



Stadt Zürich

Heat reduction in streets – design standards and first projects

IMPACTS conference

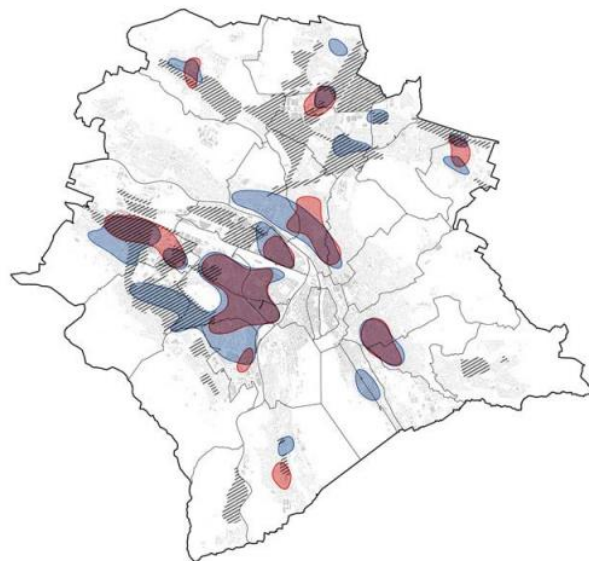
Dublin, 9th of June 2020

Rupert Wimmer, Head of transport and urban space planning,
City of Zurich, Department for Civil Engineering

Technical planning report about heat reduction (2020)

Objectives:

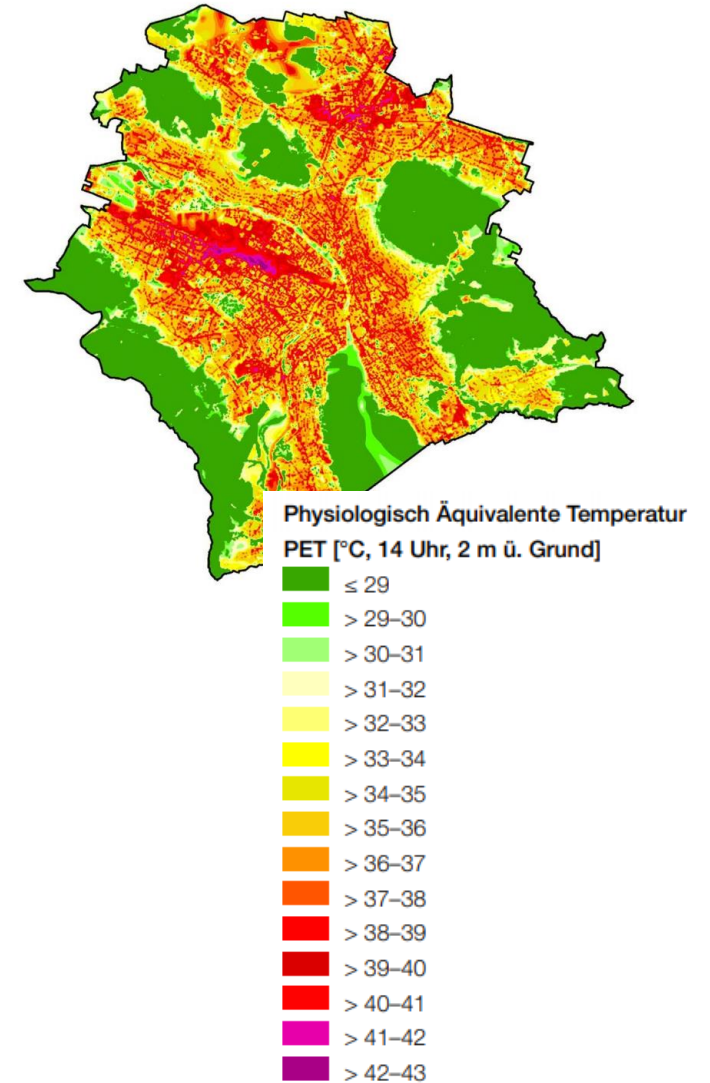
1. Prevent overheating across the entire urban area
2. Relieve "vulnerable areas" as a priority
3. Preserve existing cold air system



Hotspots Tag und Nacht, Gegenwart, mit den Verdichtungsgebieten

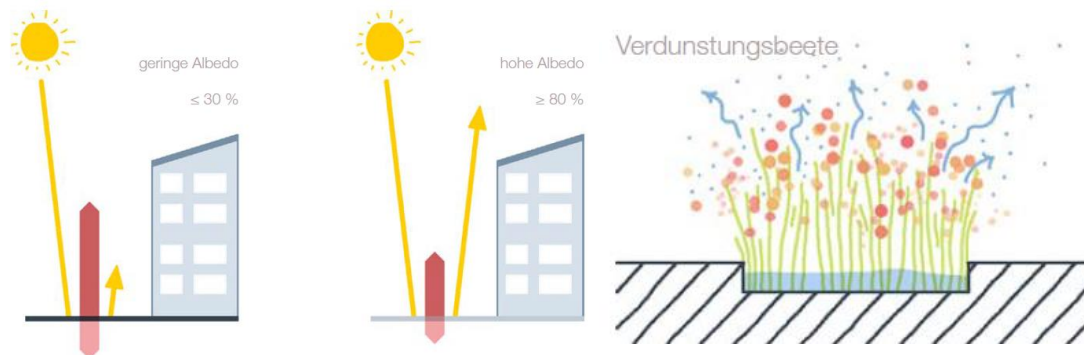
- Hotspots Tag
- Hotspots Nacht
- Hotspots Tag und Nacht
- Siedlungsraum
- Stadtquartiere Zürich
- Gebiete mit baulicher Verdichtung
über BZO 2016 hinaus (kommunal-
er Richtplan SLöBA)

Sources: Technical planning report heat reduction, City of Zurich 2020



Approaches for street spaces

- Shading (trees or technical)
- Unsealing sealed surfaces
- Retain water and let it seep
- Open water bodies, fountains
- Use materials with high albedo



Sources: Technical planning report heat reduction, City of Zurich 2020

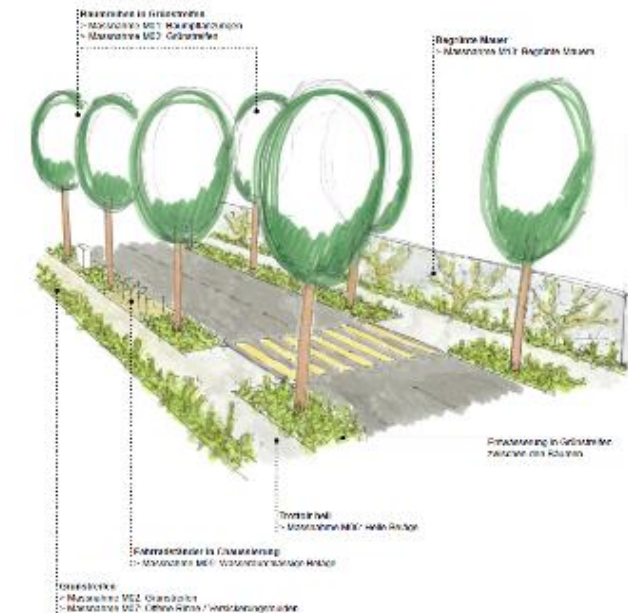
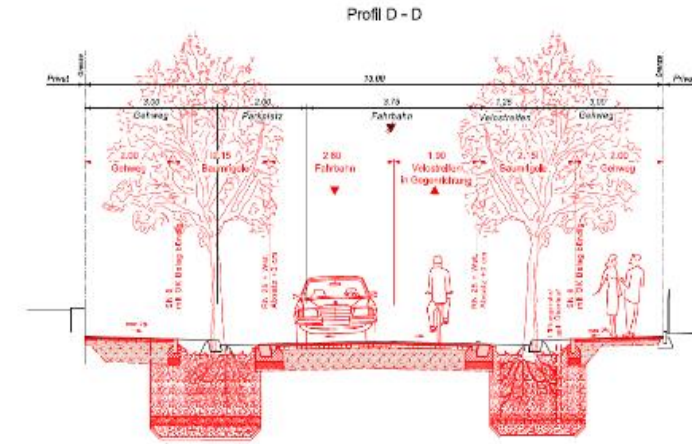
Implementation – planning instruments

Heat reducing measures require space, but the space is scarce:

Heat reduction +

- space for different modes of transport,
- obstacle-free use,
- utility infrastructure and service lines,
- maintenance, etc.

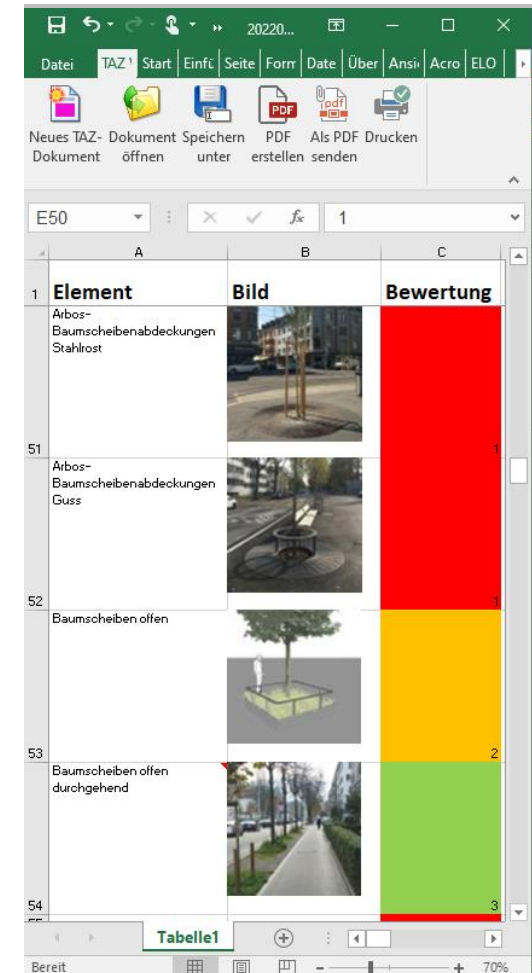
→ Adjust standards, norms, and other planning instruments to ensure meaningful implementation







Implementation – planning instruments

Currently considered to be adjusted:

1. Basic Attitude > Supplementing with basic goals for showing and materials
2. Room Types > basic principals how proven solutions for heat reduction can be integrated in street designs
3. Catalog of Standard Elements > 1. Label for existing elements with positive effect,
2. identifying what can be improved



	A	B	C
	Element	Bild	Bewertung
1	Arbos-Baumscheibenabdeckungen Stahlrost		1
51	Arbos-Baumscheibenabdeckungen Guss		1
52	Baumscheiben offen		2
53	Baumscheiben offen durchgehend		3
54			

Implementation – pilot projects

- To verify simulated effects (e.g. light pavements)
- To see what can be done with minor changes



Photo: Escher-Wyss-Platz /
Pfingstweidstrasse

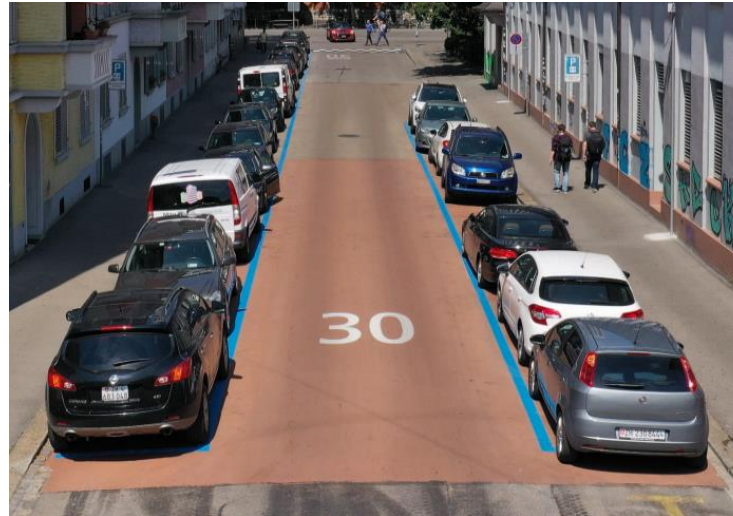


Photo: Roggenstrasse



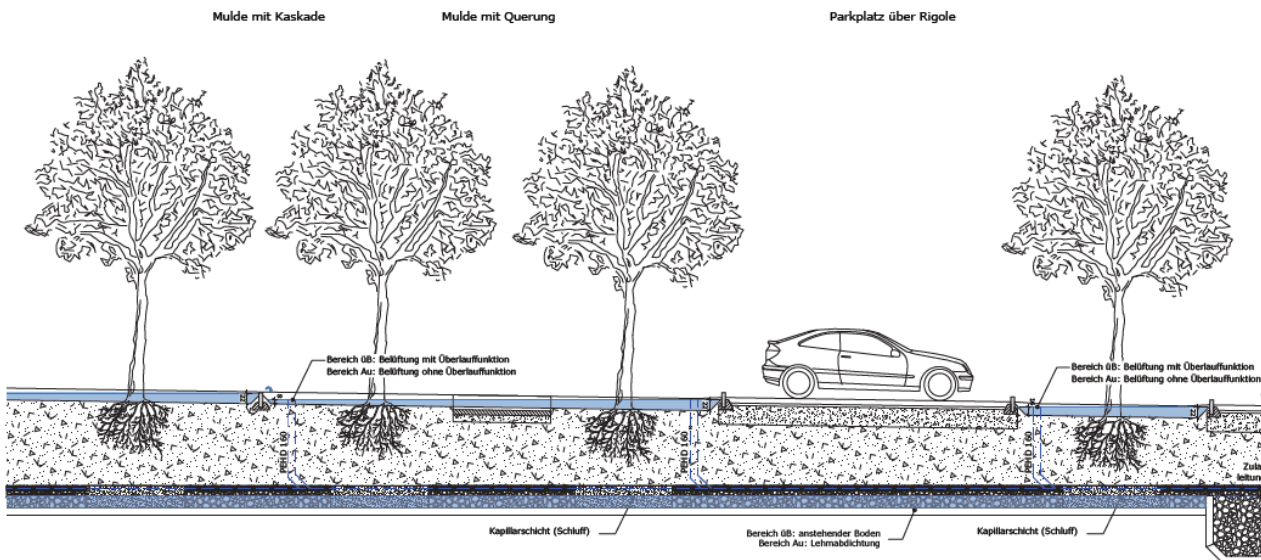
Photo: Escher-Wyss Platz

Excursus: sponge city concept

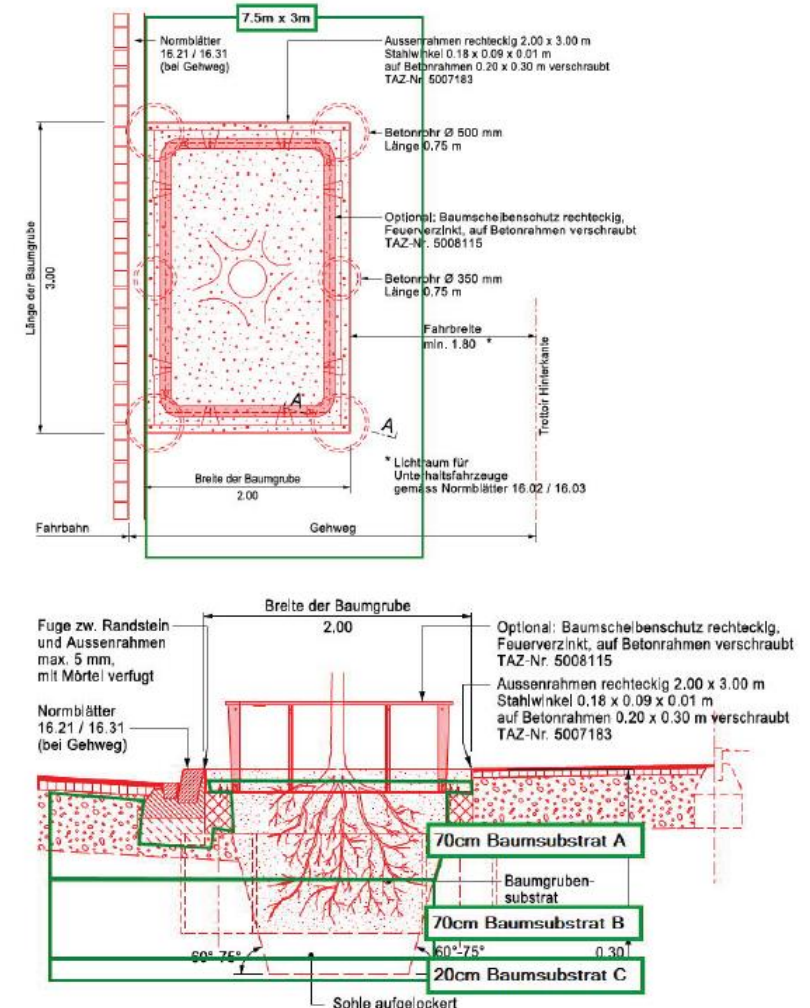
- Pilot project to test specific elements (i.e. the curb)
- Two large-scale projects planned



Photo: Special curb at Giessereistrasse pilot

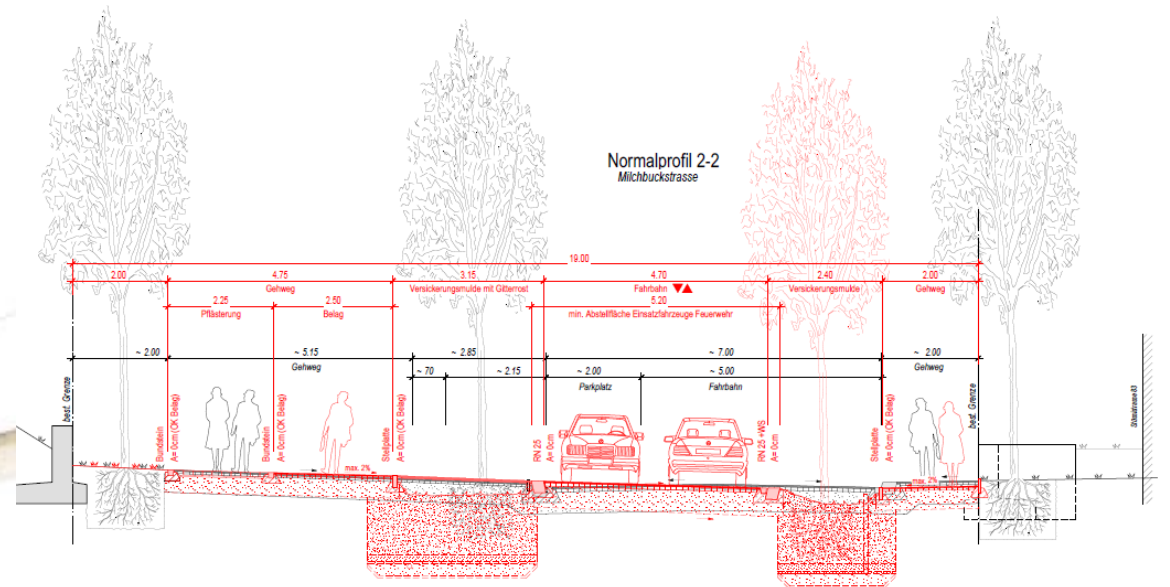


Plans, visualizations from project Scheuchzerstrasse

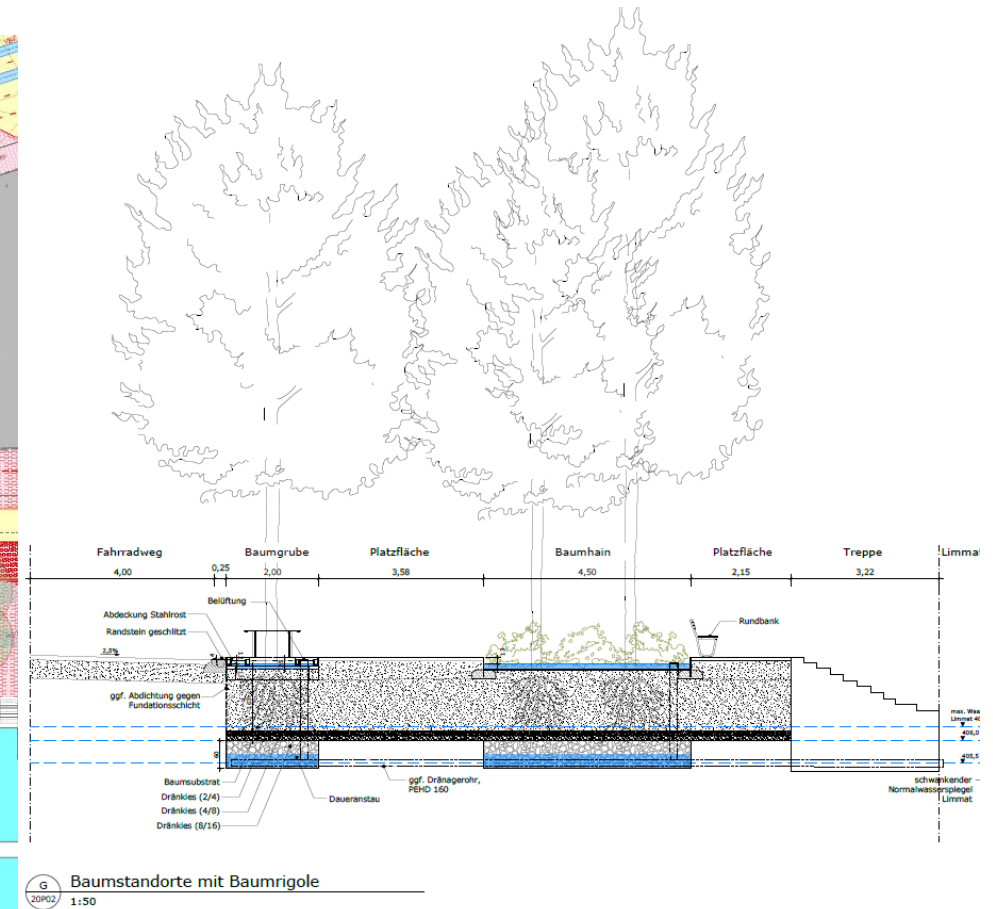
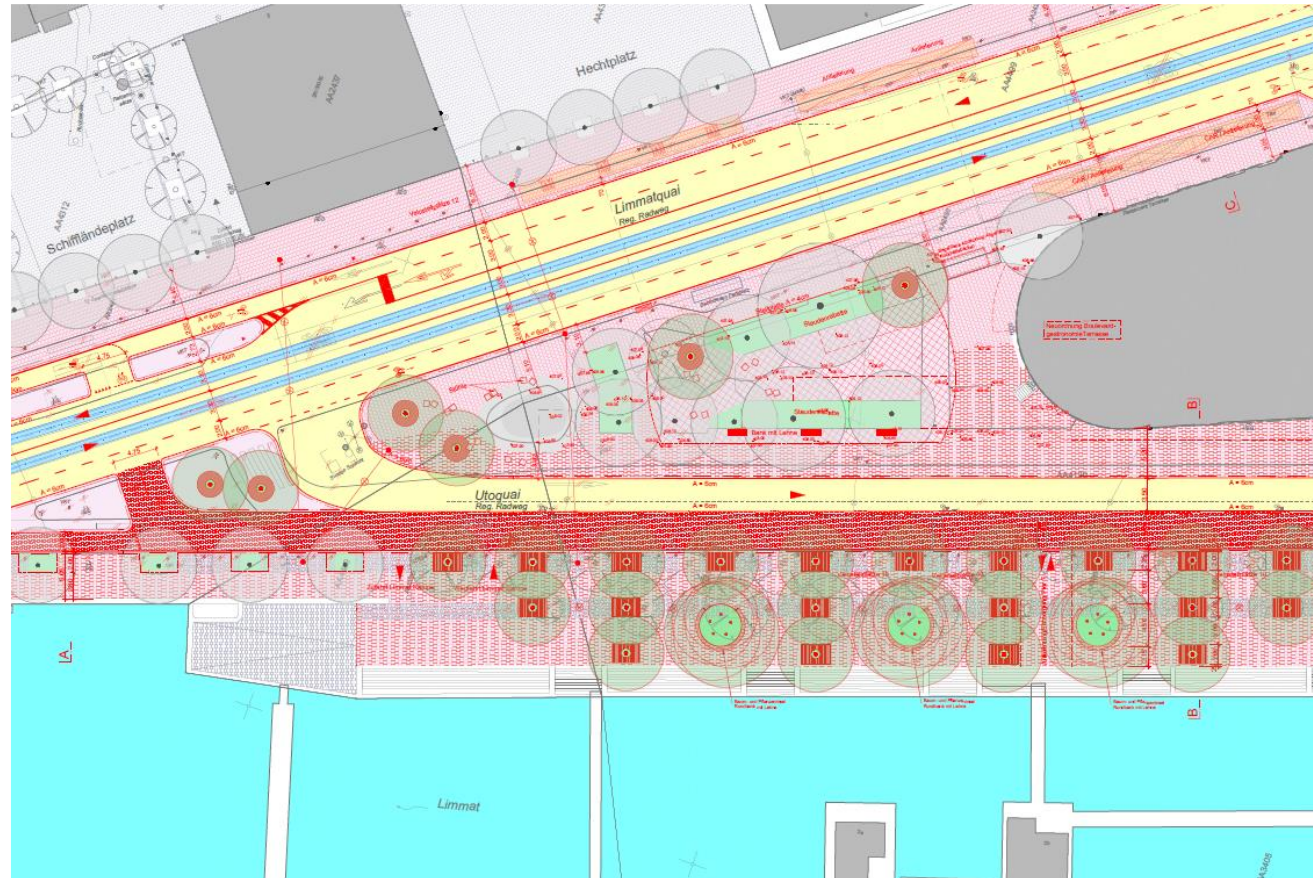


Large scale-project

Scheuchzerstrasse



Utoquai / Riviera



Large-scale project

Utoquai / Riviera



Thank you.

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