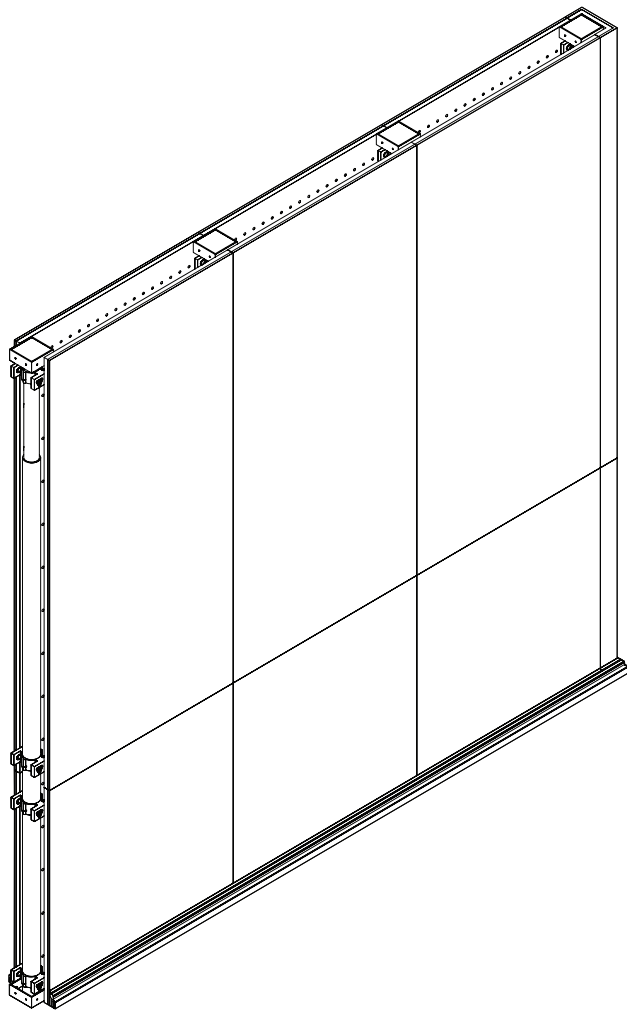
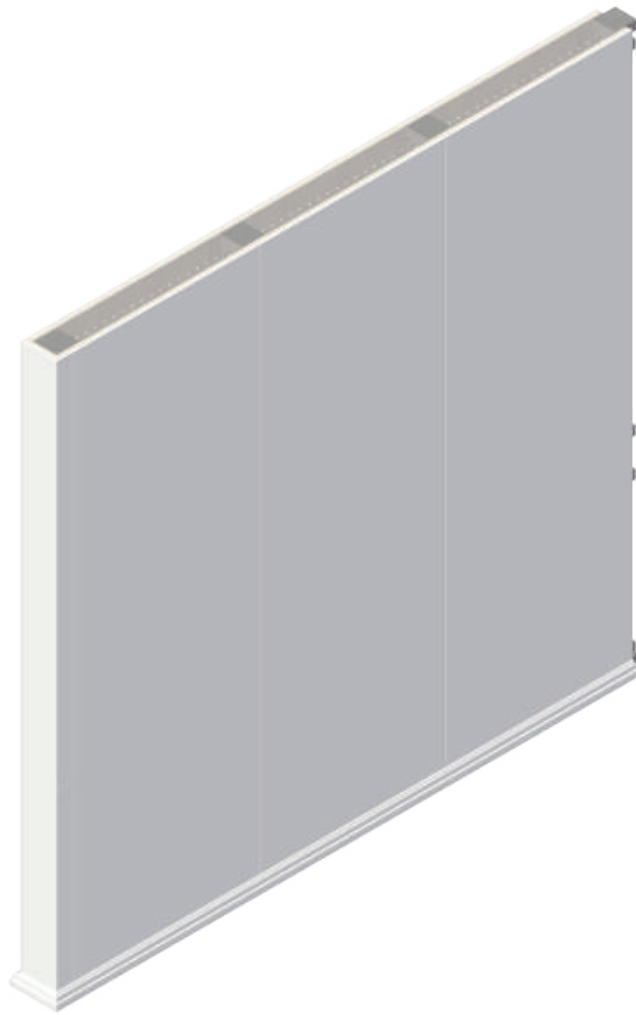


TALLYWALL



APPLIED STRUCTURE
ISOMETRIC VIEW
SCALE 1:25 @ A3



RENDERED STRUCTURE
ISOMETRIC VIEW
SCALE 1:25 @ A3

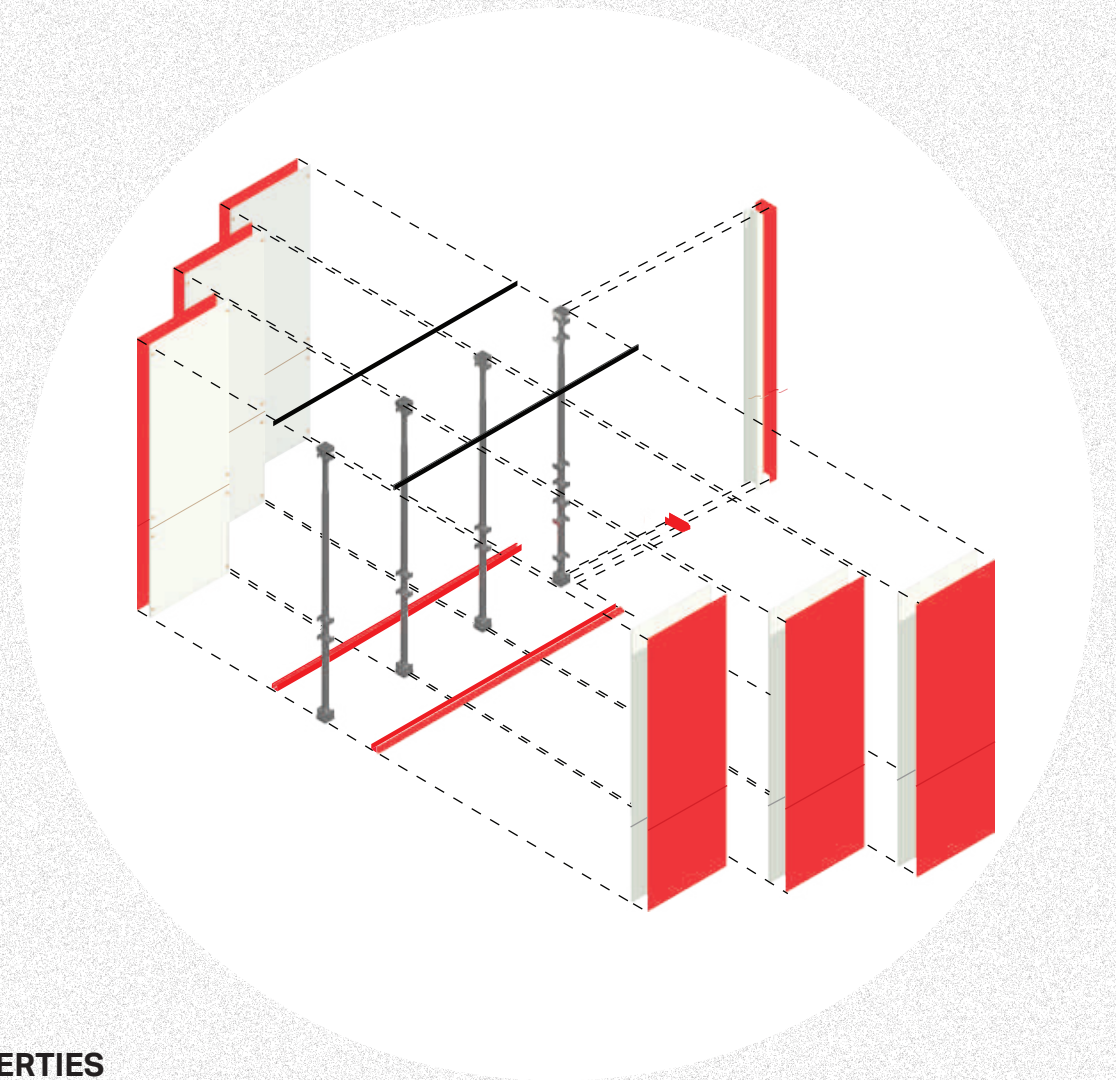
CONCEPT

This project offers a sustainable alternative to wasteful construction of interiors. The idea is to find a sustainable solution for our increasing problem with building waste. Tallywall's design concept is a flexible and modular wall that can be assembled in any existing building and which can be taken down and reused after the function of a space is lost. This way we could decrease need for demolitions that are due to obsolescence.

Ideally this wall structure could become a substitute for gypsum wall board, but with complete reusability and continuously flexible applications. In architecture they could be a vital component in ending our throwaway society.

The wall is ideal for domestic spaces, offices, retail, hospitality, childcare, schools and universities, doctors and hospitals. But also for temporary installation such as the film and theatre industry, in temporary housing like refugee centres, in exhibitions, fairs and shows. With these walls an office can become a home, a retail space a kindergarten and a dentist's a gallery without any major production of interior waste, let alone the intense amount of waste when a building is demolished.

To fit all interiors and any possible function the wall has to be modular and must have all the standard properties of a normal wall. Additionally different sustainable surface options are available to make the wall adaptable to any interior purpose.



STRUCTURAL PROPERTIES



JOINT DETAILS



AESTHETIC PROPERTIES



MATERIALITY



JOINTS TO FLOOR AND CEILING



JOINTS TO EXISTING WALL



INTERIOR DECORATIONS AND ABNORMALITIES



THERMAL INSULATION



ACOUSIC INSULATION



ELECTRICITY ACCESS



EXISTING LIGHTING



WALL OPENINGS



SIZE AND WEIGHT OF WALL ELEMENTS

MATERIAL PROPERTIES



WATER PROOF



INSULATION



ACOUSTIC INSULATION



TRANSLUCENCE



SOFT TOUCH



FIRE PROOF



SCRATCH RESISTANCE



LIGHT WEIGHT



RENEWABLE



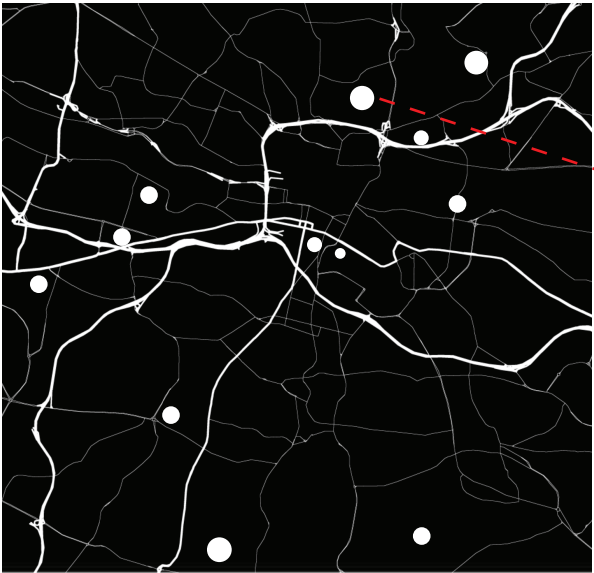
CHEMICAL RESISTANCE

BACKGROUND

In our present world, urban structures change rapidly and a buildings purpose and function with it. However we still design with a focus on permanence and monumentality, knowing that the building will not serve its purpose that long. With the right maintenance we have developed our building techniques to create buildings that last forever, but with a societal structure that is so dependant on trends and innovation, a building loses its original function way faster than what we build it for.

An example for this process is the demolitions that happened all across Glasgow in the last 10-15 years. I chose this project first in relation to the demolition of the numerous building blocks around Glasgow that have disappeared from the cities skyline over the last decade. Over 11000 homes have been demolished in Glasgow since 2007, which not only had a significant societal impact but also exemplifies the environmental irresponsibility in architecture that Europe, as much as most other countries world wide, take into account to profit from the demolition and rebuilding of houses. Glasgows decay of buildings is more visible than in many other western European countries due to the way the city council deals with vacant architecture.

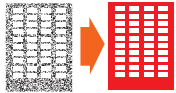
To make matters worse, in our building economy there is a clear lack of awareness about the irresponsible consumption of resources and the production of waste. When analysing the waste production of individual countries and tracking the causes and outcomes of landfill production, it becomes evident that construction and demolition of buildings, are the main cause of landfill and waste.



The idea of Tallywall is to reuse existing buildings more and make it easier for a building to change its function. This way buildings wouldn't have to be demolished due to obsolescence and changing trends. The map above shows the locations of Glasgow's demolished social housing complexes. The visuals to the left exemplify the use of Tallywalls in one building of Red Road complex that was demolished in 2012. It shows how these buildings could have been re-designed to suit our modern housing styles and expectations instead of having to be demolished. This would be a more sustainable and resourceful way of dealing with changing urban needs.



REDUCE



REUSE



RECYCLE

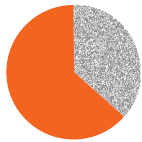
Sustainable architecture is often categorised in the concepts of "reduce, reuse and recycle". This project attempts to incorporate all three approaches and making the design as modular, flexible and adaptable for changing future needs as possible.



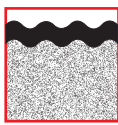
Europe alone produces over 850 million of industrial waste annually.



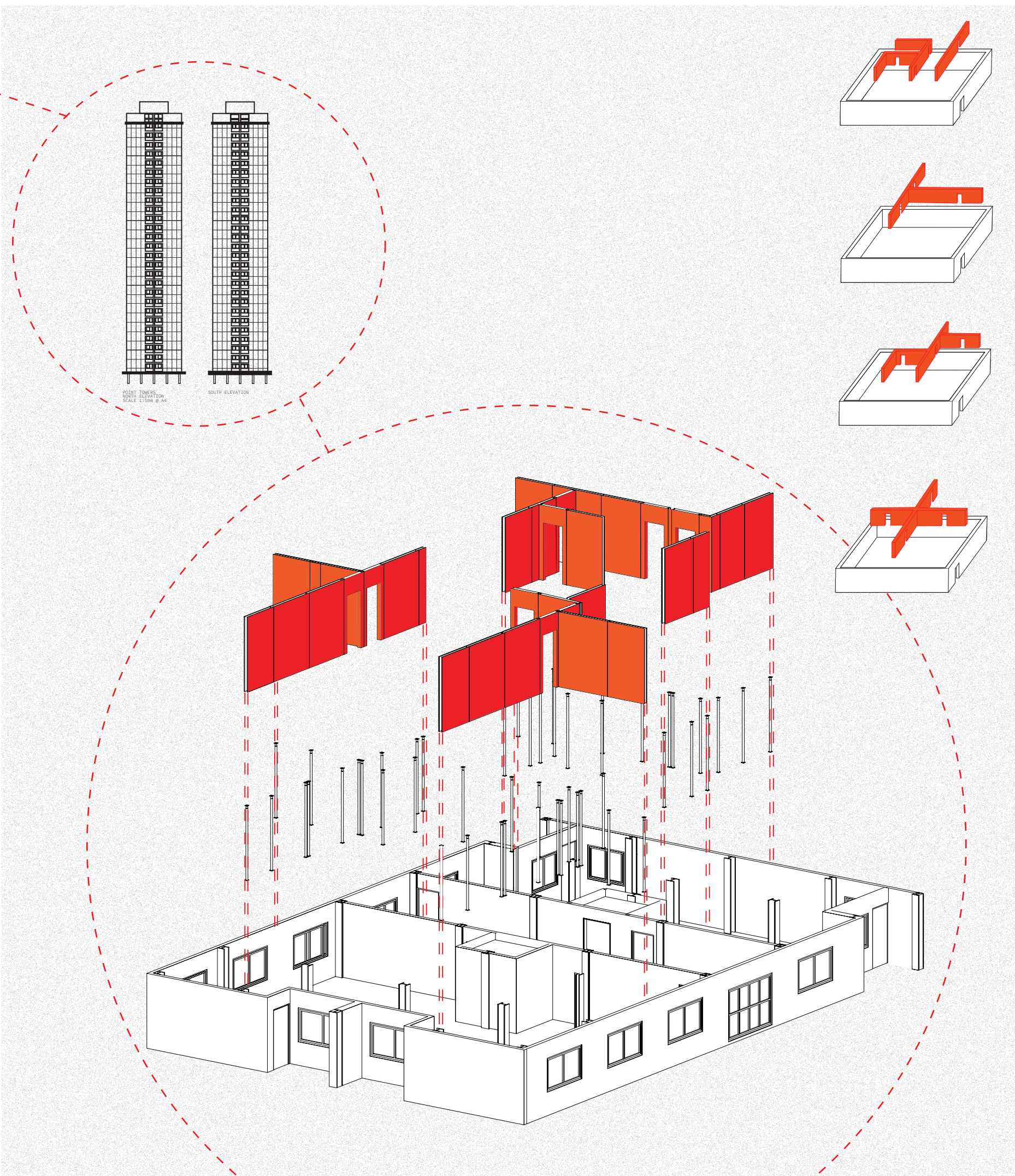
4-30% of the weight of a building already results in waste during construction.



2/3 of concrete is sand. Sand is not a sustainable resource and is already getting scarce because of our excessive building style.

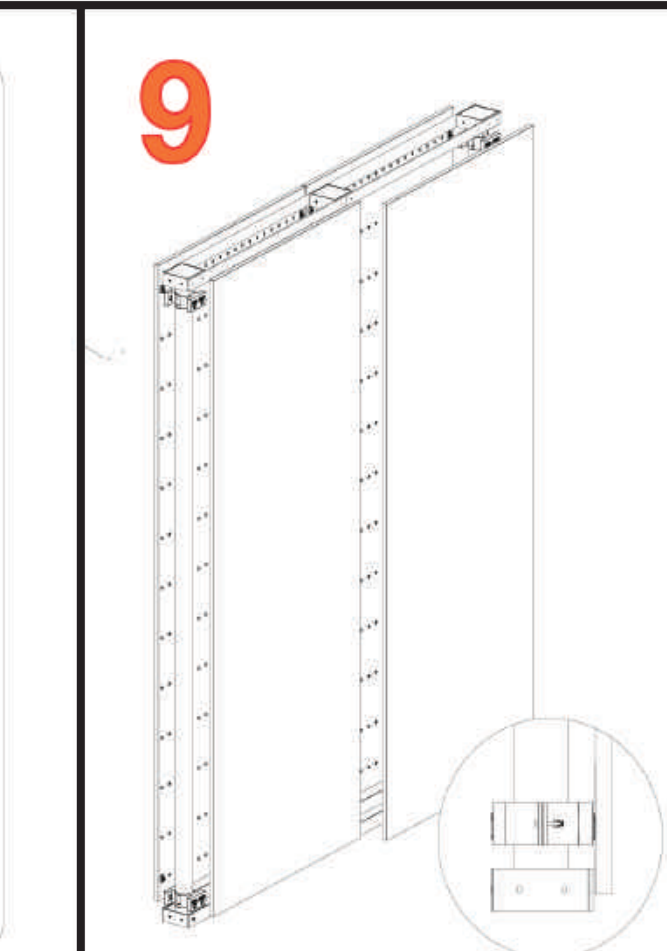
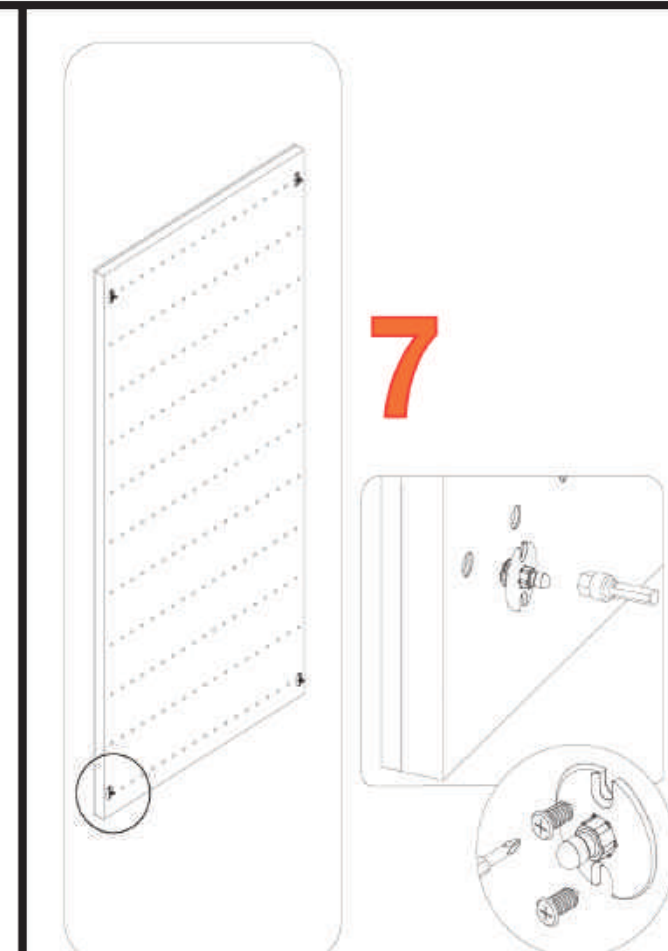
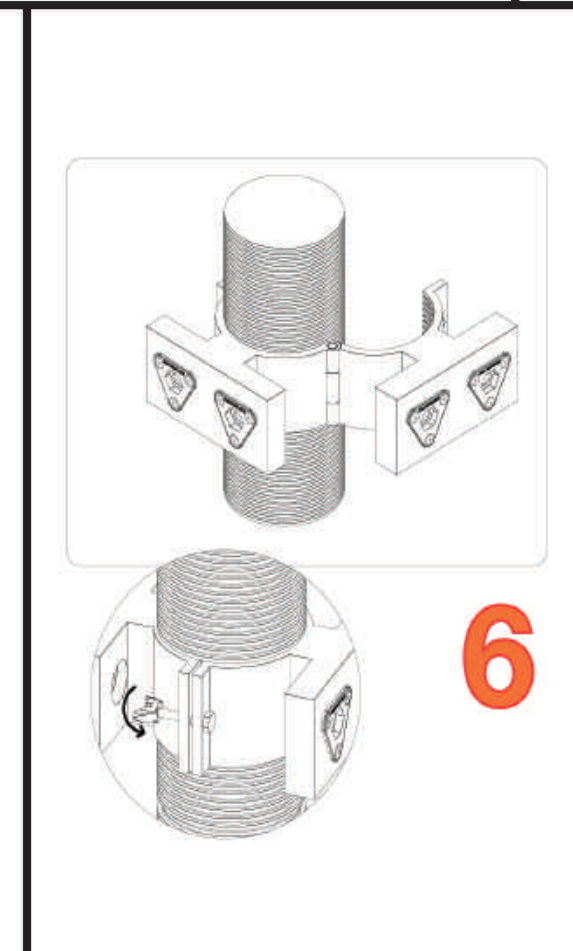
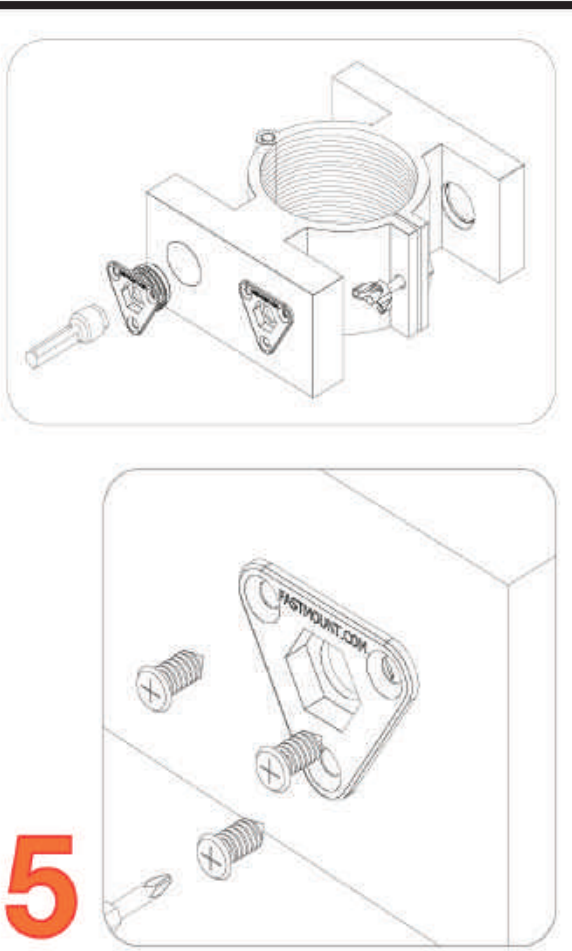
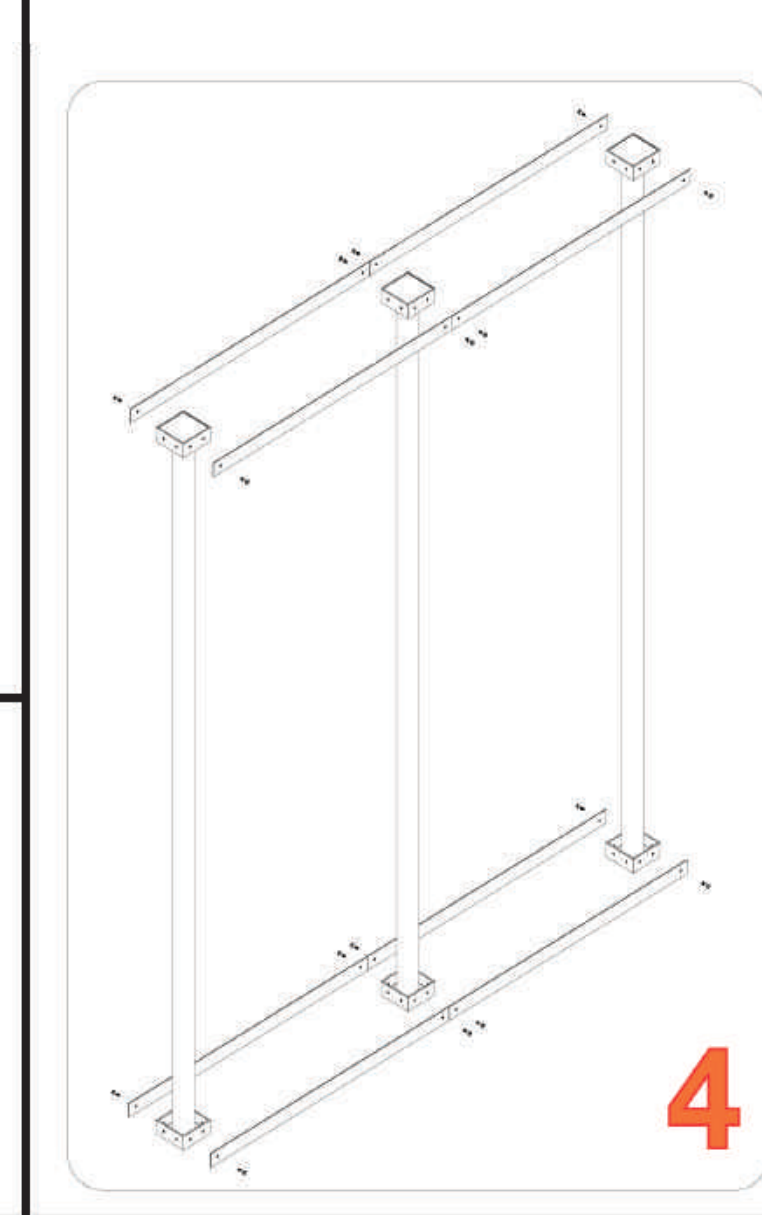
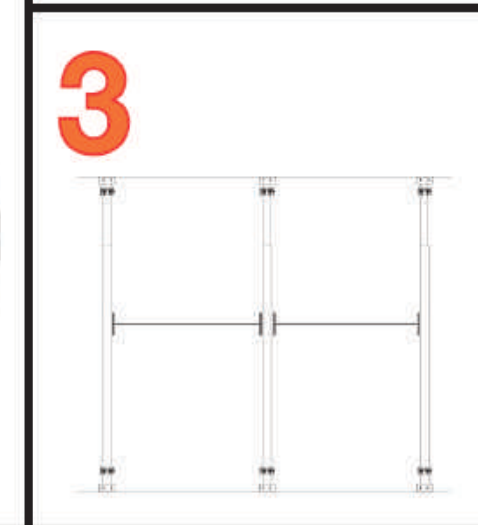
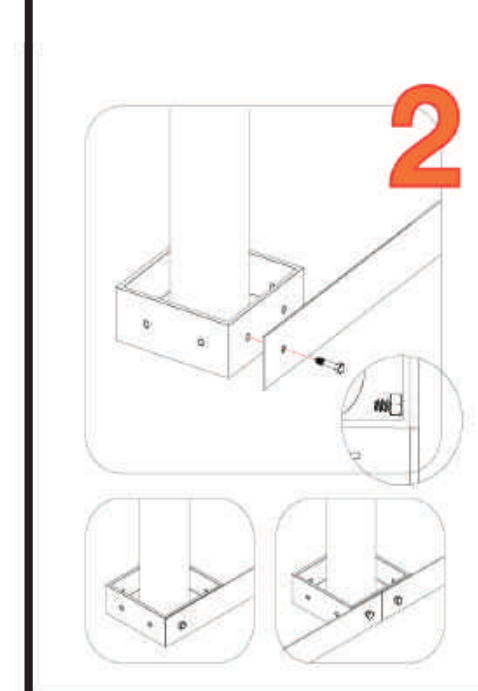
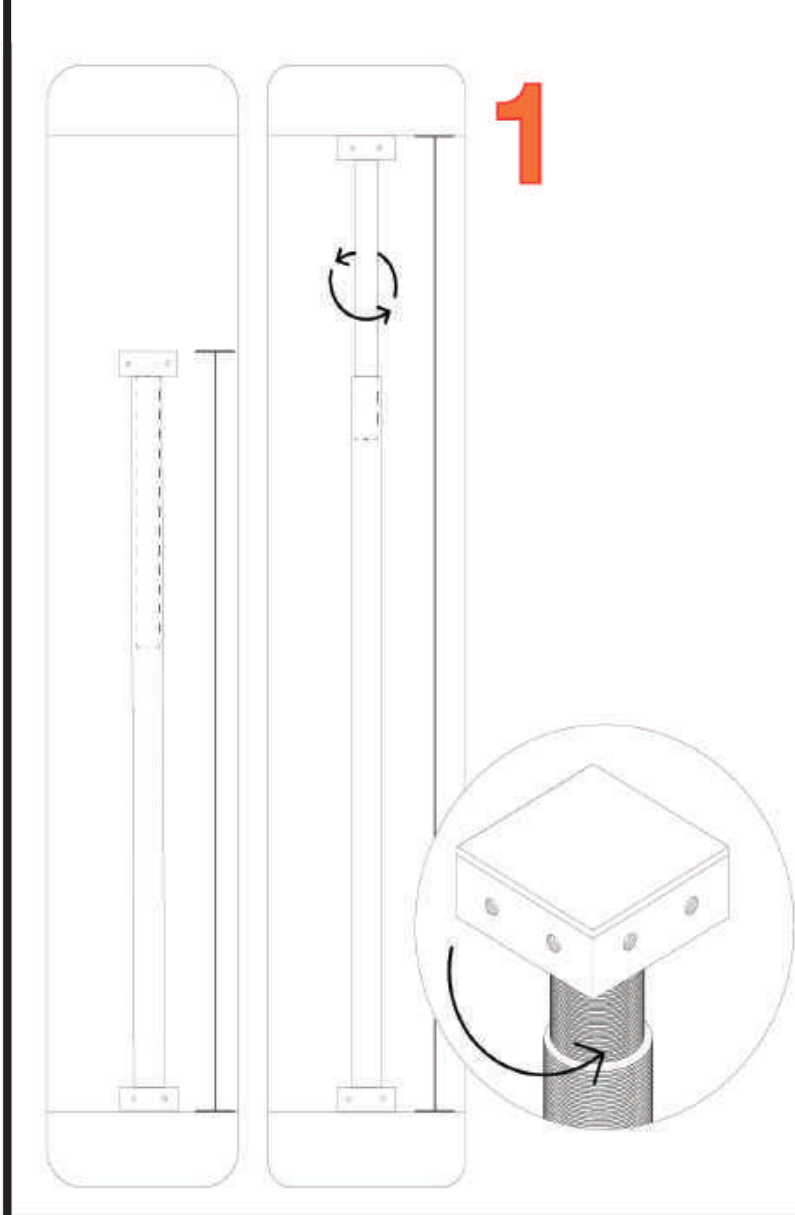
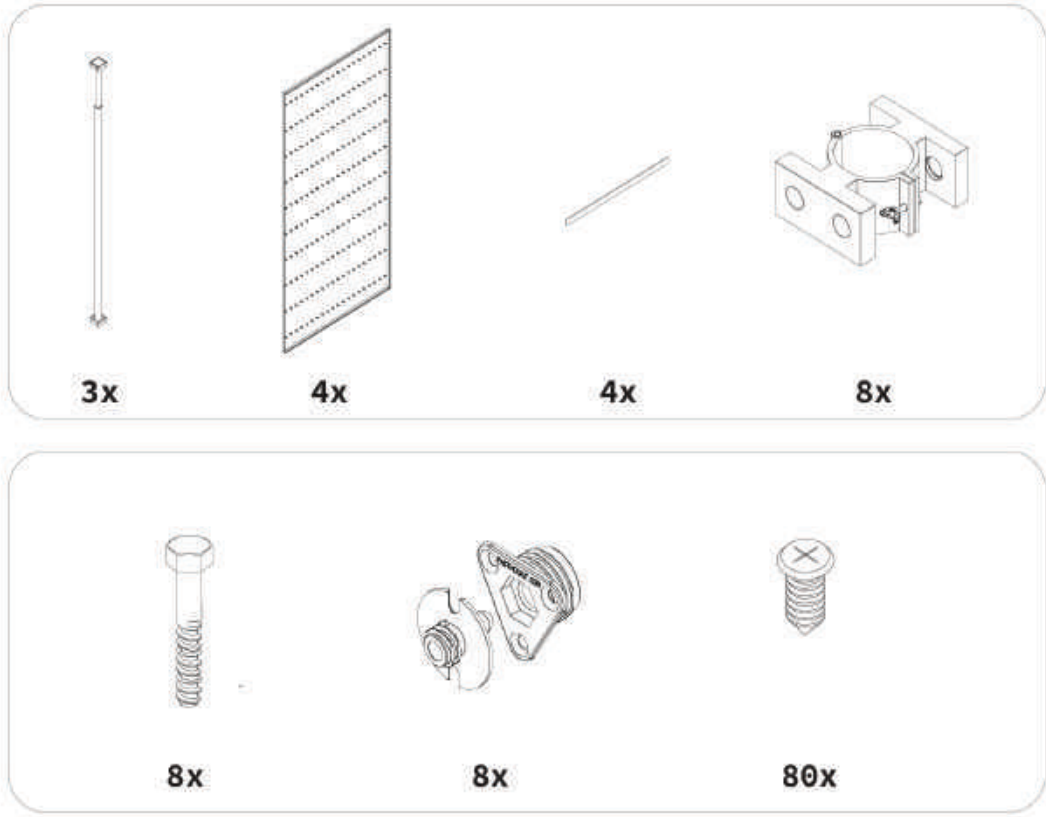


10% of world-wide water use is for the production of concrete.



THE MANUAL

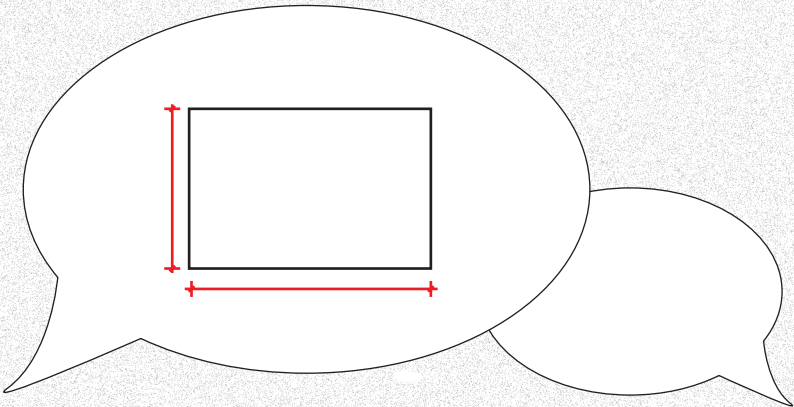
CLASSIC



HOW IT WORKS

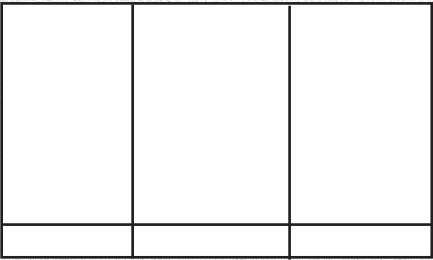
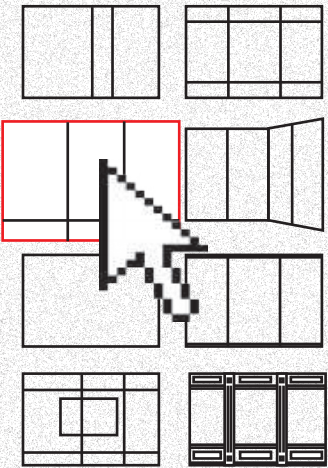
STEP 1

TELL US YOUR DIMENSIONS



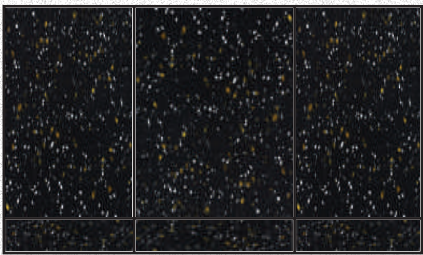
STEP 2

PICK A STYLE



STEP 3

CHOOSE A SURFACE



STEP 4

ADD YOUR EXTRAS

END CAPS



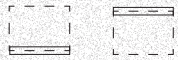
DOORS AND OPENINGS



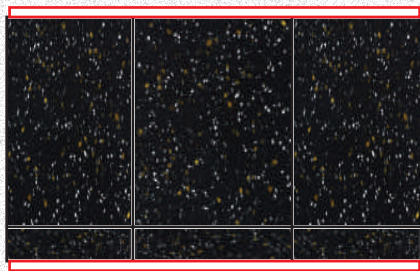
SKIRTING BOARDS



SHADOW GAP

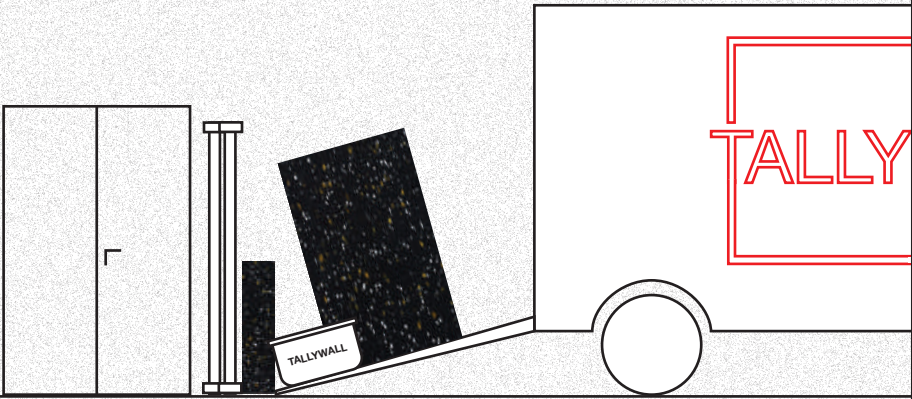


EXTRA PANELING



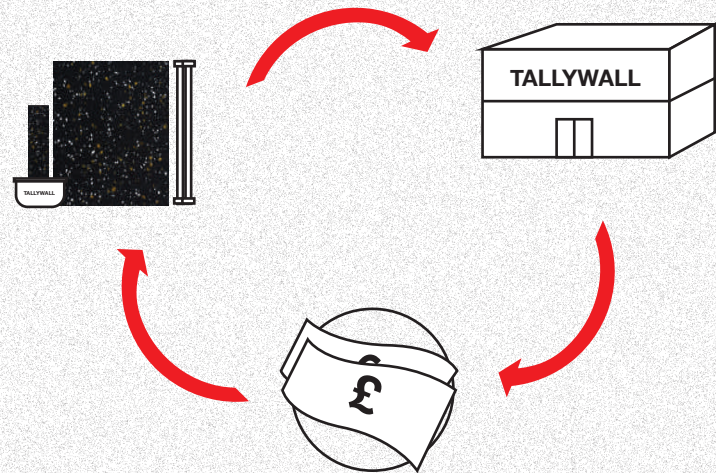
STEP 5

WE'LL INSTALL YOUR WALL



STEP 6

RETURN YOUR WALL AND GET YOUR DEPOSIT BACK

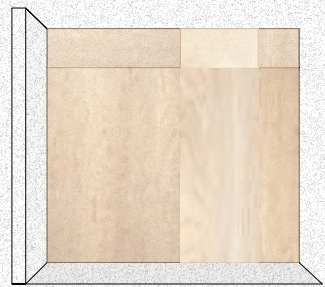


WALL TYPES

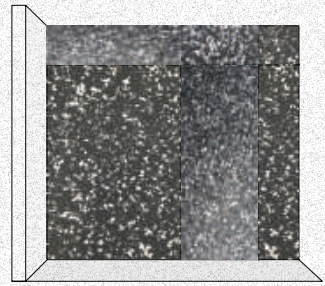
In order to work in this comercialised society the walls have a number of different sustain-able surfaces and options from which to pick a style. The system is fully modular and built without the use of glue or other wet joints. Depending on the use of the wall there is a selection of materials and surfaces that coat the panels. In theory, there would be a large collection of coated panels that would be permanently in stock. The coating materials are carefully chosen to be not only durable and long-lasting but also come from a sustainable origin. All covers have different functions, there is translucent walls, prints, recycled plastic panels, blackboard walls, wooden or tiled walls and more. Nearly all materials would be made either from recycled products like Smile Plastic and Richlite, would be recyclable, such as Durat and Bencore or would be made from natural elements like wood or cork panels. The aesthetics of the wall is deliberately modular to celebrate the sustainable aspect of the walls demountabilty.

Tallywalls are intended to fit into any existing interior space. The design works in nearly all spaces between 2,4 m and 3,8 m ceiling height. This allows the structure to be applied in nearly all standard interiors. The idea is that the wall can be installed in spaces that already exist, or that new buildings are built with a minimum of structural elements so that all interiors can be adjusted throughout time with a maximum of flexibility.

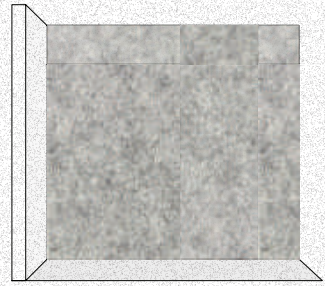
MATERIALITY
SELECTION OF 3 OUT OF OVER
30 MATERIALS FOR COATING THE PANELS



PLYWOOD/ TIMBER COVER

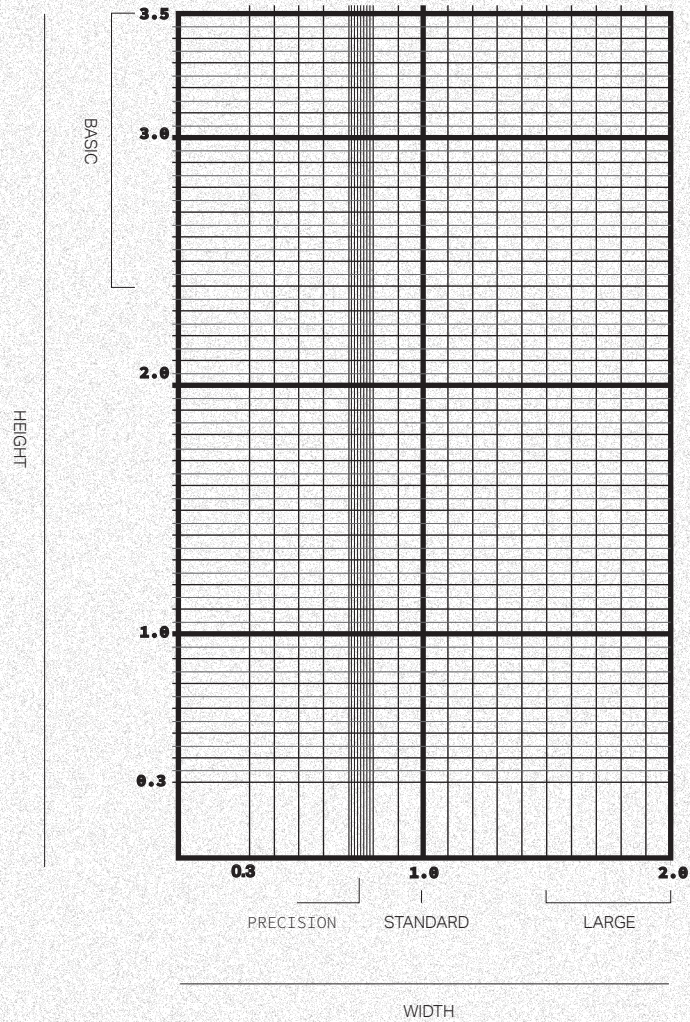


RECYCLED PLASTIC COVER

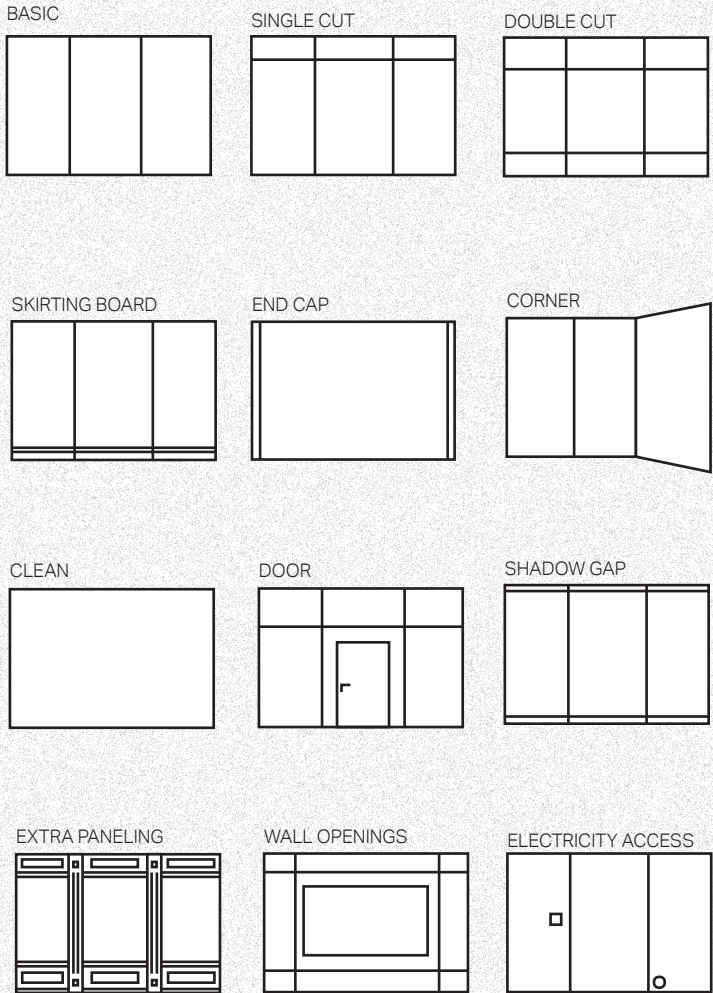


RECYCLED FELT COVER

SIZE CHART
SIZES IN WHICH TALLYWALL PANELS WOULD COME
SCALE IN M



WALL TYPES
SELECTION OF WALL STYLES



CORNER WALL STYLE
IN A TEMPORATY SHOW ROOM



BASIC WALL STYLE
IN A KINDERGARDEN OR CHILD CARE ESTABLISHMENT



EXTRA PANNELING WALL STYLE
IN A HOME, HOTEL OR RESIDENTAL INTERIOR