

MODERN MILLRACE

LA 539 STUDIO FINAL

HUNTER BRITEGAM
KEEGAN ONEAL
KYLE POLLACK

A high capital, low-flow retrofit of the UO Millrace can provide recreation opportunities and thorough storm-water mitigation for both the University and surrounding urban area.

Sustainable Infrastructure
Cultural Amenity
Urban Resilience

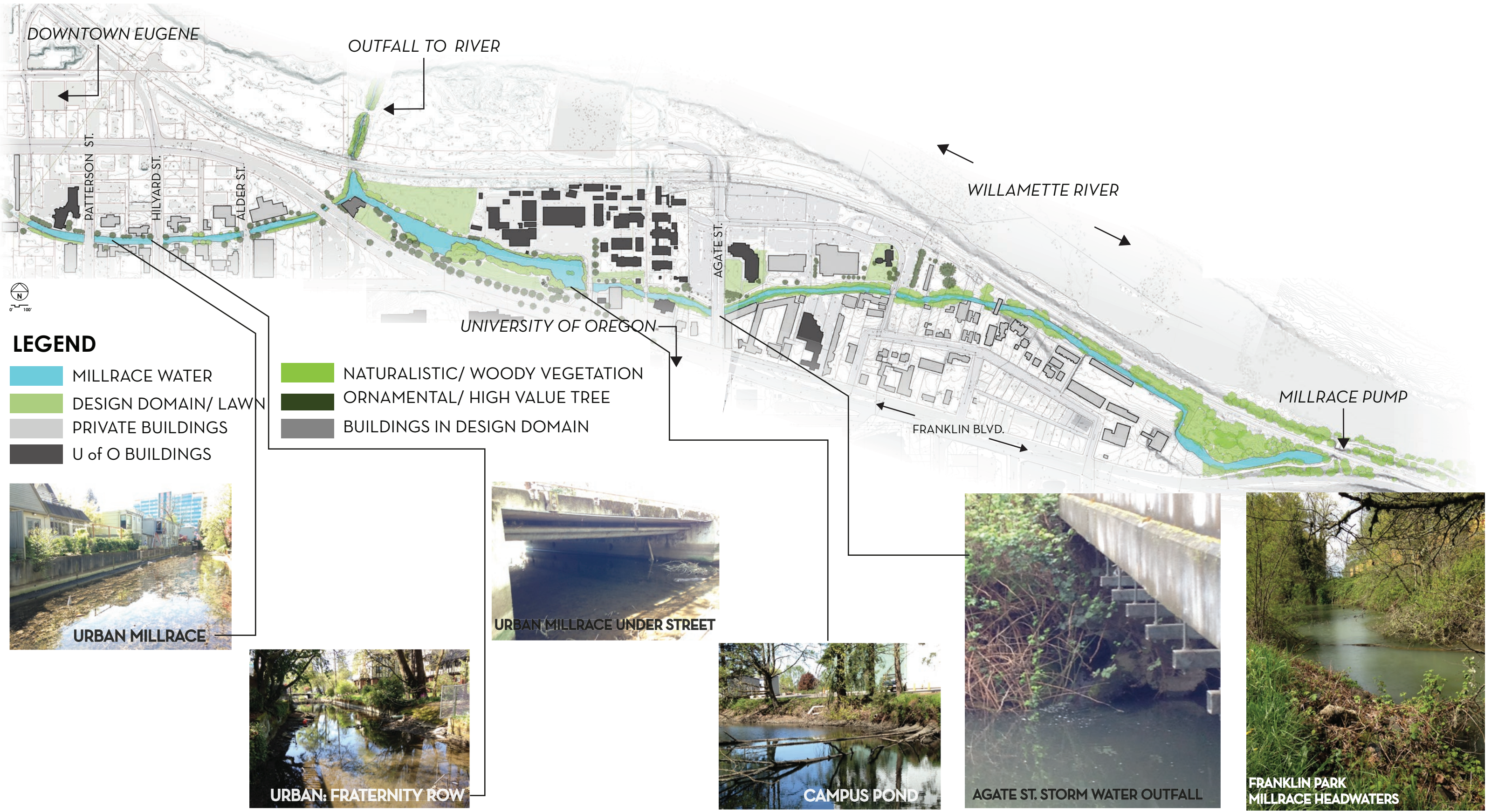
MODERN MILLRACE

DESIGN GOALS

- Treat all site storm-water up to a 10-year storm**
- Provide a bicycle connection along the Millrace from Alder street to the riverfront near Knickerbocker Bridge**
- Create viable public space within the Millrace footprint**
 - New UO Plazas**
 - Pond Overlook**
 - Franklin Park**
 - Wet Prairie Boardwalk from Ferry to Hilyard**

MODERN MILLRACE

EXISTING CONDITIONS

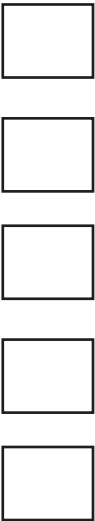


MODERN MILLRACE

CONTEXT AND CONNECTIONS

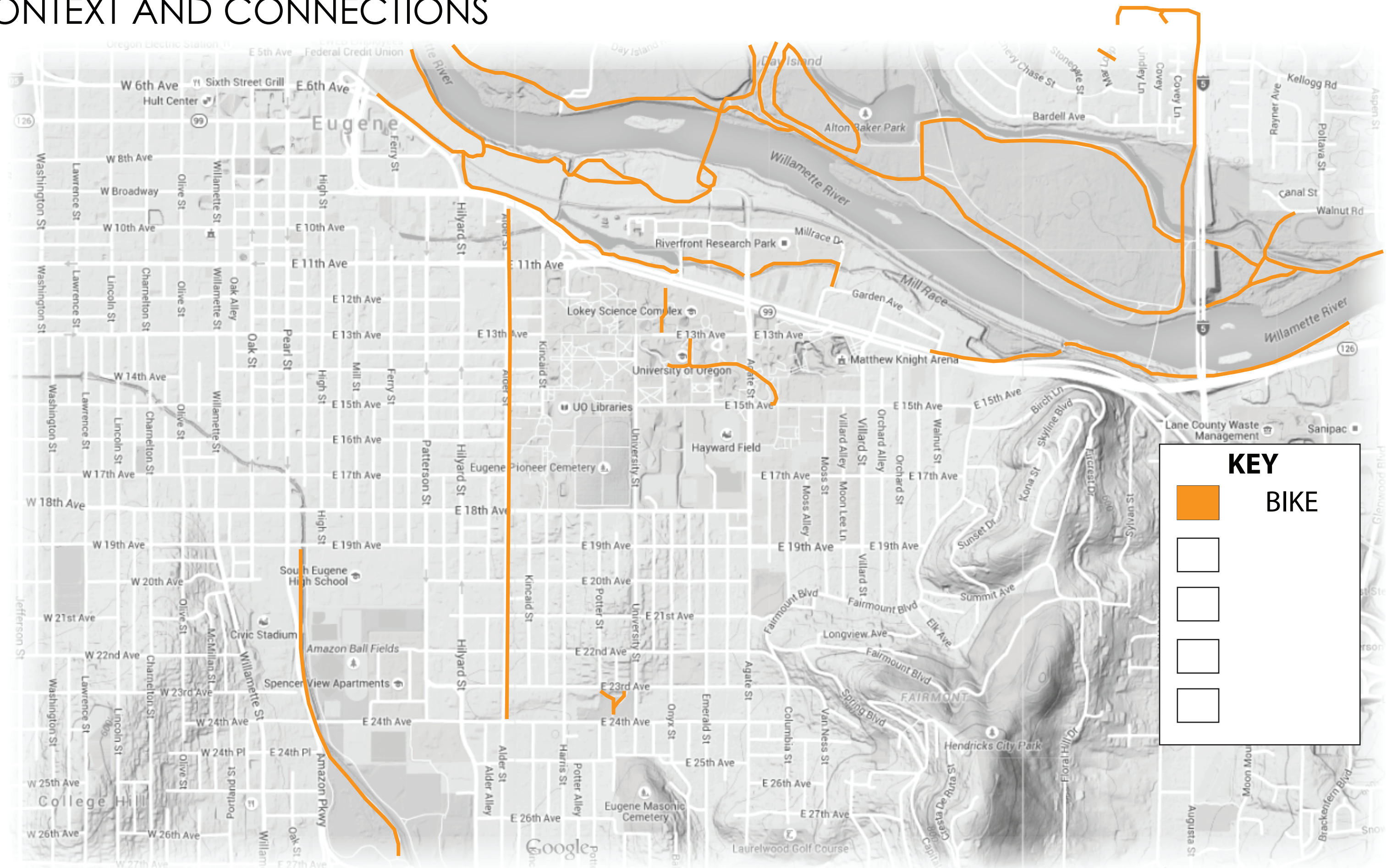


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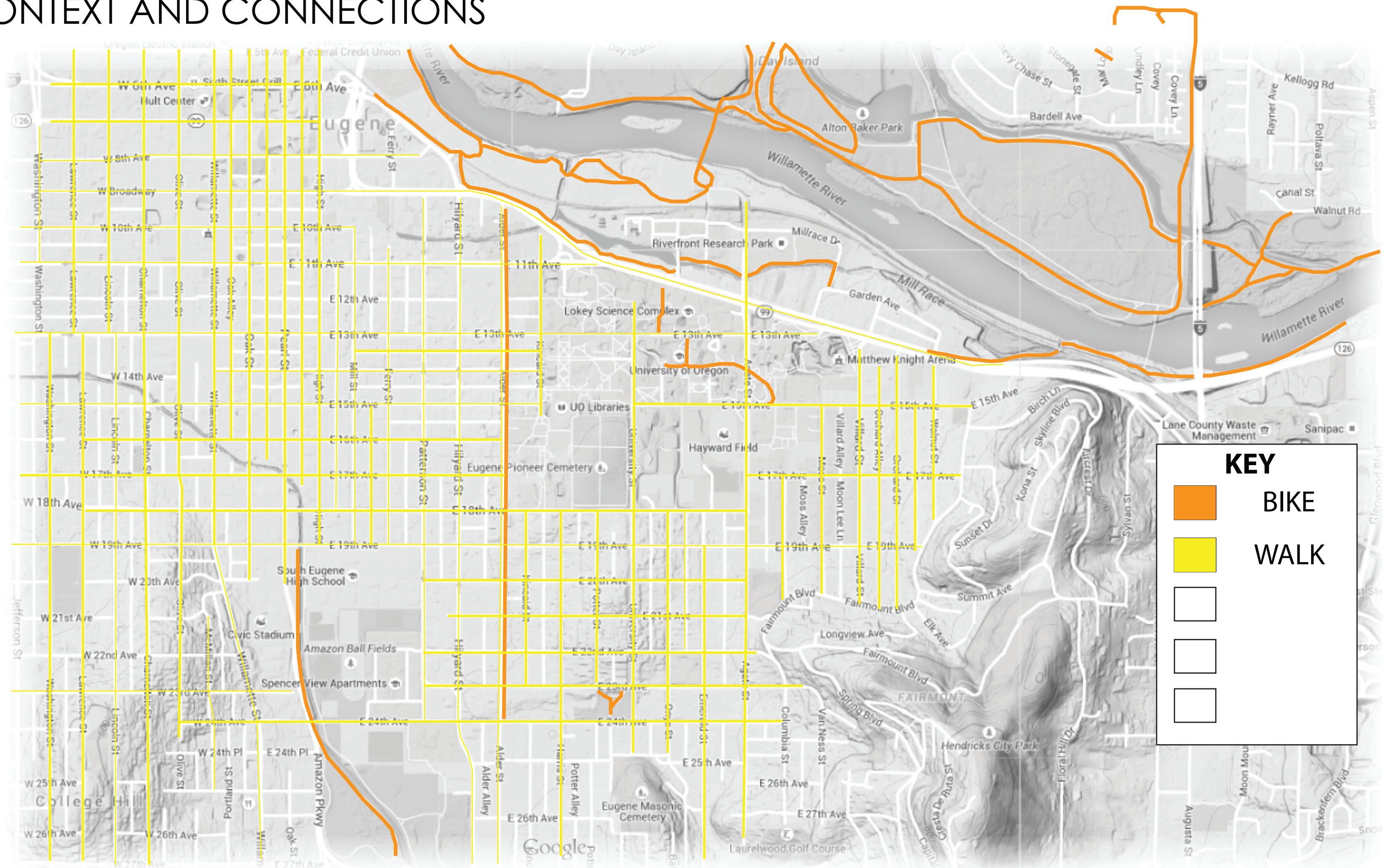
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CONTEXT AND CONNECTIONS



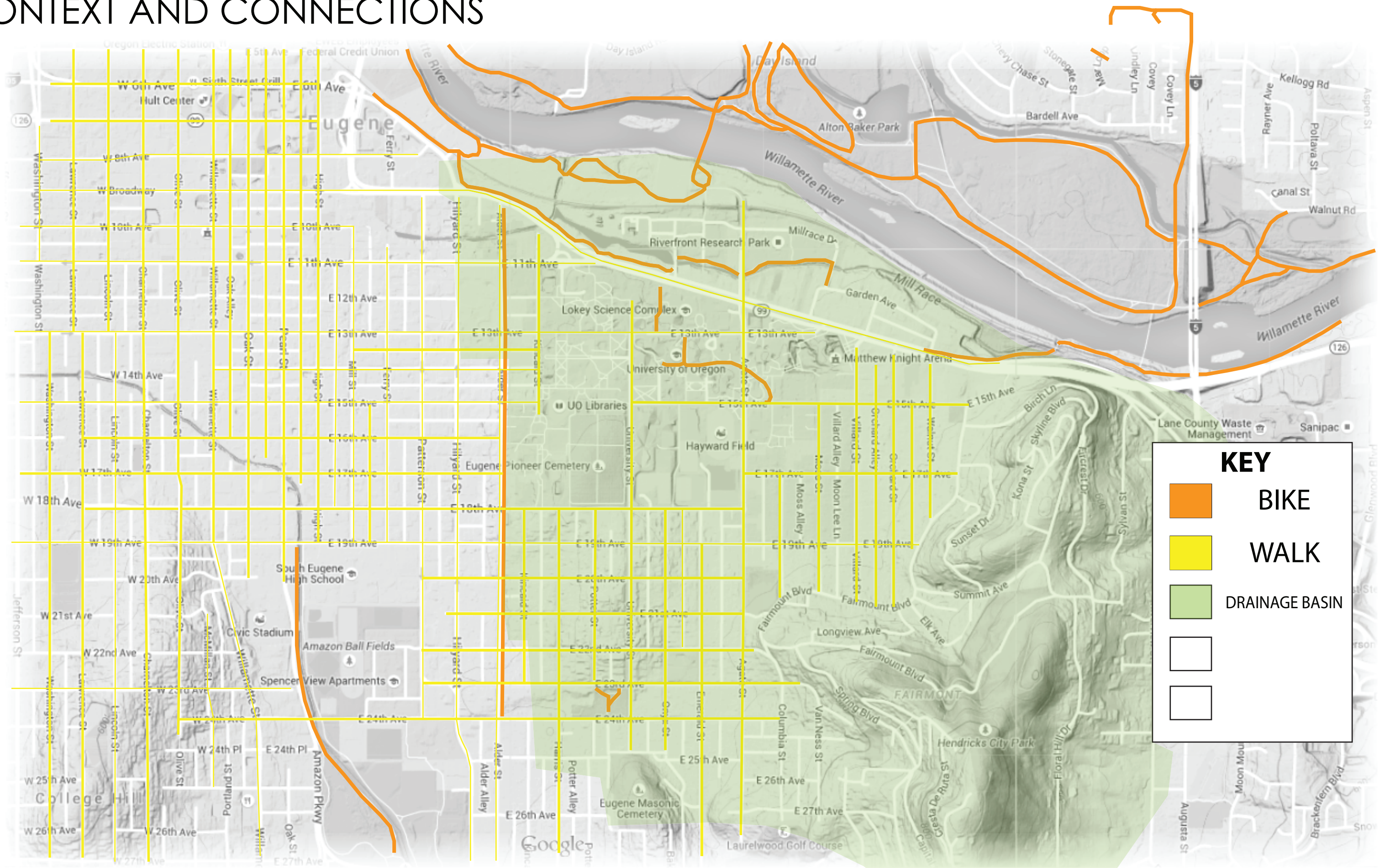
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CONTEXT AND CONNECTIONS



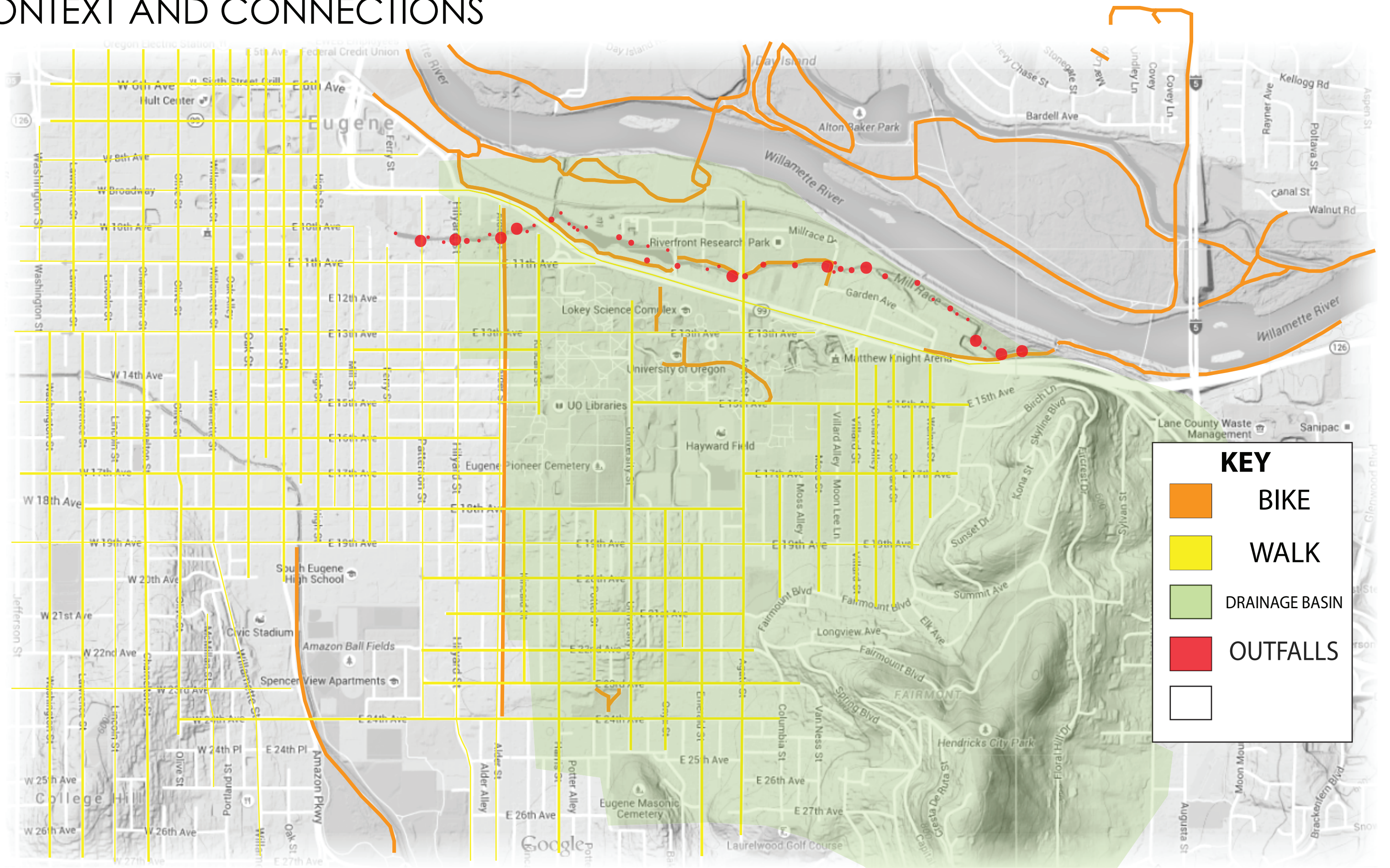
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CONTEXT AND CONNECTIONS



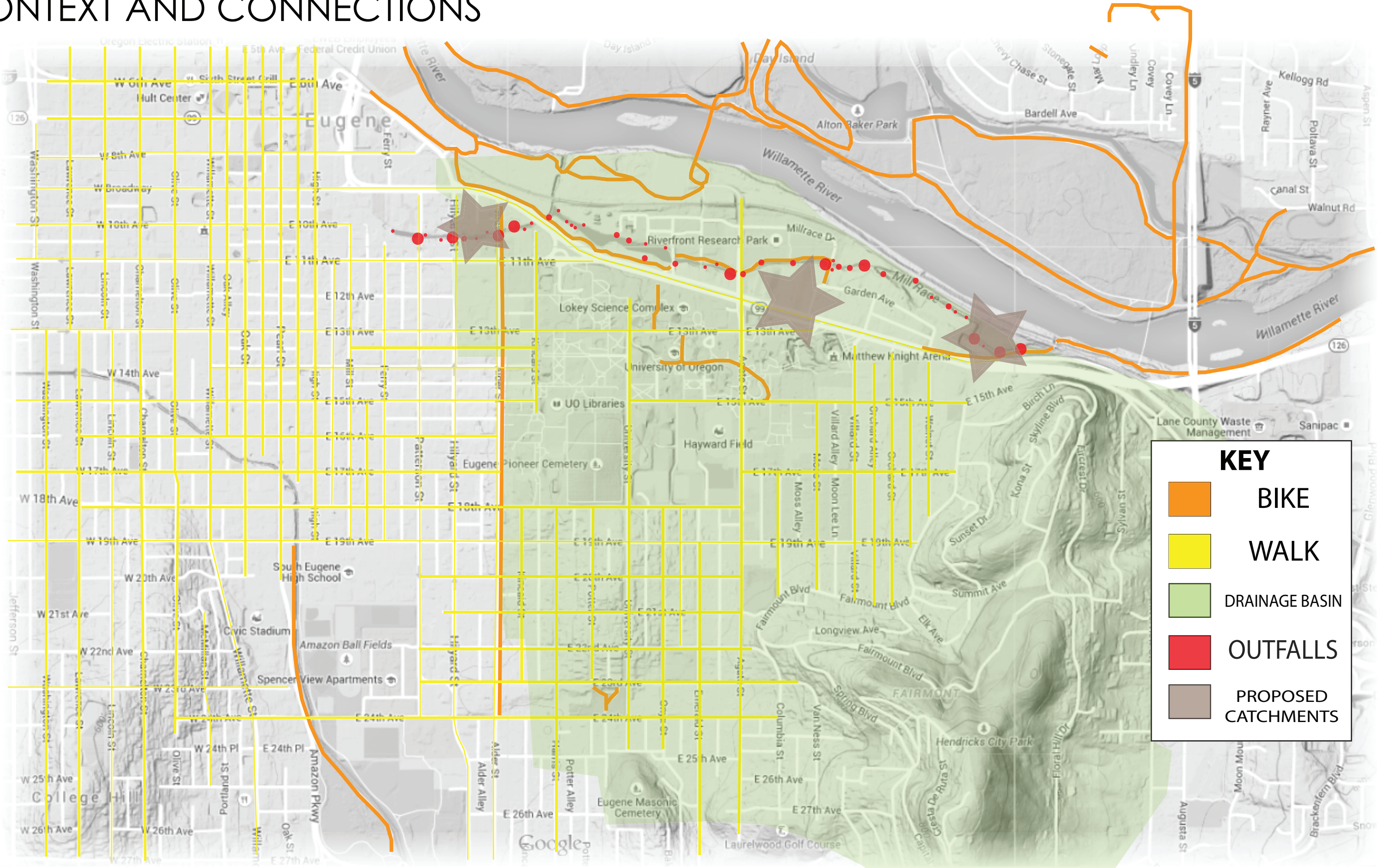
MODERN MILLRACE

CONTEXT AND CONNECTIONS



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CONTEXT AND CONNECTIONS



MODERN MILLRACE

DRAINAGE BASIN GREEN INFRASTRUCTURE RECOMMENDATIONS



VEGETATED FILTER STRIP- USE WHEN ADJACENT TO IMPERMEABLE SURFACES SUCH AS PARKING LOTS, STREETS, ETC.



INFILTRATION PLANTER- USE WHEN YOU WANT THE WATER TO PERCOLATE INTO THE GROUND.



EXTENDED DRY BASIN- USED IN A PLACE WHERE YOU NEED TO TEMPORARILY DETAIN WATER RUN OFF DURING STORM EVENTS.



FLOW THROUGH PLANTER- USE IN AREAS WITH HARD SURFACES SUCH AS CURBS, ROADS, PARKING LOTS, ETC.



STORMWATER ART- VERY SIMILAR TO FLOW THROUGH PLANTERS, EXCEPT WITH THE PRESENCE OF ART WORK IN THE PLANTER.



GREEN ROOF- USE ON SUITABLE ROOFS, GREAT TO REDUCE ENERGY COST, STORMWATER FEES, AND AESTHETICALLY PLEASING.

MODERN MILLRACE

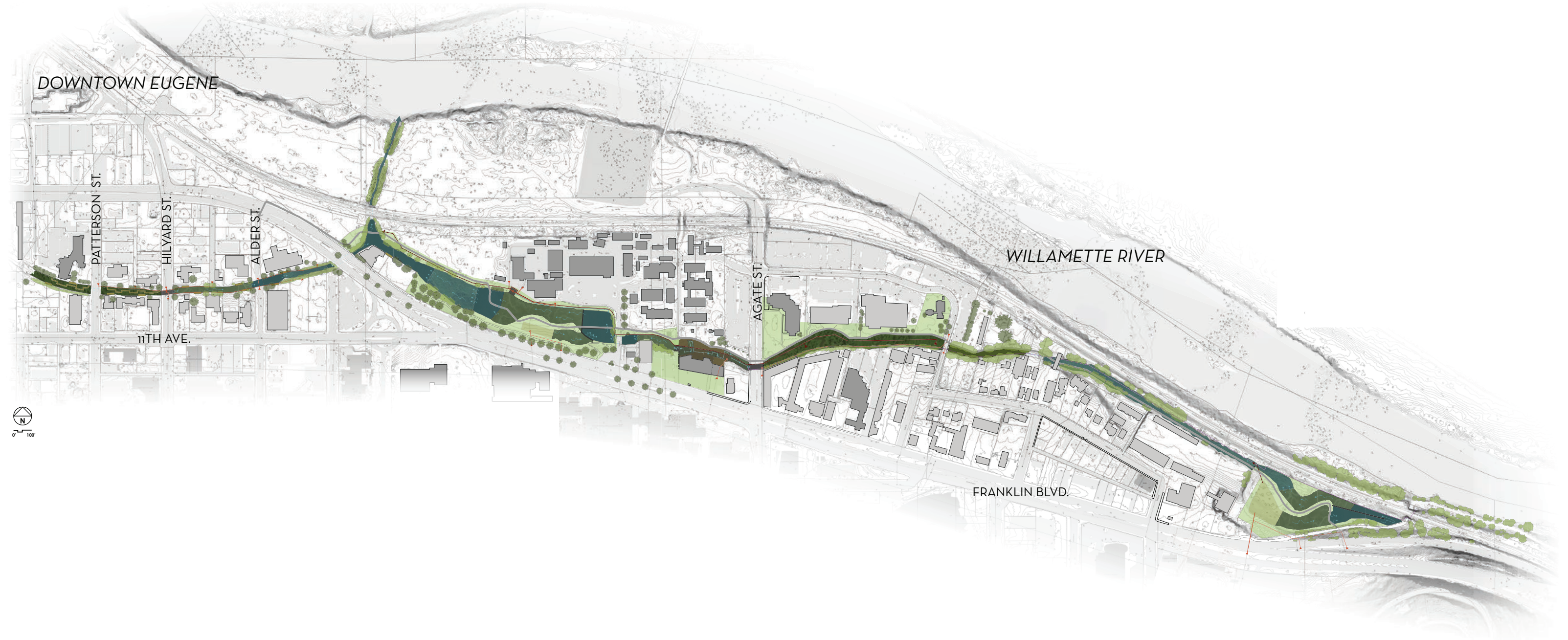
NECESSARY DESIGN CONDITIONS

The following are our preconditions for success:

- Tax lot and easement revisions
- Secure a new water right to provide dry season landscape irrigation
- University of Oregon classroom construction North of Franklin
- A partnership with the city to develop a bicycle connection through UO property to Franklin Park
- Partnerships with property owners to connect downspouts to L.I.D. green infrastructure

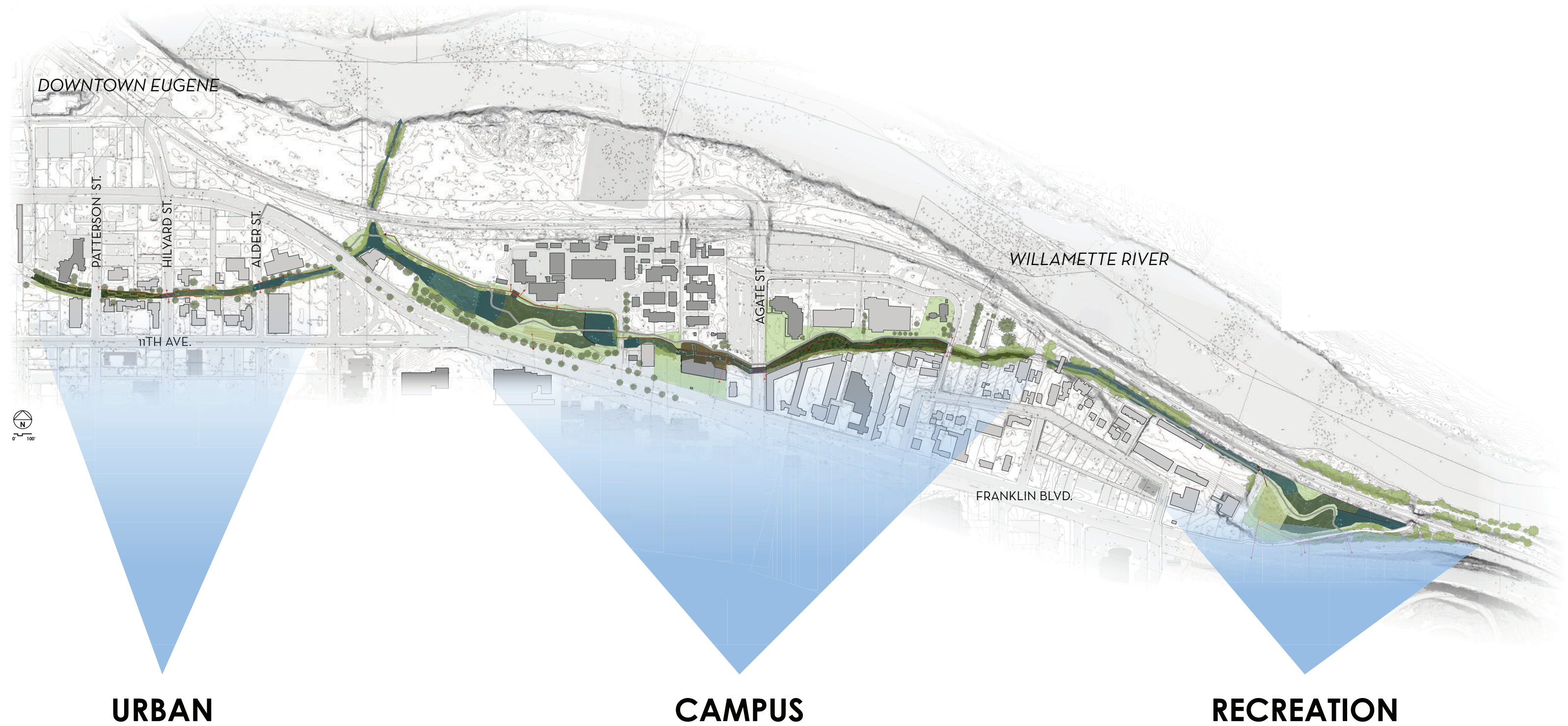
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PROPOSED DESIGN



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PROPOSED DESIGN



URBAN

STORM-WATER MITIGATION
NATIVE SLOUGH BOARDWALK

CAMPUS

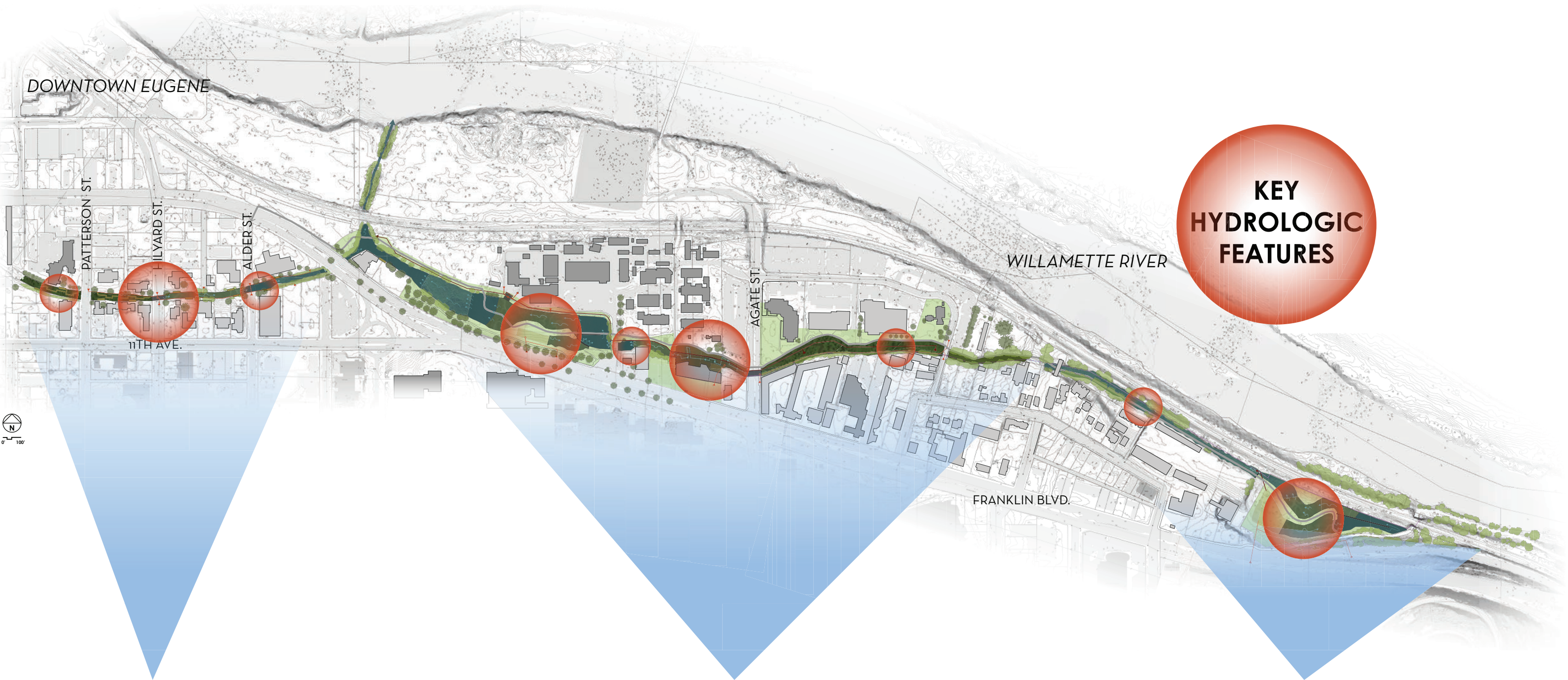
PLAZA AND GATHERING SPACES
ACCOMMODATE NEW
UNIVERSITY DEVELOPMENT
WATER HARVESTING AND REUSE

RECREATION

BICYCLE CONNECTION TO THE
RIVERFRONT
AMENITIES FOR FRANKLIN PARK

MODERN MILLRACE

PROPOSED DESIGN



**KEY
HYDROLOGIC
FEATURES**

URBAN

STORM-WATER MITIGATION
NATIVE SLOUGH BOARDWALK

CAMPUS

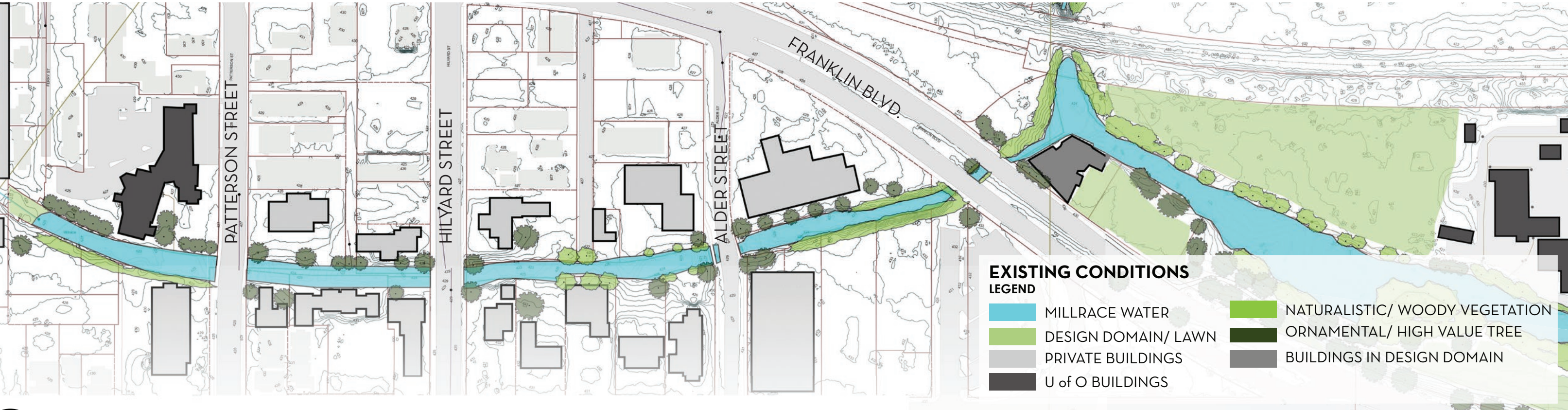
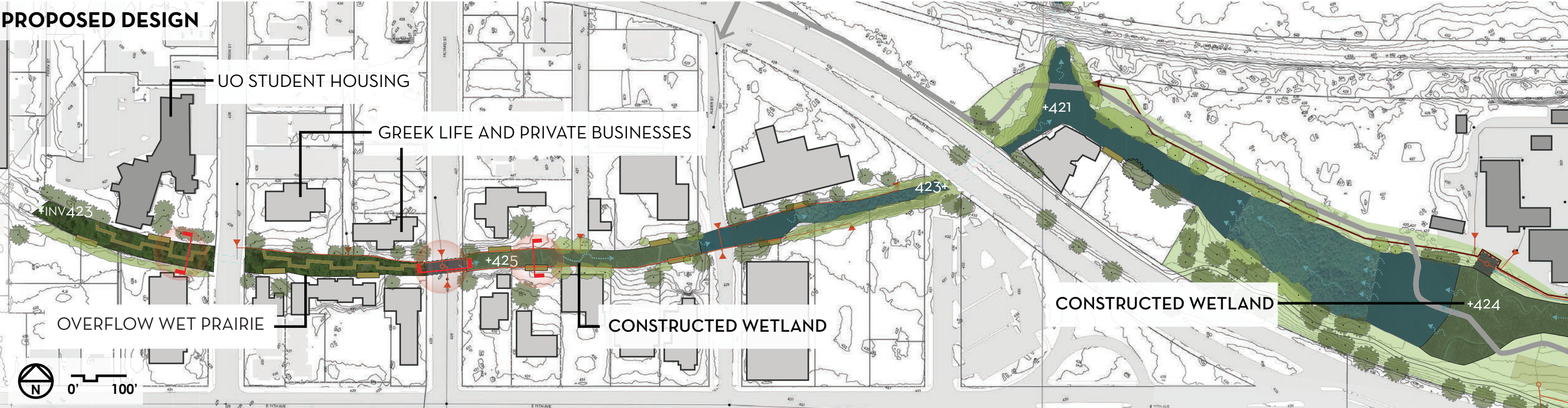
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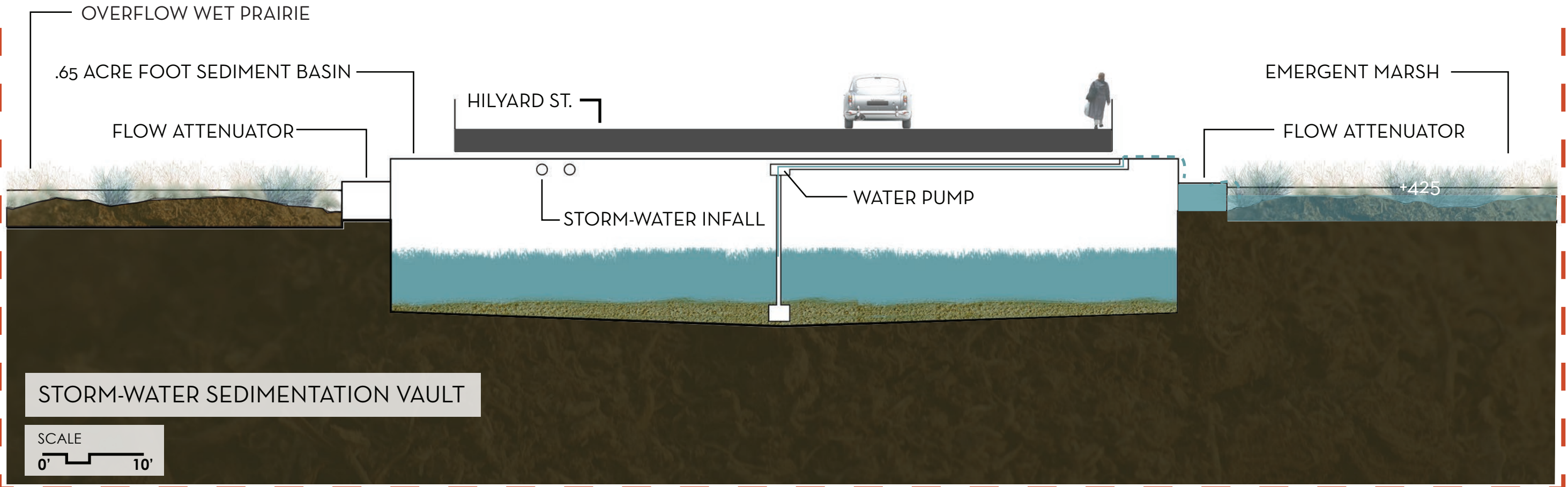
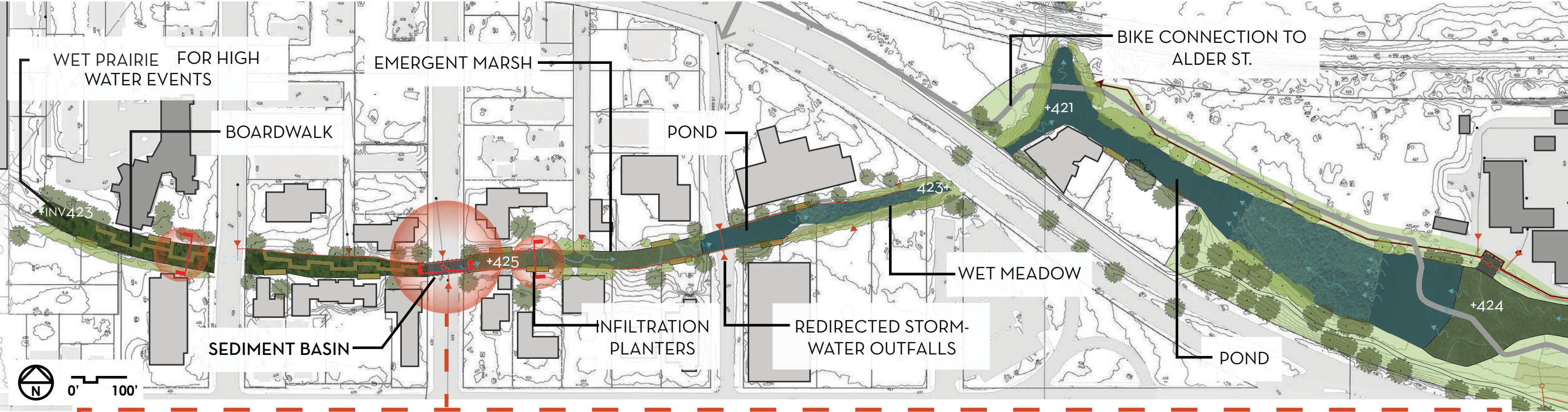
MODERN MILLRACE

URBAN CONDITION



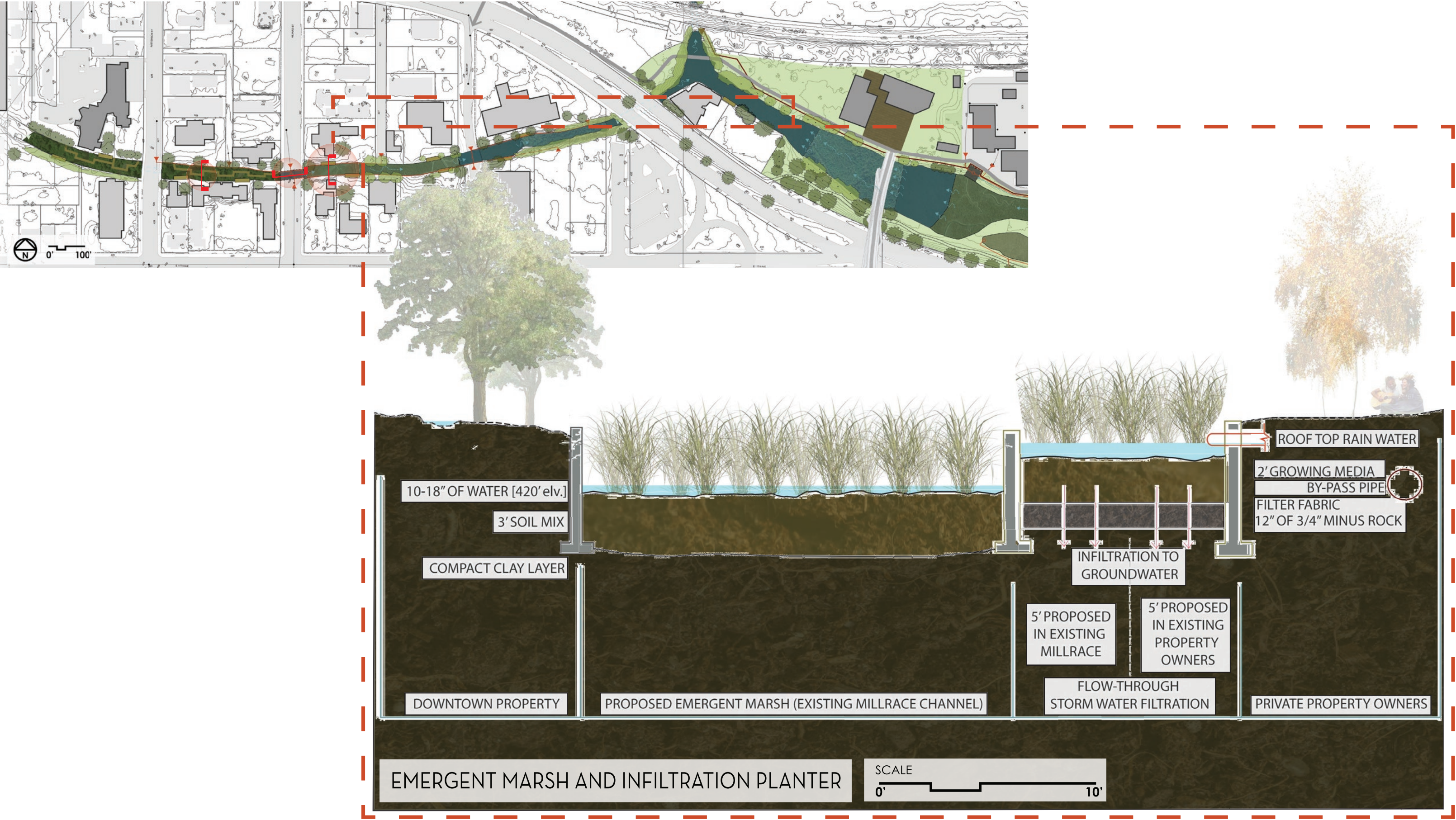
MODERN MILLRACE

URBAN CONDITION



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URBAN CONDITION



MODERN MILLRACE

URBAN CONDITION



WOODEN BOARDWALK CONNECTS
TO STUDENT AND GREEK HOUSING



NATIVE WET PRAIRIE SPECIES



STORMWATER OVERFLOW WET PRAIRIE

SCALE
0' 10'

EXCESS WATER FROM SEDIMENTATION VAULT FLOWS
THROUGH WET PRAIRIE DURING LARGE STORMS

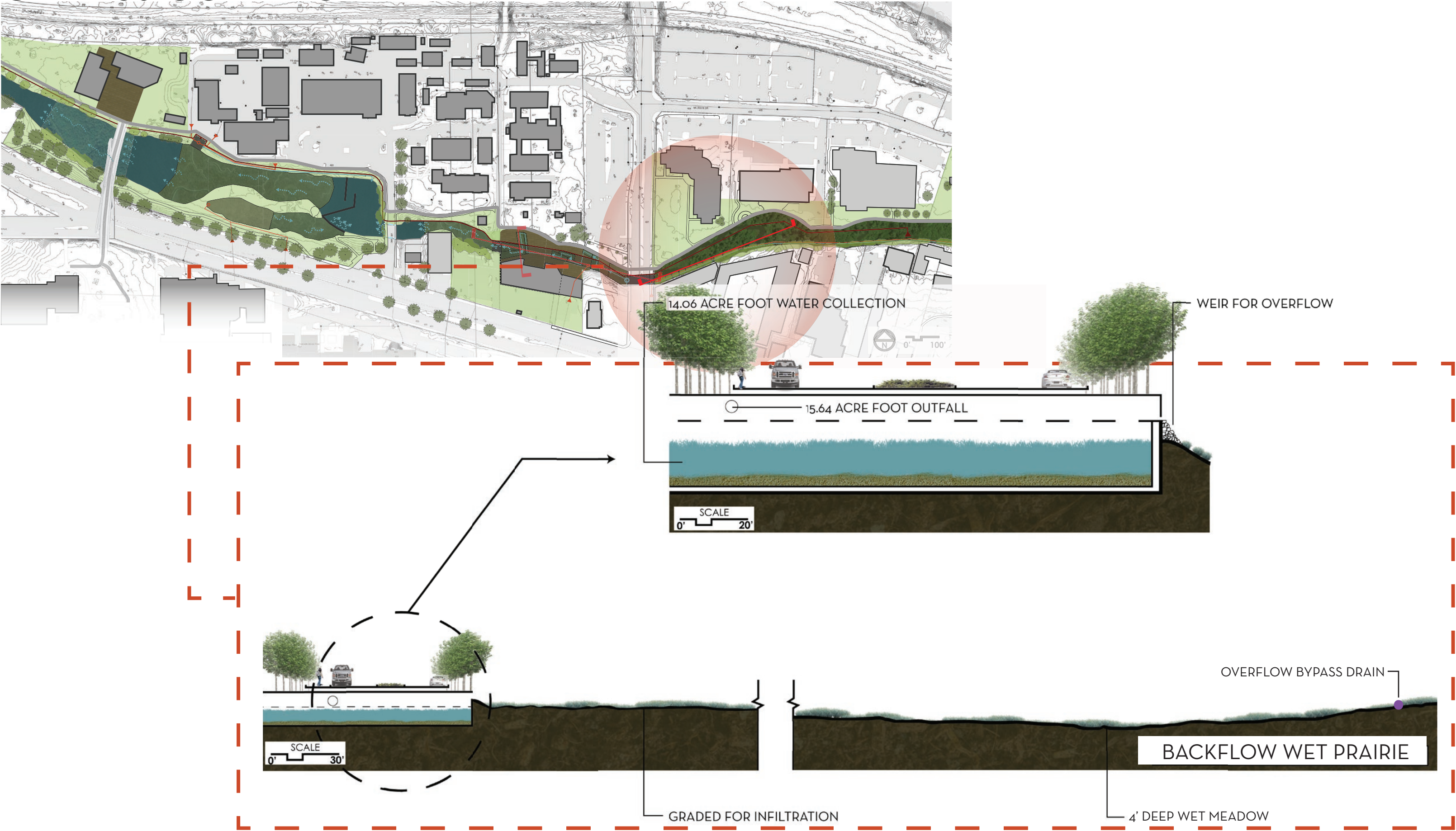
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CAMPUS CONDITION



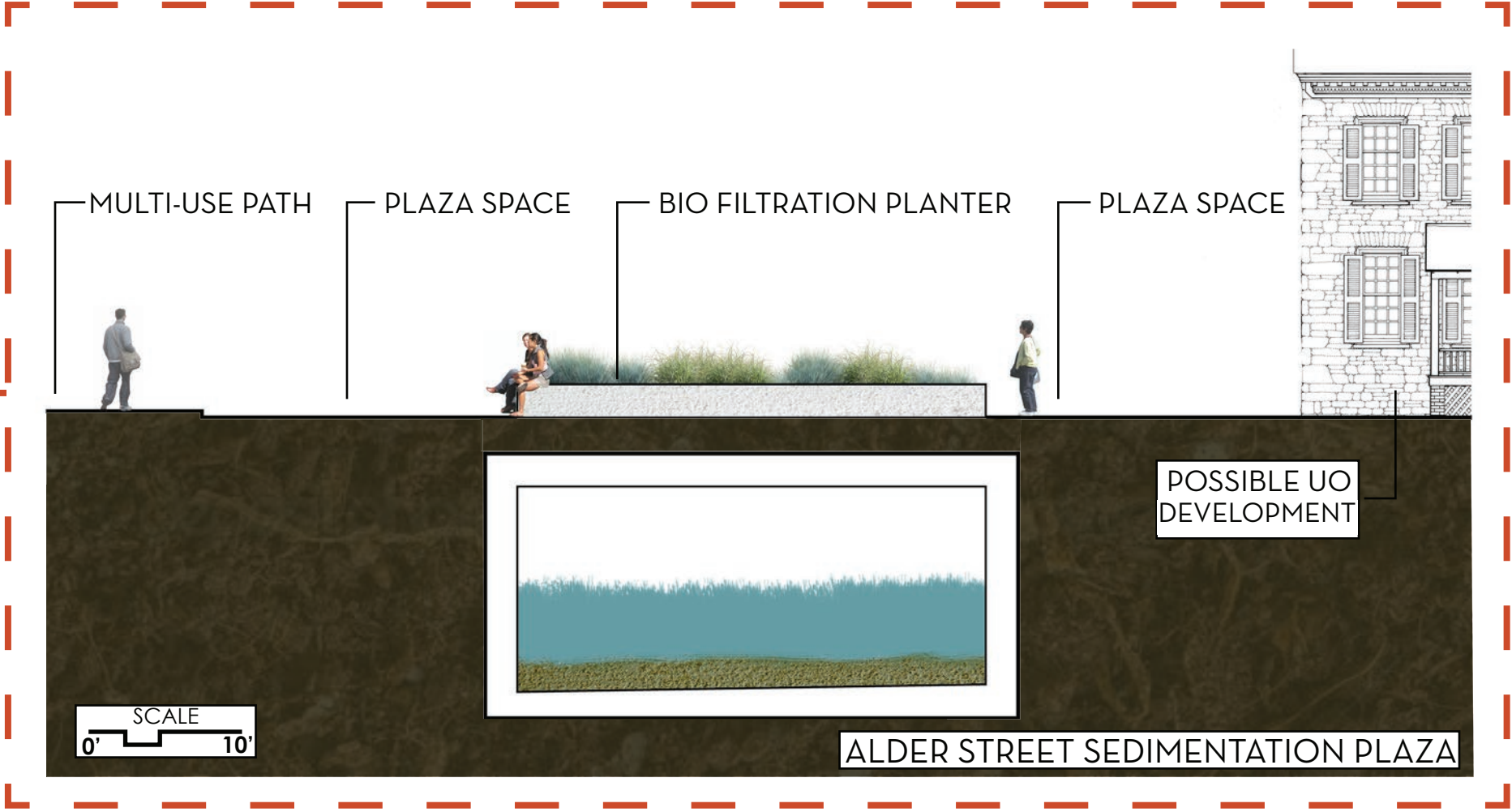
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CAMPUS CONDITION



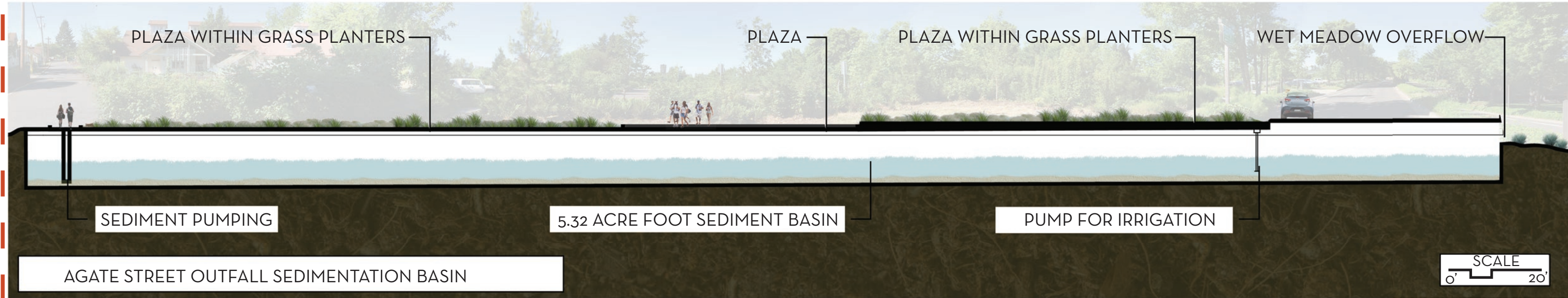
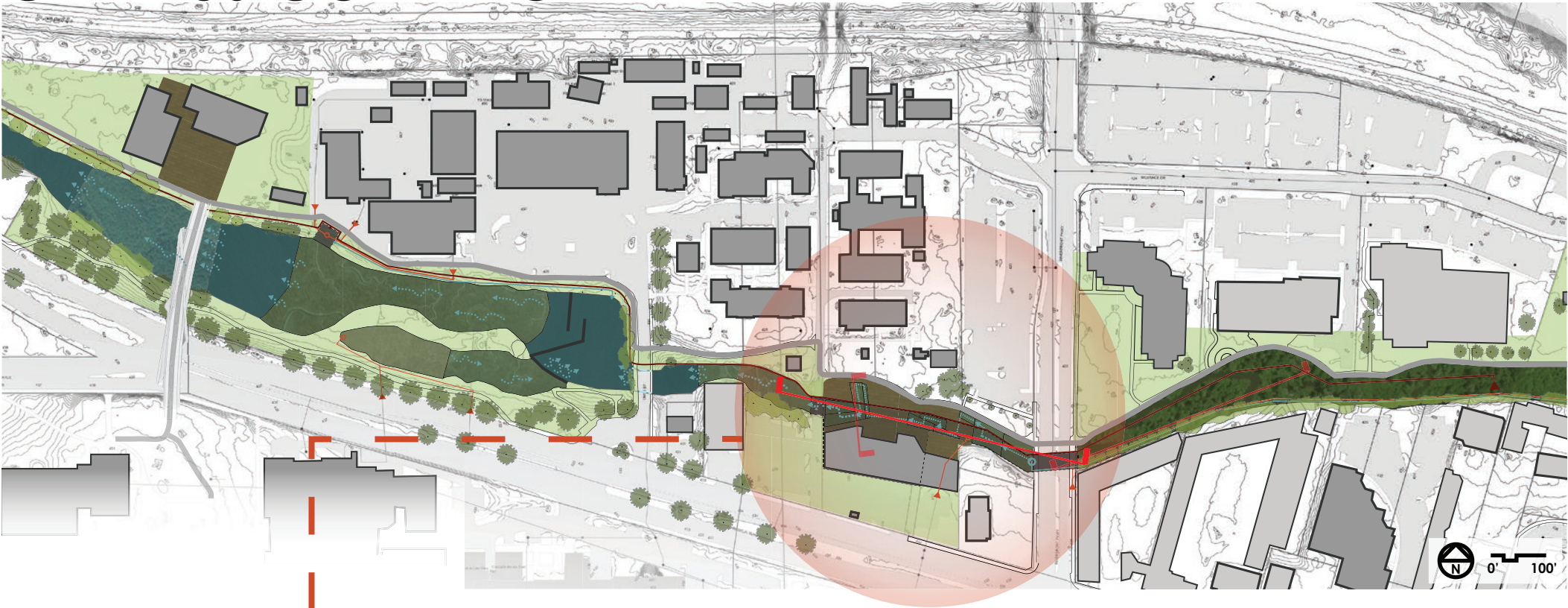
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CAMPUS CONDITION



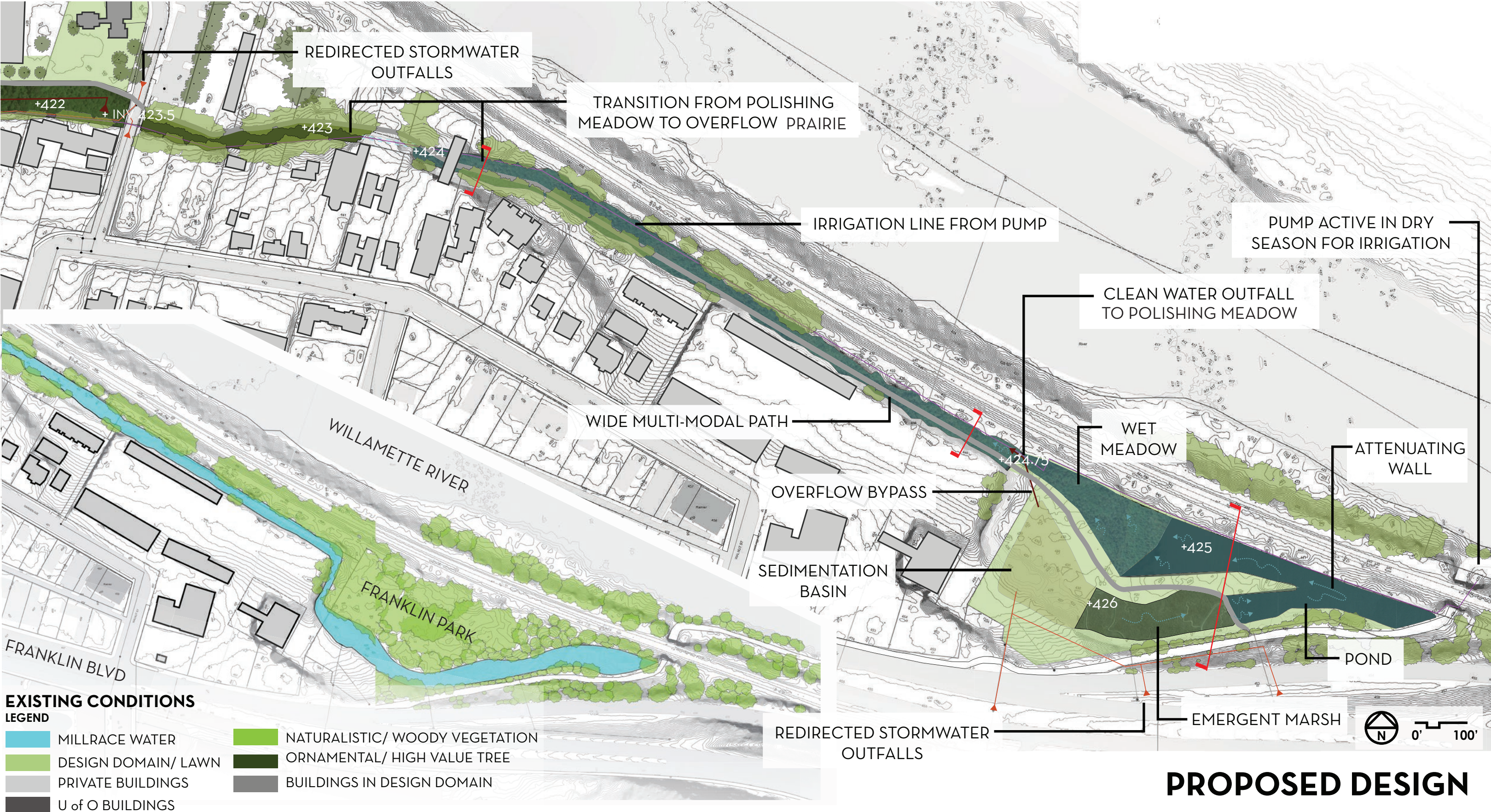
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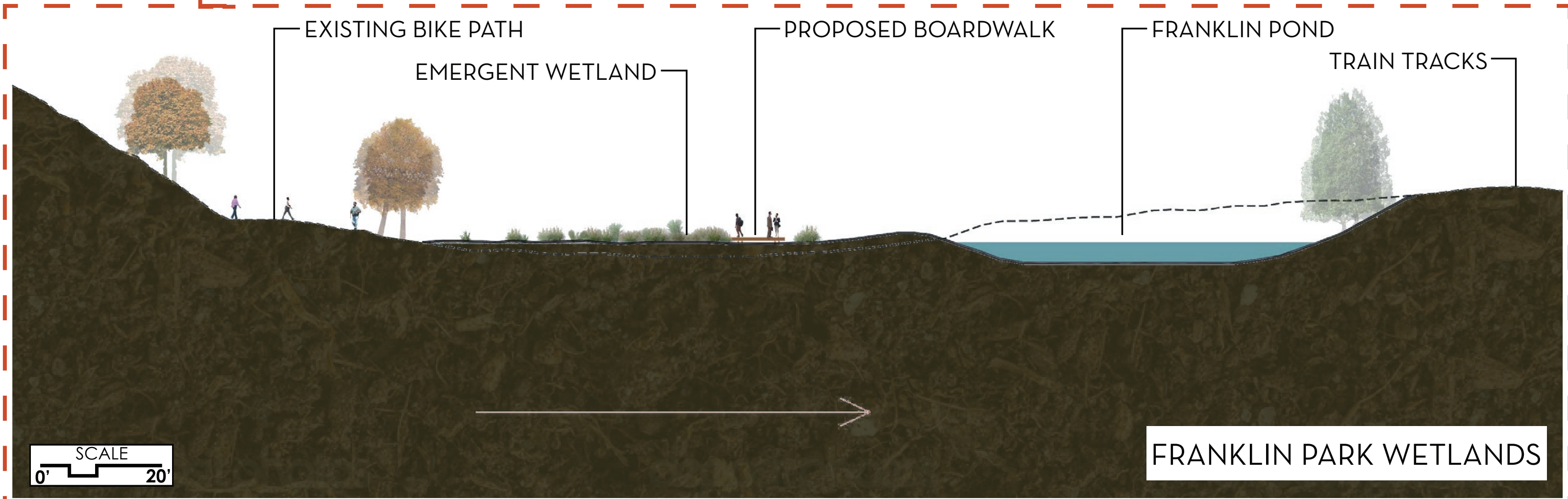
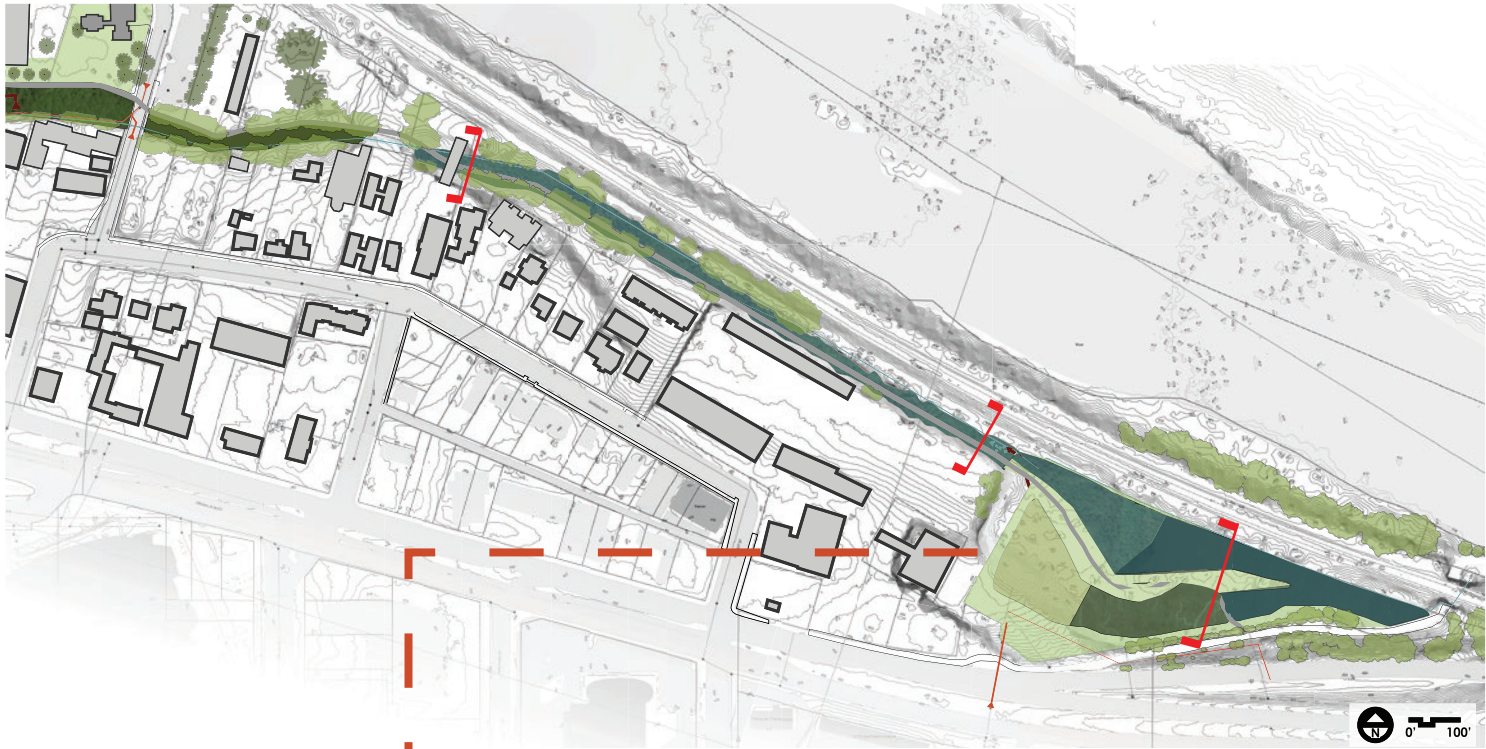


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RECREATION CORRIDOR



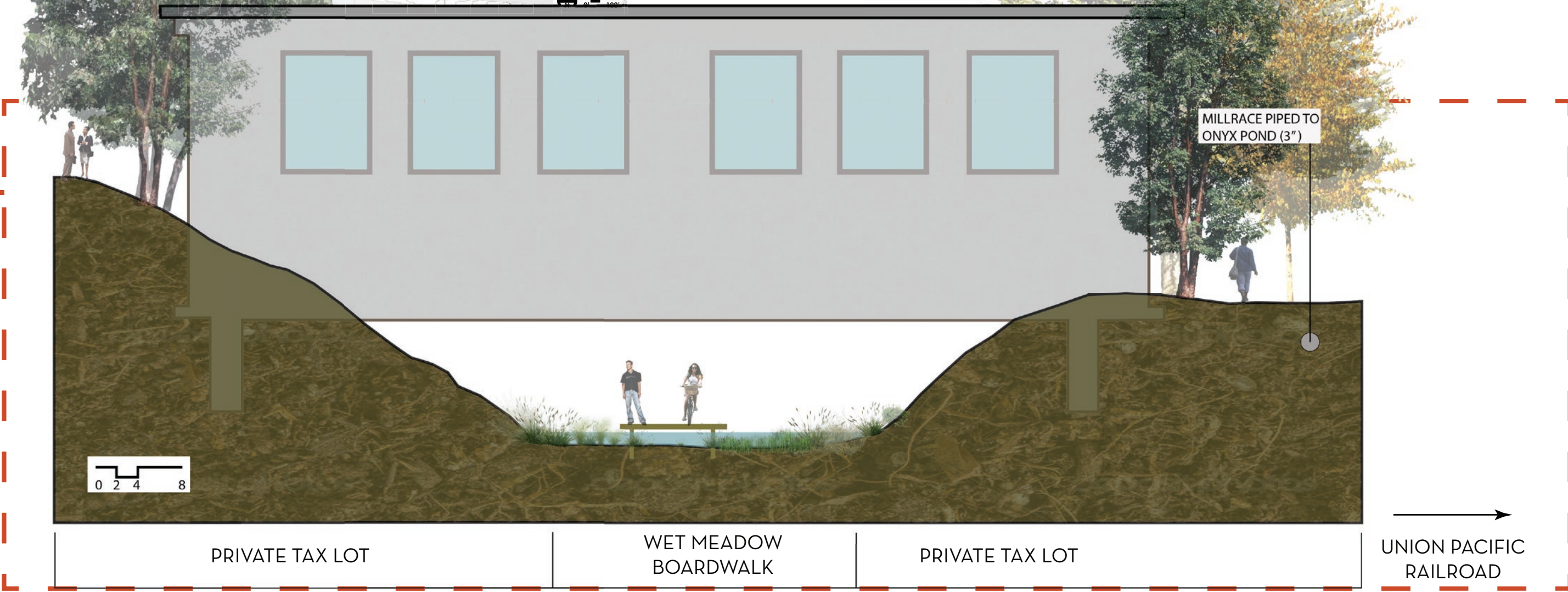
MODERN MILLRACE RECREATION CORRIDOR



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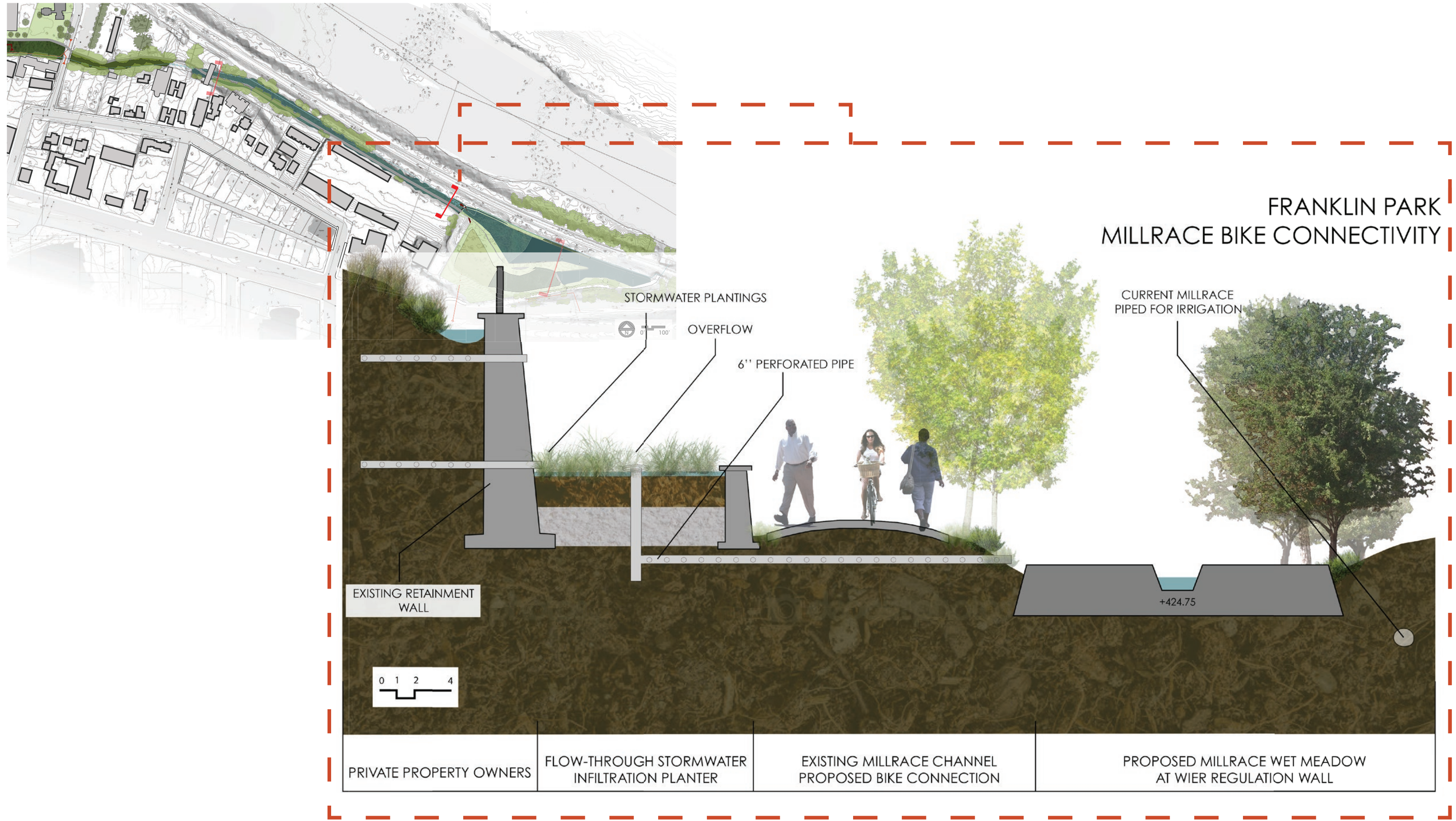


MILLRACE BIKE CONNECTIVITY



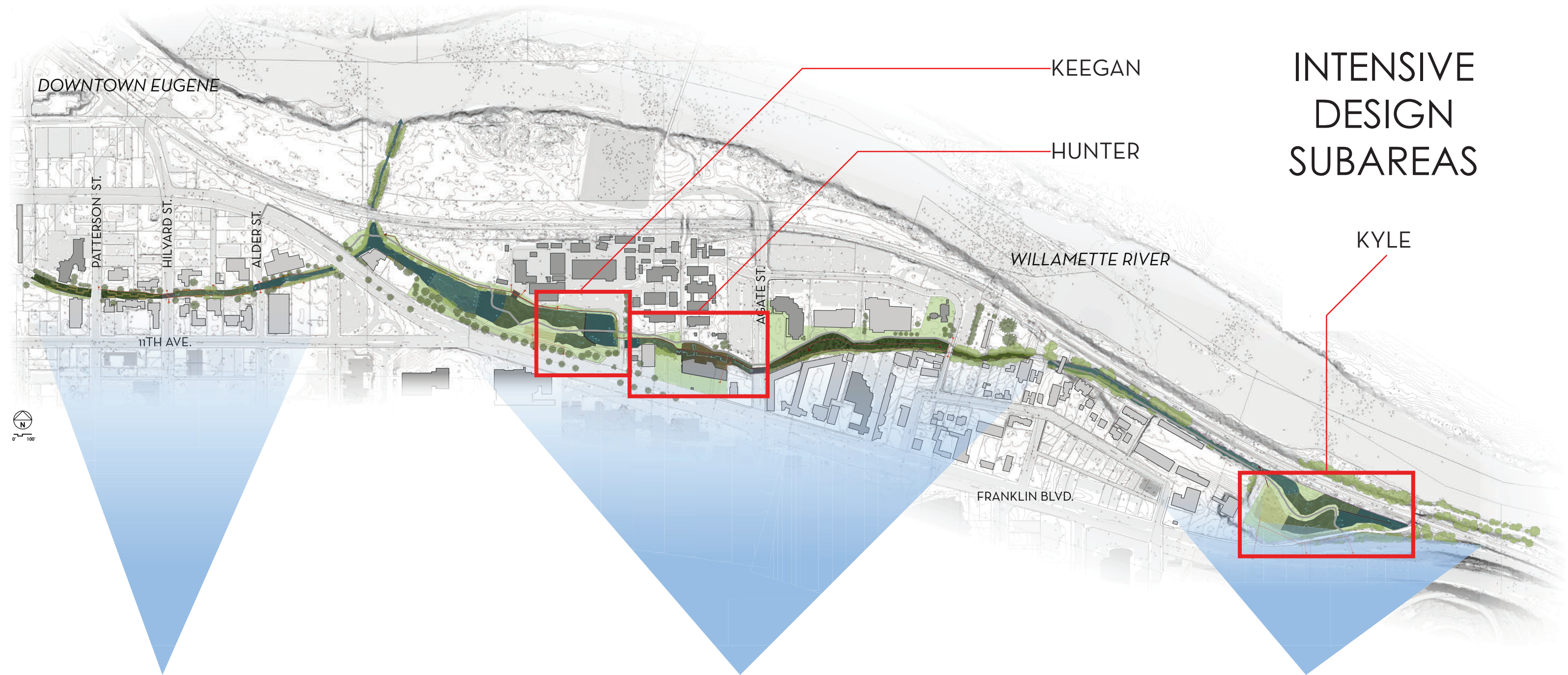
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RECREATION CORRIDOR



MODERN MILLRACE

PROPOSED DESIGN



INTENSIVE DESIGN SUBAREAS

KEEGAN

HUNTER

KYLE

WILLAMETTE RIVER

FRANKLIN BLVD.

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