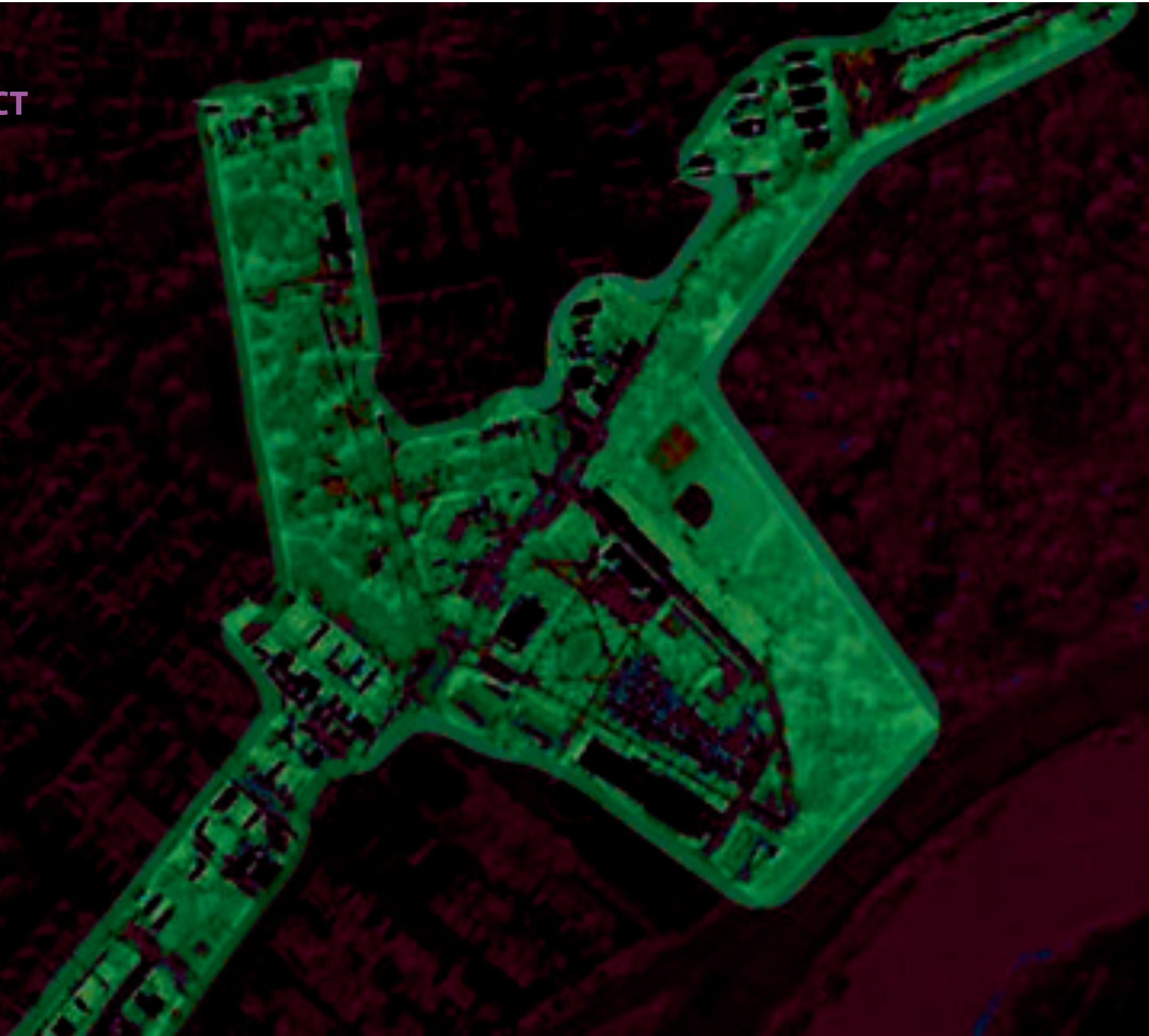
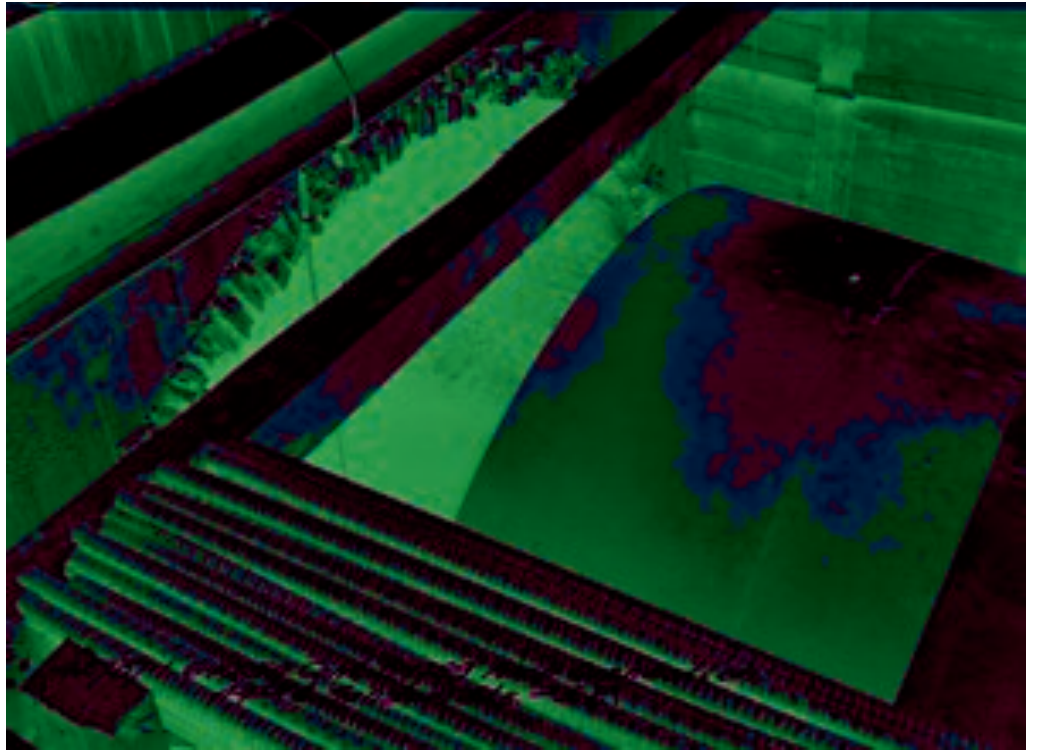
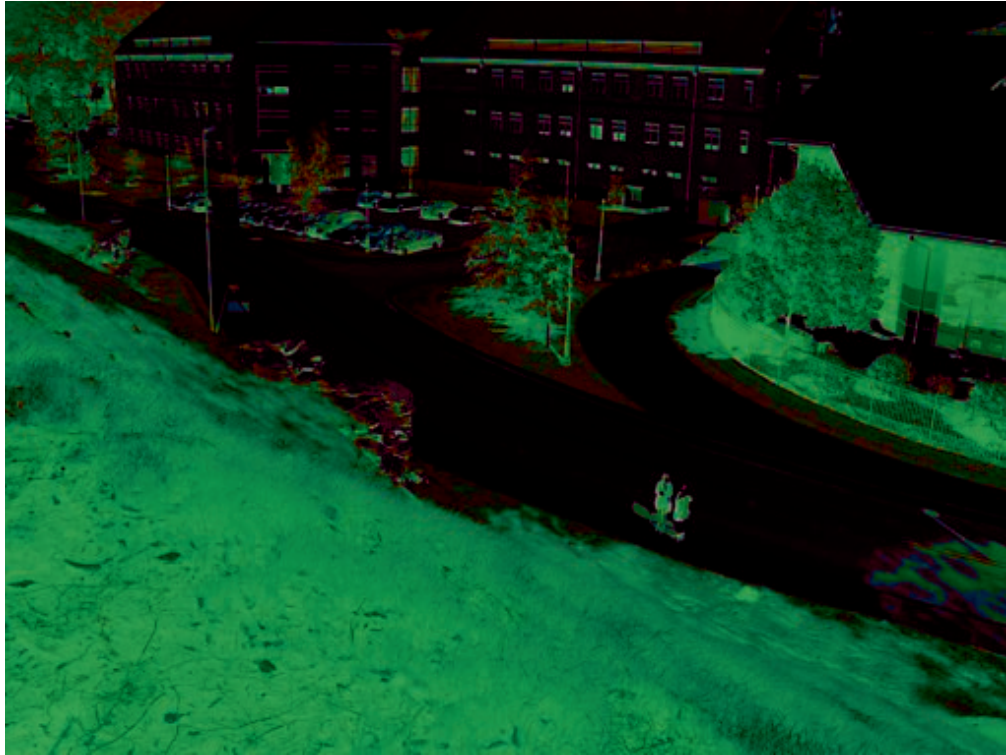


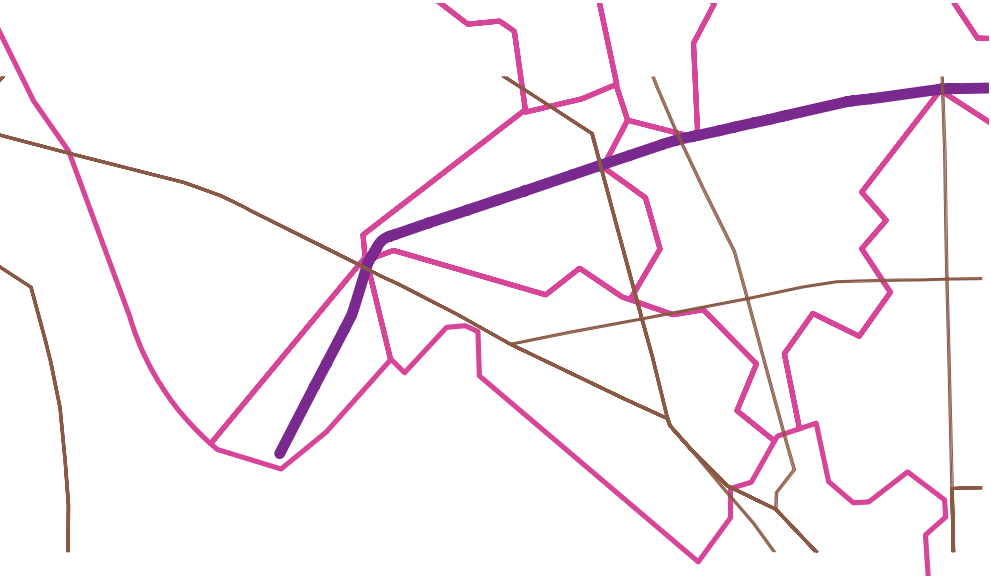
WOODLAND TRANSECT

11.314 Landscape, Water and Urban Design
ZAYNAB ABBAS ALEXIS TAYLOR
Final Presentation 12.1.2010





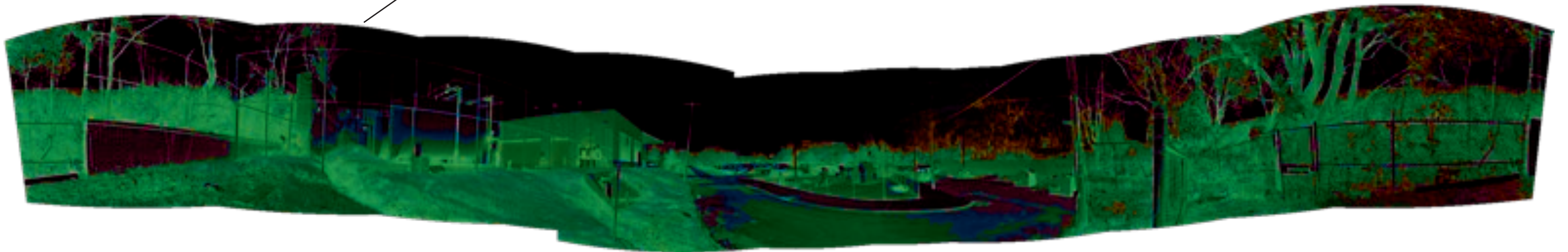
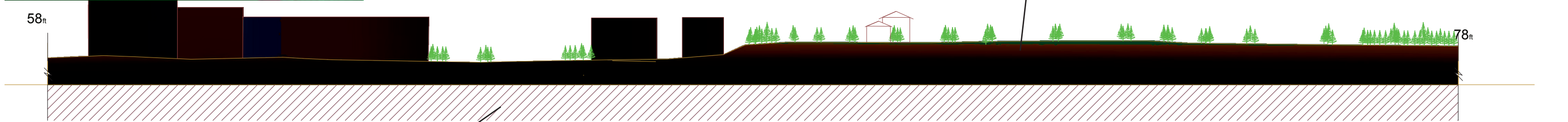
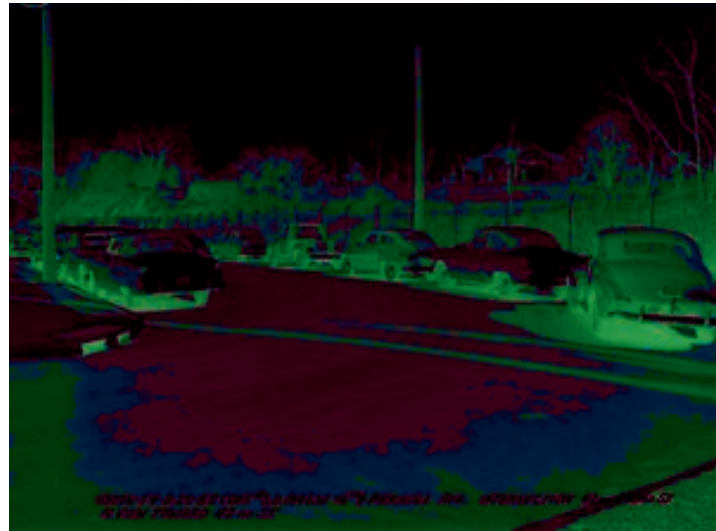
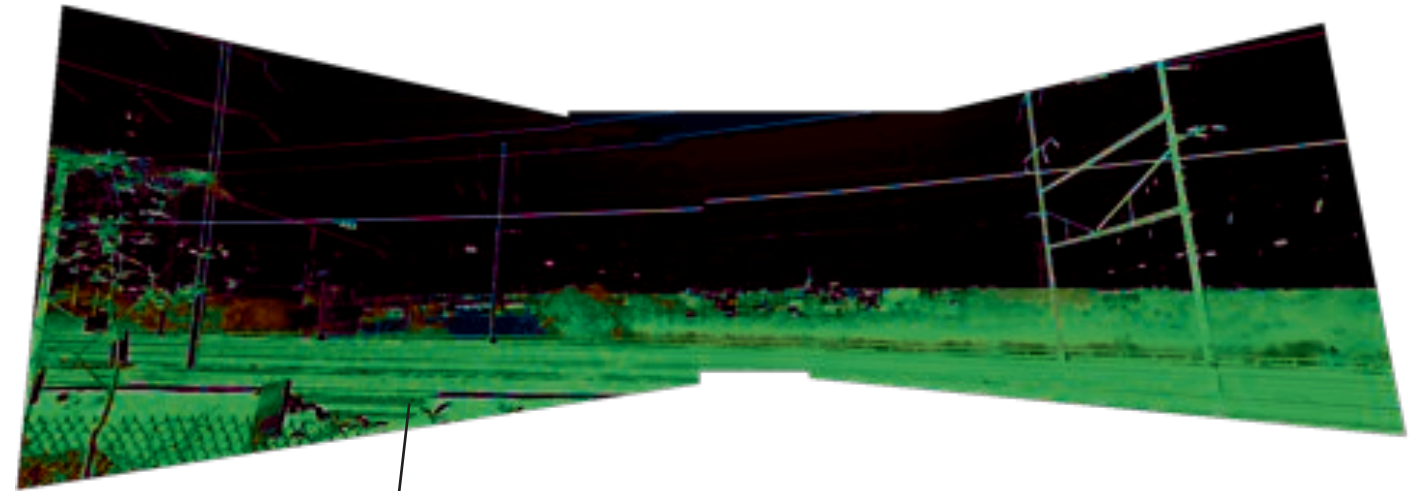
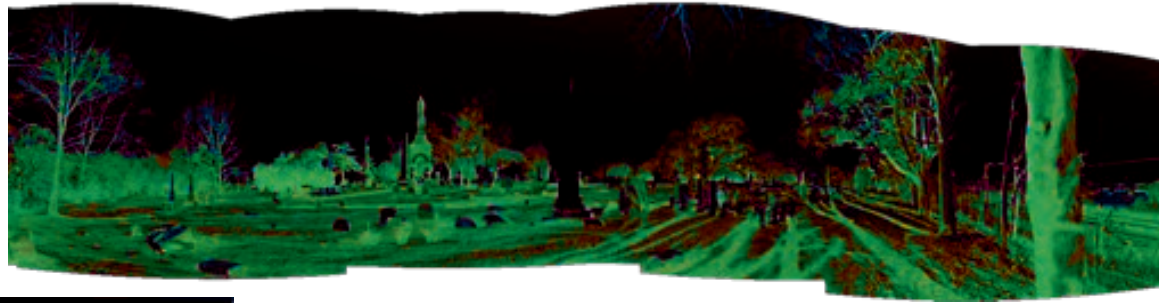
TOPOGRAPHY



SEWER & SUBSHEDS



HISTORICAL CONTEXT

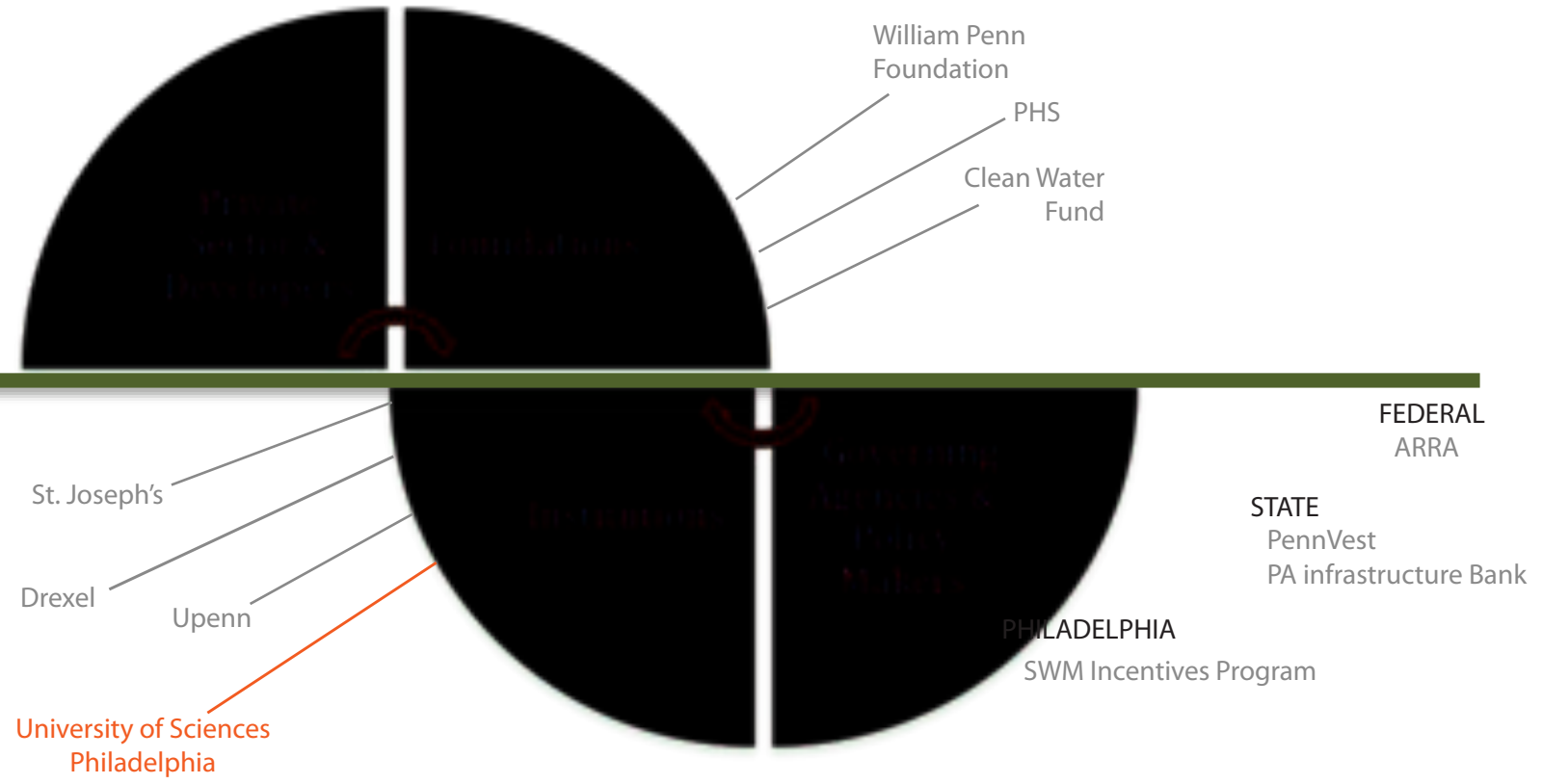


SOURCES OF INFRASTRUCTURAL CAPITAL

Why are Colleges and Universities strong candidates for SWM funding?

- A substantial number of Federal, State and foundation funding for grants / loans are eligible only to 501(c)(3)s
- A 15-yr loans is consistent with payback period from green infrastructure investment
- Valued as a secure investment by most lenders

Leverage for Multiple Agendas



P.I.L.O.T [Payment in lieu of taxes]
Proposal to invest in Campus Best Management plans

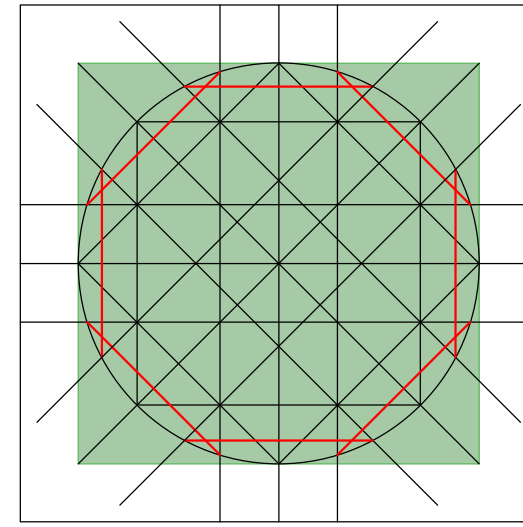
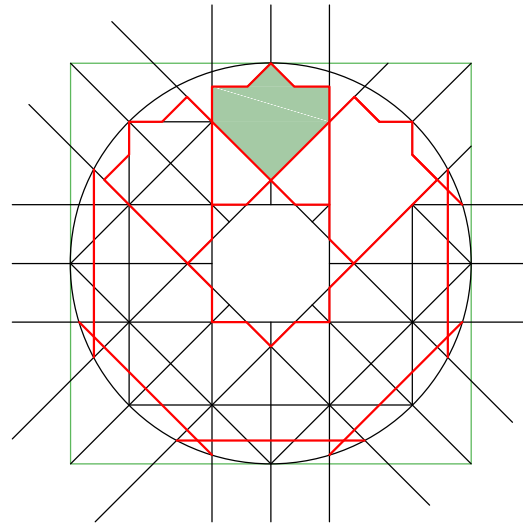
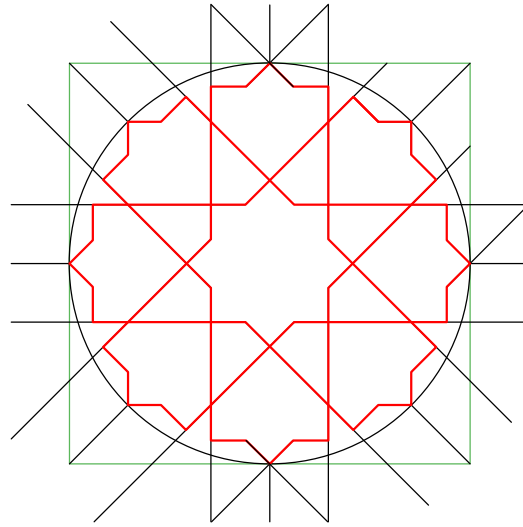
Investment in physical infrastructure can be coupled with research to monitor effectiveness & Return on Investment over a period of time

RECENT EXAMPLE UNIVERSITY RESEARCH FUNDING: Pennsylvania State University -- \$146,835 to study the effect of varying nutrient and light on natural biofilms collected from Pennsylvania streams. The

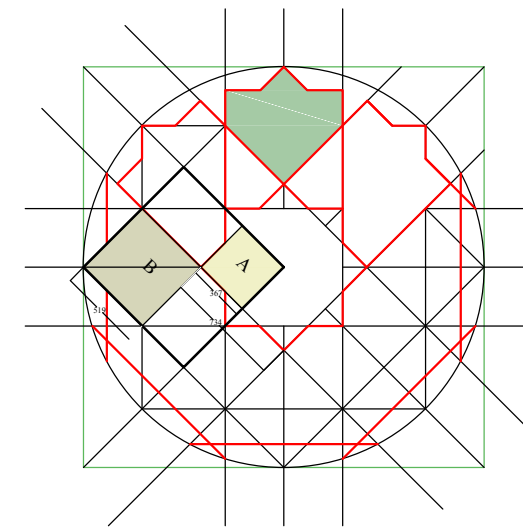
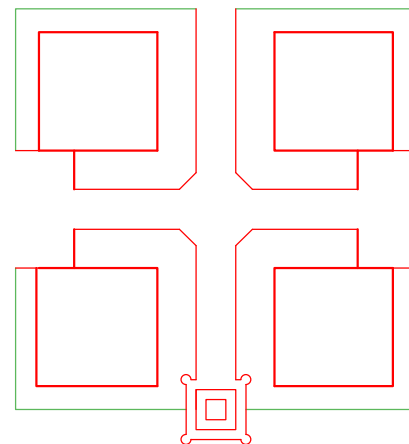
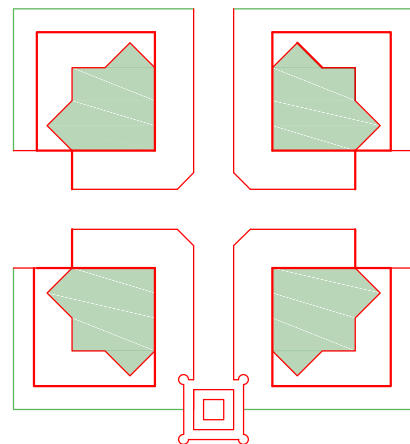
The geometrical pattern unit

The geometrical pattern unit depends on clearly formulated method incorporating a grid system of composition. In which, the sides of the secondary grid A are extended to the perimeter of the square repeat unit. Further point jointing generates a secondary grid pattern which provides the framework for the composition.

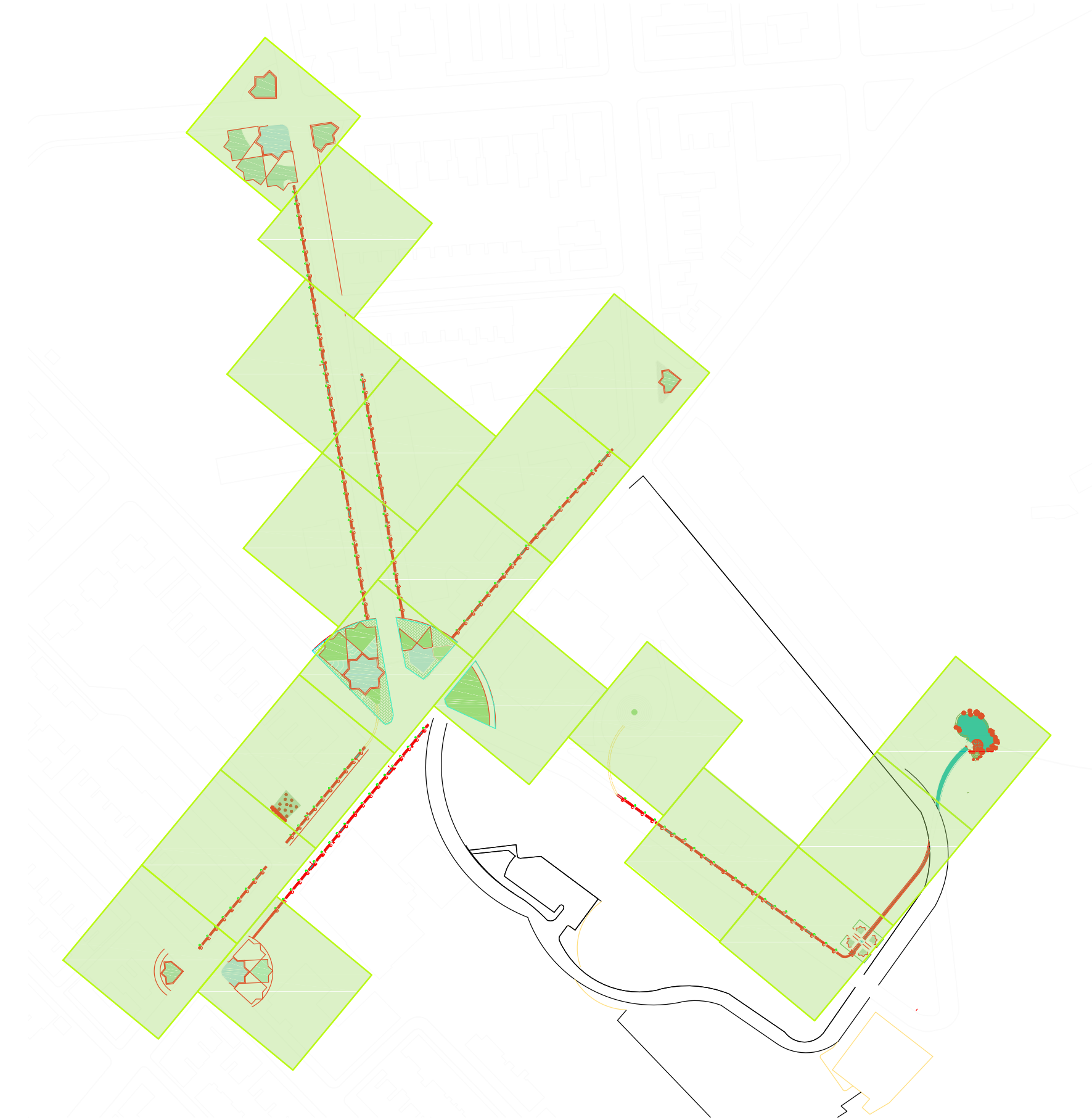
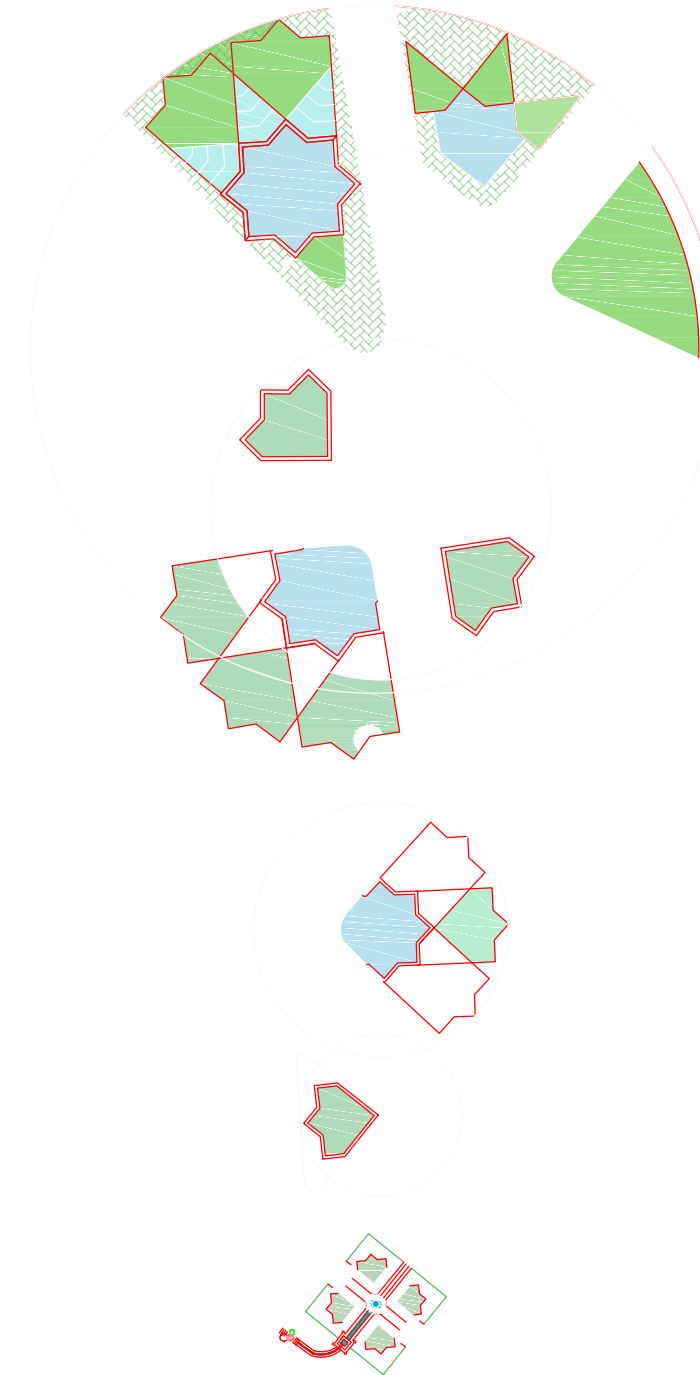
A: B: A: B: A: B: A=2:3:2:3:2:3:2



The Green Acre
1 acre = 43560.0 square ft.
= 208 ft*208 ft



The application of the green acre
and the geometrical pattern on
our transect

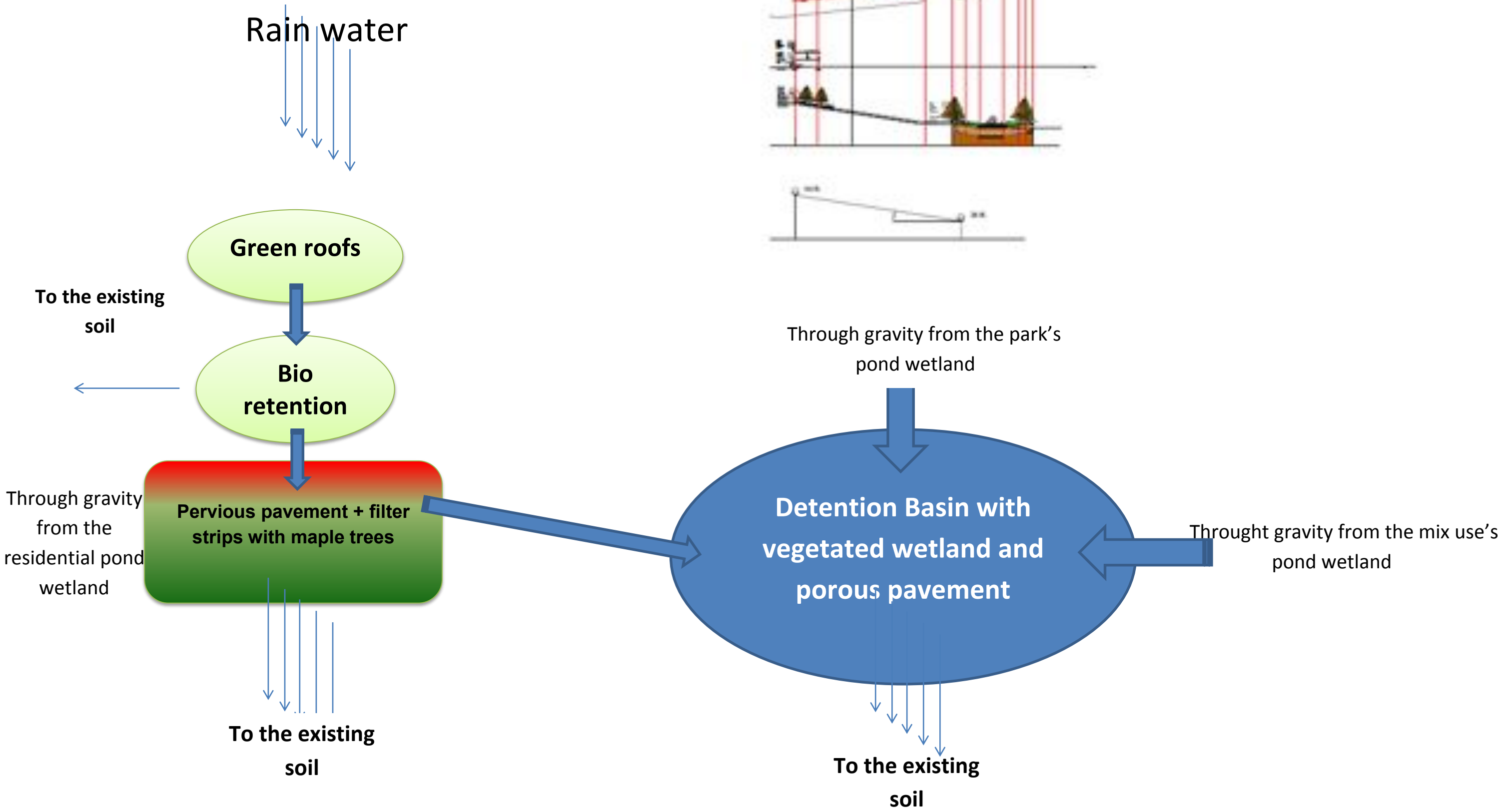


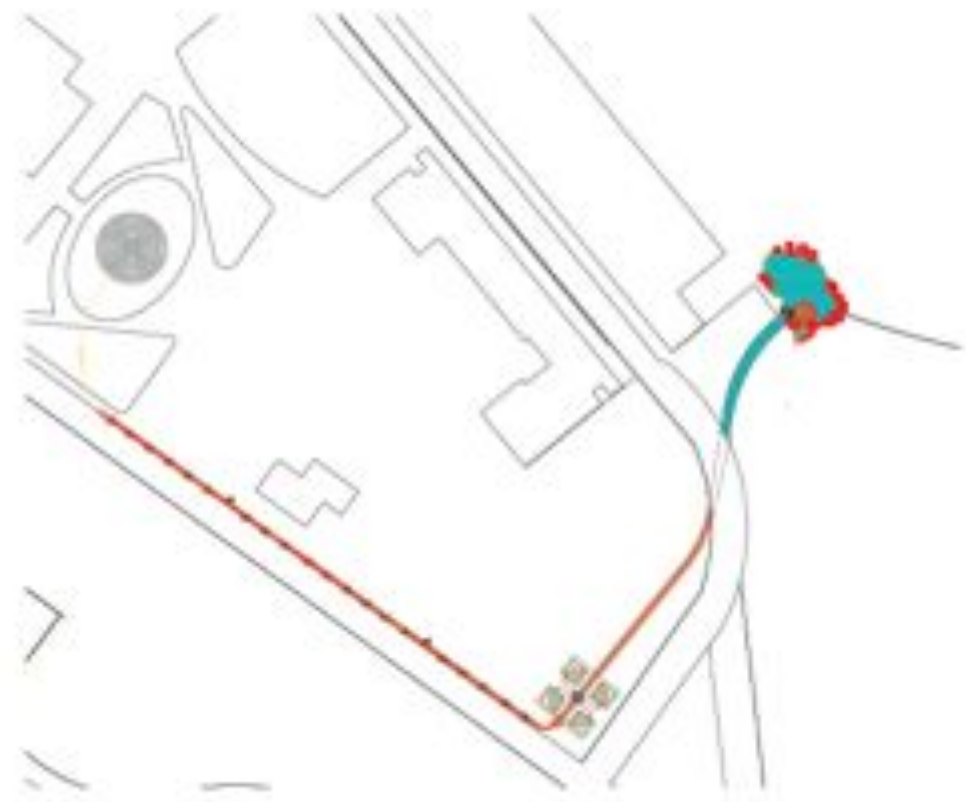
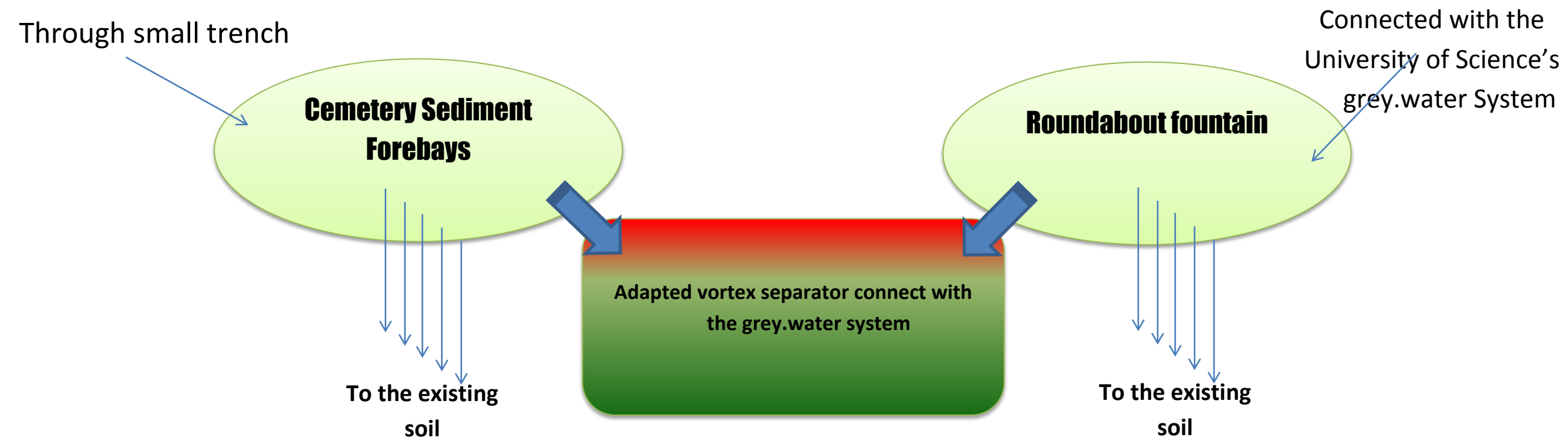
WATER CAPTURING STRATEGY

Macro scale: 1:200: Basin/wetland systems (formerly pond/wetland system) connected with each other by maple filter strips to connect the residential areas through the mill creek water shed. At the geographical center of our transect where Clark park meets Woodland avenue, a depression and low point has caused this area to be highly prone to flooding during even moderate rain events. We have adapted a geometrical pattern to reclaim three underutilized edges for the dual purpose of water collection during rain events and a dry rain garden at other times which can be enjoyed by the neighborhood residents.



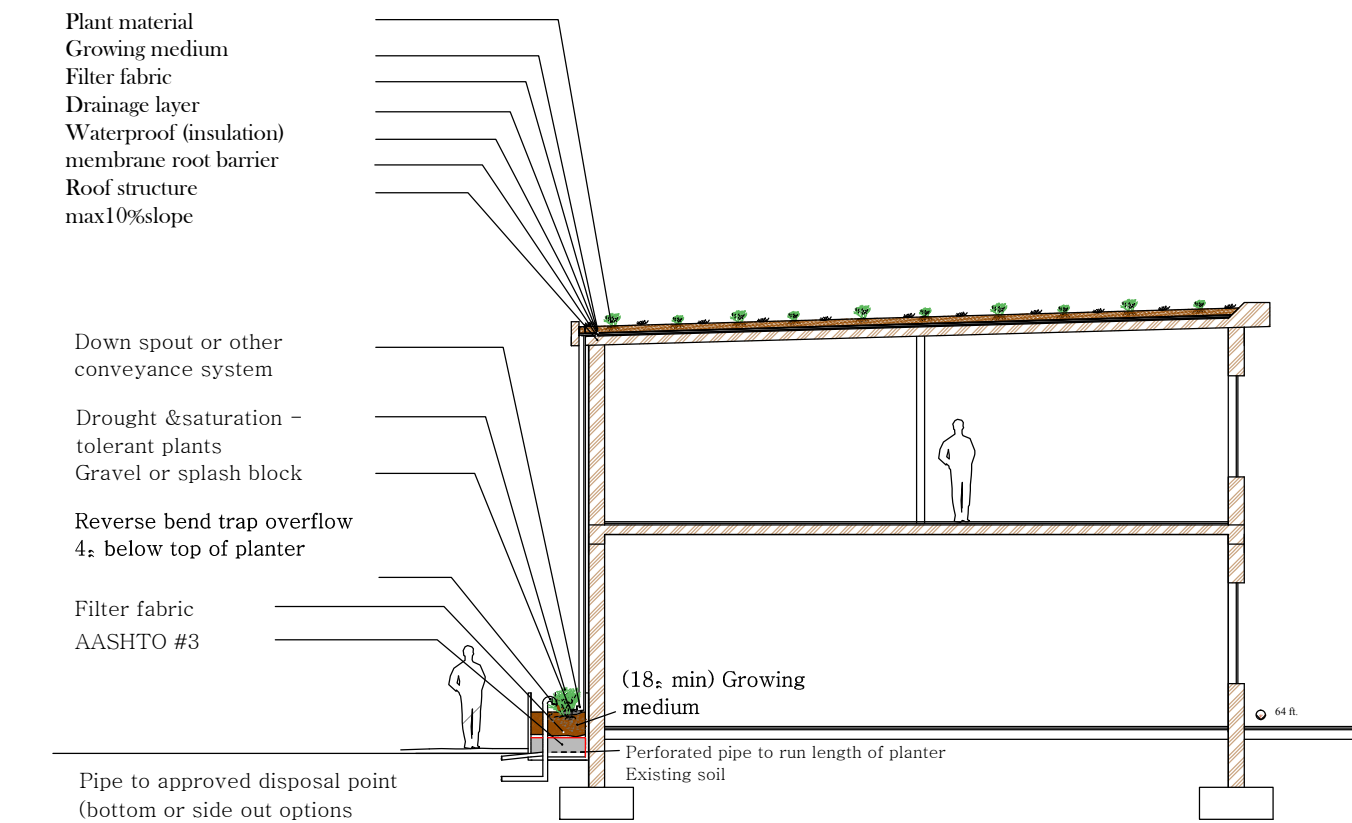
Miso scale.....1:100





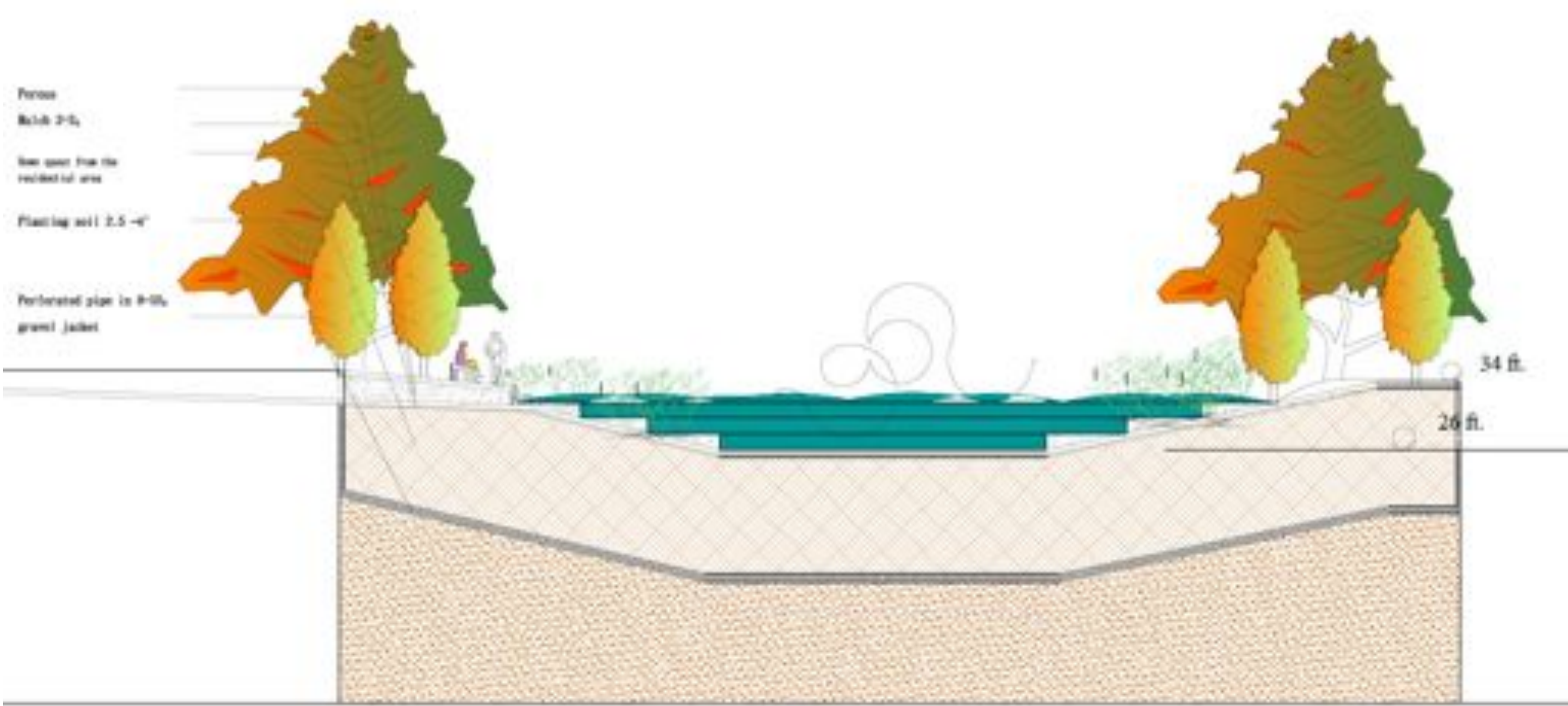
Micro scale...1:10

GREEN ROOFS AND BIORETENTION IN THE RESEDENTIAL AREA



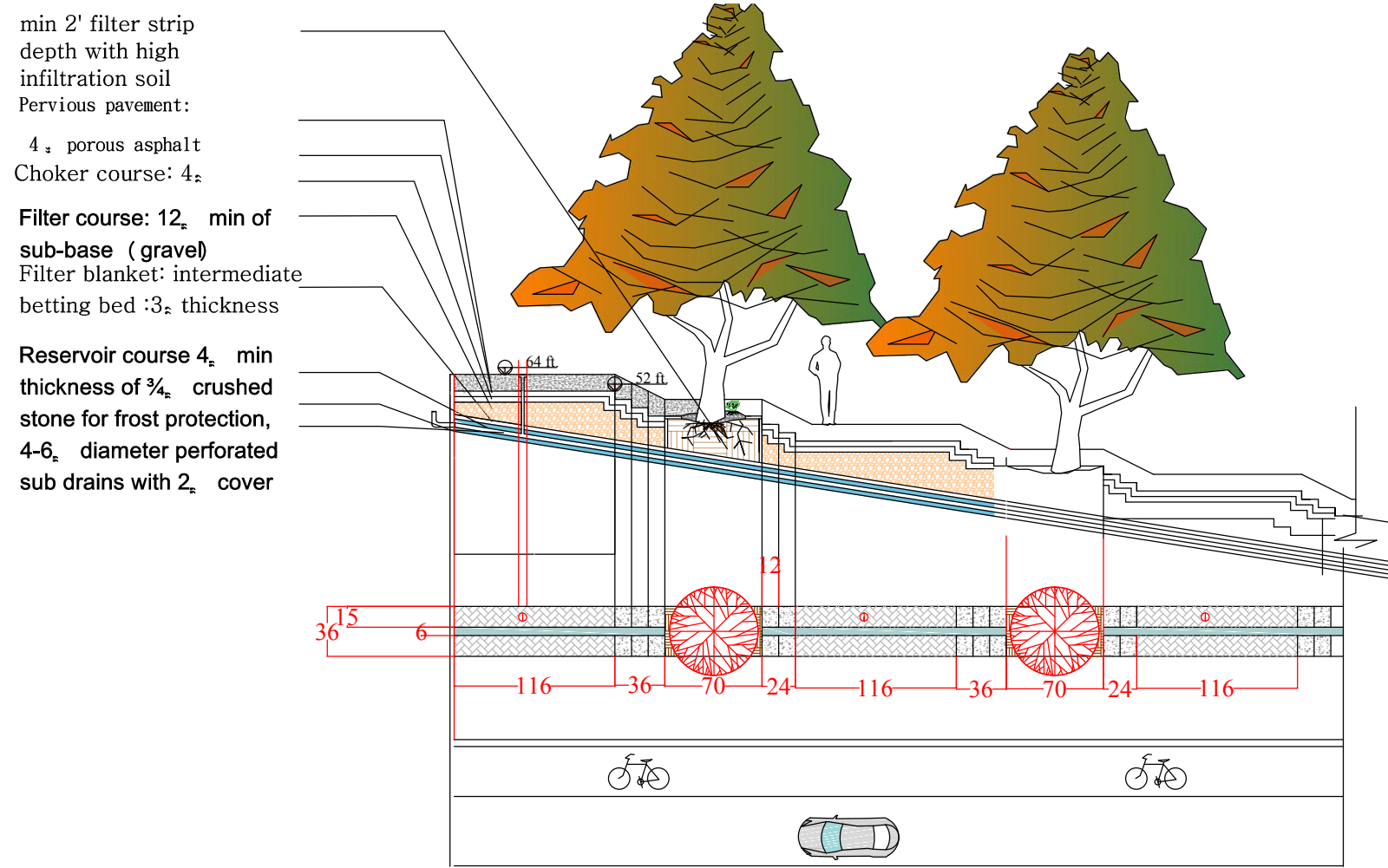
Micro scale...1:10

THE DETENTION BASIN

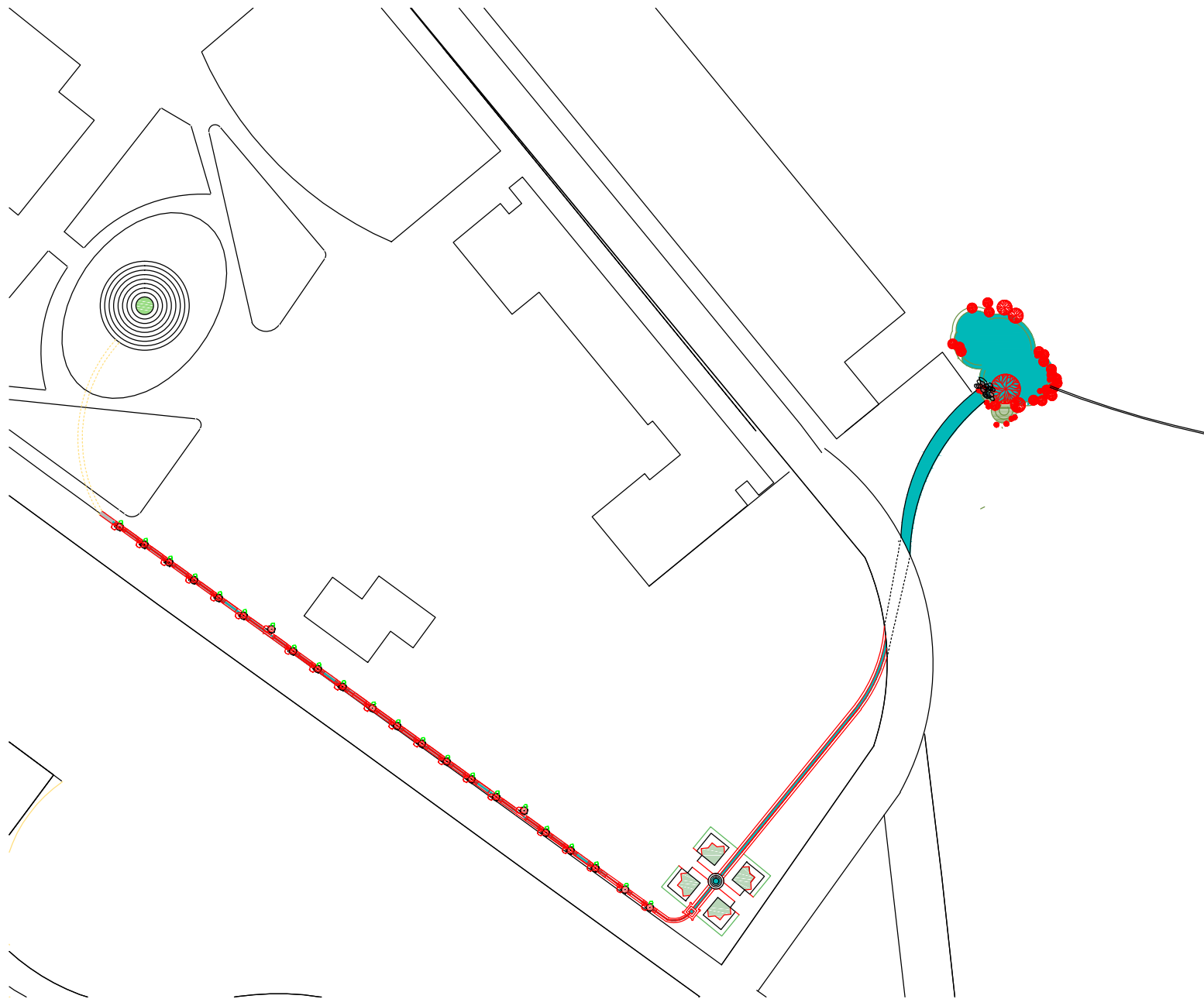


Micro scale...1:10

THE MAPLE FILTER STRIPS

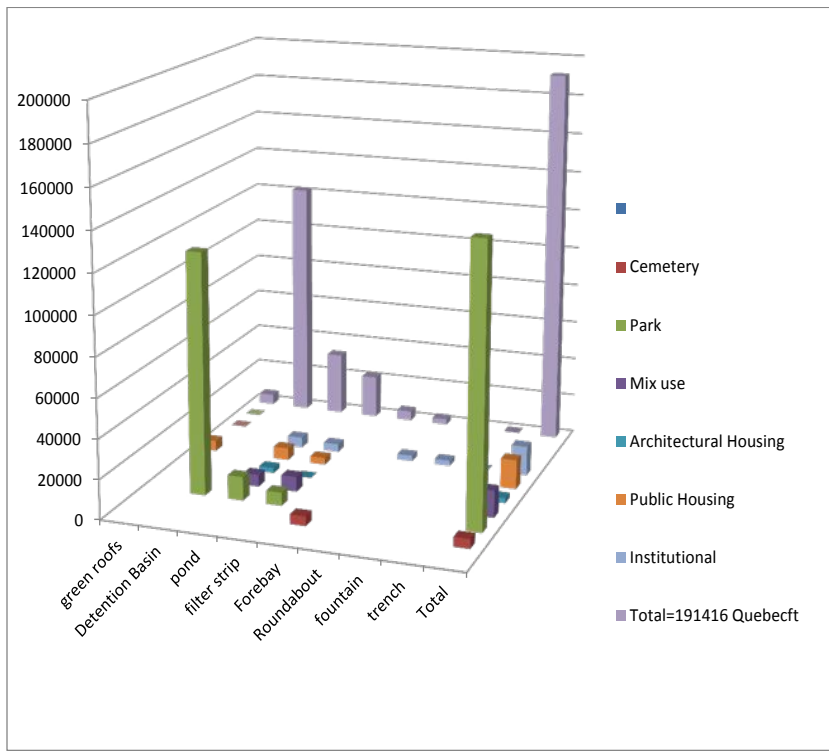


Micro
scale...1:10
THE INSTITUTIONAL
AREA AND THE
CEMETARY

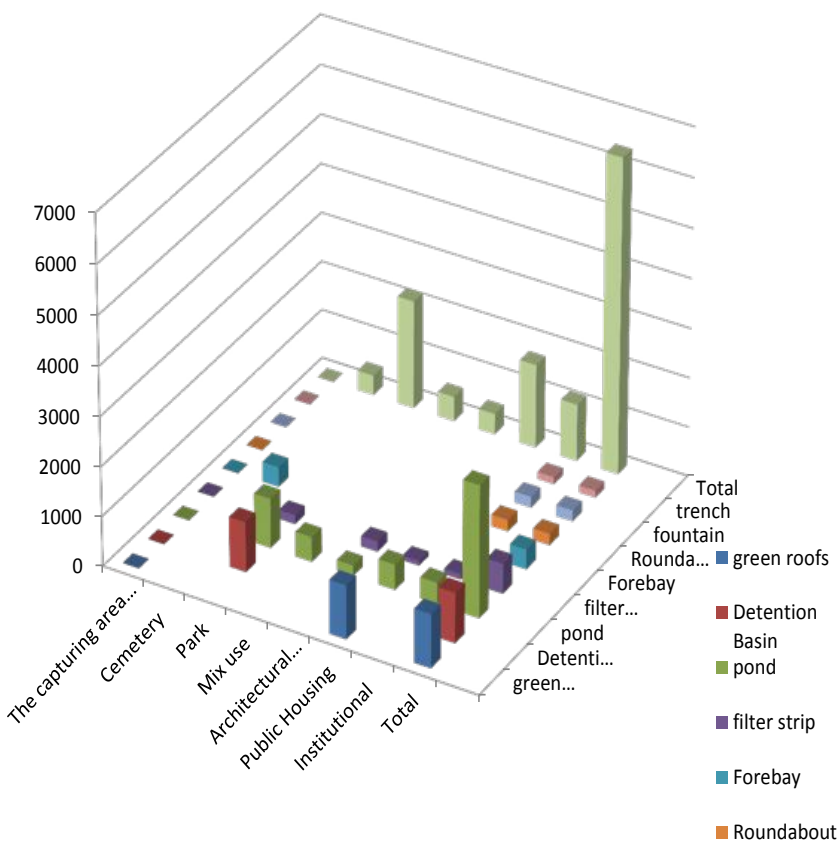


TOTAL CAPTURING AREA
comparing between the total volume
and area captured

TOTAL AREA=
1907347
TOTAL PERVIOUS
IMPROVEMENT=
6367.34
green roofs=16%
Detention Basin=15%
pond =40%
filter strip =9.5%
Forebay=6.3%



The volume of the pervious woodland transect	green roofs	Detention Basin	pond	filter strip	Forebay	Roundabout	fountain	trench	Total
Cemetery					4853				4853
Park		121760	12037	6687					140484
Mix use			6046	7524					13570
Architectural Housing			2556	0					2556
Public Housing	5224		6190	3492					14906
Institutional			5240	4131		2827	2704	145	15047
Total=191416 Quebec ft	5224	121760	32069	21834	4853	2827	2704	145	191416



The capturing area of the pervious woodland transect	green roofs	Detention Basin	pond	filter strip	Forebay	Roundabout	fountain	trench	Total
Cemetery					402.799				402.799
Park		1010.608	999.071	185.007					2194.686
Mix use			501.818						501.818
Architectural Housing			212.148	208.164					420.312
Public Housing	1084.063		513.77	96.612					1694.445
Institutional			434.92	114.291		234.641	224.432	145	1153.284
Total	1084.063	1010.608	2661.7	604.074	402.799	234.641	224.432	145	6367.344

Micro scale...1:10

THE VORTEX IN THE INSTI-
TUTIONAL AREA AND THE
CEMETARY

