# E ONE PLANET. ONE PEOPLE. ONE CAMPUS. PROPOSED MASTER PLAN

### **INVENTORY AND ANALYSIS**



THE WATER FLOWING THROUGH ARLINGTON, TEXAS WILL SUPPORT

# MORE THAN 3 MILLION TEXANS

ON THE JOURNEY TO THE GULF OF MEXICO.

We seek to **CLEAN** our water and air to create a thriving ecosystem through the addition of bioswales and native plants. We want to CONNECT a campus divided by a highway. We aspire to **PROMOTE** an image of sustainability and

diversity for our campus.

#### SITE PRE-POST CONDITIONS

RICHLAND-CHAMBERS LAKE ARLINGTON AND

**ACRES IMPACTED: 56** 

**BEFORE:** 

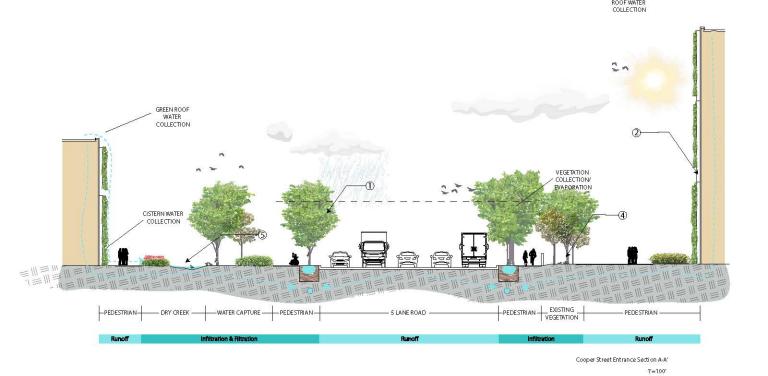
Impervious Surfaces: 41.53 acres Permeable Surfaces: 14.47 acres Surface Water runoff: 70.67 cu.ft/sec

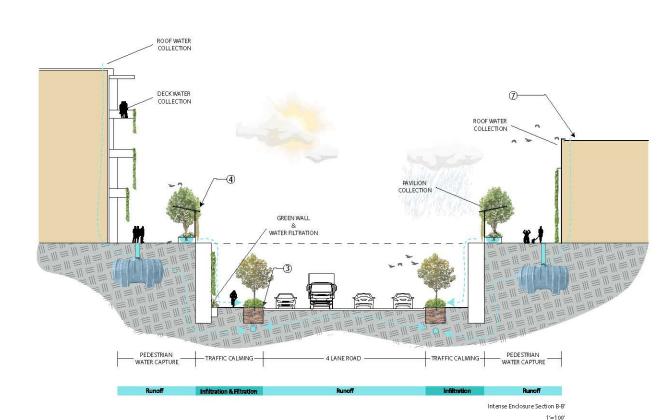
RESERVOIRS THAT SERVE NO

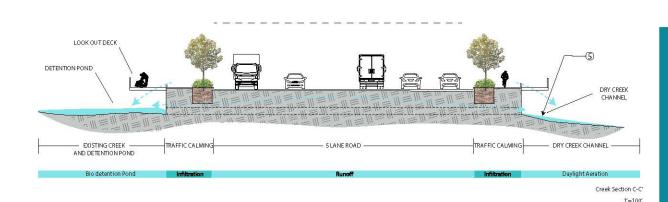
**AFTER IMPLEMENTATION:** 

Impervious Surfaces: 36.46 acres Permeable Surfaces: 19.54 acres Surface Water runoff: 62.70 cu.ft/sec

## LID INFRASTRUCTURE ADDED







#### MASTER PLAN LEGEND

- NEW ENTRANCE OF SUSTAINABILITY WITH VISIBLE CISTERNS AND NATIVE PLANTINGS
- 2 SOLAR PANELS ON EXISTING ROOFS
- GREEN ROOFS
- 1 LARGE BIOSWALES AND DETENTION PONDS
- VEGETATED BUFFERS AND BIOSWALES ALONG ROAD THROUGH CAMPUS
- UPPER DECK ADDED TO CONNECT CAMPUS
- DETENTION POND CREATED ALONG CREEK
- (8) CREEK OVERLOOK AT SOUTH ENTRANCE
- 9 ENTRANCE OF SUSTAINABILITY WITH VERTICAL GARDENS

#### Sustainable Urban Water Cycle via the Proposed Cooper Street Corridor



- 1 Vegetation used for atmospheric regulation along with erosion control and sediment retention
- 2 Building facade used for heat reflection and cooling along with air purification
- 3 Curb cuts used for capture of runoff on roads and sidewalk to direct polluted water to bio swale for cleaning
- 4 Aeration of existing vegetative beds to encourage the seepage and irrigation of the sidewalk runoff
- 5 Dry creek and rock edging used for the filtration and slowing of water as it leads to the creek and watershed
- 6 Intervention areas that showcase the reuse of water in fountain features and habitat for wildlife
- J Blue/White/Green roof implementations used for water collection, sun/heat reflection, and vegetative cleaning

+35 NATIVE PLANT SPECIES +222 TREES +27,700 SQFT OF BIOSWALES



Proposed New Buildings for Future Growth

Proposed Green Roofs 43,510 Sq.Ft.

-Proposed White Roofs 266,716 Sq.Ft. Proposed Blue Roofs

193,310 Sq.Ft. Recycled water in Proposed Upper Deck Fountain

Water filtration through Bioswales

Trading House Creek

**ESTIMATED REDUCTION IN SUSPENDED** SOLIDS

**ESTIMATED REDUCTION IN METALS** 

70% ESTIMATED REIN BACTERIA **ESTIMATED REDUCTION** 







