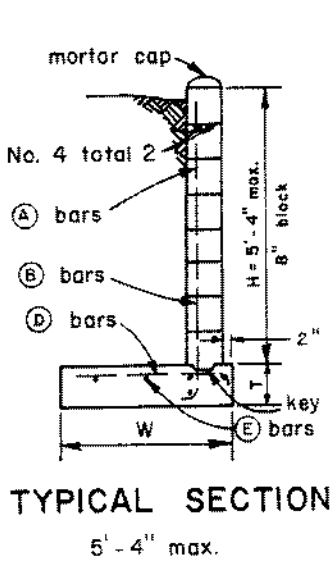
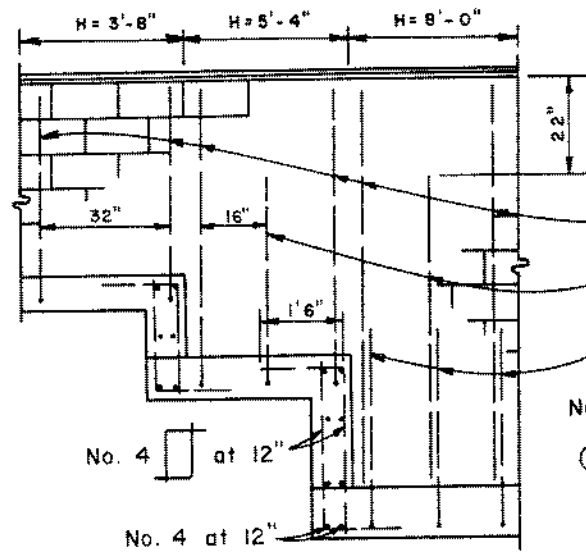


PLAN

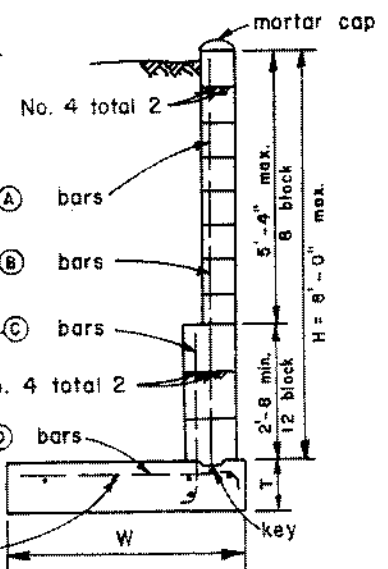


TYPICAL SECTION

5'-4" max.



ELEVATION



TYPICAL SECTION

over 5'-4"

NOTE:

See Masonry Retaining Wall General Notes, Dwg. No. 1-17.1 and 1-17.2 and Details, Dwg. No. 1-19.

DIMENSIONS AND REINFORCING STEEL			
H (max.)	3'-8"	5'-4"	8'-0"
T (min.)	0'-8"	0'-10"	1'-0"
W (min.)	2'-4"	3'-2"	4'-9"
(A) bars	No. 4 at 32"	No. 4 at 32"	No. 4 at 32"
(B) bars	—	No. 4 at 32"	No. 4 at 32"
(C) bars	—	—	No. 6 at 16"
(D) bars	No. 4 at 32"	No. 4 at 16"	No. 6 at 16"
(E) bars	No. 4 total 4	No. 4 total 5	No. 4 total 6
max. soil press. (psf)	1100	1600	2200

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WALL TYPES

- I - Toe Support
- II - Heel Support
- III - Toe & Heel Support
- L - Level Backfill
- S - Sloping Backfill

DESIGN CONDITIONS

Walls are to be used for the loading conditions shown for each type wall. Design H shall not be exceeded. Footing key is required except as shown otherwise. Special footing design is required where foundation material is incapable of supporting toe pressure listed in tables.

DESIGN DATA

Reinforced Concrete:
 $F_c = 1200 \text{ psi}$ $F'_c = 3000 \text{ psi}$
 $F_s = 20,000 \text{ psi}$ $n = 10$

Reinforced Masonry:
 $F'_m = 600 \text{ psi}$ $F_m = 200 \text{ psi}$
 $F_s = 20,000 \text{ psi}$ $n = 50$

Earth = 120 pcf and equivalent fluid pressure = 36 psf per foot of height.

Walls shown for 1 1/2:1 unlimited sloping surcharge are designed in accordance with Rankine's formula for unlimited sloping surcharge with $\phi = 33^\circ 42'$

REINFORCEMENT

Intermediate grade, hard grade, or rail steel deformation shall conform to ASTM A615, A616, A617. Bars shall lap 40 diameters, where spliced, unless otherwise shown on the plans. Bends shall conform to the Manual of Standard Practice, A.C.I. Backing for hooks is four diameters. All bar embedments are clear distances to outside of bar. Spacing for parallel bars is center to center of bars. All reinforcing shall be 3" clear unless otherwise shown.

CONCRETE

All concrete shall be class AA or DA.

MASONRY

All masonry shall conform to the requirements of sub-section 311.13 "Masonry Construction" of the "Standard Specifications for Public Works Construction". All masonry shall conform to the regulations of the U.B.C.

FOOTINGS

Bottom of footings will be placed at least 24" below finished ground surface (12" in Yerington).

Changes in footing elevations shall be made in equal increments of masonry block height.

TESTING

Sufficient testing will be conducted to verify design data.

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1			FOOTINGS			2-84			MASONRY RETAINING WALL GENERAL NOTES			1	
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MASONRY MORTAR

The mortar shall conform to the requirements of sub-section 311.13 "Masonry Construction" of the "Standard Specifications for Public Works Construction". Mortar in horizontal joints shall fully cover all face shell and web members. Vertical joints shall be buttered to a depth greater than the thickness of the face shells of the block. Furrowing of mortar will not be permitted.

GROUT

The grout shall conform to the requirements of sub-section 311.13 "Masonry Construction" of the "Standard Specifications for Public Works Construction." All cells shall be poured solid with grout.

EXCAVATION AND BACKFILL

Compaction of backfill material by jetting or ponding with water will not be permitted. Each layer of backfill shall be moistened to its optimum and thoroughly tamped, rolled or otherwise compacted to at least 90% of its maximum dry density. No backfill material shall be deposited against masonry retaining walls until the grout has developed a strength of 2,000 pounds per square inch in compression as determined by test 2" cubes, or until the masonry retaining wall has cured for a minimum of 14 days.

OPTIONAL MORTAR KEY

Embedment of the first course of block in a poured footing may be omitted by providing a mortar key. The key is formed by embedding a flat 2 x4 flush with the top of the freshly poured footing. Remove the 2 x4 after the concrete has started to harden.

EXPANSION JOINTS

Walls over 50 feet in length shall have expansion joints at 25'± intervals (See Details).

WEEP HOLES

Weep holes shall be installed at 10'o.c. in the first row of blocks above finished ground surface. Back face of wall will be waterproofed.

INTERCEPTOR SWALES

Interceptor swale to be constructed at back of wall when directed by the Agency Engineer.

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1	SWALES	3-83	MASONRY RETAINING WALL GENERAL NOTES	1	
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