

UNLOCKING DIFFICULT SITES

Level, usable land on difficult sites

The Steadfast Shelf Wall System is a precast, post-tensioned retaining wall for projects that need flat, usable ground on steep or tight sites. It suits highway widening and new on- and off-ramps that tie into existing infrastructure, level building pads on sloped commercial sites, and residential terraces for patios, gardens and recreation.

Typical applications

- Highway widening and ramps
- Commercial building pads
- Residential terraces
- Cut slopes and tight sites
- Walls near buried utilities
- Temporary preload walls
- Dykes and flood works

Why GCs consider Steadfast

- ✓ Less excavation and a smaller construction footprint behind the wall
- ✓ No geogrid supply, layout or inspection
- ✓ Can reduce shoring needs on cut sites (to be confirmed by the project design)

GET A QUOTE

Price your next wall with BCBP

Send BCBP the following and we will coordinate a preliminary design and pricing:

SEND US

- Geotechnical report
- Plan, elevation and section drawings
- Tender specification section, close date and addenda
- Any alternate-wall provisions

CONTACT

PHONE 604-540-9040
EMAIL sales@bcbp.ca
WEB bcbp.ca
OFFICE 8241 129 St
Surrey, BC



Steadfast Retaining Walls™ is a product of Rocky Mountain Stoneworks Ltd., Aldergrove, BC, supplied in British Columbia by BC Building Products. Patented · US Patent 12,264,447. Information is for preliminary planning only. Final design by a registered professional engineer. Rev C · Oct 2026.



BC BUILDING PRODUCTS
THE ENVELOPE SPECIALISTS

STEADFAST RETAINING WALLS™

The Steadfast Shelf Wall System

A patented, self-supporting precast retaining wall. No geogrid, and a vertical face.

● **PATENTED · US PATENT 12,264,447**

No geogrid

No reinforced soil zone behind the wall

Vertical face

0° batter, so the land is usable to the wall

Compact base

A 2.4 m (8 ft) precast base plate

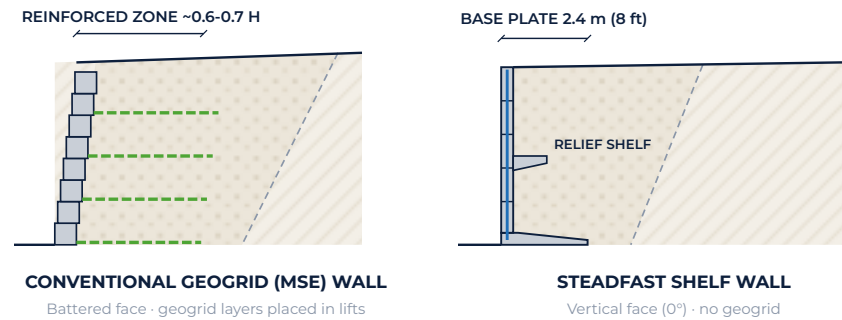
Engineered

Reviewed by independent engineering firms



Steadfast base plate, blocks and two relief shelves

Geogrid wall vs. Steadfast shelf wall



Schematic, not to scale. Reinforced-zone length is typical industry practice; actual dimensions per project design.

Conventional geogrid wall	Steadfast shelf wall
Needs geogrid reinforcement that extends well behind the wall face	No geogrid or straps. Relief shelves offset part of the active soil pressure
Large excavation for geogrid embedment and select backfill	Compact 2.4 m (8 ft) base plate means less excavation, subject to design
Built with a batter (setback), which costs usable land	Vertical (0°) face, so the land is usable right to the wall
Geogrid placed and compacted in many lifts, with crews working at the face	Standard precast units. Backfilling can start early, as the erection procedure allows
Material quantities grow with height	Standard repeatable components and plant-cast quality. Each project is priced from its design

Face finishes



Rock
Natural concrete



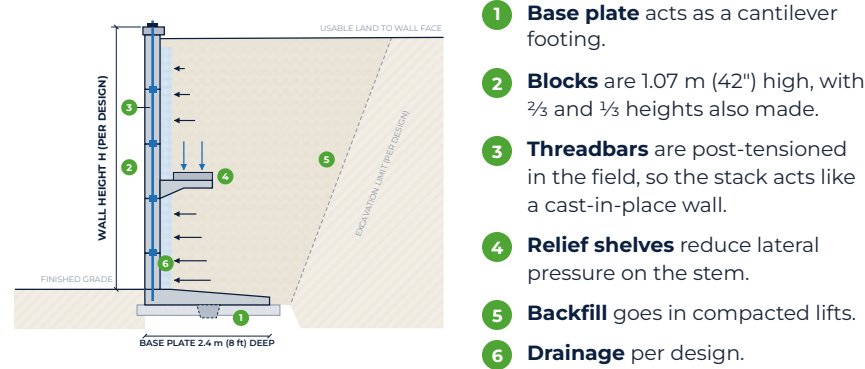
Leaf
Natural concrete



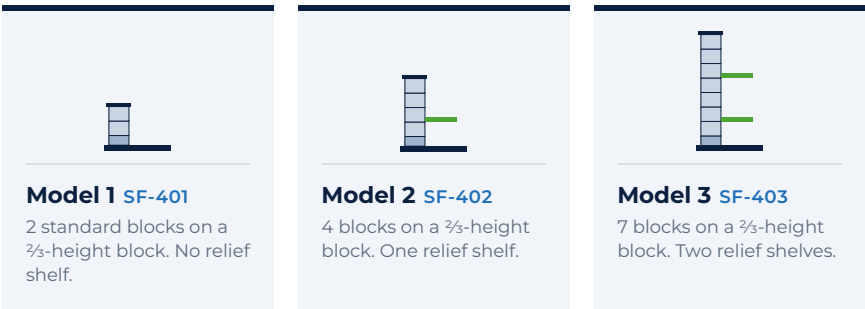
Barn wood
Natural concrete

Each texture comes in raw concrete or stained to your colour. Photos of real Steadfast faces (steadfastwalls.com).

How it works



Standard configurations



Standard stacks from drawings SF-401 to SF-403, shown schematically. Wall height depends on soils, foundation, surcharge, seismic demand and drainage, and is set by a project-specific design.

Engineering and testing



Steadfast was developed over about 10 years of full-scale yard testing and numerical modelling. Its engineering has been reviewed by **Thurber Engineering** (2024), **Associated Engineering** (2024, draft structural memo) and **Earthtec Geotechnical** (2025, Plaxis 2D modelling, which found the shelves notably reduce lateral earth pressure). The manufacturer's design software gives preliminary layouts. Each wall then needs a sealed design by a professional engineer.

Photo: yard load test, hydraulic jacks loading the relief shelf (2024).