



City of Coronado Public Handout #3

FENCES

November 2, 2017

Purpose: Regular existing, approved zoning and building regulations for the location, design criteria and heights of fencing on private property.

Authority: City of Coronado Municipal Code - Title 86, Chapter 56, Zoning
City of Coronado Municipal Code – Title 70, Building and Construction

Diagrams:

1. Corner lot – restricted height area
2. Fence construction details
3. Masonry Fence
4. Site Plan Example

Notes: Height and location regulations apply to hedges and other plant materials used as fencing and/or property line dividers.

Permit Requirements:

1. Construction Permit Application
2. Fence Certification Form
3. Construction Valuation Form
4. 2 Copies of Site Plan – See Site Plan Example attachment for required items

*Required forms can be obtained from City of Coronado website under building services section.

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

I. 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.

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

II. 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.

III. 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.

IV. 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

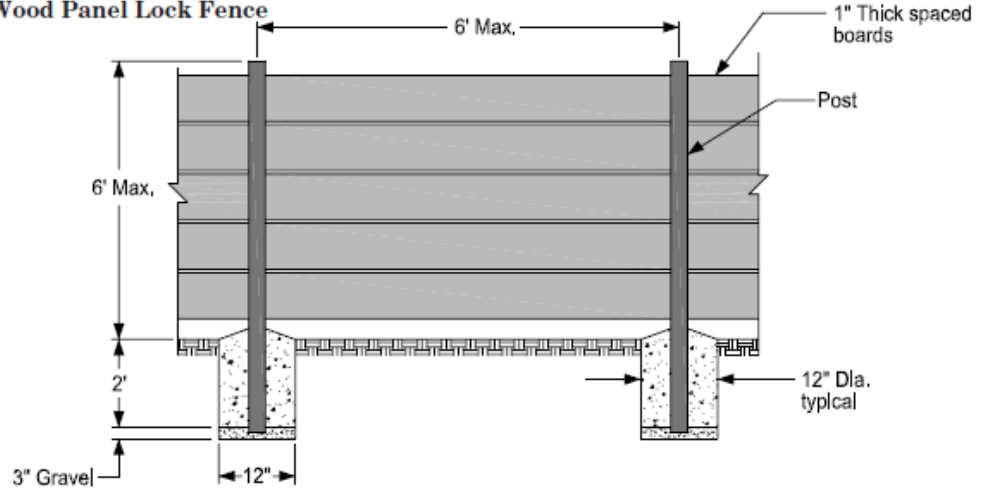


Figure 2 / Board Fence

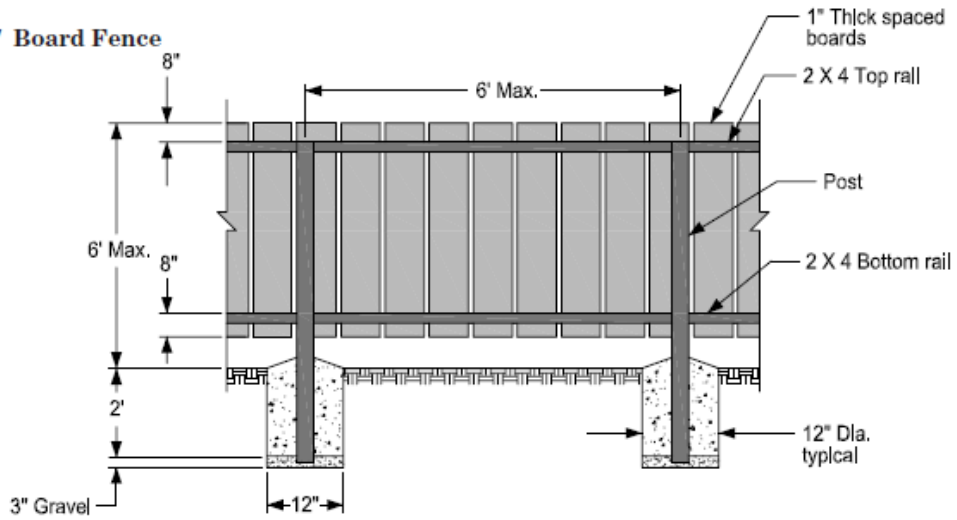
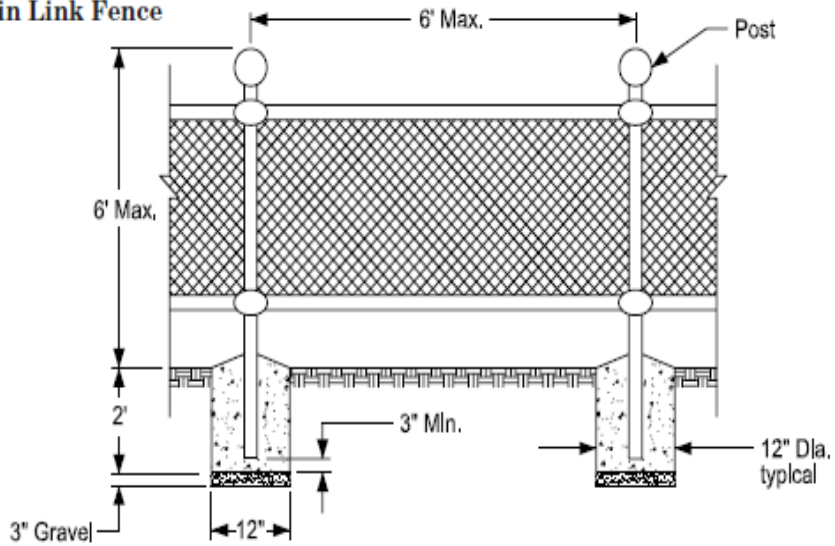


Figure 3 / Chain Link Fence



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 soil report may be required.

A. MASONRY BLOCKS

Concrete masonry units shall be of sizes shown on 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 a minimum compressive strength of 2,500 psi at 28 days. (CBC 1805.4.2.1). 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 1,800 psi minimum (CBC Table 2105.2.2.1.2). Mortar for use in masonry construction shall conform to ASTM C 270 and shall conform to the proportion specifications of Table 2103.8(1) or the property specifications of Table 2103.8(2) of the CBC.

D. GROUT

Grout must have a compressive strength equal to 2,000 psi minimum. Grout shall conform to Table 2103.12 or to 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 (CBC 2103.13.1), 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 318-05 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 318-05 section 7.7.1).

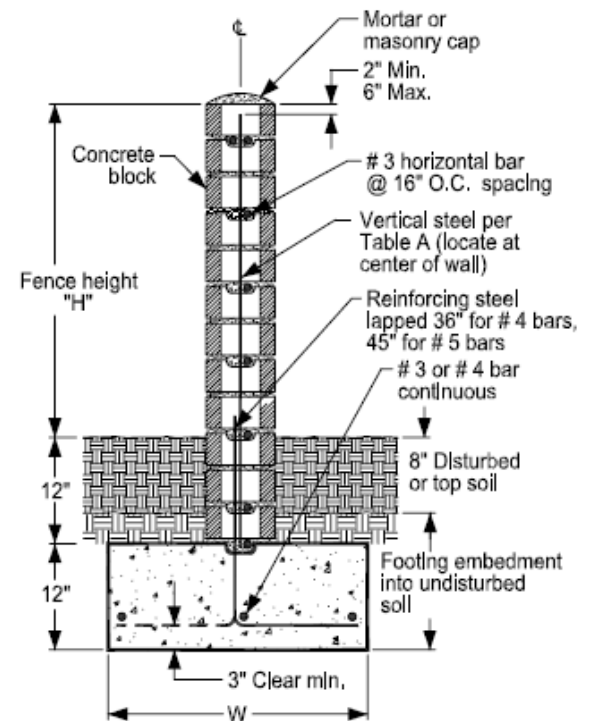
F. MORTAR KEY

To insure 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.

Table A / Requirements for Masonry Walls

Fence height, H (feet)	Material	Footing width, W	Reinforcing steel
4	6" concrete block	1' - 10"	#4 @ 16" o.c.
	8" concrete block	1' - 11"	#4 @ 24" o.c.
5	6" concrete block	2' - 3"	#5 @ 8" o.c.
	8" concrete block	2' - 4"	#4 @ 24" o.c.
6	8" concrete block	2' - 11"	#4 @ 8" o.c.

Figure 4 / Masonry Fence



FENCES, WALLS, & HEDGES ZONING RESTRICTIONS

Municipal Code Title 86

November 2, 2017

Note: The following regulations are excerpts; additional ordinances in other chapters may apply.

86.56.159 Fences, walls or hedges – Measurement of height. The height of a fence, wall or hedge separating private property shall be measured from “grade” to the highest point on the fence, wall, or hedge. Where a fence, wall or hedge is located within a required front, side or rear yard where adjoining properties have unequal ground levels, the lower “grade” shall be used to measure the height.

The height of a fence, wall or hedge separating public and private property shall be measured from “grade” or the surface level of the public property closest to the property line on which the fence, wall or hedge is located, whichever is lower, to the highest point on the fence, wall or hedge. (Ord. 2068 § 10, 2017)

86.56.160 Fences, walls or hedges – Height limit, side or rear yard. Any fences, walls or hedges located in Residential Zones shall not exceed eight feet in height in a required side or rear yard and six feet in the area between the front or side lot line and the nearest building located on the lot when no front or side yard is required. (Ord. 1971 § 2, 2005)

86.56.165 Fences, walls or hedges – Height limit, front yard.

A. Fences, walls, or hedges located within the required front yard shall not exceed four feet in height.

The following are exceptions to this requirement:

1. A fence or wall up to six feet in height may be located along the side property lines, within the front yard, and project into the front yard eight feet. Said six foot fence or wall shall extend no closer than 10 feet to the front property line;
2. Those lots which front solely on an alley or the following streets may enclose 100 percent of their front yards with an eight-foot wall, fence, or hedge: Third Street between A Avenue and Alameda Boulevard, all of Fourth Street, Alameda Boulevard between Third and Fourth Street and Pomona Avenue between Third and Fourth Street. Where walls or fences are permitted to be over four feet in height and adjoin public rights-of-way, said wall or fence shall be buffered with landscaping to soften the fence or wall. The proposed landscaping shall be approved by the City of Coronado prior to installation. Walls or fences over four feet in height, adjacent to an alley, are not required to be buffered with landscaping. (Ord. 2062 § 2 (Exh. A), 2016)

86.56.170 Fences, walls or hedges – Height limit, street side yard. Fences, walls, or hedges shall not exceed six feet in height in any required street side yard required on any corner lot.

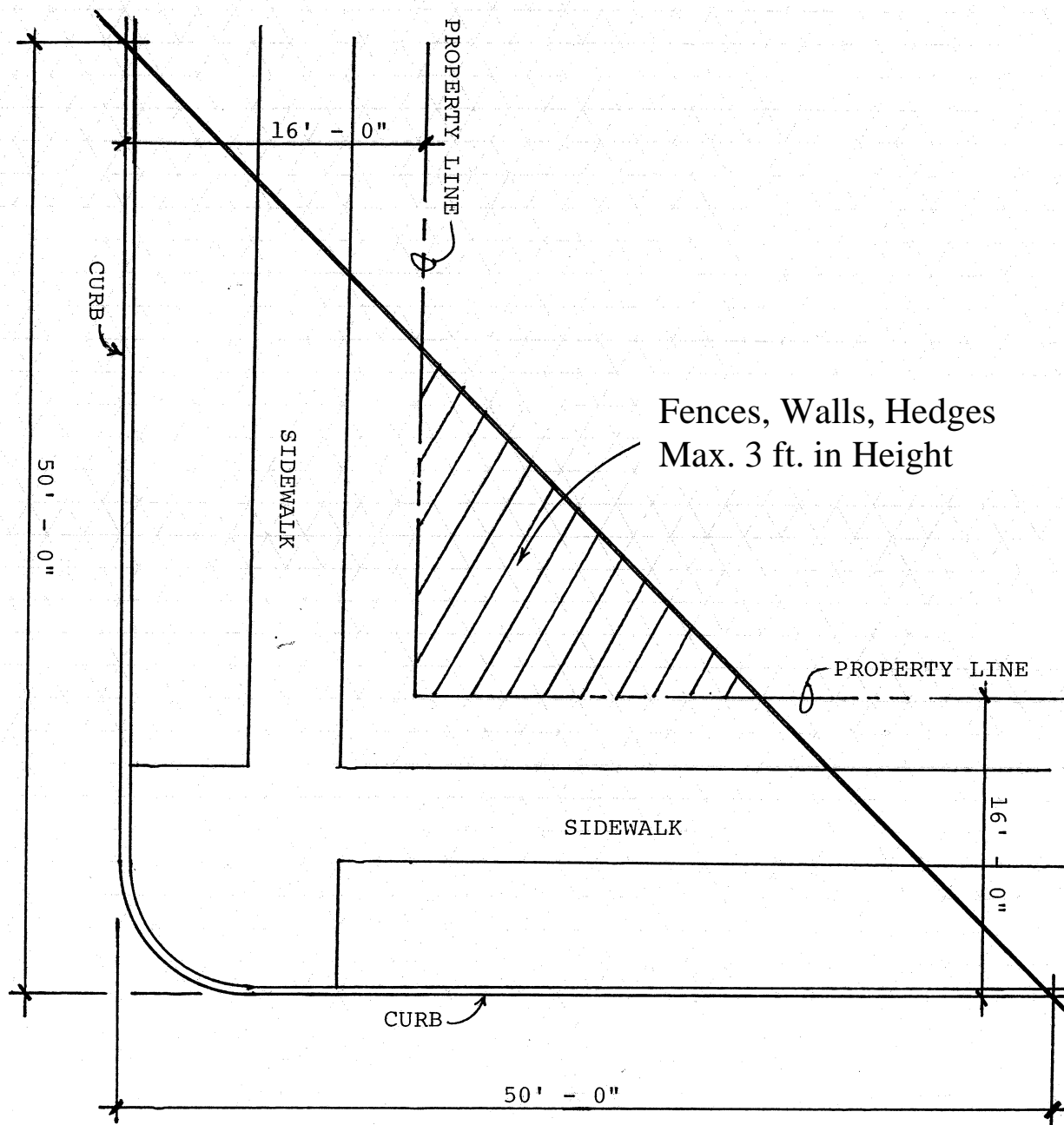
Exception: Those lots which are located along the following streets may construct a fence, wall, or hedge not to exceed eight feet in height along the street side yard: Third Street between A Avenue and Alameda Boulevard, all of Fourth Street, Alameda Boulevard between Third and Fourth Street and Pomona Avenue between Third and Fourth Street. Where walls or fences are permitted to be over four feet in height in the street side yard, said fences or walls shall not be located within the sight triangle required in CMC 86.56.175. (Ord. 1971 § 2, 2005)

86.56.175 Vertical barriers – Fences, walls or hedges – Height limit, sight triangle for residential corner lot. In the case of corner lots in Residential Zones, vertical barriers, including fences, walls and hedges, shall not exceed three feet in height in a triangle area created by a line connecting points along the street curb lines which are established 50 feet in distance from the intersection of such curb lines at the corner of a block. Exception: Single stem plants or trees without foliage between a height of three and eight feet may be planted and maintained within the corner triangular area and shall be measured from the established curb grade. (Ord. 1971 § 2, 2005) (NOTE: See diagram #1)

DIAGRAM #1

SITE TRIANGLE FOR CORNER LOTS.

RESTRICTED FENCE, WALL, & HEDGE HEIGHT



Wood / Chain Link Fence Construction

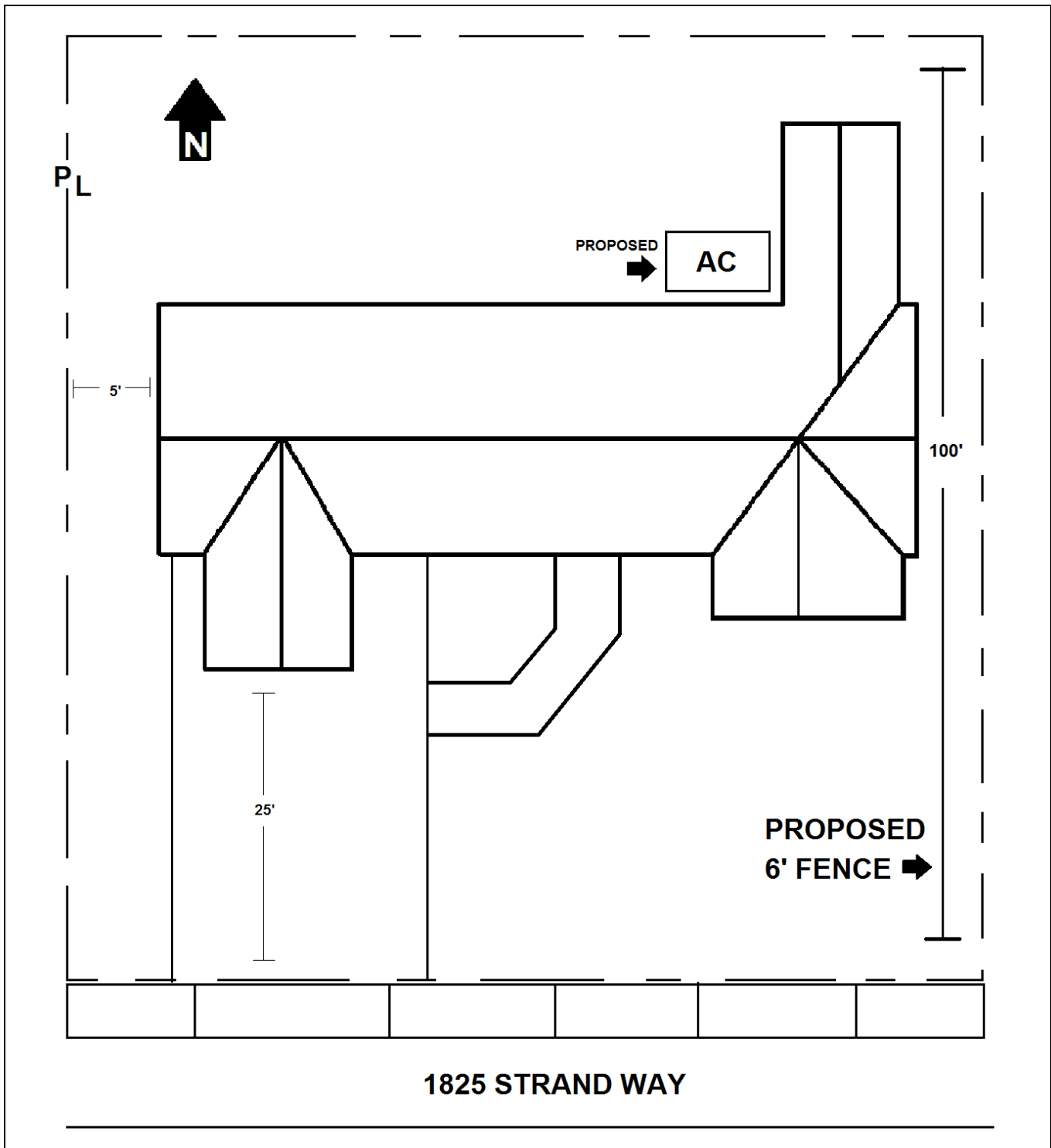
Construction Notes:

1. Specifications are delineated in Table B. Details for typical wood panel lock fences, board fences, and chain link fences are shown in figures 1, 2, 3.
2. Specifications for concrete block, slump block, or other masonry walls are delineated in City of Coronado Public Handout #2.
3. Inspections are required for footings (spacing, location, and depth of post holes) and final.
4. Wood posts must be treated or must be #2 foundation grade redwood, pressure-treated Douglas fir/larch #2 or better.
5. Preservative must be applied to the ends of wood posts buried in the ground.
6. Metal pipes or W-shaped metal used as fence posts must be set in post holes extending at least 24” into undisturbed natural ground or properly compacted fill. Posthole diameters may be reduced to allow for a minimum of 3” clearance on all sides of the metal post pipe.
7. Posts - whether wood or metal - must be placed over 3” of loose gravel as shown in diagram #2.
8. **Any deviation from the specifications delineated herein requires submission of an engineered plan stamped by a California State licensed Engineer or Architect.**

TABLE B

Height (H) (feet)	Post Size (nominal)	Wood Type /Grade	Span Width (W) (feet)	Footing Width (FW)	Footing Depth (FD)
4	4 x 4	Redwood, Cedar, DF #2	6	12”Ø	24”
4	4 x 6	Redwood, Cedar, DF #2	8	12”Ø	24”
5	4 x 4	Redwood, Cedar, DF #2	6	12”Ø	24”
5	4 x 6	Redwood, Cedar, DF #2	8	12”Ø	24”
6	4 x 4	Redwood, Cedar, DF #2	6	12”Ø	24”
6	4 x 6	Redwood, Cedar, DF #2	8	12”Ø	24”
7	4 x 6	Redwood, Cedar, DF #2	6	18”Ø	42”
7	6 x 6	Redwood, Cedar, DF #1	8	24”Ø	42”
8	6 x 6	Redwood, Cedar, DF#1	6	18”Ø	42”
8	6 x 6	Redwood, Cedar, DF#1	8	24”Ø	42”

Site Plan Example



REQUIRED ITEMS

1. Project Location/Street Address
2. Measurements
3. Proposed location of Construction i.e. AC Units, Fences, Structures
4. Plot Lines/Setbacks
5. Project Description