DURISOL.COM



# LAGGING PANELS & COPINGS RETAINING WALLS

PRECAST LAGGING PANELS & COPINGS FOR SOLDIER PILE RETAINING WALL SOLUTIONS

> COST EFFECTIVE CANTILEVERED SYSTEM

> IDEAL FOR LARGE LOADING AND STEEP SLOPES

PERMANENT SOLUTION

**ECONOMICAL & EFFICIENT** 

#### EARTH RETAINING WALL SYSTEM

Soldier pile walls are used on sites where there is an abrupt grade change required to facilitate the functionality of the site. Soldier Pile retaining walls using Lagging Panels & Copings are a permanent solution for grade manipulation and can facilitate abrupt slopes and surcharge loading above the wall system. Panels can be manufactured as either sound reflective or sound absorptive if required.

Precast Lagging Panels & Copings provide the project owners with a solution that is manufactured in controlled environments and are CSA certified precast manufacturing facilities. Aesthetics are easily facilitated as we offer a multitude of panel pattern options, along with the ability to provide various panel colours if required.

The integration of pedestrian guards, security walls and noise walls can easily be added to this wall system by simply projecting the posts for the wall above or mechanically connecting the wall above to the precast Copings.

The precast Lagging Panels and Copings are all reinforced concrete members are designed in-house by our engineering team. Durisol can design complete Soldier Pile & Lagging Panel wall solutions and identify the requirements for all the system components (footings, posts, panels, copings, pedestrian guards, security walls and noise barriers)



## **HOW IT WORKS**

Soldier Pile retaining walls are cantilevered earth retaining walls and are a complete engineered solution. The wall system is a combination of W-section structural steel posts which are imbedded into augured cylindrical concrete footings with precast Lagging Panels & Copings installed between and spanning from post to post. Based on soils conditions and loading conditions for the wall system, soil nails can be used through the post system for added resistance if required.





## **FEATURES & BENEFITS**

AESTHETIC OPTIONS	Precast patterns and colours are more aesthetically pleasing than cast-in-place (CIP) concrete alternatives with a uniform finish.
NOISE ABSORPTION	If sound absorption is a requirement, precast panels can be manufactured with either sound absorptive or reflective surfaces.
<b>X</b> CONSTRUCTABILITY	<ul> <li>&gt; Ease of installation and less work onsite with precast panels.</li> <li>&gt; Soldier pile lagging panel solutions require less excavation than other retaining wall alternatives. Once the footing concrete has reached minimum design strength the wall panels and backfilling can be executed in tandem making it more efficient in comparison to CIP.</li> <li>&gt; Integration of walls above the retaining wall are easily accommodated.</li> </ul>
STRUCTURAL	<ul> <li>Less material to manage heavy loading requirements.</li> <li>Finished wall with the structure.</li> </ul>

## **FINISHES**

Standard colours and finishes available.

#### DURISOL ABSORPTIVE



1004B NATURAL



1082D TAN



1538B GREY



11988 BROWN

#### **REFLECTIVE CONCRETE**

STAINED

CONCRETE



PLAIN CONCRETE



#### HAVE AN IDEA **OR NEED TO** COLOUR MATCH?

Custom wall designs are our specialty.



09187 GREY

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### **DESIGN DETAILS AT A GLANCE**

#### PANELS

- > Standard panel heights manufactured in CSA certified manufacturing facilities are based on 500, 750 or 1000mm
- > Sound Absorptive panel options are available
- > Panel Patterns and Colours can facilitate

#### POSTS

- Standard on centre post spacing = 2440mm o/c (or 8 ft). Other panel lengths can be manufactured to suit project specific requirements
- > Posts are engineered based on project specific requirements

#### WEIGHT

- > Panel weights vary based on panel length, panel height and thickness
- > Standard Panels @ 2320 L x 750 H x 205mm T = approx. 856 kg

## **TECHNICAL DETAILS**



#### TYPICAL PANEL DETAILS



MXQL PATTERN





A post and panel system is more cost-effective where earth retaining heights above 1.5 metres is required.

## **APPLICATIONS**

The lagging panel & coping system can be used where a large load or steep slopes are a requirements often found in:

## MASS TRANSPORTATION PROJECTS

RAILWAY CORRIDORS

### ASK US HOW TO UTILIZE OUR PRECAST RETAINING WALL SOLUTIONS TOGETHER



#### SEGMENTAL BLOCK WALL

Gravity block solutions with & without soil reinforcement.



**MSE WALL** 

Integral Mechanically Stabilized Earth retaining wall solutions.



#### Combination Mechanically Stabilized Earth retaining wall with noise barrier above.





Let the retaining wall experts at Durisol custom-engineer a precast wall solution for your next project.

Drawings and product details are for information and/or illustrative purposes only, and may vary. Please contact your local Durisol representative for the most current product information.



Scan here for more of our resources



As industry leaders, Durisol<sup>®</sup> models the highest standards of noise & retaining wall systems to serve the robust needs of the transportation, building and energy sectors across North America.