

SLOW DOWN THAT STORM WATER!

LOW-IMPACT DEVELOPMENT TECHNIQUES IN VERMONT

BEST MANAGEMENT PRACTICES

- ✓ PROTECT RIPARIAN CORRIDORS
- ✓ REDUCE IMPERVIOUS SURFACES
- ✓ MINIMIZE SOIL DISTURBANCE
- ✓ PROTECT NATURAL FLOW PATHWAYS
- ✓ MAXIMIZE SHEET FLOW AND INFILTRATION
- ✓ PREVENT DELIVERY OF POLLUTANTS
- ✓ PROTECT SENSITIVE NATURAL AREAS

STRUCTURED SYSTEMS

BIOSWALE

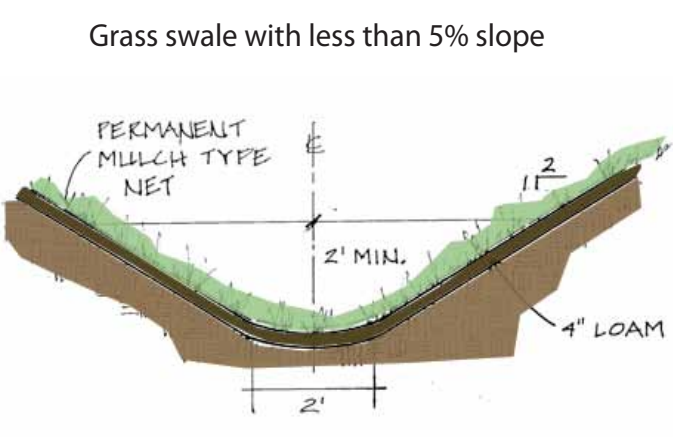
convey and filter



WWW.MASS.GOV

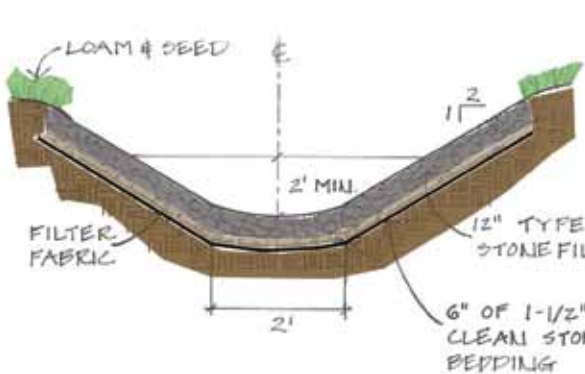


VERMONT BETTER BACK ROADS PROGRAM



Grass swale with less than 5% slope

Drain rock swale for slopes 5%-10% slope



RAIN GARDEN

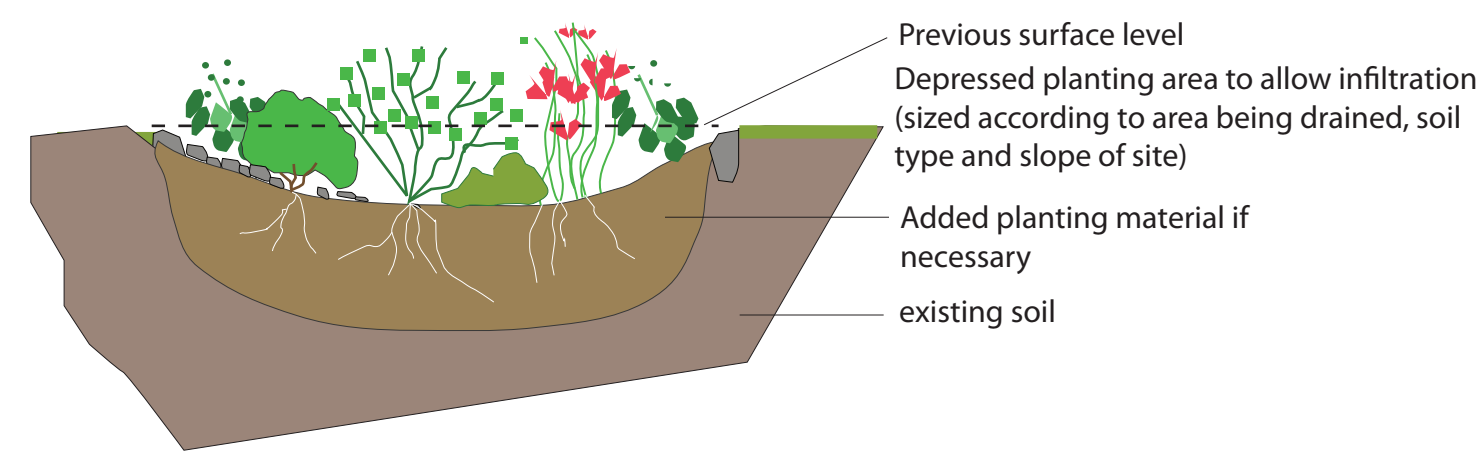
filter and infiltrate



VERMONT ACHIEVEMENT CENTER, RUTLAND, VERMONT
RUTLAND NATURAL RESOURCE CONSERVATION DISTRICT



RUTLAND, VERMONT
RUTLAND NATURAL RESOURCE CONSERVATION DISTRICT

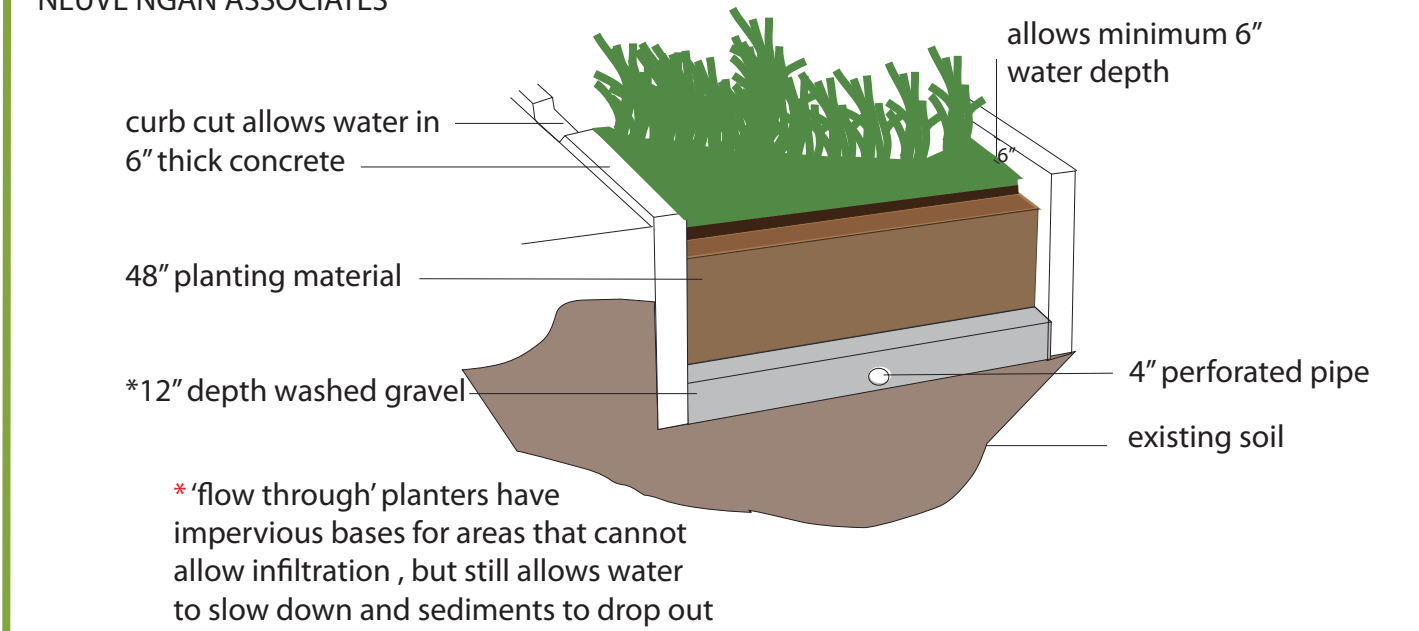


STORMWATER PLANTER

filter and *infiltrate

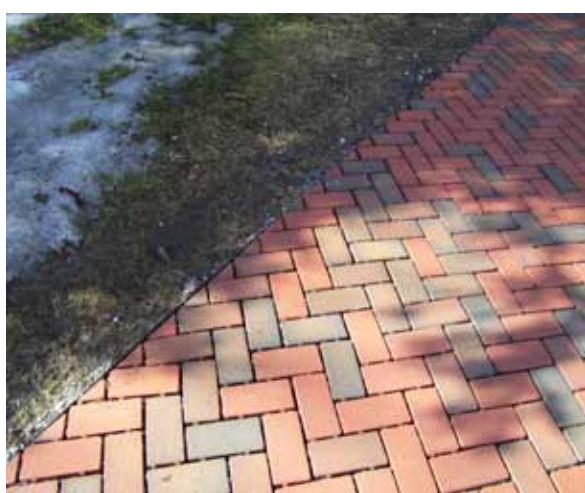


CAPITOL PARKING LOT, MONTEPELIER, VERMONT
NEUVE NGAN ASSOCIATES

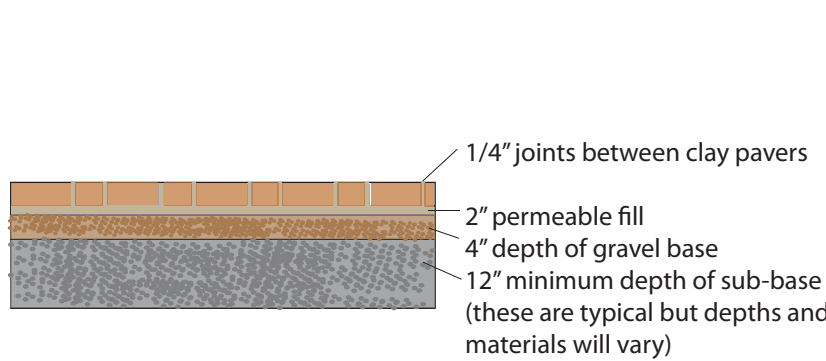


PERVIOUS PAVEMENT

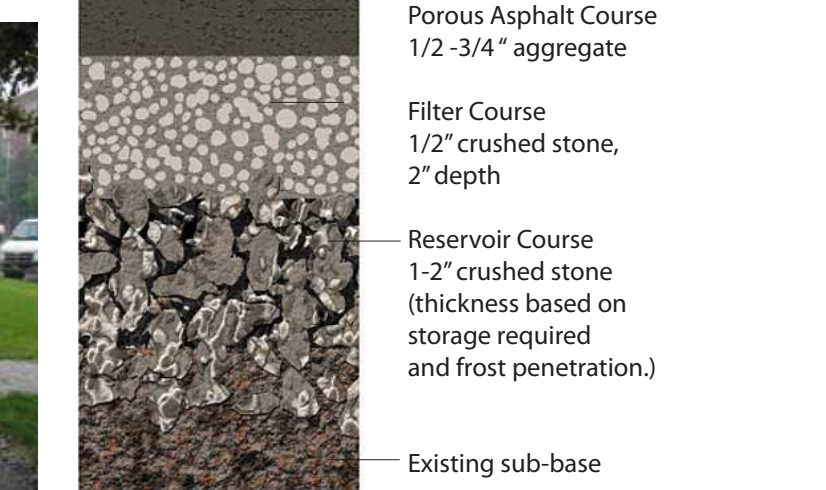
infiltrate and filter



PERMEABLE CLAY PAVERS, WATERBURY VERMONT
STATE OF VERMONT, WATER QUALITY DIVISION



POROUS ASPHALT SIDEWALK
CITY OF ST. ALBANS, VERMONT



GREEN ROOF

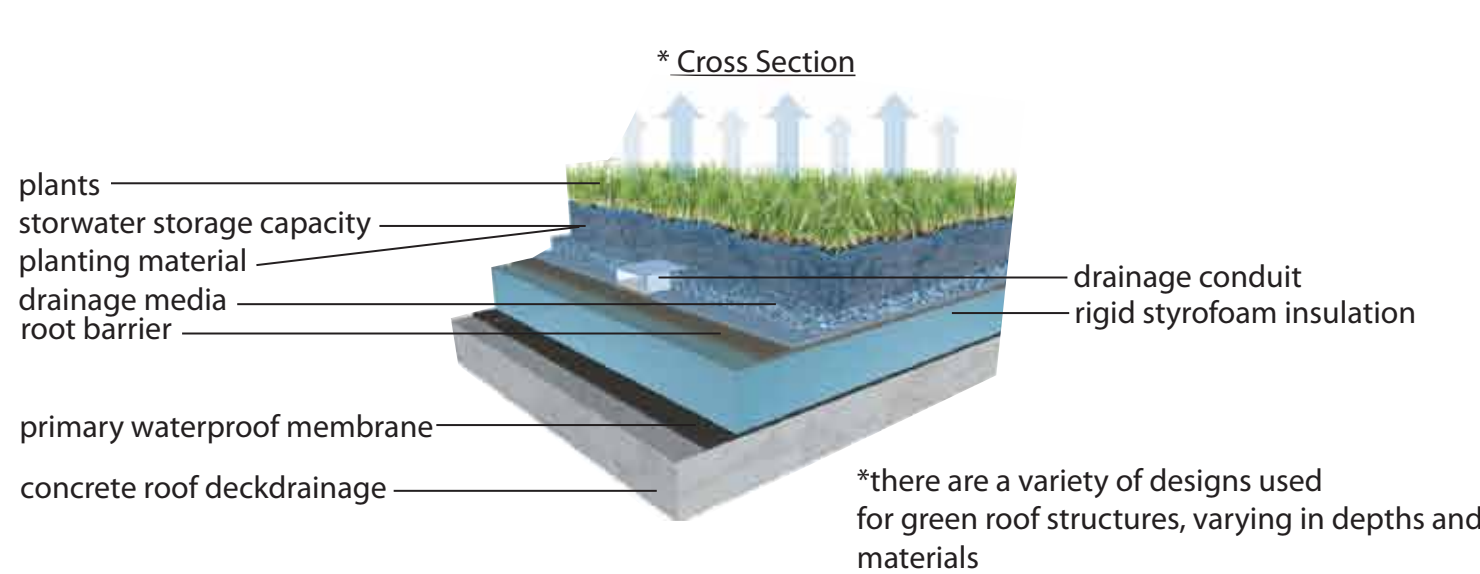
catch, disperse, filter and cool



FLETCHER ALLEN HOSPITAL, BURLINGTON, VERMONT
H.KEITH WAGNER I PARTNERSHIP



WARREN, VERMONT
CYNTHIA KNAUF LANDSCAPE DESIGN INC



CONSTRUCTED WETLANDS

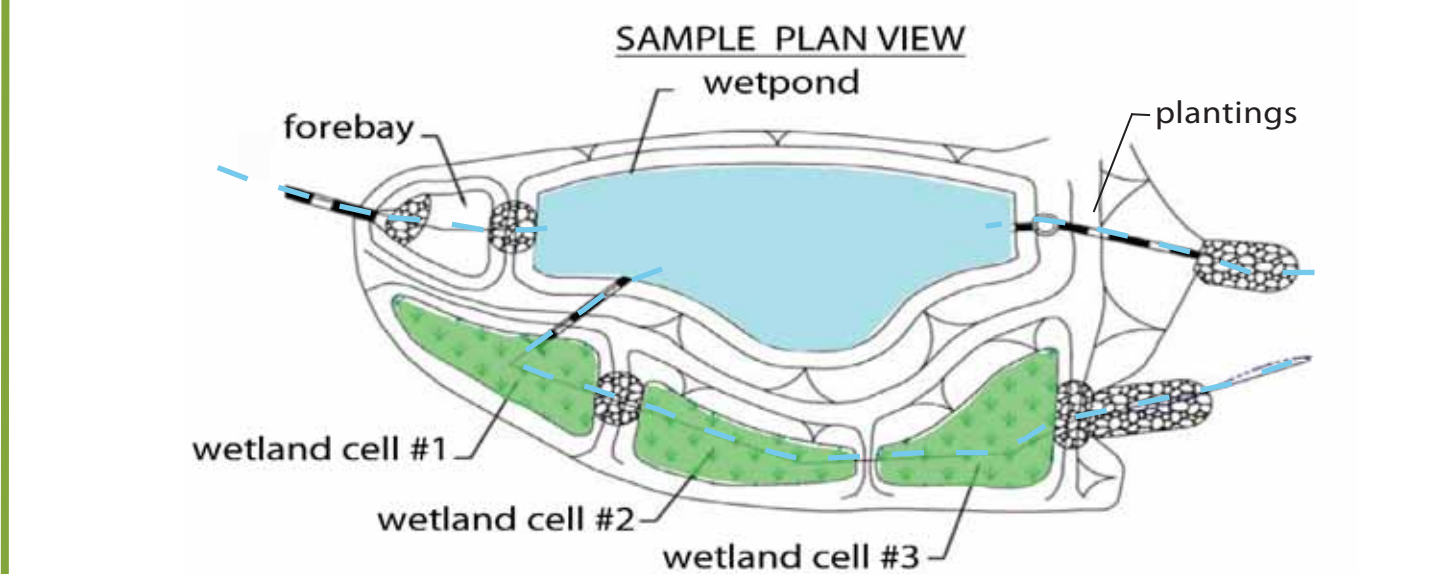
filter, infiltrate, habitat



JAMAICA, VERMONT
TERRAGENEUS LANDSCAPE ARCHITECTS



CHAMPLAIN COLLEGE, BURLINGTON, VERMONT
ORW LANDSCAPE ARCHITECTS AND PLANNERS



CISTERNS

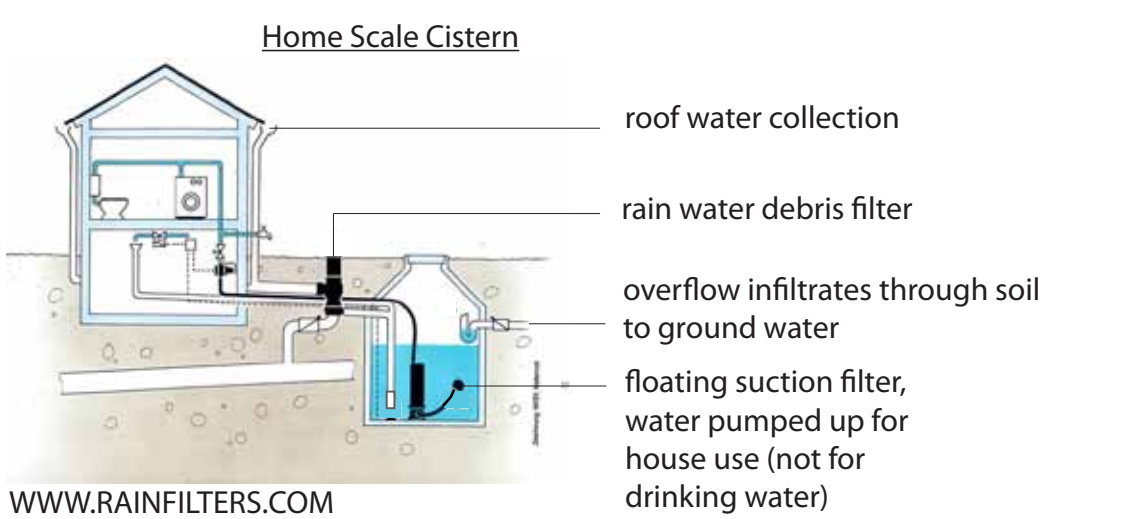
collect, store and reuse



HERITAGE AVIATION ROOF WATER STORAGE
H.KEITH WAGNER I PARTNERSHIP



TOWN OF MIDDLEBURY, STORMWATER COLLECTION
VHB INC.



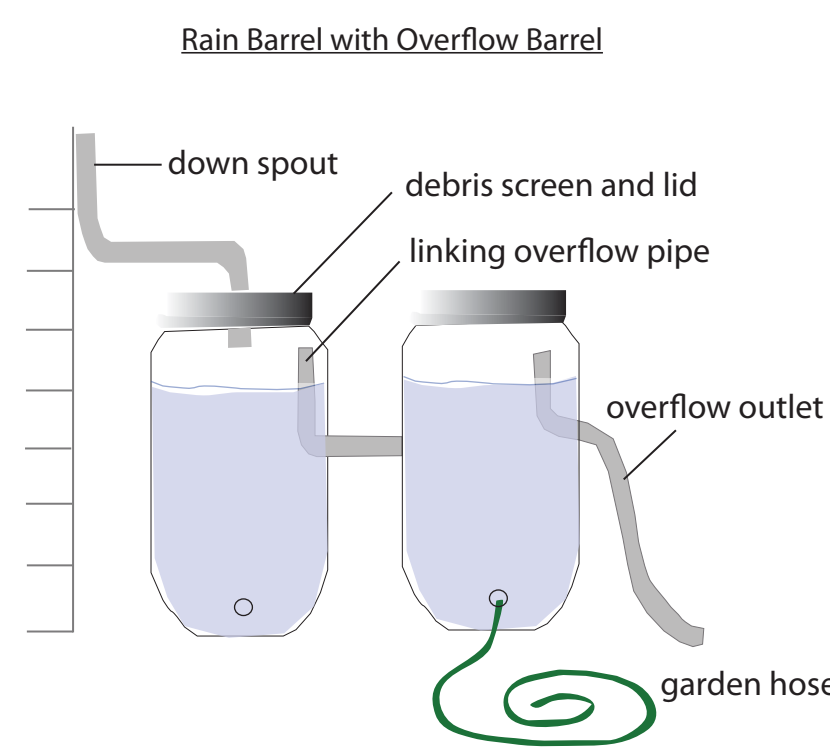
WWW.RAINFILTERS.COM

RAIN BARRELS

collect, store and reuse

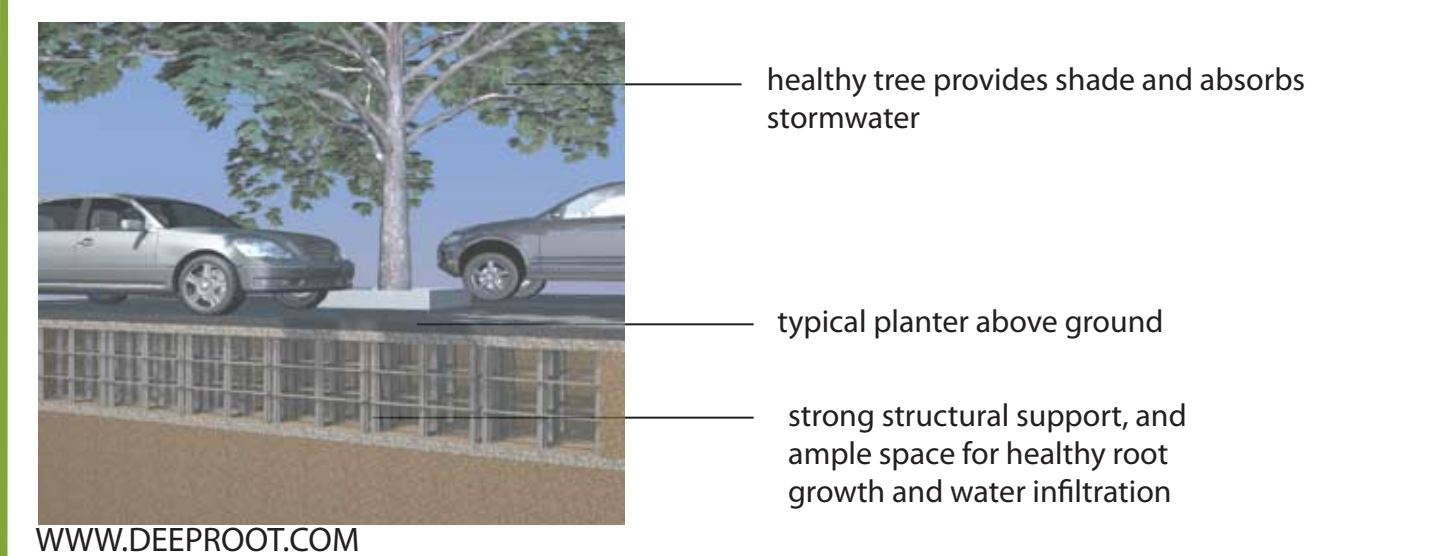


WINOOSKI NATURAL RESOURCE CONSERVATION DISTRICT



SILVA CELLS

support tree growth, infiltrate



WWW.DEEPROOT.COM

SUPPORTING TOWN PLAN AND ZONING POLICY FOR LOW IMPACT DEVELOPMENT

NATURAL RESOURCES

- Create inventory, analysis and protection tools for the following:
 - Surface water
 - Ground water
 - Wetlands
 - Forests and village trees
- Enforce riparian buffer regulations
- Adopt fluvial erosion hazard zones

ROADS

- Follow VTRANS water quality best management practices
- Identify impaired ditches and culverts
- Follow 'Vermont Better Back Roads' manual
- Incorporate LID stormwater techniques into street networks
- Protect and plan for healthy trees in village centers

BUILT ENVIRONMENTS

- Limit run-off from developed areas and construction sites
- Minimize new impervious surfaces
- Require construction practices to conserve water and collect stormwater on-site
- Impose limitations on where development can be sited
- Access existing stormwater infrastructure and ways to improve it with LID techniques
- Prohibit development in flood plains

MUNICIPAL WATER SYSTEMS

- Create inventory and analysis of sewage and septic systems in area
- Identify development limitations for sensitive sites
- Identify drinking water supply, quality and protection tools

RESOURCES

- ▶ Water Quality Division, Vermont Department of Environmental Conservation, www.vtwaterquality.org (802)241.3777
- ▶ Vermont LID Atlas and Map, Winooski Natural Resource Conservation District, www.vacd.org/~winooski/ (802)865-7895
- ▶ Model Low Impact Development Bylaw, Vermont League of Cities and Towns Resource Center, www.resources.vlct.org/ (802)229.9111
- ▶ Vermont Better Back Roads Pocket Guide and Manual, Natural Resource Conservation Service, www.vt.nrcs.usda.gov (802) 388-6748
- ▶ Stormwater Center, University of New Hampshire, www.unh.edu/unhsc/ (603)767.7091
- ▶ Center for Low Impact Development, www.lowimpactdevelopment.org/ (301)982-5559



Addison County
Regional Planning Commission