



BEYOND TOWERS

BUILDING
COMMUNITY
IN CANADA'S
VERTICAL
NEIGHBOURHOODS



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BUILDING DATA COORDINATOR
COUNCIL ON TALL BUILDINGS AND URBAN HABITAT
CHICAGO // TORONTO

01

ABOUT CTBUH // PROJECT BACKGROUND

ABOUT CTBUH

01

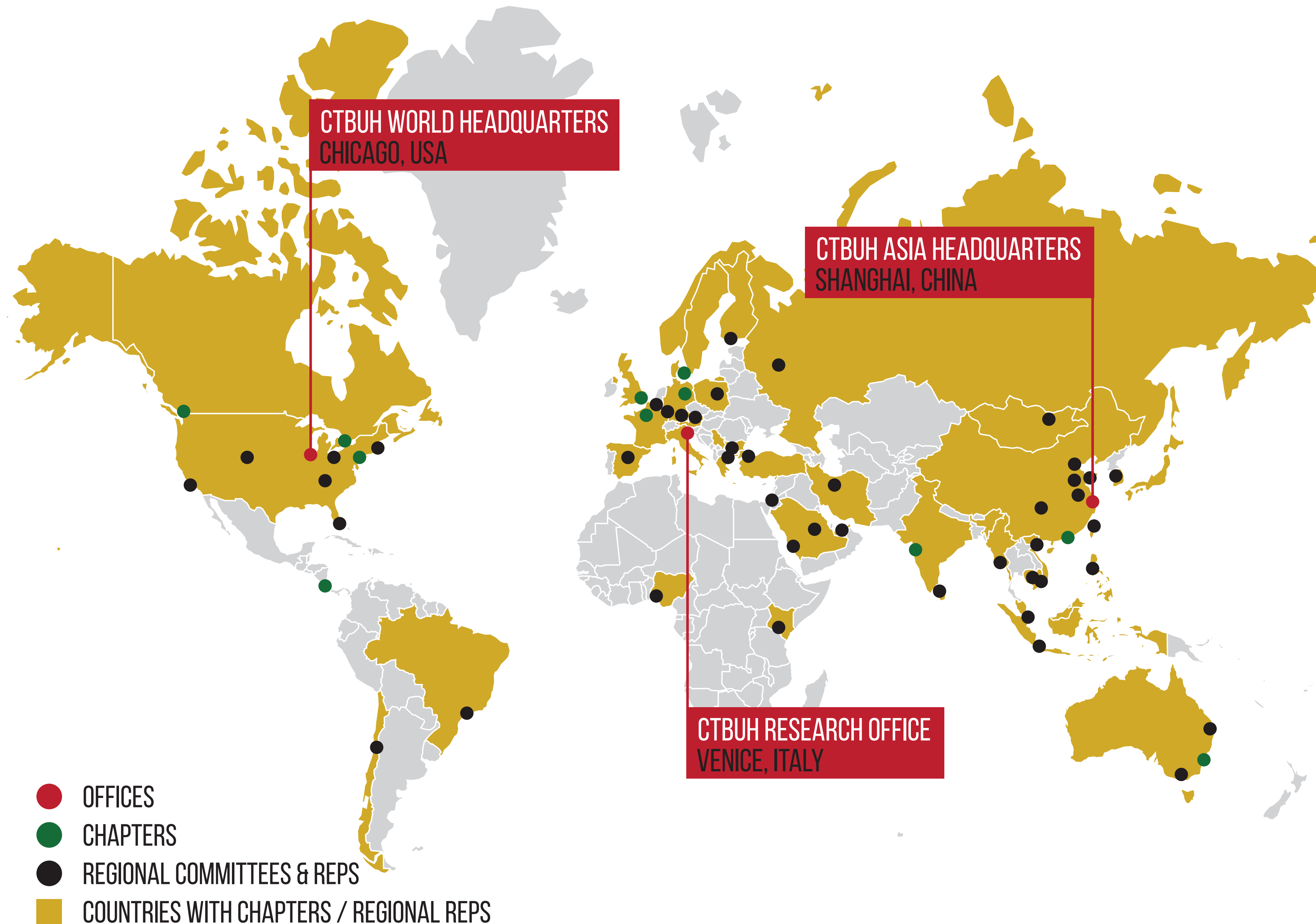
THE **COUNCIL ON TALL BUILDINGS AND URBAN HABITAT** (CTBUH) IS THE WORLD'S LEADING RESOURCE FOR PROFESSIONALS FOCUSED ON THE INCEPTION, DESIGN, CONSTRUCTION, AND OPERATION OF TALL BUILDINGS AND FUTURE CITIES.

CTBUH CONDUCTS RESEARCH, PROVIDES DATA, AND PROMOTES BEST PRACTICES TO **ADVANCE SUSTAINABLE VERTICAL URBANISM GLOBALLY.**

CTBUH MEMBER NETWORK

100+ COUNTRIES
10,000+ FIRMS
2MM+ INDIVIDUALS

01



ABOUT THE PROJECT

01

BEYOND TOWERS IS A SEGMENT OF MY GRADUATE PROJECT THAT FOCUSED ON QUANTIFYING AND EVALUATING THE **INTANGIBLES OF PLANNING FOR TALL BUILDINGS**: NAMELY, CULTURAL IDENTITY, AND SOCIAL COHESION, AND THEIR IMPACT ON **CREATING A SENSE OF PLACE**.

IN RAPIDLY GROWING CITIES AROUND THE WORLD, PROACTIVE AND **INTENTIONAL PLANNING FOR LIVABLE COMMUNITIES** AROUND TALL BUILDINGS IS CRUCIAL YET OFTEN OVERLOOKED.

AS CANADA BUILDS VERTICALLY, WE MUST **REVISIT AND ENHANCE** OUR EXISTING URBAN DESIGN PRINCIPLES AND ESTABLISH A FOUNDATION FOR **MEANINGFUL PLACEMAKING**.

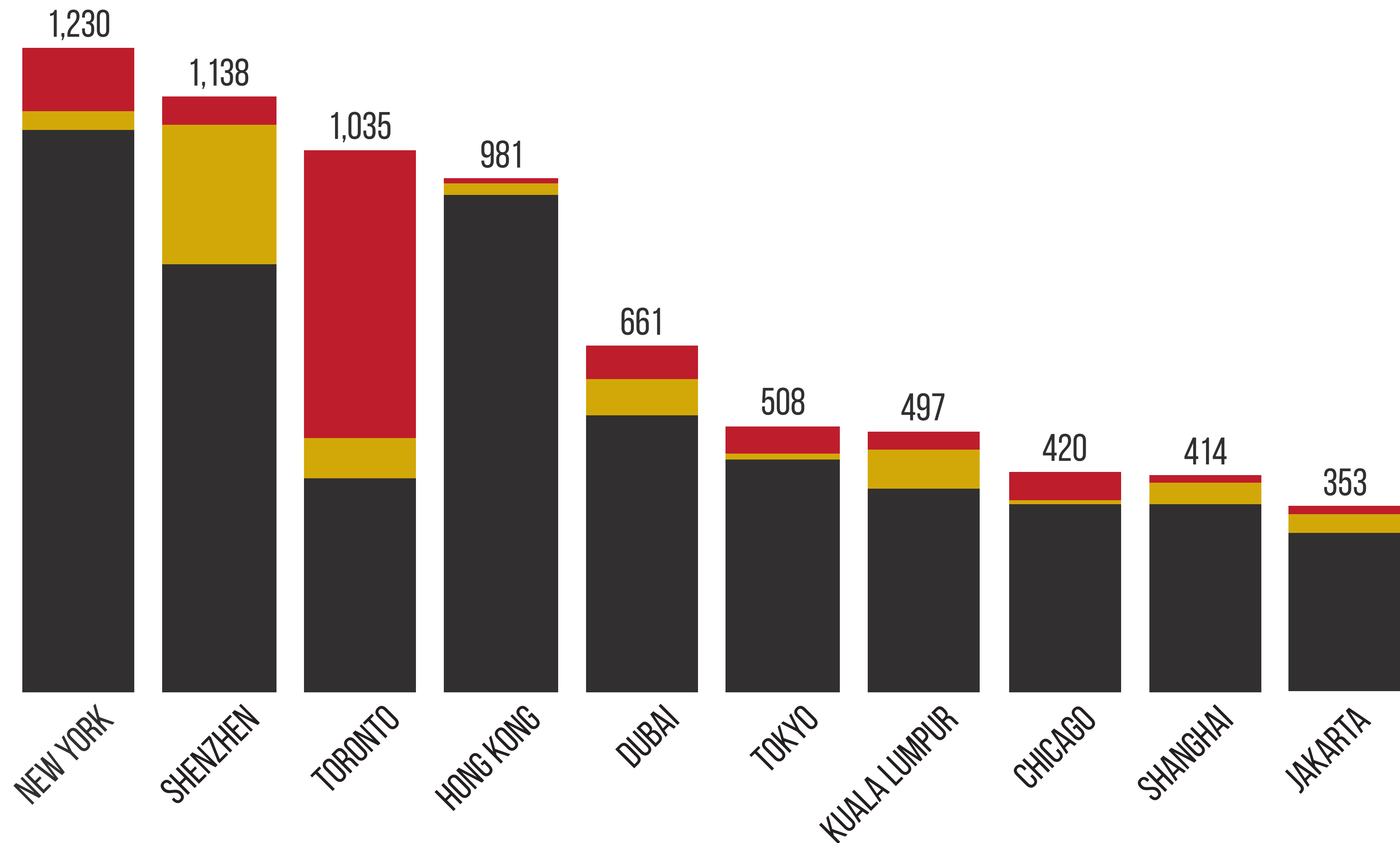
02

TALL BUILDINGS IN CANADA

100+ METRE BUILDINGS

TEN TALLEST CITIES
IN THE WORLD
BY 2040

02

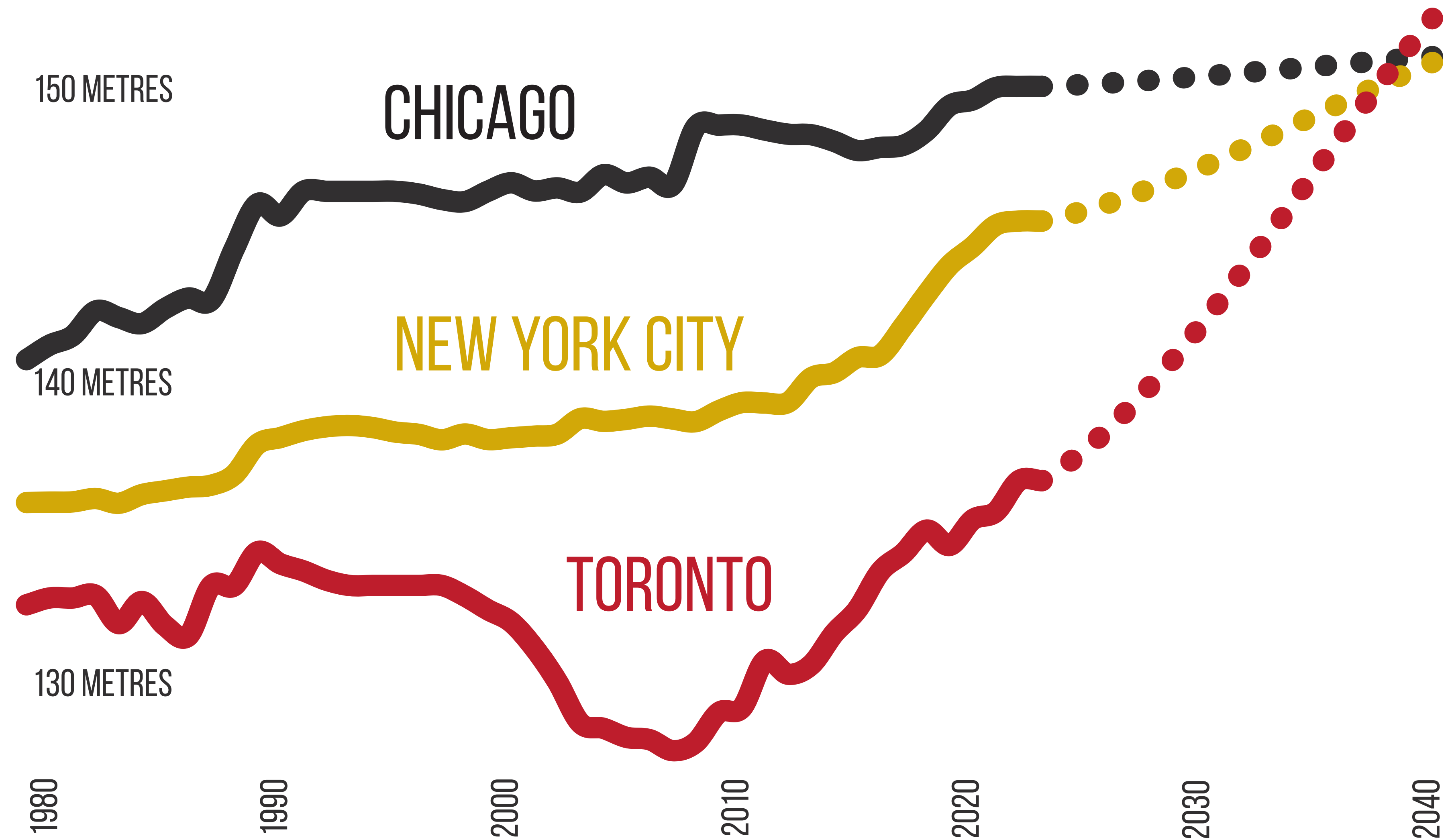


AVERAGE BUILDING HEIGHT

BUILDINGS
OVER
100 METRES

1980 - 2040

02

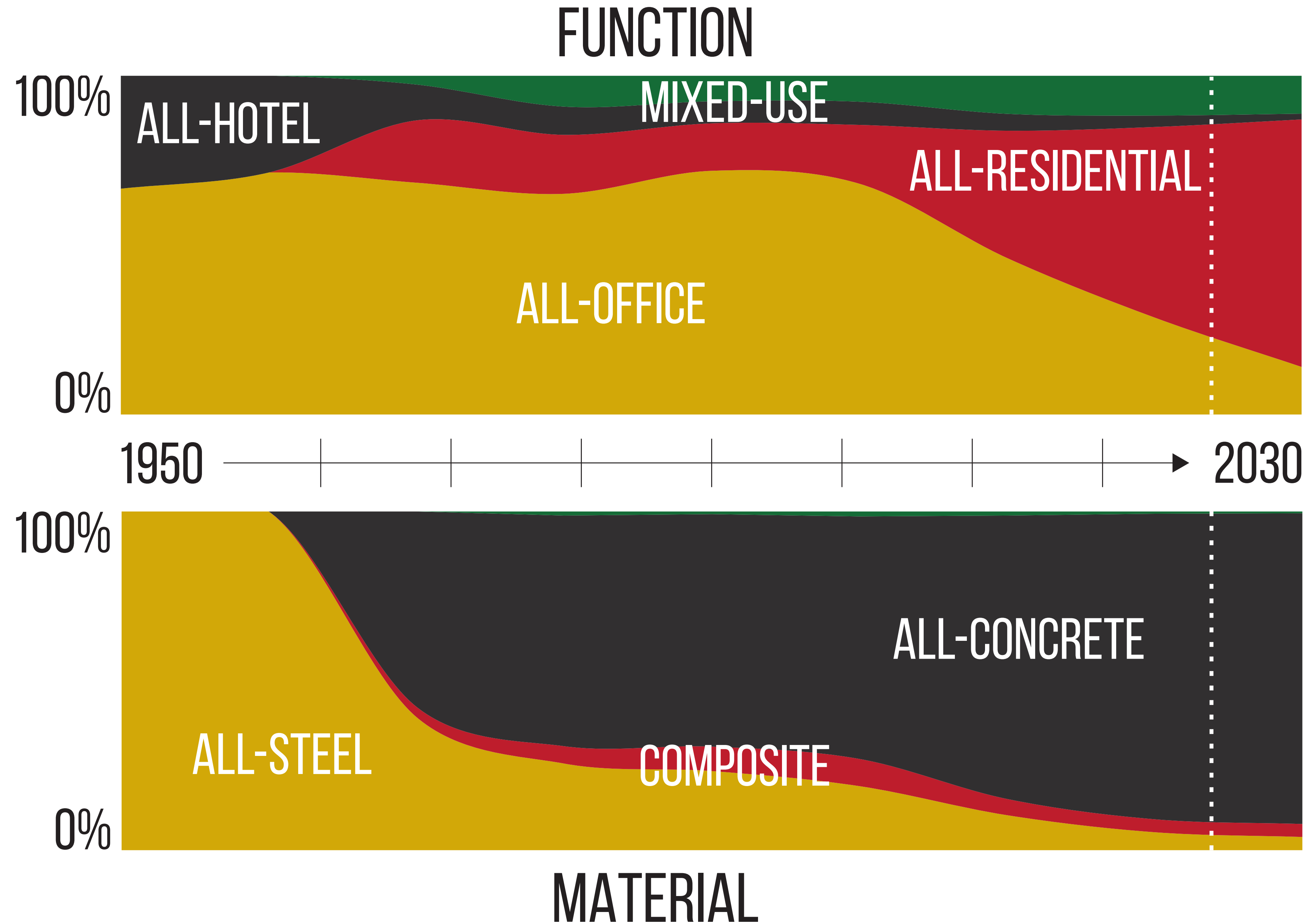


BUILDING FUNCTION & MATERIAL

BUILDINGS
OVER
100 METRES

1950 - 2030

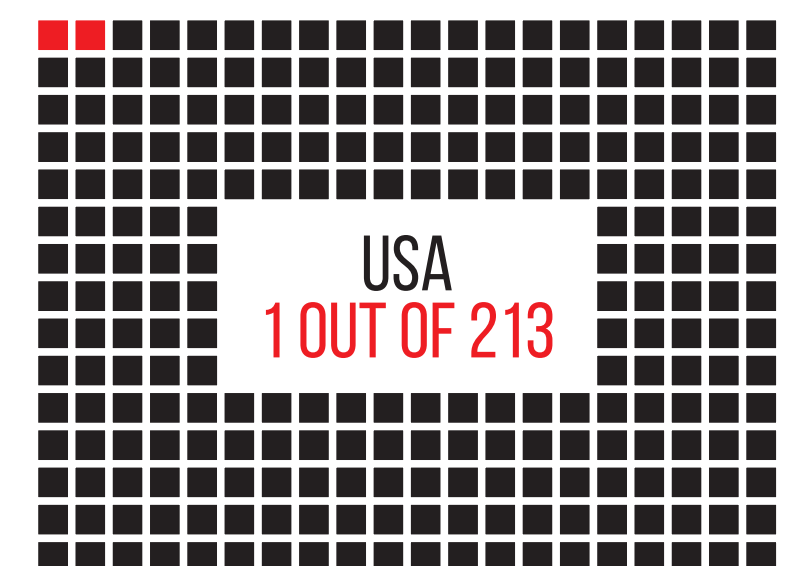
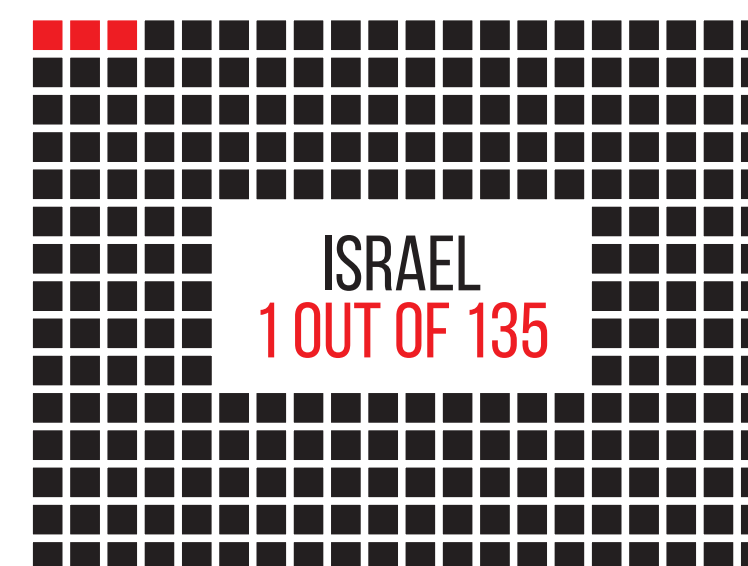
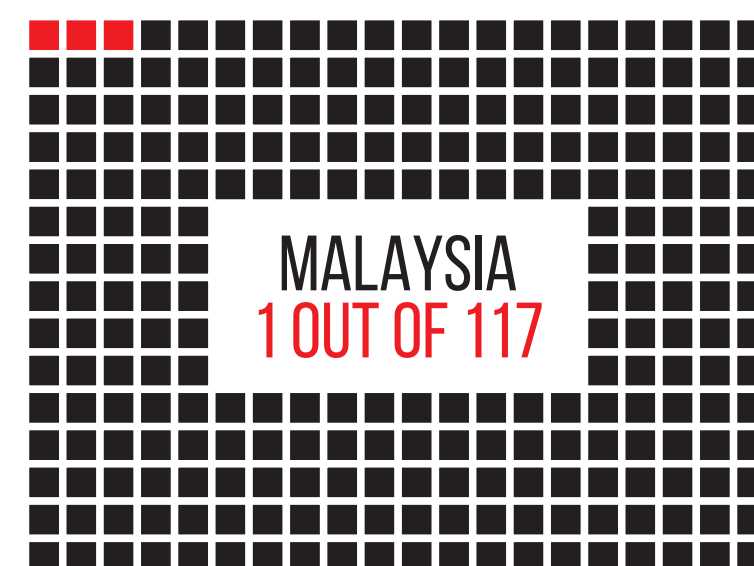
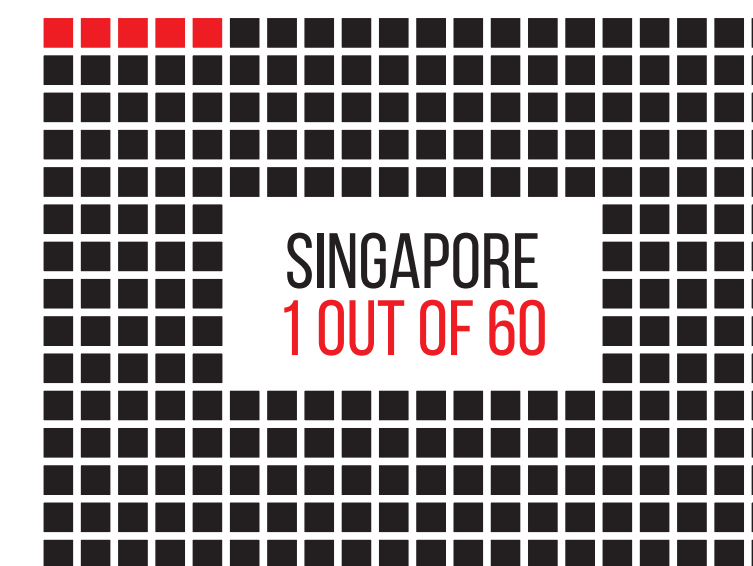
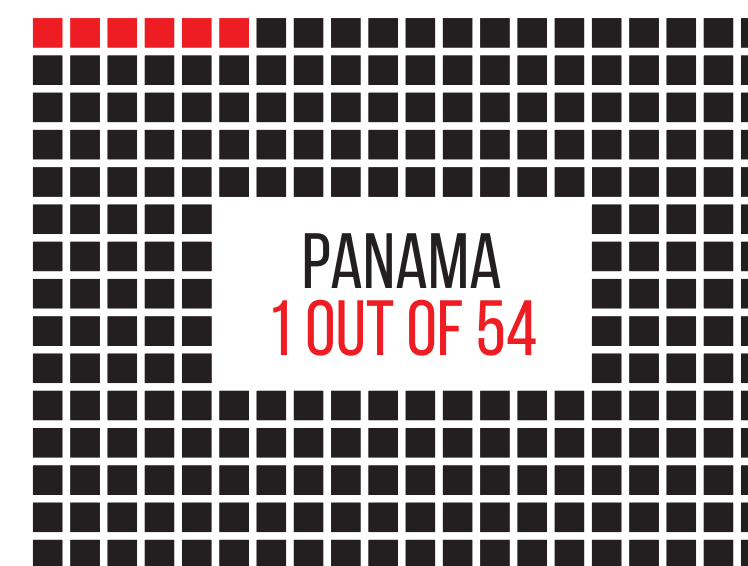
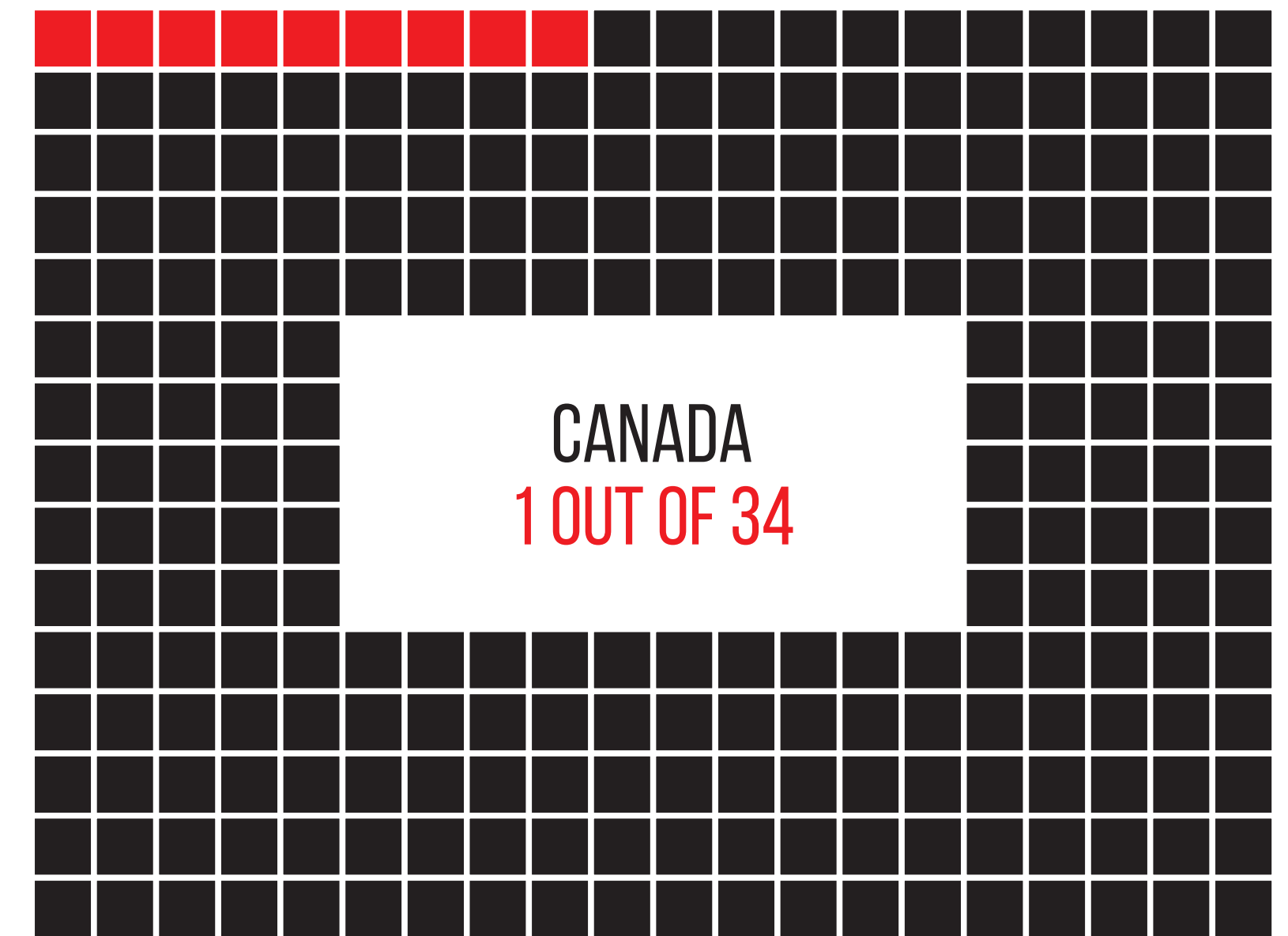
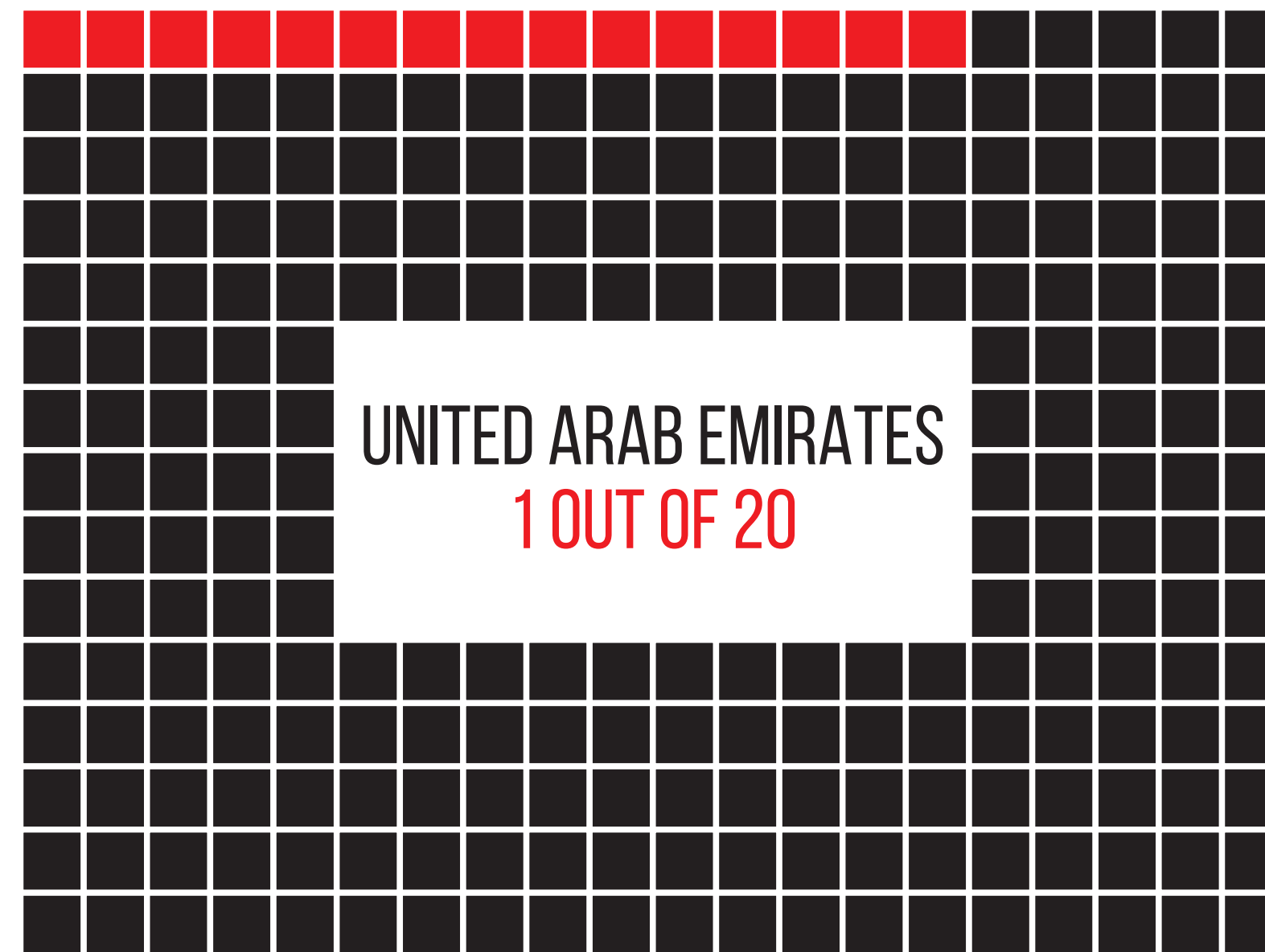
02



RESIDENTS IN 100 M+ BUILDINGS

BY 2040

02



TALL TOOLS FOR THE HOUSING SHORTAGE

02



5.8M UNITS IN
100M+ BUILDINGS



|| CANADA NEEDS 5.8 MILLION
NEW HOMES BY 2030 TO TACKLE
AFFORDABILITY CRISIS, CMHC WARNS

CBC, 23 JUNE 2022



5.8M UNITS IN
DETACHED HOMES



03

**TALL BUILDING
URBAN DESIGN
BACKGROUND**

1992

VANCOUVER

"HIGH-DENSITY
HOUSING FOR
FAMILIES
WITH CHILDREN
GUIDELINES"

03

MAIN THEME
CREATION OF SPACE
A **FUNCTIONAL** APPROACH

FAMILY-CENTRIC
INTEGRATED COMMUNITIES
DURABLE BUILT ENVIRONMENT
ACCESS AND CONVENIENCE

2006 &
2013

TORONTO

"TALL BUILDING
DESIGN GUIDELINES"

03

MAIN THEME
PRESERVATION OF SPACE
A **CONVENTIONAL** APPROACH

ENVIRONMENT

SIGHT LINES

HERITAGE FACADES

DESIGN EXCELLENCE

2025 &
BEYOND

CANADA

"BEYOND TOWERS"

03

MAIN THEME
ENHANCEMENT OF SPACE
A **PLACEMAKING** APPROACH

INTERCONNECTIVITY

PEDESTRIAN PERMEABILITY

NETWORK REDUNDANCY

CULTURAL SENSITIVITY

04

METHODOLOGY

TOOL 01

WEB
SURVEYS OF
TALL BUILDING
OCCUPANTS
&
NEIGHBOURS

04

TO SUBSTANTIATE ANY GUIDELINES,
WRITTEN AND VISUAL SURVEYS WERE
ADMINISTERED TO

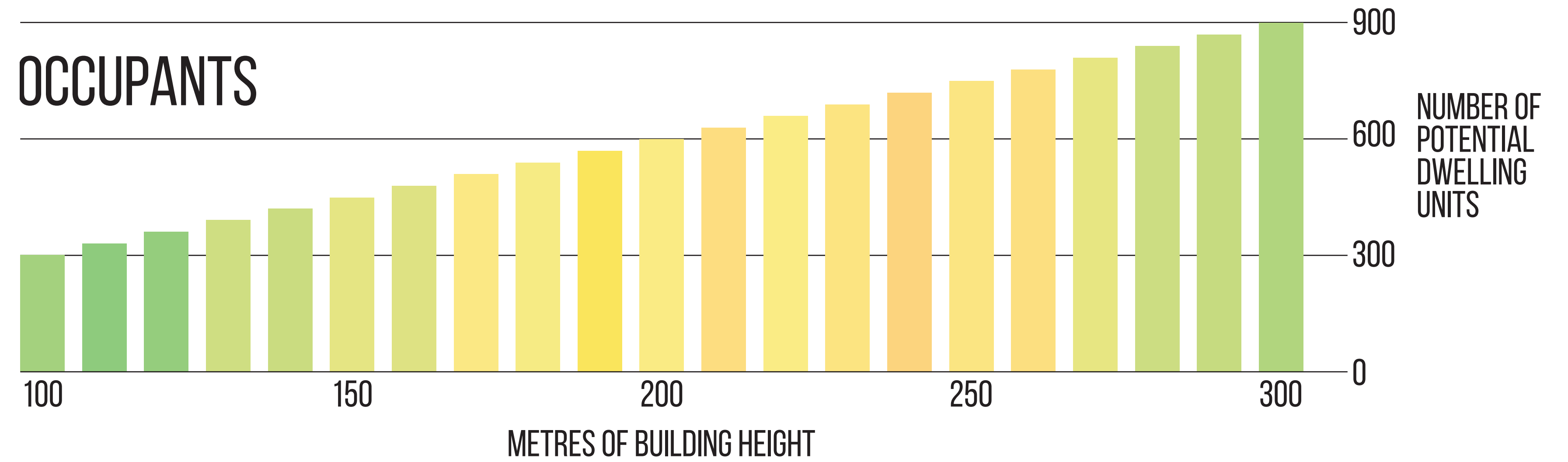
932
327
605

RESPONDENTS, COMPRISED OF
TALL BUILDING OCCUPANTS
CITY CORE RESIDENTS

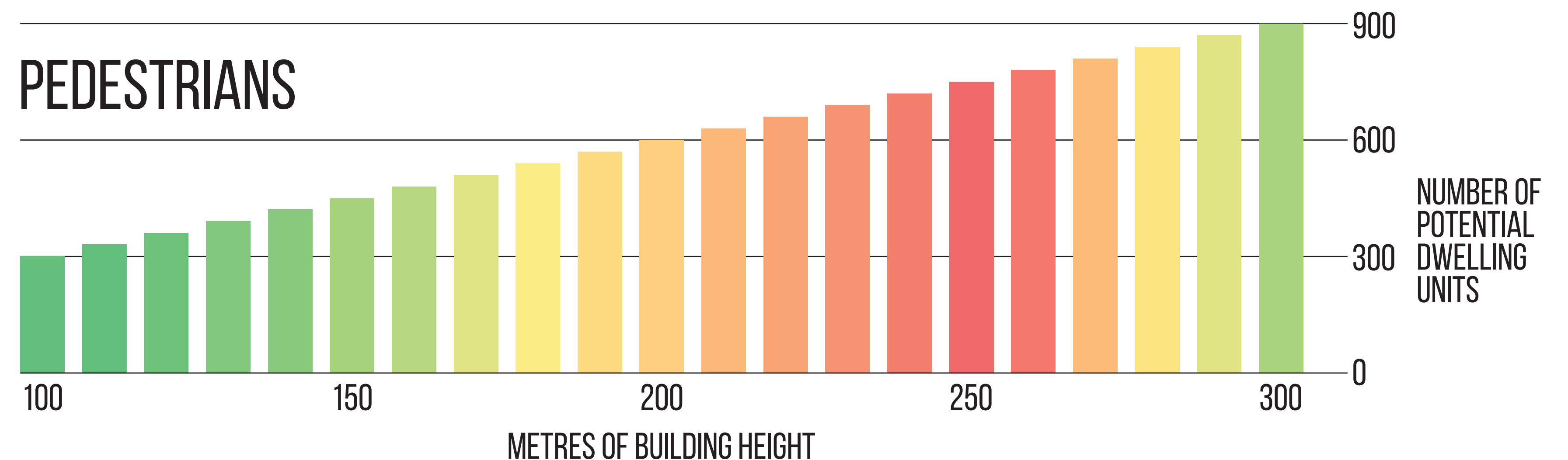
TOOL 02

VISUAL SURVEYS OF TALL BUILDING OCCUPANTS & NEIGHBOURS

04



OCCUPANT VS PEDESTRIAN COMFORT AROUND TALL BUILDINGS, BY HEIGHT



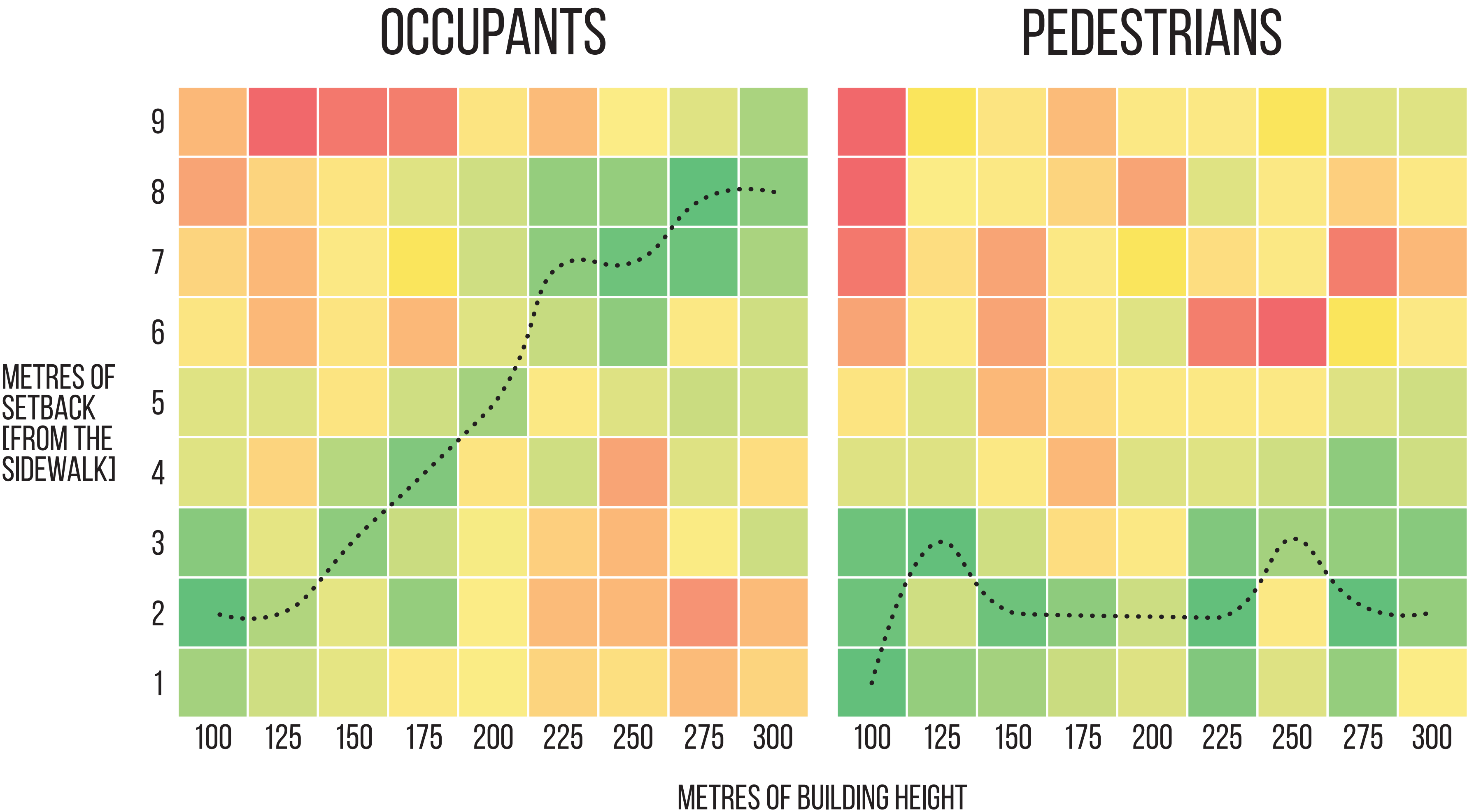
OCCUPANT VS PEDESTRIAN SETBACK PREFERENCE, BY BUILDING HEIGHT

TOOL
02

VISUAL
SURVEYS OF
TALL BUILDING
OCCUPANTS
&
NEIGHBOURS

04

..... = MOST PREFERRED SETBACK AT EACH BUILDING HEIGHT



TOOL 03

REVIEW OF
EXISTING
GUIDELINES FOR
TALL BUILDINGS

04

TORONTO

TALL BUILDING DESIGN GUIDELINES, 2013

OTTAWA

URBAN DESIGN GUIDELINES FOR HIGH-RISE
BUILDINGS, 2018

EDMONTON

DOWNTOWN PUBLIC PLACES PLAN, 2010

VANCOUVER

HIGH-DENSITY HOUSING FOR FAMILIES WITH
CHILDREN GUIDELINES, 1992

05

BEYOND TOWERS
TOMORROW'S
TALL BUILDING
DESIGN GUIDELINES

KEEP THE PUBLIC REALM PUBLIC

GUIDELINE 01

05

RATIONALE

AN **ACTIVE PUBLIC REALM** INCLUDES THE BUILDING'S PODIUM, KEEPING THE PEDESTRIAN ENGAGED AVOIDING ISOLATING FEELINGS

RULES

CREATE TRANSPARENT, INVITING MEDIUM-SCALE COMMERCIAL SPACES THAT ATTRACT **SMALL BUSINESS TENANTS**

IN BETWEEN TALL BUILDING PODIUMS, ENSURE THAT AT LEAST ONE **ENCLOSED PEDESTRIAN PASSTHROUGH** IS AVAILABLE

TO INCREASE SOCIAL COHESION, ENCOURAGE THE USE OF PUBLICLY-VIEWABLE LOBBIES TO **PROMOTE PUBLIC EVENTS, RESOURCES, AND ART**

KEEP THE PUBLIC REALM PUBLIC

GUIDELINE 01

05



SKYTOWER, 345 METRES, TORONTO, CANADA

TRANSPARENT COMMERCIAL SPACE
ENCLOSED PEDESTRIAN PASSTHROUGH
PROMOTE PUBLIC EVENTS, RESOURCES, AND ART

HORIZONTAL SIZE MATTERS MORE THAN VERTICAL SIZE

GUIDELINE 02

05

RATIONALE

THIGMOTAXIS MEANS WE NATURALLY CRAVE HUMAN-SCALED EDGES AND SURFACES THAT CREATE ENVELOPING SPACES FOR US

RULES

DESIGN NATURAL BREAKS IN HORIZONTAL SURFACES AT LEAST ONCE **EVERY SEVEN METRES** ALONG STREET FRONTAGE

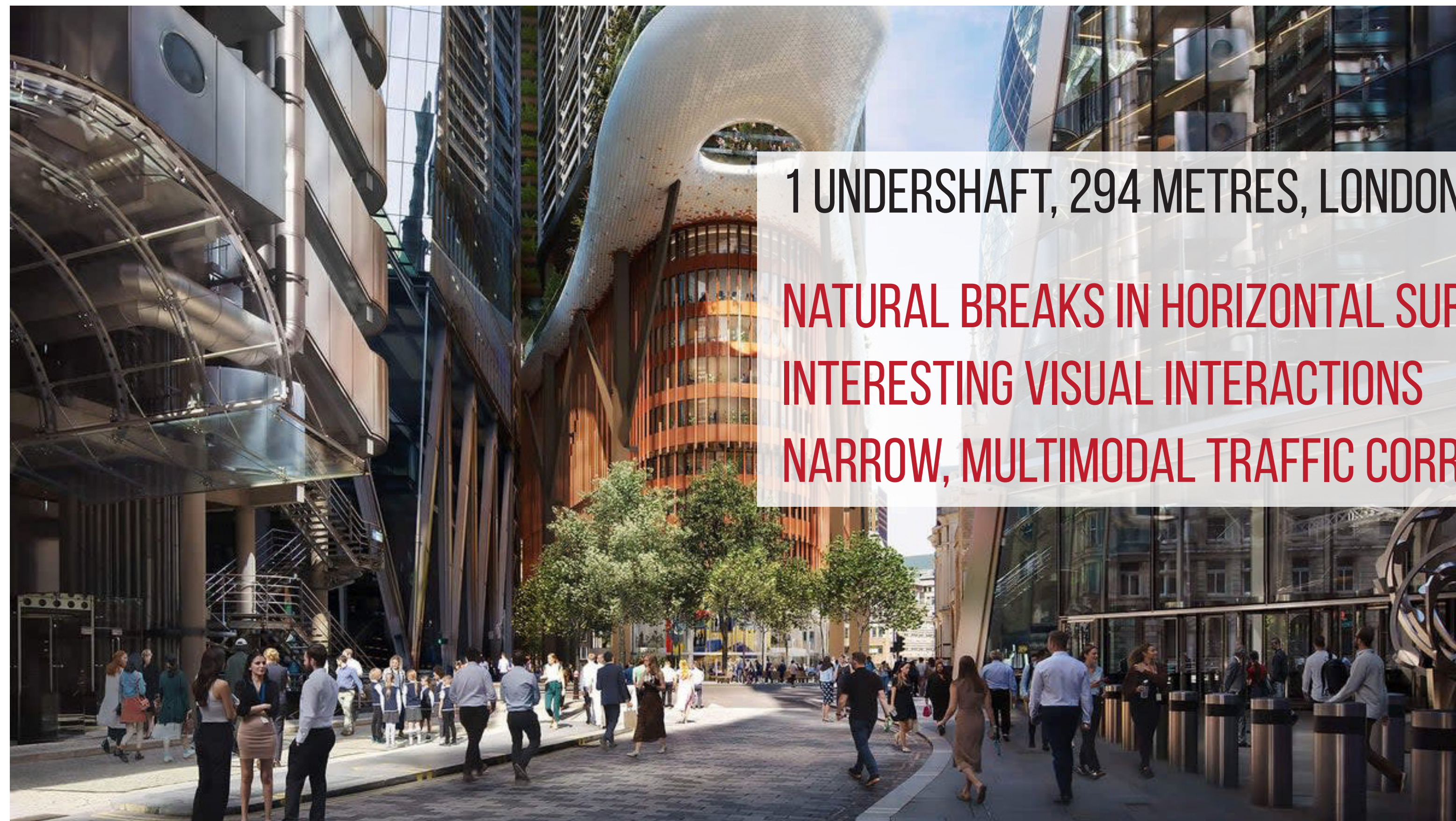
REDUCE GROUND FLOOR SETBACKS TO **ENCOURAGE VISUAL INTERACTION** WITH THE BUILDING'S FACADE

PROMOTE THE CREATION OF NARROWER CANYONS AT STREET LEVEL TO **KEEP PEDESTRIANS AND TRAFFIC COMPACTED**

HORIZONTAL SIZE MATTERS MORE THAN VERTICAL SIZE

GUIDELINE 02

05



1 UNDERSHAFT, 294 METRES, LONDON, UK

NATURAL BREAKS IN HORIZONTAL SURFACES
INTERESTING VISUAL INTERACTIONS
NARROW, MULTIMODAL TRAFFIC CORRIDOR

ENCOURAGE IMAGEABILITY & CREATE PATTERNS

GUIDELINE 03

05

RATIONALE

RECOGNIZABLE, FAMILIAR LAYOUTS ARE MORE COMFORTABLE AND MITIGATE THE NEGATIVE PEDESTRIAN REACTION TO TALL BUILDINGS

RULES

CREATE INTUITIVE, PREDICTABLE, SCALABLE BLOCK LAYOUTS FOR EASY PEDESTRIAN WAYFINDING WITHOUT COMPLEX SIGNAGE

ENSURE THAT THE DESIGN OF AN AREA'S TALLEST BUILDING INCLUDES IDENTIFIABLE ARCHITECTURAL FEATURES FOR PEDESTRIAN ORIENTATION

CLUSTER TALL BUILDINGS AROUND NODES OF TRANSIT, SHOPPING DISTRICTS, OR LARGE PUBLIC AMENITIES

ENCOURAGE IMAGEABILITY & CREATE PATTERNS

GUIDELINE 03

05



FUXING PLAZA, 105 METRES, SHANGHAI, CHINA

PREDICTABLE MID-RISE BLOCK PATTERN
TALL BUILDING CENTRAL TO THE MASTER PLAN
CENTRAL, INTEGRATED ENTRANCE TO METRO

EMBRACE DIVERSE SPATIAL PREFERENCES

GUIDELINE 04

RATIONALE SURVEY RESPONDENTS OF COLOUR EMPHASIZED THE IMPORTANCE OF HAVING **MORE COMMON AREAS** TO MAINTAINING COMMUNITY COHESION

RULES ENCOURAGE THE USE OF COMMON COURTYARDS, ATRIUMS, AND OTHER **GATHERING SPACES AT HEIGHT**

INTEGRATE PUBLIC PROGRAMS LIKE COMMUNITY CENTRES WITH SPACES PROVIDED FOR BUILDING OCCUPANTS

LEVERAGE PRIVATELY-OWNED PUBLIC SPACE (POPS) PROGRAMS TO **EXPAND PUBLIC COMMON AREAS**

06

NEXT STEPS

VISUAL DESIGN GUIDE

LATE 2024 /
EARLY 2025

06

STEP 01

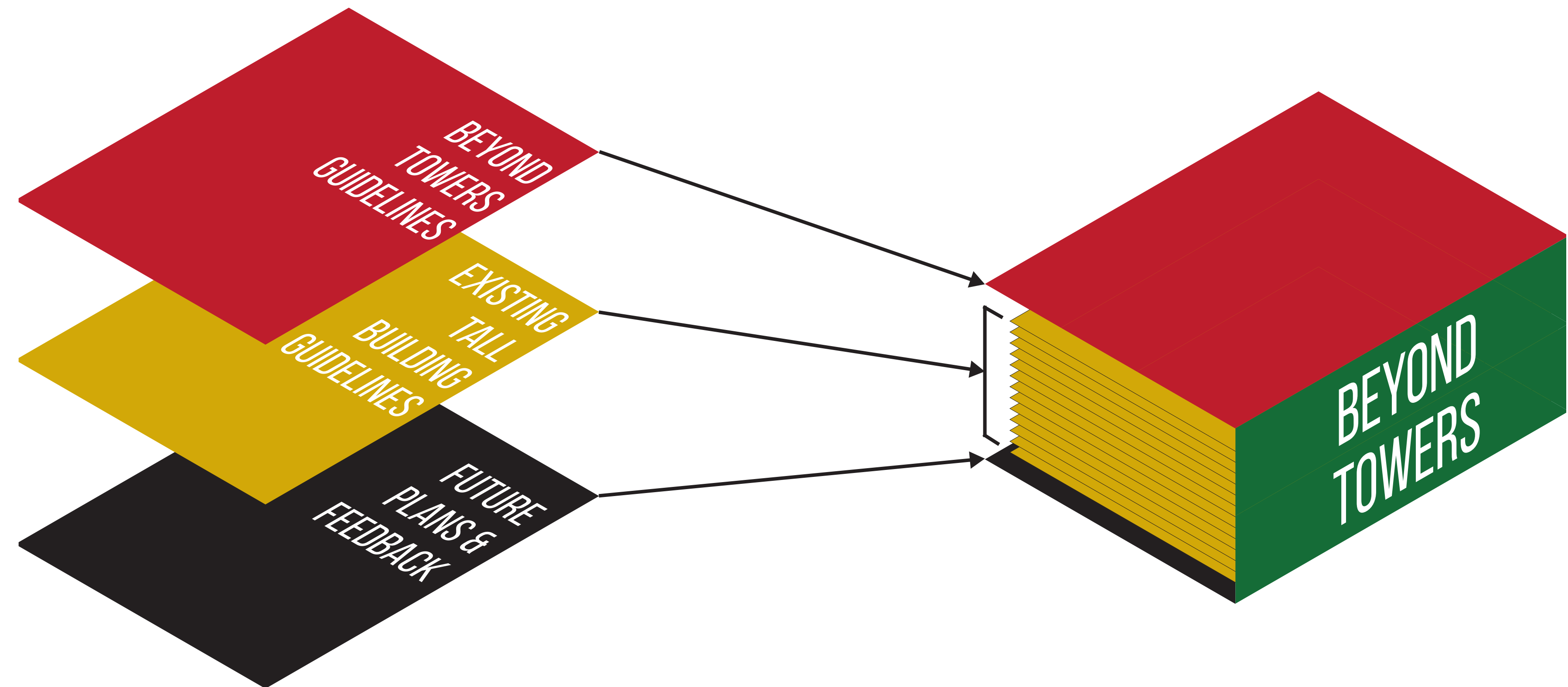
INCOPORATE FEEDBACK FROM ADVISORS

STEP 02

FEEDBACK FROM PROFESSIONAL PLANNERS

STEP 03

DRAW VISUAL GUIDE W/ GENERIC PLANS





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