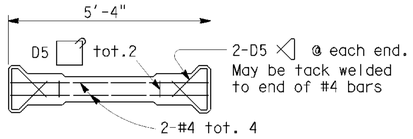
DIST.	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED ENGINEER - CIVIL

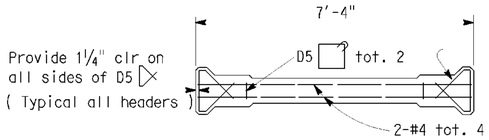
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

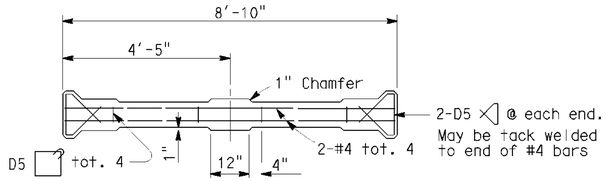
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



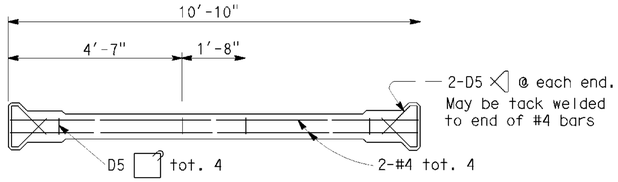
4'-6" HEADERS



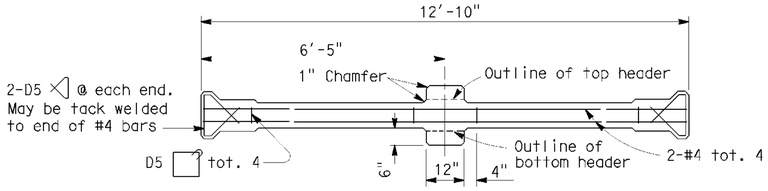
6'-6" HEADERS



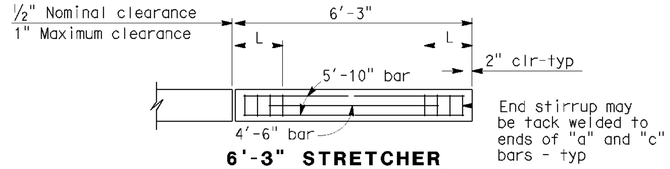
8'-0" HEADERS



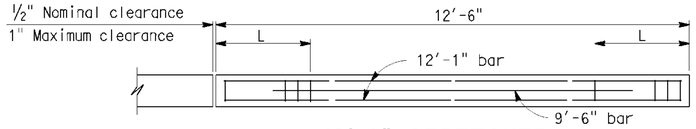
10'-0" HEADERS



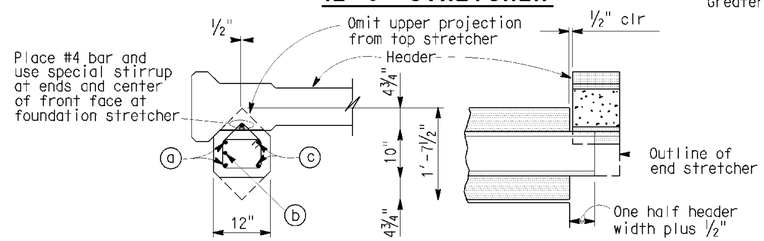
12'-0" HEADERS



6'-3" STRETCHER



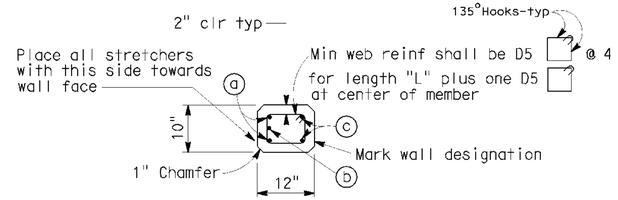
12'-6" STRETCHER



CLOSED FACE STRETCHER

Note: Closed face stretcher details same as open face stretcher except as noted.

STRETCHER DETAILS



SECTION

*Required concrete compressive strength for stretchers increases with increased distance from the top of the crib wall as follows:

Less than or equal to 21'-0", f'c = 4000 psi
Greater than 21'-0", f'c = 5000 psi

STRETCHER BAR SIZE DATA

WALL TYPE	*DESIGN f'c psi	OPEN FACE 6'-3" a	b	c	OPEN FACE 12'-6" a	b	c	CLOSED FACE 6'-3" a	b	c	CLOSED FACE 12'-6" a	b	c	L 6'-3"	L 12'-6"
I-IV	4000	4	4	4	6		5	4	4	4	6		5	1'-2"	1'-2"
V	4000	4	4	4	6	6	6	4	4	4	6	6	5	1'-6"	2'-2"
VI-VIII	5000	4	4	4	7	6	6	4	4	4	7	6	5	1'-8"	2'-2"
IX-XII	5000	4	4	4	7	6	6	4	4	4	7	6	5	1'-8"	2'-10"

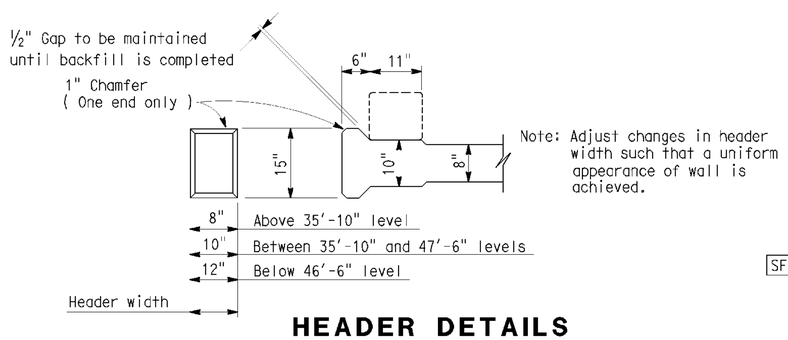
S Foundation stretchers placed thus on a 4" layer of loose structure backfill material. Details and reinforcement are the same as other stretchers.

B Blocks - Blocks are required above each foundation stretcher for minimum of two courses above the foundation stretcher. Blocks are required behind the front stretchers from the base to the upper limits shown for Type VII through Type XII walls. Blocks are required under the rear stretchers of the top tier for the limits shown for Type III, Type IV, Type VI, and Type VII walls.

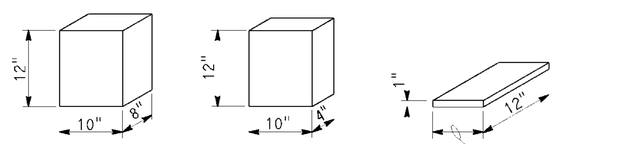
SF Front face foundation stretcher, place as shown.

GENERAL NOTES

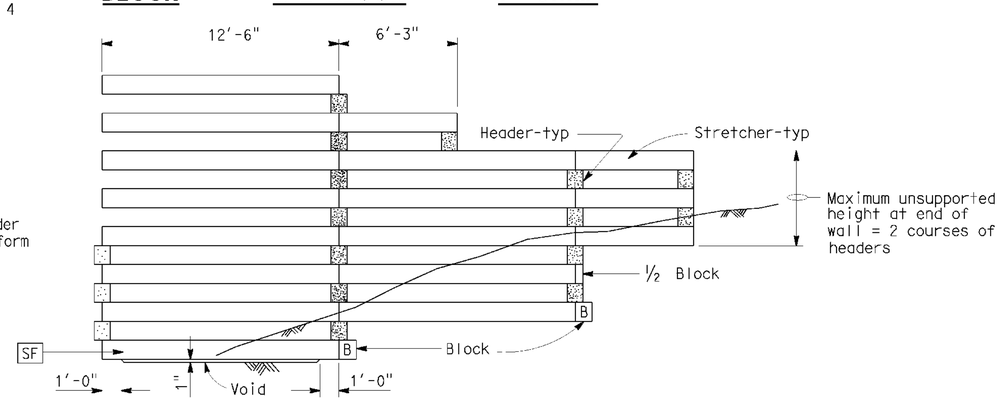
1. fy=60,000 psi except 65,000 psi in stirrups. f'c=4000 psi in headers. See chart for stretchers. f'c indicates the concrete compressive strength at 28 days.
2. Bearing surfaces: Concrete to concrete bearing surfaces shall be finished to a smooth plane. The gap between bearing surfaces shall not exceed ⅛inch. Where a gap of 1/16 to ⅛inch exists, a 1/16inch thick pad of asphalt felt* shall be placed between the bearing surfaces. For wall Types VIII through XII, a 1/16inch thick asphalt felt* pad shall be placed between all bearing surfaces below the 32'-6" level.* Or may use sheet neoprene.
3. Dimensional tolerance: To allow for imperfect fit in the assembly of the units, members may be manufactured to dimensions ⅛ inch less than the nominal dimensions shown on this plan.
4. Supports for reinforcements: If members are to be steam cured, supports for reinforcements shall be stainless steel containing at least 16% chromium.
5. Special members at utility openings: Where an opening is specified in the face of wall for pipes or other utilities, special length stretchers and additional headers will be required.
6. Patent rights: The right to use the shapes shown hereon, solely for projects administered by the State of California within the territory of the State, has been granted to the State of California by assignment dated August 28,1969.
7. Closed face stretchers are required on front face of vertical wall.
8. W5 wire may be substituted for D5 wire.
9. Continuous wire @ 4 max. pitch providing equivalent area may be substituted for stirrups in stretchers. Ends of wire shall be anchored with a 135° hook.
10. For non-tangent wall alignment, special length stretchers may be required.



HEADER DETAILS



BLOCK 1/2 BLOCK 1" SHIM



BLOCK & STRETCHER PLACEMENT DETAILS

STANDARD DRAWING				
RELEASE DATE 12/01/06	DESIGN	BY W.BAKER	CHECKED O.HOR	RELEASED BY
FILE NO. xs12-010-4e	DETAILS	BY R.YEE	CHECKED O.HOR	
	SUBMITTED	BY O.HOR	DRAWING NO DATE 09/01/06	

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO.

MILE POST

REINFORCED CONCRETE CRIB WALL SHT 4 OF 5

HEADER AND STRETCHER DETAILS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU
EA

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY) SHEET OF

USERNAME -> rwu

xs12 010 4e.dgn

DATE PLOTTED -> 06 DEC 2006 TIME PLOTTED -> 11:56