(RE)SEARCHING FOR A SPOT

A Parking Lot Laboratory for Desert Stormwater Mitigation, Research, and Education

D7
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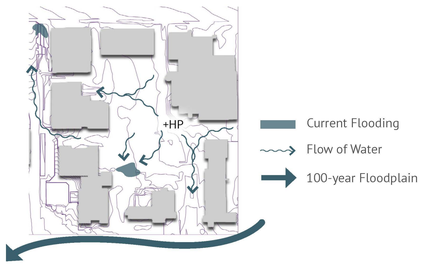
PROBLEM ADDRESSED

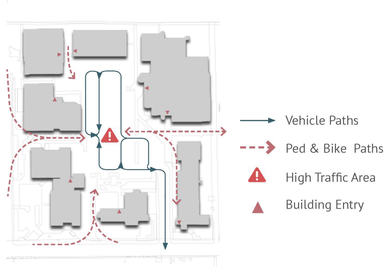
The single function 2.48 acre parking lot, south of the College of Architecture, Planning, and Landscape Architecture, is typical of 269 other surface parking lots on the University of Arizona's campus. It provides minimal shade and no stormwater management. This site's central location is highly used, and is a critical connection on campus serving over 6,000 students. This parking lot will serve as a demonstration site for arid environment research, education and outreach, providing a platform for studying and understanding the role of plants and microbes on remediation of street surface runoff, biogeochemical cycling and permeable pavement performance. (Re)Searching For a Spot will direct future green infrastructure retrofits on campus, and utilize its high visibility on campus to influence sustainable development of the surrounding desert.

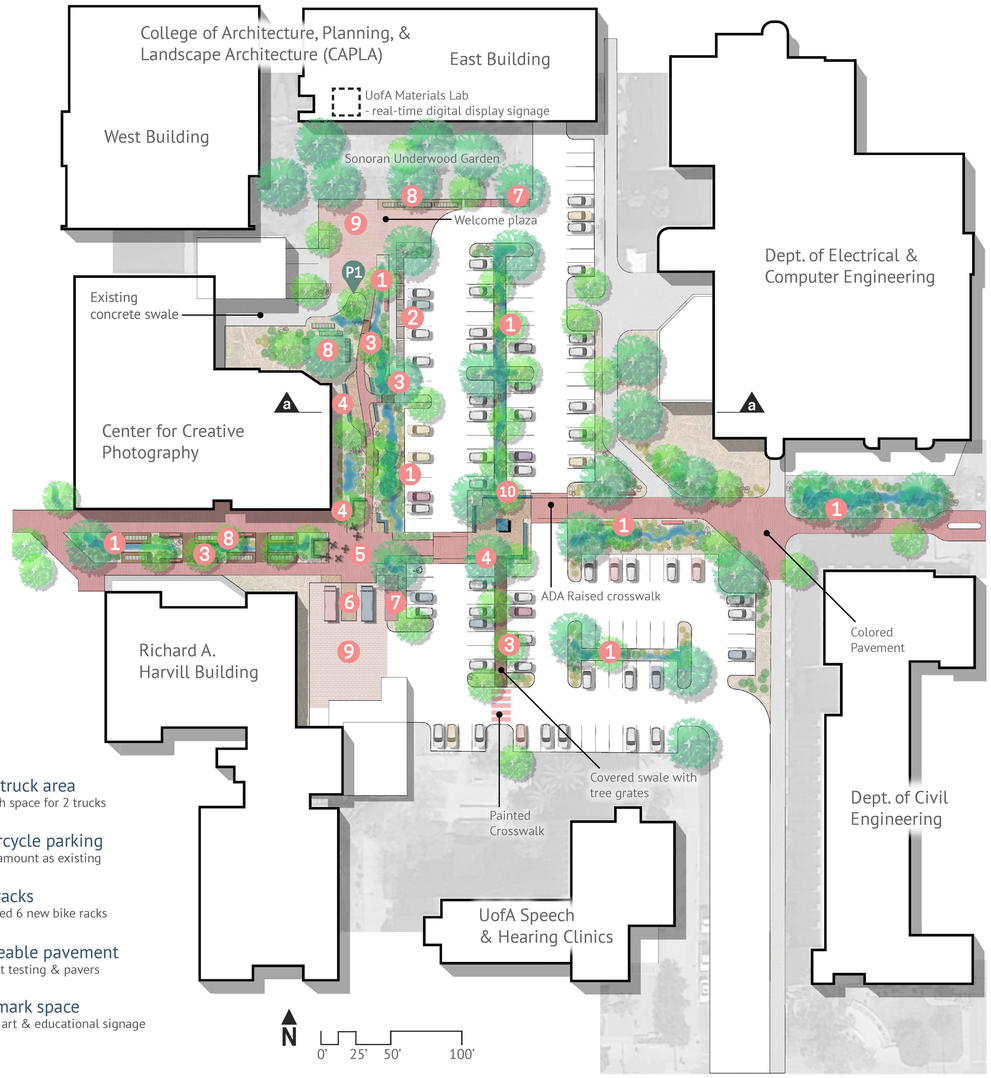
1 OF 269 SURFACE PARKING AREAS ON CAMPUS

148° F AVERAGE ASPHALT SURFACE TEMPERATURE

6,000+ STUDENTS







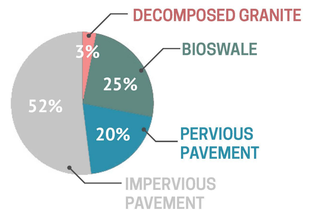
PERFORMANCE - ENVIRONMENTAL RESILIENCE

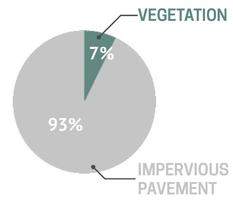
PROPOSED — EXISTING

138 PARKING STALLS — **14%** LESS THAN EXISTING

20% CANOPY COVER — **6%** EXISTING CANOPY COVER

TIME OF CONCENTRATION **2hr 18m** — **22m** EXISTING TIME OF CONCENTRATION





240 LF OF PROTECTED PATHWAYS

3,065ft³ INFILTRATION CAPACITY

26 NEW SPECIES INTRODUCED

CAPTURE 100% OF A **2 YEAR** STORM EVENT

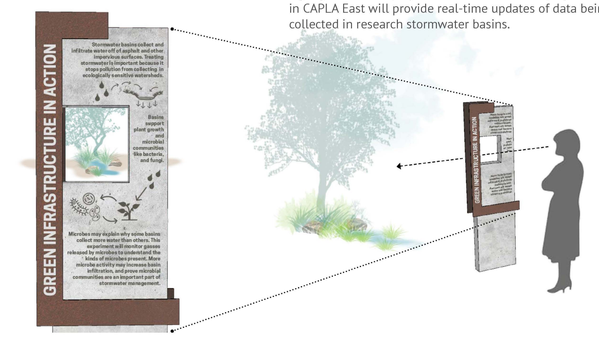
PROJECT GOALS

1. Treat 100% of a 25-year storm event
2. Enhance multi-modal safety and circulation
3. Provide infrastructure for collaborative research and education on campus

1. Vegetated research swale - Cut from existing asphalt
2. Research basin area - 8 separate 5'x8' plots
3. Corten steel bridge - allow access across swales
4. Seating walls - poured on site concrete
5. Eating area - movable tables and chairs
6. Food truck area - enough space for 2 trucks
7. Motorcycle parking - same amount as existing
8. Bike racks - provided 6 new bike racks
9. Permeable pavement - asphalt testing & pavers
10. Landmark space - public art & educational signage

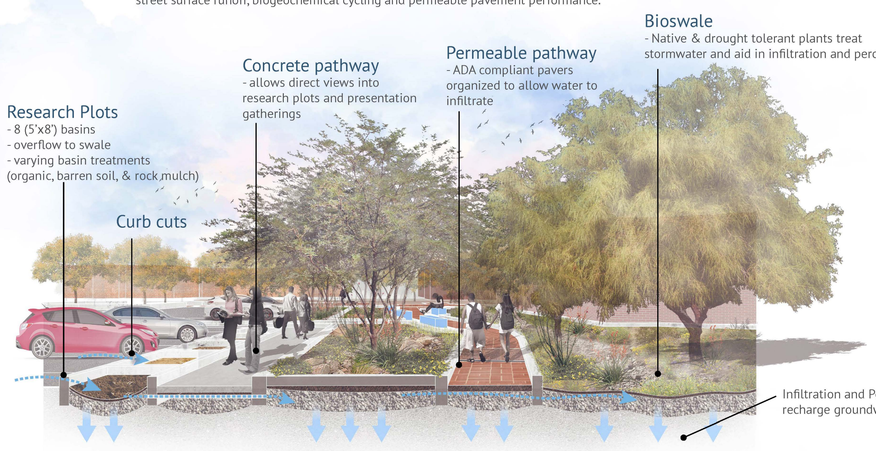
EDUCATIONAL SIGNAGE

Located near research basins, interpretative signage educates students and visitors about research being conducted. Physical signage will be displayed and an electronic display housed in CAPLA East will provide real-time updates of data being collected in research stormwater basins.



PERSPECTIVE 1

Provide a platform for studying the role of plants and microbes on remediation of street surface runoff, biogeochemical cycling and permeable pavement performance.



SECTION A-A

Improved spatial and functional relationships between pedestrian, bike, and vehicle circulation, while addressing surface runoff, research, and educational activities