University of Massachusetts Southwest Concourse

Designing Stormwater
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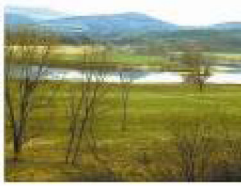
March 17, 2014

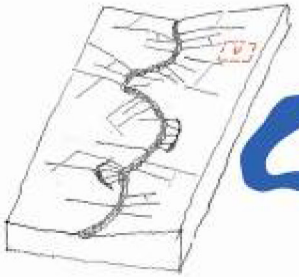
GEOLOGIC HISTORY:

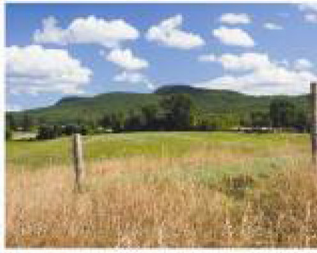
- CONNECTICUT RIVER VALLEY WAS INITIALLY FORMED AS A RIFT VALLEY DURING TECTONIC BREAKUP.
- GLACIERS PUSHED SOUTH DURING THE ICE AGE FURTHER CARVING OUT THE SOFT DEPOSITS IN THE RIVER VALLEY.
- AS MELTING OCCURED LARGE RIVERS AND LAKES FORMED TERRACES, ONLWARD AND DEEPS SHAPING THE VALLEY.



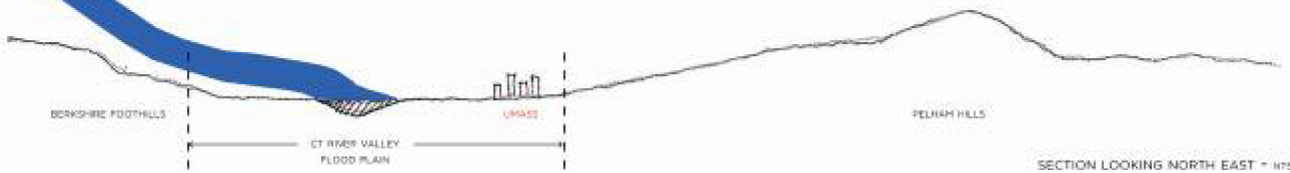
CULTURAL HISTORY:

- THE LAKE BOTTOM AND ALLUVIAL SEDIMENTS WHICH ACCUMULATED THROUGHOUT THE VALLEY ARE PRIME SOILS FOR AGRICULTURE.
- SETTLEMENT PATTERNS DEVELOPED ALONG THE CONNECTICUT RIVER CARVING OUT GEOMETRIC FIELD PATTERNS CALLED INTERVALE MEADOWS.
- THE PATTERNS OF FIELD AND FARM CREATES SENSE OF SCALE AND PLACE FOR VALLEY.
- UMASS WAS FOUNDED WITHIN THE AGRICULTURAL FABRIC OF THE CONNECTICUT RIVER FLOODPLAIN AND CONTINUES TO BE A PART OF THE LARGER AGRARIAN AND RIPARIAN SYSTEM.



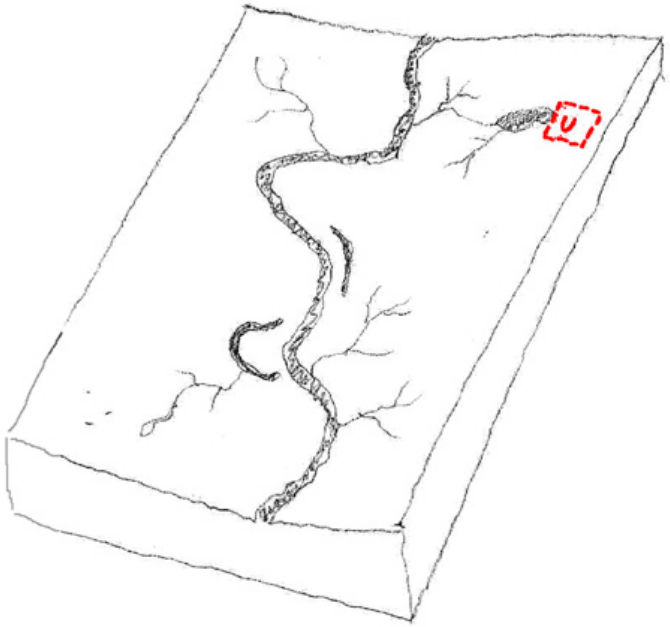


THE FORM OF THE RIVER AND VALLEY DEFINED CULTURAL PATTERNS THAT HAVE, AND WILL CONTINUE TO, GUIDE AND INSPIRE THE DESIGN EXPRESSION OF THE UMASS CAMPUS AND THE SOUTHWEST AREA.



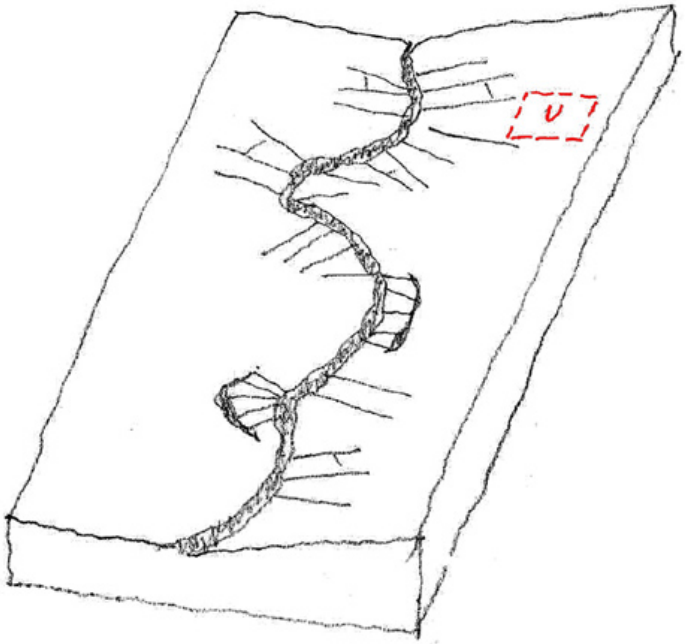
SECTION LOOKING NORTH EAST - NTS

Regional Context



ECOLOGICAL HISTORY

BECAUSE OF THE SEASONAL FLUCTUATIONS AND THE MEANDERING SHAPE OF THE CONNECTICUT RIVER, THE FLOODPLAIN IS RICH IN ALLUVIAL DEPOSITS, IDEAL SOILS FOR AGRICULTURE.



CULTURAL HISTORY

AGRICULTURAL PATTERNS OF INTERVALE MEADOWS ARE SEEN THROUGHOUT THE CONNECTICUT RIVER VALLEY. THE RICH FLOODPLAIN WAS A PRIME LOCATION FOR UMASS TO FOUND THE AGRICULTURAL SCHOOL.

Aerial View Southwest Campus

Existing Conditions

1 Pedestrian Promenade

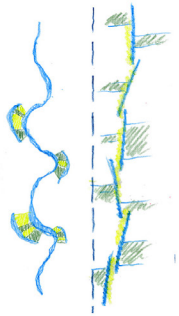
2 Stormwater Collection

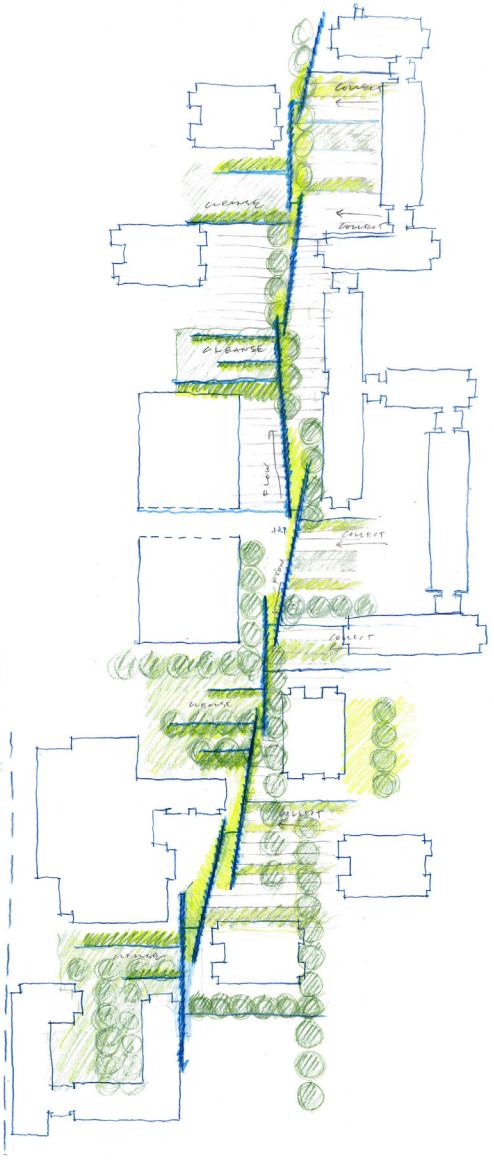
3 Infiltration Garden

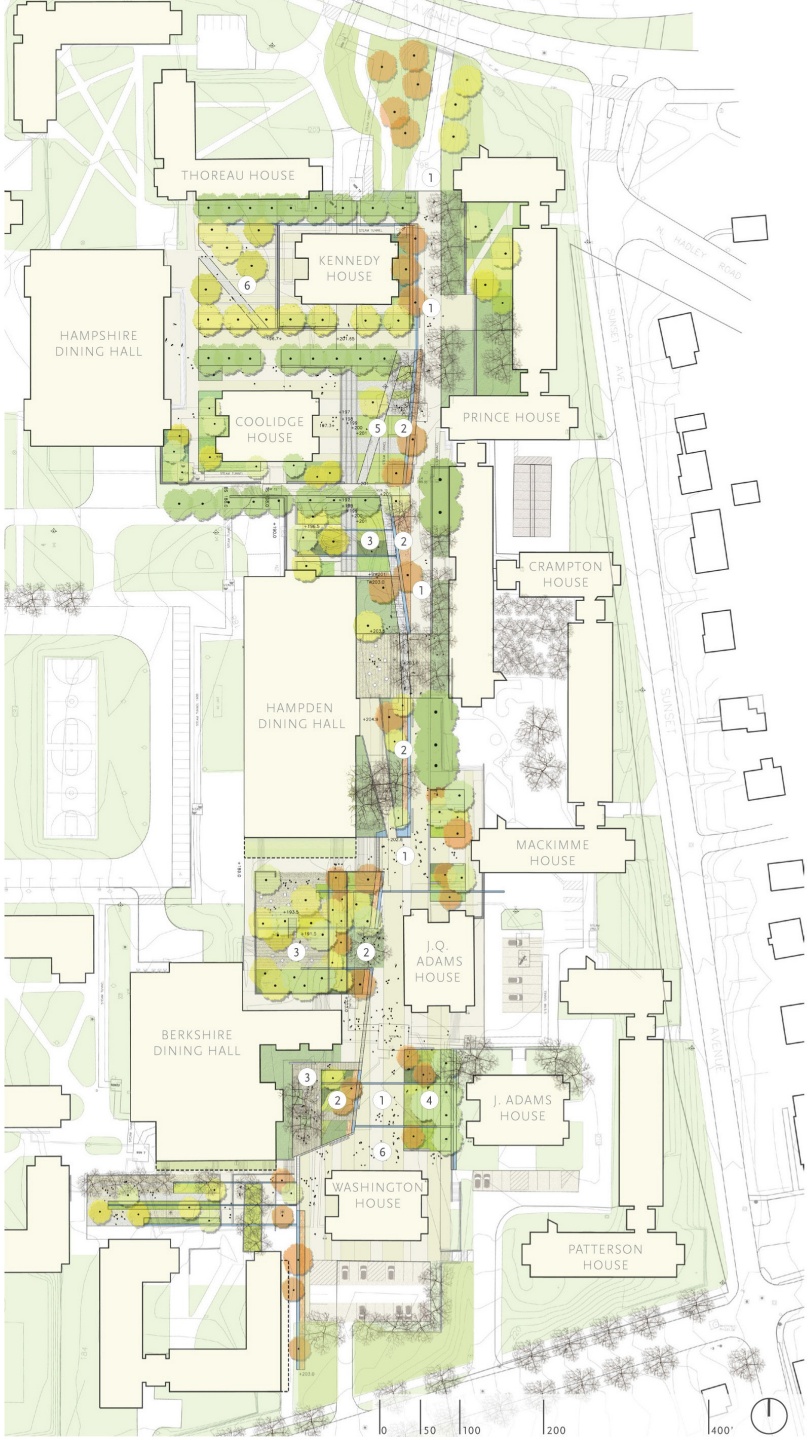
4 Permeable Courtyard

5 New Lawn

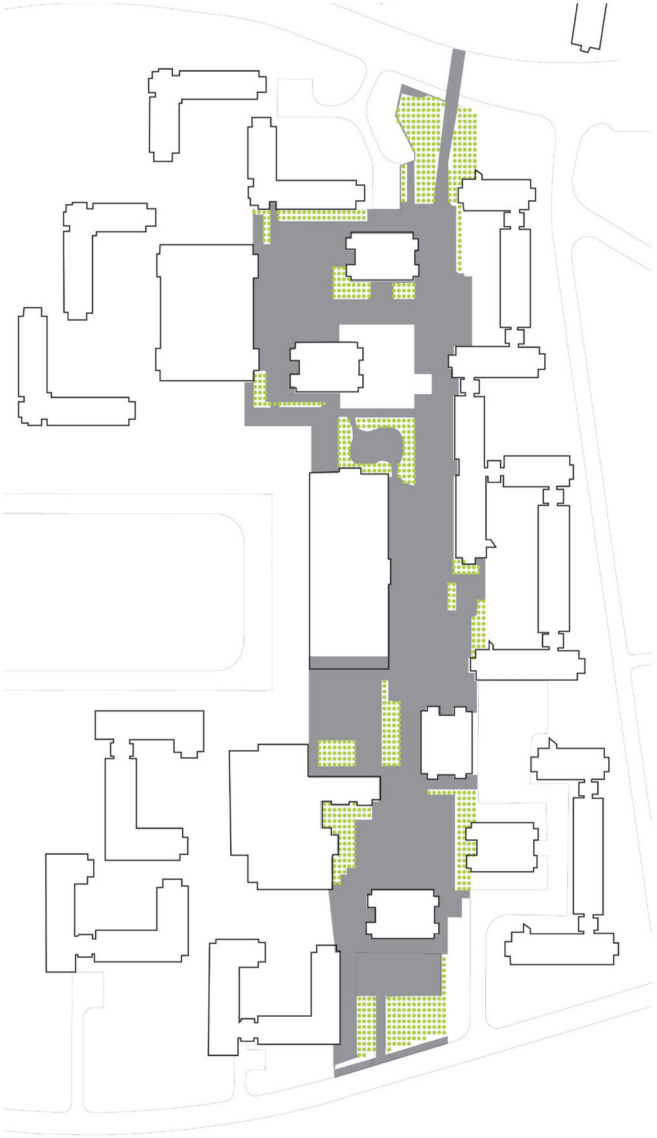
6 Flexible Plaza



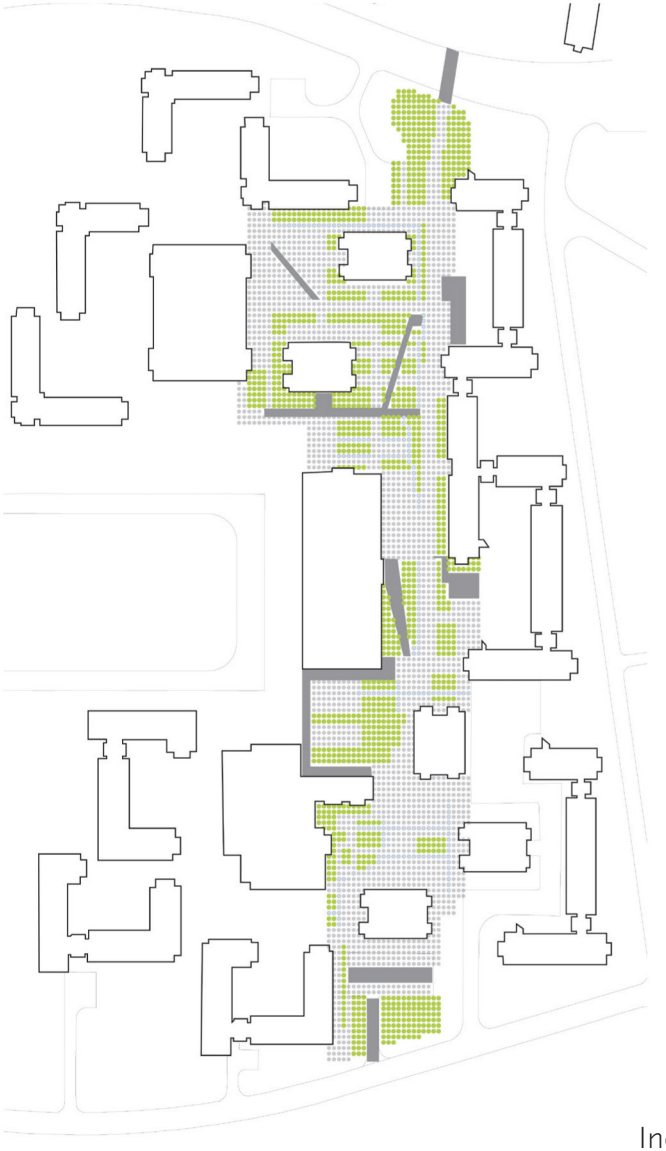




Existing: Impervious 70% | Pervious 30%

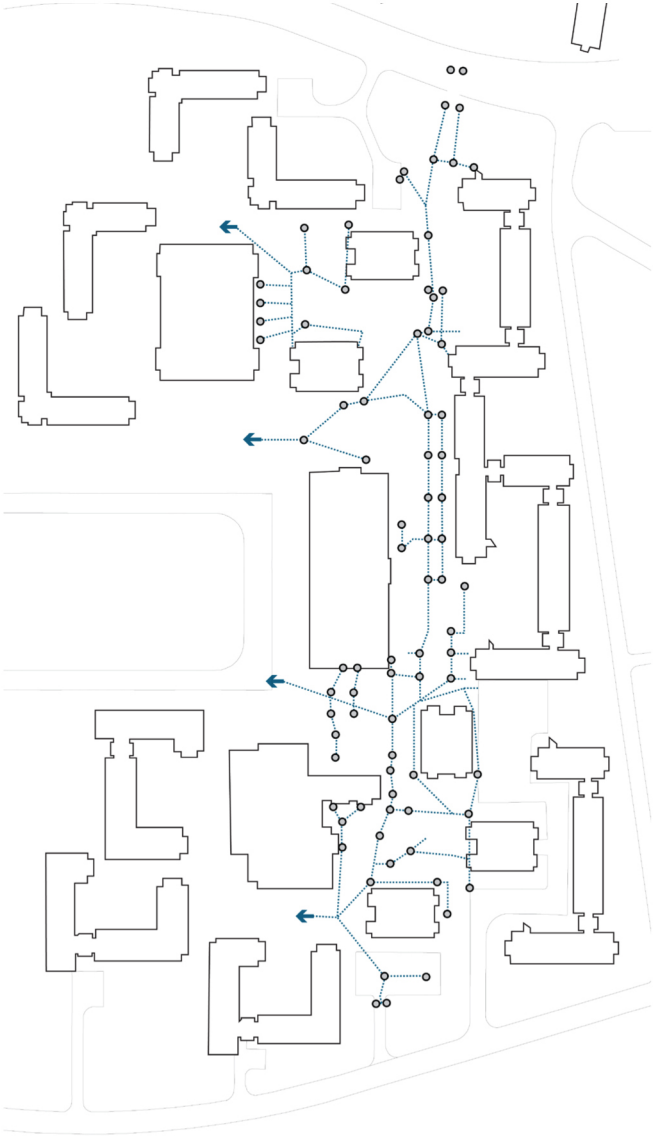


Proposed: Impervious 40% | Pervious 60%

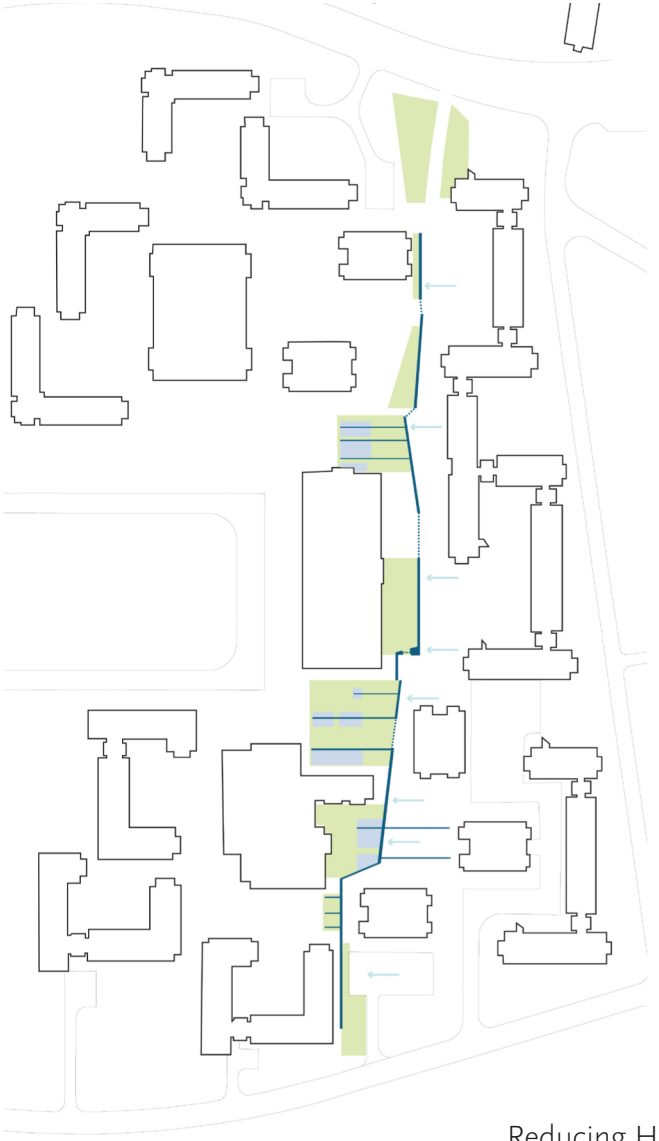


Increasing Porosity

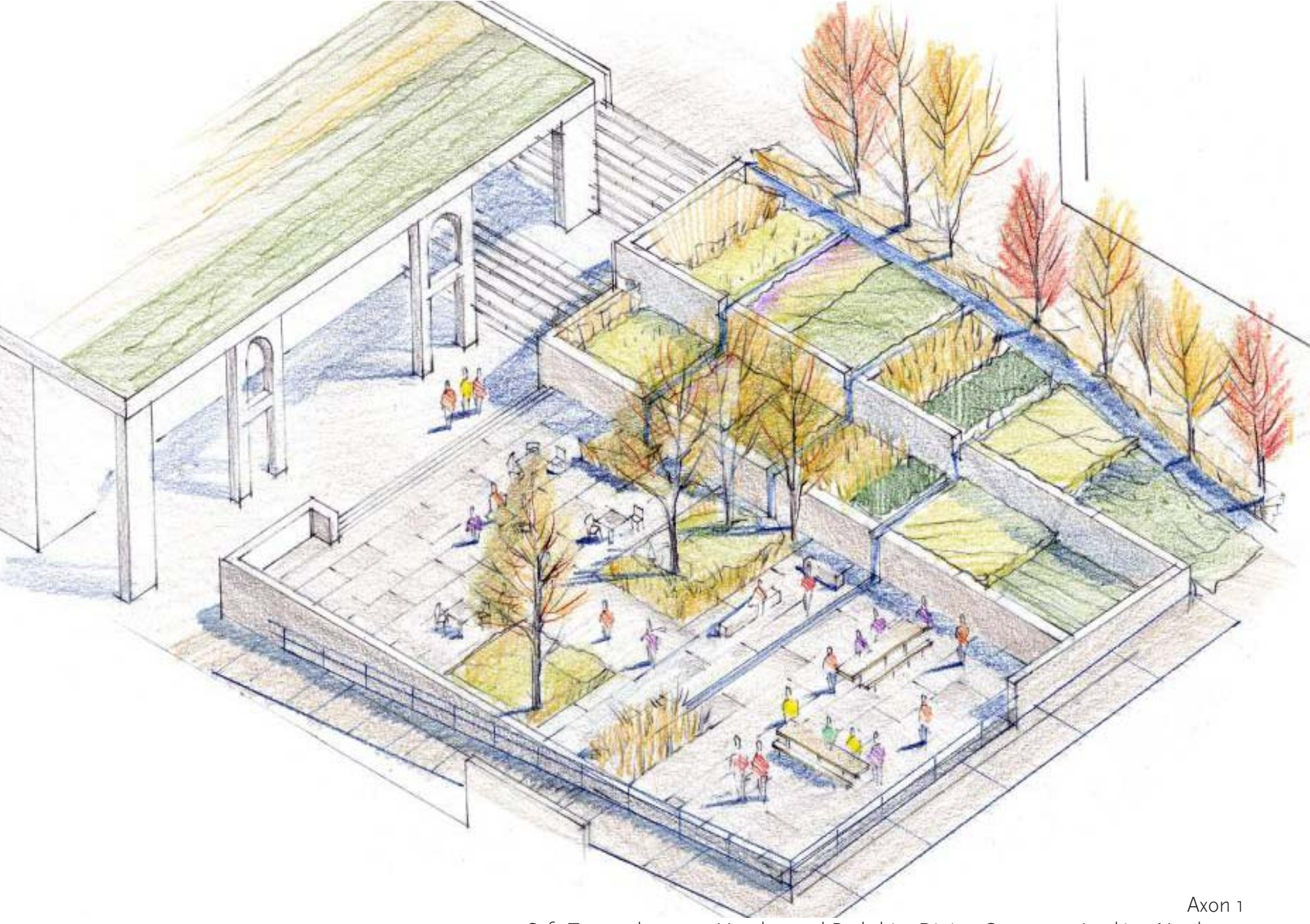
Existing: Subsurface Drainage



Proposed: Visible Stormwater System



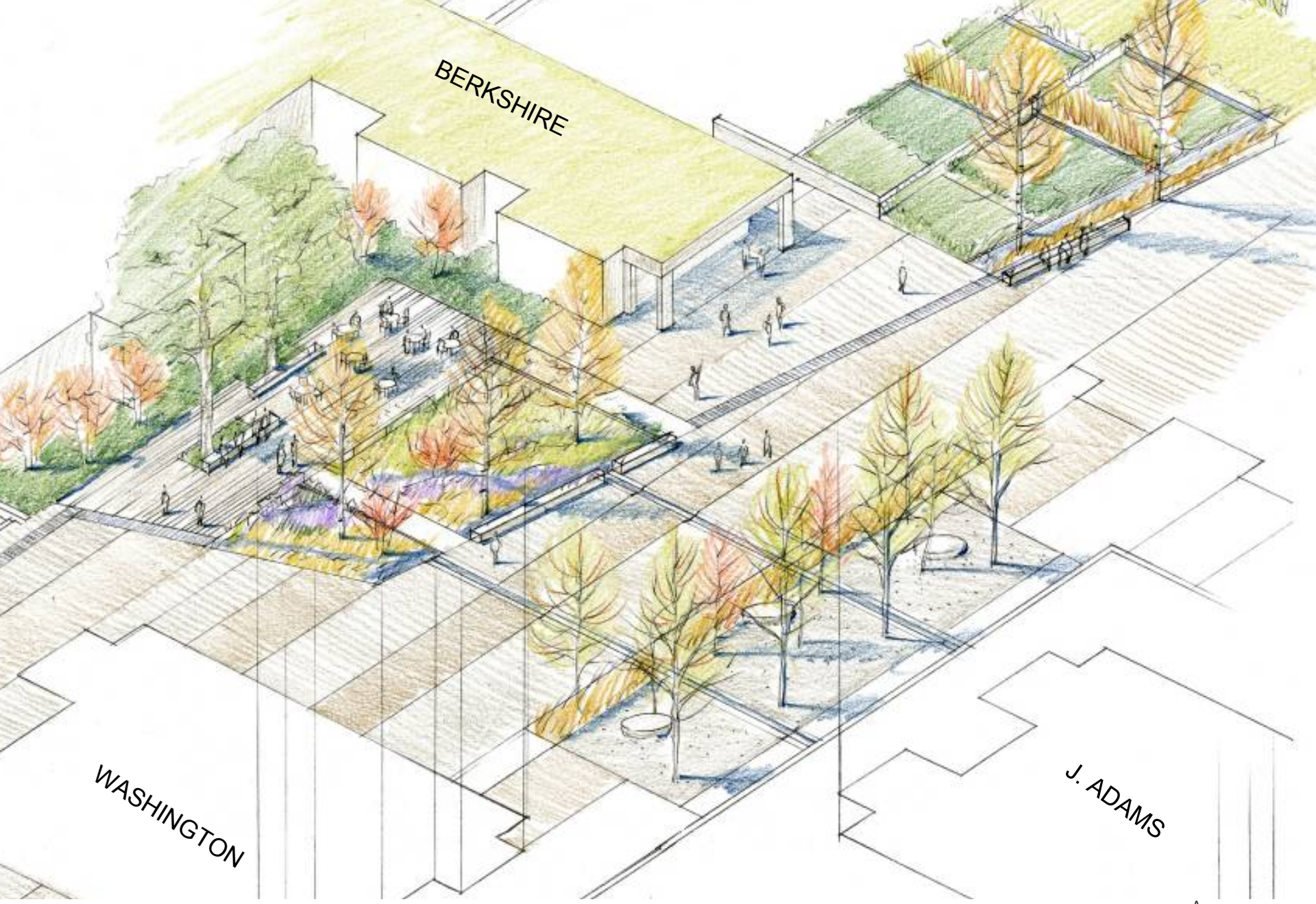
Site Section 1
Through Cafe Terrace Between Hapden and Berkshire Dining Commons Looking South



Axon 1
Cafe Terrace between Hapden and Berkshire Dining Commons Looking Northeast

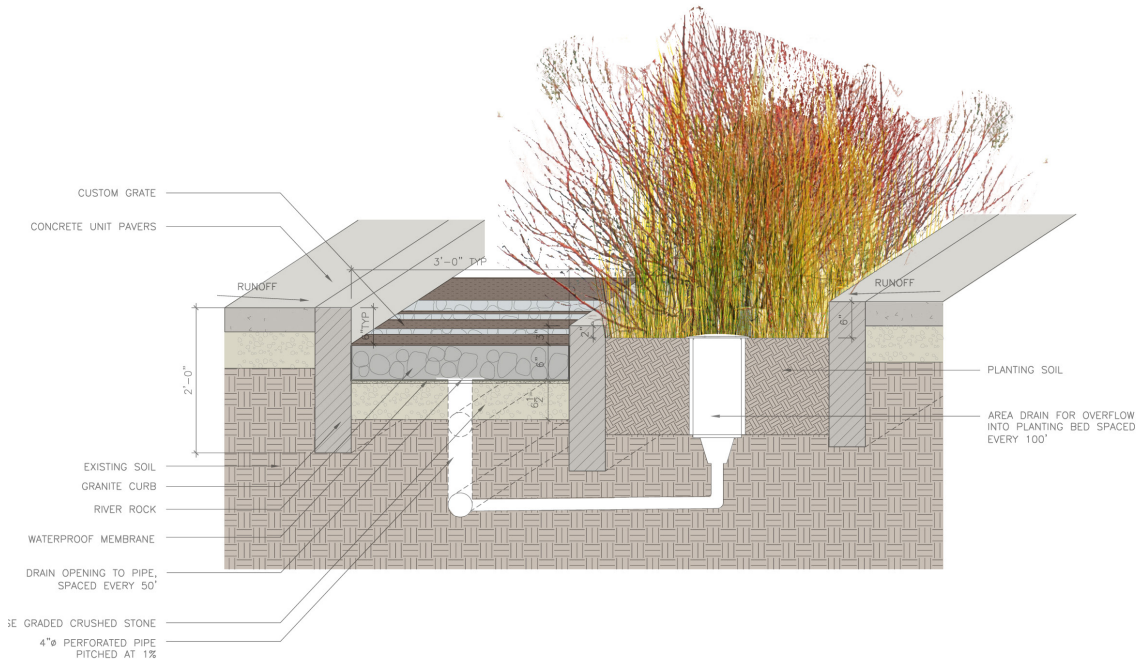
Perspective 1
Runnel East of Cafe Terrace Between Hapden and Berkshire Dining Commons Looking North

Section 2
Through Berkshire Dinning Common Looking South



Axon 2

Outdoor Dining and Planting South of Berkshire Dining Common Looking Northeast



A2 RUNNEL W/GRANITE CURBING AND GRATE
1" = 1'-0"

Drainage sections


CAT
VOLVO


GEHRER
Bobcat
S175
Bobcat


VO
EW180B


Before

After