



INTER-BLOCK

RETAINING SYSTEMS, INC.

MANUFACTURERS OF ENVIRO-BLOCK™



INTER-BLOCK

RETAINING SYSTEMS, INC.

1-800-406-2066

www.inter-block.com

IBRS has more than 18 years experience. We provide solutions from concept to completion for all of your earth retaining needs.

- Flood Control
- Security / Force Protection
- Containment Bins
- Retaining Walls
- Military Bunkers
- Sea Walls

We can assist with any project in any phase from concept and engineering to installation and completion.



Enviro-Block™ Retaining Walls

Retaining walls can be colored with stain or cast with integral color. This wall has been cored at the top for fence posts.



Enviro-Block™ Sea Walls

Left: Downtown Vancouver sea wall. Right: Roman stair sea wall structure.



Enviro-Block™ Material Containment Bins

Containment Bins can be built to accommodate any layout.



Enviro-Block™ Flood Control

Left: Flood control water structure. Right: Frasier river retaining wall.



Enviro-Block™ Military Application

Left: Trench warfare training facility. Right: Military bunker installation.



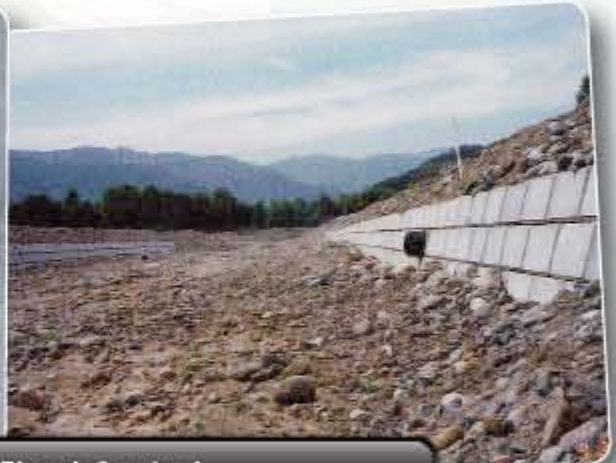
Enviro-Block™ Retainment Wall

Residential Driveway



Enviro-Block™ Retaining Wall

Built to accommodate a County Fire Station



Enviro-Block™ Flood Control

Left: Crew installing flood control coffer dams. Right: Channel Wall

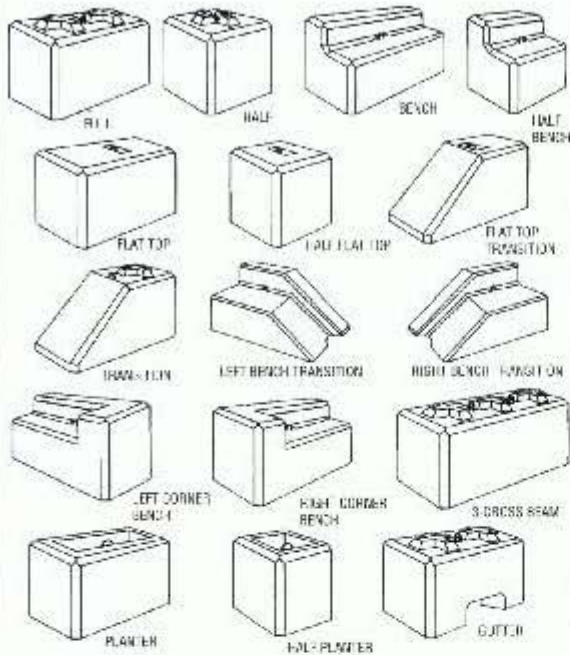


Enviro-Block™ Security Wall

Security barrier with CMU texture & stained

SPECIFICATION SHEET

STANDARD ENVIRO-BLOCK™ CONFIGURATION

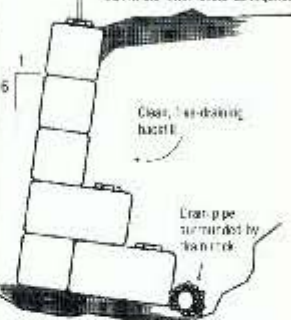


Blocks are normally available for immediate delivery. However, some configurations may not be in stock and will therefore require advance notice.

SIZE	20.6" x 20.6" x 20", 762mm x 762mm (300mm approx. 2.5" x 2.5" x 2")
WEIGHT	18 (Big) 14 (Small)
CLEARANCE AROUND KEY	1/2" (2mm). The slanted bottom provides approximately 81% of drainage area per block.
LIFTING PROVISION	A standard 7 strand steel loop at the center of each block.
MINIMUM RADIUS OF CURVATURE	20m (70') for walls one block thick.
SURFACE FINISH	Standard Grade: Full face without large blemishes. Utility applications may contain large surface blemishes such as holes, chips, chips, etc. Architectural finishes: Various natural rock, form finished finishes.
CONCRETE STRENGTH	Blocks are manufactured with normal concrete and strength levels will vary. Extra charges will be needed for customized concrete strength, if required.
AVERAGE PLACING TIME	10 blocks per hour (bottom row), 20 blocks per hour (other rows).

CHAMFERED ENVIRO-BLOCK™ SPECIFICATIONS

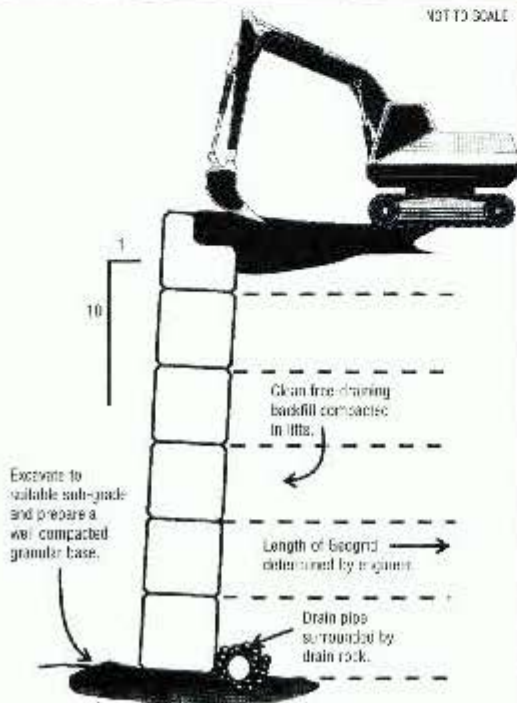
A conventional gravity wall can be built by increasing the width of the wall in the lower levels as required.



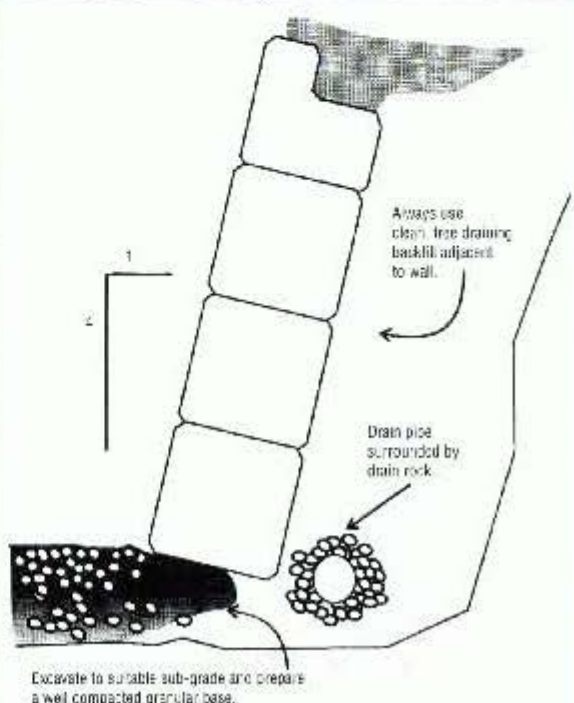
MINIMUM DESIGN CONSIDERATIONS FOR QUALIFIED ENGINEERS INCLUDE:

1. Always use free draining gravel or sand and gravel backfill to allow drainage. Where high groundwater conditions occur in the water table, chimney or blanket drains may be needed.
2. Coulomb (sliding wedges) or Rankine (soil pressure) analysis can be used to determine adequate resistance to sliding and overturning of the blocks.
3. Analysis must include additional loading effects of sloping backfill.
4. Additional treatment or permanent loads behind the wall.
5. Sealing capacity of foundations including additional loads from backfill on wall should be considered.
6. Prevent migration of fines through wall by use of filter material.
7. Prevent migration of subgrade into backfill.
8. Consider overall stability of retaining wall, backfill and subgrade.

NOT TO SCALE



A vertical or near vertical wall is possible if a soil reinforcing geo grid is added to the backfill at every row of blocks. Very high loads can be supported with this type of construction.



The greater the batter into the fill, the higher the wall can be built without the need to increase the width of the base or adding reinforcing geo grid to the backfill.



INSTALLATION TIPS

1. Always start with a smooth base, joint lines in the wall can only be as straight as the base on which they are placed. A six inch blanket of granular material, compacted and raked or screeded smooth is normally a sufficient base.

2. If possible, prepare the entire base before placing blocks so that a visual inspection can be made to minimize bumps and hollows.

3. If the location is not level or has a stepped bottom surface, place the lowest blocks first, taking care to align the front face of the wall.

4. As the surface finish of the blocks is variable, the best face of the block should be turned out.

5. IMPORTANT - Begin placing the second layer after no more than 6 or 8 bottom layer blocks have been placed, again taking care to align the front face of the wall. (remember, there is approximately 1/2" of clearance in every direction in the fit of the keyways)

6. Should the clearance become tight for the second row of blocks, merely place the next block along the bottom row, with a slight gap (1/4"), the second and subsequent rows will then have sufficient clearance. Continue placing subsequent rows, taking care to align the front face.

7. Non right-angle corners, or corners where walls have different batters are achieved more easily by building the 2 walls independently and joining the corner afterwards. Chamfer strips attached to the inside of the formwork will blend the corner in with the rest of the wall.

8. If desired, the wall can be curved either vertically, horizontally, or both.

9. For speed & convenience a back mounted hydraulic excavator is the best machine to place the blocks.

10. Pressure washing & sealing the surface will minimize algae growth and prolong new appearance.

11. Some useful tools to have on the jobsite include:

- A transit to lay out a level base. - Shovels and rakes for base preparation.
- A lifting jig to hold blocks at the correct batter.
- A broom to clean the keyways before placing the next layers.
- One or more 8 foot pry bars for jostling the blocks into position.



Enviro-Block™ Installation

Left: Block being installed using spreader bar. Center: Framework set for gravel base. Right: Gravel being placed.

WARNING: No construction should be undertaken without professionally engineered specifications for the site and issuance of proper permits.



Enviro-Block™ Textures

Available cut face and mortared stone face textures.



Enviro-Block™ Textures

Left: Custom texturing. Right: CMU texture, stained with spear-tip rail attached

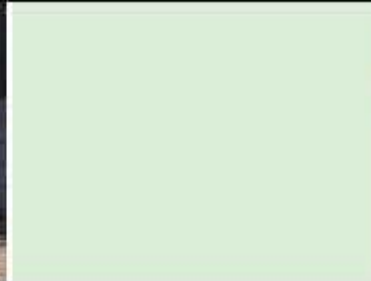
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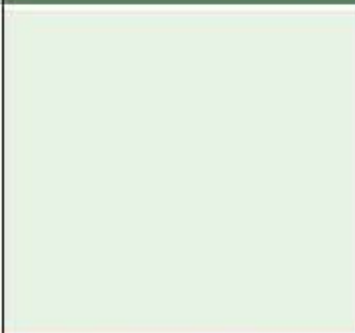
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