

# TransDev

sustainable transport for urban/regional development

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sustainable transport for urban/regional development

why is mobility an issue?

how does it relate to sustainability?

what is it urban/spatial planners can do?

how do these issues translate into urban design?

# Mobility

why has it become an issue?

- increasing wealth
- globalisation / European integration
  - emergence of urban networks

# Mobility



travelling has become an consumer good



# Mobility



travelling within Europe becomes normal, like distances in France



# Mobility



cities merge into urban networks by means of infrastructure

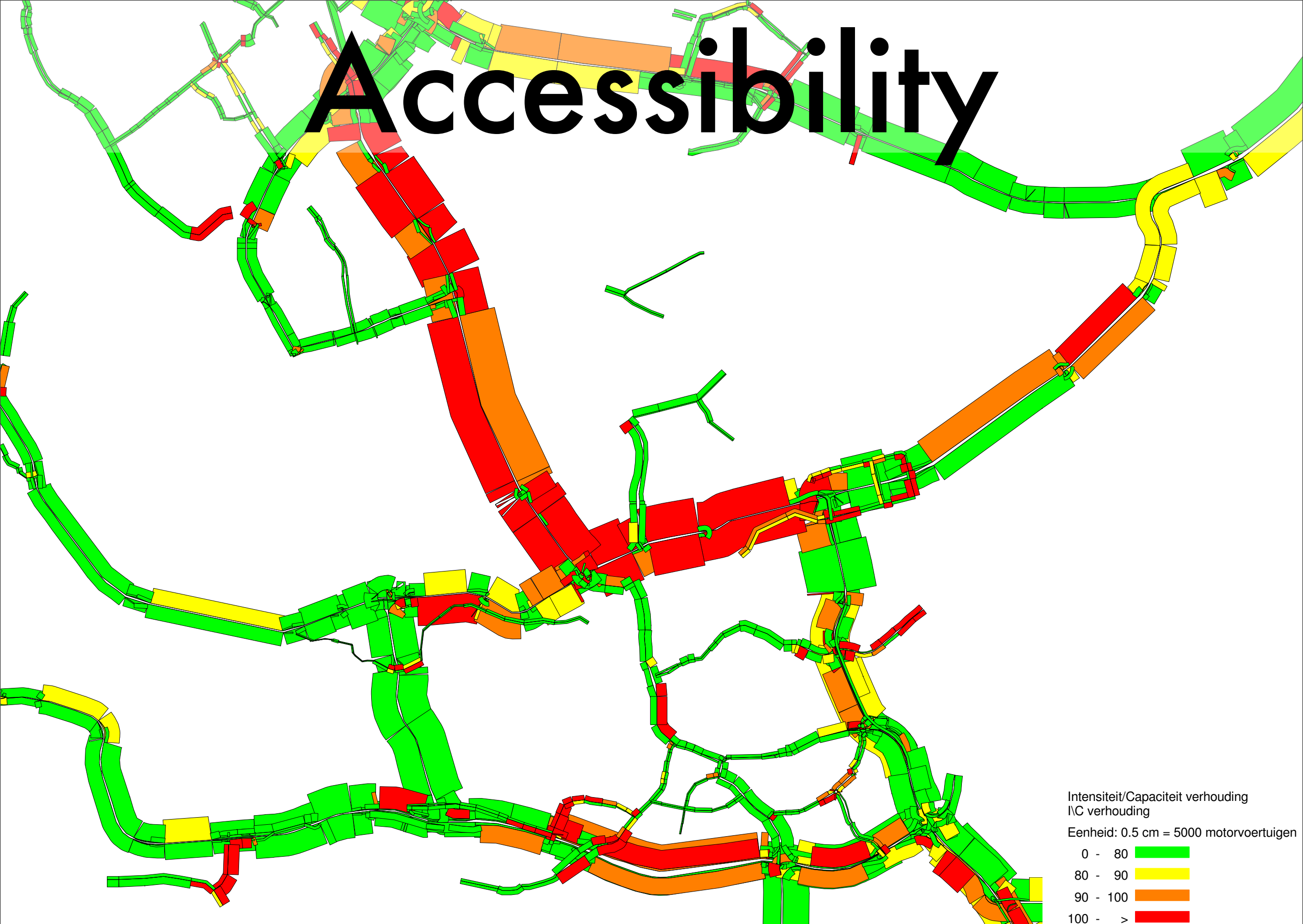
# Sustainability

many definitions and opinions

main issues related to mobility in the Netherlands are:

- accessibility
- quality of life
  - safety
  - land-use

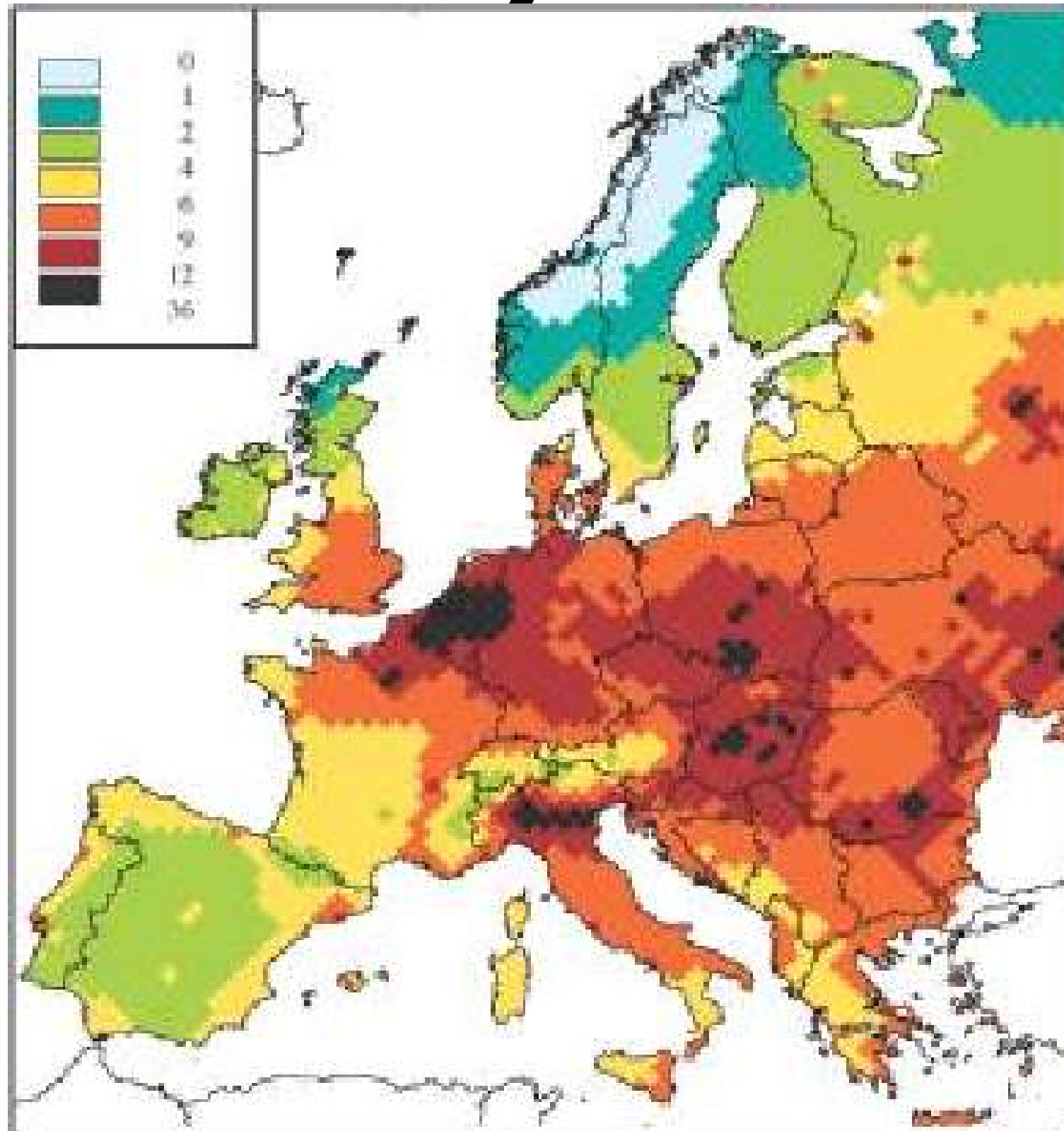
# Accessibility



congestion on main roads between The Hague and Rotterdam

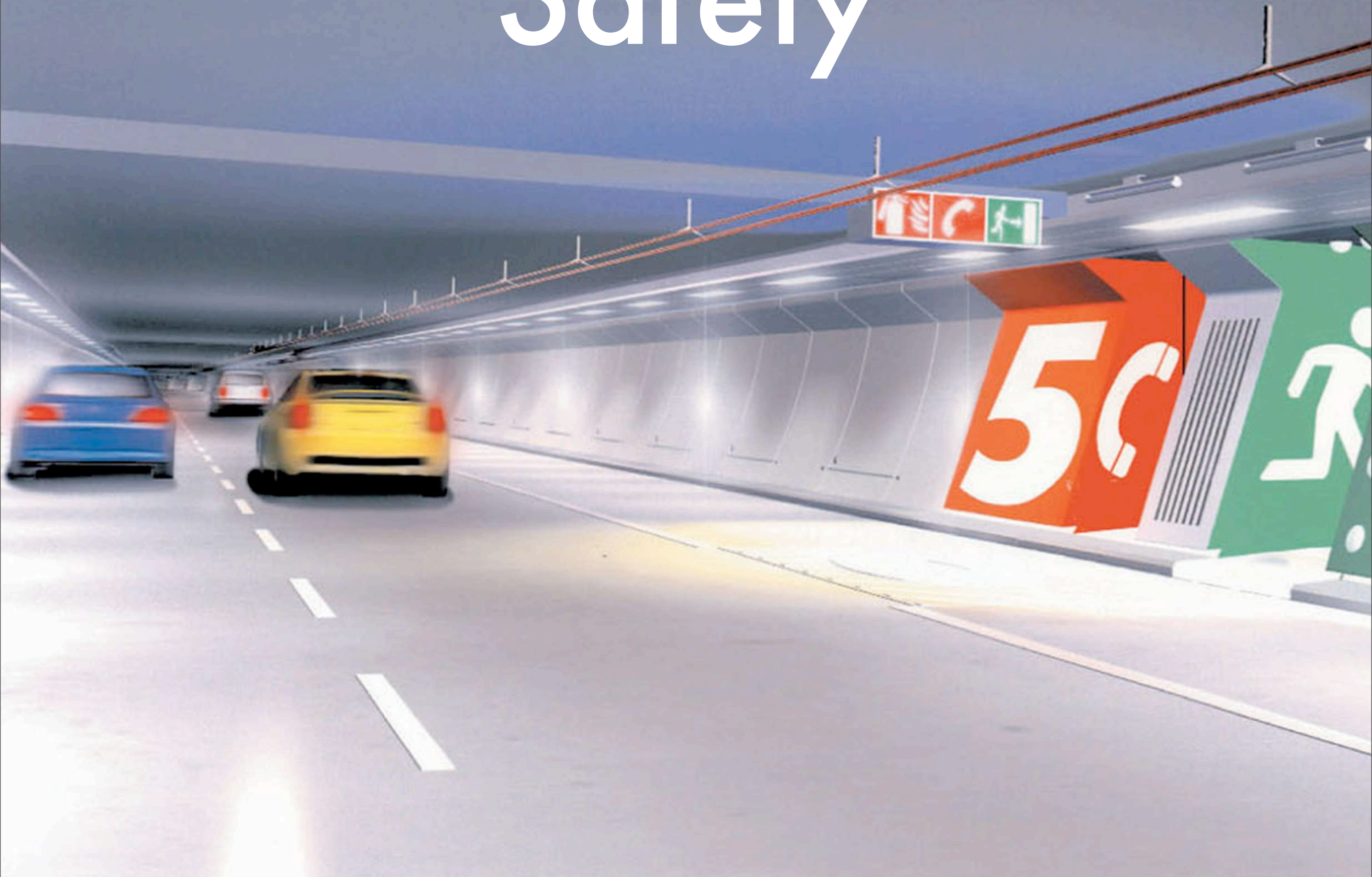


# Quality of life



reduction life expectancy in months caused by particulate matter (2000)

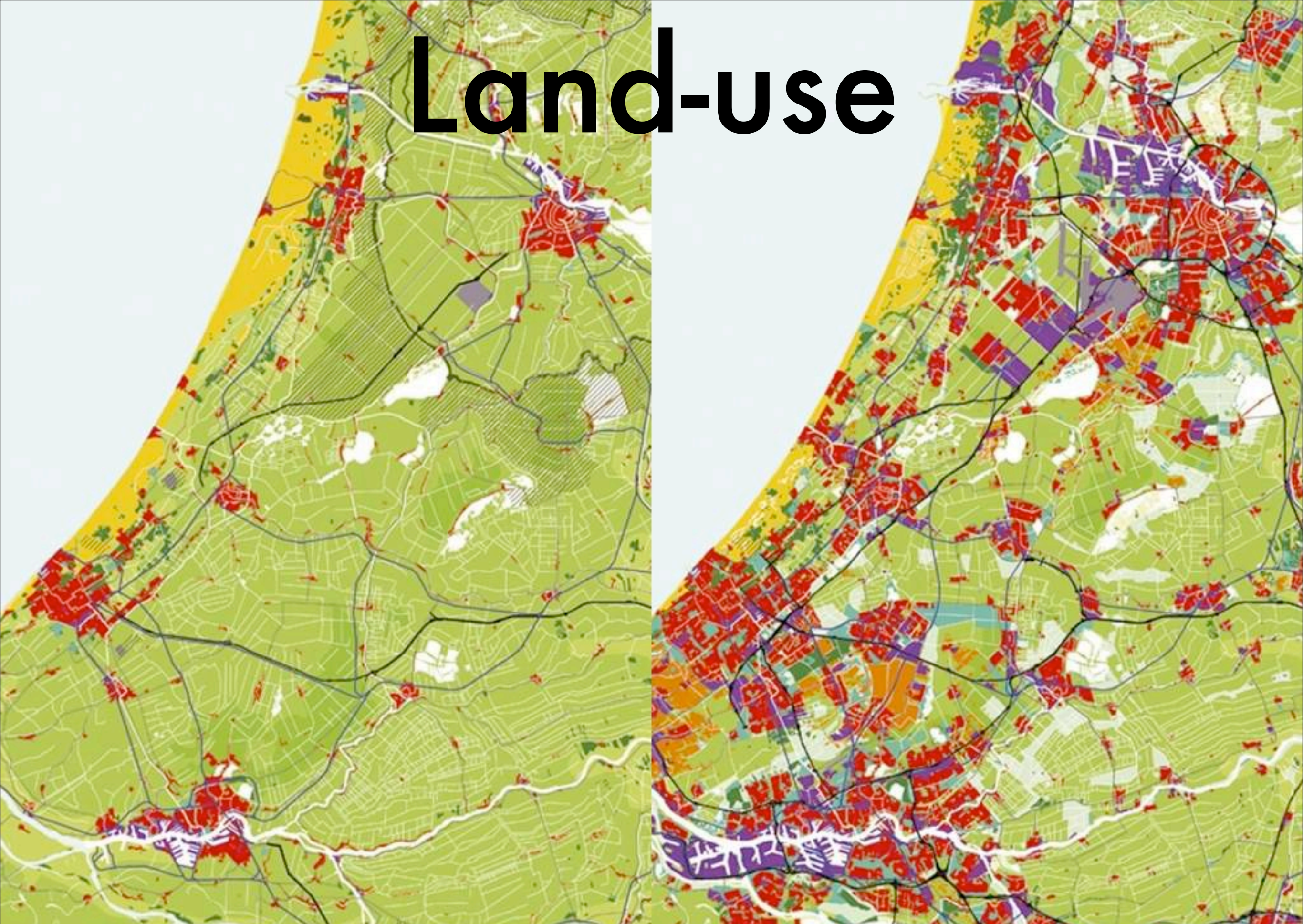
# Safety



traffic safety, external safety, tunnel safety



# Land-use



Western part of The Netherlands 1950 and 2010



# Solutions

sustainable mobility for urban/spatial planners

reduce the impact on the urban living environment:  
noise barriers, tunneling etc.

take away the causes:  
introduction of sustainable modes of transportation

a different urban/spatial planning:  
development of networks, transit hubs, station areas



# Impact reduction

noise barriers





# Sustainable systems

transport of people

- car
- soft modes
- transit



# Car

0-emission vehicles, road-pricing, automatic vehicle guidance





# Soft modes

priority for pedestrians and bikes in centres/neighbourhoods





# Transit

innovations in public (rail) transport systems

bus/tram

bus rapid transit

light rail/metro/TramTrain







HST

stagnant product



## TRAM-EN AUTOBUSLIJNEN

### TOELICHTING

-  TRAMLUNEN
-  AUTOBUSLUNEN
-  TRAM- EN AUTOBUSLUNEN
-  BEGINPUNTEN TRAMLUNEN
-  BEGINPUNTEN AUTOBUSLUNEN
-  SPOORWEGEN

 = VASTE HALTE  
 = HALTE, STOPT OP VERZOEK

TRAMLÜNEN			
LINJ	VAR	ÖVER	NÅR
1	HEMMIGRÖD	ÖSTÅS	FRIDAY
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86	STÅNEN L.P.	ÖSTÅS	ÖST

AUTOBUSLUNEN			
LIJN	VAN	OVER	NAAR
1	DANERDIP	...	KADANEED
2	BERGSELA	...	STATION NAAR
3	INDEWON	...	...
4	ENAGT	...	...
5	BERGSELA	...	BERGSELA

VICEVERSA

AUTOBUSLINEN IN SCHIEDAM			
LIJN	VAN	OVER	NAAR
8	SCHIEDAM	—	SCHIEDAM, KAN.
1	SCHIEDAM, KAN.	—	SCHIEDAM, KAN.
10	SCHIEDAM, KAN.	—	SCHIEDAM

VICEVERSA



# Bus rapid transit

cost-efficient system based on modern automotive technology



Phileas in Eindhoven



# Light rail

modern version of the tram



use of innorail (no overhead wires) in Bordeaux



# Metro

built for large volumes in the bigger cities





# TramTrain

combining the best that tram and train can offer



RandstadRail in Den Haag and Rotterdam



# HST

Amsterdam, Schiphol, Rotterdam and Breda



# Urban planning

transit-oriented development

network / intensification

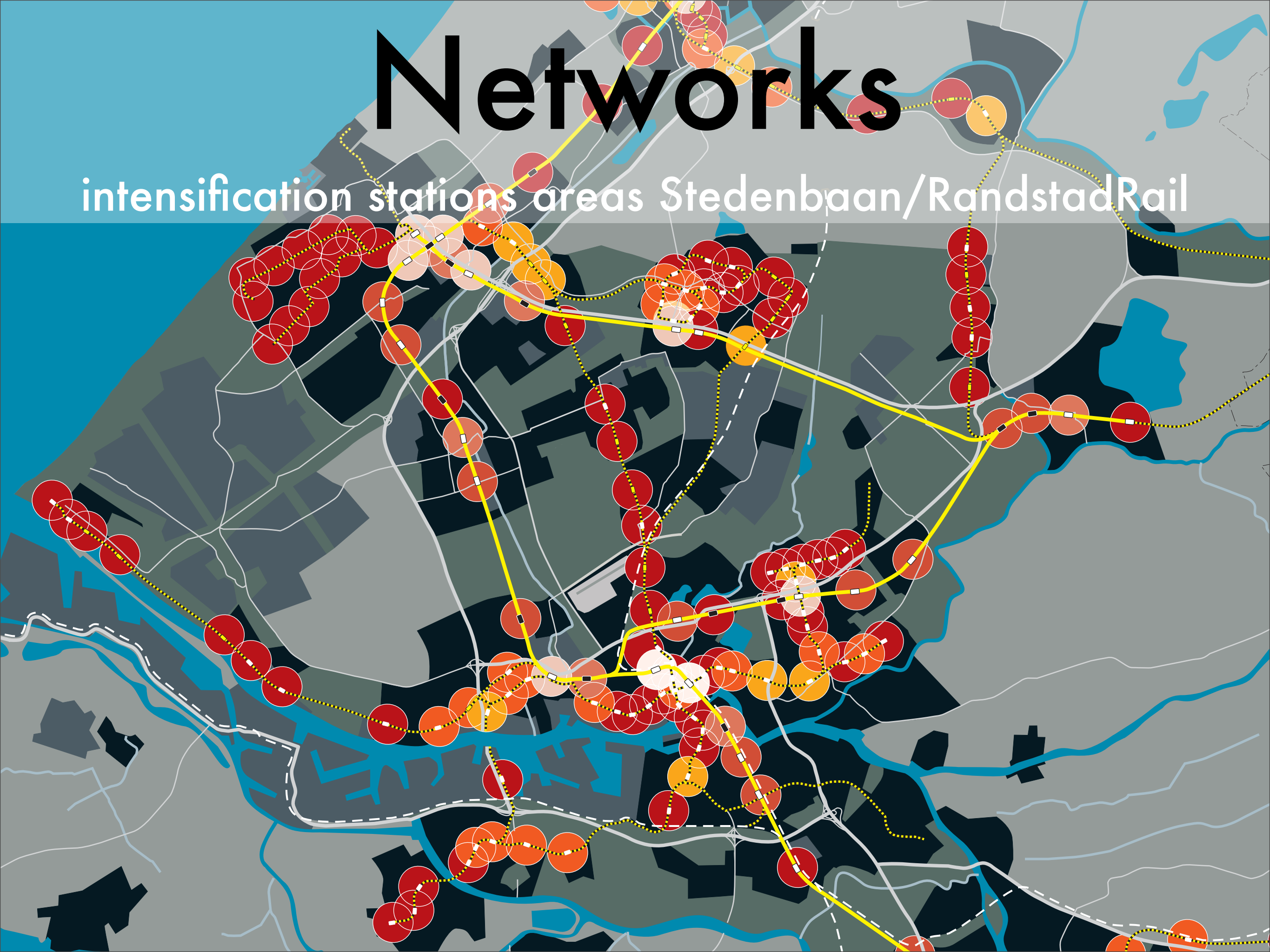
transit-hub / city centres

station area / soft modes



# Networks

intensification stations areas Stedenbaan/RandstadRail





# Transit-hub

redefining/expanding the city centre



Masterplan Den Haag Nieuw Centraal



# Station area

public space for pedestrians and cyclists





# Souterrain

Haagse tramtunnel



OMA Lab-Da



# Station Statenweg

Rotterdamse RandstadRail



Maarten Struijs



# translation > design

design project

>Transbay redevelopment San Francisco



# cahighspeedrail.ca.gov

California USA





# high speed rail

## connecting San Francisco and Los Angeles





# Fresno

now





# Fresno

transit-oriented development with HST





# *TRANSBAY REDEVELOPMENT PROJECT AREA DESIGN FOR DEVELOPMENT*

*San Francisco Redevelopment Agency & San Francisco Planning Department*



*October 2003*

*Skidmore, Owings & Merrill LLP – Alfred Williams Consultancy LLC – BMS Design Group – Bosselmann  
Jacobs Macdonald Cityworks – Dowling Associates – Sedway Group – Urban Explorer – Wilbur Smith Associates*





The Transbay Area, just south of Downtown San Francisco, is the first glimpse of the city for East Bay commuters and visitors arriving via the Bay Bridge.

## GOALS OF REDEVELOPMENT

The following goals for the Transbay Redevelopment Plan were established in conjunction with the Transbay Citizens Advisory Committee (CAC) and members of the community, at-large. The goals set forth the stated objectives that will direct the revitalization of the community. The Design for Development will guide the direction of all future development within the Transbay Project Area.

**Goal 1** Create a distinctly livable, economically-diverse, urban community connected to downtown and the waterfront with well-designed streets, open space and retail areas.

**Goal 2** Establish the area as both a gateway to the central city and a unique, transit-oriented neighborhood in San Francisco.

**Goal 3** Create a pedestrian-oriented environment that encourages walking as a primary transportation mode within the Project Area, and where it is easy to meet people and to stroll safely, with leisure.

**Goal 4** Develop a new downtown neighborhood to help address the city and regional housing crisis, support regional transit use, and provide financial support to the new Transbay Terminal and the Caltrain Downtown Extension.

**Goal 5** Create a state-of-the-art, multi-modal facility that is an integral part of the surrounding commercial and residential neighborhood.

**Goal 6** Encourage the use of alternative modes of transportation by future area residents, workers, and visitors, while accommodating public transit and auto ease for local and regional access.

**Goal 7** Enhance the linkages between the new Transbay Terminal and the Financial District by creating a community with ample open space, shopping, and service facilities to meet the needs of its members and visitors.







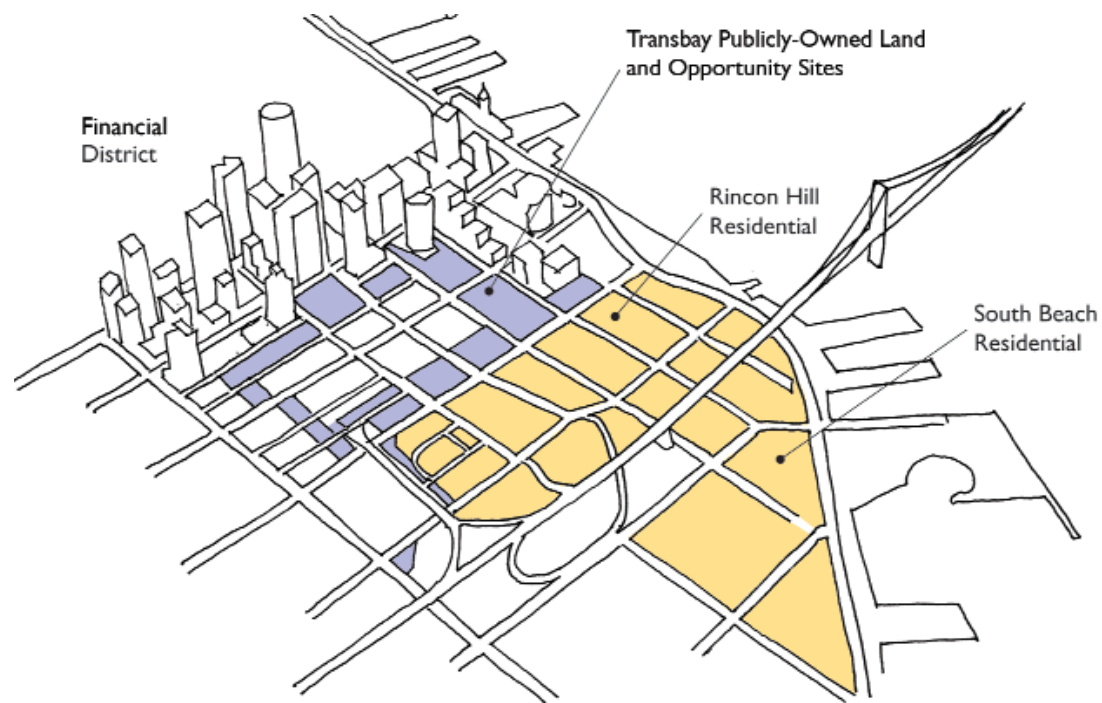


Townhouse units, each with individual entrances, will face the new Transbay Square on all sides. The adjacent retail mezz will provide the neighborhood with much-needed services.

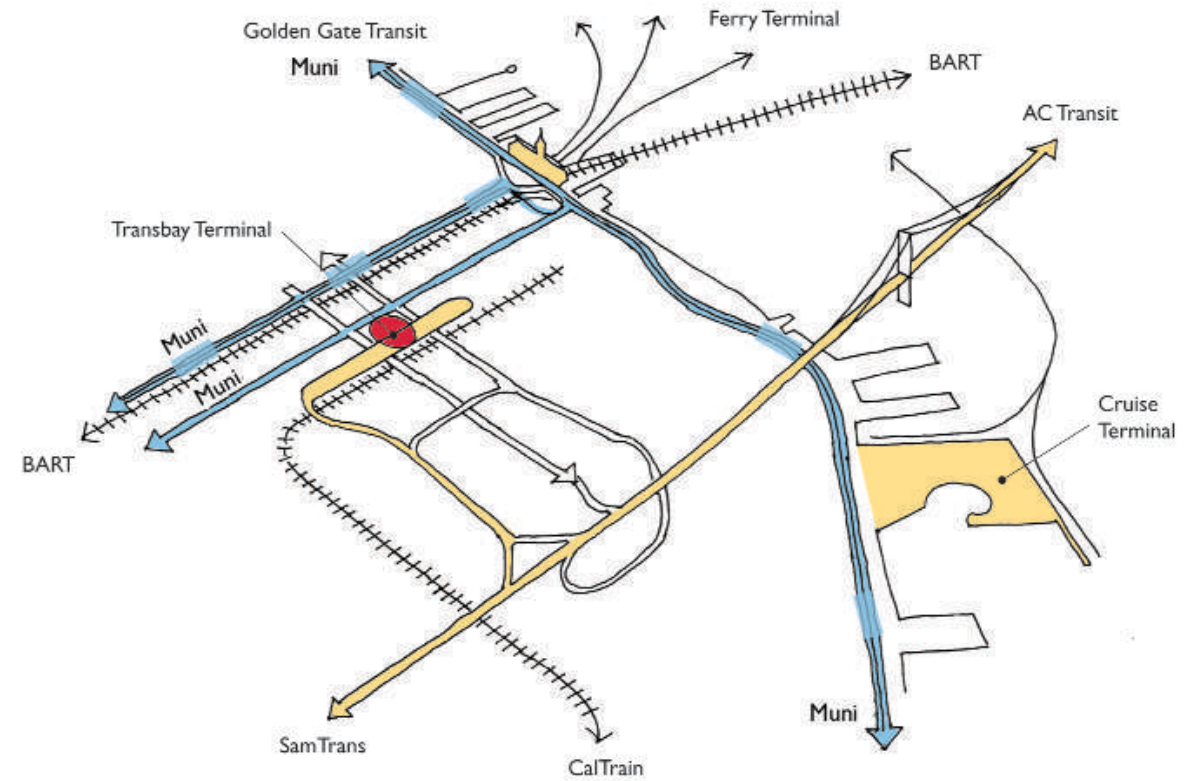


A network of low-traffic streets, lined with townhouses and mixed-use infill development, will improve pedestrian circulation by breaking up the large South of Market blocks.

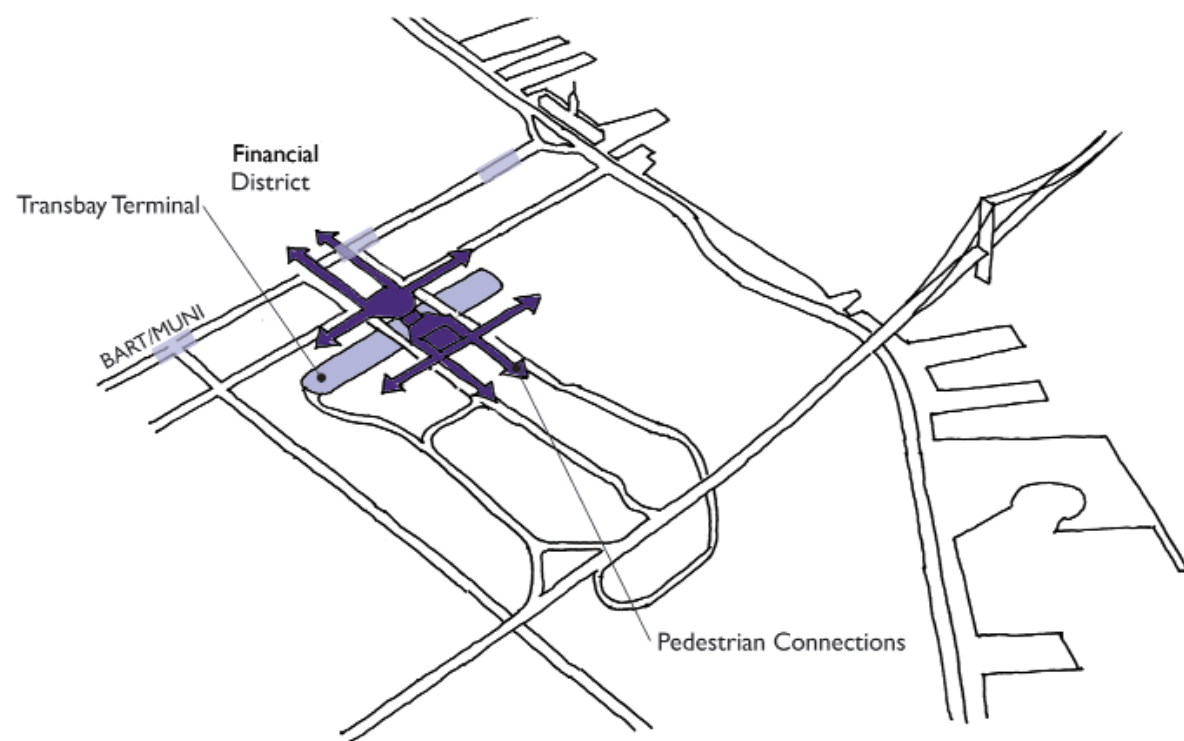




Framed by the Financial District and the Rincon Hill neighborhood, the Transbay area includes important public land that will be developed into a transit-oriented, mixed-use, commercial and residential neighborhood.



The new state-of-the-art, multi-modal Transbay Terminal will be the southern gateway to the Financial District, coalescing transit services from all points of the Bay Area in downtown San Francisco.



Enhanced pedestrian connections to and through the Transbay Terminal will facilitate access to transit and to surrounding neighborhoods and districts.

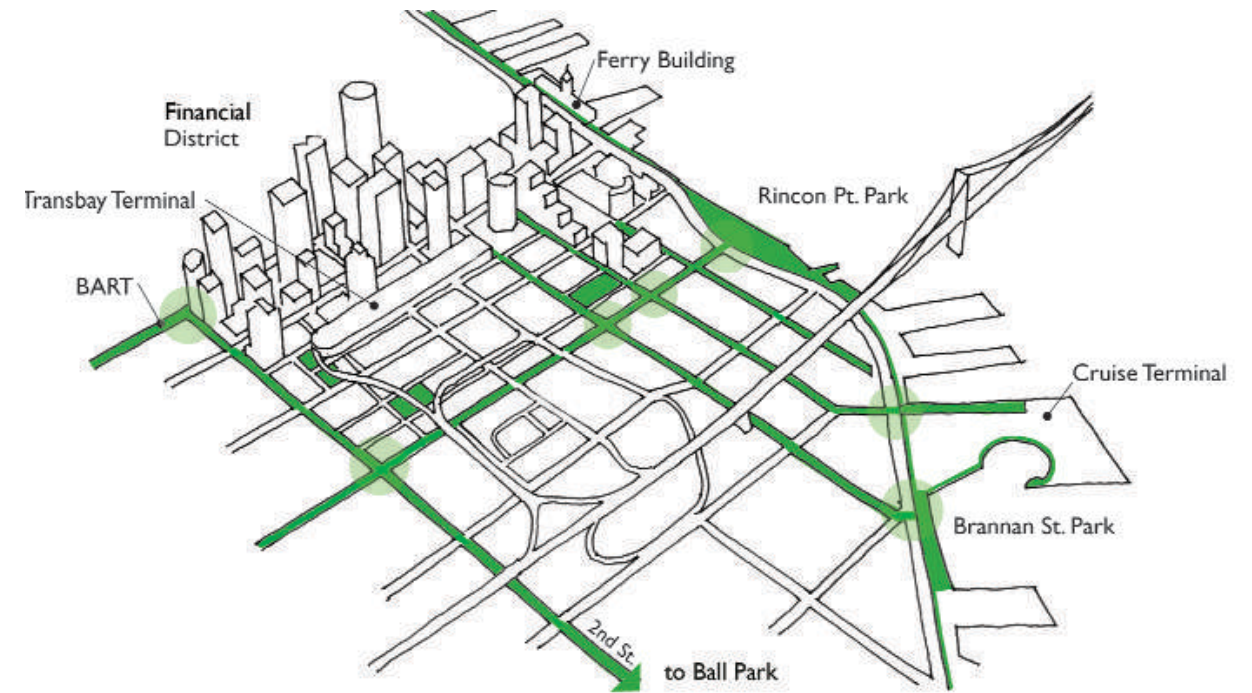


The "heart" of the neighborhood will be located on Folsom Street, where sidewalks will be widened, streetscape improvements will be added and convenience services and retail uses will be located.

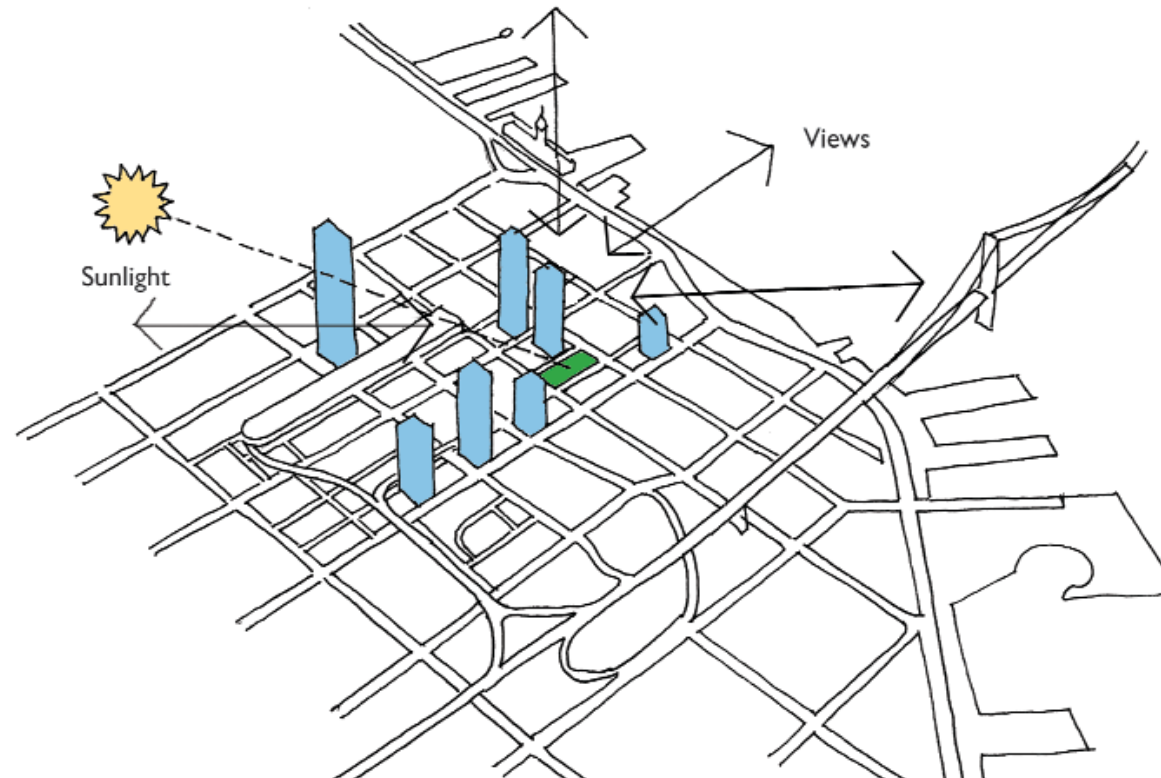




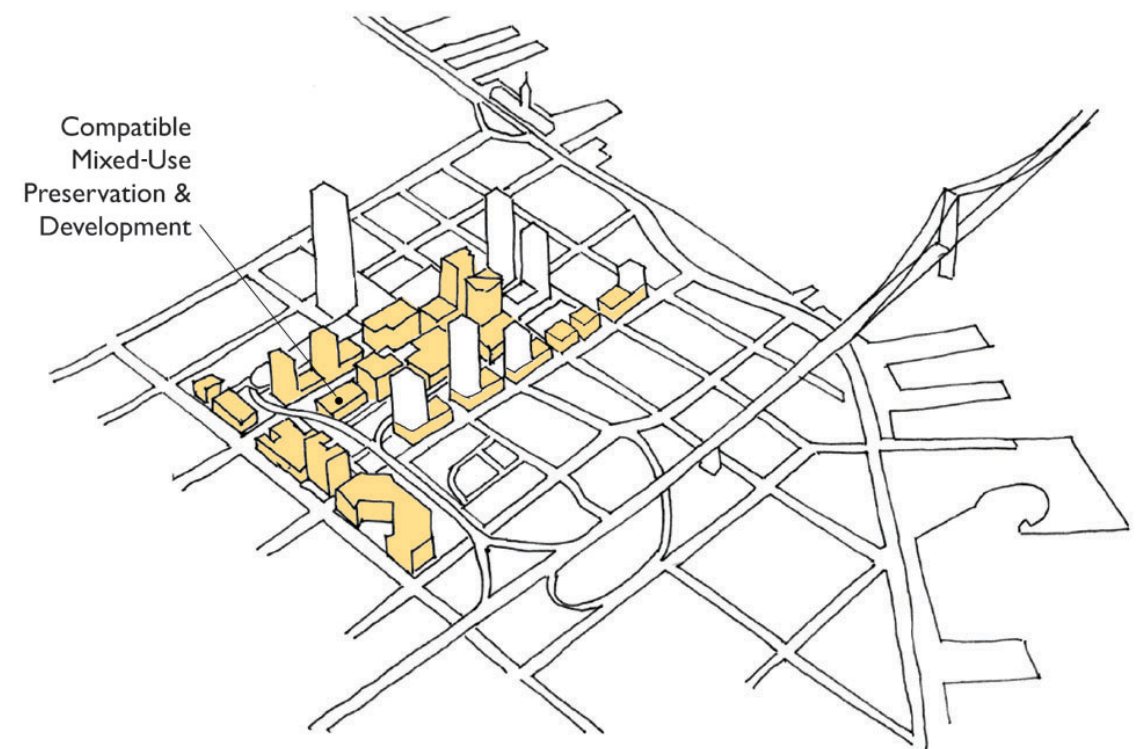
An active and attractive pedestrian environment will be created by expanding the existing public realm with new landscaped parks, pedestrian alleys, and widened sidewalks.



Improvements to the public realm of streets and alleys will create strong connections to the waterfront and other nearby San Francisco amenities.



Public access to views and sunlight will be preserved throughout the area by locating and spacing towers in such a way as to minimize their impact on open space and view corridors, and by requiring appropriate slenderness in new buildings.



A sense of urbanity and a connection to the past will be achieved by retaining older buildings, wherever possible, in the area of Second Street and by requiring compatible infill development in their vicinity.



# STREETS AND PUBLIC SPACE FRAMEWORK PLAN

MAJOR PUBLIC OPEN SPACE

SMALL PLAZAS AND PARKS

ALLEY IMPROVEMENTS

FOLSOM BOULEVARD

GATEWAY LANDSCAPE

MAIN / BEALE / SPEAR / ESSEX  
WIDENINGS

OTHER SIDEWALK WIDENINGS

GENERAL SIDEWALK  
IMPROVEMENTS

PROJECT AREA BOUNDARY







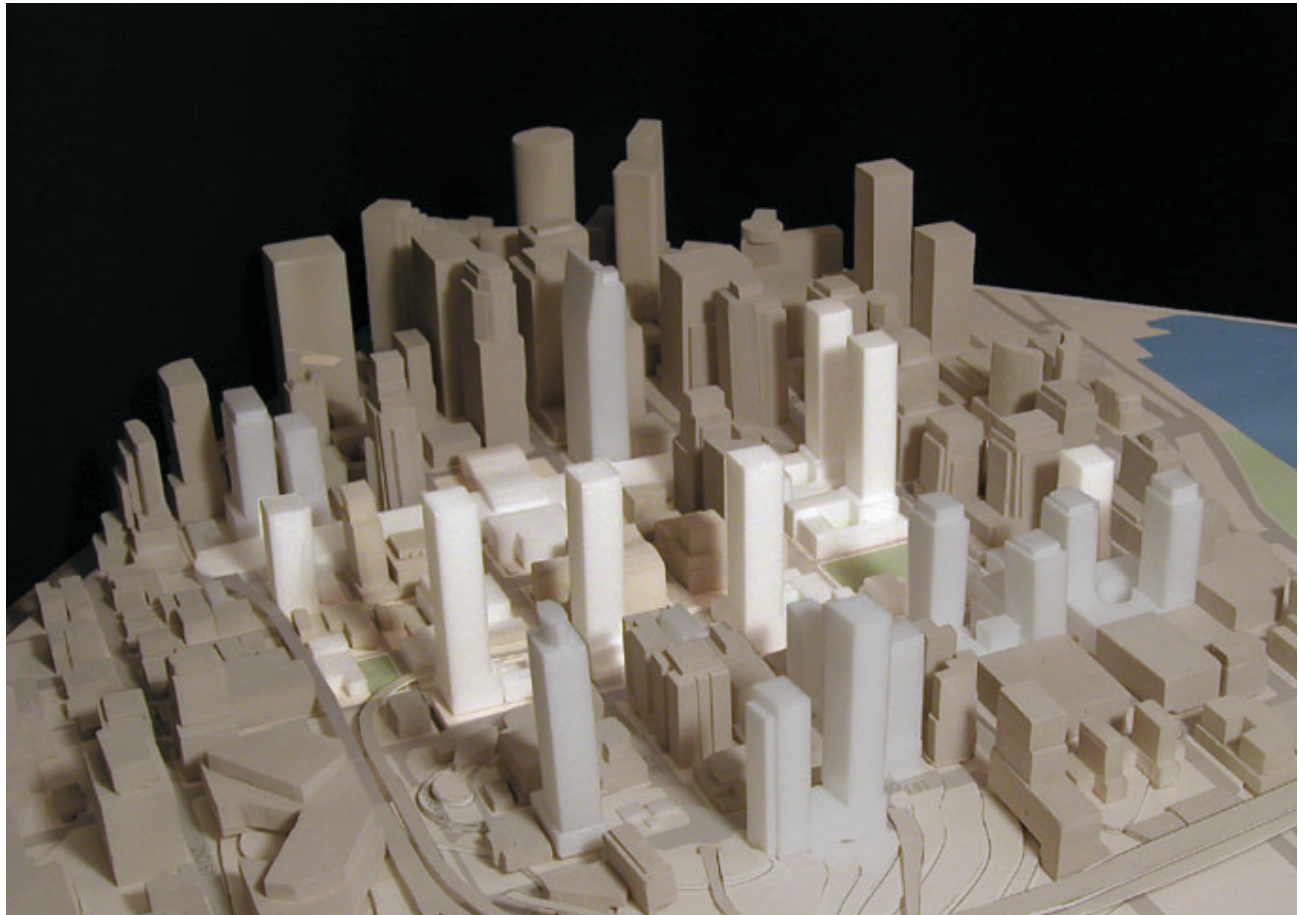
Existing and Pipeline Projects outside Study Area



Concept One



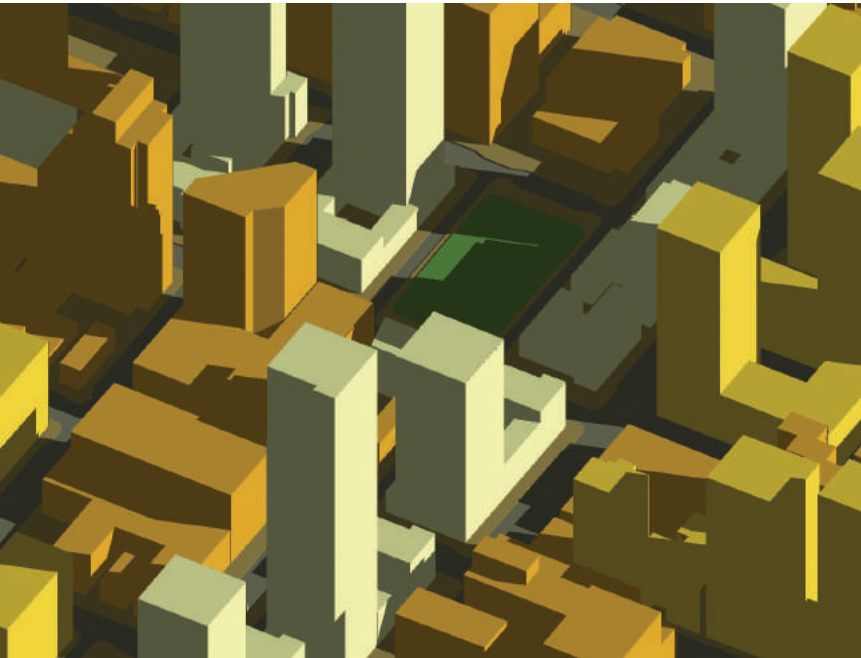
Concept Two



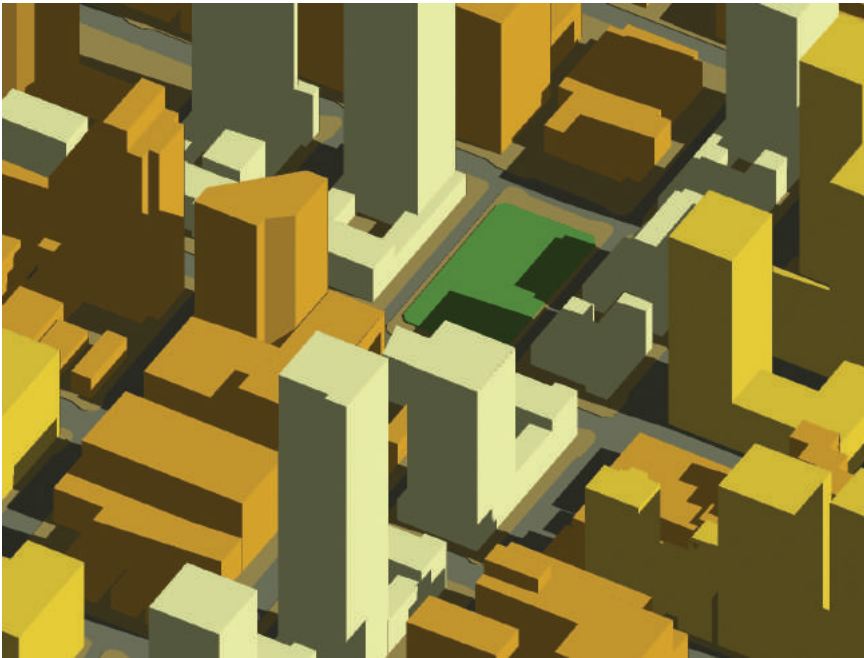
Concept Three



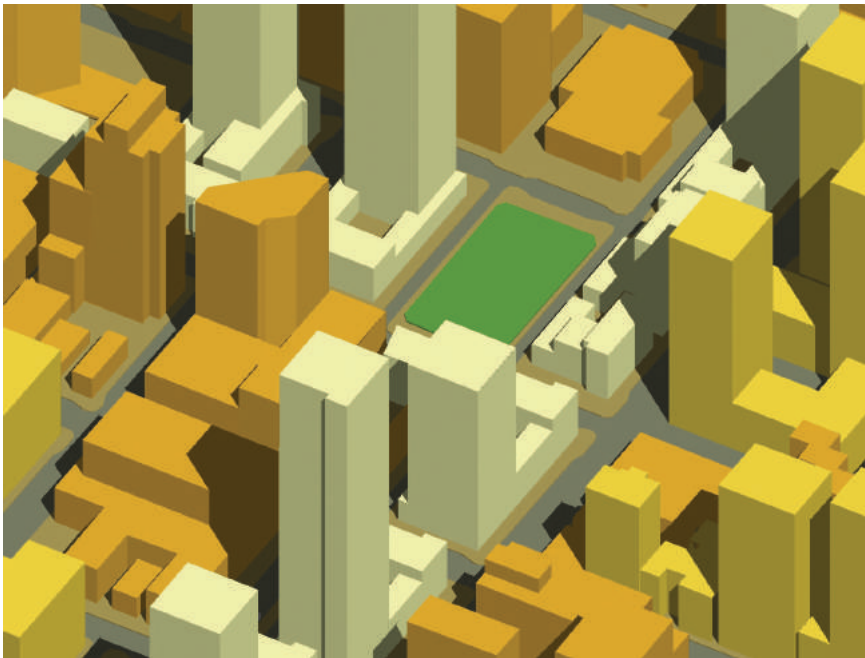
SUNLIGHT ACCESS TO PROPOSED TRANSBAY SQUARE



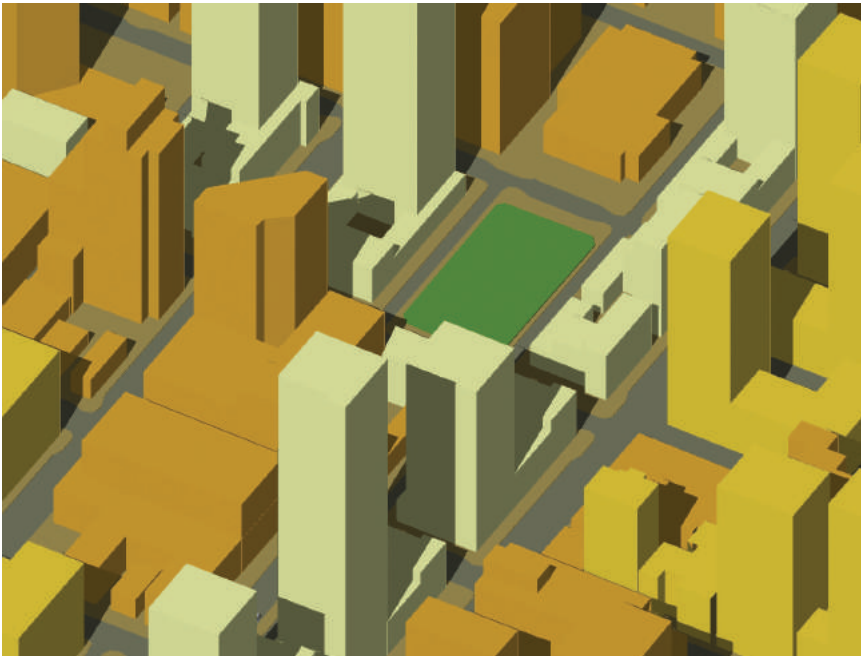
9 am



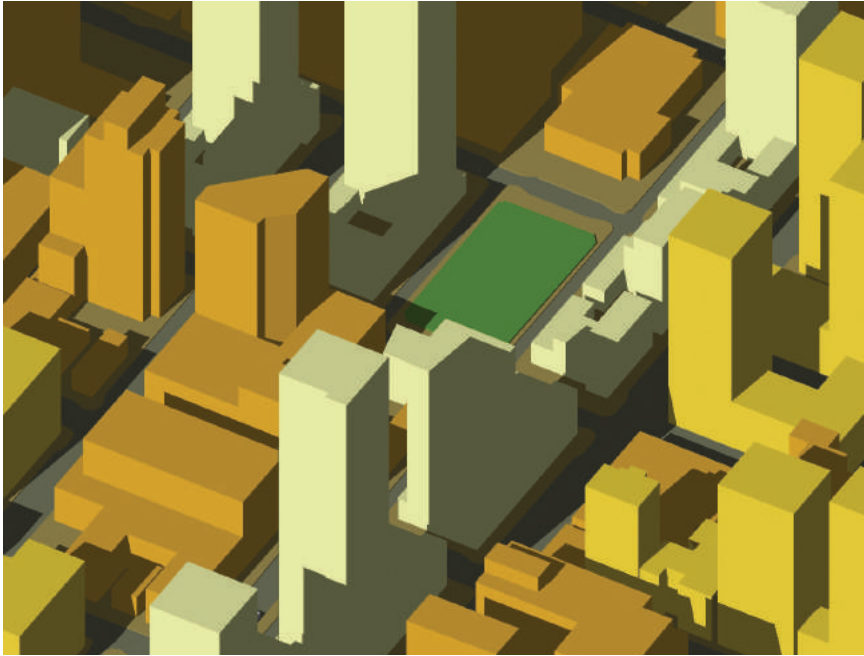
10 am



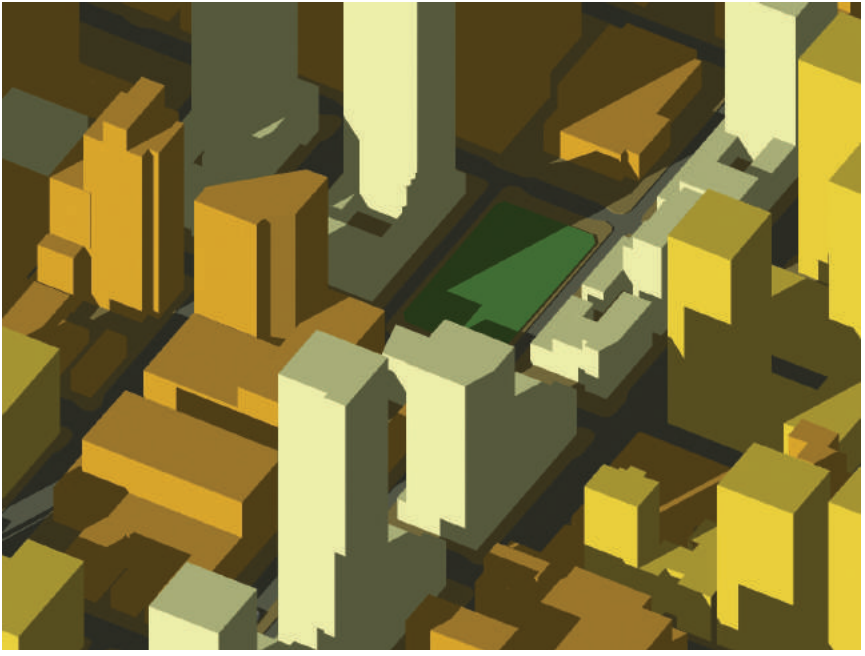
12 pm



2 pm



3 pm



4 pm







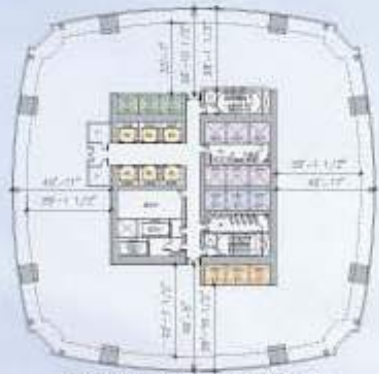


*The Terminal Plaza opens onto Mission, First, and Fremont Streets and will offer downtown San Francisco a ceremonial entrance and a grand public space.*

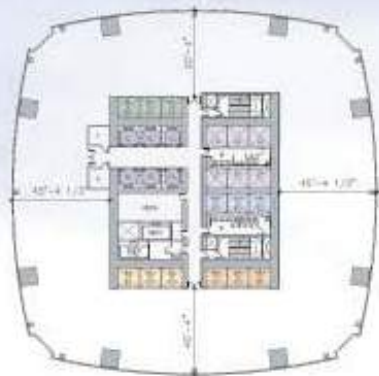




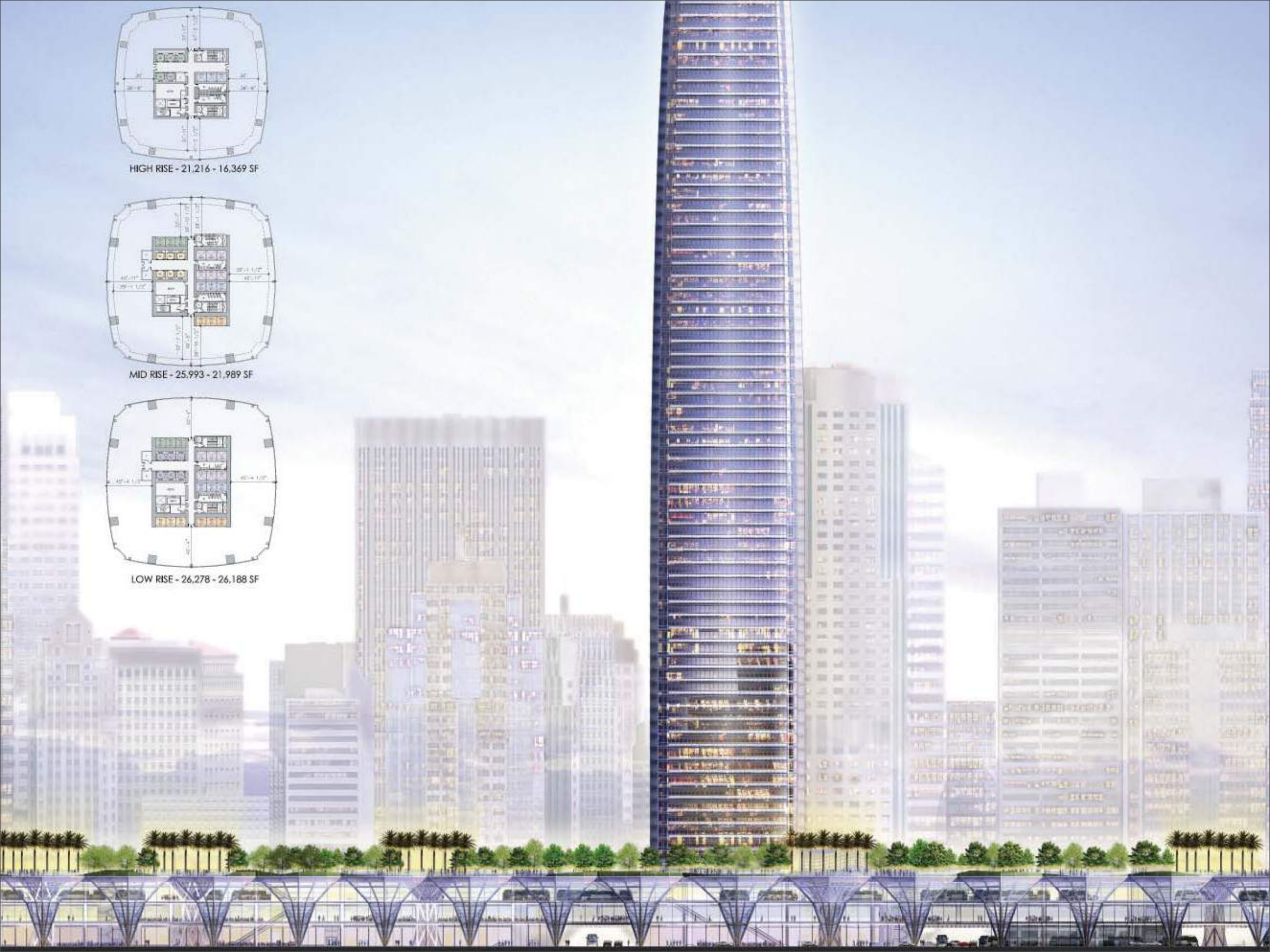
HIGH RISE - 21,216 - 16,369 SF



MID RISE - 25,993 - 21,989 SF



LOW RISE - 26,278 - 26,188 SF

















City Park

Bus Level

Retail / Office Mezzanine

Ground Level

Grand Concourse

GeoThermal Piles





