

Wood and Masonry Fences

The Construction of masonry or wood fences, six feet or less in height and not supporting any other super-imposed loads such as those resulting from the self weight of chain link fences, glass panels, etc, does not require a construction permit from the City of Poway Building Department. However, their construction and location is regulated by the California Building Code as amended by the City of Poway. This information bulletin outlines the City's requirements.

I. FENCE HEIGHT

Fence heights are also regulated by the zoning laws of the City. Fence height is measured from the lowest grade abutting the fence to the top of the fence, except that the height of a fence on top of a retaining wall is measured from the grade on the higher side of the retaining wall.

II. DESIGN CRITERIA

Material requirements in Table A are based on the following design criteria:

1. Wind speed 85 MPH, Exposure C.
2. Seismic Design Category D.
3. Soil bearing pressure is 1,500 psf minimum.
4. For the purpose of the structural design, wall height shall be measured from the top of the footing to the top of the wall.
5. Footing depth shall be 24 inches below finish grade and 12 inches of compacted soil is required on top of footing to stabilize the wall.
6. For zoning requirements fence height shall be measured from finish grade.

If the design criteria are different, table values must be adjusted.

III. WOOD/CHAIN LINK FENCES

Details for typical wood panel lock fences, board fences, and chain link fences are shown in Figures 1, 2, and 3.

Additional requirements are noted below:

A. Wood posts shall be of naturally durable or preservative-treated wood (CBC 2304.11.2.7). Wood posts shall be No. 2 foundation-grade redwood, or pressure-treated Douglas fir-larch No. 2 or better.

B. Preservative treatment must be applied to the ends of wood posts buried in the ground.

C. Set posts/pipes in 12-inch diameter concrete footings extending at least 24 inches into undisturbed natural ground or properly compacted fill. Footings must be placed over 3 inches of loose gravel. Wood posts must extend through concrete footings to gravel below.

D. Structures located in Very-High Fire Hazard Severity Zones, governed by Chapter 7A of the California Building Code, may need to meet additional fire protection requirements.

IV. CHAIN LINK FENCES

This information bulletin does not address the design of the metal chain link fence and the supporting metal posts. Sizes and spacing should follow manufactures installation specifications. Figure 3 shows footing requirements for chain link fence not more than 6 feet in height.

V. MASONRY FENCES

Table A contains dimensional requirements for masonry fences and footings. All footings must extend at least 12 inches into undisturbed natural soil or compacted fill which has been compacted to at least 30 percent density. Soil should be dampened prior to placing concrete in footings, See figure 4.

Figure 1 / Wood Panel Lock Fence

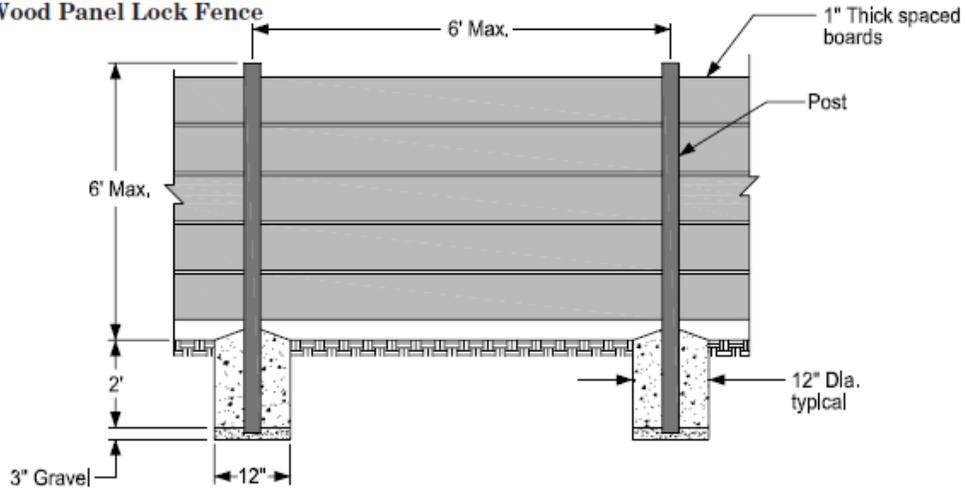


Figure 2 / Board Fence

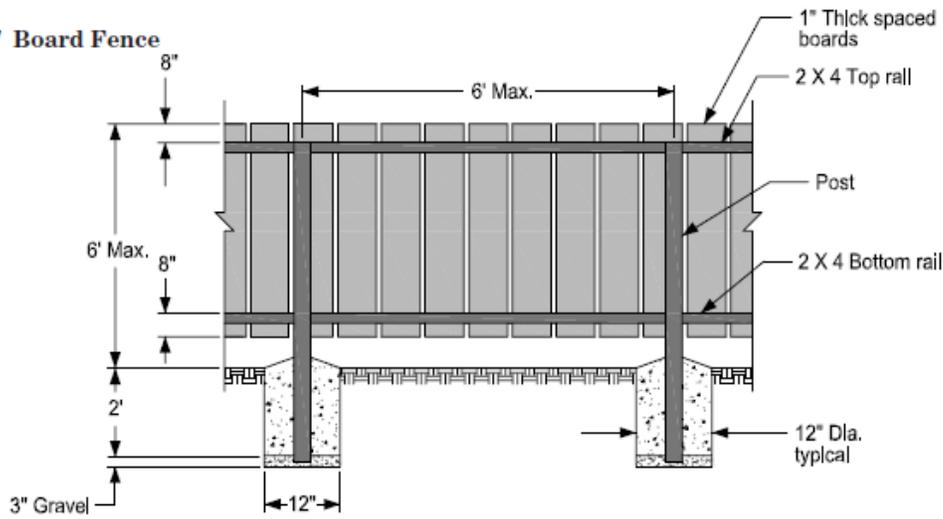
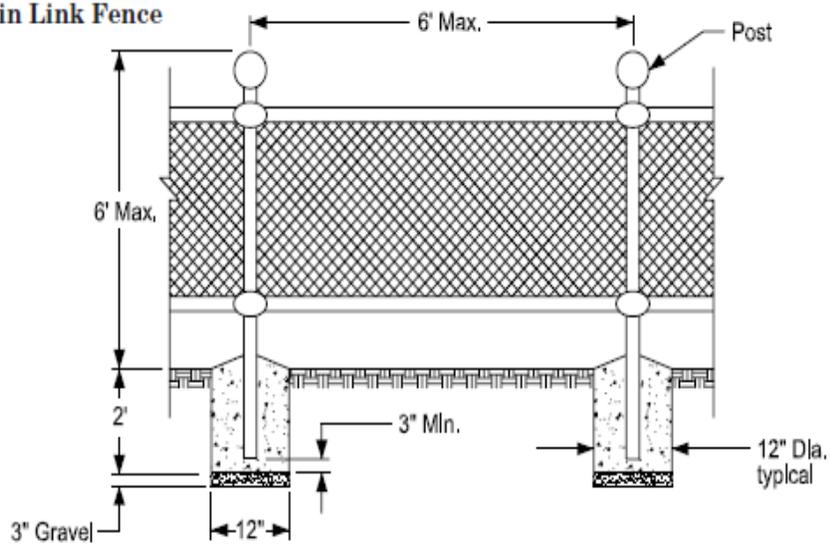


Figure 3 / Chain Link Fence



If fences do not conform with the design criteria in this bulletin, fences shall be designed by a registered professional (civil engineer or architect) licensed in the State of California. Plans may be submitted and a soil report may be required

A. MASONRY BLOCKS

Concrete masonry units shall be of sizes shown on the drawings and conform to ASTM C 90 (CBC 2103.1) Medium Weight Units with maximum linear shrinkage of 0.06% $F_m = 1,500$ psi grouted solid reinforced cells.

All head and bed joints shall be 3/8" thick. Bed joints of the starting course over the concrete foundation may be between 1/4" and 3/4". (ACI 530.1-05 section 3.3B)

No special inspection is required for fences up to 6 feet in height.

B. CONCRETE

Concrete for footings must have minimum compression strength of 2,500 psi at 28 days (CBC Table 1808.8.1). Cement shall conform to ASTM C 150 (ACI 318-05 section 3.2)

Note: Plastic (Stucco) cement ASTM C 1328 is not permitted in fences located in Seismic Design Category D.

C. MORTAR

The mortar mix must have a compressive strength equal to 1,900 psi minimum (CBC Table 2105.2.2.1.1) Mortar for use in masonry construction shall conform to ASTM C 270.

D. GROUT

Grout must have a compressive strength equal to 2,000 psi minimum, Section 2105.2.2.1.3 or ASTM C 476. When grout conforms to ASTM C 476, the grout shall be specified by proportion requirements or property requirements (CBC 2103.12)

E. REINFORCING STEEL

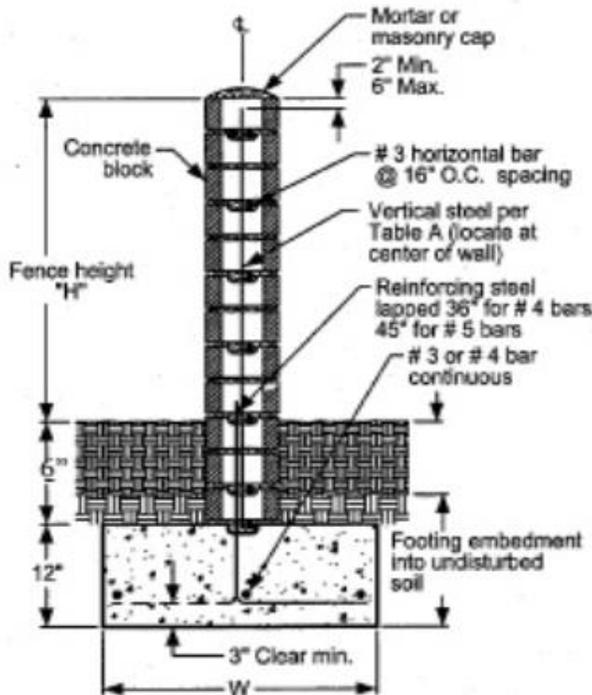
Reinforcing steel must be deformed and comply with ASTM A 615, Grade 40 or 60. When one continuous bar cannot be used, a lap or splice of 40-bar diameters is required. All bars shall be clean of loose flaky rust, grease or other materials likely to impair bond (ACI 308-05 section 5.7)

Reinforcement in concrete shall be protected from corrosion and exposure to chlorides. (ACI 318-05 section 7.7.6). Concrete protection for reinforcement shall be at least 3" to earth when the concrete is poured against the earth. (ACI 308-05 section 7.7.1)

F. MORTAR KEY

To ensure proper bonding between the footing and the first course of block, a mortar key must be formed by embedding a flat 2x4 flush with and at the top of the freshly placed footing. It should be removed after the concrete has started to harden (about 1 hour). A mortar key may be omitted if the first course of block is set into the fresh concrete and a good bond is obtained.

Figure 4 / Masonry Fence



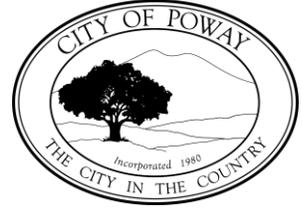
Fence height, H (feet)	Material	Footing width, W	Reinforcing steel
4	6" concrete block	12"	#3@ 16" o.c.
	8" concrete block	12"	#3@ 24" o.c.
5	6" concrete block	18"	#4@ 24" o.c.
	8" concrete block	18"	#3@ 24" o.c.
6	8" concrete block	24"	#4 @ 24" o.c.

Building Division Counter is open between the hours of 7:30 a.m. and 5:30 p.m. (closed for lunch 11:30 a.m. - 12:30 p.m.) Monday through Thursday. City Hall and the Building Division counter are closed on alternating Fridays ([see calendar](#)). Our Friday hours are 8:00 a.m. – 5:00 p.m. (closed for lunch 11:30 a.m. - 12:30 p.m.).

*****Please contact the Poway Building Division if you have any questions or concerns at (858) 668-4645 or building@poway.org*****

CITY OF POWAY

DEVELOPMENT SERVICES DEPARTMENT



Walls and Fences

Before proceeding with construction of a wall or fence, please check with the Development Services Department counter staff to make sure the wall or fence will not encroach into public property or block access to public facilities such as a water meter, sewer cleanout or fire hydrant.

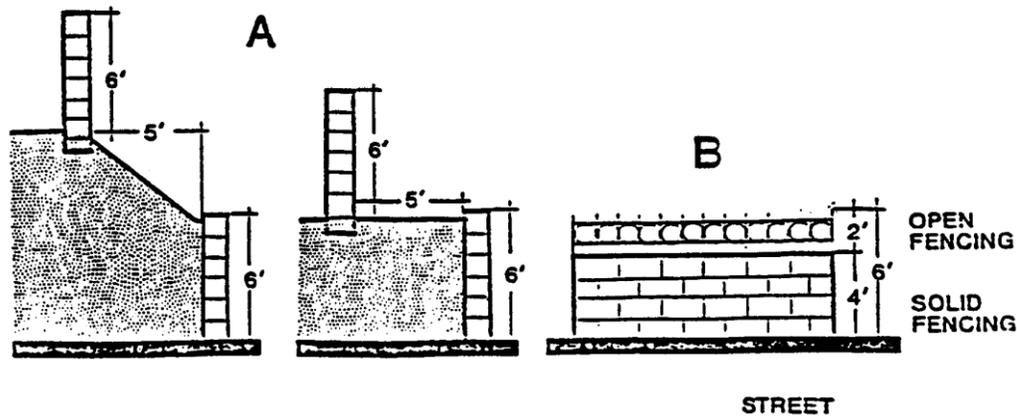
17.08.240 Walls and Fences. Requirements for walls and fences in residential zones shall be as follows:

A. A wall, fence, retaining wall, or driveway entry gate and associated pilasters including any appurtenances or any combination thereof shall not exceed six feet in height, except as herein provided.

1. When a retaining wall is used to increase usable lot area, the sum total of any combination of fence or wall and retaining wall shall not exceed six feet in height unless a five-foot landscape area is provided between the retaining wall and fence or wall. A series of retaining walls and fence or wall is allowed in conjunction with the five-foot landscape area, provided each individual fence and wall or retaining wall shall not exceed six feet in height as conceptually shown in Figure A below.

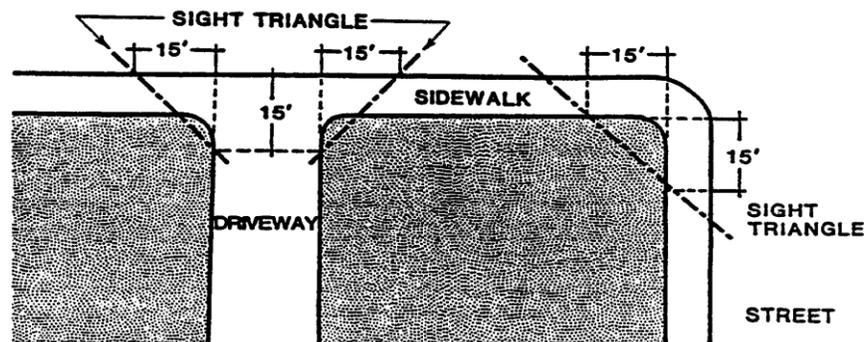
2. Within the required front yard area, at a minimum, the top two feet of a six-foot fence or wall shall be constructed of open fencing as conceptually shown in Figure B below, unless the wall is a retaining wall, a driveway entry gate and associated pilasters, or additional height is approved for noise attenuation purposes.

3. The maximum height of driveway entry gates and associated pilasters, on properties that are at least one acre in size and zoned RR-A, RR-B, RR-C, or RS-1, shall not exceed seven feet. A driveway entry gate and associated pilasters shall be located adjacent to a driveway and may be located within the front yard setback area, provided a minimum 20-foot setback is maintained to the edge of the street intersecting the driveway to allow the vehicle entering the property to stop in the driveway during operation of the gate without impacting traffic in the street.



B. A solid wall or fence not more than six feet in height may be maintained along the interior side of rear lot lines, except as required by PMC 17.08.220(A); provided, that such wall or fence does not extend into a required front yard except for noise attenuation as required by the City and as provided in this chapter.

C. A wall or fence adjacent to a driveway or street providing vehicular access to an abutting lot or street shall not exceed three feet in height within 15 feet of the intersection of the driveway and the street right-of-way and/or shall comply with CalTrans's design standards for site visibility. Corner cut-offs may be required for safety and visibility (see examples following).



D. Fiberglass sheeting, bamboo sheeting or other similar temporary material shall not be permitted as a fencing material on street yard frontages.

E. A wall or fence up to eight feet in height may be allowed by the Director of Development Services where necessary for noise attenuation from arterial streets or other noise sources.

F. Where barbed wire strands, razor wire, or concertina wire (coiled barbed wire) is placed at the top of a wall or fence, such materials shall maintain a minimum vertical clearance of six feet above grade, shall extend no more than one foot

above the top of the wall or fence, and shall be maintained in a safe condition. Such strands of wire shall not be counted in the overall allowable fence height.

G. It is unlawful to place razor wire or concertina wire on the rooftop of any building.

H. It is unlawful for an owner of a parcel of land within the City to keep barbed wire or any other type of wire fencing in an unsafe, abandoned, or materially dangerous condition. Unmaintained wire fencing, including but not limited to barbed wire, razor wire, and concertina wire (coiled barbed wire), is declared to be a public nuisance and shall be subject to the nuisance abatement procedure, Chapter 8.72 PMC.

I. All fences (including retaining walls) shall be constructed of new or good used material and in accordance with the methods of construction which conform to the requirements of the Uniform Building Code. Additionally, they shall be maintained in a state of good repair. Any dilapidated, dangerous or unsightly fences or retaining walls shall be repaired or removed.

J. Retaining walls, which have a walking surface adjacent to the top of the retaining wall, shall be equipped with an open and decorative metal railing on the top of the retaining wall for safety as deemed necessary by the City Building Official. The height of the required railing shall not be considered in the overall height measurement of the retaining wall. (Ord. 685 § 3, 2009; Ord. 674 §§ 12 – 15, 2008; Ord. 518, 1999; Ord. 481 § 3, 1997; Ord. 232 § 1, 1987; Ord. 195 § 1, 1986; Ord. 172 § 1 (Exh. A), 1985; Ord. 162 § 1, 1985; Ord. 113 § 1 (Exh. A 2.5), 1983).

Please also note that Poway Municipal Code section 13.11.130(A)(6) requires that there be “free access” to water meters. “Free access to a water meter” means two feet of clearance on all sides of the meter and no obstructions above the meter. Poway Municipal Code section 13.11.130(A)(7) prohibits permanent structures, such as walls, fences, and gates, in a utility easement without written authorization from the City of Poway. In an emergency, the City has the right to remove the fence or wall to provide necessary access for repair work and to charge the removal cost to the person responsible for placement of the encroachment.

If you have any further questions please contact the City of Poway Development Services Department at (858) 668-4600.