



Santa Barbara County Fire Department

Fire Prevention Division

4410 Cathedral Oaks Road

Santa Barbara, CA 93110-1042

(805) 681-5523 □ EMAIL: pe.inquiries@countyofsb.org

Development Standard - #1

FIRE APPARATUS ACCESS

The information contained in this standard is provided solely for the convenience of the reader in complying with the Santa Barbara County Fire Department (SBCFD) requirements. It should be used as a schematic reference only. The SBCFD reserves the right to make changes and improvements to this standard as and when required by law, or otherwise, at any time. The Department's current standards will be posted and made available for downloading by the public at the following web site: www.sbcfire.com

Please note that the SBCFD assumes no liability for any damages incurred directly or indirectly as a result of any errors, omissions, or discrepancies between this standard and any applicable law. It is the sole responsibility of the person or persons conducting any work pursuant to this standard to ensure their work complies with any and all applicable codes, ordinances, and regulations.

CHAPTER 1 ADMINISTRATION

1.1 Purpose. The purpose of this standard is to provide clarification of requirements and establish and assign an acceptable level of quality and minimum level of mandatory controls to provide and maintain required fire department access to premises in the areas of the Santa Barbara County Fire District.

1.2 Scope. This standard provides a method of providing for and maintaining adequate and unobstructed emergency access for fire department apparatus and personnel to buildings, structures, hazardous occupancies or other premises, as may be required by the fire code official, the California Fire Code and Chapter 15 of the Santa Barbara County Code.

1.3 Applicability. This standard shall apply to private roads and driveways, that are used to provide access to dwellings and structures for emergency response. A private road or driveway is a roadway system that is not part of the official county maintained road system, where the County has no maintenance responsibilities, although the private roadways may be located in either a publicly or privately owned easement.

1.4 Fees. A plan check fee is required for the installation of or modification to a fire access road as required by the current SBCFD fee schedule.

CHAPTER 2 DEFINITIONS

Access Control Device. Devices that are commonly used to prevent wrong-way entry into a controlled area such as Traffic Spikes, designed to damage an automobile tire when the tire crosses over the device.

Accessory Building. Any building used as an accessory to residential (excluding ADUs), commercial, recreational, industrial, or educational purposes that requires a building permit.

Aerial Apparatus Access. A fire apparatus access road constructed to allow fire apparatus with aerial ladders to ladder a building and provide an additional 10-foot (10') traffic lane.

All Weather Access Road. A road capable of supporting a 20-ton axle vehicle in a 10 year storm as certified by a State of California registered civil engineer.

Barrier. A barrier may be defined as a concrete k-rail, bollards, construction fence or other structure or device intended to redirect traffic flow or obstruct the intended flow of traffic.

Building. Any structure used or intended for supporting or sheltering any use of an occupancy except those classified as Utility and Miscellaneous Group U. For the purposes of this standard, "building" includes mobile homes and manufactured homes.

Dead-end Road. A road that has only one point of vehicular ingress/egress, including cul-de-sacs and looped roads.

Defensible Space. The area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense against encroaching wildfires or escaping structure fires. The perimeter as used in this standard is the area encompassing the parcel or parcels proposed for construction and/or development, excluding the physical structure itself. The area is characterized by the establishment and maintenance of fuel modification zones, emergency vehicle access and emergency water supplies.

Driveway. A vehicular pathway that serves no more than four (4) Residential Units and any number of non-commercial or non-industrial Utility or Miscellaneous Group U Buildings on each parcel. A Driveway shall not serve commercial or industrial uses at any size or scale.

Dwelling Unit. Any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and/or sanitation for not more than one family. This shall include guest houses and can include cabanas for this requirement.

Fire Access Point or Road. An access point (gate or entry way) or road that does not serve buildings or regulated structures and is being provided for emergency vehicles only, such as access into wildland areas. This type of access typically is not intended for public use. Wildland access roads typically do not require improvement beyond width and grading.

Fire Apparatus Access Road. A Roadway that provides fire apparatus access from a fire station or other staging area to a facility, building, structure or portion thereof. This is a general term inclusive of all similar terms such as fire lane, public street, private street, parking lot lane, access roadway and driveway. A fire apparatus access road, in addition to providing access for fire apparatus, may provide ingress and egress for the general public during emergency events and normal use.

Exemption/Variance. The modification of a specific item or circumstance from a requirement of this standard or adopted codes requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions, such as recorded historical sites, that provides mitigation of the problem.

Hammerhead/T. A turnaround within a driveway that provides a "T" shaped, three-point turnaround space for emergency equipment, being no narrower than the driveway it serves.

One-way Road. A minimum of one traffic lane width designed for traffic flow in one direction only.

Road, Street, Lane, Alley, Public or Private. A private or public road (not a driveway) used routinely for access into and out of an area for the public and for emergency equipment, inclusive of roadway structures, that provides access to:

1. More than two (2) residential parcels.
2. More than four (4) dwelling units.
3. Any industrial or commercial occupancy.

Roadway. Any surface designed, improved, or ordinarily used for vehicular travel. This includes Roads, Streets, Lanes, Alleys and all Commercial/Industrial access etc. whether public or private.

Roadway and Driveway Structures. Bridges, culverts, cattle guards and other appurtenant structures which supplement the roadway or driveway bed and shoulders.

Same Practical Effect. As used in this standard, means an exception or alternative with the capability of applying accepted fire suppression strategies and tactics, and provisions for fire fighter safety, including:

1. Access for emergency fire equipment.
2. Safe civilian evacuation.
3. Signing that avoids delays in emergency equipment response.

4. Additional available and accessible water to effectively attack fires or HazMat incidents or to defend a structure from wildfire.
5. Increased fuel modification sufficient for civilian and fire fighter safety.

Speed Bump. A roadway speed control measure that is typically from three to six inches in height, less than two feet (2') in width and may be as long as twelve feet (12'). These bumps are commonly used in parking lots in order to reduce traffic speeds to less than 5 MPH at the bump and provide a jarring effect to the vehicle when crossed.

Speed Hump. A roadway speed control measure that is typically a maximum of two and five eighth inches in height, a width of approximately three feet, and a length of twelve feet. These Humps are commonly used along roadways to reduce traffic speeds to less than 15 MPH at the hump and provide a gentle rolling effect to the vehicle when crossed.

Structure. That which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

Traffic Lane. The portion of a roadway that provides a single lane of vehicle travel and is a minimum of ten feet (10') wide not including striping, parking or shoulders.

Turnaround. A roadway, unobstructed by parking, which allows for a safe opposite change of direction for emergency equipment.

Turnouts. A widening in a driveway or roadway to allow vehicles to pass or emergency equipment to stage off the roadway traffic lane.

Wildfire. As defined in Public Resources Code Section 4103 and 4104, a fire burning uncontrolled on lands covered wholly or in part by timber, brush, grass, grain, or other flammable vegetation.

CHAPTER 3 GENERAL REQUIREMENTS

3.1 General. Fire apparatus access roads shall be provided and maintained in accordance with the presently adopted Santa Barbara County Fire Code and applicable standards.

3.1.1 All fire department apparatus access shall comply with Section 503 and Appendix D of the California Fire Code (C.F.C.)

3.2 Application. These standards will be applied as conditions of approval when land is developed or divided.

3.3 Heightened Standard. Individual review of each proposed road section may disclose that a higher standard of design is warranted by potential future or additional use of the road section or by the existence of special circumstances.

3.3.1 Multi-family development projects may have additional access requirements beyond what is included in this standard and Appendix D of the C.F.C.

3.4 Exemptions, Alternatives, and Variances. Exemptions, alternatives, and variances may also be granted by the chief or their designee based upon consideration of feasibility or environmental considerations only if said alternative provides for the Same Practical Effect.

3.4.1 Request for exemption shall be made in writing and shall state:

1. The specific section for which an exception is requested.
2. Material facts supporting the contention of the applicant.
3. The details of the exception proposed.
4. A map showing the location and siting of the exception.

3.5 Design Standard for Roadways as well as Roadway and Driveway Structures.

All roadways as well as roadway and driveway structures shall require civil engineering to meet or exceed Santa Barbara County Public Works (SBCPW) design standards as well as certificate of installation.

3.6 Design Standard for Driveways. Driveways may require civil engineering design and certification of installation as deemed necessary on a case-by-case basis.

3.7 Weight Requirements.: All roadways as well as roadway and driveway structures shall meet the weight requirement of 75,000 LBS. (CA Code of Regs).

3.8 Vegetation Clearance Vegetation clearance from roadways and driveways shall be provided in accordance with section 3.8.1 through 3.8.3:

3.8.1 Vertical vegetation clearance of thirteen feet six inches (13.5') shall be maintained at all times.

3.8.2 Minimum horizontal vegetation clearance/management of ten feet (10') on each side of the roadway/driveway shall be maintained as required by the County Code, Chapter 15 and the SBCFD Defensible Space Standard.

3.8.3 Additional clearance may be required in high fire hazard areas.

CHAPTER 4 DRIVEWAYS

4.1 General. Driveways shall be installed and maintained with the provisions of this chapter.

4.2 Driveway Widths. All driveways shall be constructed to provide a minimum of one (1) twelve-foot (12') traffic lane with sixteen foot (16') unobstructed horizontal clearance. See **FIGURE 4A**.

4.3 Driveway Vertical Clearance. All driveways shall be constructed to provide a minimum of thirteen feet six inches (13.5') unobstructed vertical clearance for the entire sixteen foot (16') horizontal clearance requirement in 4.2 (structural clearance from structures, geologic overhangs, boulders, roadway structures, trees, vegetation etc.).

4.4 Driveway Turnouts. Driveway Turnouts shall be required in accordance with sections 4.4.1 through 4.4.2:

4.4.1 Driveways exceeding one hundred fifty feet (150') in length, but less than five hundred feet (500') in length, shall provide a turnout near the midpoint of the driveway and/or no further than would prevent line of sight between the entrance to the driveway, the turnout, and the turnaround.

4.4.2 Where the driveway exceeds five hundred feet (500'), turnouts shall be provided no more than two hundred fifty feet (250') apart or as line of site requires.

4.4.3 Turnouts shall not be less than twenty-four feet (24') wide, thirty feet (30') long and include twenty-five foot (25') tapers. See **Figure 4B**.

4.5 Driveway Turnarounds. A turnaround shall be provided to all building sites on driveways over one hundred fifty feet (150') in length and shall comply with sections 4.5.1 through 4.5.8:

4.5.1 Turnarounds shall be constructed of hard surface.

4.5.2 Turnarounds shall not exceed 5% in slope.

4.5.3 Turnarounds shall be easily identifiable and shall not be obscured by design standards or choice of materials. i.e. (grasscrete, turf block).

4.5.4 Generally, turnarounds shall be made of the same material as the access but can receive approval for a change in material choice.

4.5.5 No parking shall be allowed inside a turnaround and the required access plan shall prove adequate onsite parking outside of the required turnaround.

4.5.6 Driveway turnarounds may be of the hammerhead style if it can be proven to remain open and unobstructed and shall be a minimum of ninety-two feet (92') wide by fifty-two feet (52') deep. See **FIGURE 4C**.

4.5.7 Turnarounds are required to be installed on all driveways at a maximum of one thousand three hundred twenty-foot (1,320') intervals.

4.5.8 Driveways greater than seven hundred fifty feet (750') in length require special approval.

4.6 Driveway Grade. Driveway grades greater than 15% require the approval of the Fire Chief. In no case shall driveway grades exceed 20%.

4.7 Driveway Surfacing. Driveway surfacing shall be in accordance with section 4.7.1 through 4.7.4

4.7.1 Driveways 0-10% in grade may be of all-weather construction and surfacing. Interlocking pavers are not allowed above 5% in grade.

4.7.2 Driveways 10.1-15% shall require A/C paving or equivalent at a minimum.

4.7.3 Driveways 15.1 -20% require the approval of the Fire Chief and shall require structural engineered concrete.

4.7.4 All surface materials shall be coarse in nature and interlocking.

4.8 Driveway Structural Weight Requirements. Driveway access beds and shoulders shall support a minimum of 40,000 LBS. Driveways may be required to have civil engineering design and installation certification.

4.9 Driveway Turning Radius Requirements. The inside radius of driveways shall be a minimum of twenty-four feet (24'). On all driveway radius over 90 degrees an additional four feet (4') of width shall be added throughout the curve not to exceed twenty feet (20') in width. **See FIGURE 4D.**

4.9.1 Switch backs within the driveway shall not exceed 5% inside slope.

4.10 Driveway Access angle of approach and departure. Access angle of approach or departure shall not exceed 12 degrees combined.

FIGURE 4A: MINIMUM DRIVEWAY WIDTH

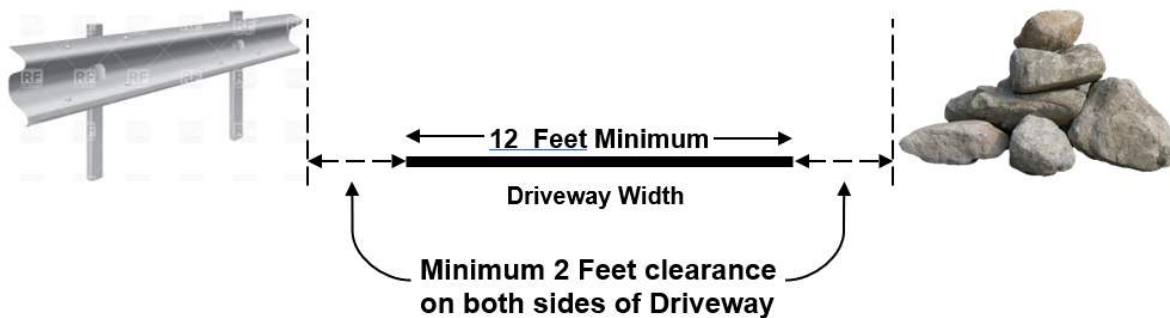


FIGURE 4B: TURNOUTS

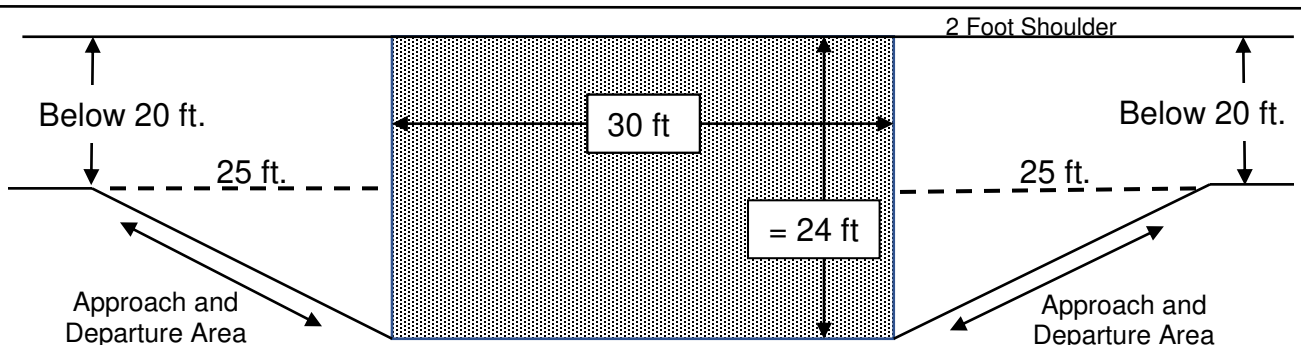
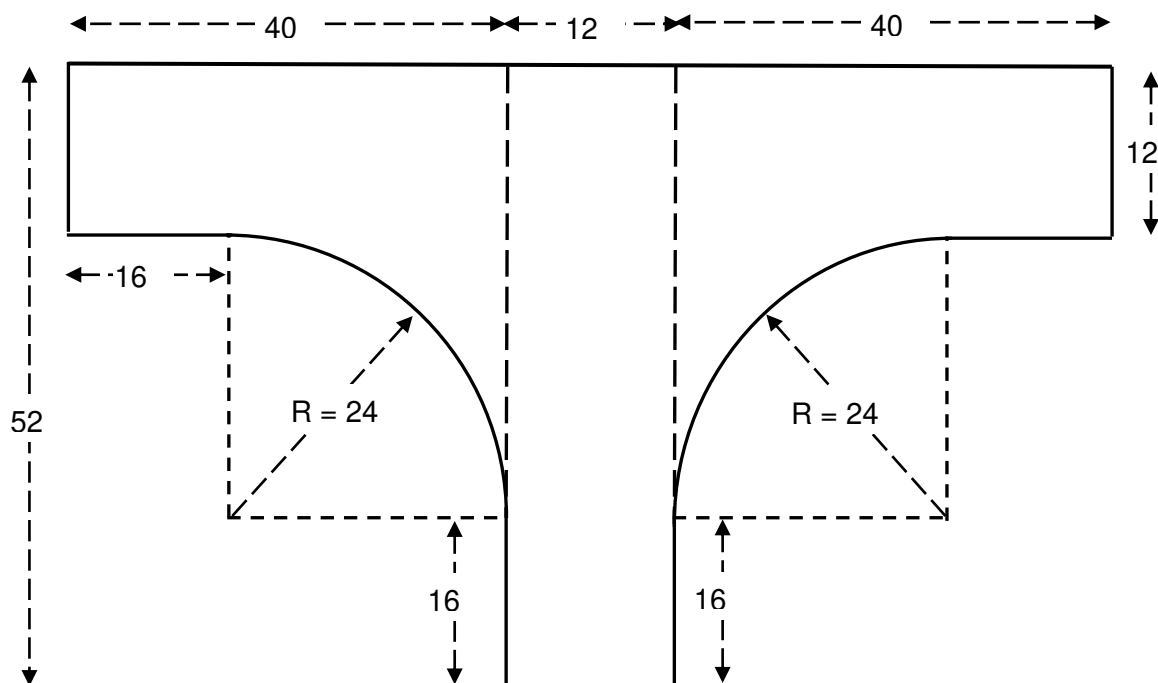
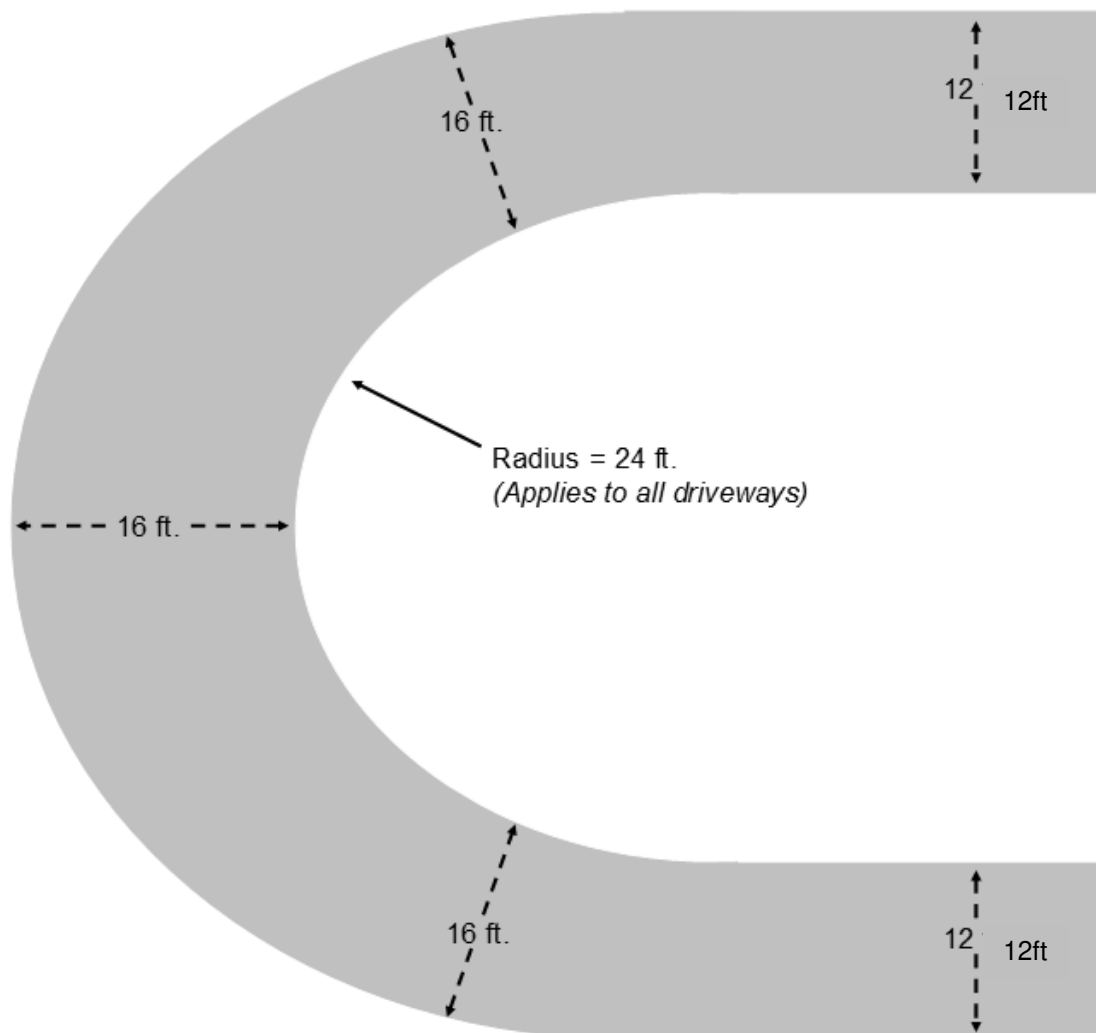


FIGURE 4C: Hammerhead Style Turnarounds for Driveways:

-This area intentionally left blank-

FIGURE 4D: Minimum Dimensions for 12-Foot Driveway Example

CHAPTER 5 ROADWAYS

5.1 General. Roadways shall be installed and maintained with this chapter.

5.2 Width Requirements for Public or Private Road, Street, Lane and/or Alley. All roads shall be constructed to provide a minimum of two (2) ten foot (10') traffic lanes, not including the two foot (2') shoulders, striping or parking and two feet (2') unobstructed horizontal clearance (structural clearance from embankments, boulders, roadway structures, etc.) on either side of the access. These traffic lanes shall provide for two-way traffic flow to support emergency vehicle and civilian egress, unless other provisions are provided for in this standard, or additional requirements are mandated by SBCFD. **See FIGURE 5A and 5B.**

5.2.1 Where a fire hydrant is located on a fire apparatus access road the minimum road width shall be twenty-six feet (26'), exclusive of shoulders.

5.2.2 A "No Parking Plan" shall be required for all access roads less than thirty-six feet (36') in width.

5.3 Surface Type. The minimum standard structural section for an all-weather roadway is Class II Aggregate Base (95% relative compaction; Cal-Trans specifications) over compacted sub-grade soil (95% relative compaction), with adequate drainage control.

5.3.1 All roadways within the urban limit line shall be paved as per SBCPW design standards and section 5.5.

5.4 Roadway Grades shall be in accordance with section 5.4.1 through 5.4.3:

5.4.1 Maximum allowed grade shall not exceed 15% unless approved by the Fire Chief or designee.

5.4.2 Gradients up to 20% may be allowed only with extenuating circumstances. Any gradient approved 15% or greater in slope shall consist of structural engineered concrete and can require runaway vehicle mitigation measures.

5.4.3 At no time shall any Fire Department access exceed 20% in slope.

5.5 Surface Standards. All roadways within the urban limit line shall be completed with a "Hard Surface" similar to A/C paving, concrete or a minimum of double chip seal.

5.5.1 Acceptable Paving is defined as:

1. Asphaltic concrete pavement.
2. Poured concrete.
3. Double chip seal, allowable for grades up to 10%.
4. Interlocking pavers over approved compacted sub-grade on less than 5% grades.

5.5.2 "Grass-Crete" or "Turf Block" is not an acceptable method of paving on an access road but may be authorized for a driveway on a case-by-case basis. The use of "turf block" types shall not impair the visibility of the access way or turnaround.

5.5.3 The acceptable road surfacing relative to grade shall be in accordance with section 5.5.3.1 through 5.5.3.3:

5.5.3.1 Grade 10% or less. An approved all-weather surface is allowed on all driveways and on private roadways outside the urban limit line

where grades do not exceed 10%. Detailed maintenance documents and agreements shall be required. If detailed maintenance documents and agreements cannot be produced, paving will be required. The load capabilities shall be maintained for both driveways and roadways.

5.5.3.1.1 An approved all-weather driveway surface is defined as suitable aggregate material over compacted subgrade soil. Topping materials shall be coarse in nature and interlocking.

5.5.3.2 Grade 10.1-15%. Paving as defined in Section 5.5.1 is required on driveway grades 10.1-15% in grade.

5.5.3.3 Grade 15.1-20%. When approved by the Fire Chief, access roads with grade 15.1% - 20% shall be constructed of structural engineered concrete.

5.6 Construction. Fire Department access ways shall be provided and maintained for every facility and building hereafter constructed or moved into or within the SBCFD jurisdiction in accordance with the California Fire Code (CFC) and as provided herein.

5.6.1 Access ways shall adhere to all Santa Barbara County Public Works and Flood Control grading and drainage requirements.

5.6.2 A minimum easement shall be provided sufficient to provide appropriate shoulders and utilities.

5.6.2.1 Two foot (2') minimum shoulders on both sides of the roadway shall be required unless waived by the Fire Chief or designee. Additional design criteria shall be implemented to retain the road bed.

5.6.3 The standard structural section per Santa Barbara County Public Works, Road Division, may be modified by engineering design or certifications and shall require Public Works approval of the modification.

5.7 Roadway Radius (Excluding Turnarounds) shall be in accordance with Section 5.7.1 through 5.7.2:

5.7.1 No roadway shall have a horizontal inside radius curvature of less than 50 feet (50') and additional surface width of 4 feet (4') shall be added to curves of fifty to one hundred foot (50'-100') radius; 2 feet (2') to those from one hundred to two hundred foot (100'-200') radius.

5.7.2 The length of vertical curves in roadways, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall be not less than one hundred feet (100').

5.8 Roadway Turnarounds. Turnarounds unobstructed by parking which allow for a safe opposite change of direction for large vehicle and emergency equipment shall be required at the terminus of all roadways and or as determined by the fire code official.

5.8.1 Turnarounds on roadways shall be bulb style design.

5.8.2 Hammerhead type turnarounds are not permitted as an approach to satisfy the requirement for a turnaround on roadways.

5.8.3 The minimum turning radius for a turnaround shall be forty feet (40'), not including parking, and shall not exceed 5% in slope. **See FIGURE 5C.**

5.9 Roadway Turnouts. When required, the turnout area shall be a minimum of twenty-four feet (24') wide and thirty feet (30') long with a minimum twenty-five-foot (25') taper on each end. **See FIGURE 5D.**

5.10 Access Angle. Angles of approach and departure shall be less than 12 degrees combined for driveway encroachments, drainage crossings, etc.

5.11 Fire Lanes. Fire apparatus access roads designated as fire lanes shall be posted with fire lane signage and markings in accordance with this standard, Caltrans Traffic Manual and the CVC. **See Chapter 9 of this standard.**

5.12 Building Access. The furthest projection of the exterior wall of a building shall be accessible from within one hundred fifty feet (150') of an approved public or private road or private driveway for where the fire apparatus shall position as measured by an unobstructed route around the exterior of the building.

5.13 Temporary Access. All weather access and/or paving shall be provided prior to vertical construction of a structure. A fire engine or fire truck shall be able to access the building site during construction and temporary access roadways shall comply with the following:

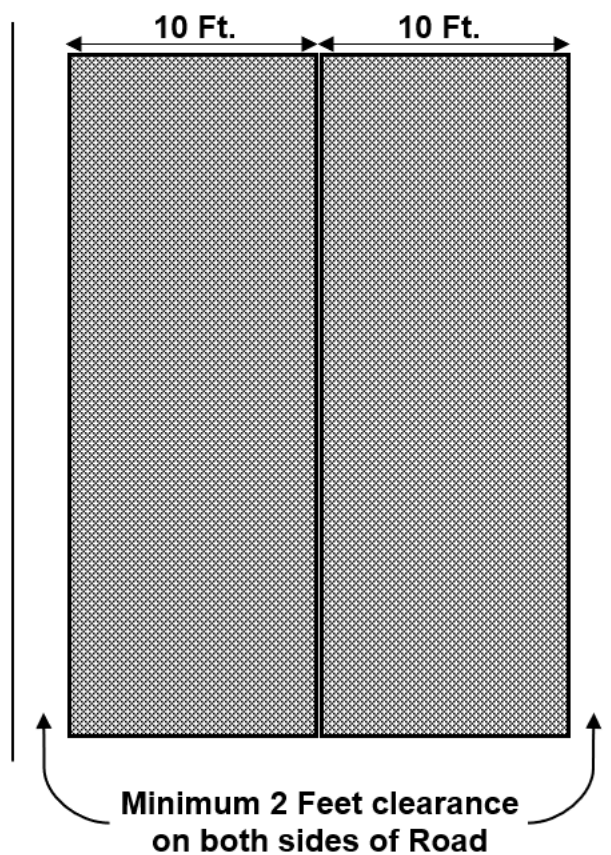
5.13.1 Utilities. All utilities within the required width of fire apparatus access roads shall be installed prior to introducing combustible materials, excluding form work or slabs, to a site or commencing vertical construction.

5.13.2 Driveway Access During Construction. Prior to and throughout vertical construction, driveways, inclusive of turnarounds, required for fire apparatus access shall be of all-weather construction, have base material capable of supporting a 20-ton vehicle, during all weather conditions, installed and compacted to 95% relative compaction at a minimum of the required width with 2 feet (2') clearance on each side of the access way.

5.13.3 Roadway Access During Construction. All required roadways shall be installed prior to vertical construction, shall be of suitable all-weather construction, shall support a 75,000 pound vehicle and have sufficient drainage related to a significant storm event.

5.13.4. Addressing. All required access ways shall be addressed properly and, if no longer legible, reinstalled after every rain event.

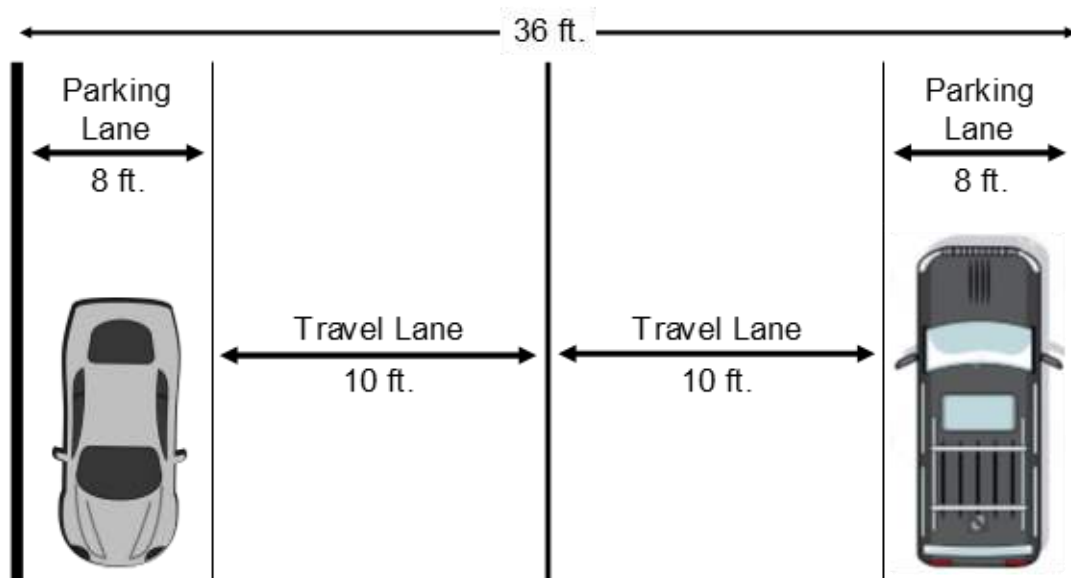
5.13.5. Maximum Grade. All access ways, driveways, and roadways with a 10% grade or greater shall require the approved paved surface per section 5.5.1 installed prior to vertical construction.

FIGURE 5A: MINIMUM ROAD WIDTH

-This area intentionally left blank-

FIGURE 5B: Unobstructed Road Widths

Minimum Unobstructed Road Width for Development with Parking Allowed on Both Sides of the Street:



Minimum Unobstructed Road Width for Development with Parking Allowed on One Side of the Street:

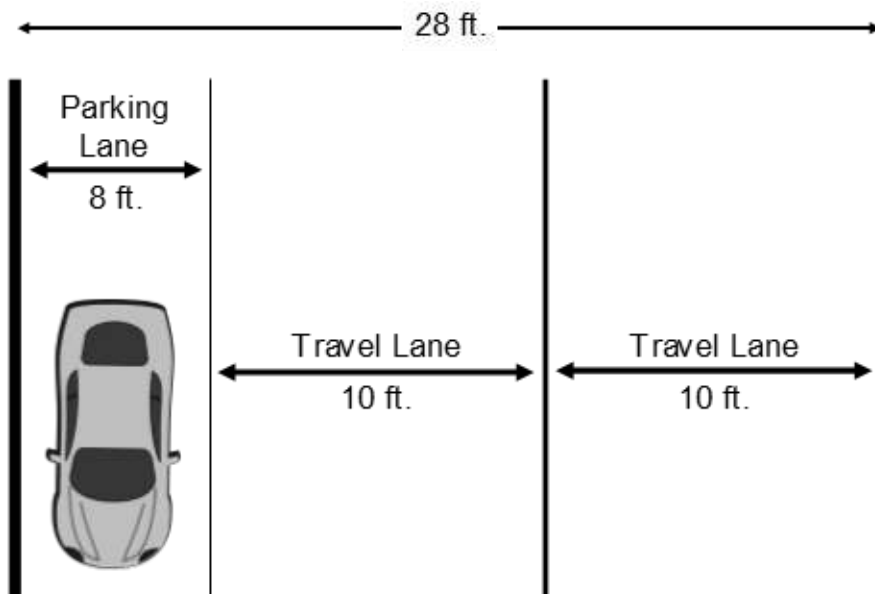
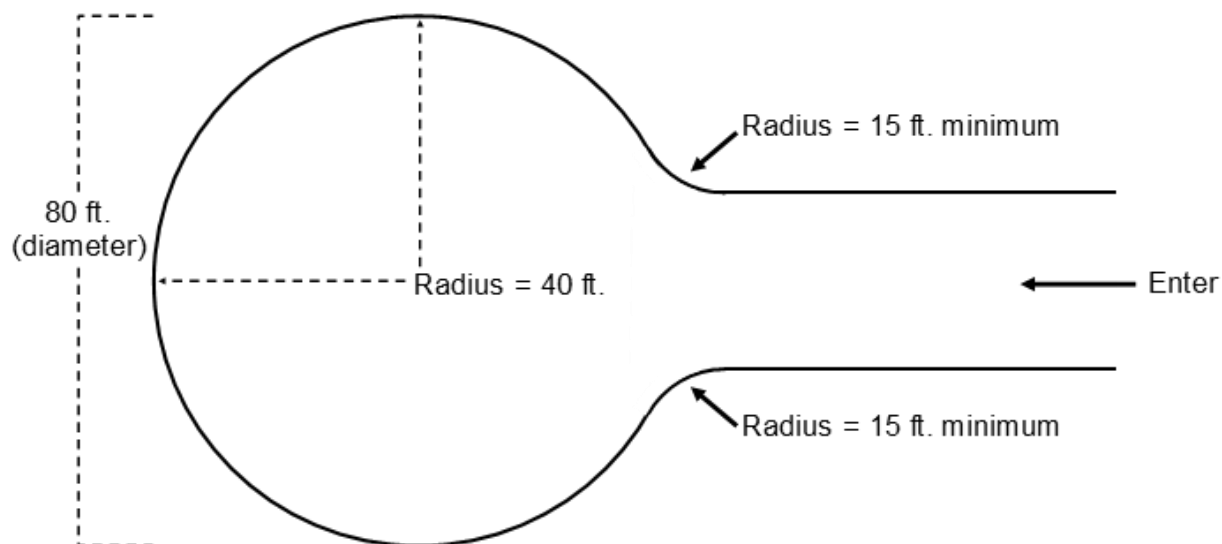


FIGURE 5C: TURNAROUNDS

Bulb Turnaround with No Parking Allowed (Red curbs and signage will be required):



Bulb Turnaround with Parking Allowed on Outside Perimeter:

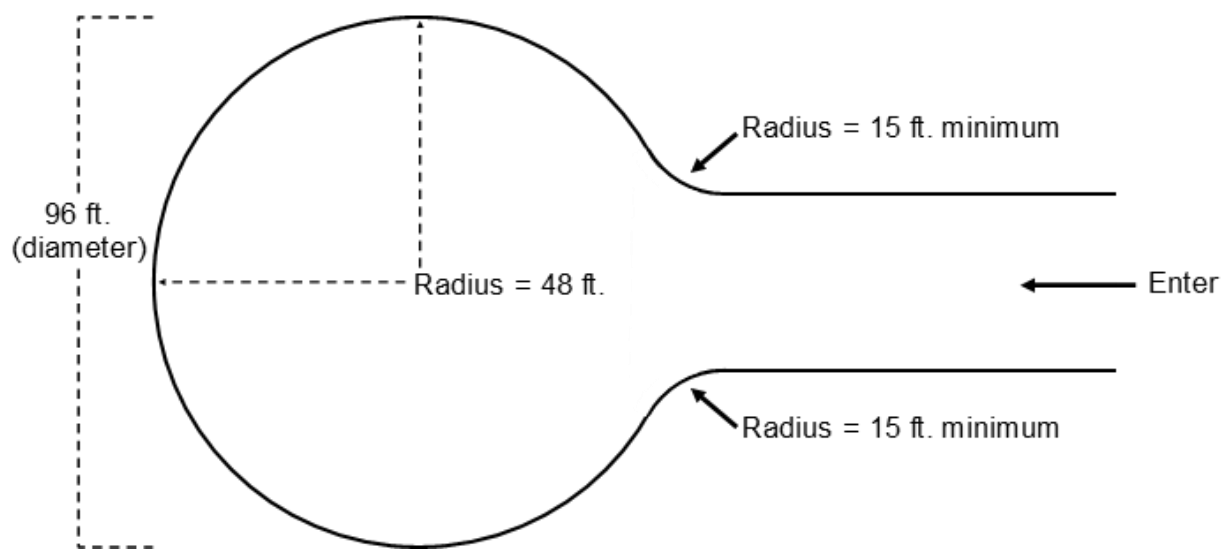


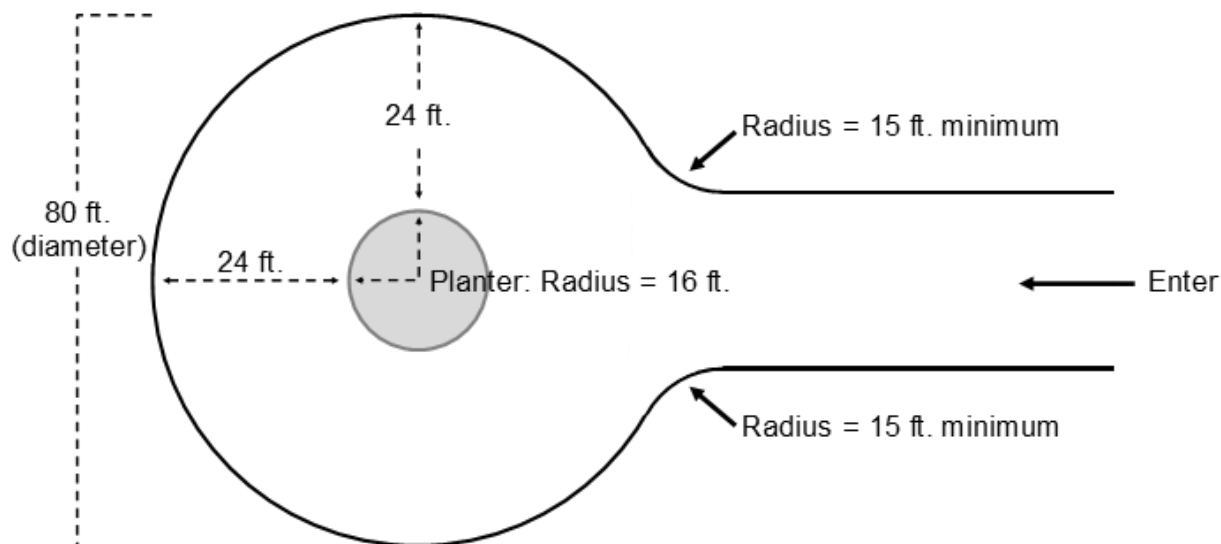
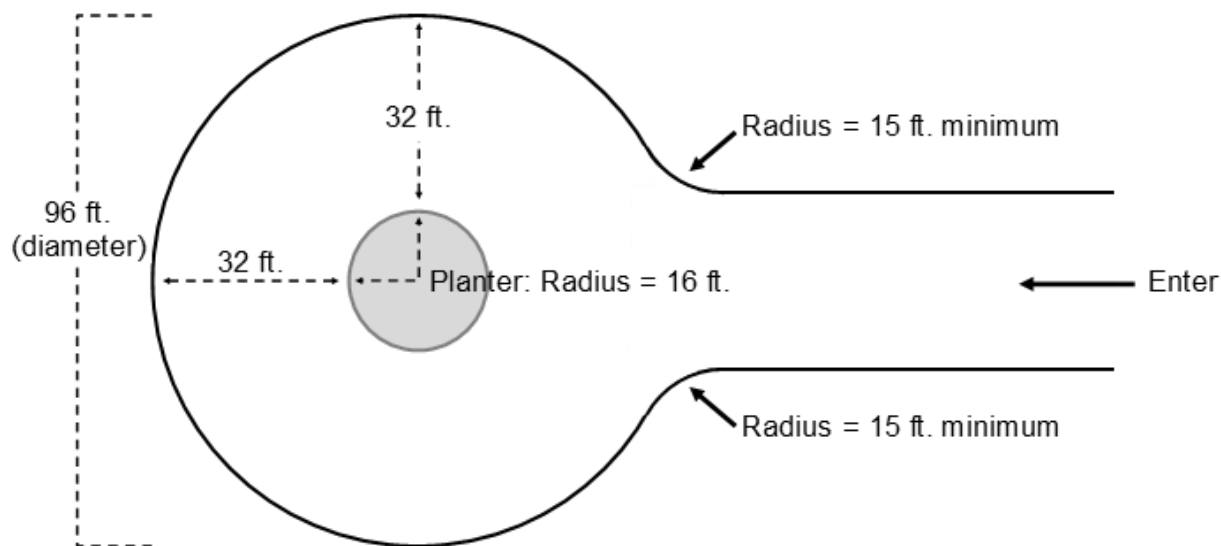
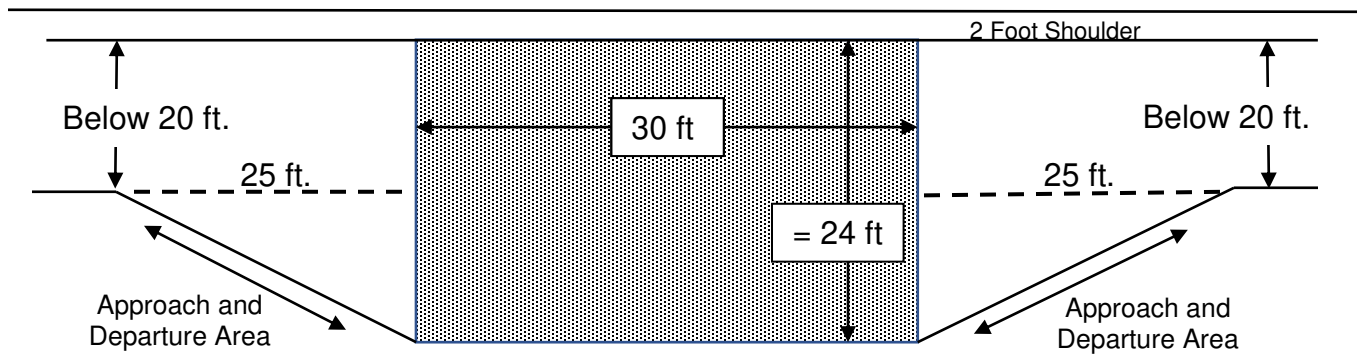
FIGURE 5C: TURNAROUNDS (continued)**Bulb Turnaround Including Center Planter with No Parking Allowed
(Red curbs and signage will be required):****Bulb Turnaround Including Center Planter with Parking Allowed on
Outside Perimeter:**

FIGURE 5D: TURNOUTS

-This area intentionally left blank-

CHAPTER 6 AERIAL APPARATUS ACCESS ROADS

6.1 General. Aerial Apparatus Access Roads shall be installed in accordance with this chapter and section D105 of the CFC when required.

6.2 Where Required. Aerial Apparatus Access Roads are required when the vertical distance between the grade plane and the highest roof exceeds thirty feet (30'). The height shall be measured by measurement to the eave of a pitched roof, the intersection of the roof with the exterior wall, or the top of parapet walls.

Exception: If approved by Fire Code Official, Type IA, IB, and IIA buildings equipped with an automatic fire sprinkler system and having an enclosed stairwell with Class 1 standpipe from lowest fire department access to all areas of the roof.

6.3 Width. Aerial Apparatus Access Roads shall have minimum unobstructed clear width of twenty-six feet (26').

6.4 Aerial Apparatus Positioning. One or more of the required aerial apparatus access roads shall be located more than fifteen feet (15') but less than thirty feet (30') from the building and shall run parallel along one entire side of the building.

6.5 Fire Code Official discretion. The Fire Code Official shall approve on which side of the building the aerial apparatus access road is located.

6.6 Overhead Obstructions. Overhead utility and power lines shall not be located over the aerial apparatus access road or between said access road and the building.

-This area intentionally left blank-

CHAPTER 7 ONE WAY ACCESS ROADS

7.1 General. One Way Access Roads, if approved, shall comply with the following:

7.1.1 Roads shall be constructed to provide a minimum, not including shoulders, of one twelve-foot (12') traffic lane.

7.1.2 All one-way roads shall connect at both ends to a road with two lanes providing for travel in each direction.

7.1.3 One-way roads shall provide access to an area currently zoned for not more than ten (10) residential units.

7.1.3 One-way roads shall not exceed two thousand six hundred forty feet (2,640') in length.

7.1.4 A turnout shall be placed and constructed at approximately the midpoint of each one-way road.

-This area intentionally left blank-

CHAPTER 8 DEAD END ROADS

8.1 General. Dead End Roads shall comply with this Chapter and section D103.4 of Appendix D of the CFC.

8.2 Maximum Length. The maximum length of a dead-end road, including all dead-end roads accessed from the dead-end road, shall not exceed the cumulative lengths in table 8.2, regardless of the numbers of parcels served.

Size of Parcel Served	Length Limitation
Parcels zoned for less than 1 acre	800 feet
Parcels zoned for 1 acre to 4.99 acres	1,320 feet
Parcels zoned for 5 acres to 19.99 acres	2,540 feet
Parcels zoned for 20 acres or larger	5,280 feet

Table 8.2

NOTE: All lengths shall be measured from the edge of the roadway surface at the intersection that begins the road to the end of the road surface at its farthest point. Where a dead-end-road crosses areas of differing zoned parcel sizes, requiring different length limits, the shortest allowable length shall apply.

8.3 Bulb Turnarounds. Each dead-end road shall have a bulb turnaround constructed at its terminus. Where parcels are zoned 5 acres or larger, bulb turnarounds shall be provided along the road at a maximum of one thousand three hundred twenty-foot (1320') intervals or as determined by the fire code official.

8.4 Dead End Road Widths and Turnarounds. All dead-end access ways greater than one hundred fifty feet (150') that trigger Section D 103.4 in Appendix "D" of the CFC shall use the increased values therein.

CHAPTER 9 FIRE LANES

9.1 General. Fire apparatus access roads and fire protection equipment shall comply with this section. Fire apparatus access roads designated as fire lanes shall be posted with fire lane markings and signs in accordance with this Standard, Caltrans Traffic Manual and CVC Sections 22500.1 and 22658(a).

9.1.2 Fire lane plans shall be approved by SBCFD prior to building permit issuance.

9.2 Posting of Roads. Roads shall be posted "No Parking" in accordance with Section 9.4 where required by sections 9.2.1 through 9.2.5:

9.2.1 Roads less than twenty-eight feet (28') in clear width from curb face to curb face shall be posted no parking on both sides of the access.

9.2.2 Roads greater than twenty-eight feet (28') and less than thirty-six feet (36') in clear width from curb face to curb face shall be posted no parking on one-side of the access.

9.2.3 Aerial apparatus access roads less than thirty-four feet (34') in clear width from curb face to curb face shall be posted no parking on both-sides of the access.

9.2.4 Aerial apparatus access roads less than forty-two feet (42') feet in clear width from curb face to curb face shall be posted no parking on one-side of the access.

9.2.4.1 At no time shall the required aerial apparatus access be encroached upon by parking; additional restrictions can be implemented.

9.2.5 Turnarounds as specified in Section 5.8 of this standard shall be properly posted when no parking is allowable.

9.3 Posting for Fire Protection Equipment. Fire protection equipment shall be posted "No Parking" in accordance with Section 9.4 where required by 9.3.1 through 9.3.2:

9.3.1 Fire hydrants located along roads shall be posted for a distance of seven and a half feet (7.5') in each direction from the center of the hydrant.

9.3.2 Fire department connections (FDCs) along roads shall be posted for a distance of seven and a half feet (7.5') in each direction from the center of the FDC.

9.4 Fire Lane Identification. Fire lanes shall be posted with Fire Lane Signs in accordance with section 9.4.1 and Curb Side Markings in accordance with section 9.4.2.

9.4.1 Fire Lane Signage. Fire Lane Signs shall meet the following (**See Chapter 9 Appendix A**).

9.4.1.1 Signs shall have a minimum dimension of twelve inches (12") wide by eighteen inches (18") high.

9.4.1.2 Fire Lane signs shall be placed along the length of the fire lane, every one hundred fifty feet (150') or portion thereof. Each section and/or direction shall have at least one sign.

9.4.1.3 The sign shall be of a durable material, securely mounted, facing the direction of travel and clearly visible to oncoming traffic entering the designated area.

9.4.1.4 The words "FIRE LANE" shall be red reflective lettering on a white background and no smaller than four inches (4") in height.

9.4.1.5 All other lettering shall be black on a white reflective background, no smaller than two inches (2") in height.

9.4.1.6 At the entrance(s) to the property boundaries, the following shall be included:

1. The words "POLICE/SHERIFF" and the name of each towing company under written authorization agreement from the property owner to tow shall be placed on a sign on the property boundary at the entrance(s).
2. The respective telephone number for each entity shall be listed below their name.
3. The applicable California Vehicle Code sections shall be listed.
4. Lettering for the information required by 9.4.1.6 shall be red on a white reflective background and be no smaller than one inch (1") in height.

9.4.2 Curb Side Markings. Curb Side Markings for Fire Lanes shall meet the following (**See Chapter 9 Appendix B**):

9.4.2.1 All curbing which outlines the fire lanes shall be painted red.

9.4.2.2 White lettering reading "NO PARKING – FIRE LANE – TOW AWAY" shall be a minimum of four inches (4") tall.

9.4.2.3 White lettering indicated in 9.4.2.2 shall be placed every fifty feet (50') or portion thereof.

9.4.2.4 The lettering shall be placed on top of the curb and at least once on each section and/or direction.

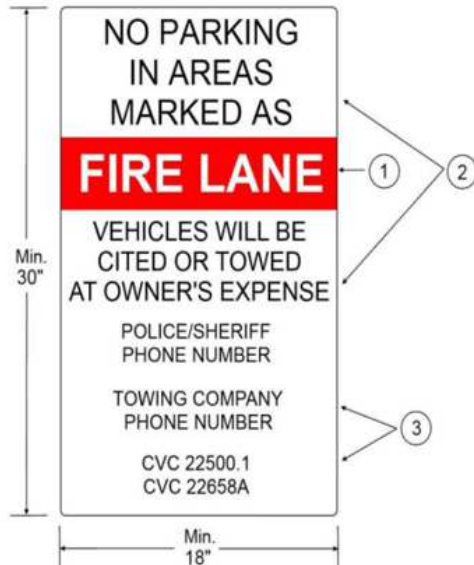
9.5 Enforcement. When properly posted, violating vehicles may be removed (towed) in accordance with CVC Section 22658, including any required notifications.

9.6 Plan Review and Approval of Fire Lanes. A fire lane location plan check is required for all projects where new buildings, additions to buildings or remodeling of buildings are proposed and the project is not exempt from providing fire department access. Plans in accordance with 9.7 below shall be submitted to SBCFD Planning and Engineering, and shall require approval prior to building permit issuance.

9.7 Fire Lane Plans. Fire lane plans are required to be submitted as part of the overall access plan at time of initial FPC application. Plans shall indicate the following:

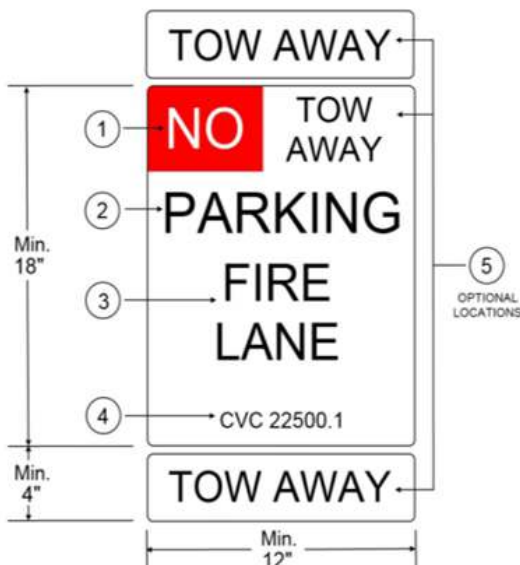
1. Location of all buildings and structures inclusive of overhangs.
2. Location of all fire apparatus access roads serving the site.
3. Location of any gates or barriers.
4. Location of sidewalks and parking rows.
5. Location of fire hydrants.
6. Location of FDC's.
7. Locations of any existing fire lanes and sign locations.
8. Clear designation where private roads connect with public roads.

CHAPTER 9 APPENDIX A: FIRE LANE SIGNS

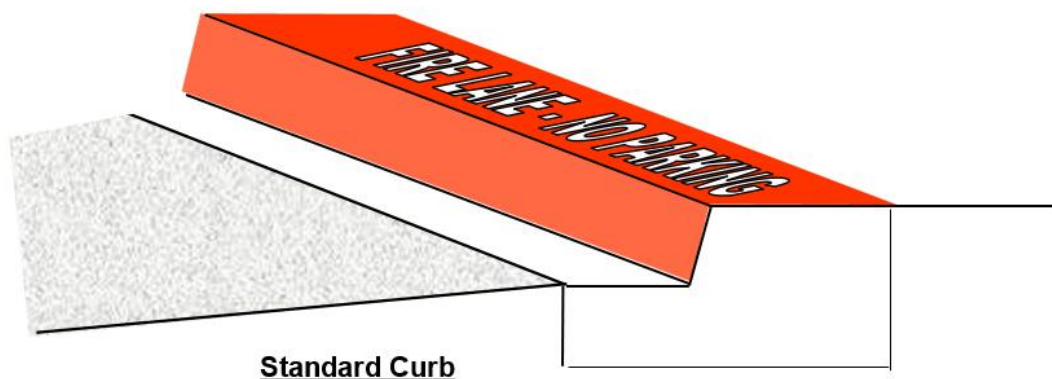


NOTE: The sign shall be of a durable material, securely mounted, facing the direction of travel and clearly visible to oncoming traffic entering the designated area.

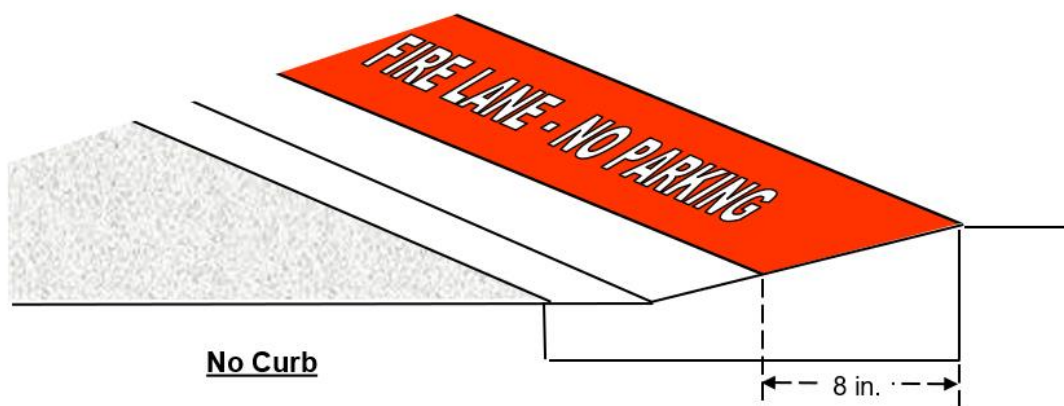
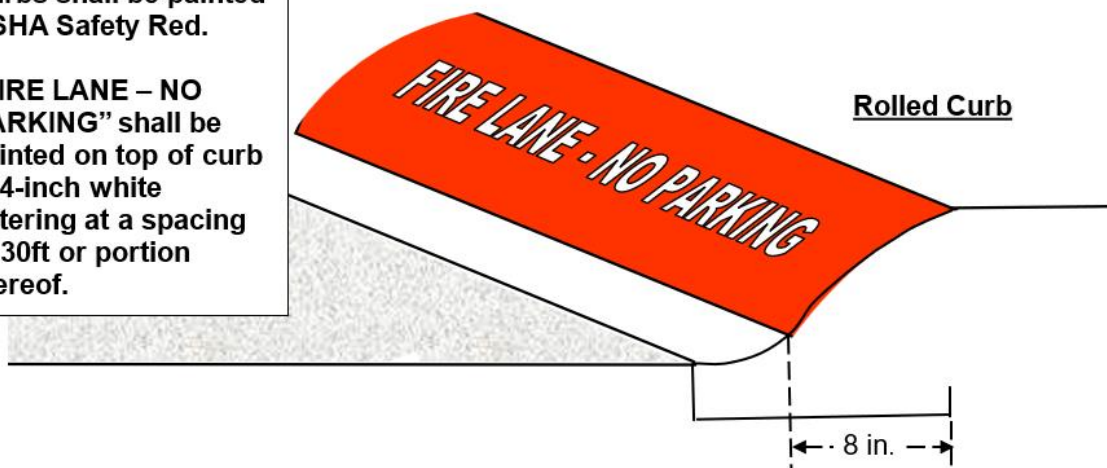
1. The words "FIRE LANE" shall be white reflective lettering on a red background and no smaller than 4 inches in height.
2. Lettering shall be on a white reflective background, no smaller than 2 inches in height.
3. The words "POLICE/SHERIFF" and the name of each towing company under written authorization agreement from the property owner to tow shall be placed on the sign. The respective telephone number for each shall be listed below their name. The applicable California Vehicle Code sections shall be listed. Lettering shall be red on a white reflective background and be no smaller than 1 inch in height.



1. The word "NO" shall be white reflective on a red background and no smaller than 3-1/2 inches in height.
2. Lettering shall be red on a white reflective background, no smaller than 3 inches in height.
3. Lettering shall be red on a white reflective background, no smaller than 2-1/2 inches in height.
4. Lettering shall be red on a white reflective background, no smaller than 1 inch in height.
5. The words "TOW AWAY" shall be in one of the three optional locations. The lettering shall be red on a white reflective background, no smaller than 2-1/2 inches in height.

CHAPTER 9 APPENDIX B: FIRE LANE CURB MARKING

1. Curbs shall be painted OSHA Safety Red.
2. "FIRE LANE – NO PARKING" shall be painted on top of curb in 4-inch white lettering at a spacing of 30ft or portion thereof.



CHAPTER 10 ACCESS GATES FOR DRIVEWAYS AND PRIVATE ROADS

10.1 General. Access gates installed at driveways and private roads shall comply with this chapter.

10.1.1 Gate operations shall not impede on the use of firefighting appliances.

10.1.2 All gates shall be manually operable by a single person regardless of construction type or opening method.

10.1.3 A Knox key gate entry system shall be required on all vehicle access gates whether public or private. For applications and details regarding the Knox Rapid Entry System as utilized by SBCFD please fill out the application on our webpage <https://sbcfire.com/general-planning-and-engineering-forms/>

10.2 Plan Submittal. Digital plans are required that include scaled site and elevation plans of the entry area and:

1. Identification of gates and setbacks, “Knox” switches and boxes, automatic exit loops and “nearby” fire hydrants, fire department connections and fire sprinkler valves.
2. Gate construction details, opening style (swing or slide) and identification of the type of material used (Wrought iron, chain link, wood, etc.).
3. Details of locking devices, electric operators, and battery back-up.
4. Exiting spikes or similar devices require a submittal with details and must be approved by the Fire Planning and Engineering Division.
5. Provide Emergency Release Information should power fail.

10.3 Gate Installation Setbacks shall comply with sections 10.3.1 through 10.3.3.

10.3.1 Driveway gates on required apparatus access shall be setback from the roadway a minimum of thirty feet (30') (**see FIGURE 10A**).

10.3.2 Roadway gates shall be setback from the adjoining roadway a minimum of forty feet (40') (**see FIGURE 10B**).

10.3.3 Roadway gates shall provide for large vehicle turnaround in accordance with section 5.8 when entry is denied.

10.4 No Parking. Parking shall not obstruct any of the requirements of Chapter 10. “No Parking” signs shall be required as determined by the fire code official.

10.4.1 Where required, “No Parking” signs shall include the following:

1. “No Parking Any Time” in lettering two and a half inches (2 ½”) in height.
2. Directional arrow(s) indicating the direction from the sign to the boundary of the area designated “No Parking”.
3. Red lettering on white reflective background.



10.5 Easements. All gate components must be in recorded easements, including the location of any gate when in the open position.

Exception: Gates serving a Single Family Dwelling on private property where no easements are required.

10.6 Alternative Methods. The Fire Chief or their designee is authorized to approve alternate materials or methods provided that the Chief or their designee finds that the proposed design, use or operation satisfactorily complies with the intent of the Fire Code.

10.7 Driveway Gates shall comply with section 10.7.1 through 10.7.9.

10.7.1 At all times the gate shall be a minimum of two feet (2') wider than the installed access width.

10.7.2 A gated entrance for a driveway with one twelve-foot (12') traffic lane shall have a minimum width of fourteen feet (14') unobstructed horizontal clearance when the gate is open and an unobstructed vertical clearance of thirteen feet six inches (13.5'). **See FIGURE 10A.**

10.7.3 Gates may be of the horizontal swing or horizontal sliding type and shall not obstruct the access way in any manner including vertical clearance.

10.7.4 Electric gates shall be equipped with a Knox electric key switch (with dust cover) in an approved location on the ingress side.

10.7.5 An automatic egress loop shall be required on the egress side.

10.7.6 Manual vehicle access gates shall be equipped with a Knox padlock within the locking system.

10.7.7 Electric locking device must operate in a "fail safe" mode so that the gate(s) unlock and can be operated manually by one person when electrical service is interrupted if battery backup is not provided.

10.7.8 Gates for private driveways shall be setback to provide a minimum of 30 feet from the intersecting road. **See FIGURE 10A.**

10.7.9 All vehicle access gates shall be constructed to allow for manual operation by one person.

10.8 Roadway Gates for Gated Communities shall comply with sections 10.8.1 through 10.8.11:

10.8.1 The minimum clear open gate width shall be at least two feet (2') wider than the width of the traffic lane(s). **See FIGURE 10A.**

10.8.2 When there is one road for ingress and one for egress, each gate shall have a minimum clear open width of fourteen feet (14'). **See FIGURE 10B.**

10.8.2.1: Depending upon number of homes served, increased widths may be required, see **Appendix D of the CFC.**

10.8.3 Gates shall be electrically operated, have battery backup and may be of the horizontal swing or horizontal sliding type. Manual gates are not allowed for roadways or gated communities.

10.8.4 Each gate shall be provided with a Knox electric key switch (with dust cover) on the ingress side, in an approved location, for emergency personnel use.

10.8.5 An automatic exit loop shall be required for the egress side of the gate.

10.8.6 No other locks or latches shall be installed on gates.

10.8.7 Gate placement and operation shall not encroach into the required forty foot (40') setback, any turning radius or interfere with the use of fire protection equipment, i.e. fire hydrants, fire department connections, fire sprinkler valves, etc.

10.8.8 Roadway entry gates shall be setback to provide a minimum of forty feet (40') of storage for entering vehicles to stack without interfering with through traffic from the intersecting road. **See FIGURE 10B.**

10.8.9 Entry design for roadways shall provide for turning around large vehicles when entry is denied and can be required for driveways when the adjoining roadway warrants.

10.8.10 All gate components shall properly listed, be maintained in an operative condition at all times and shall be immediately replaced, repaired or the gate completely removed when defective.

10.8.11 A semi-annual test of the battery back-up system shall be performed and a record kept on file with the property owner or designated party.

10.9 Gates for Fire Access Points or Roads that are non-structure related shall comply with sections 10.9.1 through 10.9.6:

10.9.1 Minimum clear open gate width shall be fourteen feet (14') due to heavy equipment.

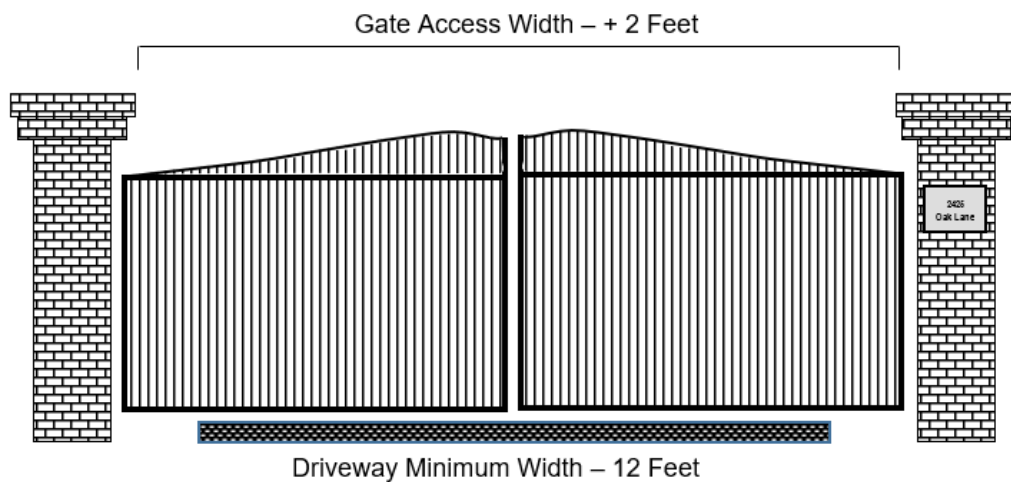
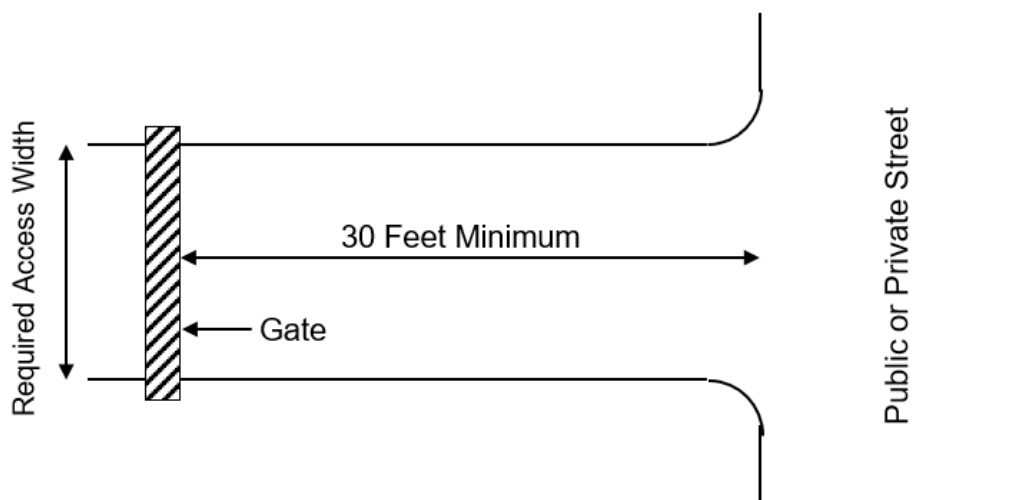
10.9.2 Gates may be of the swing, sliding or lift style.

10.9.3 Electric gates shall be equipped with a Knox electric switch (with dust cover). A Knox switch shall be installed on both sides of the gate in an approved location.

10.9.4 Electric gates must operate in a "fail safe" mode so that the gates unlock and can be operated manually when electrical service is interrupted.

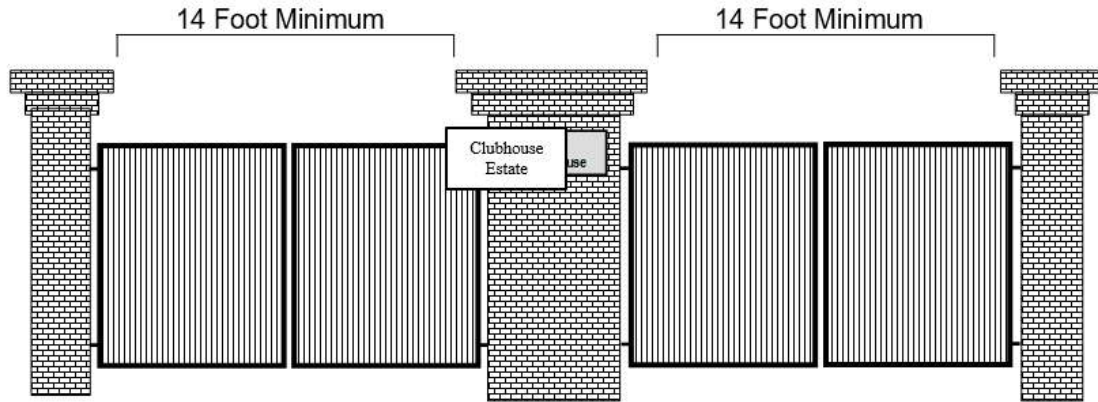
10.9.5 Manual gates shall include a Knox padlock (weather proofed) in the locking system.

10.9.6 Gates shall be constructed to allow manual operation by one person.

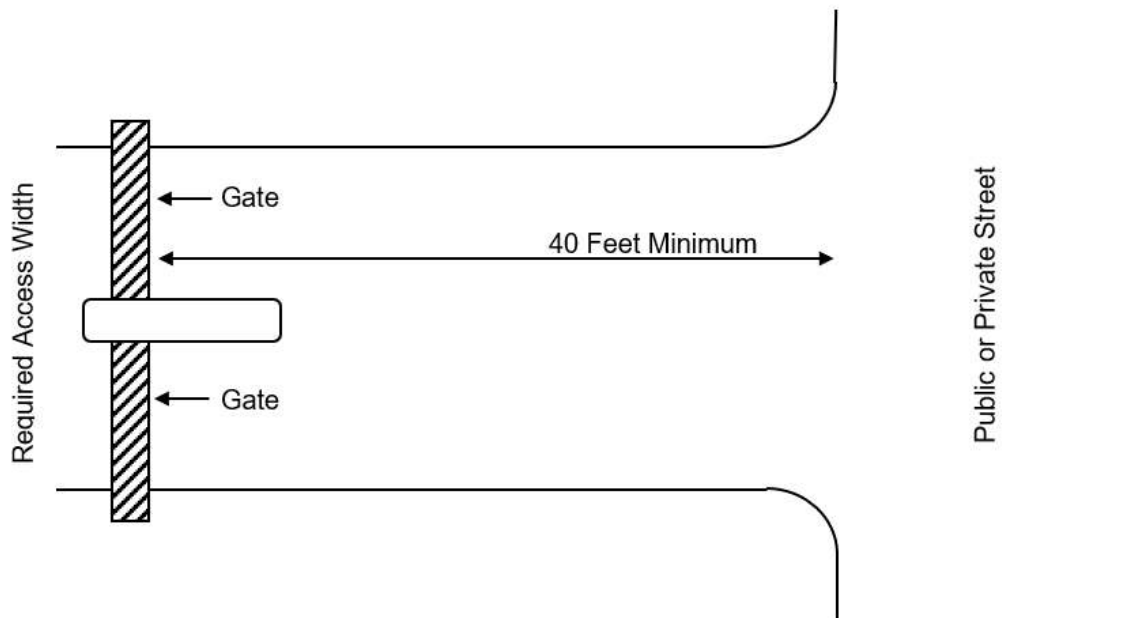
FIGURE 10A: PRIVATE DRIVEWAY SINGLE FAMILY DWELLING**Driveway Gate Set-Back Distance**

Entry gates on driveways shall be set back from the nearest curb line of any public or private street to provide a minimum 30 feet of storage for a fire engine to stage without interfering with through traffic.

**FIGURE 10B: DOUBLE GATE EXAMPLE FOR GATED COMMUNITIES
(SUBDIVISIONS)**



The gate(s) shall be constructed so that there is a minimum of 14 feet of clear access width when the gate is in the open position.



Entry gates on private roadways shall be set back from the nearest curb line of any public or private street to provide a minimum 40 feet of storage for entering vehicles to stack without interfering with through traffic.

CHAPTER 11 ACCESS LIMITING AND TRAFFIC CALMING DEVICES

11.1 General. Access limiting and traffic calming devices shall comply with this chapter.

11.1.1 All speed control devices shall require approval from the fire code official, (CFC).

11.2.2 At no time shall speed control devices be installed on roadways considered as primary attack routes for emergency equipment, as determined by the fire code official.

11.2 Speed Bumps. At no time shall speed bumps be installed on public or private roadways or driveways.

Exceptions: The Fire Marshal may approve the use of speed bumps in some cases. The property owner or agent shall deliver to the Fire Marshal, a formal letter outlining how the alternate methods in 11.3 have proven to be inadequate, the conditions requiring the installation of speed bumps rather than speed humps, and conditions set forth in 11.5 must be met.

11.2.1 Speed bumps shall not be installed without written approval from the Fire Marshal.

11.3 Speed Humps: The Santa Barbara County Fire Department does not recommend the use of speed humps; however, speed humps may be allowed when all of the Alternate Methods, specifically traffic mitigation measures, listed below have proven to be ineffective.

1. Traffic engineering improvements.
2. Increased and/or improved regulatory, warning, and/or guide signs.
3. Increased law enforcement measures

11.4 Speed Hump Installation: The installation of speed humps shall not be allowed until the provisions listed in Santa Barbara County Fire Department Standard #1 have been met. Documentation proving the ineffectiveness of the alternate methods in section 11.3 (above) shall be submitted to the Fire Department Planning and Engineering Division for review and approval before installation of the speed humps.

11.4.1 Speed Humps shall not be installed without written approval from the Fire Marshal or designee.

11.5 Speed Hump Specifications (IF INSTALLATION IS APPROVED). If the review listed in 11.4 finds in favor of the applicant, engineered plans for the installation of the speed humps shall be submitted to the Santa Barbara County Fire Department Planning and Engineering Division for review and approval. The plans submitted shall reflect at least, but not be limited to, the following:

11.5.1 Minimum speed hump spacing shall be three hundred feet (300').

11.5.2 Speed humps shall be placed near a street light for increased visibility when street lights are installed.

11.5.3 Speed humps shall not be installed on roadways or driveways where the grade is greater than 5 percent.

11.5.4 Speed humps shall not be installed within one hundred feet (100') of any intersection.

11.5.5 Speed humps shall not be installed within twenty-five (25') of a fire hydrant.

11.5.6 Speed humps shall not be installed in an area in front of any building where emergency operations for ladder trucks may be affected.

11.5.7 Speed humps shall be clearly marked with highly visible pavement marking, striping and signage per public works standards.

11.5.8 Speed humps shall not be installed within one hundred feet (100') of a blind curve or summit of a blind hill.

11.5.9 Speed humps shall not be located on a main thoroughfare that emergency equipment uses as a primary attack route, as determined by the fire code official.

11.10.10 Speed Humps shall not exceed a height of two and five-eighths inches (2-5/8") and shall not be less than three feet (3') in width.

11.6 Access Control Devices including but not limited to Traffic Spikes, Barriers, Temporary Construction Fencing, and Bollards shall comply with the following:

11.6.1 Traffic Spikes. Traffic spikes are prohibited on private roadways or driveways without written approval of the Fire Code Official. Traffic Spikes may be allowed when all of the Alternate Methods, specifically traffic mitigation measures, listed below have proven to be ineffective.

1. Access Gates or arm installed in accordance with Chapter 10
2. Traffic engineering improvements.
3. Increased and/or improved regulatory, warning, and/or guide signs.
4. Increased law enforcement measures

11.6.1.1 If traffic spikes are approved by the SBCFD, the device shall be fitted with a system that lowers and latches down the spikes for emergency access.

11.6.2 Barriers. Permanent barriers intending to remove access on a private roadway or driveway are prohibited.

11.6.3 Temporary Construction Fencing. Temporary fencing is allowed only during construction and shall comply with the following:

11.6.3.1 The number of gates required for temporary construction fencing will vary, according to the scope of the project and will be determined by the Fire Code Official.

11.6.3.2 All temporary construction gates shall have an approved Knox locking device such as a Knox padlock installed and

11.6.3.3 The width of the gate opening shall be two feet wider than the approved roadway or driveway.

11.6.4 Bollards. Removable bollards are prohibited without fire department approval. A complete detailed plan set including service plan for monthly maintenance, operation and servicing shall be submitted for consideration prior to approval.

CHAPTER 12 ROADWAY STRUCTURES

12.1 General. All driveway, road, street and private lane structures shall be constructed to carry at least the required load and provide the minimum vertical clearance as specified.

12.2 Signage. Appropriate signage in accordance with the CalTrans Sign Specification Drawings, including but not limited to weight or vertical clearance limitations, one-way road or single lane conditions, shall reflect the capability of each roadway or driveway structure.

12.3 Bridges. Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with the American Association of State and Highway Transportation Officials Standard Specifications for Highway Bridges, 17th Edition, published 2002 (known as AASHTO HB-17), hereby incorporated by reference, shall have a minimum HS-20 rated capacity, and shall be certified by a registered structural engineer. A copy of such certification shall be on file with the Fire Department and updated every 10 years or when required.

12.3.1 Vehicle load limits shall be posted at both entrances to bridges.

12.3.2 Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, barriers, or signs, or both, as approved by SBCFD, shall be installed and maintained.

12.3.3 If authorized by SBCFD, an existing bridge with current civil engineering certification with only one traffic lane shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

12.3.4 Minimum clear width of all bridges shall be the same as required of the driveway/roadway served unless waived by the Fire Chief or designee. **See Chapter 12 Appendix A.**

CHAPTER 12 APPENDIX A

Minimum Bridge Requirements for Roadways For Single Axle Trucks

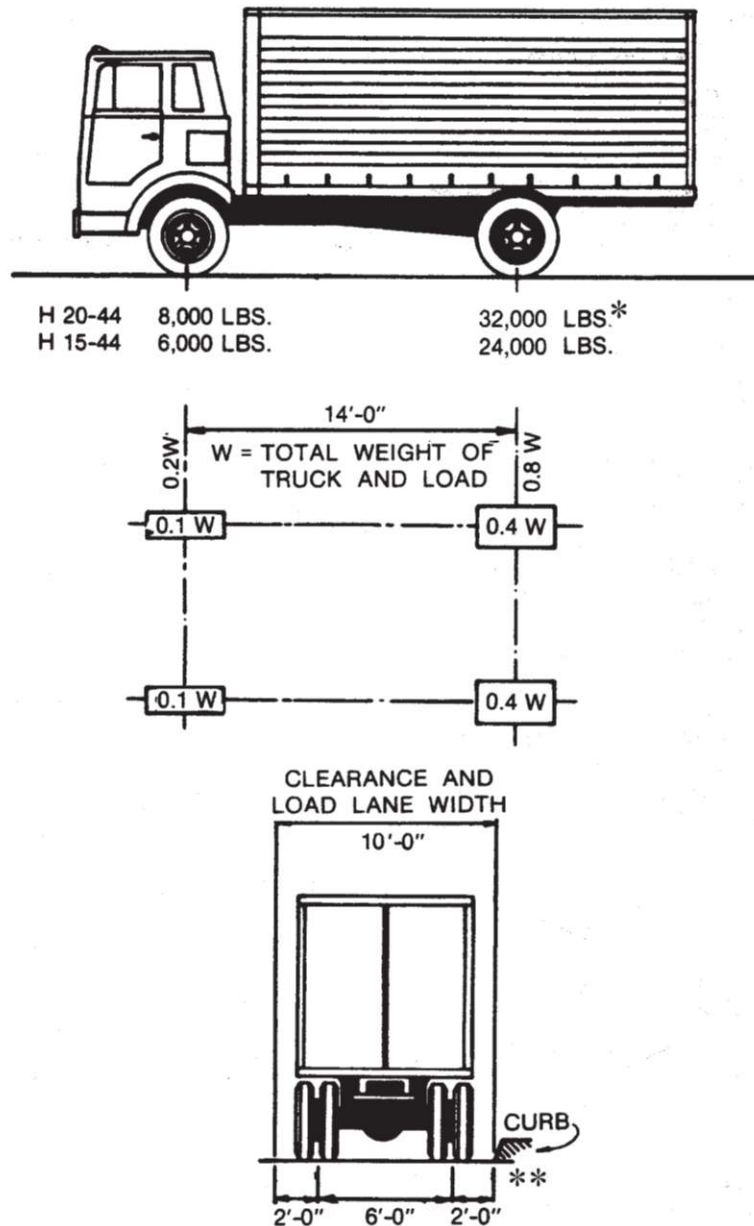


FIGURE 3.7.6A Standard H Trucks

* In the design of timber floors and orthotropic steel decks (excluding transverse beams) for H 20 loading, one axle load of 24,000 pounds or two axle loads of 16,000 pounds each spaced 4 feet apart may be used, whichever produces the greater stress, instead of the 32,000-pound axle shown.

** For slab design, the center line of wheels shall be assumed to be 1 foot from face of curb. (See Article 3.24.2)

Minimum Bridge Requirements for Roadways for Double Axle Trucks

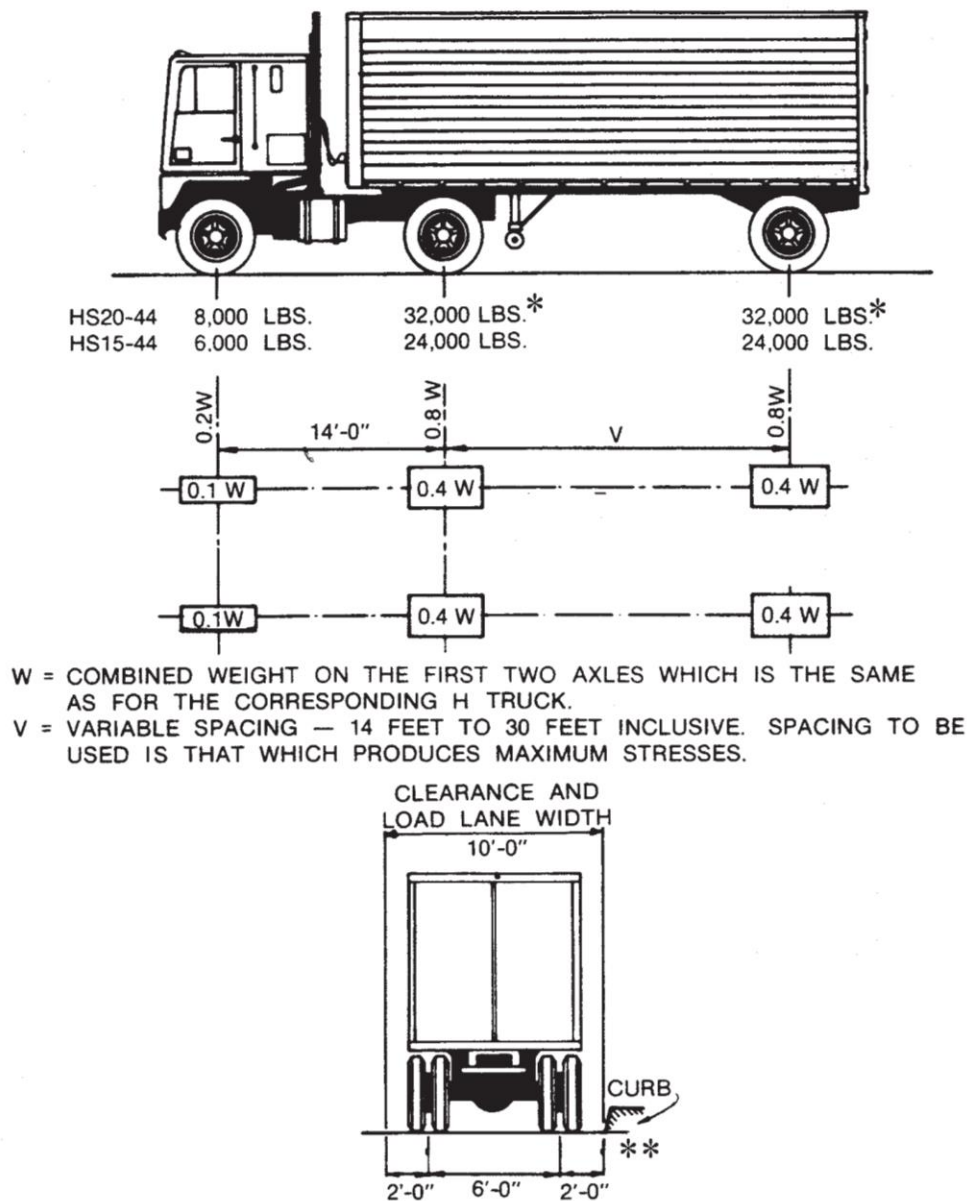


FIGURE 3.7.7A Standard HS Trucks

* In the design of timber floors and orthotropic steel decks (excluding transverse beams) for H 20 loading, one axle load of 24,000 pounds or two axle loads of 16,000 pounds each spaced 4 feet apart may be used, whichever produces the greater stress, instead of the 32,000-pound axle shown.

** For slab design, the center line of wheels shall be assumed to be 1 foot from face of curb. (See Article 3.24.2)

Table of Contents

CHAPTER 1 ADMINISTRATION	1
CHAPTER 2 DEFINITIONS	2
Driveway.	2
Roadway.	3
CHAPTER 3 GENERAL REQUIREMENTS.....	5
3.7 Weight Requirements.	5
CHAPTER 4 DRIVEWAYS	6
4.2 Driveway Widths	6
4.6 Driveway Grade..	6
4.9 Driveway Turning Radius Requirements.....	7
CHAPTER 5 ROADWAYS.....	10
5.2 Width Requirements for Public or Private Road, Street, Lane and/or Alley	10
5.4 Roadway Grades	10
5.8 Roadway Turnarounds.....	11
CHAPTER 6 AERIAL APPARATUS ACCESS ROADS.....	18
CHAPTER 7 ONE WAY ACCESS ROADS	19
CHAPTER 8 DEAD END ROADS	20
CHAPTER 9 FIRE LANES.....	21
9.2 Posting of Roads.....	21
9.4 Fire Lane Identification.....	21
9.7 Fire Lane Plans	22
CHAPTER 10 ACCESS GATES FOR DRIVEWAYS AND PRIVATE ROADS	25
10.3 Gate Installation Setbacks	25
10.7 Driveway Gates.....	26
10.8 Roadway Gates for Gated Communities.....	26
CHAPTER 11 ACCESS LIMITING AND TRAFFIC CALMING DEVICES	30
11.6 Access Control Devices	31
CHAPTER 12 ROADWAY STRUCTURES.....	32