential land uses shall meet all requirements with regard to traffic flow on public streets and alleys.
- C. **Drainage.** A parking area shall be designed to dispose of all surface water accumulation within the area in such a manner as to prevent drainage onto and across a sidewalk or onto adjoining property and shall meet all other drainage requirements. In addition, all such areas and driveways shall be designed, graded, constructed, and drained according to Article 1500, Drainage and Storm Sewers. No such area or driveway shall be built over or interfere with the flow of an existing drainage channel unless adequate drainage facilities are provided to accommodate said channel. No Certificate of Compliance with the Zoning Ordinance for a building shall be issued by the Planning Officer unless all parking and loading areas and driveways are constructed in accordance with approved plans or an escrow fund or performance bond for their provision is established.
- D. **Soil Erosion and Sediment Control.** The design, construction, and maintenance of a parking area shall be designed so as to properly control and prevent soil erosion and sediment control as required by the West Virginia Division of Environmental Protection and Section 1500.05 Erosion and Sediment Control in this ordinance.
- E. **Obstructions.** No obstructions of any kind shall be permitted within any required parking space.
- F. **Access.** No parking space shall be located in a manner so as to block access to any other parking space, except on a parking lot with a parking attendant having access to each vehicle's keys.
- G. **Movement.** Parking spaces shall be designed so that no backward movement of a vehicle onto a state or county right-of-way or access road will be necessary.
- H. **Barriers.** Bumper guards or wheel barriers shall be provided and secured to the ground surface if no concrete curb of at least four (4) inches in height is present and shall be installed so that no portion of a vehicle will project onto a public right-of-way, over adjoining property, over a sidewalk, or into a required setback, landscaping, or screening. If a sidewalk of five (5) feet or wider is installed along the perimeter of the parking area, no wheel barrier or bumper guard is required. Furthermore, no internal bumper guards or wheel barriers are required.
- I. **Lighting.** All areas containing outdoor lighting (except public street lighting and outdoor activity facilities) shall limit light spillage onto adjacent residential property. The applicant shall submit a lighting plan by an engineer showing a 0.2 FC at the adjacent property line. Compliance shall be achieved by utilizing fixture shielding, directional control designed into fixtures, fixture location, height, or aim, or a combination of these or other factors. Upon installation of the lighting, the applicant shall provide an as-built light plan by a professional registered engineer, certifying a 0.2 FC at the adjacent property line.
- J. **Landscaping.** Parking areas shall be landscaped and screened in accordance with the following:
 - 1. For parking areas containing more than ten parking spaces, at least five percent of the parking area, excluding roadways and driveways leading to the parking areas, shall be landscaped.
 - 2. Any such landscaping shall not be more than two and one-half feet in height in triangular areas at the intersection of a driveway with the street right-of-way. The triangular areas shall be determined by measuring 20 feet along the street frontage on each side of the driveway, and by measuring 20 feet back on each side of the depth of the required front setback.



3. Within a parking area, landscaped sections shall be reasonably dispersed, and the interior dimensions of any planting area shall be sufficient to protect the landscaping materials planted therein and to assure proper growth. The Planning Officer shall be available to provide advice on the formulation of landscaping plans for parking areas.
4. Raised islands shall be installed around the perimeter of all parking areas and at the end of all parking aisles for the purpose of facilitating safe and smooth traffic flow. The raised islands shall be bordered by concrete or rolled asphalt curb. At the option of the property owner, interior raised islands in a parking area may be paved or landscaped with ground cover. However, any parking area with 60 or more spaces must have interior and perimeter raised islands that are landscaped with ground cover. All islands shall extend the length of the parking bay and have a width of four (4) feet. The ground within raised islands shall be covered with decorative stones, mulch, grass, shrubs, other natural vegetative materials, or a combination thereof. If decorative stones are utilized within raised islands, then the diameter of the stones shall range in size between a minimum of 1.5 inches and a maximum of 4 inches. For the purpose of these regulations, "raised island" shall mean a minimum curb of four (4) inches covered with the selected approved materials indicated above or a combination thereof to the top of the curbed area.



EXAMPLE PARKING AREA

- K. **Signage.** Traffic control signs and pavement markings shall be used to control vehicular movement in a parking area. A sign showing the direction of a one-way street next to the site shall be required. Signs shall be limited to two square feet each, and an aggregate total not to exceed 20 square feet. No sign of any kind other than those indicating entrances, exits, name of establishment to which such parking area is accessory, or conditions of use shall be erected. No advertising on such signs shall be permitted.

- L. **Driveways.** The maximum grade for driveways into off-street parking areas shall be as identified in Section 1200.03. The West Virginia Division of Highways shall control the grade within their right-of-way. See Article 1600 - Road Access for specific road access standards.
- M. **Common Driveways.** A common driveway shall be permitted for adjacent lots. Legal evidence shall be presented and approved by the Planning Officer, in the form of deeds, leases, or contracts to establish the joint use, prior to zoning approval.
- N. **Parking Lot Grade.** The grade of a parking lot shall not exceed 8%.
- O. **Markings.** All required parking spaces within parking lots and all loading areas for multi-family and non-residential land uses shall be indicated by painted lines for the purpose of easy identification and delineation. Required walkways shall be identified in the same manner.
- P. **Lease Community Roadways.** Lease communities with less than five (5) single family dwellings may construct roads from gravel. Gravel roads shall not be less than twenty-two (22) feet in width or six (6) inches in depth of compacted limestone gravel.
- Q. **Guardrail.** Guardrail shall be constructed at locations where potential roadside hazards are proposed within the clear zone for the roadway. The clear zone shall be defined utilizing Figure 3.1 and Table 3.1 from the American Association of State Highway and Transportation Officials' *Roadside Design Guide*. In addition, guardrail shall be constructed at locations where fill slopes exceed the slope of 3:1 and have a fill height of 12 feet or more (measured from the profile grade). The Planning Commission may require guardrail at other locations not listed above.

Guardrail shall be Type I Guardrail (Galvanized Steel Deep Beam) unless otherwise approved by the Planning Commission. The spacing of the guardrail shall be a maximum of 12'-6" and posts shall have wooden blocks. The guardrail shall be constructed as per WVDOH Specifications and Standard Details.

- R. **Intersection.** When the subdivision street intersects a county or state highway, the curb radii shall be the standard in the Manual on Rules and Regulations for Constructing Driveways on State Highway Rights-of-Way of the West Virginia Department of Transportation, Division of Highways.

The curb radii internally shall meet the requirements in Section 1200.03.

1200.04 OFF-STREET PARKING SPACE REQUIREMENTS

The following sets forth the minimum number of parking spaces to be provided as required in this ordinance. The maximum parking spaces shall not exceed twice the minimum requirement. Requirements for a building or use not specifically listed shall be determined by the Planning Officer based upon the requirements of similar uses.

A. Residential uses:

- 1. Single family dwelling 2 spaces for each dwelling unit.
- 2. Studio or efficiency unit 1 space per dwelling unit.
- 3. One-bedroom apartment* 1 ½ spaces per dwelling unit.

*Accessory rooms, such as dens, recreation rooms, extra living rooms, or family rooms (but excluding kitchens, dining rooms, bathrooms, and one living room) shall be calculated as a bedroom when determining the required off-street parking spaces.

- 4. Two or more-bedroom apartment 2 spaces per dwelling unit.
- 5. Multi-family dwelling units intended for assisted care.
 - a. 1 space for each 2 dwelling units, plus 1 space for each employee

6. Non-transient roomers or boarders.
 - a. 1 space per roomer or boarder, in addition to the requirement for the dwelling.
7. Group home
 - a. 1 space per bedroom, plus 1 space for each staff member. If counseling services are provided to non-residents, an additional space for each 200 square feet of floor area used by said counseling services shall be provided. Planning Officer may authorize provision of fewer parking spaces if there is a clear indication that the number of required spaces for a group home is unnecessary due to such factors as residents being unable to drive due to age or mental or physical disability.
8. Bed and Breakfast Establishment, Rooming house, or boarding house
 - a. 1 per guest room, plus 1 space for resident manager/owner.

B. Non-Residential Uses:

Airport – 1 space for each 5 aircraft tie-downs, plus 1 space per 5 aircraft storage areas plus 1 space for each 4 seats in waiting/terminal area.

Animal Hospital/Kennel – 1 space for each examination room plus 2 spaces for each 50 square feet of reception area.

Arena, stadium, auditorium, or theater - 1 space for every 4 5 fixed seats (20 inches of bench or pew shall be considered 1 seat); or one space for every 5 persons of design capacity.

Assembly hall without seats - 1 space for each 100 square feet of floor area used for assembly.

Automobile/Motorcycle/Motor Vehicle sales - 1 space for each vehicle displayed, 2 spaces for each service bay, plus 1 space for each 400 square feet of floor area under showroom roof.

Automobile Repair - 4 spaces for each service bay or work area.

Automobile Service Station - 2 spaces per service bay. Automobile service stations with convenience retail uses shall also provide 1 space for each 200 square feet of net floor area.

Bank/Financial Institution - 1 space for each 250 square feet of floor area, plus three stacking spaces to accommodate each drive-in window.

Bar, Tavern, or nightclub - 1 space for each 100 square feet of floor area.

Bus terminal - 1 space for each 400 square feet of floor area.

Club, lodge, or meeting room - 1 space for every 4 seats (20 inches of bench or pew shall be considered 1 seat) or for each 100 square feet of floor area.

Commercial Entertainment – 1 space for every 3 seats or 1 space for each 100 square feet of floor area, whichever is greater.

Contractor and Building Supplies – 1 space for each 500 square feet of floor area.

Day Care Center -1 space per staff member and 1 space per 5 students of design capacity.

Educational Institution:

School-business, secretarial, industrial, technical, or trade - 1 space for each student, based on the design capacity of the building.

School-college or university - 3 spaces per 1,000 square feet of floor area used for academic purposes, plus 1 space for each student rooming unit, plus additional spaces as required for nonacademic uses.

School-preschool nursery, kindergarten, elementary, or middle - 2 space per classroom, plus adequate pick-up and drop off area as determined by the Planning Officer.

School-senior high - 1 space for each 10 students for which the building was designed, plus 1 space for each classroom and administrative office.

Elderly Housing/Assisted Living - 1 space per two living units.

Funeral home - 1 spaces per 75 square feet in the public rooms, plus 1 space per funeral vehicle, plus 1 space per employee.

Hospital - 1 spaces per bed; however, hospital bassinets shall not be counted as beds.

Hotel/Motel - 1 space for each guest room or suite, plus 1 space for each 400 square feet of public meeting area and/or restaurant space.

Hotel/Motel with conference facilities - 1 space for each guest room or suite, plus 1 space for every 3 seats or 1 space for every 3 persons of design capacity that the conference facility is designed to accommodate. Additionally, parking spaces shall also be provided for each accessory use in accordance with the provisions of Article 1200.04(B). The Planning Commission may waive the minimum number of parking spaces required for each accessory use if the proposed accessory uses customarily require staggered parking times.

Limousine Service – 1 space designated for each proposed limousine vehicle sized to store the vehicles properly and safely. Spaces for specialized and/or modified vehicles must be sized to fully contain the vehicle so as to not block or otherwise obstruct traffic flow of the site. 1 space for every 250 square feet of office/sales space and 2 spaces for each service bay.

Manufacturing/Industrial establishment - 1 space for each 1,000 square feet of floor area.

Medical clinics - 3 spaces for each examination or treatment room.

Multi-Tenant/Mixed Use Development - 1 space for each 250 square feet of gross leasable area. Gross leasable area is defined as the total floor area designed for tenant occupancy and exclusive use, including basements, mezzanines, and upper floors, if any, expressed in square feet and measured from the center line of joint partitions and from outside wall faces.

Museum and Art Gallery - 1 space per four seats in rooms for public assembly or for each 150 sq. ft. of floor area for use by the public, whichever is greater, plus 1 space for each two employees on the shift of greatest employment.

Nursing home - 1 space per 4 patient beds.

Office, Business or Professional - 1 space for each 300 square feet of floor area.

Personal Services – 1 space for each 300 square feet of floor area.

Personal Storage Facility – 1 space for every 5 rental storage units.

Professional Services – 1 space for each 200 square feet of floor area.

Public or Institutional Facility – 1 space for each 300 square feet of floor area.

Religious Place or Worship - 1 space for each 5 fixed seats in the place of public assembly (20 inches of bench or pew shall be considered 1 seat). If the place of worship is located within 500 feet of any public parking lot or any commercial parking lot where sufficient space is available by legal agreement of the owner(s) and approved by the Planning Officer, up to 50% of the required parking may be placed on such lot.

Restaurant - 1 space for each 100 square feet of floor area.

Restaurant, Fast Food – 1 space for each 100 square feet of floor area.

Research and Development Laboratory – 1 space for each 500 square feet of floor area.

Retail Business (under 5,000 square feet) – 1 space for each 200 square feet of floor area.

Retail Business – 1 space for each 400 square feet of floor area.

Swimming pool - 1 space for each 100 square feet of pool, sunbathing, and picnic/concession area.

Tennis court - 3 spaces per court.

Terminal (e.g., truck, rail) - 1 space per employee.

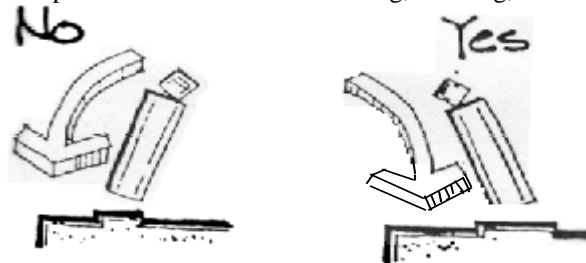
Truck, Large and Trailer sales, lease, rental, or service – 1 space for each large truck and trailer displayed, 2 spaces for each service bay, plus 1 space for each 400 square feet of floor area under showroom roof.

Warehouse - 1 space for each 2,000 square feet of floor area.

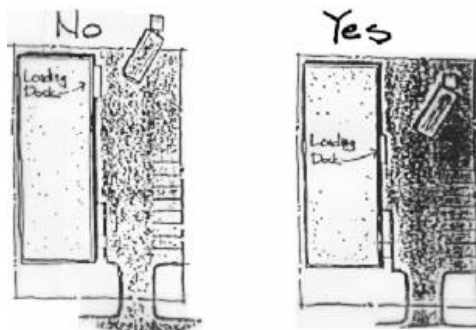
1200.05 LOADING FACILITY REQUIREMENTS

A. In all zoning districts, in connection with every building hereafter erected to be occupied by uses requiring the receipt or shipment by motor vehicles of materials or merchandise, there shall be provided and maintained on the same premises with such building off-street loading and unloading space accessible from an alley or easement of access, or when there is no such alley or easement of access, from a street. One loading space shall be required for each 10,000 square feet of floor area. If less than 10,000 square feet exists, 5,000 or more square feet of floor area shall require one loading space.

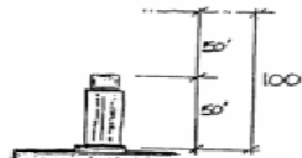
B. On property where trucks or other vehicles will be regularly engaged in loading or unloading, adequate space must be provided so that all maneuvering, standing, loading, and unloading can be done entirely on site. In no case shall unloading block any thoroughfare in an off-street parking area.



It is easier to back a truck into a loading space when the driver can look back over his left shoulder. The design of the site and its traffic circulation shall take advantage of this.



The layout of the site, including maneuvering to be done on site.



plans for future expansion, shall enable all

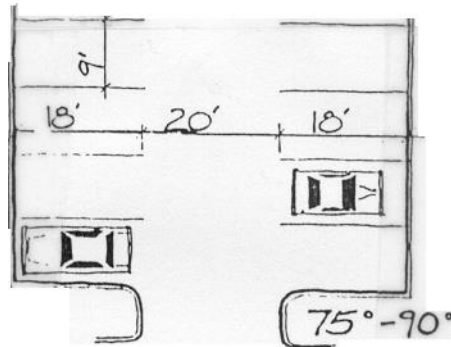
A rule of thumb in determining the amount of space needed for loading is to double the length of the longest vehicle to use the space.

- C. No off-street loading space may be located adjacent to a residential land use without meeting the requirements of Article 1300, Landscaping and Screening.
- D. Loading areas must be paved with a permanent, durable, dustless surface such as bituminous or concrete paving, as described in Article 1200.03 - Detailed Standards.

1200.06 PARKING LOT DIMENSIONS

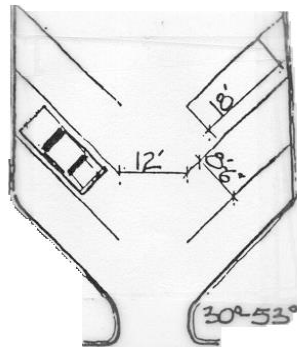
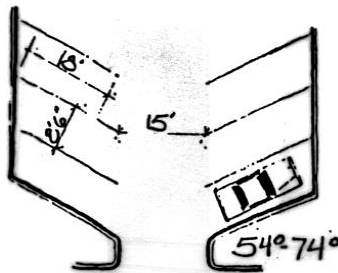
A. Lot Dimensions

Three basic patterns form the basis for the layout of most parking lots: 90 Degree, Angle, and Parallel. The minimum dimensions are given below.



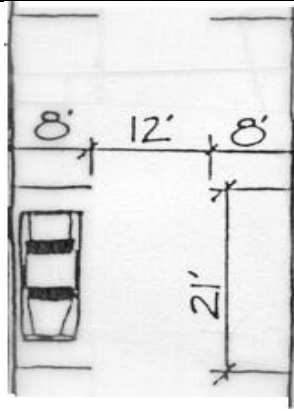
90 Degree Parking

- § Most efficient use of space (most parking spaces per square foot of parking).
- § Accommodates two-way traffic.
- § An aisle of 22-24 feet is preferable to the minimum of 20 feet, if space permits.



Angle Parking

- Can be used where width of parking area is limited.
- Aisles should be 2-3 feet wider than minimum requirements where space permits.



Parallel Parking

- Should not be used on an aisle with 90-degree parking.

B. Handicapped Spaces

A minimum of one (1) parking space for the handicapped must be provided for every 50 parking spaces. All parking facilities except for single-family dwellings, duplexes and manufactured homes, must provide at least one (1) handicapped space, regardless of the size of the parking facility. These spaces must be not less than 12 feet in width and designated with signs displaying the international symbol for the handicapped.

C. General Parking Space Size

Each required parking space, except those designated for handicapped spaces, must be at least 9 feet wide and 18 feet long, exclusive of access drives or aisles, for commercial and industrial uses and 10 feet wide and 18 feet long for residential uses.

1200.07 PARKING DESIGN STANDARDS FOR UNIQUE LAND USES

A. Automobile Sales

1. Within the exterior vehicular display area of an automobile sales establishment, the following design standards shall not be required:
 - a. Wheel barriers
 - b. Delineation of individual parking spaces
 - c. Raised islands at the end of all parking aisles
2. Exterior vehicular display spaces shall not be included when calculating the minimum number of required handicapped parking spaces.
3. All non-display parking spaces within an automobile sales establishment shall comply with all applicable design standards contained within Article 1200.

B. Large Truck and Trailer Sales, Lease, Rental, or Service

1. There shall be an exterior display area for 1) the sale, lease, or rental of large trucks and trailers and 2) a non-display parking area for automobiles and large trucks and trailers for servicing.
 - a. Within the exterior display area, the following design standards shall not be required:
 - (1) Wheel barriers
 - (2) Delineation of individual parking spaces
 - (3) Raised islands at the end of all parking aisles
 - (4) Parking spaces within this area shall not be included when calculating the minimum number of required accessible parking spaces.

- b. A non-display parking area shall comply with all applicable standards contained in Article 1200 Parking, Loading and Internal Roadways. Parking spaces for large trucks and trailers shall be at a minimum the size required for the type of truck or trailer to be accommodated and shall be approved by the County Engineer. All parking spaces shall be labeled on the site plan as to their use and size.
- 2. “Heavy Duty” pavement shall be specified for the project.
 - a. Concrete pavement shall be designed per the American Concrete Institutes Guide for Design and Construction of Concrete Parking Lots or other method as approved by the County Engineer.
 - b. Asphalt pavement shall be designed in accordance with The Asphalt Institutes Thickness Design Manual or other method as approved by the County Engineer.
- 3. Loading, unloading, and maneuvering of vehicles or trailers shall be accommodated on the site. There shall be no loading, unloading, or maneuvering of vehicles or trailers in the public street right-of-way.
- 4. The required twenty foot (20’) front yard area shall be landscaped according to the requirements of Section 1300 Landscaping and Screening. In no case shall the front yard be used for the display, loading, unloading, and maneuvering of vehicles or trailers or for the storage of wrecked or damaged vehicles or for parts, materials, or equipment.
- 5. All Curb radii and lane dimensions shall meet the minimum requirements for the largest truck that can be serviced at the facility. Refer to TableE2-2 from AASHTO Geometric Design of Highways and Streets for detailed maneuverability limitations for different motor vehicles.

US Customary										
Design Vehicle Type	Passenger Car	Single Unit Truck	Inter-city Bus (Motor Coach)		City Transit Bus	Conventional School Bus (65 pass.)	Large ² School Bus (84 pass.)	Articulated Bus	Intermediate Semi-trailer	Intermediate Semi-trailer
Symbol	P	SU	BUS-40	BUS-45	CITY-BUS	S-BUS36	S-BUS40	A-BUS	WB-40	WB-50
Minimum Design Turning Radius (ft)	24	42	45	45	42.0	38.9	39.4	39.8	40	45
Center-line ¹ Turning Radius (CTR)	21	38	40.8	40.8	37.8	34.9	35.4	35.5	36	41
Minimum Inside Radius (ft)	14.4	28.3	27.6	25.5	24.5	23.8	25.4	21.3	19.3	17.0
Design Vehicle Type	Interstate Semi-trailer		“Double Bottom” Combination	Triple Semi-trailer/trailers	Turnpike Double Semi-trailer/trailer	Motor Home	Car and Camper Trailer	Car and Boat Trailer	Motor Home and Boat Trailer	Farm ³ Tractor w/One Wagon
Symbol	WB-62*	WB-65** or WB-67	WB-67D	WB-100T	WB-109D*	MH	P/T	P/B	MH/B	TR/W
Minimum Design Turning Radius (m)	45	45	45	45	60	40	33	24	50	18
Center-line ¹ Turning Radius (CTR)	41	41	41	41	56	36	30	21	46	14
Minimum Inside Radius (m)	7.9	4.4	19.3	9.9	14.9	25.9	17.4	8.0	35.1	10.5

* = Design vehicle with 48 ft trailer as adopted in 1982 Surface Transportation Assistance Act (STAA).
 ** = Design vehicle with 53 ft trailer as grandfathered in with 1982 Surface Transportation Assistance Act (STAA).
¹ = The turning radius assumed by a designer when investigating possible turning paths and is set at the centerline of the front axle of a vehicle. If the minimum turning path is assumed, the CTR approximately equals the minimum design turning radius minus one-half the front width of the vehicle.
² = School buses are manufactured from 42 passenger to 84 passenger sizes. This corresponds to wheelbase lengths of 132 in to 237 in, respectively. For these different sizes, the minimum design turning radii vary from 28.8 ft to 39.4 ft and the minimum inside radii vary from 14.0 ft to 25.4 ft.
³ = Turning radius is for 150-200 hp tractor with one 18.5 ft long wagon attached to hitch point. Front wheel drive is disengaged and without brakes being applied.

Exhibit 2-2. Minimum Turning Radii of Design Vehicles (Continued)

