PRO-CAST

Solid Foundations,
Strong Futures.

PRECAST CONCRETE SOLUTIONS

CONCRETE SOLDIER PILES

MS
SIRIM



INTRODUCTION

The system stability is achieved through passive earth pressure mobilized in front of the embedded toe of the wall. This stability is further enhanced by additional support provided by anchors, ties, and struts, strategically placed at appropriate levels at the back.

INSTALLATION & METHOD

Primarily used to retain earth and expose smooth concrete surfaces, the PSP Pillar and PSP Panel can be easily and efficiently installed due to their built-in self-mounting joint. The PSP Pillar is driven into the soil using a vibro-hammer or hydraulic drop hammer, followed by the mounting of the PSP Panel between two PSP Pillars. This system can be installed in either a straight line or a curved profile, according to the required design alignment. The installation sequence is as follows:

- Clear the site and prepare a working access platform.
- Set the alignment of the wall and install the guide frame.
- Position, align, and drive the PSP Pillar.
- Install the PSP Panel and place the tie-back anchor or cast the capping beam.
- Complete backfilling and finishing.

ADVANTAGES

- The system requires only light machinery and a small access road for installation.
- The deep penetration of the spanning panel into the soil profile ensures it is not affected by erosion or scouring, which commonly affects conventional retaining walls.
- Fast installation eliminates the need for additional temporary work, saving both time and cost.
- The well-designed joints prevent gaps that typically occur between precast L-shaped drain units.
- It is easier to transport compared to large L-shaped units.
- The efficient PSP-Wall design significantly minimizes foundation costs.

APPLICATION

The PSP-Wall system is suitable for the following applications:

- Shoreline and slope protection
- River widening and riverbank reinforcement
- Retaining walls for land reclamation
- Soil platform extensions to create additional space for residential and commercial development
- Channel lining for drainage systems
- Flood mitigation (Flood Wall)

Type & Sizes

Type	W (mm)	H (mm)	Length (mm)
PSP Pillar	450	450	6m, 7.5m, 9m, 12m
PSP Panel	1700	200	2m, 3m, 4m

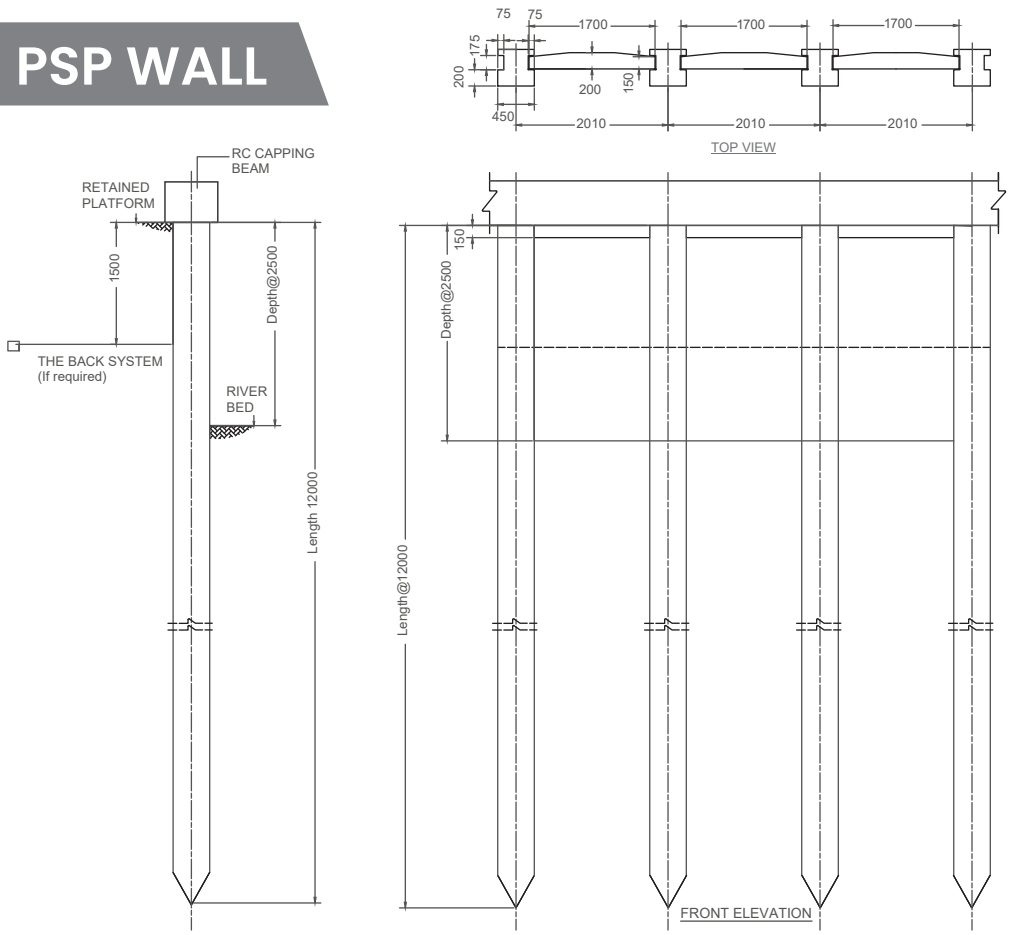
Design Specification

Structure Design Code	BS8110 : Part1 : 1997
Cement Design Code	MS522
Steel Design Code	MS146
Aggregate Design Code	MS29
Admixture Design Code	MS922

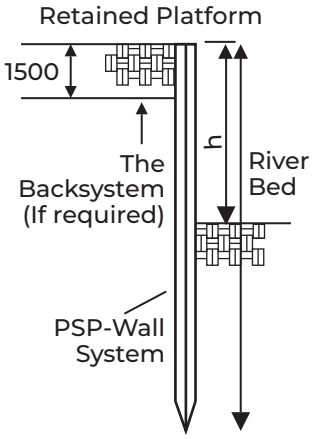


DETAIL

PSP WALL



THE BACK PSP – WALL SYSTEM



PRO-CAST

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