

A 4TH STREET SW UNDERPASS ENHANCEMENT



... IN CALGARY, ALBERTA

Calgary's growth has historically been linked to the Canadian Pacific Railway (CPR). Since 1883, the CPR corridor has been the heart of the City – symbolically, physically and economically. Situated between 8th Avenue and 10th Avenue SW, the 4th Street SW Underpass (including the CPR Bridge and 9th Avenue crossing) remains a main gateway and key corridor for pedestrian and vehicle movement between the Beltline and Downtown communities.

4th Street SW is one of the busiest north-pedestrian corridors in and out of the core; despite serving over 8100 people daily, the physical state of deterioration is in contradiction to its critical mobility and gateway function.

As a result of safety and comfort concerns, movement through the space can be observed as highly mechanical, singular in focus, isolated in feeling and driven by a desire to exit: a collective recognition of the 4th Street SW underpass as both a physical and perceptual space of removal.

Ironically, this infrastructure, intended to improve connectivity within

The City, has come to embody the most removed and uncomfortable of Calgary's public spaces: a barrier to our city's thriving public realm.

In response, the 4th Street SW Underpass Enhancement project is founded on the notion of reclaiming this 'space of removal' as a 'space for conversation'. By augmenting spatial experiences latent in the existing site's geometry, both the urban design and public art are understood - in terms of narrative, intention and material - as part of Calgarians' everyday experience.

Founded on the idea of reclaiming city infrastructure as a 'space for conversation', an integrated public art and urban design strategy repositions the site as a better connected street, ready to be explored. The introduction of animated light and colour, responding to the flow of people through the space, ensures the redesign remains evocative, varied and timeless. In other words, a comprehensive series of integrated public art and infrastructural strategies culminate to reposition the site as a singular, better connected, and healthier street.



***THE EVERYDAY COMMUTE***







FINALLY,  
LIGHT

LET'S JUST  
HOPE I DON'T  
FALL



CAN ANYONE  
SEE ME?



GLAD THAT'S  
OVER

THIS IS THE CITY OF CALGARY  
CALLING. 4TH STREET NEEDS AN  
INTERVENTION! CAN YOU HELP?!

ABSOLUTELY!  
WHAT ARE YOU  
LOOKING FOR?

WE NEED TO RECLAIM THIS  
CITY'S INFRASTRUCTURE!  
ENGAGE THE PUBLIC! AUGMENT  
THE SPATIAL EXPERIENCE!

DON'T YOU WORRY.  
WE WILL FIND A  
SOLUTION

**BACK AT THE  
ARCHITECT'S OFFICE...**



WHAT IS THE EXPERIENCE  
LIKE AS YOU APPROACH  
THE UNDERPASS?

WHAT ABOUT  
BENEATH THE  
BRIDGE?

AS THE REPRESENTATIVE  
OF THE CITY OF CALGARY I  
HAVE TO EMPHASIZE THAT  
THE DESIGN MUST BE EASILY  
MAINTAINED AND ON BUDGET

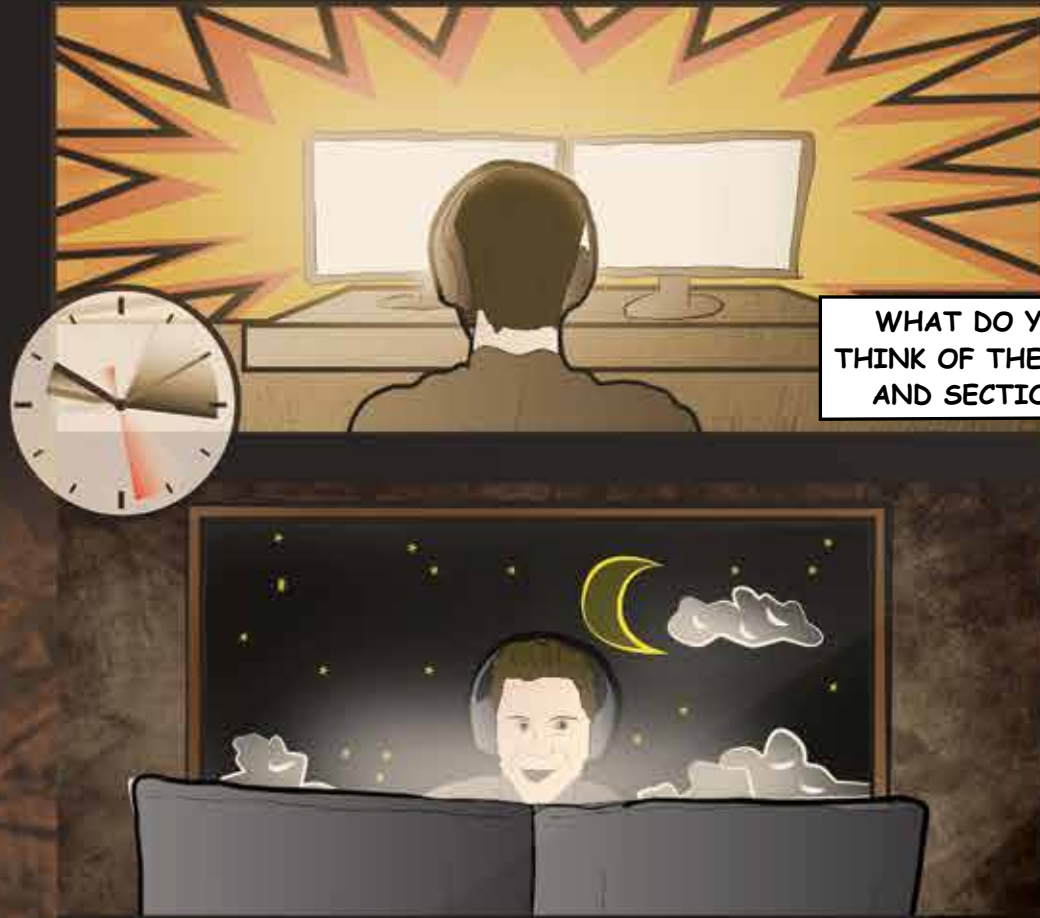
THERE SHOULD BE A FULL-  
SCALE MOCK-UP AS PART  
OF THE DESIGN PHASE

IT WILL BE ROBUST  
WITH DURABLE, HIGHLY  
PERFORMATIVE MATERIALS

OR IN BETWEEN?

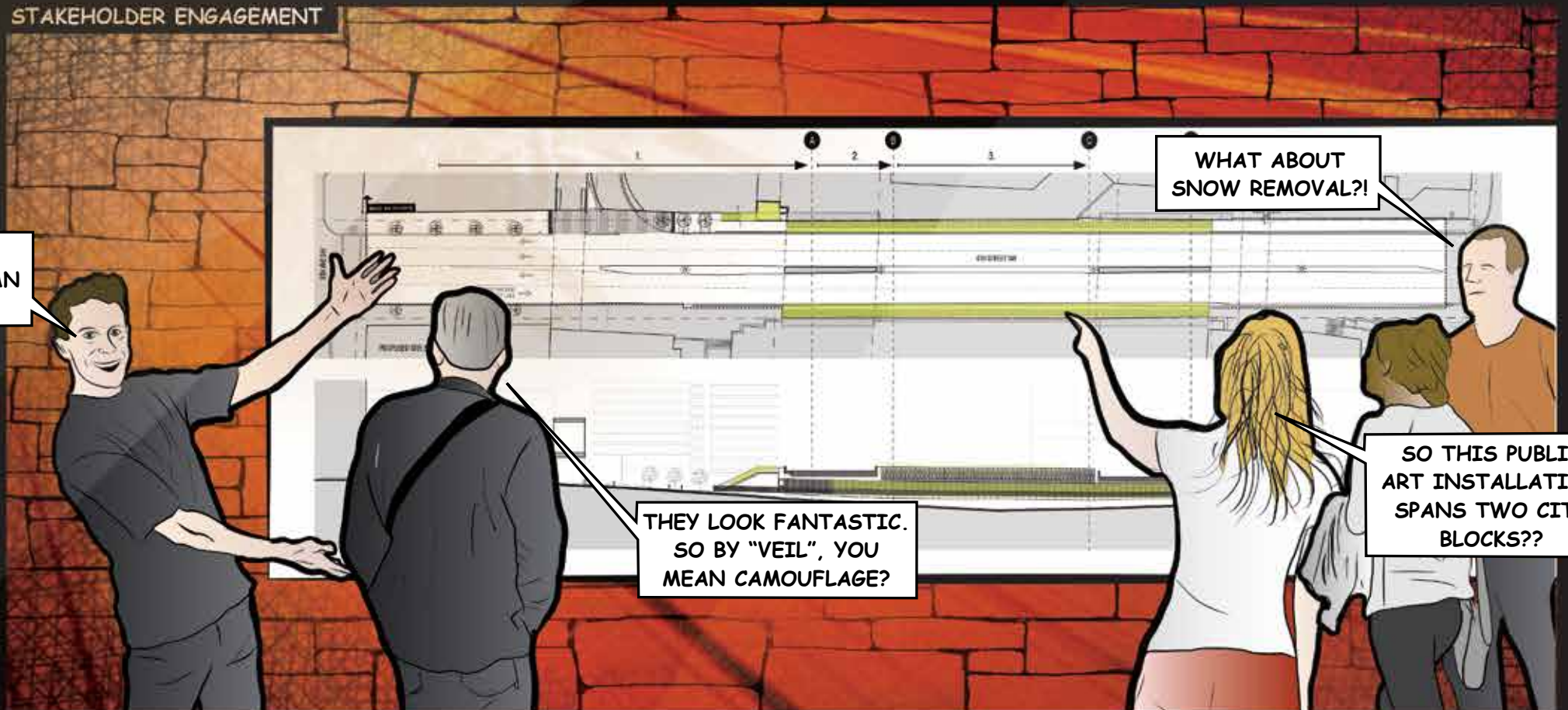
A SERIES OF INTEGRATED PUBLIC  
ART AND INFRASTRUCTURE  
STRATEGIES WILL REPOSITION  
THE SITE AS A SINGULAR, BETTER  
CONNECTED, HEALTHIER STREET

## DESIGN PROCESS



WHAT DO YOU  
THINK OF THE PLAN  
AND SECTION?

## STAKEHOLDER ENGAGEMENT



WHAT ABOUT  
SNOW REMOVAL?!

THEY LOOK FANTASTIC.  
SO BY "VEIL", YOU  
MEAN CAMOUFLAGE?

SO THIS PUBLIC  
ART INSTALLATION  
SPANS TWO CITY  
BLOCKS??

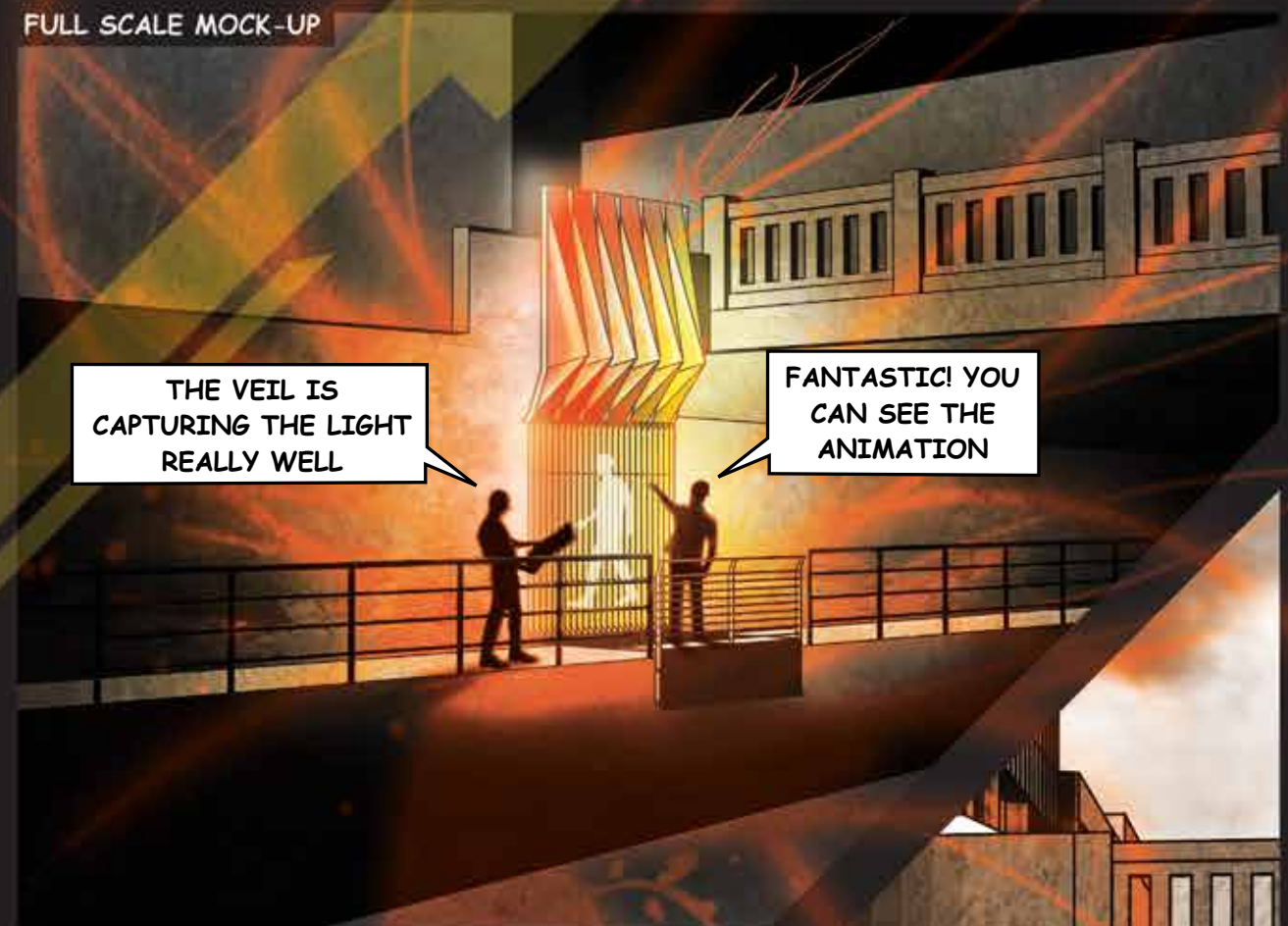




AS YOU CAN SEE,  
MAINTENANCE CAN BE  
COMPLETED BY A TWO  
PERSON TEAM

AND THE MATERIALS  
AUGMENT THE  
EXPERIENCE OF  
ANIMATED LIGHT

FULL SCALE MOCK-UP



THE VEIL IS  
CAPTURING THE LIGHT  
REALLY WELL

FANTASTIC! YOU  
CAN SEE THE  
ANIMATION

15 WEEKS UNTIL CONSTRUCTION



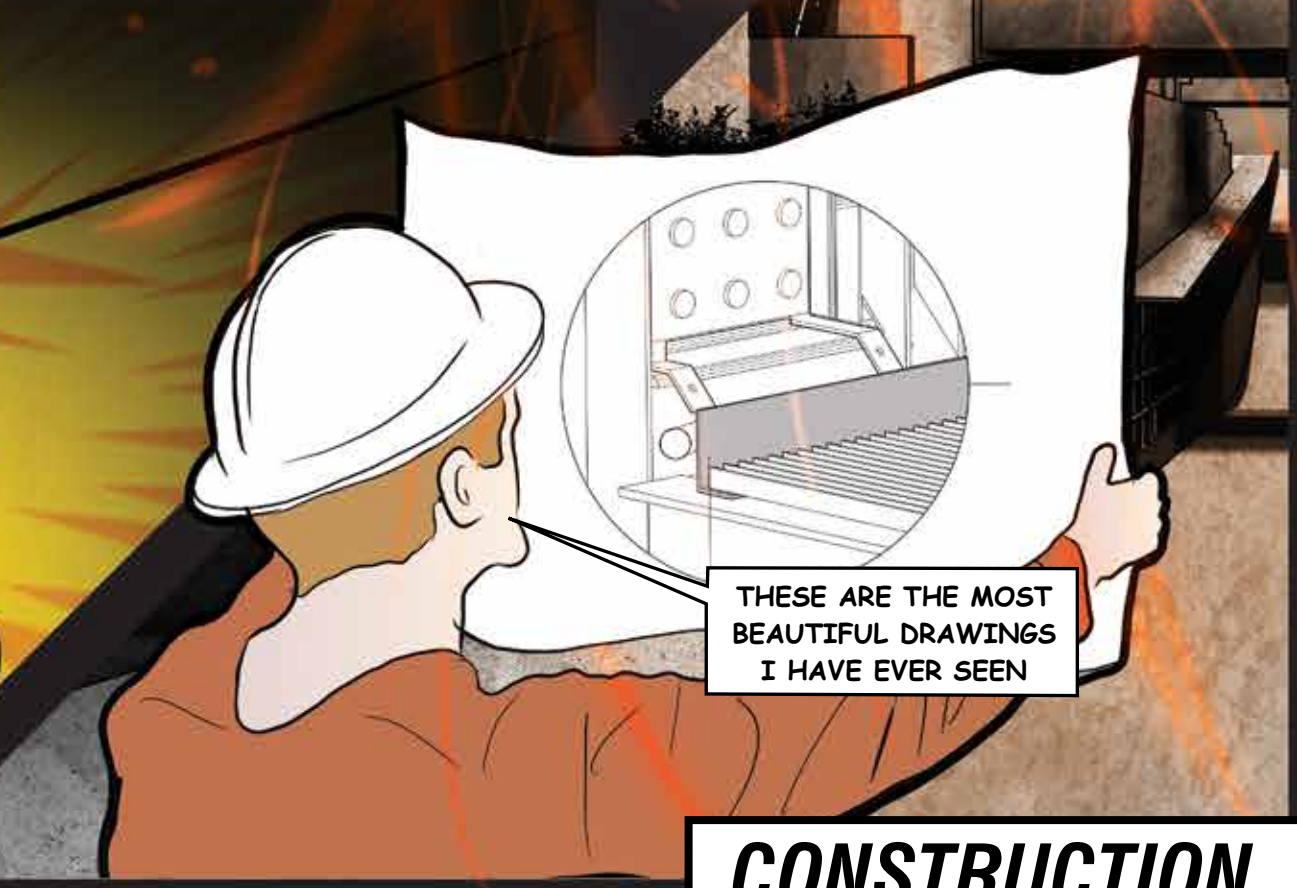
@#\$@#\$  
COMPUTER!!!!

10 WEEKS UNTIL CONSTRUCTION



DRAWINGS ARE  
BEING SENT OUT FOR  
TENDER TOMORROW!

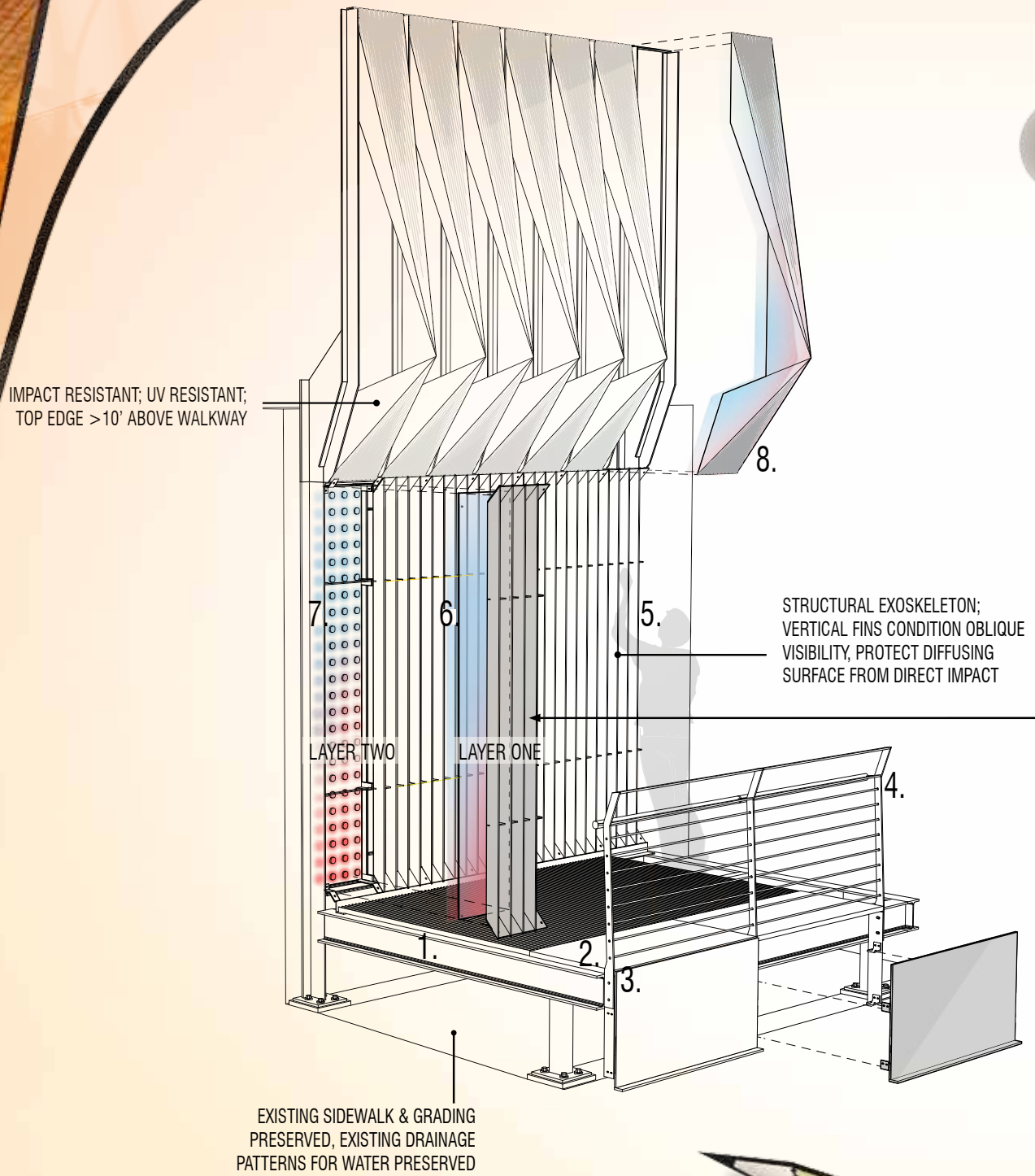
DAY BEFORE CONSTRUCTION



THESE ARE THE MOST  
BEAUTIFUL DRAWINGS  
I HAVE EVER SEEN

**CONSTRUCTION...**





TO GAIN ACCESS TO THE REAR INFRASTRUCTURE, two layers of 440mm panels must be removed:

1. The first layer is a sandwich panel of the diffusing surface with the aluminum exoskeleton. Should the diffusing surface need to be isolated from the exoskeleton, fasteners accessible from the rear of the aluminum frame can be removed. In most instances, it's assumed these two elements will be removed as a single unit.
2. The second - and final - layer is a LED panel connected to adjacent panels via flexible wiring with significant slack. This panel can be maneuvered and/or unplugged without requiring electrical expertise in order to gain unobstructed views to the wall/bridge.

- LEGEND**
- 1. GRATED ALUMINUM WALKWAY, PANELIZED FOR ACCESS
  - 2. SOLID ALUMINUM WALKWAY, PANELIZED FOR ACCESS
  - 3. ALUMINUM PLATE, WITH ENGRAVED QUOTE
  - 4. GUARD RAIL
  - 5. ALUMINUM EXOSKELETON
  - 6. TRANSLUCENT RESIN DIFFUSING SURFACE, ATTACHED TO EXOSKELETON
  - 7. LED PANEL
  - 8. TRANSLUCENT RESIN VEIL



PRIME CONSULTANT

GENERAL NOTES

PROJECT NAME

4TH STREET SW UNDERPASS ENHANCEMENT

NORTH ARROW

PROJECT NUMBER	101010
DATE	2018.07.02
DRAWN BY	JS, PL, OW
CHECKED BY	YE

DRAWING TITLE

INSTALLATION COMPONENTS

SCALE

AS NOTED

DRAWING NO.

A - 7.2

CONSULTANTS

GREAT JOB EVERYBODY, WE ARE ALMOST THERE!



TWO ORDINARY CITIZENS MAKE THEIR WAY HOME...

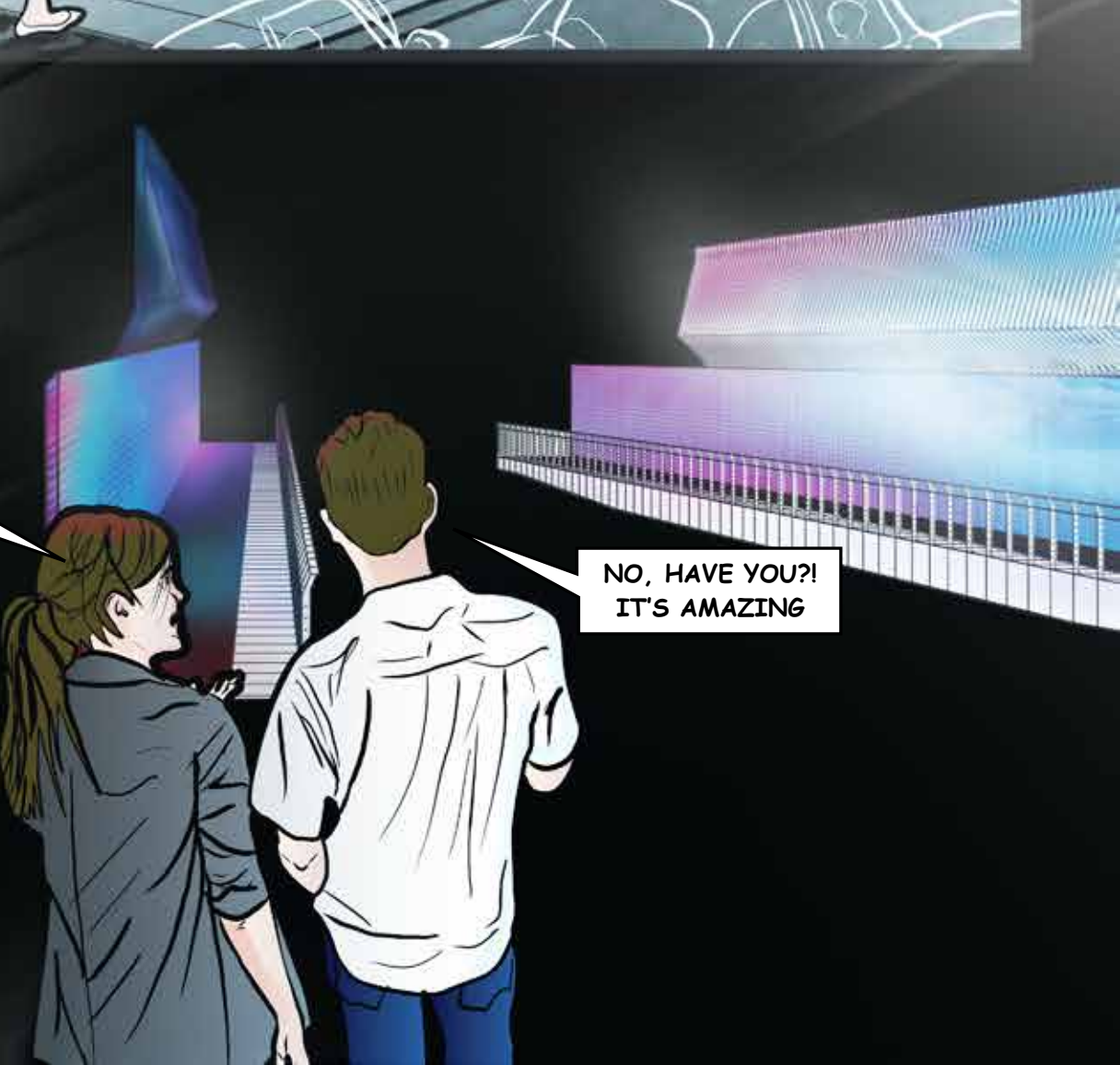
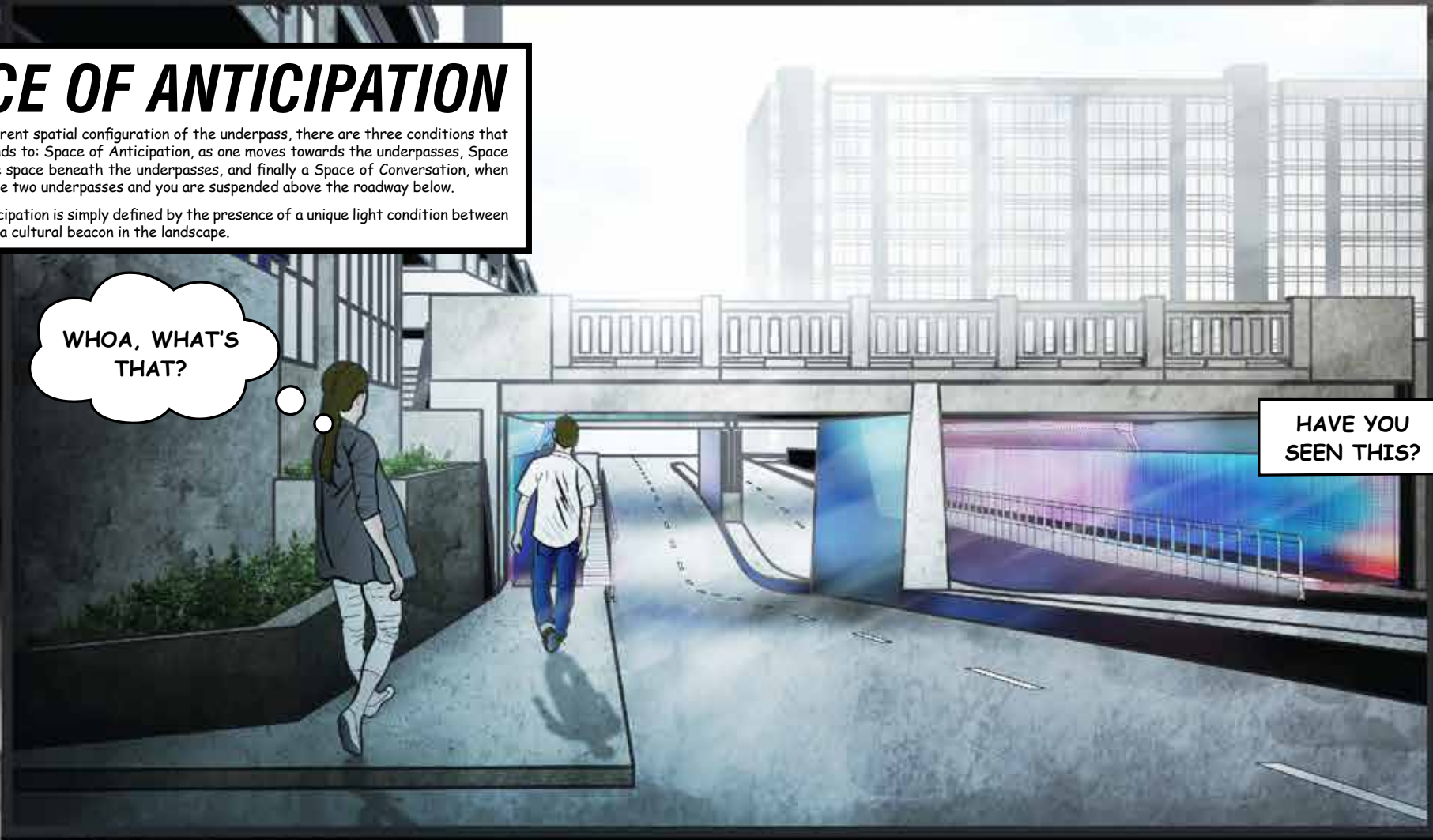
**OPENING DAY**



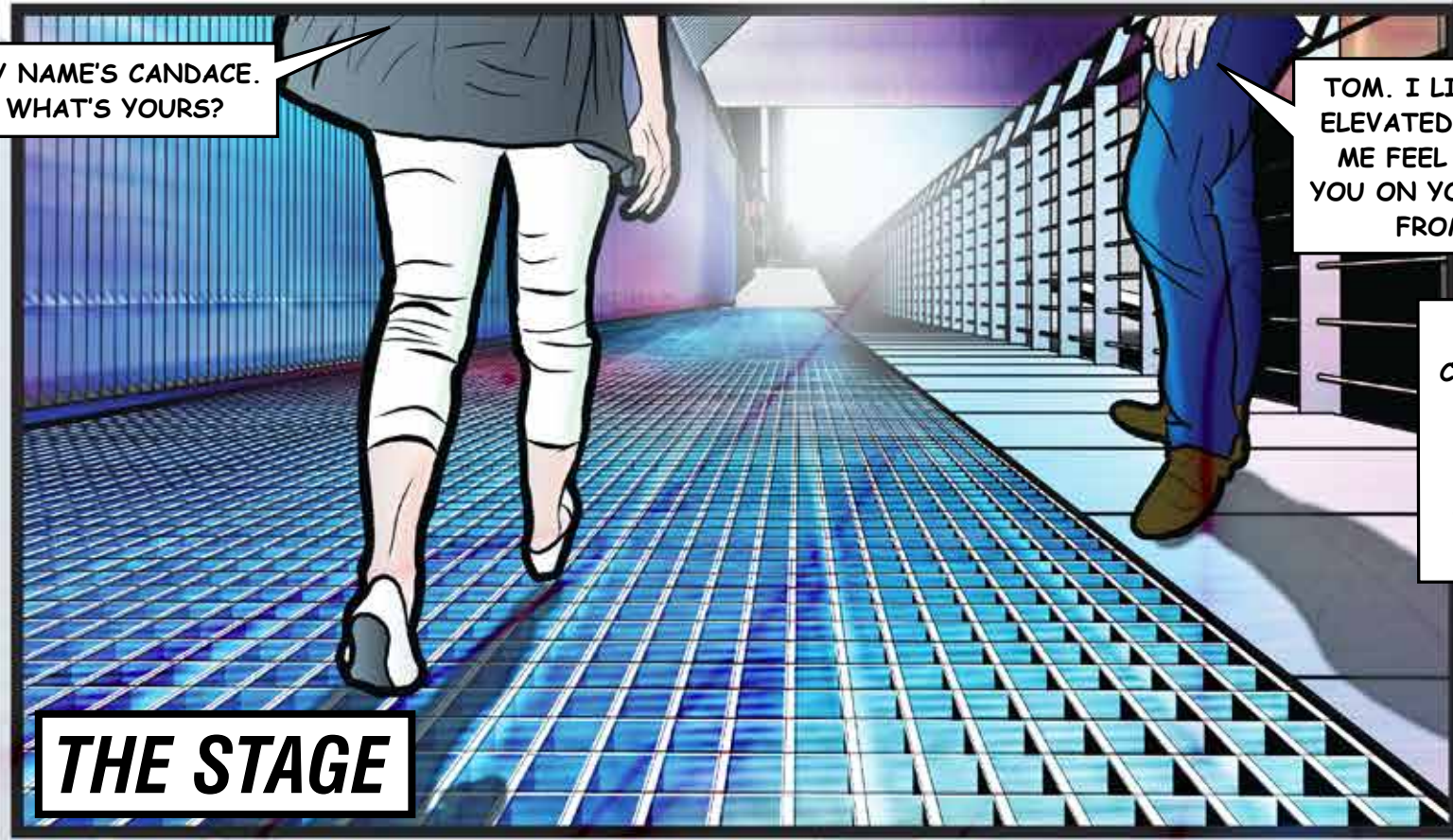
**SPACE OF ANTICIPATION**

Based on the inherent spatial configuration of the underpass, there are three conditions that the design responds to: Space of Anticipation, as one moves towards the underpasses, Space of Reflection, the space beneath the underpasses, and finally a Space of Conversation, when one is between the two underpasses and you are suspended above the roadway below.

The space of anticipation is simply defined by the presence of a unique light condition between the underpasses: a cultural beacon in the landscape.





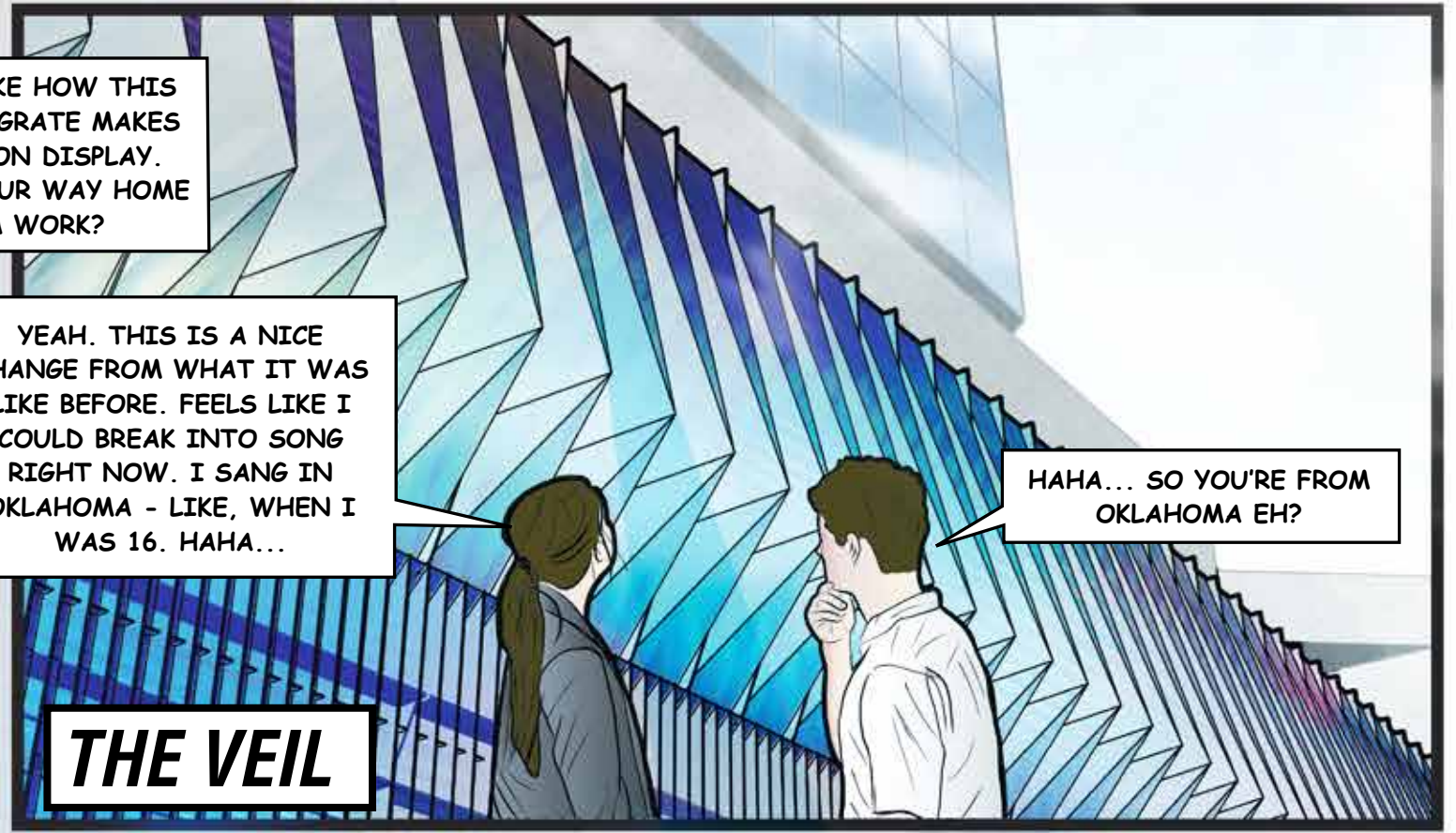


MY NAME'S CANDACE.  
WHAT'S YOURS?

TOM. I LIKE HOW THIS  
ELEVATED GRATE MAKES  
ME FEEL ON DISPLAY.  
YOU ON YOUR WAY HOME  
FROM WORK?

YEAH. THIS IS A NICE  
CHANGE FROM WHAT IT WAS  
LIKE BEFORE. FEELS LIKE I  
COULD BREAK INTO SONG  
RIGHT NOW. I SANG IN  
OKLAHOMA - LIKE, WHEN I  
WAS 16. HAHA...

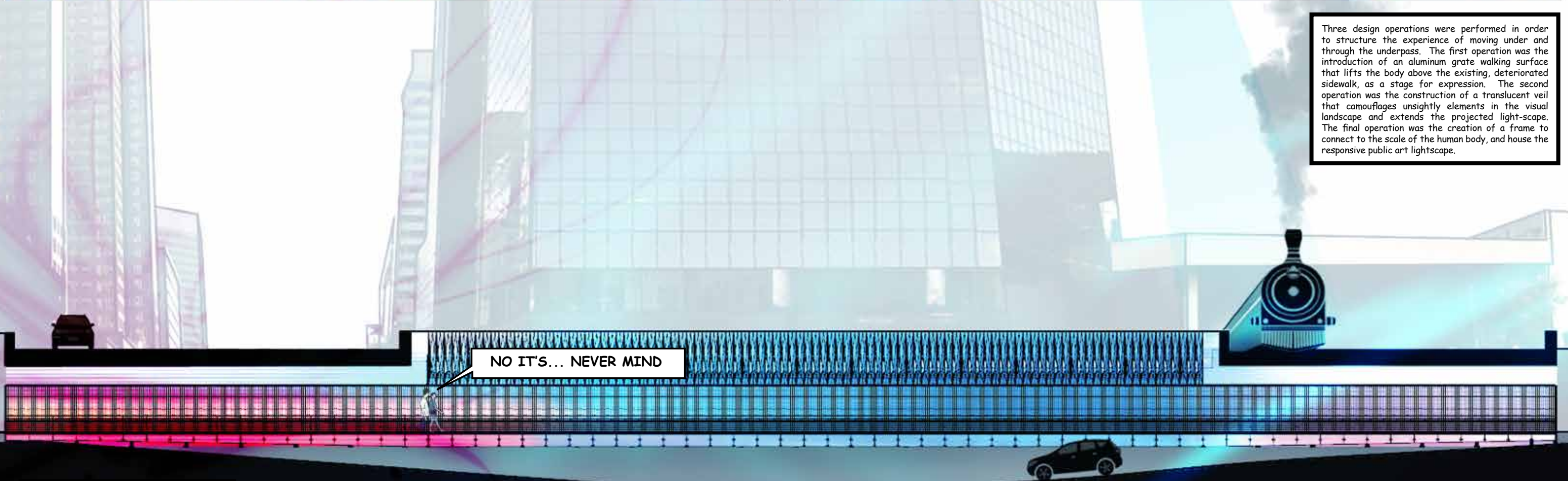
## THE STAGE



HAHA... SO YOU'RE FROM  
OKLAHOMA EH?

## THE VEIL

Three design operations were performed in order to structure the experience of moving under and through the underpass. The first operation was the introduction of an aluminum grate walking surface that lifts the body above the existing, deteriorated sidewalk, as a stage for expression. The second operation was the construction of a translucent veil that camouflages unsightly elements in the visual landscape and extends the projected light-scape. The final operation was the creation of a frame to connect to the scale of the human body, and house the responsive public art lightscape.



NO IT'S... NEVER MIND

## THE FRAME



# SPACE OF REFLECTION

The space of reflection is constructed through the introduction of an aluminum grate walking surface that lifts the body above the deteriorated existing sidewalk, as a stage for expression, as well as a new reflective surface mounted to either side of the internal bridge structure. Taken together, these design moves create an awareness of the self as the user moves below the two underpasses

WHEN THE MIST IS LOW  
AND STARS ARE BREAKIN'  
THROUGH, THEN OUT OF  
MY DREAMS I'LL GO INTO  
A DREAM WITH YOU

CANDACE, LOOK ON  
THE OTHER WALL! I  
THINK THAT'S YOUR  
REFLECTION!



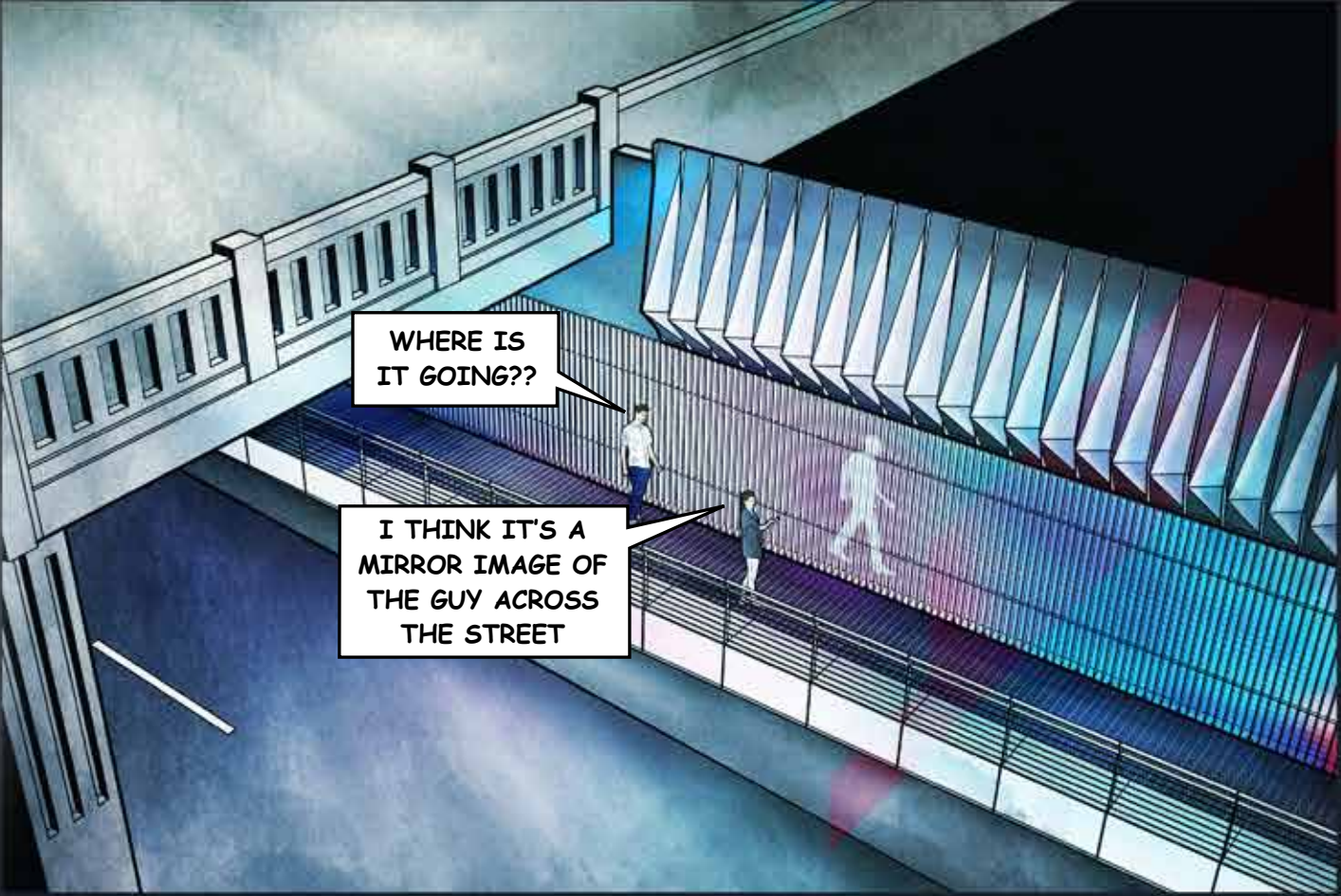
WHOA!  
WHAT'S THAT?

LOOKS LIKE  
A DIGITAL  
PROJECTION



WHERE IS  
IT GOING??

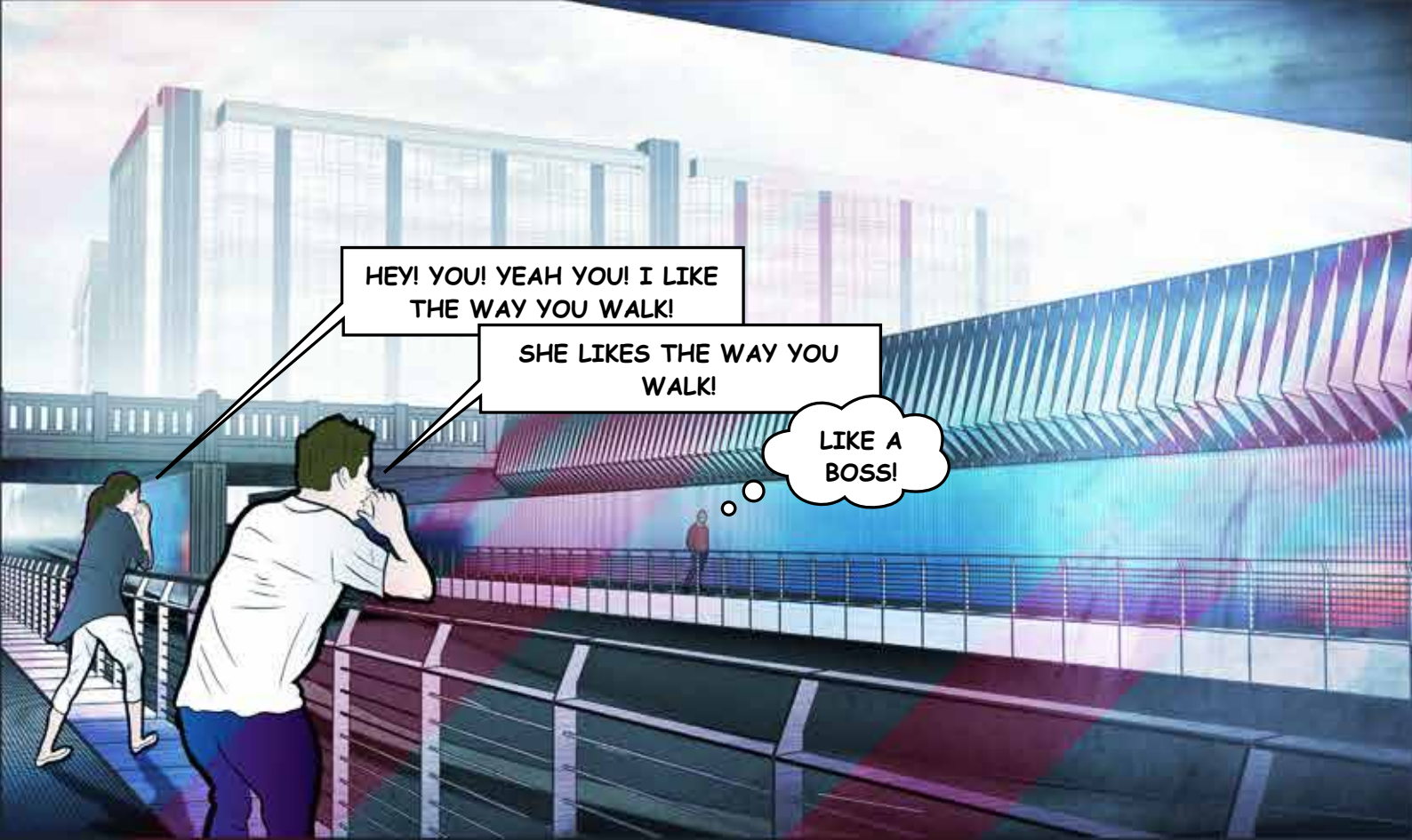
I THINK IT'S A  
MIRROR IMAGE OF  
THE GUY ACROSS  
THE STREET



HEY! YOU! YEAH YOU! I LIKE  
THE WAY YOU WALK!

SHE LIKES THE WAY YOU  
WALK!

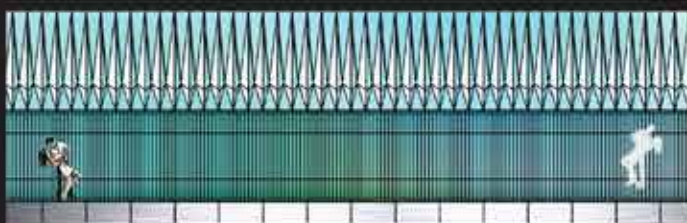
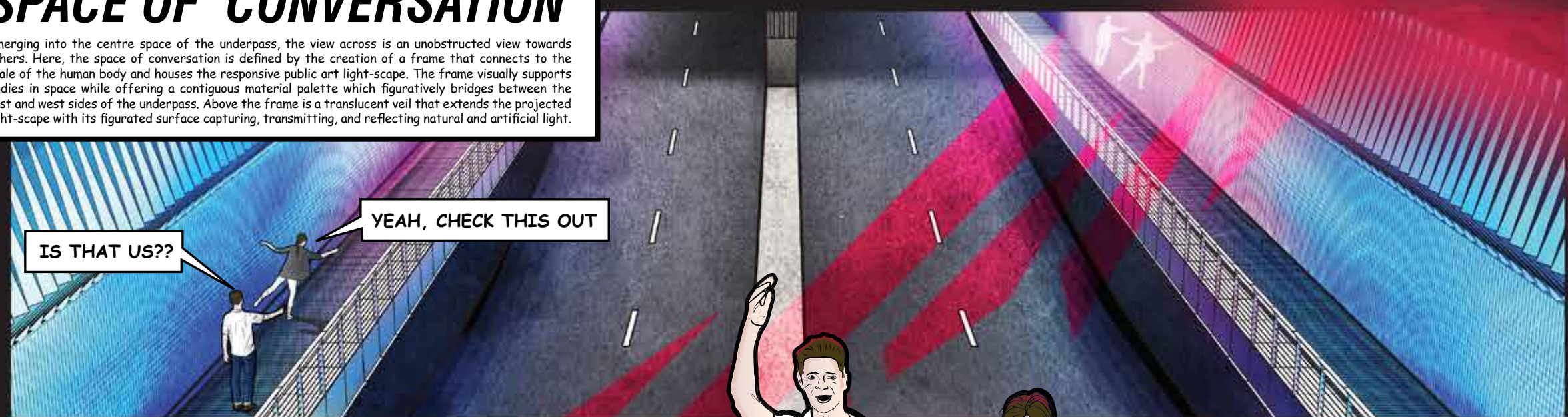
LIKE A  
BOSS!



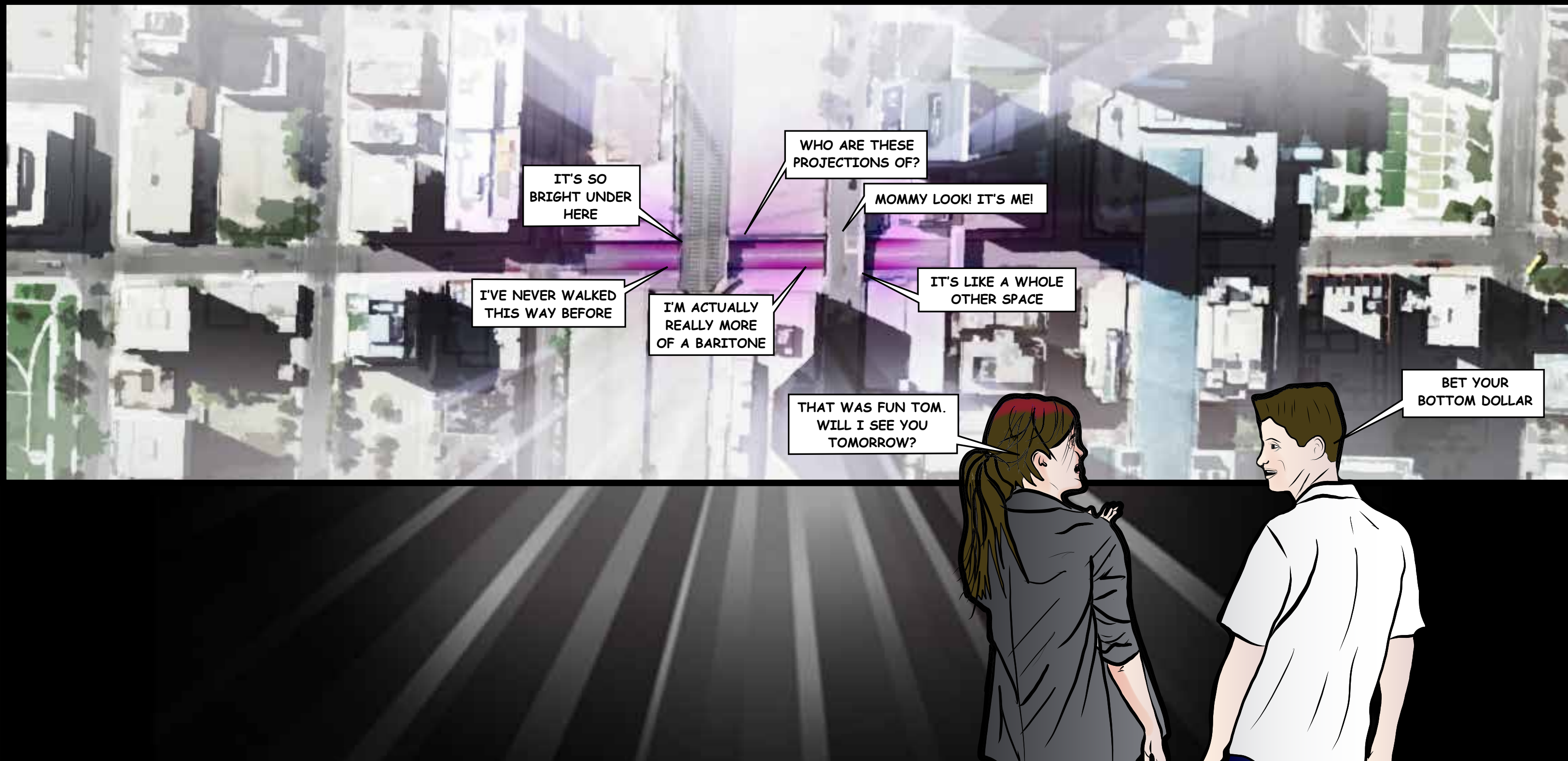


# SPACE OF CONVERSATION

Emerging into the centre space of the underpass, the view across is an unobstructed view towards others. Here, the space of conversation is defined by the creation of a frame that connects to the scale of the human body and houses the responsive public art light-scape. The frame visually supports bodies in space while offering a contiguous material palette which figuratively bridges between the east and west sides of the underpass. Above the frame is a translucent veil that extends the projected light-scape with its figured surface capturing, transmitting, and reflecting natural and artificial light.











This project's approach to public art moves away from the application of a more conventional physical artifact, and extends instead towards an augmentation of experiences latent in the mechanized routine of the everyday. The focus: the diversity and density of potential exchanges between people as an opportunity to acknowledge one's place within the social body of the city.

In that vein, the public art narrative explores public space not as a physical territory, but rather as a social domain that operates within the urban fabric.

The recalibration is contingent in tandem on both the real and virtual augmentation of the body in space.

Specifically, the public art system uses sensors to trace pedestrian movement in the underpass space and projects an "avatar" of the movement on the opposite side of the underpass. Employing techniques of anamorphosis, the avatar is enlarged at a distance so the scale of a user's silhouette is constant relative to that user's point of view. The underpass user is confronted with how others see them in the public realm. When new users are introduced, there is a layered experience creating moments of interaction between avatars and therefore users of the space. Taken as a whole, the public art provokes a consciousness of the body within the social space of the city, a space of conversation where none existed before.