Supplementary Information 3

• Description of LCZs

Nine Local Climate Zones (LCZs) (Stewart 2012) were considered in this study. These are described in Figure S31 below.

| | 1. Compact high-rise | | | | | | |
|--------------------|---|--|--|--|--|--|--|
| | 1. Compact high-rise Dense mix of tall buildings to tens of stories. Few or no trees. Land cover mostly paved. Concrete, steel, stone, and glass construction materials. | | | | | | |
| | 2. Compact midrise | | | | | | |
| EL. | Dense mix of midrise buildings (3-9 stories). Few or no trees. Land cover mostly paved. Stone, brick, tile, and concrete construction materials. | | | | | | |
| | 3. Compact low-rise | | | | | | |
| A STATES OF STATES | Dense mix of low-rise buildings (1-3 stories). Few or no trees. Land cover mostly paved. Stone, brick, tile, and concrete construction materials. | | | | | | |
| | 4. Open high-rise | | | | | | |
| | Open arrangement of tall buildings to tens of stories. Abundance of pervious land cover (low plants, scattered trees). Concrete, steel, stone, and glass construction materials. | | | | | | |
| | 5. Open midrise | | | | | | |
| | Open arrangement of midrise buildings (3-9 stories). Abundance of pervious land cover (low plants, scattered trees). Concrete, steel, stone, and glass construction materials. | | | | | | |
| | 6. Open low-rise | | | | | | |
| | Open arrangement of low-rise buildings (1-3 stories). Abundance of pervious land cover (low plants, scattered trees). Concrete, steel, stone, and glass construction materials. | | | | | | |
| a think and all a | 7. Lightweight low-rise | | | | | | |
| AND THE REAL | Dense mix of single-story buildings. Few or no trees. Land cover mostly hard-packed. Lightweight construction materials (e.g., wood, thatch, corrugated metal). | | | | | | |

| | 8. Large low-rise | | | | | |
|------|---|--|--|--|--|--|
| 1-1- | Open arrangement of large low-rise buildings (1-3 stories). Few or no trees. Land cover mostly paved. Steel, concrete, metal, and stone construction materials. | | | | | |
| | 9. Sparsely built | | | | | |
| | Sparse arrangement of small or medium-sized buildings in a natural setting. Abundance of pervious land cover (low plants, scattered trees). | | | | | |

Figure S31: Description of 9 LCZs considered in the study. Illustrations are from Stewart, 2012.

• Summary of effectiveness scores from survey

Using the same survey described in Supplementary Information 1, experts were also polled regarding the effectiveness of the mitigation measures in the nine LCZs. A statistical summary of responses is presented in Table S31.

| LCZ | GW | | GR | | RR | | EB | | IC | | UF | | EP | | CS | |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Mean | SD |
| 1 | 0.70 | 0.30 | 0.49 | 0.29 | 0.49 | 0.29 | 0.79 | 0.20 | 0.93 | 0.18 | 0.63 | 0.31 | 0.63 | 0.28 | 0.55 | 0.34 |
| 2 | 0.77 | 0.20 | 0.68 | 0.23 | 0.67 | 0.24 | 0.81 | 0.20 | 0.88 | 0.19 | 0.69 | 0.25 | 0.69 | 0.24 | 0.63 | 0.28 |
| 3 | 0.68 | 0.20 | 0.82 | 0.17 | 0.77 | 0.20 | 0.79 | 0.20 | 0.85 | 0.19 | 0.69 | 0.24 | 0.70 | 0.23 | 0.65 | 0.24 |
| 4 | 0.68 | 0.23 | 0.42 | 0.24 | 0.47 | 0.27 | 0.81 | 0.20 | 0.84 | 0.20 | 0.70 | 0.23 | 0.63 | 0.23 | 0.62 | 0.25 |
| 5 | 0.70 | 0.21 | 0.63 | 0.23 | 0.62 | 0.22 | 0.82 | 0.19 | 0.79 | 0.21 | 0.76 | 0.24 | 0.66 | 0.22 | 0.68 | 0.21 |
| 6 | 0.57 | 0.24 | 0.75 | 0.22 | 0.68 | 0.20 | 0.75 | 0.20 | 0.76 | 0.21 | 0.72 | 0.26 | 0.66 | 0.23 | 0.68 | 0.20 |
| 7 | 0.55 | 0.29 | 0.75 | 0.24 | 0.76 | 0.22 | 0.73 | 0.22 | 0.75 | 0.24 | 0.69 | 0.23 | 0.64 | 0.21 | 0.66 | 0.26 |
| 8 | 0.48 | 0.27 | 0.77 | 0.25 | 0.76 | 0.26 | 0.67 | 0.20 | 0.74 | 0.24 | 0.70 | 0.25 | 0.65 | 0.24 | 0.65 | 0.25 |
| 9 | 0.50 | 0.28 | 0.54 | 0.29 | 0.55 | 0.29 | 0.66 | 0.26 | 0.66 | 0.28 | 0.64 | 0.27 | 0.56 | 0.26 | 0.70 | 0.25 |

Table S31: Summary of effectiveness scores

Bibliography

Stewart, I. D. (2012). LOCAL CLIMATE ZONES FOR URBAN TEMPERATURE STUDIES. 22.