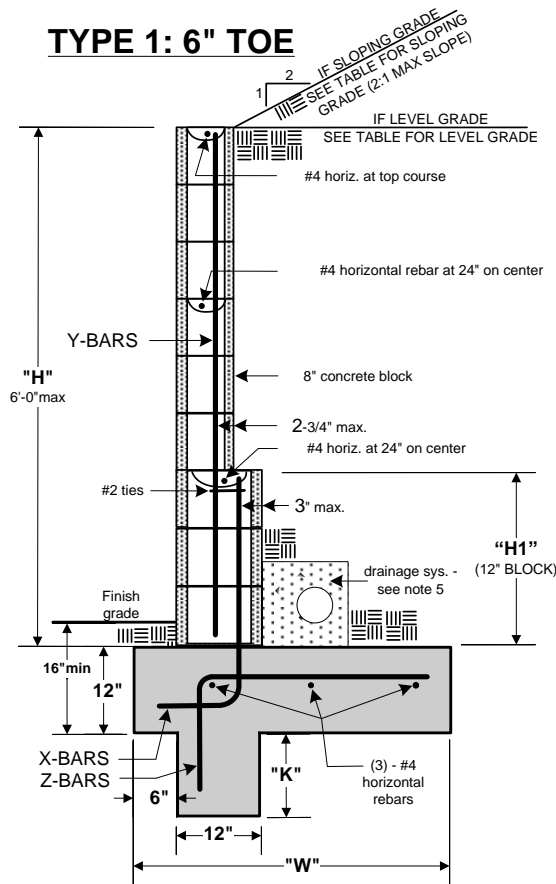
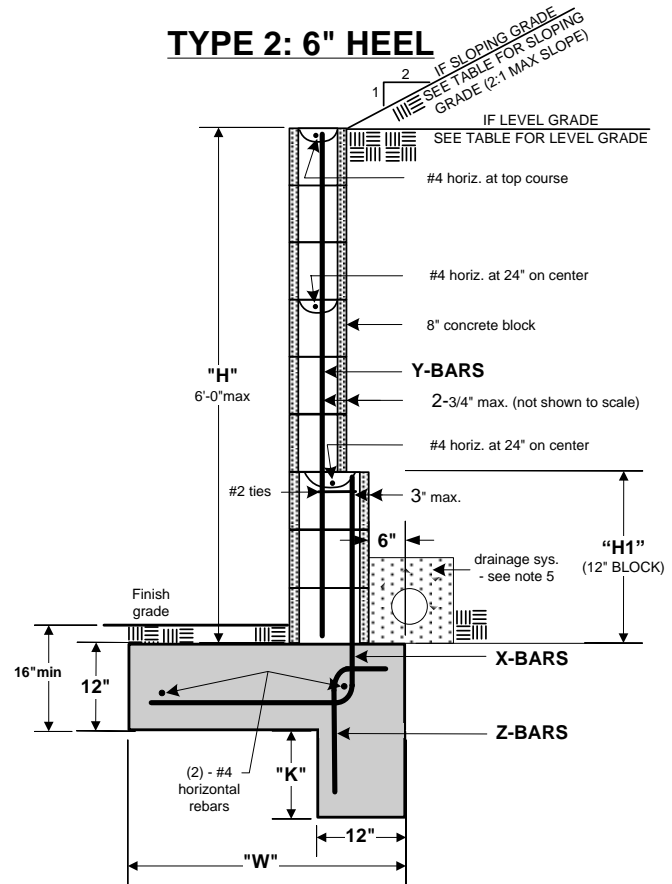


### TYPE 1: 6" TOE



### TYPE 2: 6" HEEL



| TYPE 1: 6" TOE                         |                   |                  |                     |          |          |          |                 |
|--|-------------------|------------------|---------------------|----------|----------|----------|-----------------|
| GRADE CONDITION                        | "H" (WALL HEIGHT) | "H1" (12" BLOCK) | "W" (FOOTING WIDTH) | X BARS   | Y BARS   | Z BARS   | "K" (KEY DEPTH) |
| SLOPING GRADE AT TOP OF WALL (2:1 MAX) | 5'- 1" to 6'- 0"  | 24"              | 69"                 | #4 @ 16" | #4 @ 32" | #4 @ 11" | 30"             |
|  | 4'- 1" to 5'- 0"  | N/R              | 48"                 | #4 @ 16" | #4 @ 16" | #4 @ 12" | 25"             |
|  | 3'- 1" to 4'- 0"  | N/R              | 30"                 | #4 @ 32" | #4 @ 32" | #4 @ 32" | 16"             |
|  | Up to 3'- 0"      | N/R              | 18"                 | #4 @ 32" | #4 @ 32" | #4 @ 32" | 8"              |
| LEVEL GRADE AT TOP OF WALL             | 5'- 1" to 6'- 0"  | 24"              | 45"                 | #4 @ 24" | #4 @ 32" | #4 @ 24" | 8"              |
|  | 4'- 1" to 5'- 0"  | N/R              | 36"                 | #4 @ 24" | #4 @ 24" | #4 @ 24" | 7"              |
|  | 3'- 1" to 4'- 0"  | N/R              | 24"                 | #4 @ 32" | #4 @ 32" | #4 @ 32" | 5"              |
|  | Up to 3'- 0"      | N/R              | 21"                 | #4 @ 32" | #4 @ 32" | #4 @ 32" | N/R             |

| TYPE 2: 6" HEEL                        |                   |                  |                     |          |          |          |                 |
|--|-------------------|------------------|---------------------|----------|----------|----------|-----------------|
| GRADE CONDITION                        | "H" (WALL HEIGHT) | "H1" (12" BLOCK) | "W" (FOOTING WIDTH) | X BARS   | Y BARS   | Z BARS   | "K" (KEY DEPTH) |
| SLOPING GRADE AT TOP OF WALL (2:1 MAX) | 5'- 1" to 6'- 0"  | 24"              | 39"                 | #4 @ 16" | #4 @ 32" | #4 @ 12" | 28"             |
|  | 4'- 1" to 5'- 0"  | N/R              | 29"                 | #4 @ 16" | #4 @ 16" | #4 @ 12" | 22"             |
|  | 3'- 1" to 4'- 0"  | N/R              | 24"                 | #4 @ 32" | #4 @ 32" | #4 @ 32" | 15"             |
|  | Up to 3'- 0"      | N/R              | 18"                 | #4 @ 32" | #4 @ 32" | #4 @ 32" | 8"              |
| LEVEL GRADE AT TOP OF WALL             | 5'- 1" to 6'- 0"  | 24"              | 33"                 | #4 @ 24" | #4 @ 32" | #4 @ 24" | 18"             |
|  | 4'- 1" to 5'- 0"  | N/R              | 26"                 | #4 @ 24" | #4 @ 24" | #4 @ 24" | 13"             |
|  | 3'- 1" to 4'- 0"  | N/R              | 20"                 | #4 @ 32" | #4 @ 32" | #4 @ 32" | 7"              |
|  | Up to 3'- 0"      | N/R              | 20"                 | #4 @ 32" | #4 @ 32" | #4 @ 32" | N/R             |

N/R = NOT REQUIRED

\*SEE PAGE 2 FOR ADDITIONAL INFORMATION\*

#### DISCLAIMER:

Alternate retaining wall designs may be possible when provided with an engineered analysis. Use of this standard design is at the user's risk and carries no implied or inferred guarantee against failure or defects.

Western Riverside County Code Uniformity Program

## City of Temecula

# Retaining Walls

**951-694-6439**

41000 Main Street  
Temecula, CA 92590

04/17/2014
CD\_25 Walls\_Retaining\_Block Atop.vsd
PAGE 1 OF 4

### GENERAL NOTES:

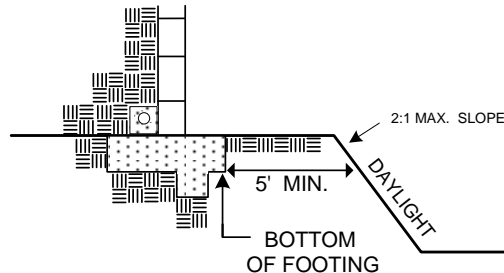
- 1) ALL WORK SHALL CONFORM TO THE ADOPTED CODES AND ZONING REGULATIONS.
- 2) CONCRETE BLOCK MASONRY SHALL COMPLY WITH THE FOLLOWING:
  - A. CONCRETE MASONRY SHALL CONFORM TO ASTM C-90, GRADE - N.
  - B. MORTAR: TYPE M OR S.
  - C. GROUT ALL CELLS W/2000 PSI PORTLAND CEMENT GROUT.
- 3) THE ULTIMATE COMPRESSIVE STRENGTH REQUIRED FOR FOUNDATION CONCRETE SHALL BE 2500 PSI.
- 4) ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE ASTM A615-40 AND OVERLAP SPLICES SHALL BE 40 BAR DIAMETERS MINIMUM. ALL REBAR HOOKS SHALL BE A MINIMUM OF 12 TIMES THE REBAR DIAMETER (12bd) IN LENGTH.
- 5) PROVIDE RETAINING WALL DRAINAGE SYSTEM AS FOLLOWS:  
PROVIDE 1CF/FT OF CLEAN COARSE GRAVEL WITH 4" DIAMETER PERFORATED PVC DRAINAGE PIPE WITH 1% GRADIENT TO DRAIN - OR OMIT HEAD JOINTS IN FIRST COURSE.
- 6) OPTIONAL: INSTALLATION OF A MOISTURE BARRIER ON THE FILL SIDE OF THE WALL WILL HELP TO PREVENT MOISTURE FROM PENETRATING THE VISIBLE SIDE OF THE WALL, RESULTING IN DISCOLORATION.
- 7) THIS RETAINING WALL STANDARD IS **NOT** DESIGNED TO SUPPORT SURCHARGE LOADS FROM MOTOR VEHICLES OR OTHER STRUCTURES.
- 8) CLEANOUTS SHALL BE PROVIDED FOR ALL GROUT POURS OVER 5 FEET IN HEIGHT. WHERE REQUIRED, CLEANOUTS SHALL BE PROVIDED IN THE BOTTOM COURSE AT EVERY VERTICAL BAR AND SHALL BE SEALED AFTER INSPECTION AND BEFORE GROUTING.

### REQUIRED INSPECTIONS:

- 1) **FOOTING;**  
EXCAVATION TRENCH CLEAN WITH STEEL IN PLACE AND SUPPORTED 3" ABOVE AND AWAY FROM THE SURROUNDING EARTH/DIRT.
- 2) **REBAR/PRE-GROUT and DRAINAGE SYSTEM;**  
BOND BEAM REBAR AND VERTICAL REBAR IN PLACE - INSPECTION PRIOR TO PLACING GROUT. DRAINAGE SYSTEM COMPLETE.
- 3) **FINAL;**  
AFTER GROUT IS PLACED AND BACKFILL COMPLETED - PRIOR TO ANY DECORATIVE CAP PLACEMENT.

### SETBACK FROM TOP OF SLOPE:

All footings adjacent to slopes to be at least 5' to daylight as shown below.




### DESIGN PARAMETERS:

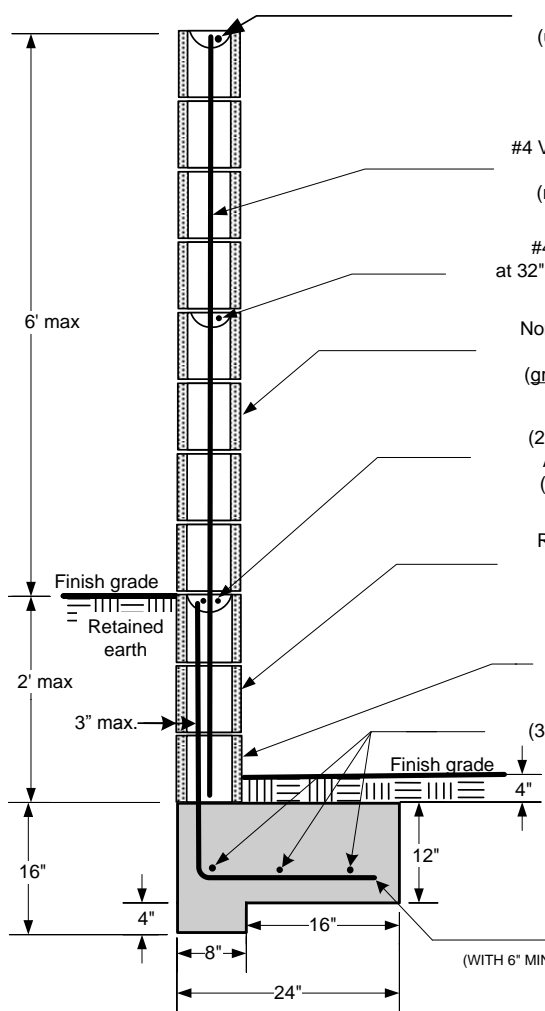
|  |        |
|--|--------|
| ACTIVE SOIL PRESSURE (PSF)                         | = 30   |
| LEVEL BACKFILL                                     | = 43   |
| SLOPING (2:1 MAX)                                  | = 150  |
| PASSIVE SOIL BEARING (PSF)                         | = 0.25 |
| COEFFICIENT OF FRICTION                            |        |
| ALLOWABLE SOIL BEARING PRESSURE (PSF)              | = 1500 |
| (NO INCREASES TAKEN FOR DEPTH OR WIDTH OF FOOTING) |        |

### DISCLAIMER:

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|   |   |             |
|---|---|-------------|
| Western Riverside County Code Uniformity Program                                    |   |             |
|  | <b>City of Temecula</b>                 |             |
|   | <b>Retaining Walls</b>                  |             |
| <b>951-694-6439</b>   | 41000 Main Street<br>Temecula, CA 92590 |             |
| 04/17/2014  | CD_25_Walls_Retaining_Block<br>Atop.vsd | PAGE 2 OF 4 |

### FOOTING OPTION "A"



#4 Horizontal rebar  
(use bond beam block)

#4 Vertical rebar at 24" max.  
spacing  
(rebar in center of cell)

#4 horizontal rebar continuous  
at 32" max. above top of retaining wall  
(use bond beam block)

Non-retaining portion of wall  
8" Block  
(grout only cells with rebar)

(2) - #4 Horizontal rebars  
At top of retaining wall  
(use bond beam block)

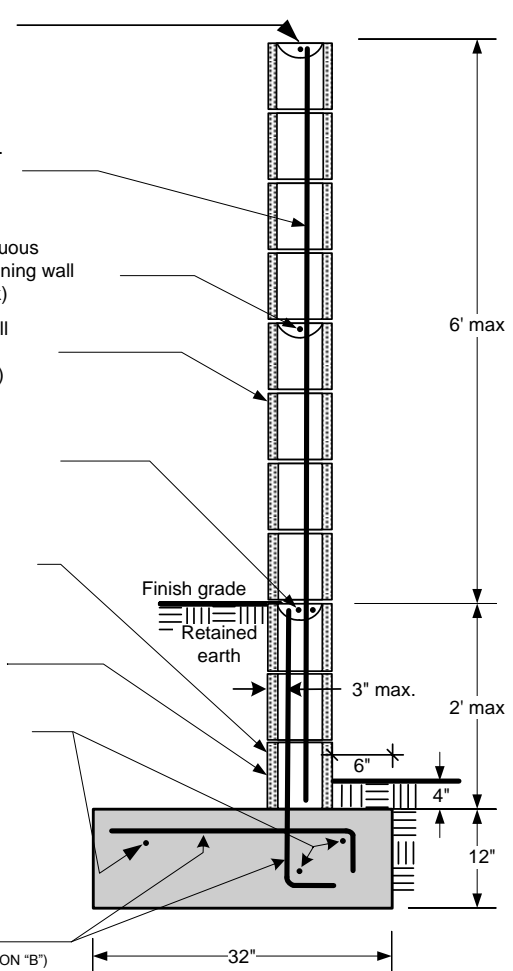
Retaining portion of wall  
8" Block  
(solid grout All cells)

Omit Head Joints  
for drainage  
(first course only)

(3) - #4 Horizontal rebars

#4 rebar  
at 24" spacing  
(WITH 6" MIN. HOOKS AT ENDS FOR OPTION "B")

### FOOTING OPTION "B"



**the following inspections are required:**

- 1) **FOOTING;** Excavation trench clean with steel in place and supported 3" above and away from the surrounding earth/dirt.
- 2) **REBAR/PRE-GROUT;** Bond beam rebar and vertical rebar in place - inspection prior to placing grout.
- 3) **FINAL;** After grout is placed - prior to any decorative cap placement.

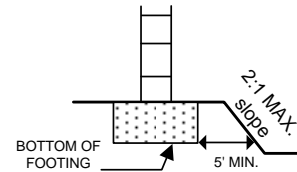
**NOTES:**

- 1) fence heights are regulated – consult zoning regulations before beginning construction.
- 2) no water course or natural drainage shall be obstructed.
- 3) all rebar to be astm spec. A615, grade 40 minimum.
- 4) all rebar lap splices to be 24" minimum.
- 5) all masonry units to be astm C-90 grade N.
- 6) not designed for surcharge loads from vehicles or structures.


**DISCLAIMER:**

Alternate designs may be possible when provided with an engineered analysis. Use of this standard design is at the user's risk and carries no implied or inferred guarantee against failure or defects.

All footings adjacent to slopes to be at least 5' to daylight as shown below.



\*SEE PAGE 2 FOR ADDITIONAL INFORMATION\*

|   |  |                |
|---|--|----------------|
| Western Riverside County Code Uniformity Program                                    |  |                |
|  | <b>City of Temecula</b>                      |                |
|   | <b>Block Wall<br/>atop 2' Retaining Wall</b> |                |
| <b>951-694-6439</b>   | 41000 Main Street<br>Temecula, CA 92590      |                |
|   | 04/17/2014                                   | WallCOMBOrinal |

### REBAR PLACEMENT ILLUSTRATION

(SEE PAGE 1 FOR SPECIFIC REQUIREMENTS)

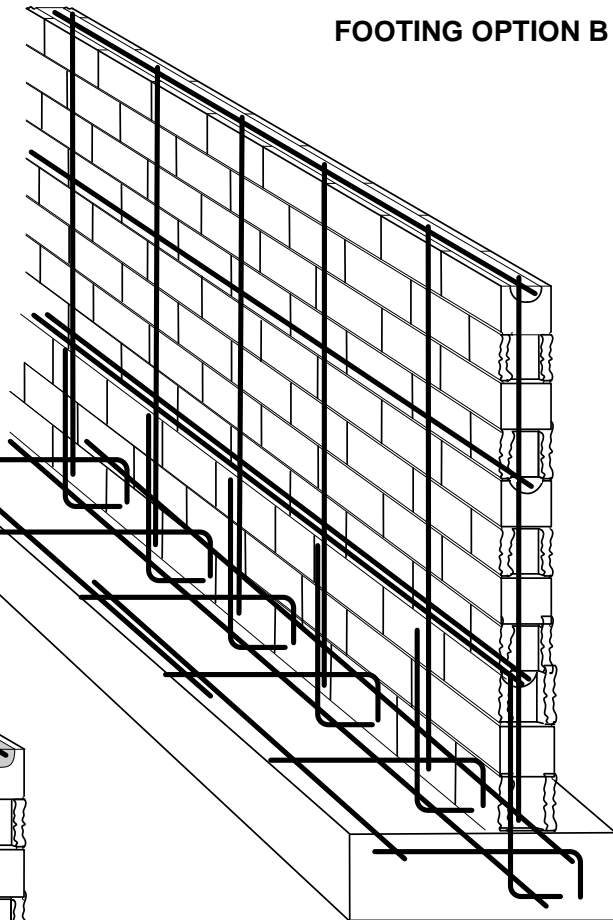
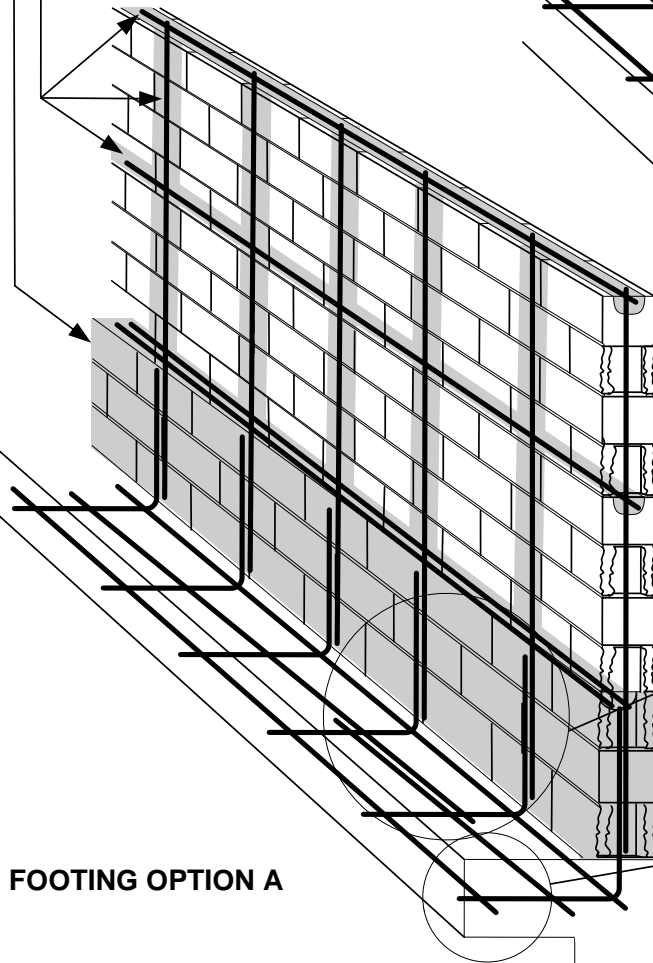
(TYPICAL)

For the retaining portion of wall  
all cells to be grouted

(TYPICAL)

For non-retaining portion of wall  
only cells and bond beam courses with  
rebar to be grouted  
(use grout stop mesh as appropriate)

FOOTING OPTION B



(TYPICAL)  
All rebar splices  
24" min. overlap

(TYPICAL)  
All rebar shall have a minimum of  
3" concrete cover at footings

FOOTING OPTION A

#### DESIGN PARAMETERS:

ACTIVE SOIL PRESSURE (PSF) = 30  
PASSIVE SOIL BEARING (PSF) = 150  
COEFFICIENT OF FRICTION = 0.25  
ALLOWABLE SOIL BEARING (PSF) = 1500  
WIND = 80 MPH, EXPOSURE C  
SEISMIC:  
Na=1.3, Nv=1.6, Z=0.4, SOIL PROFILE=Sd

Western Riverside County Code Uniformity Program



## City of Temecula

### Block Wall

### atop 2' Retaining Wall

41000 Main Street  
Temecula, CA 92590

951-694-6439

04/17/2014

WallCOMBOFinal

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