

# EKHO

INFRASTRUCTURE  
SOLUTIONS



## LAGGING PANEL RETAINING WALLS

A permanent, post and precast system  
for all lagging stages

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# Trust Precast Lagging for Your Next Earth Retaining Wall

- LESS MATERIAL
- ADAPTABLE
- COST-EFFECTIVE
- ALL WEATHER DURABILITY
- CERTIFIED PRECAST

Soldier pile walls are used on sites where there is an abrupt grade change required to facilitate the functionality of the site. Lagging Panel Retaining Walls 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 Panel Retaining Walls 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.

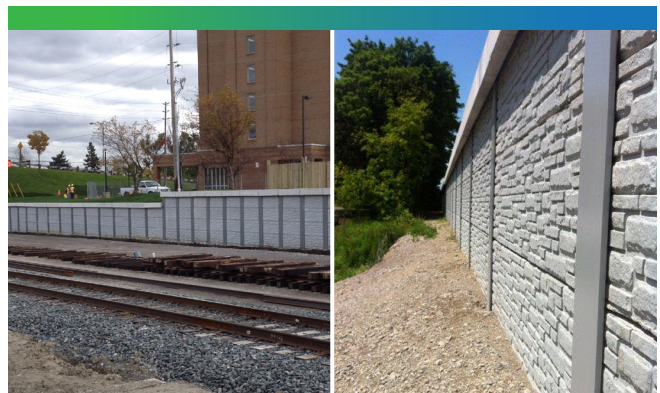
The integration of pedestrian guards, security walls and noise walls can easily be added to this wall system by simply projecting the posts for the wall above or mechanically connecting the wall above.

The precast Lagging Panel Retaining Walls are all reinforced concrete members and are designed in-house by our engineering team. Our team 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



Lagging Panel 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 Panel Retaining Walls installed between and spanning from post to post. Based on soil conditions and loading conditions for the wall system, soil nails can be used through the post system for added resistance if required.



# FEATURES & BENEFITS

 <p><b>AESTHETIC OPTIONS</b></p>	<ul style="list-style-type: none"><li>• Precast patterns and colours are more aesthetically pleasing than cast-in-place (CIP) concrete alternatives with a uniform finish.</li></ul>
 <p><b>NOISE ABSORPTION</b></p>	<ul style="list-style-type: none"><li>• If sound absorption is a requirement, precast panels can be manufactured with either sound absorptive or reflective surfaces.</li></ul>
 <p><b>CONSTRUCTABILITY</b></p>	<ul style="list-style-type: none"><li>• Ease of installation and less work onsite with precast panels.</li><li>• Lagging Panel Retaining Walls 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>• Integration of walls above the retaining wall are easily accommodated.</li></ul>
 <p><b>STRUCTURAL</b></p>	<ul style="list-style-type: none"><li>• Durable panels designed for freeze thaw resistance in any climate.</li><li>• Less material to manage heavy loading requirements.</li><li>• Finished wall with the structure.</li></ul>

## FINISHES (Standard colours and finishes available).

### ON ABSORPTIVE FINISH



1004B NATURAL



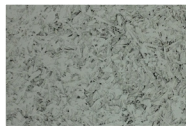
1082D TAN



1538B GREY



02589 TAN



09187 GREY



11988 BROWN

### ON CONCRETE



PLAIN  
CONCRETE



STAINED  
CONCRETE

STANDARD GREY  
AVAILABLE IN ANY  
COLOUR



**HAVE AN IDEA OR NEED TO COLOUR MATCH?**  
Custom wall designs are our specialty.

# DESIGN DETAILS AT A GLANCE

## PANELS

- Panel heights manufactured in CSA certified manufacturing facilities are based on 760mm Standard, custom heights, lengths and thicknesses are available
- Sound Absorptive panel options are available
- Custom panel patterns and colours are available to facilitate unique aesthetic requirements. **Ask us how!**
- Panels are engineered based on project specific requirements

## 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

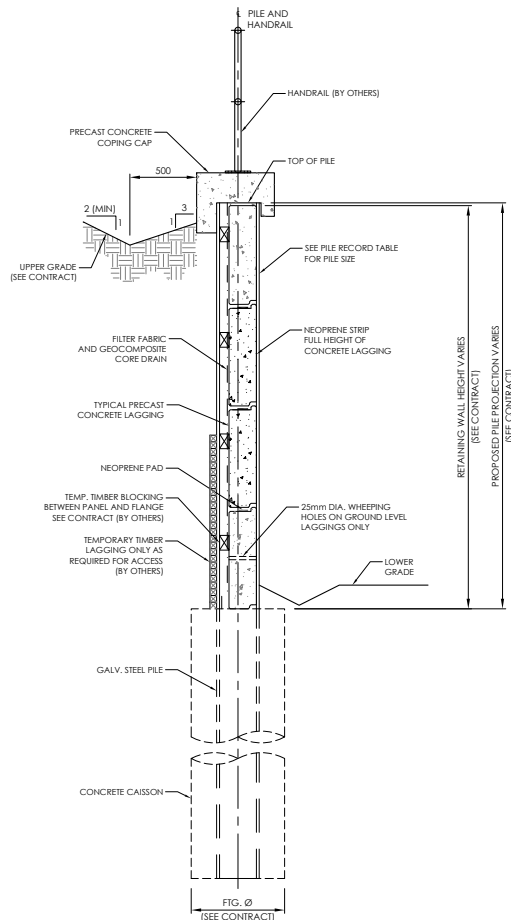
## WEIGHT

- Typical Panels @ 2320 L x 760 H x 205mm T = approx. 856 kg

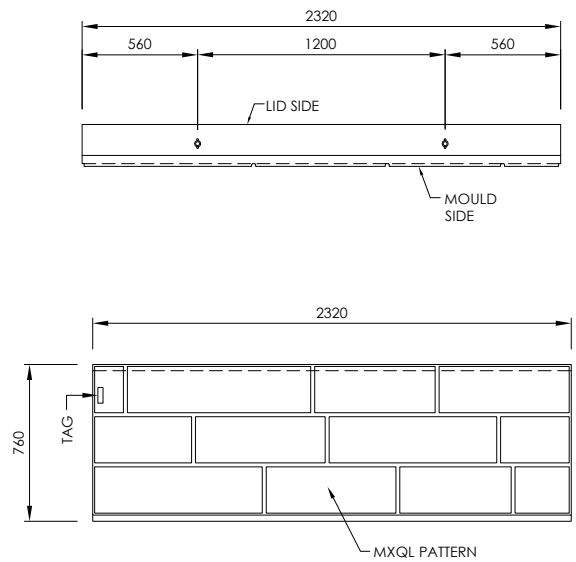


# TECHNICAL DETAILS

## TYPICAL WALL SECTION



## TYPICAL PANEL DETAILS



# APPLICATIONS

The Lagging Panel Retaining Walls can be used where a large load or steep slopes are a requirement, often found in:

-  **SHORELINE RESTORATION**
-  **HIGHWAY & ROADWAY**
-  **RAIL CORRIDORS**
-  **SLOPE STABILIZATIONS AND EROSION CONTROL**
-  **NEW RESIDENTIAL OR COMMERCIAL SITE DEVELOPMENTS**
-  **PERMANENT & TEMPORARY CONSTRUCTION PROJECTS**



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

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



### SEGMENTAL BLOCK WALL

Gravity block solutions with & without soil reinforcement.



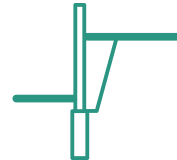
### MSE WALL

Integral Mechanically Stabilized Earth retaining wall solutions.



### HYBRID MSE WALL

Combination Mechanically Stabilized Earth retaining wall with noise barrier above.



### CANTILEVERED WALL

Vertical cantilevered retaining walls for limited space.



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