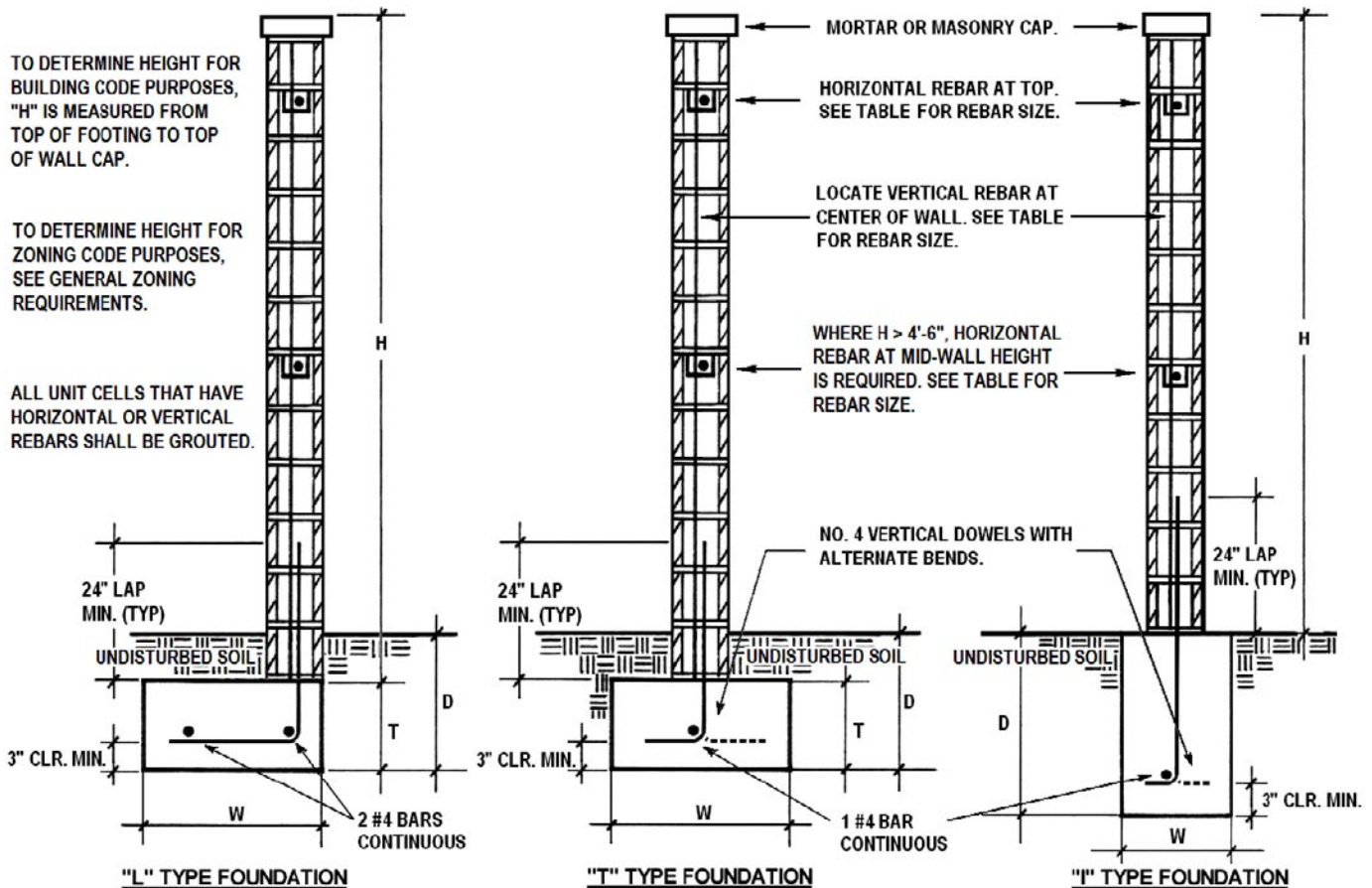




Standard CMU Block Wall Detail

The purpose of this Information Bulletin is to assist owners and builders who may choose to erect simple freestanding concrete masonry unit (CMU) block walls using the Department's standard detail. This Information Bulletin provides general requirements and specifications for the construction of standard CMU block walls of various height, thickness or footing configurations. These walls are designed for the average condition and may not be suitable in all cases. Where the proposed wall construction is located on a site with slope steeper than 10%, with adverse soil conditions (e.g., expansive soil, liquefaction, flood hazard, etc.) or deviates from this Information Bulletin, a registered design professional licensed in the State of California should be consulted.



GENERAL ZONING REQUIREMENTS:

For zoning code purposes, fence height shall be measured from grade adjoining the fence on the public right-of-way side of the fence and/or from the average grade of both sides of the fence between two private properties. For lots that slope more than 5'-0" from front to rear, contact a Planning staff at the Development Services Center to help establish the fence height. A 6'-0" corner cutoff may be required for fencing adjacent to driveways and sidewalks that obstruct visibility.



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WALL HEIGHT	"L" TYPE FOUNDATION			"T" TYPE FOUNDATION			"I" TYPE FOUNDATION		VERTICAL REBAR	HORIZ. REBAR
	W	D	T	W	D	T	W	D		
3' - 6"	18"	18"	9"	14"	12"	6"	12"	22"	#4 Rebar @ 48" o.c.	#4 Rebar
4' - 6"	18"	18"	9"	18"	12"	6"	12"	26"	#4 Rebar @ 48" o.c.	#4 Rebar
5' - 6"	24"	24"	12"	22"	12"	6"	12"	30"	#4 Rebar @ 48" o.c.	#4 Rebar
6' - 6"	24"	24"	12"	26"	14"	6"	12"	36"	#4 Rebar @ 24" o.c.	#4 Rebar

GENERAL BUILDING REQUIREMENTS:

Wall over 4'-0" in height measured from the bottom of the footing to the top of the wall shall require a building permit. Foundation must be poured against undisturbed soil with no appreciable slope of sidewalls. All horizontal and vertical reinforcements shall maintain a min. 3" clearance from the bottom and sides of the trench. Horizontal bond beam reinforcement is required to be located in the 2nd course from the top of the wall. Prefabricated joint reinforcement in each two top mortar joints consisting of two No. 9 gage galvanized wires with No. 9 gage steel welded cross wires spaced a max. 16" o.c. may be substituted for the horizontal bond beam reinforcement in the top of walls 5'-6" or less in heights. All wires shall be thoroughly embedded in the bed joint mortar and lapped a min. of 12". Units shall be staggered (common bond are not permitted) and may be partially grouted with grout confined to those cells that have horizontal and vertical reinforcing steel.

SPECIFICATIONS:

Concrete:	Min. 2,500 psi strength in 28 days. Mix for concrete footing to be 1 part cement to 2-1/2 parts sand to 3-1/2 parts gravel with a max. of 7-1/2 gallons of water per sack of cement.
Block:	Grade "N" ASTM C 90-03. Nominal width of units shall be a min. 6".
Reinforcement:	Deformed steel bar conforming to ASTM A-615 Grade 40 or Grade 60.
Mortar (Type "S")	Mix to be 1 part cement to 1/2 part lime to 3 parts damp loose sand.
Grout:	Mix to be 1 part cement to 3 parts sand to max. 1/10 part lime. Sufficient water should be added to produce consistency for pouring without segregation of the constituents. May contain 2 parts pea gravel (max. size 3/8").

INSPECTIONS:

Foundation Insp.: When trench is ready for concrete and all steel reinforcements are tied in place.

Pre-Grout Insp.: When first horizontal bar and all vertical bars are in place, **but not grouted!**

Final Insp.: After wall is grouted and cap is installed

COMMON PROPERTY FENCE WALL:

Where a common property fence wall is requested, a completed and signed "Common Property Wall Line Agreement and Maintenance" form by all of the common property owners is required prior to approval of the 1st inspection (i.e., foundation inspection).