



CITY OF SAINT PAUL

DEPARTMENT OF SAFETY AND INSPECTIONS
375 JACKSON STREET, SUITE 220
ST. PAUL, MINNESOTA 55101-1806
Phone: 651-266-8989 Fax: 651-266-9124
Visit our Web Site at www.stpaul.gov/dsi

RETAINING WALLS

MN Rules 1300.0120, the 2020 MN Building Code, and Chapter 4 of the 2020 MN Residential Code

- Per MN Rules 1300.0120(4): Building permits are required for retaining walls where at any point the wall is taller than 4 feet measured from the base of the footing to the top of the wall
Retaining walls that are 4 feet or shorter measured from the base of the footing to the top of the wall *and* are not supporting surcharge or impounding Class I, II, or III-A liquids do not require a building permit
- **No part of the retaining wall may be on or over the property line** unless a legal easement agreement has been filed/recorded on both/all properties with Ramsey County. Please consult with Plan Review **before** recording any maintenance easement agreements so they can be reviewed ahead of time to ensure the agreement will be valid for permit issuance.
- Options for retaining wall types and obtaining building permits are as follows:
 1. Landscaping block or other premanufactured block/material
 - a. Must follow manufacturer's instructions, and manufacturer's instructions must be provided to Plan Review with the permit application before a permit will be issued.
 - b. If the manufacturer's instructions require structural engineering, then structural engineering will be required to be submitted to Plan Review in order for a building permit to be issued.*
 - c. If no manufacturer's instructions are available for the product to be used, then structural engineering will be required to be submitted to Plan Review.*
 2. Block or poured concrete wall as depicted in section drawings below
 - a. Any deviation from either of these details as shown will require a design by a licensed structural engineer to be submitted to Plan Review.*
 3. Other material/option not listed above: Will require design by licensed structural engineer*

*All designs by a structural engineer are required to be signed/sealed by an engineer licensed in the State of Minnesota. The requirement for structural engineering includes but is not limited to the scenarios above. Other scenarios which *may* also require engineering may be related to height, tiered wall systems, soil types, or walls carrying surcharge load from other buildings/structures.

Plans:

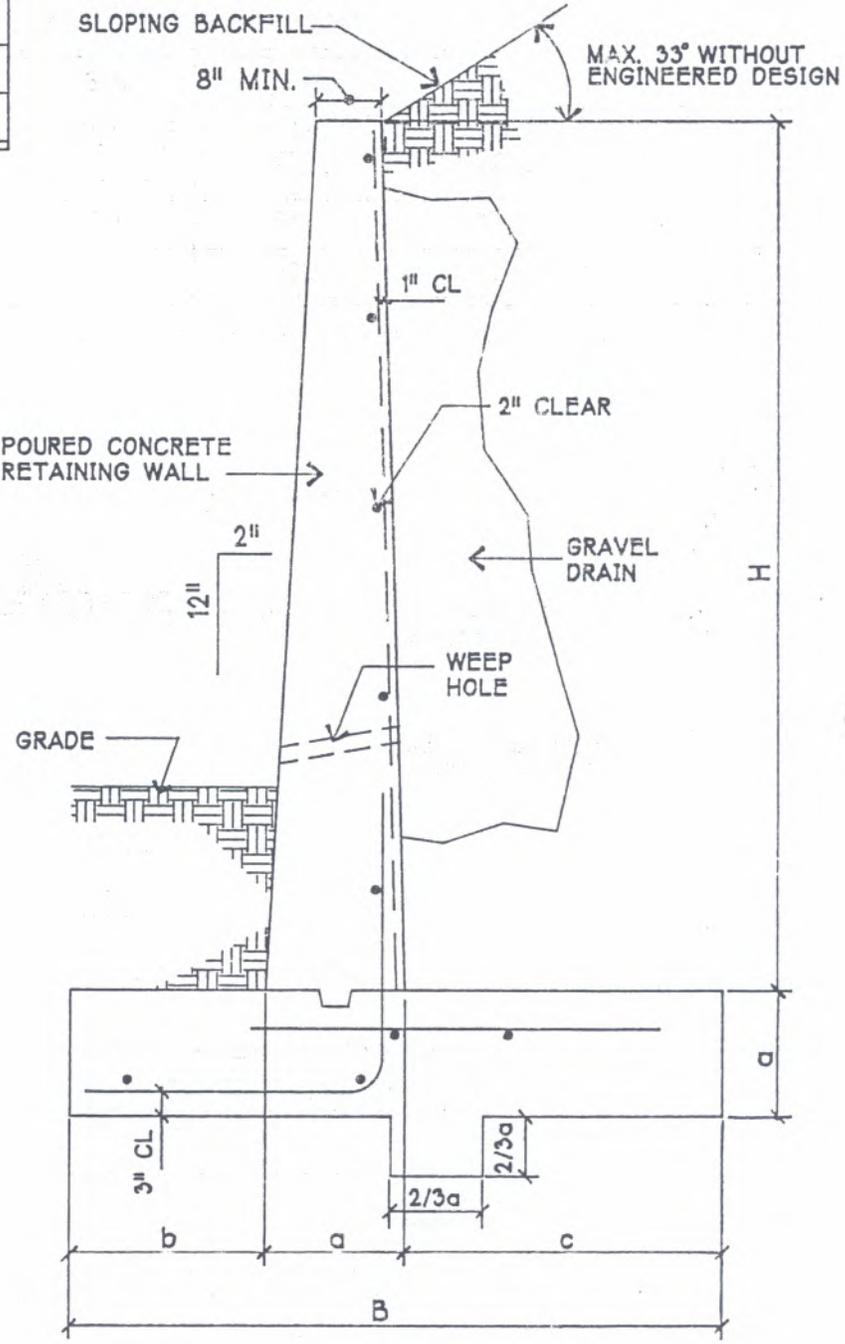
- All retaining walls that require a building permit require plans to be submitted to plan review. The plans must include the following:
 - Site Plan – showing the lot, other buildings and/or structures of significance on the lot, setbacks from property lines, linear feet of retaining wall to be installed
 - Manufacturer's instructions for the product to be installed, if applicable
 - Elevation view of the wall – showing changes in height, number of courses, et
 - Section view of the wall showing:
 - Type of material wall is to be built of
 - Footing under the wall – size and type
 - Drainage behind the wall – amount/dimensions of drainage rock behind the wall, drain tile, weeping holes, etc. as applicable
 - Soil reinforcement/geogrid if applicable
 - Slope of soil behind the wall
 - Any other details pertinent to the structural integrity of the wall

POURED CONCRETE WALL OPTION

H	B	a	b	c	BASE PRESS AT TOE (psf)
3'-0"	2'-6"	0'-11"	0'-7"	1'-0"	1,072
4'-0"	3'-2"	1'-0"	0'-9"	1'-5"	1,421
5'-0"	3'-10"	1'-1"	1'-0"	1'-9"	1,699
6'-0"	4'-6"	1'-2"	1'-3"	2'-1"	1,990

WALLS GREATER THAN 6'-0" HIGH REQUIRE FORMAL ENGINEERED DESIGN & DRAWINGS.

*Note: all details on this sheet must be followed as depicted on this design. Otherwise, structural engineering is required for the retaining wall



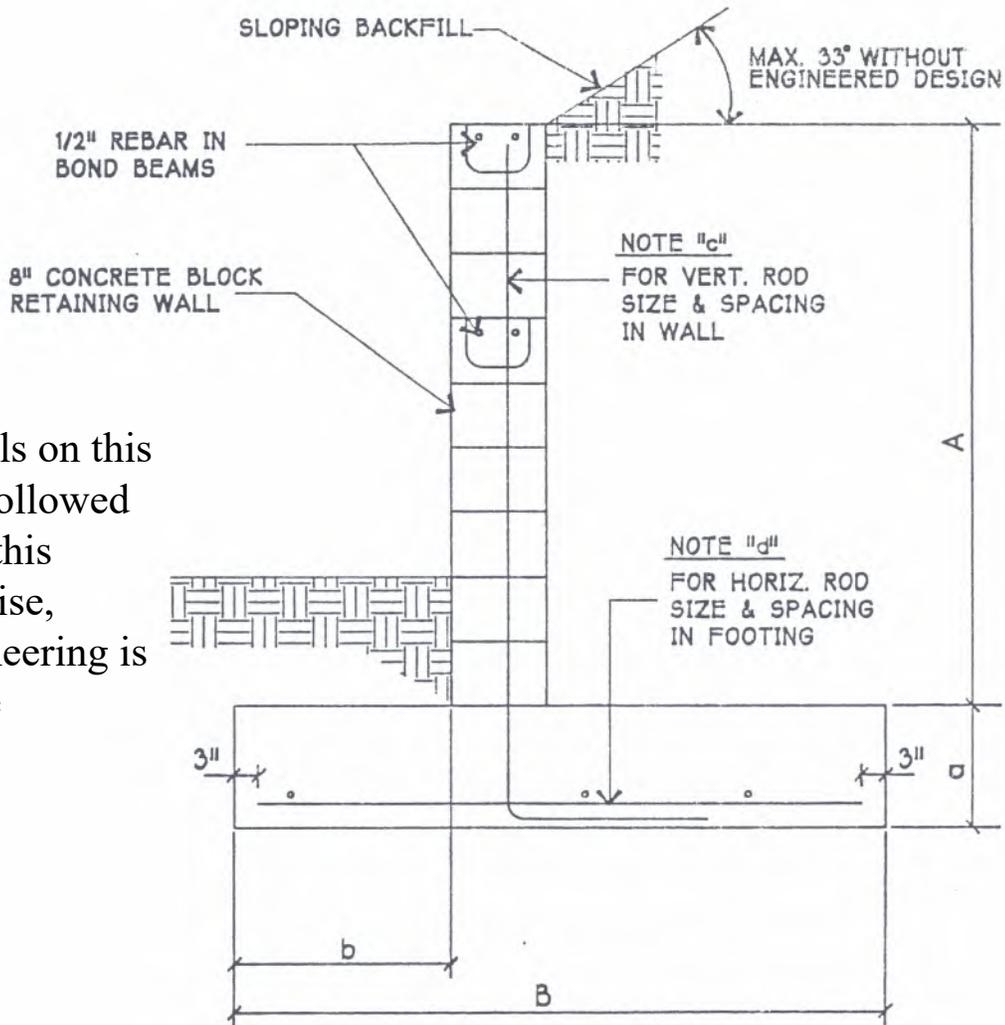
RETAINING WALL

8" BLOCK WALL OPTION

BUILDING A BETTER COMMUNITY
THROUGH BUILDING CODES

A HEIGHT	B WIDTH	a FOOTING THICKNESS	b DISTANCE TO WALL FACE	c SIZE & SPACING OF VERT. RODS	d SIZE & SPACING OF HORIZ. RODS
3'-4"	2'-4"	0-9"	0-8"	#3 @ 32"	#3 @ 27"
4'-0"	2'-9"	0-9"	0-10"	#4 @ 32"	#3 @ 27"
4'-8"	3'-3"	0-10"	1'-0"	#5 @ 32"	#3 @ 27"
5'-4"	3'-8"	0-10"	1'-2"	#4 @ 16"	#4 @ 30"
6'-0"	4'-2"	1'-0"	1'-3"	#6 @ 24"	#4 @ 25"

*WALLS GREATER THAN 6'-0" HIGH REQUIRE FORMAL ENGINEERED DESIGN & DRAWINGS.



*Note: all details on this sheet must be followed as depicted on this design. Otherwise, structural engineering is required for the retaining wall

8" CONCRETE BLOCK RETAINING WALL