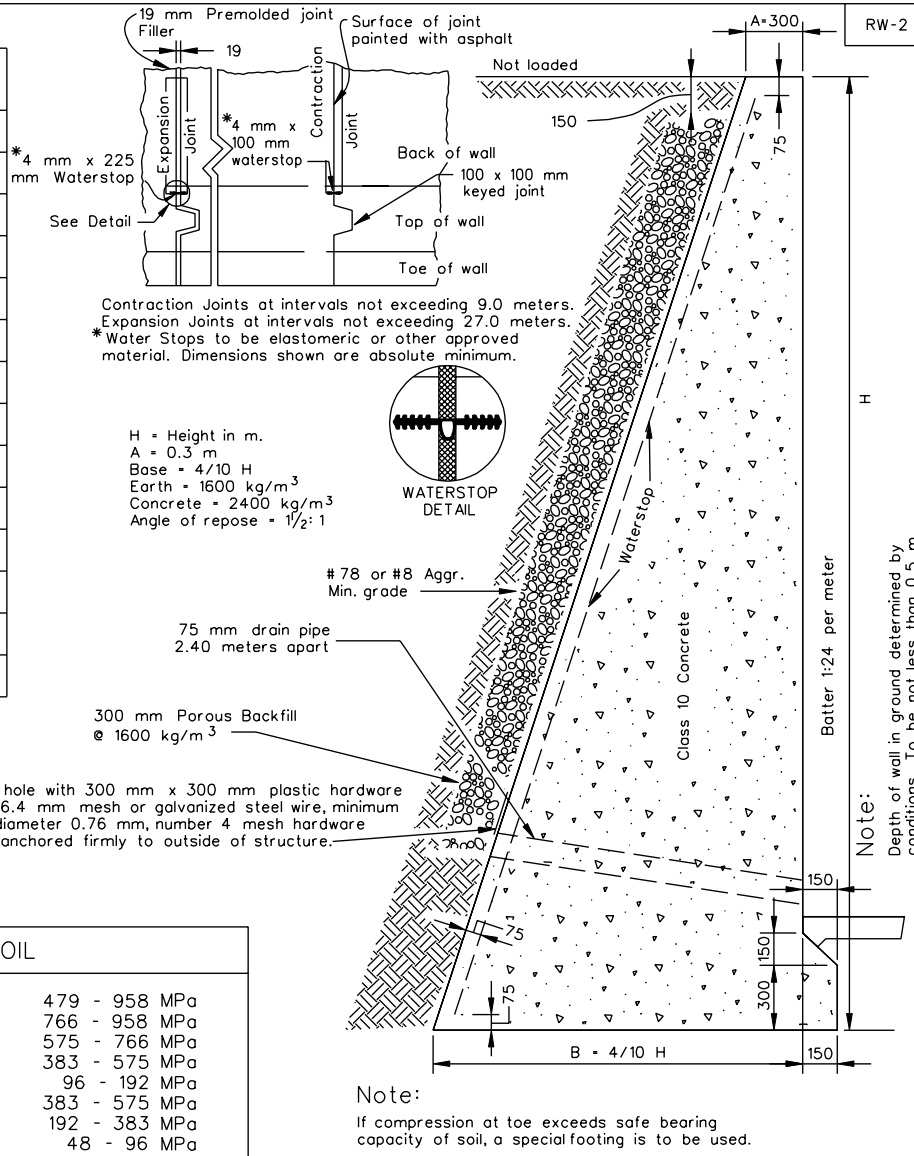


HEIGHT OF WALL "H" IN METERS	THICKNESS AT TOP "A" IN METERS	THICKNESS AT BASE B=4H METERS	COMPRESSION AT TOE MPa	AREA OF SECTION m ²
0.60	0.30	0.30	30	0.20
0.90	0.30	0.36	48	0.40
1.20	0.30	0.48	66	0.50
1.50	0.30	0.60	82	0.80
1.80	0.30	0.72	98	1.00
2.10	0.30	0.84	114	1.30
2.40	0.30	.96	130	1.60
2.70	0.30	1.08	146	2.0
3.00	0.30	1.20	162	2.40
3.30	0.30	1.32	178	2.80
3.60	0.30	1.44	194	3.20
3.90	0.30	1.56	210	3.80
4.20	0.30	1.68	225	4.40
4.50	0.30	1.80	240	4.90



SAFE BEARING CAPACITY OF SOIL	
Rock minimum	479 - 958 MPa
Gravel and coarse sand, well cemented	766 - 958 MPa
Clay in thick beds, always dry	575 - 766 MPa
Clay in thick beds, moderately dry	383 - 575 MPa
Clay, soft	96 - 192 MPa
Sand, dry, compact, and well cemented	383 - 575 MPa
Sand, clean, dry	192 - 383 MPa
Alluvial soils, etc	48 - 96 MPa

SPECIFICATION REFERENCE
506

CONCRETE GRAVITY RETAINING WALL - LEVEL BACKFILL

VIRGINIA DEPARTMENT OF TRANSPORTATION

UNLESS OTHERWISE NOTED, ALL DIMENSIONS ON THIS SHEET ARE IN MILLIMETERS

401.01

RW-3

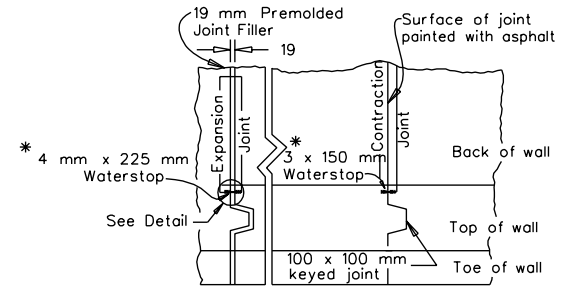
HEIGHT OF WALL "H" IN METERS	THICKNESS AT TOP "A" IN METERS	THICKNESS AT BASE B=6H METERS	COMPRESSION AT TOE MPa	AREA OF SECTION m ²
0.90	0.30	0.54	41	0.45
1.20	0.30	0.72	55	0.70
1.50	0.30	0.90	68	1.00
1.80	0.30	1.08	82	1.30
2.10	0.30	1.26	96	1.70
2.40	0.30	1.44	109	2.20
2.70	0.30	1.62	123	2.70
3.00	0.30	1.80	137	3.30
3.30	0.34	1.98	150	4.00
3.60	0.37	2.16	164	4.70
3.90	0.40	2.34	178	5.50
4.20	0.43	2.52	191	6.40
4.50	0.46	2.70	205	7.40

SAFE BEARING CAPACITY OF SOIL

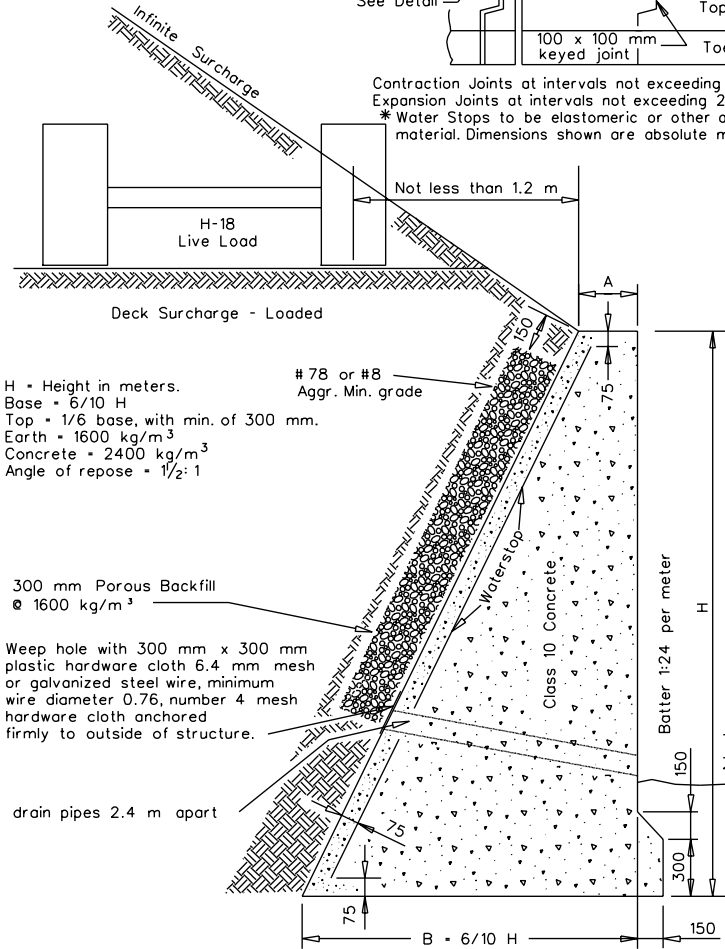
Rock minimum	479-958 MPa
Gravel and coarse sand, well cemented	766 - 958 MPa
Clay in thick beds, always dry	575 - 766 MPa
Clay in thick beds, moderately dry	383 - 575 MPa
Clay, soft	96 - 192 MPa
Sand, dry, compact, and well cemented	383 - 575 MPa
Sand, clean, dry	192 - 383 MPa
Alluvial soils, etc.	48 - 96 MPa

Note:
If compression at toe exceeds safe bearing capacity of soil, a special footing is to be used.

75 mm drain pipes 2.4 m apart



Contraction Joints at intervals not exceeding 9 meters.
Expansion Joints at intervals not exceeding 27 meters.
* Water Stops to be elastomeric or other approved material. Dimensions shown are absolute minimum.



H = Height in meters.
Base = 6/10 H
Top = 1/6 base, with min. of 300 mm.
Earth = 1600 kg/m³
Concrete = 2400 kg/m³
Angle of repose = 1 1/2: 1

300 mm Porous Backfill
@ 1600 kg/m³

Weep hole with 300 mm x 300 mm plastic hardware cloth 6.4 mm mesh or galvanized steel wire, minimum wire diameter 0.76, number 4 mesh hardware cloth anchored firmly to outside of structure.

Note:
Depth of wall in ground determined by conditions. To be not less than 0.5 m.

CONCRETE GRAVITY RETAINING WALLS
INFINITE SURCHARGE AND DECK SURCHARGE - LOADED

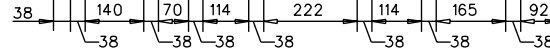
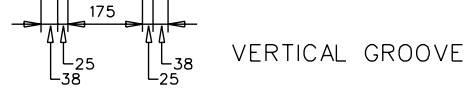
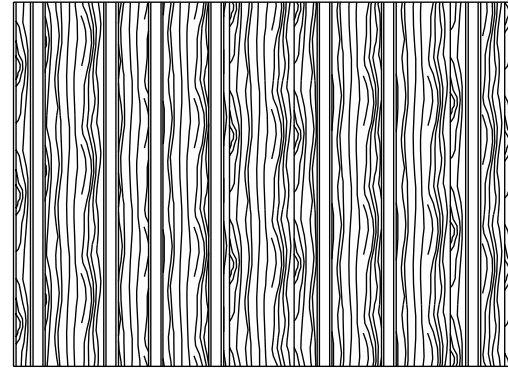
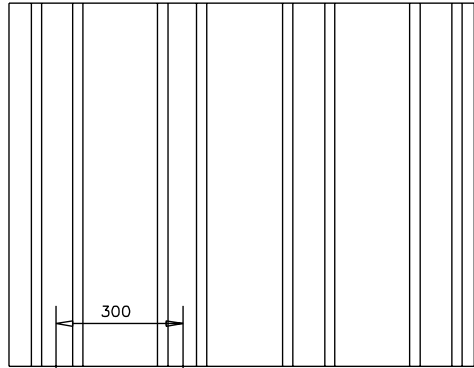
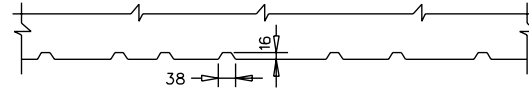
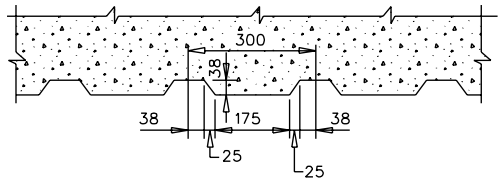
SPECIFICATION REFERENCE

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401.02

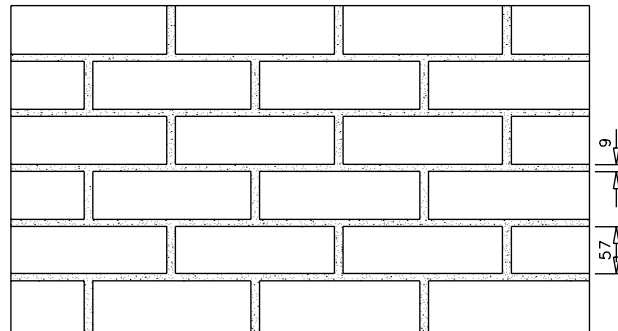
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VIRGINIA DEPARTMENT OF TRANSPORTATION



VERTICAL GROOVE

RANDOM BOARD RUSTICATION



BRICK

Notes:

Rustic treatments for Standard RW-2 and RW-3 Concrete Gravity Retaining Walls are to be considered where large areas are subject to viewing by general public. As a general guideline the use of such treatment will be considered on walls where the height is 910 mm or greater.

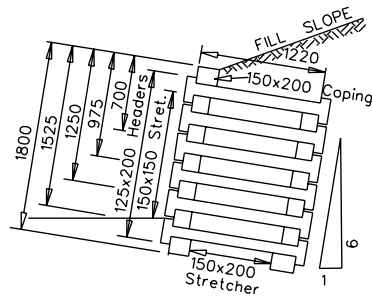
The selection of the proposed treatment should be made at the Field Inspection review and particular attention given if the proposed wall ties into a bridge abutment to insure that both have the same treatment.

If environmental considerations dictate, other types of treatments can be used.

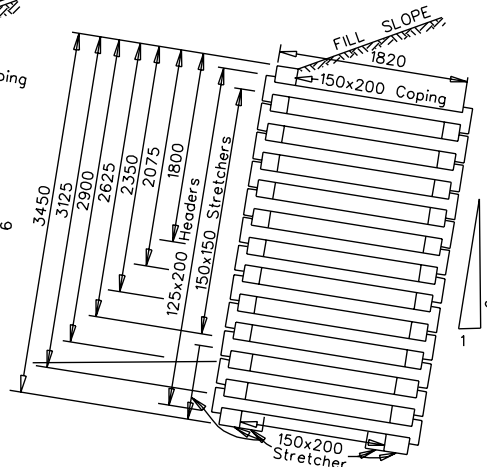
SUGGESTED RUSTICATION TREATMENTS FOR RETAINING WALLS

VIRGINIA DEPARTMENT OF TRANSPORTATION

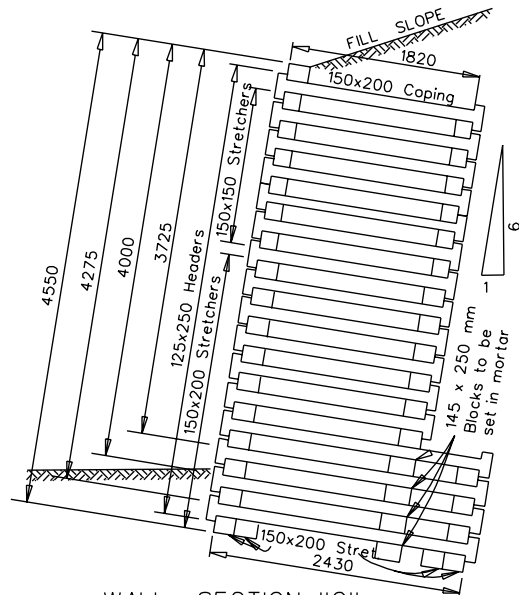
UNLESS OTHERWISE NOTED, ALL DIMENSIONS ON THIS SHEET ARE IN MILLIMETERS



WALL SECTION "A"

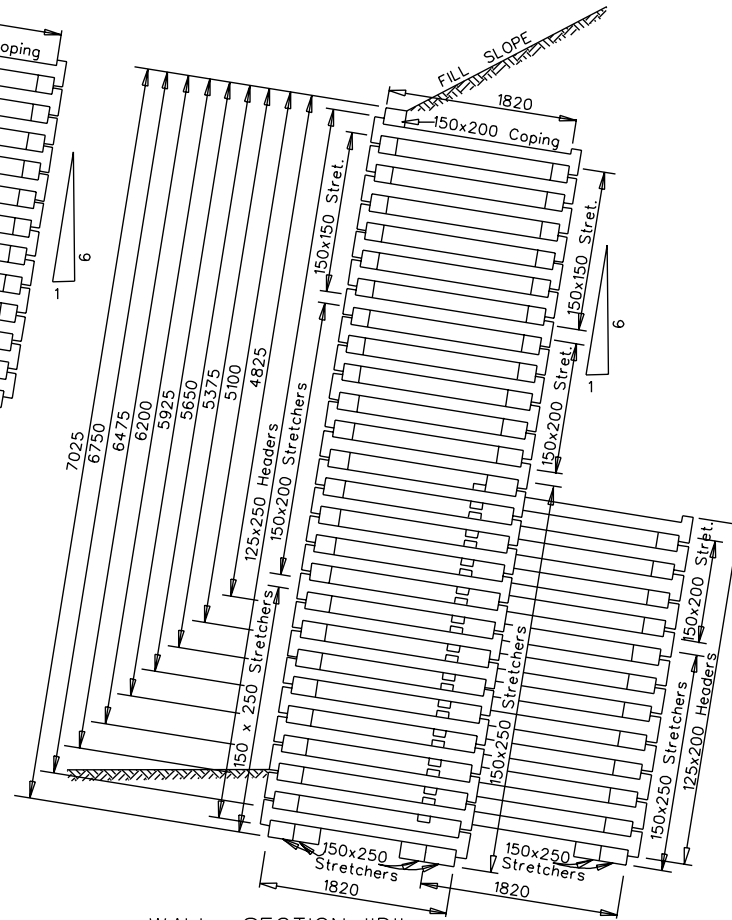


WALL SECTION "B"



WALL SECTION "C"

For tables of quantities and details of headers, stretchers and etc. see sheet 2 of 2.



WALL SECTION "D"

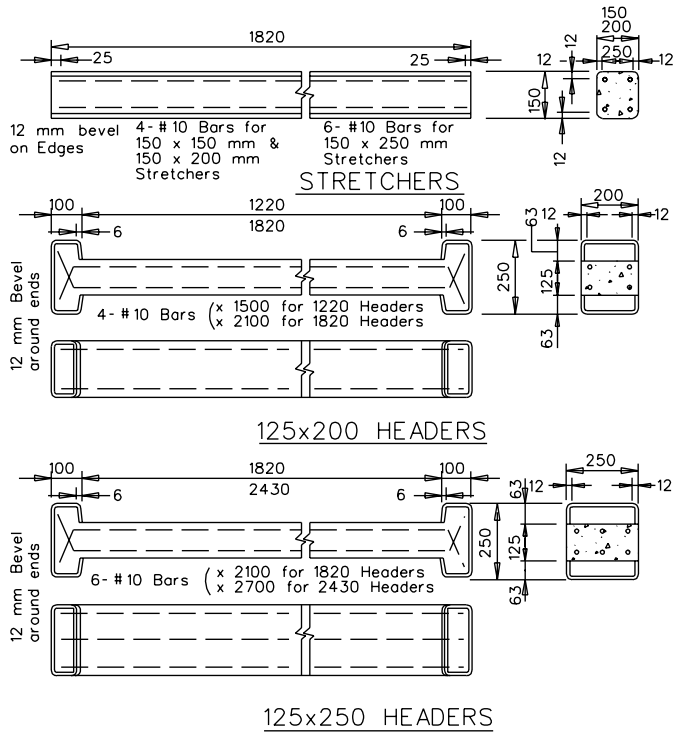
Notes:

- Surface drainage should not be permitted to flow directly against the face of the cribbing.
- All walls are to be separated into 29.0 meter sections, unless otherwise noted on plans or directed by the Engineer, by the provision of double rows of headers.
- In using these typical sections for designing walls of intermediate height, the drawing should be read from the top down until the desired height is reached.

STANDARD REINFORCED CONCRETE CRIB WALL

SPECIFICATION REFERENCE

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UNIT	WEIGHT, Kg.	m ³
125 x 200 x 1220 Header	107	0.04
125 x 200 x 1820 Header	148	0.06
125 x 250 x 1820 Header	184	0.07
125 x 250 x 2430 Header	234	0.09
150 x 150 x 1820 Stretcher	108	0.04
150 x 200 x 1820 Header	145	0.06
150 x 250 x 1820 Header	180	0.07
145 x 250 x 250 Block	22	0.01

Notes:

All reinforcing to be #10 bars placed 25 mm from surface of concrete.
 Bars to be held in position by chairs having non-corrosive tips.
 Class 35 Concrete to be used except maximum size aggregate to be No. 7.

HEIGHT OF WALL	UNITS REQUIRED FOR TYPICAL WALL 29.0 METERS LONG							WALL SECTION
	HEADERS				STRETCHERS		BLKS	
	125x200 x1220	125x200 x1820	125x250 x1820	125x250 x2430	150x150 x1820	150x200 x1820		
700	34				32	48		"A"
975	51				64	48		
1250	68				96	48		
1525	85				128	48		
1800	102				160	48		
1800		102			224	16		"B"
2075		119			256	16		
2350		136			288	16		
2625		153			320	16		
2900		170			288	80		
3125		187			288	112		
3450		204			288	144		
3725			204	17	192	272	17	"C"
4000			204	34	192	304	34	
4275			204	51	192	336	51	
4550			204	68	192	368	68	
4825		68	289		192	336	144	
5100		85	306		192	320	208	
5375		102	323		192	320	256	
5650		119	340		192	320	304	
5925		136	357		192	320	352	
6200		153	374		192	320	400	
6475		170	391		192	320	448	
6750		187	408		192	320	496	
7025		204	425		192	320	544	

Cribbing is to be placed on a foundation of firm bearing material meeting the approval of the Engineer.
 The foundation is to be at least 0.9 m below the surface of the ground, beyond all danger of frost, unless on solid rock.

For details not shown on this sheet, see sheet 1 of 2.

Blocks shall be set in mortar.

SPECIFICATION REFERENCE	STANDARD REINFORCED CONCRETE CRIB WALL		VIRGINIA DEPARTMENT OF TRANSPORTATION	UNLESS OTHERWISE NOTED, ALL DIMENSIONS ON THIS SHEET ARE IN MILLIMETERS	402.02
506					