



# Flotsam & Jetsam

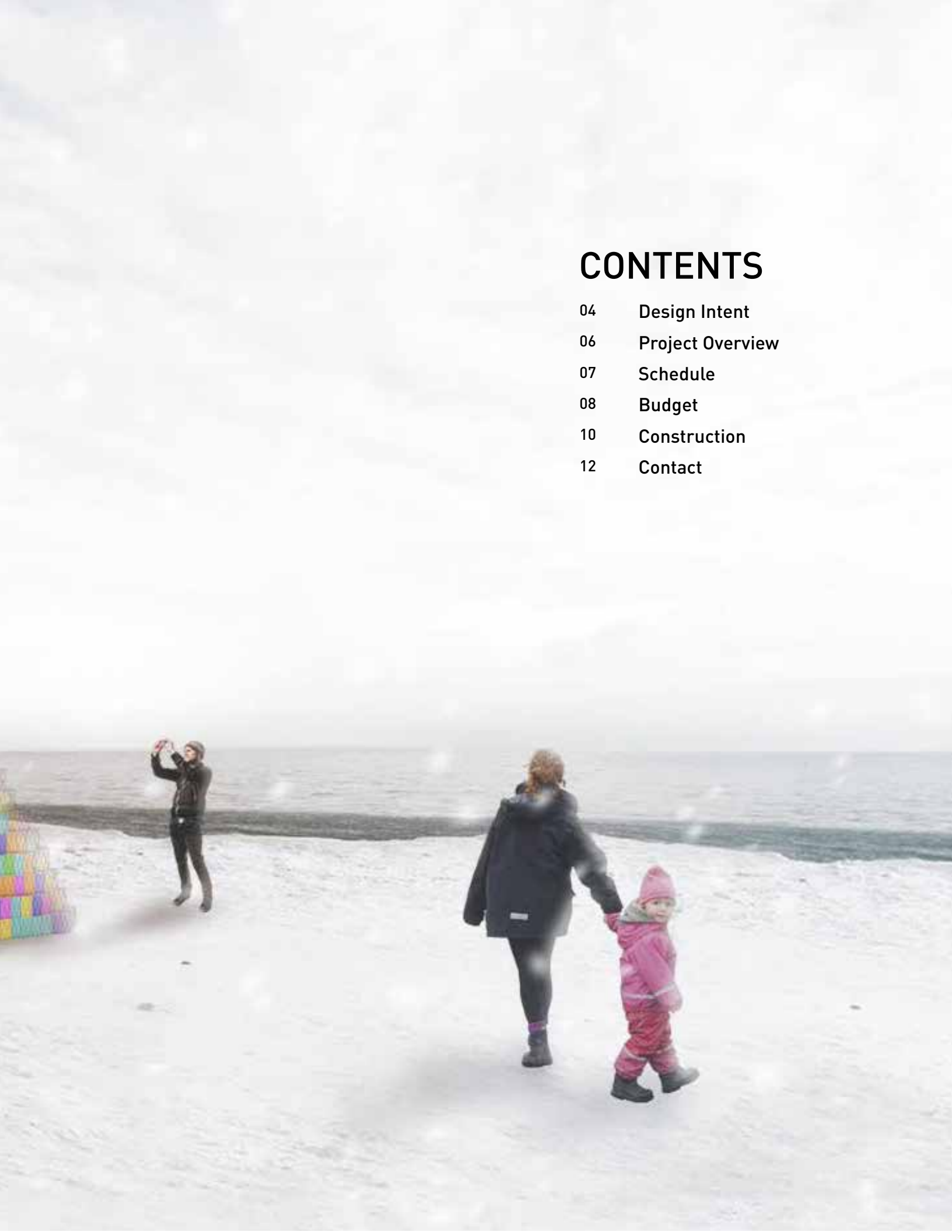
An installation for Winter Stations 2017

**WATERLOO | ARCHITECTURE**



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# WINTER STATIONS 2017

Winter Stations is an international design competition to encourage Torontonians to explore the city's winter waterfront landscapes. The public art exhibitions inhabit six lifeguard stations along Balmy, Kew and Ashbridges Bay beaches in Toronto's east end. These lifeguard stands will serve as the base structure for temporary installations designed to withstand Toronto's winter weather. The exhibition will run from February 20th until March 27, 2017.

This year's theme for the Winter Station is Catalyst.

"Winter Stations 2017 theme: Catalyst : Converting one form or substance into another. It's the finger that tips the first domino over. It's the flap of butterfly's wing that sets off a chain of chaotic, unpredictable reactions. The theme for Winter Stations' third year is Catalyst. In 2017, this seems especially fitting in this time of international political, social and cultural search for a better way forward." - winterstations.com

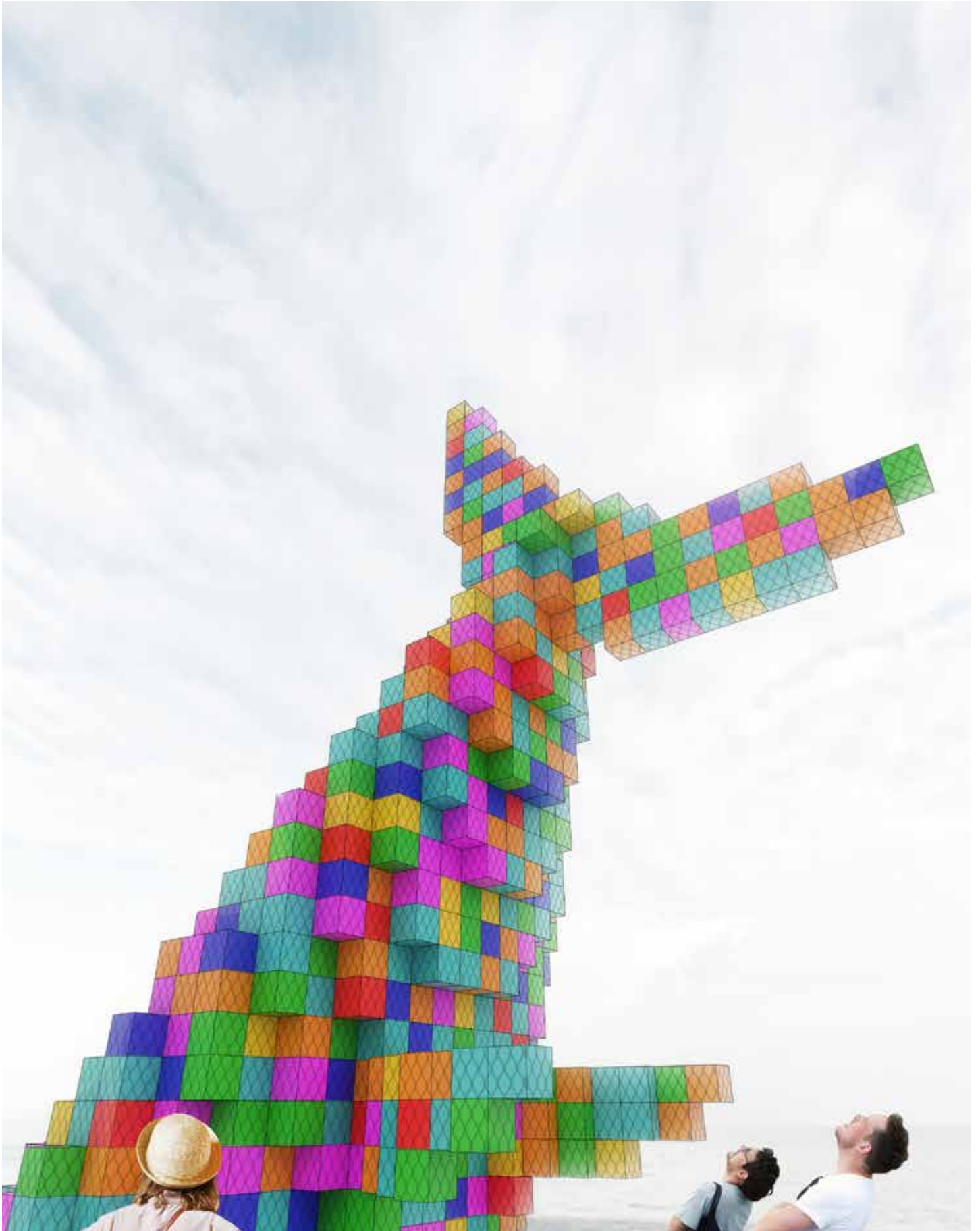
Designers are asked to intervene in a way that will challenge traditional interactions with the landscape, unearthing new experiences and perceptions. Their aim is to bring some colour, warmth and whimsical spirit to the frozen lake environment.

## DESIGN STATEMENT

Flotsam & Jetsam is designed to engage with its visitors as a playful and poignant fixture in the Toronto beaches' landscape. As one approaches from the vantage of the city the 20 foot high colourful sculpture generates curiosity and invites a closer look. Upon arriving at the station, however, Flotsam & Jetsam is not what it first appears. The installation reveals the realities of plastic consumption, resulting waste and its effects on the aquatic biodiversity of the planet we share.

Constructed from cubes of metal mesh, approximately 20 foot high the fish will tower over the visitor ensuring that it is highly visible along the beach. The bottom-most layers of the mesh structure will be weighted to provide a foundation in order to resist the wind or snow loads. To achieve the colourful, textured finish the mesh cubes will be filled with recycled plastic collected from the local community. The materials employed in the design are completely reusable and recyclable.





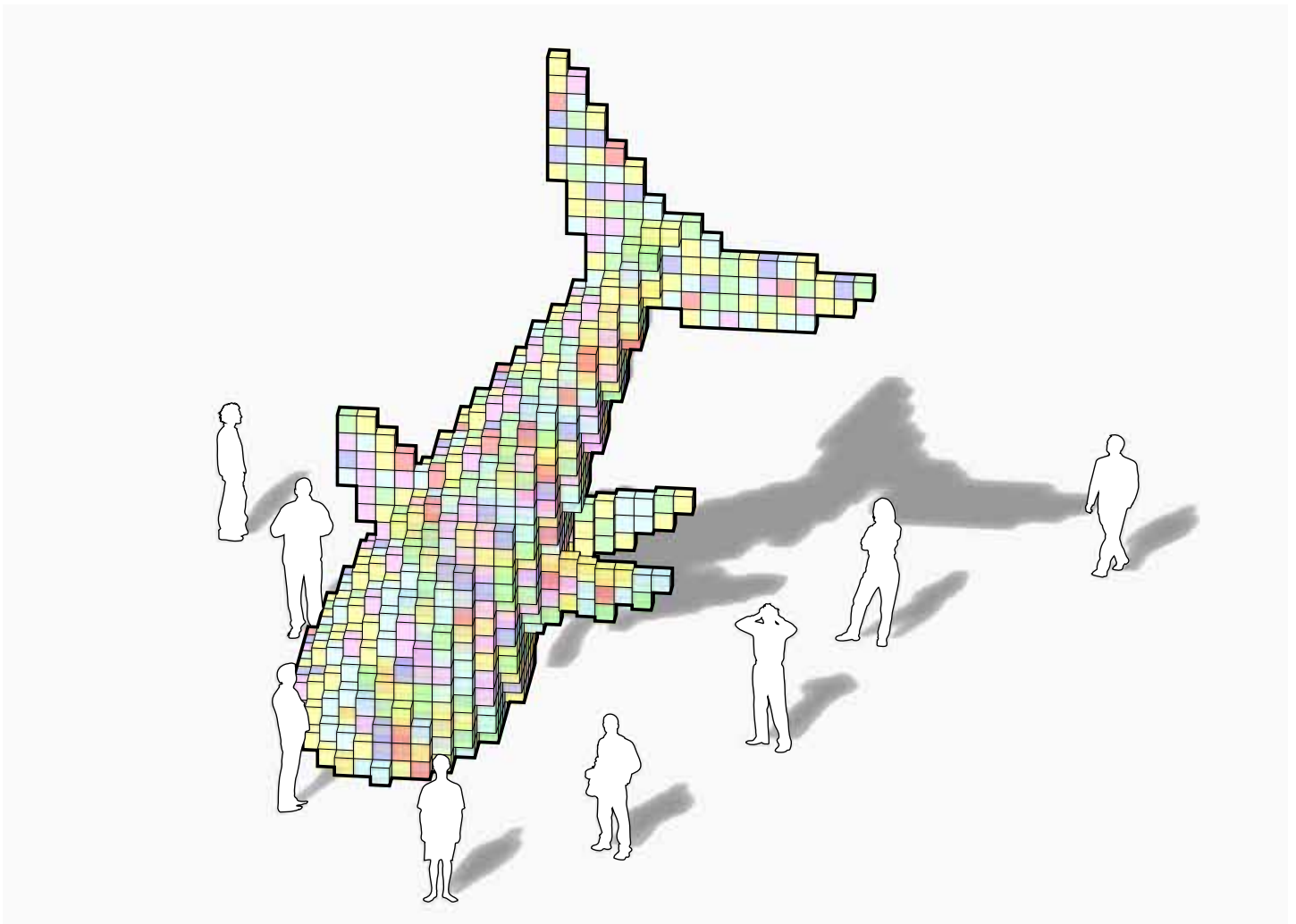
# SITE PLAN



## Toronto Beach

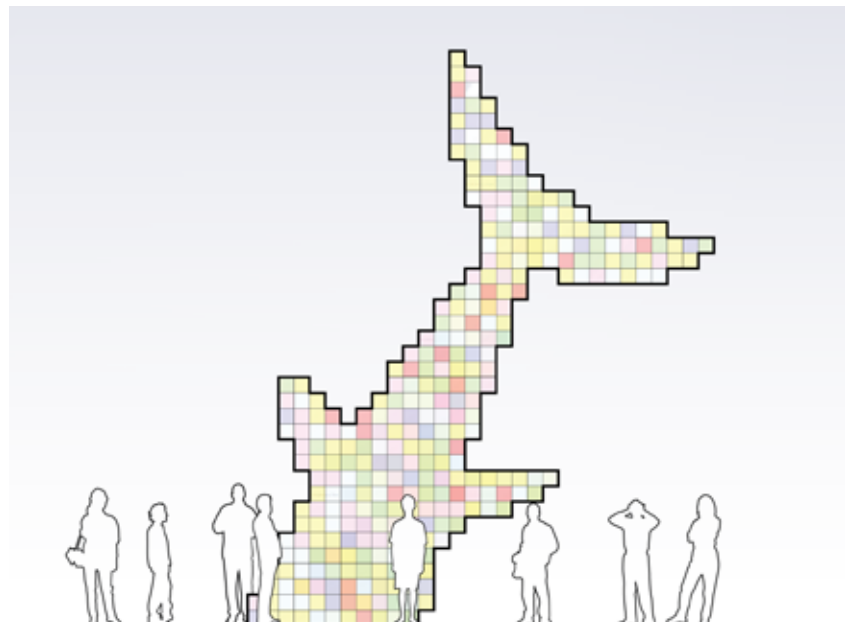
The sculpture will inhabit one of the six lifeguard stations along Balmy, Kew and Ashbridges Bay beaches along Toronto's beach in the east end. The form depends on the pre-existing structure of the lifeguard station to support the weight of the mesh boxes and resist wind loads.

# DESIGN

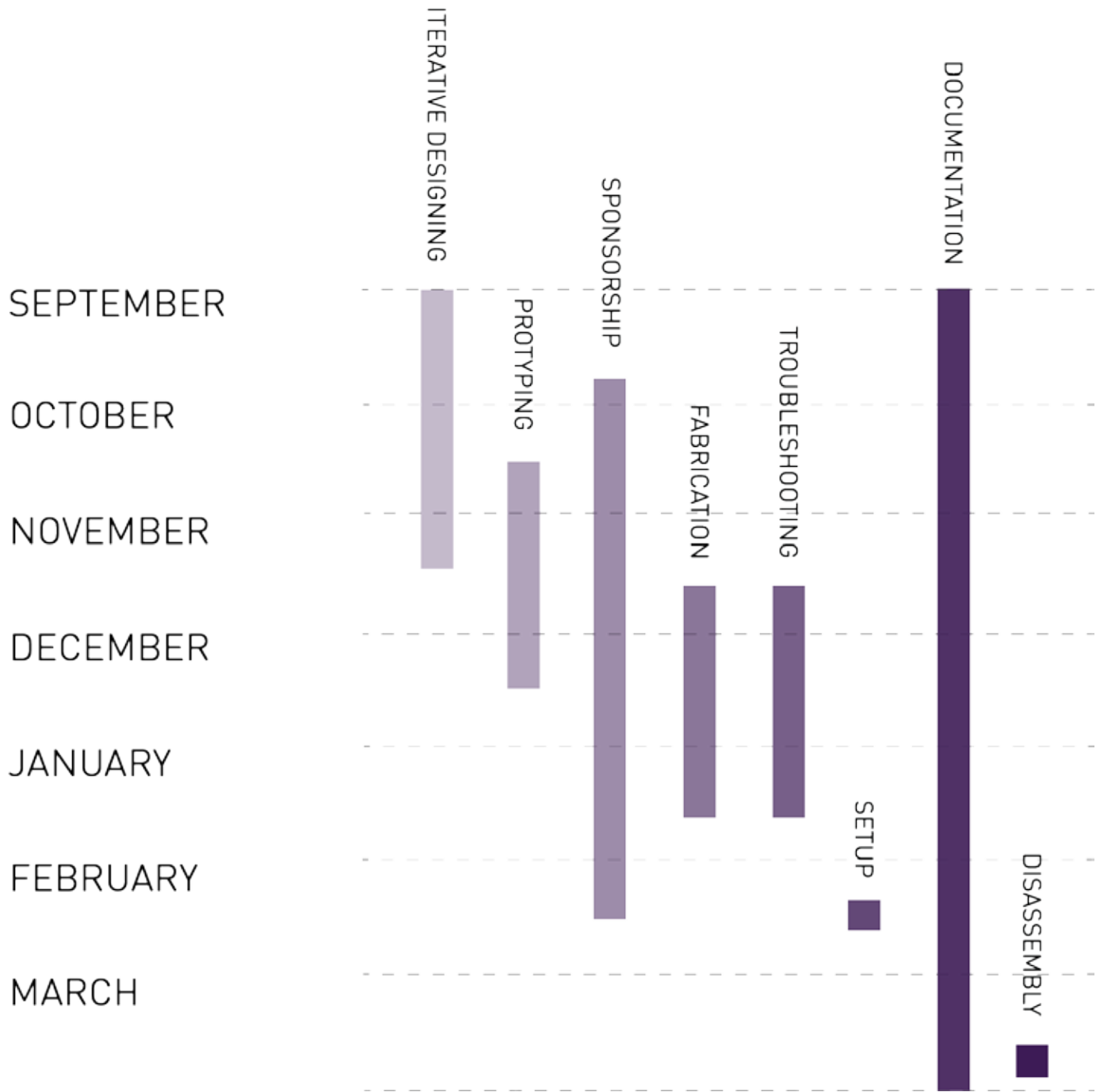


## The experience

Our installation will promote reflection on scale and imagery. Upon approaching the form, the appearance of the pixels will become apparent. Casual seating placed at the base of Flotsam & Jetsam will promote mingling and conversation between strangers.



# SCHEDULE

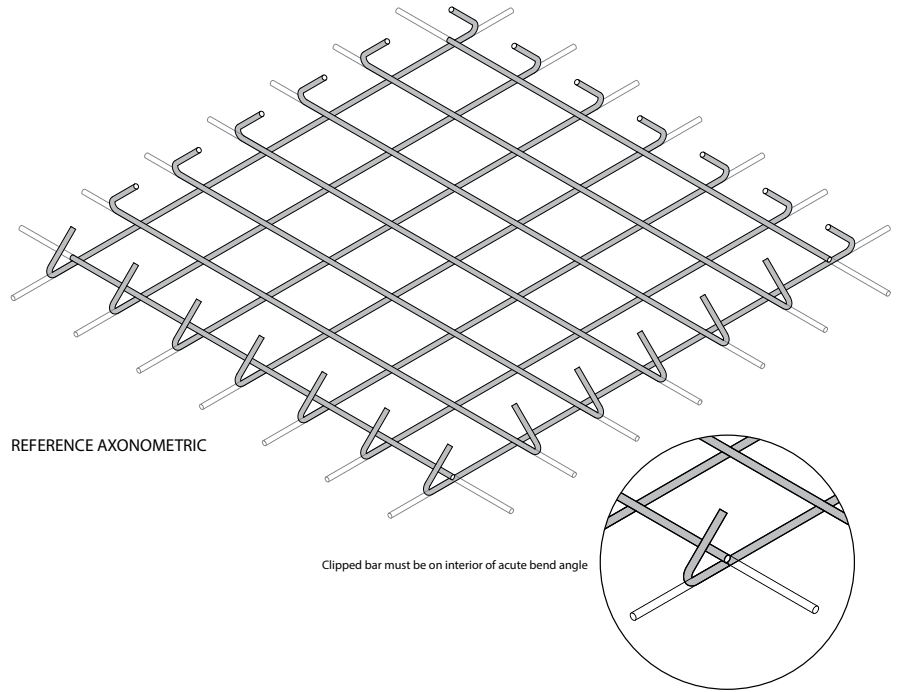
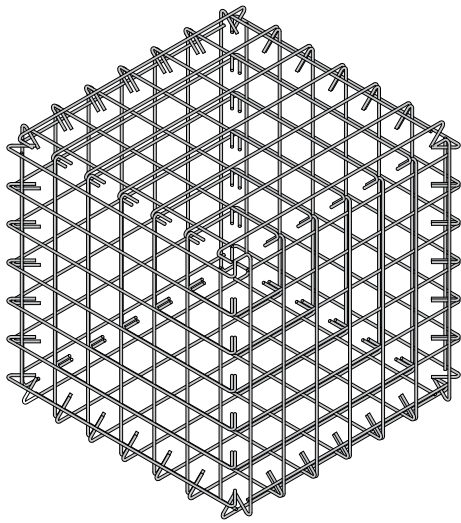




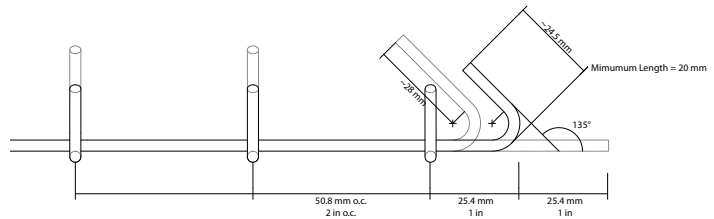
# BUDGET

MATERIALS	DESCRIPTION	QUANTITY	TOTAL COST
<b>MESH CONSTRUCTION</b>			
Wire Mesh	12"x12"x12" 380 boxes: 380 (wire mesh boxes) x 6 (faces) = 2280 units	2280	7,000.00
Recyclable Plastics	Amounts of be determined, collected from various recycling sources	10 x 30kg	N/A
Plastic zip ties	Connection at box vertices: 380 (wire mesh boxes) x 8 (vertices) x 3 [ties]] / 1000 (per unit) = 9.12	10 boxes of 1000	225.70
<b>STORAGE</b>			
Shipping container	Rental (Dec 15 - Feb 15)	149 per month	298.00
Delivery Fee		65	65.00
Transportation	Dec 15 + Feb 13-18	85 per hour	425.00
<b>SETUP + TAKE DOWN</b>			
Construction / Scaffolding Equipment	Toronto, February 13-18	Provided by student affiliate donor	
U-haul	Toronto - recycling plant		200.00
<b>OVERHEAD</b>			
Shop Access Fasteners Tooling	Assembly, Production, Prototyping	Supplied by Waterloo Architecture	
SubTotal			8,200.00
Total	with 40% contingency	0.4	11,480.00

# CONSTRUCTION DETAIL

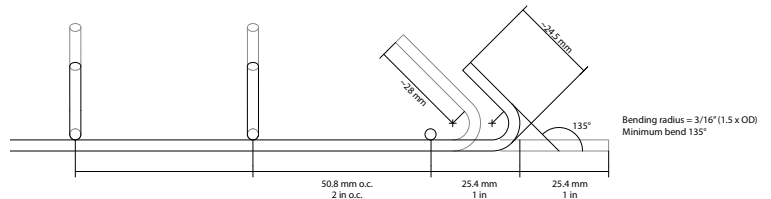


Construction of the cubes begins by cutting a 406 mm square from welded wire mesh panels, and the ends of each wire section are bent  $135^\circ$  inwards to form connection points, or hooks, between faces and to protect visitors from any sharp edges. Two paired hooks per face edge are connected with zip ties to form a cube, and individual cubes are connected together along their edges with additional zip ties.

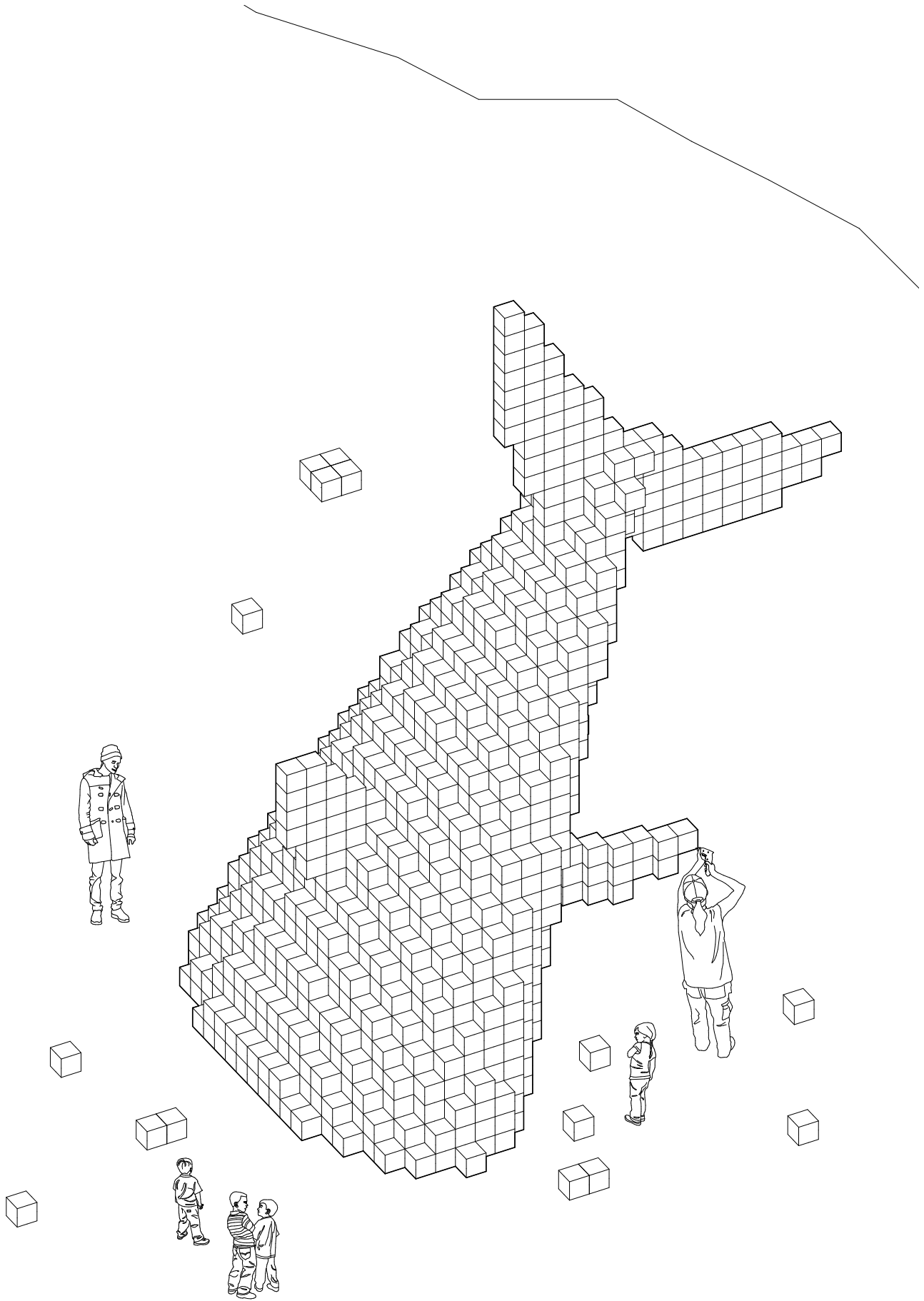


BEND DETAIL 01 - SCALE 1:1

Bending radius =  $3/16"$  (1.5 x OD)  
Minimum bend angle  $135^\circ$



BEND DETAIL 02 - SCALE 1:1



Waterloo School of Architecture team:

Fabrication

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#trishthefish