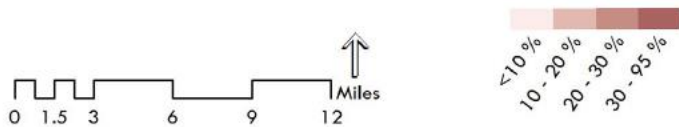
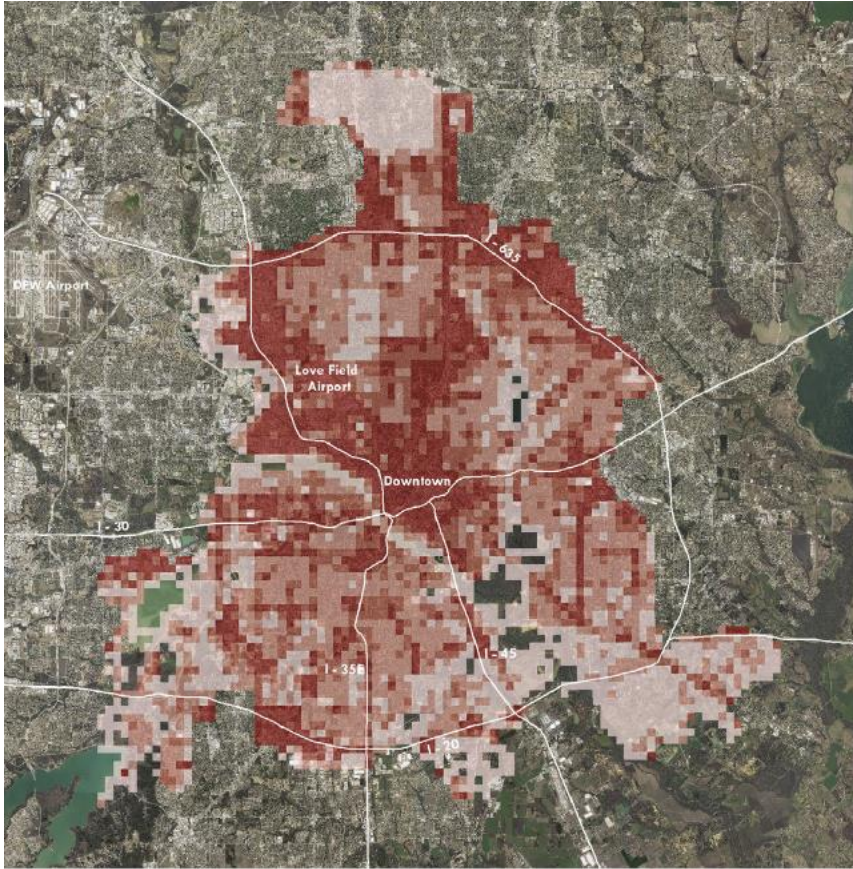




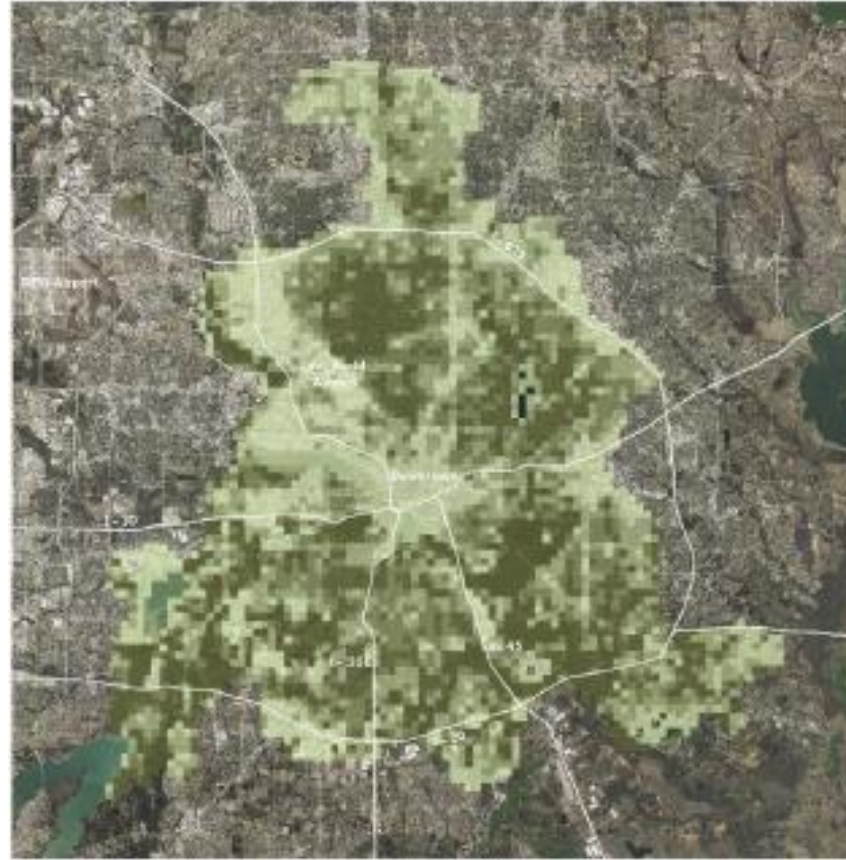
SOUTHWESTERN MEDICAL DISTRICT STREETScape MASTER PLAN
A PRESCRIPTION FOR THE CITY OF DALLAS

URBAN HEAT IN DALLAS

Surface Paving Area Across Dallas
(% of ½ km² grid cell)



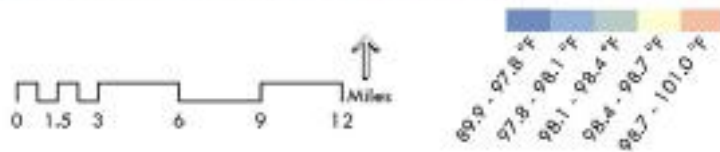
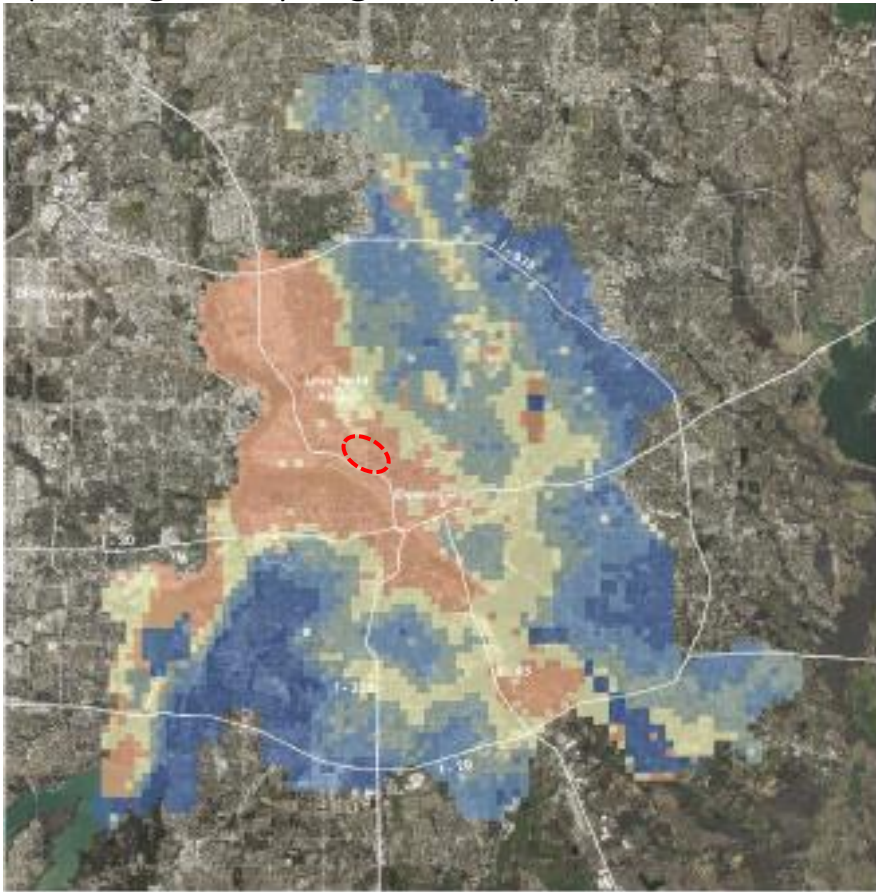
Tree Canopy Cover Across Dallas
(% of ½ km² grid cell)



US Forest Service
recommends an average
tree canopy cover of 40%

Dallas has 28%
SWMD has 7%

Warm Season [May-Sept.]
(Average Daily High Temp)



URBAN TREES = A COOLER FUTURE FOR DALLAS

PRESENT-DAY

#3
DALLAS

Dallas ranks 3rd among cities with growing urban heat islands.

+100°F

Some areas of Dallas average hotter than 100+ °F per day for 153 consecutive days.

+12°F

Dallas urban areas can be as much as +12°F hotter than surrounding rural areas.

A GREEN TOMORROW

3x

Tree planting is 3x more effective than other cooling strategies.



5%
INCREASE

Planting 280,000 new trees now, results in a 5% tree canopy cover increase.

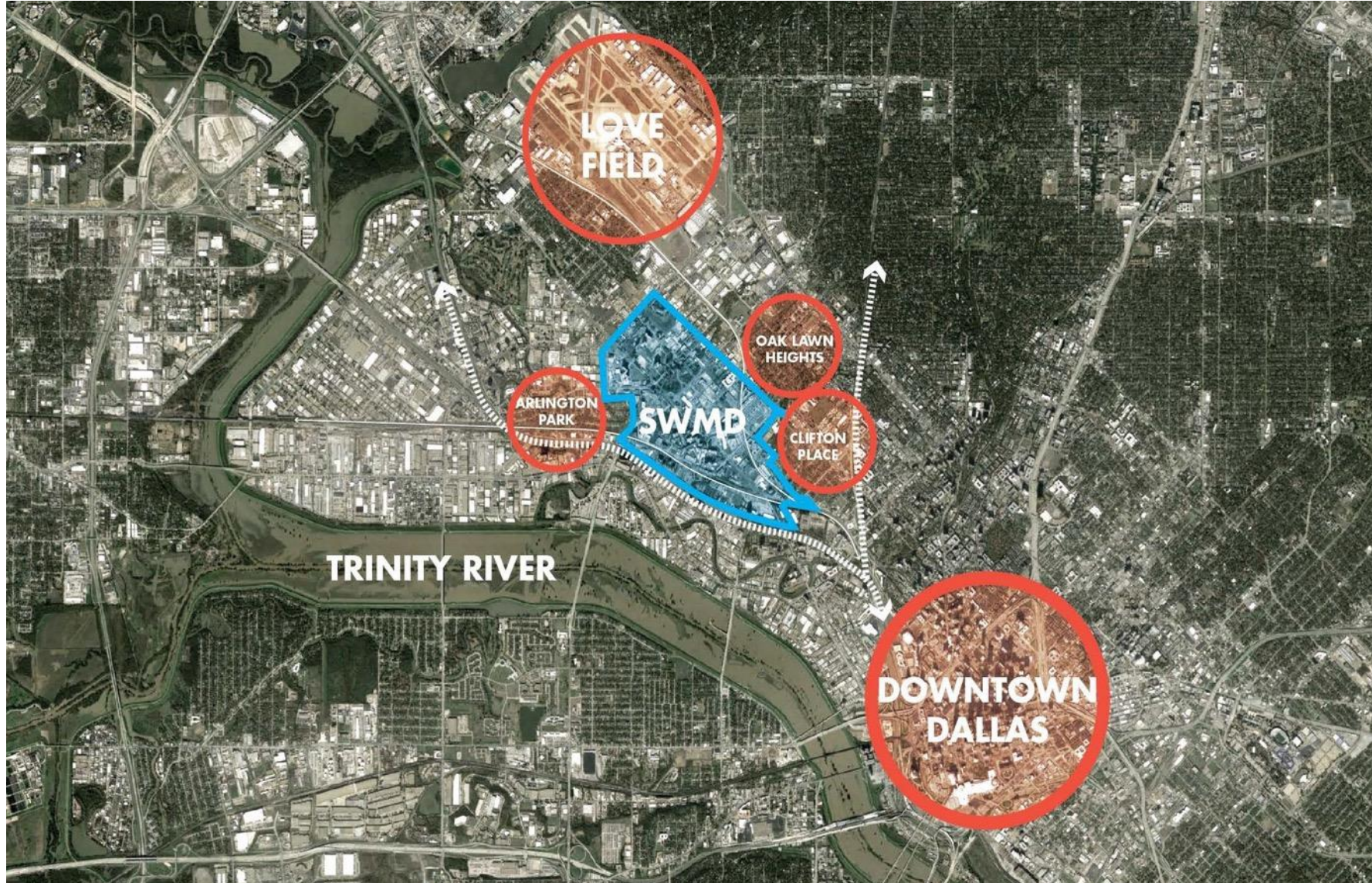


-10-15°F

The result is **DRAMATIC** urban cooling, by as much as 10-15°F in some areas of Dallas.

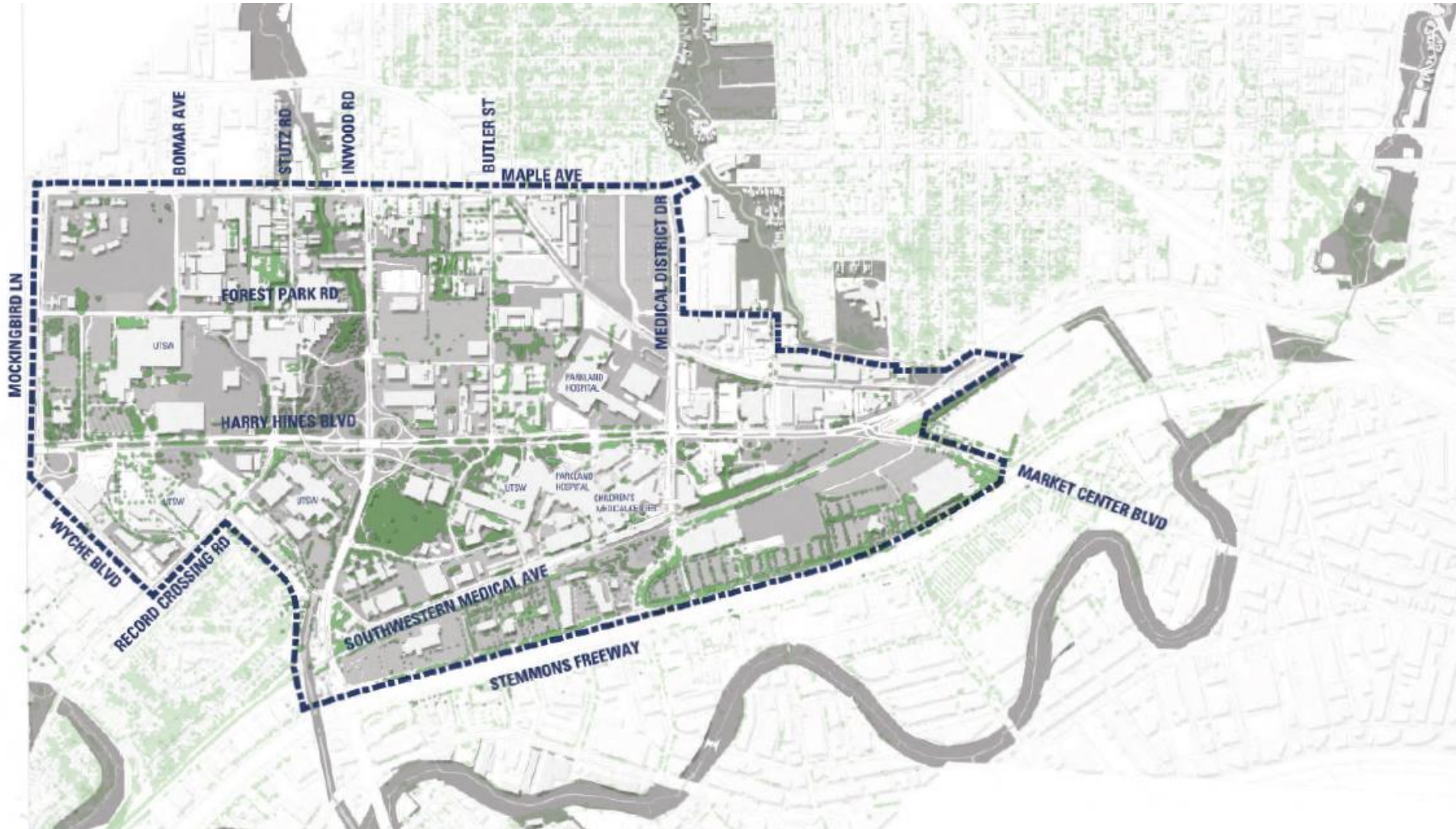


SOUTHWESTERN MEDICAL DISTRICT AS AN URBAN HEAT CASE STUDY

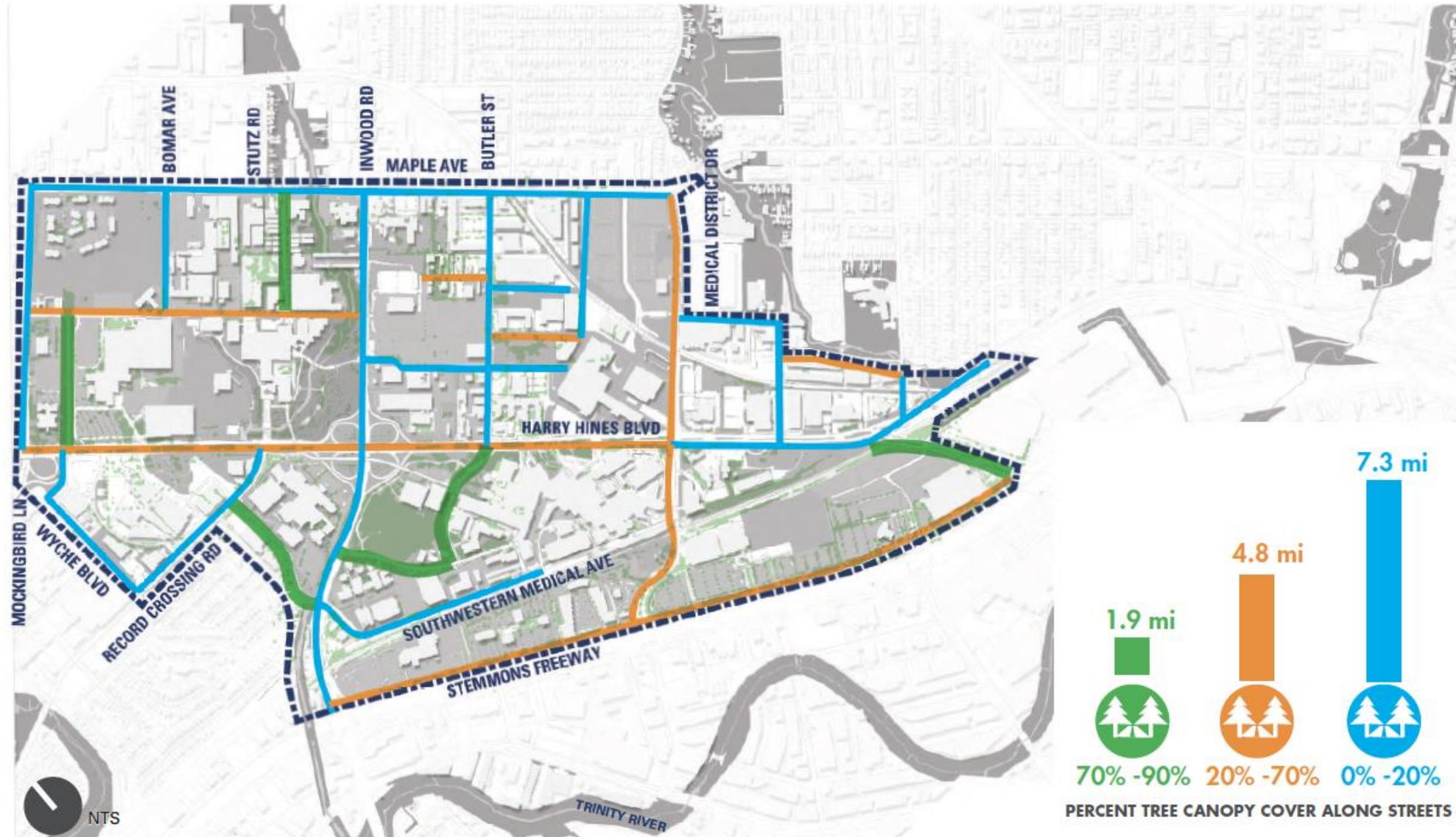


- 37,000 Employees
- 2.8 million annual visits to clinics & ERs
- 3,600 students/residents/fellows
- 16+ miles of transportation corridors
- 35,000-45,000 vehicles per day projected on Harry Hines

EXISTING CONDITIONS: TREE CANOPY



EXISTING CONDITIONS: TREE CANOPY ALONG STREETS



25%



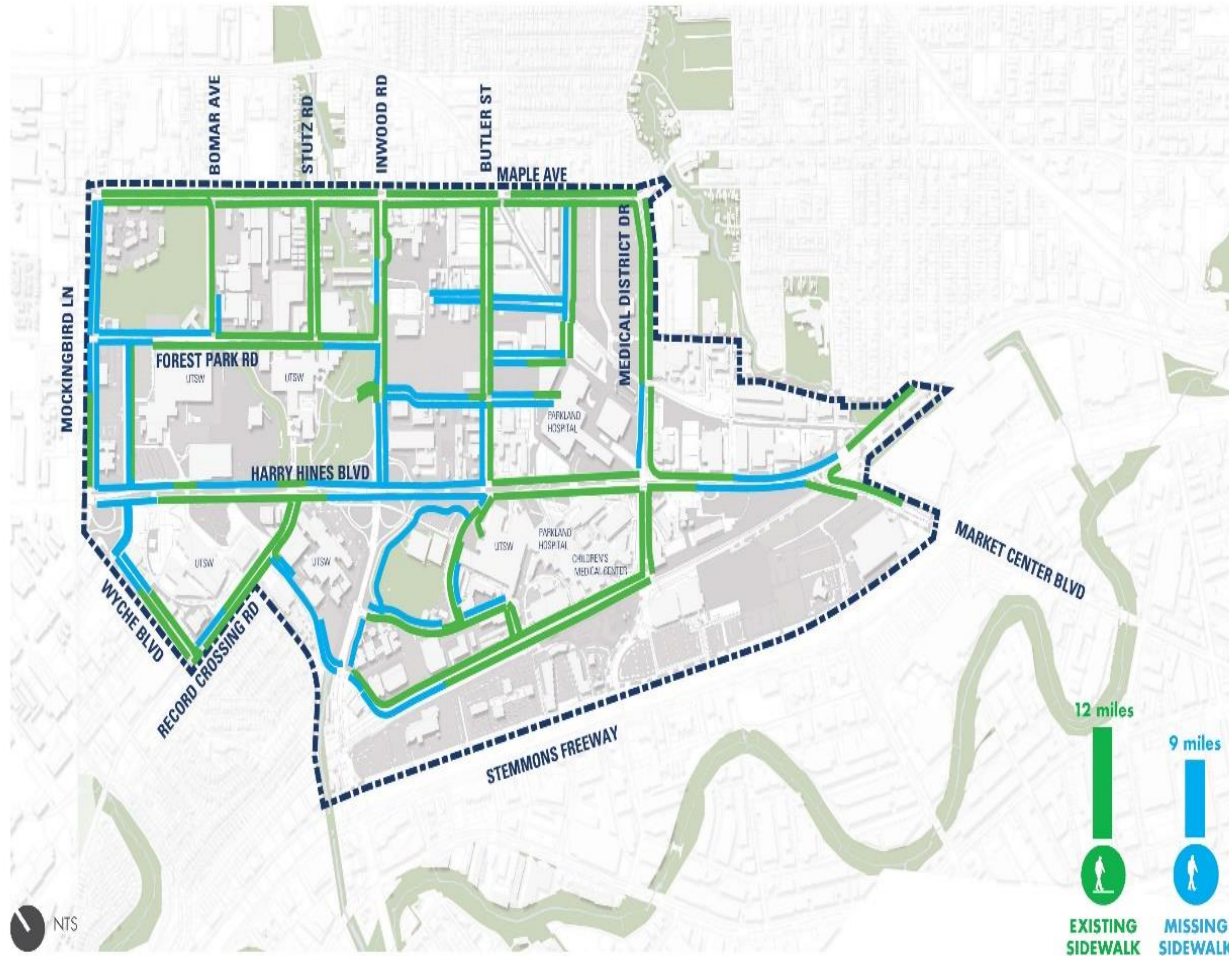
20%

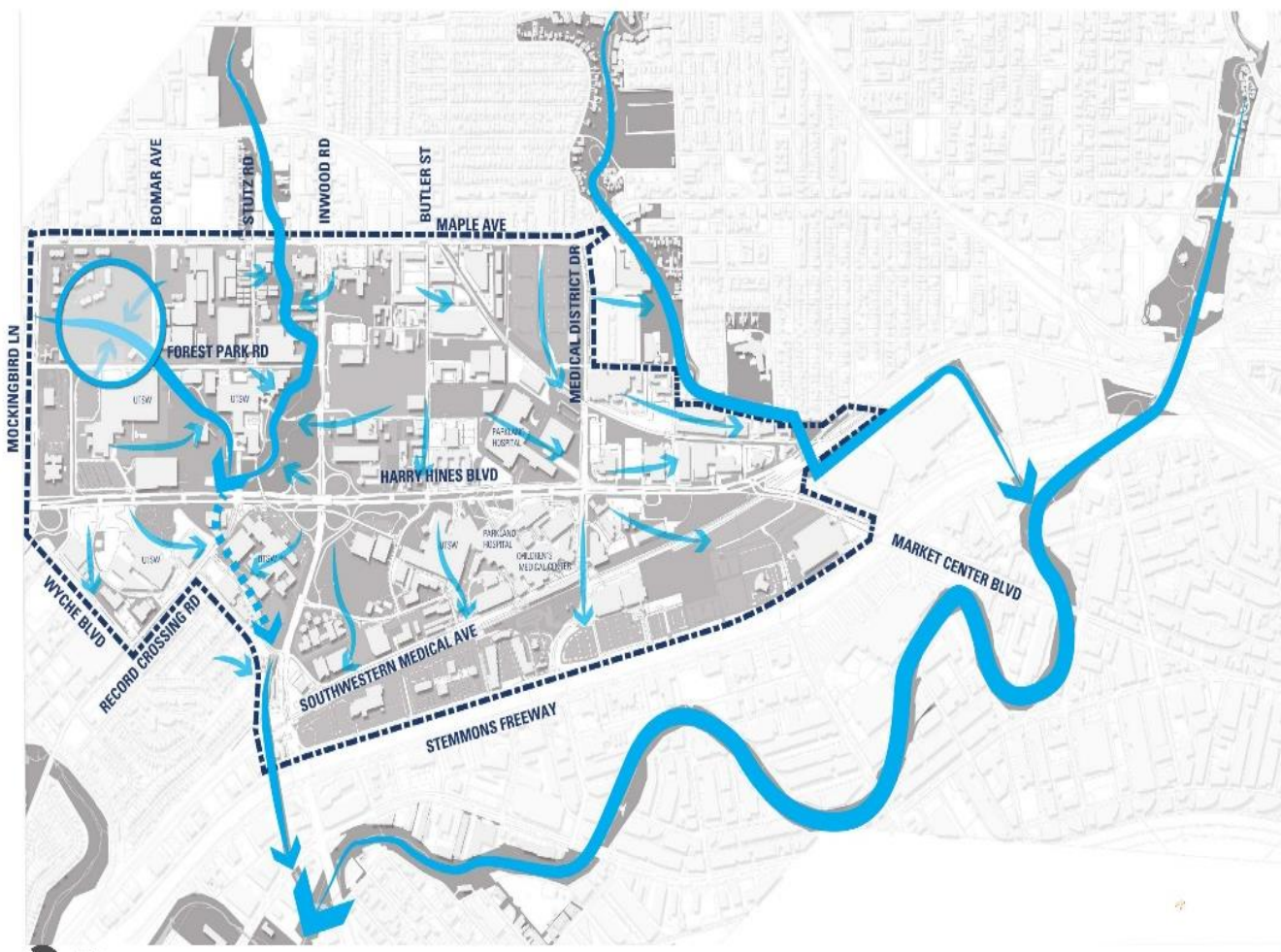


55%

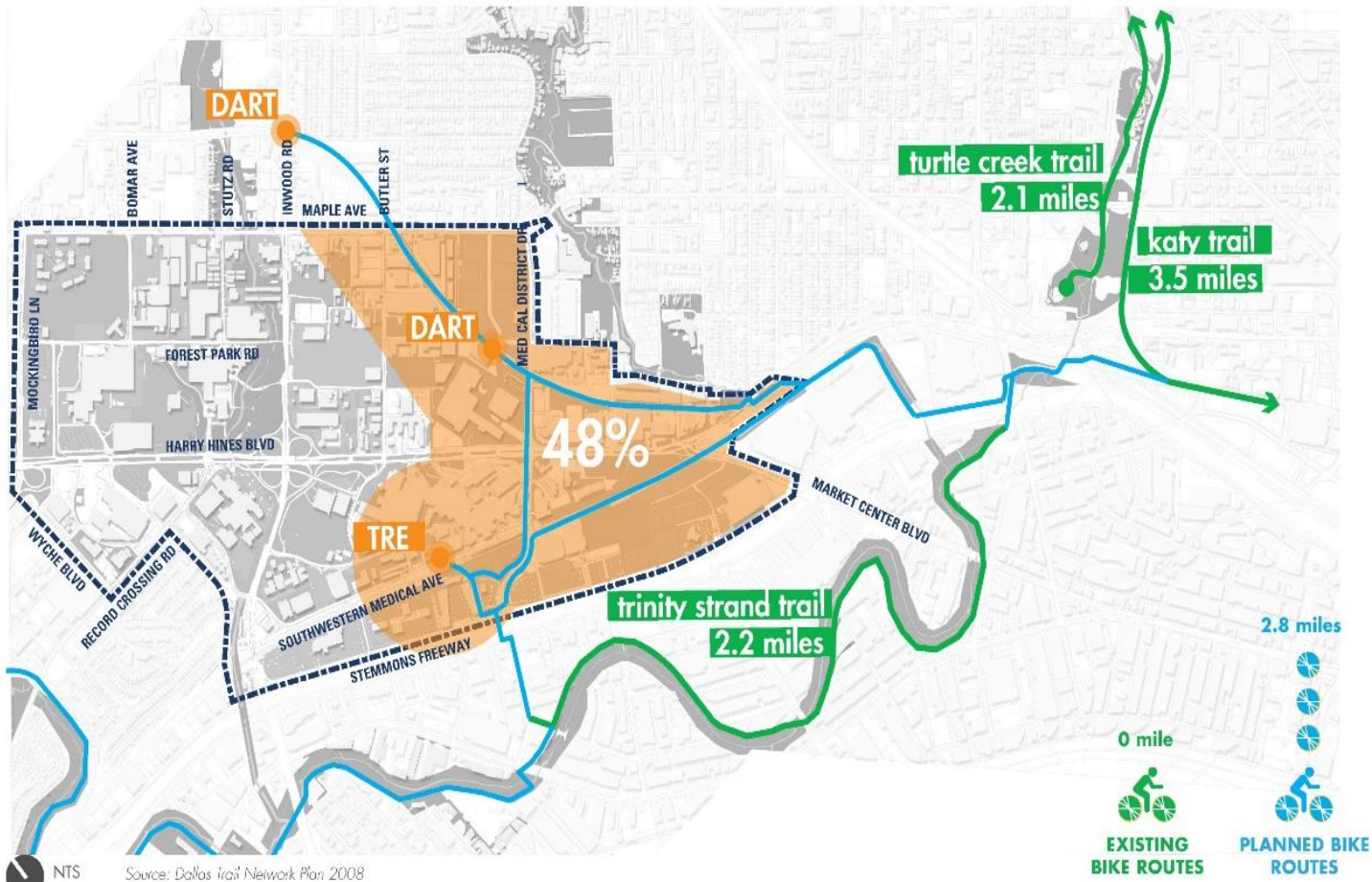


ANALYSIS MISSING SIDEWALK





EXISTING CONDITIONS: ACCOMMODATING ALTERNATE TRANSPORTATION



NTS Source: Dallas Trail Network Plan 2008



- **Hardscape Conditions**
 - Original roads built for industrial users - few street trees
 - Several industrial buildings scraped to foundation
 - Acres of surface parking
- **Drainage Challenges**
- **Changing Development Patterns**
 - Recently opened DART light-rail stations
 - Former industrial sites giving way to new multi-family communities
 - Proximity to major employment centers, including the UTSW Clements University Hospital, New Parkland Hospital, and Love Field Airport
- **Limited Public Right-of-Way Along Roads**

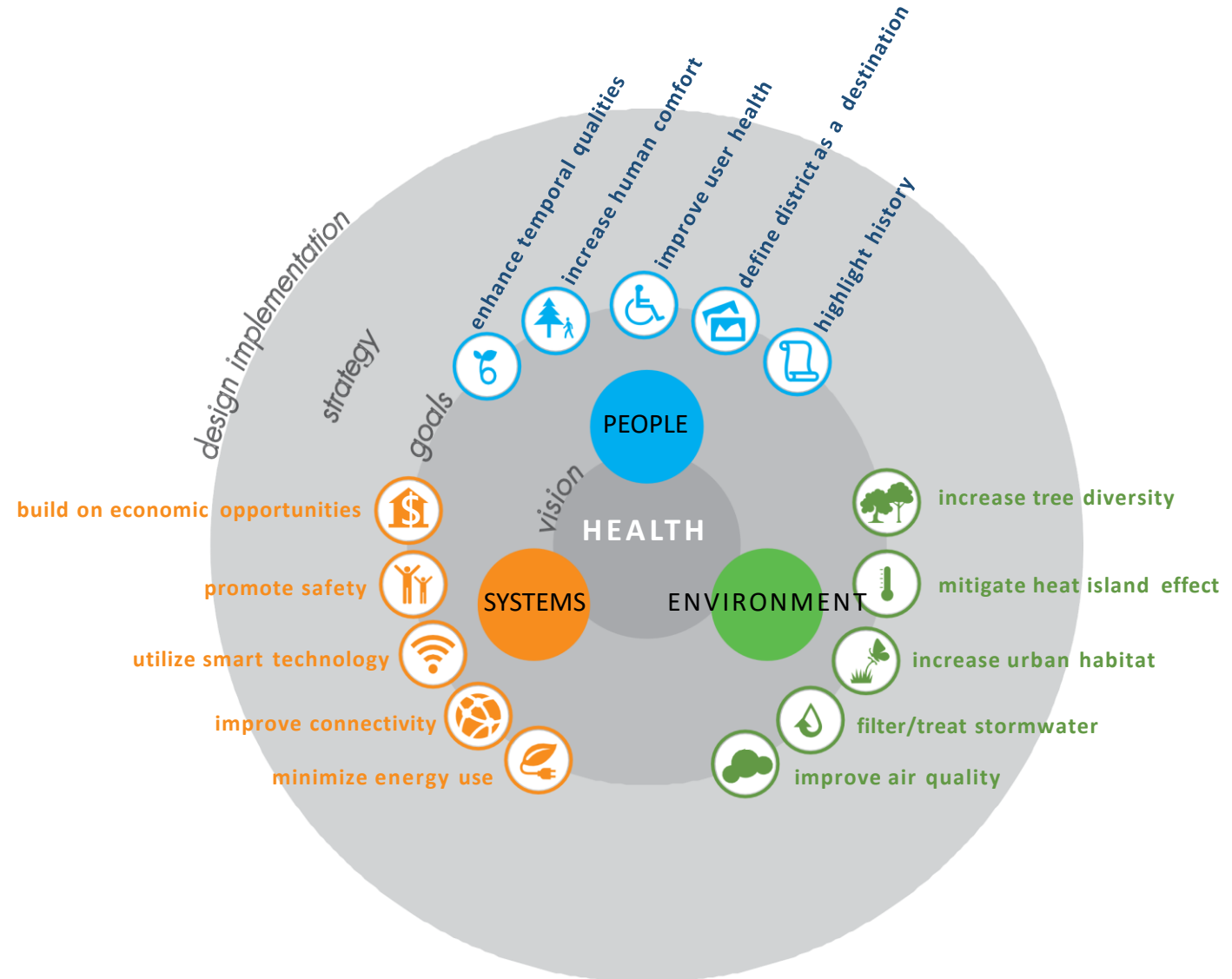


- Pedestrian Safety
 - Hit and miss street and pedestrian lighting
 - Six-lane, 40 mph thoroughfares define medical district
- Moving Around
 - Sidewalk-crosswalk network is poorly developed
 - Street grid defined by super blocks
 - Roadways are not cyclists friendly
- Health and Aesthetics of a Medical District
 - No exercise paths or exercise stations
 - Limited views of greenery from patients' rooms
 - Broad open space locations are restricted
 - Development patterns discourage walking
 - Overhead utility lines dominate views
- Center of Medical District is a 1960s Cloverleaf

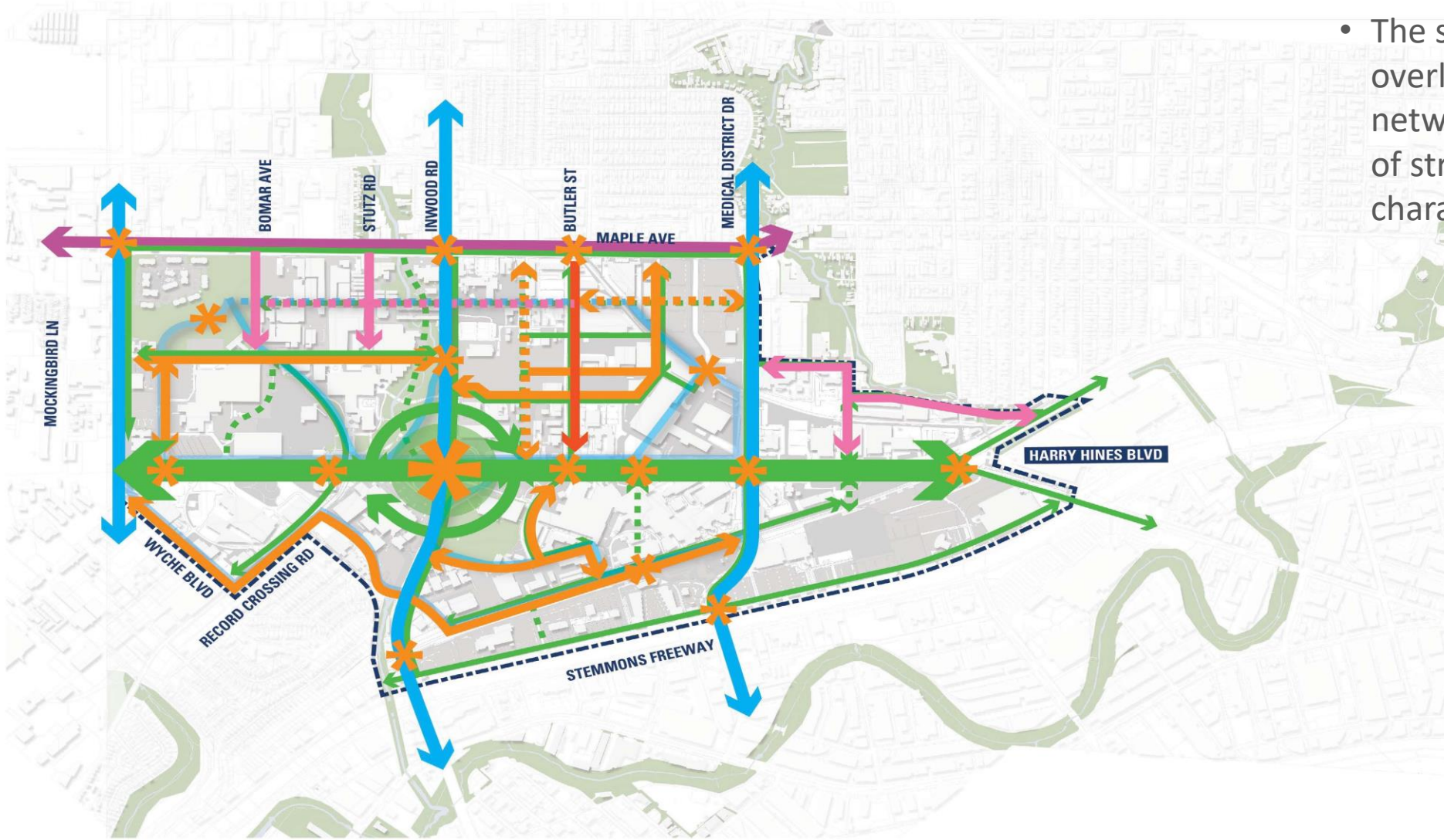


Benefits of the Plan:

- Transforms and brings continuity and connectivity to the area
- Improves the safety and well-being of visitors, patients, health care workers and neighborhoods and incentivizes future recruits to the medical staff
- Mitigation of urban heat
- Effective engine of economic growth in the area
- Creates a “sense of place” that no other medical district in the country experiences – national/world model
- Creates a healthy environment, establishes healthy ecosystems, encourages healthy lifestyles
- Advances the City of Dallas Complete Streets Manual



DESIGN FRAMEWORK DIAGRAM



DESIGN FRAMEWORK

- The six identified strategies overlap across the street network, creating a variety of streets with unique characteristics

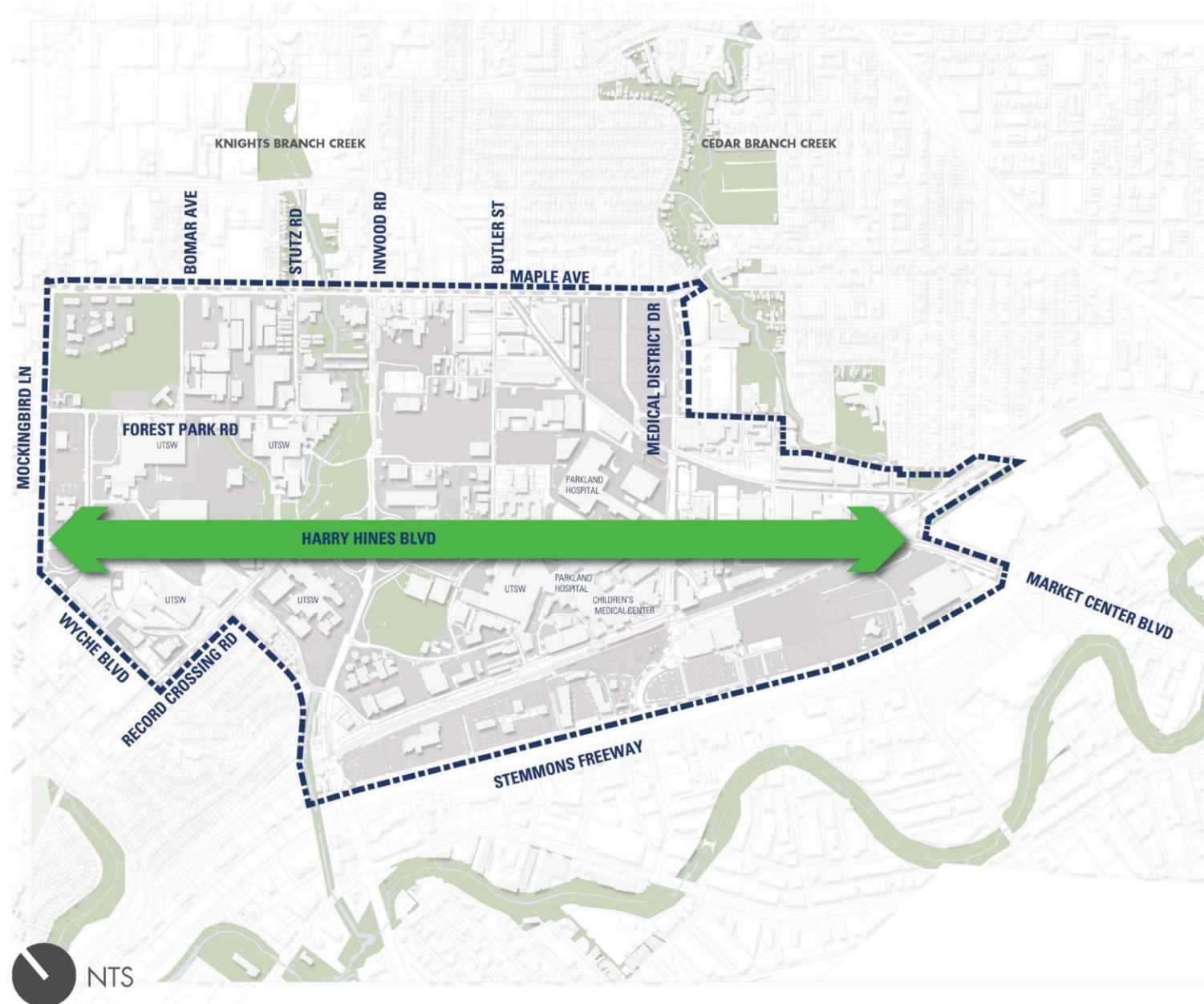
LEGEND

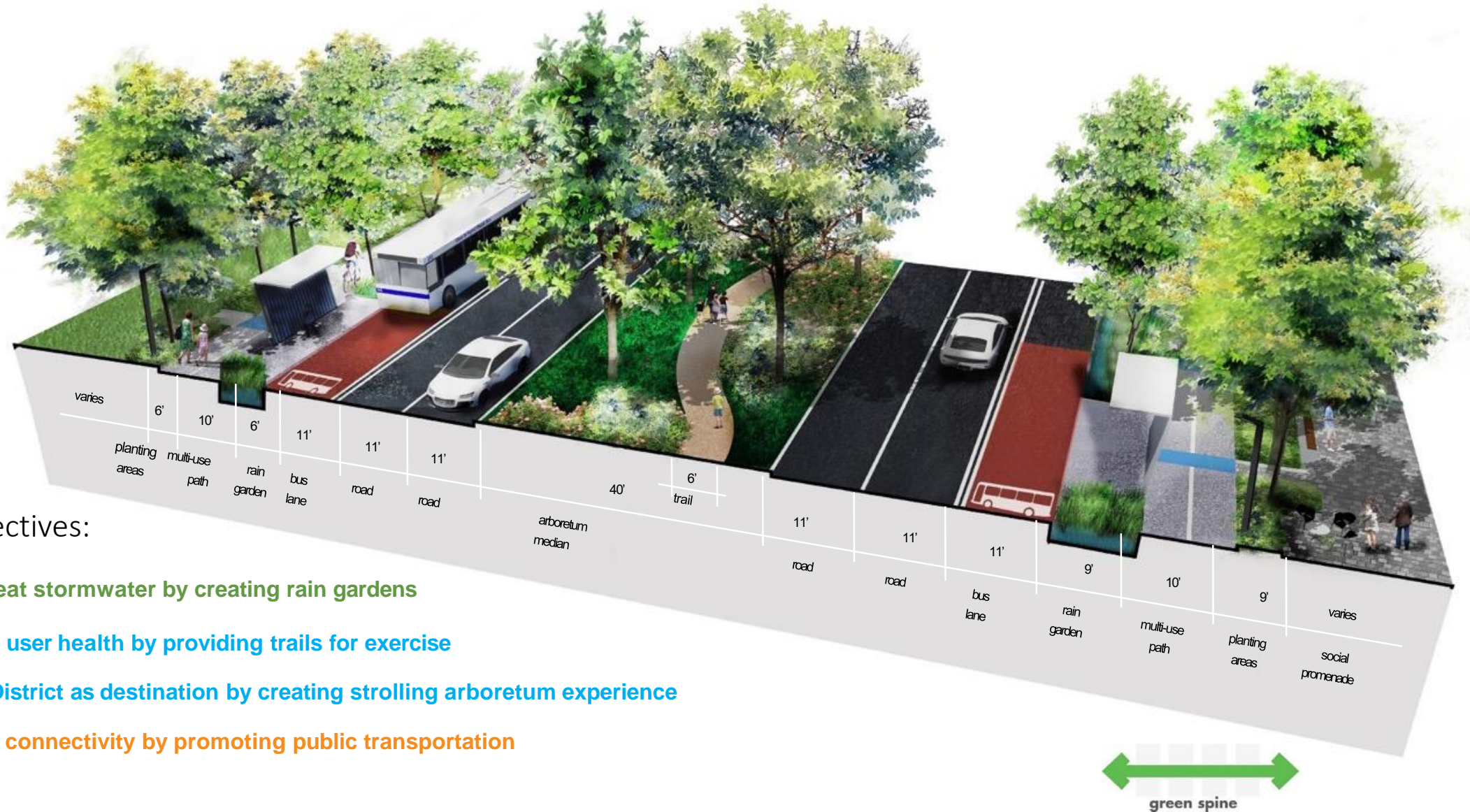
- green quilt
- campus street
- passive neighborhood street
- active neighborhood street
- social street
- identity street
- loops
- green heart
- green spine
- destination
- proposed street

Figure 26: Framework plan

GREEN SPINE

- Link all primary destinations together through green corridor
- Preserve and enhance existing tree canopy creating a healthy boulevard
- Develop a true complete green street network of mobility
- Slow traffic within the District
- Enhance green space views from hospital rooms





Project Objectives:



Filter/treat stormwater by creating rain gardens



Improve user health by providing trails for exercise



Define District as destination by creating strolling arboretum experience

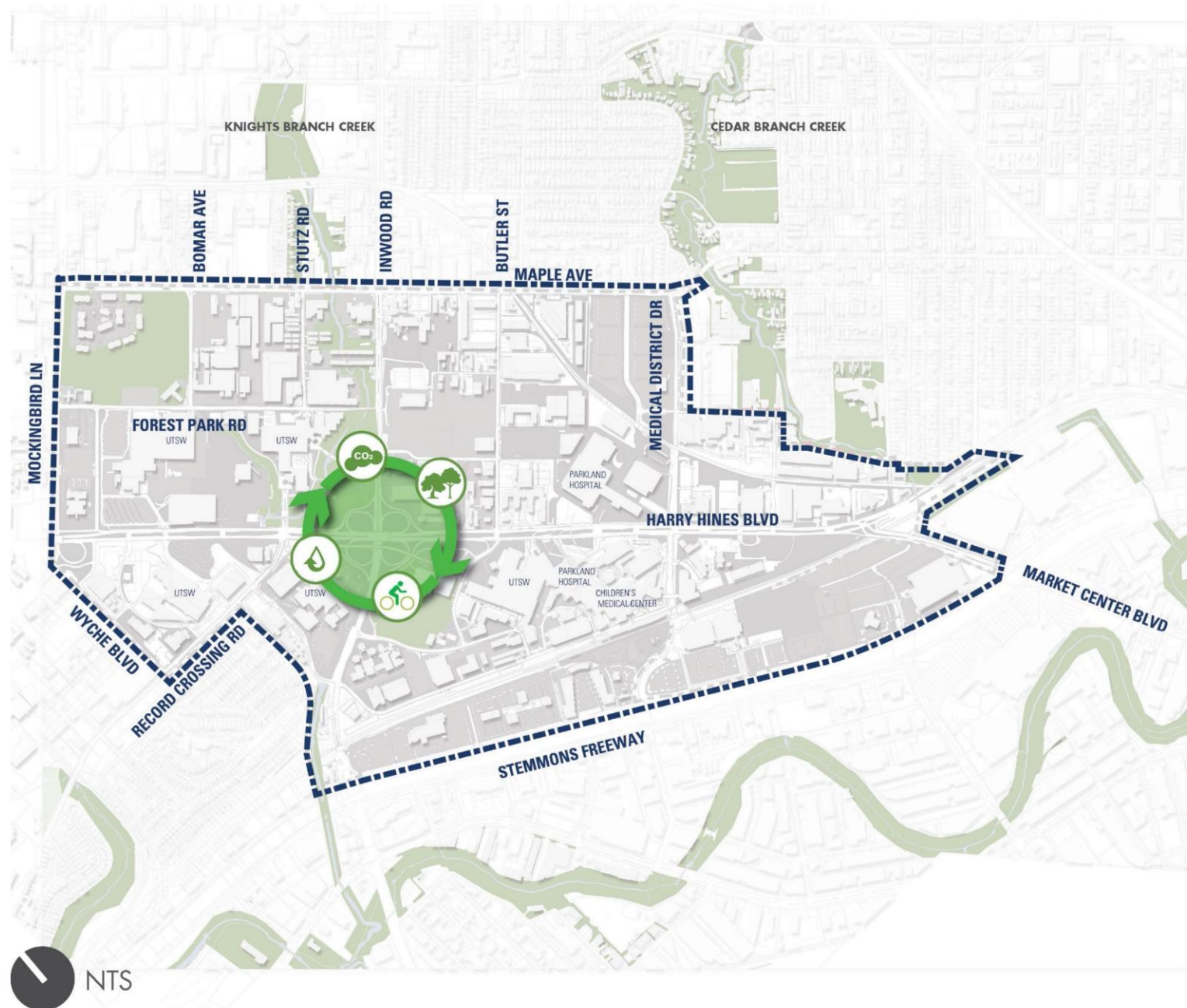


Improve connectivity by promoting public transportation



GREEN HEART

- Anchor the District
- Transform an undesirable space into the nucleus
- Form the ecological center of the District
- Unite four quadrants of the District
- Create an iconic destination





APRIL 2019

TRAFFIC VOLUMES

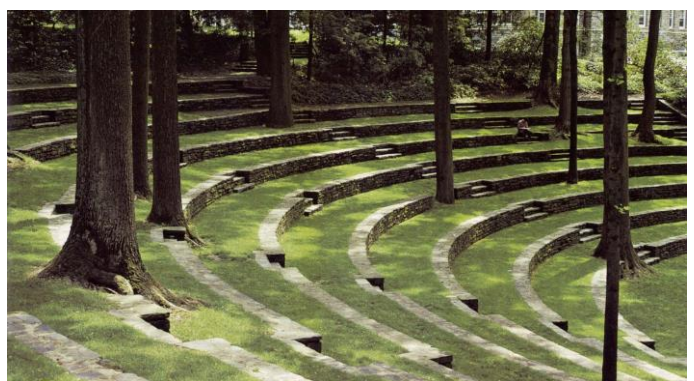
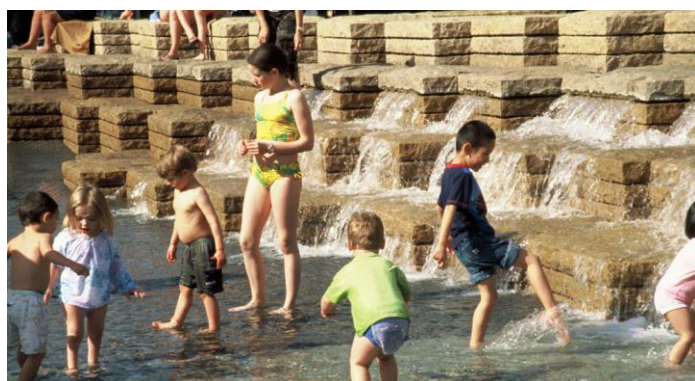
1. HARRY HINES BLVD

- 33,000 Average Daily Trips
- 35,000 - 45,000 (2045 ADT)

2. INWOOD ROAD

- 49,000 Average Daily Trips
- 52,000 - 69,000 (2045 ADT)

3. Majority of traffic travels through the intersection with only limited use of the interchange



POSSIBLE PARK PROGRAM
TEXAS TREES FOUNDATION | GREEN HEART VISION PLAN

When fully realized the SWMD Urban Streetscape Master Plan will transform the district with:

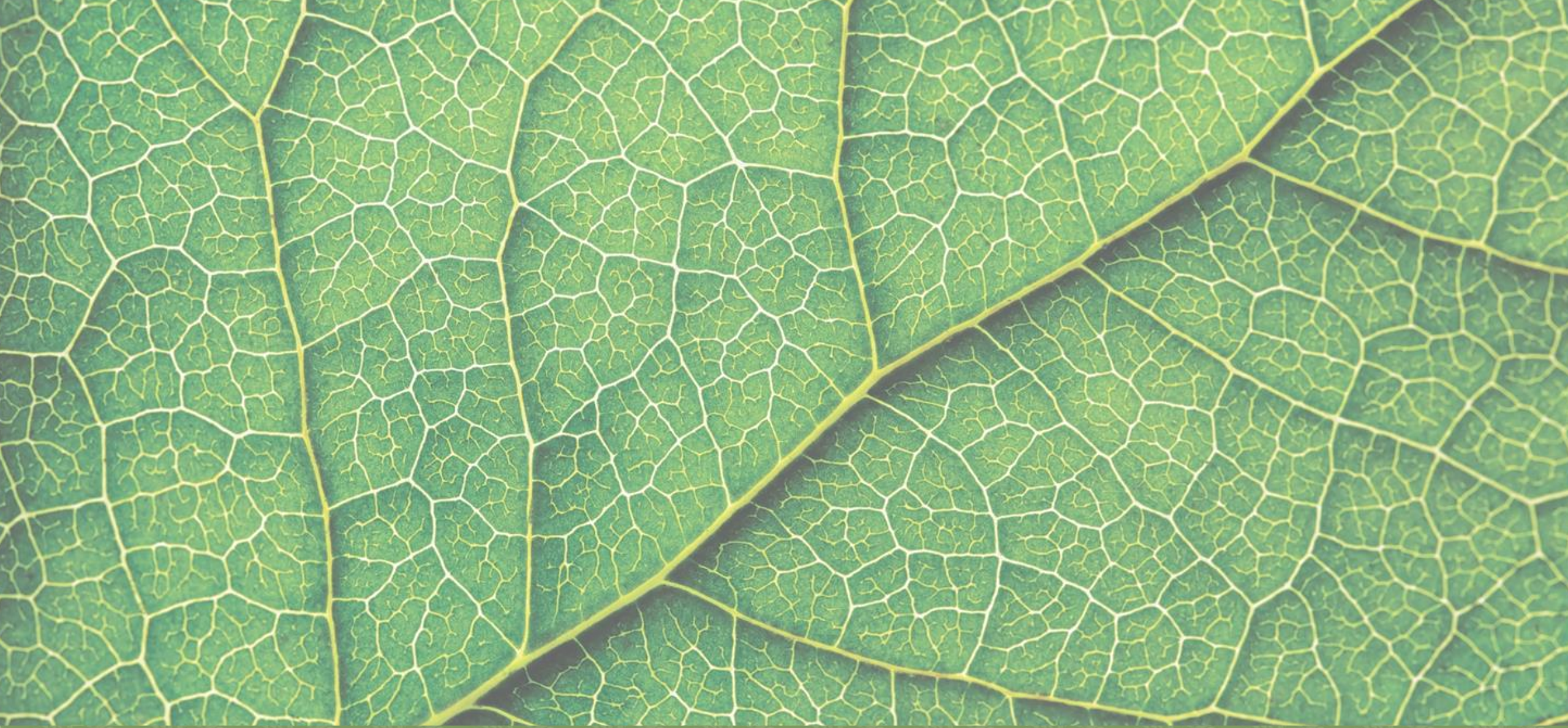
- **23 acres** of streets reclaimed for pedestrian use, including wider sidewalks, shared-use paths, park space and sidewalk cafes
- **6.5K** trees planted within the public realm
- **21 miles** of sidewalk added along streets, in addition to the existing **12 miles** of sidewalk
- **73%** of streets with a 6' or greater pedestrian buffer, creating a safer and more comfortable walking environment
- **80% (16.8 miles)** of streets that support integrated bicycle infrastructure
- **1.2 million** cubic feet of rain captured and treated by rain gardens.

Hindsight is 2020:

- Lack of street grid requirements has resulted in a disconnected district that increases the burden on the few arterials that exist in the district. This is difficult to reverse.
- We need better alignment between land use regulations and vision for street improvements in the District.
 - Require consistent streetscape development as development occurs
 - Ensure development that is compatible with the vision

Looking forward:

- U.S. Representative Eddie Bernice Johnson has tasked us with identifying and inventorying additional policy challenges that inhibit ideal project design



TEXAS TREES
FOUNDATION

SOUTHWESTERN MEDICAL DISTRICT STREETScape MASTER PLAN
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