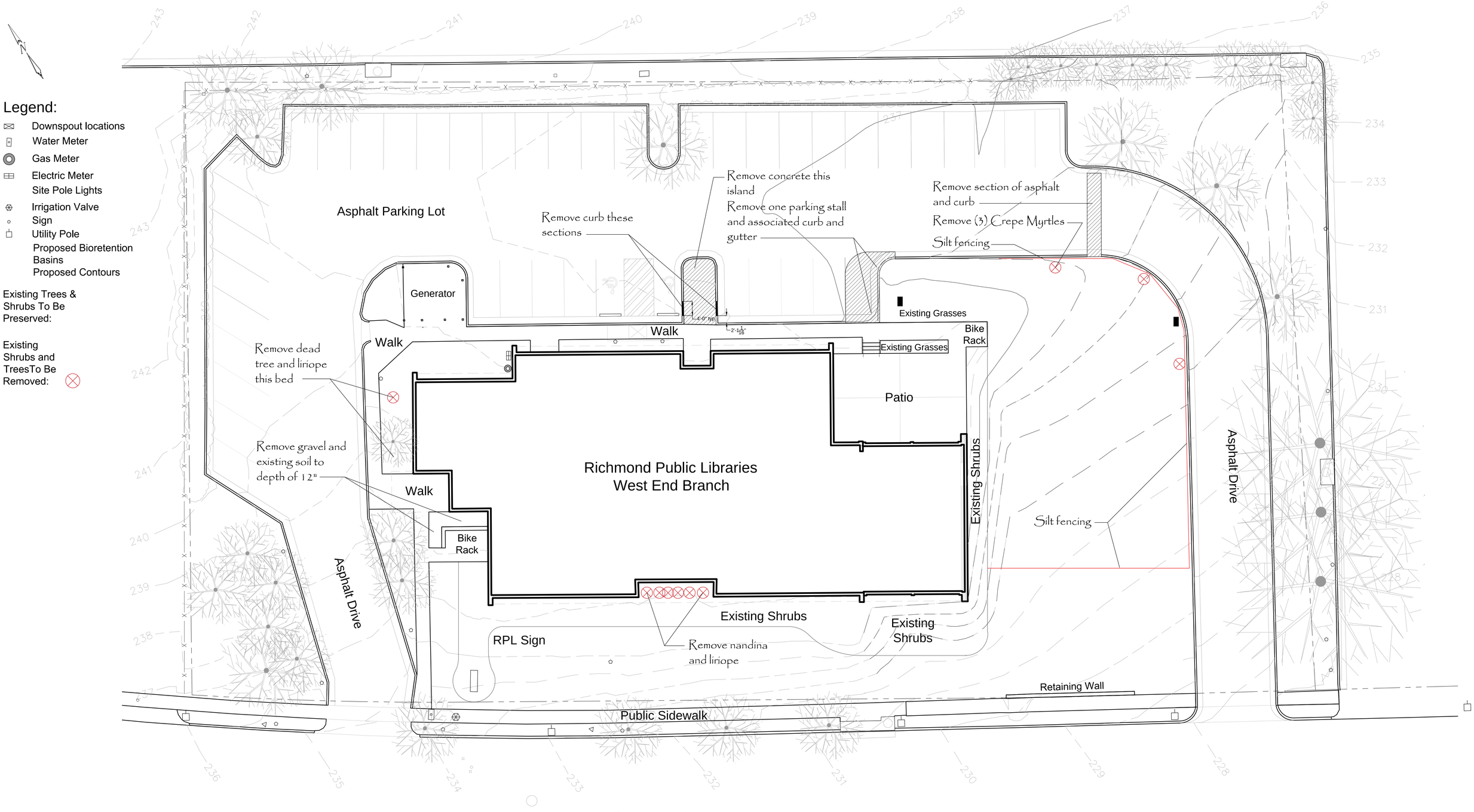
Greening Richmond Public Libraries

IMPROVING THE HEALTH OF THE JAMES RIVER BY REDUCING STORMWATER POLLUTION

West End Branch Library

5420 Patterson Avenue, Richmond, 23226



Existing Conditions, Demolition, & Erosion Control Plan
Not for construction

FOUR WINDS DESIGN, LC

Scale: 1"= 12'

Date: 3-8-21

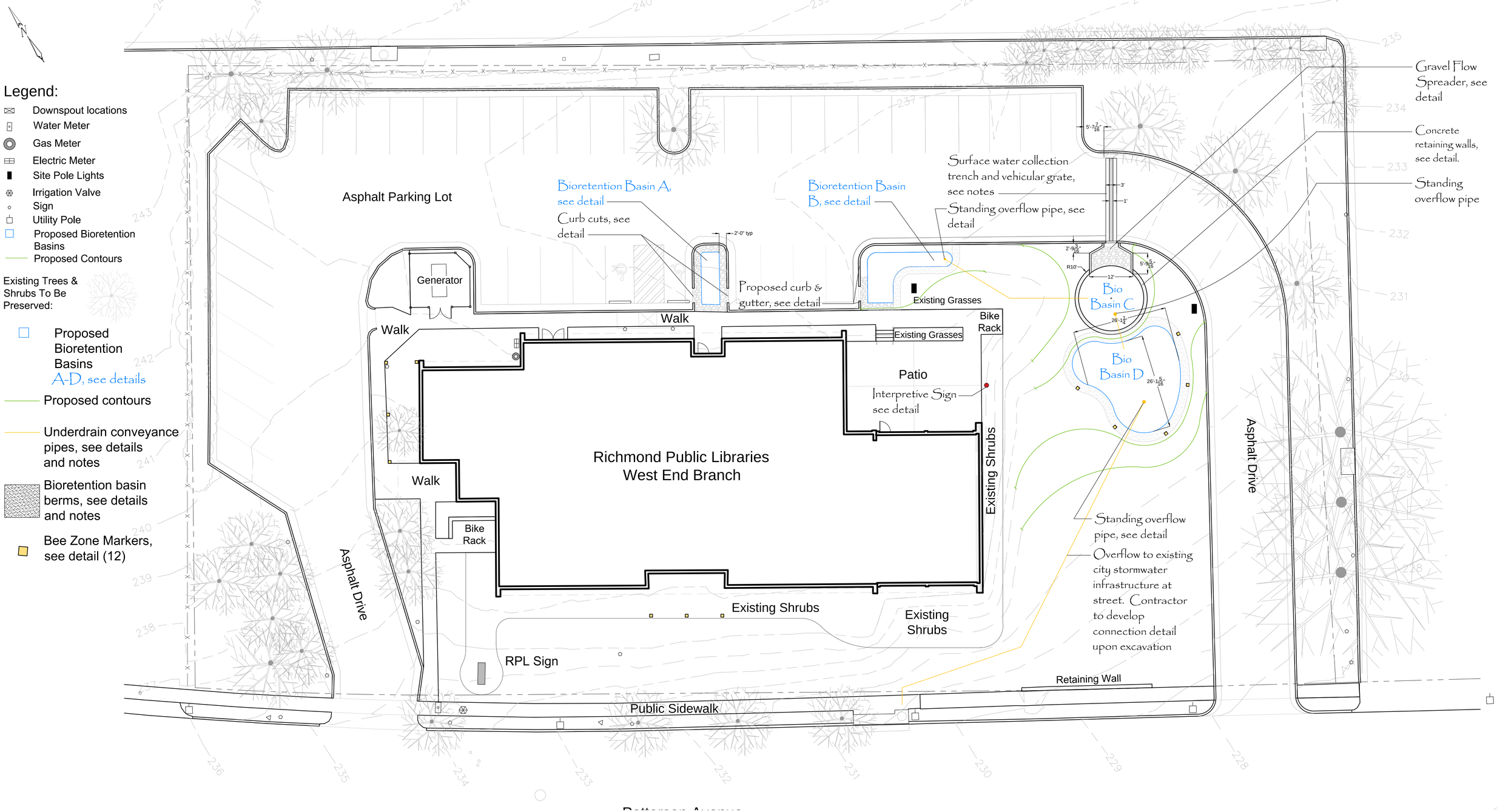
Sheet 1 of 4

Greening Richmond Public Libraries

IMPROVING THE HEALTH OF THE JAMES RIVER BY REDUCING STORMWATER POLLUTION

West End Branch Library

5420 Patterson Avenue, Richmond, 23226



LAYOUT PLAN
Not for construction

FOUR WINDS DESIGN, LC

Scale: 1" = 12'

Date: 3-8-21

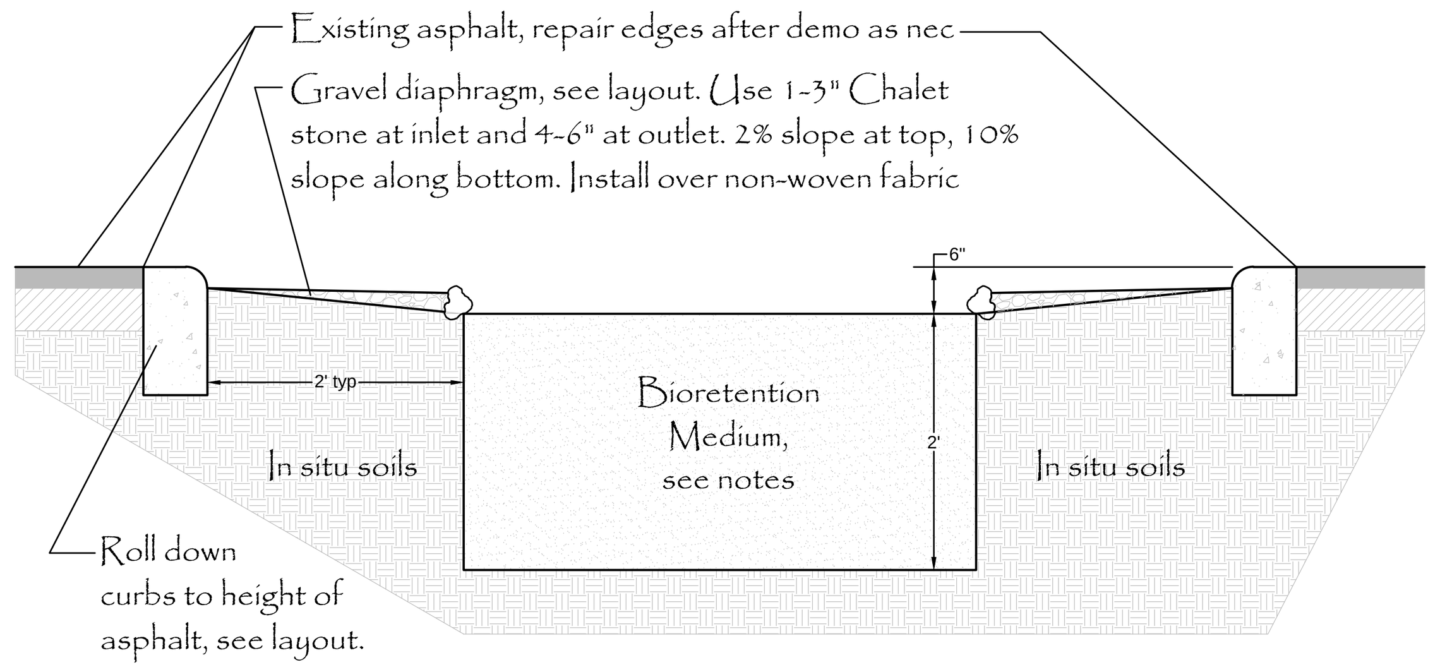
Sheet 2 of 4

Greening Richmond Public Libraries

IMPROVING THE HEALTH OF THE JAMES RIVER BY REDUCING STORMWATER POLLUTION

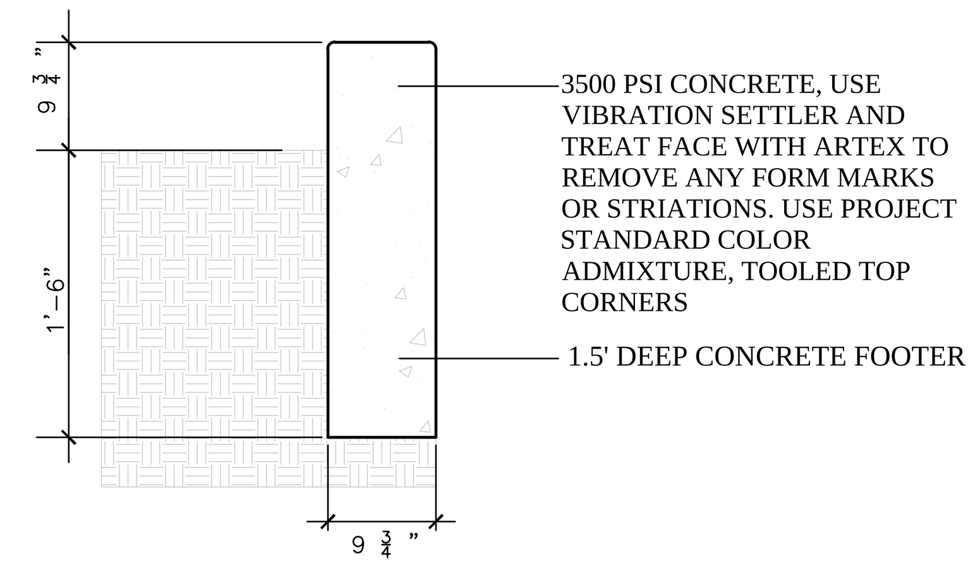
West End Branch Library

5420 Patterson Avenue, Richmond, 23226



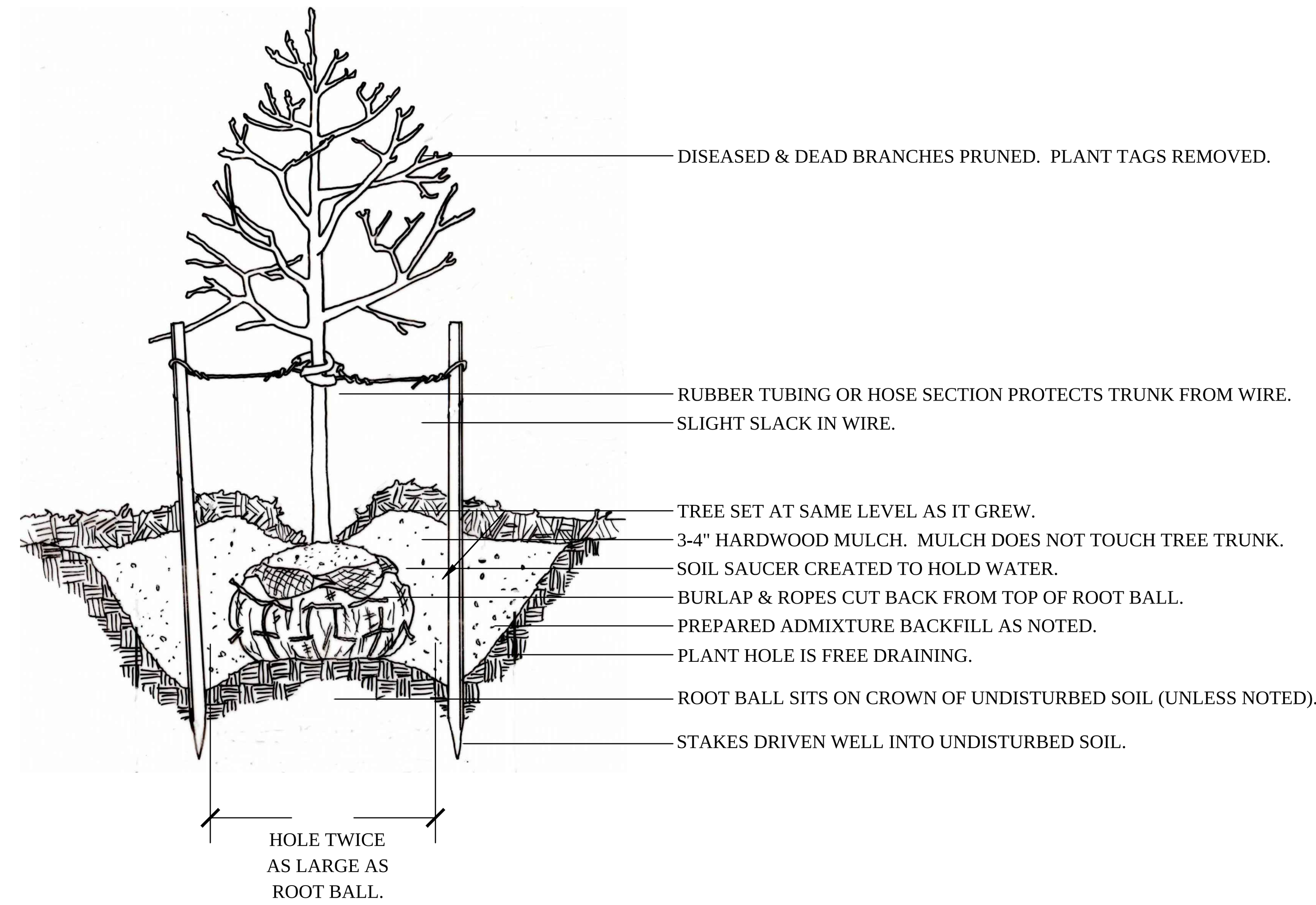
BIORETENTION BASIN A

NO SCALE



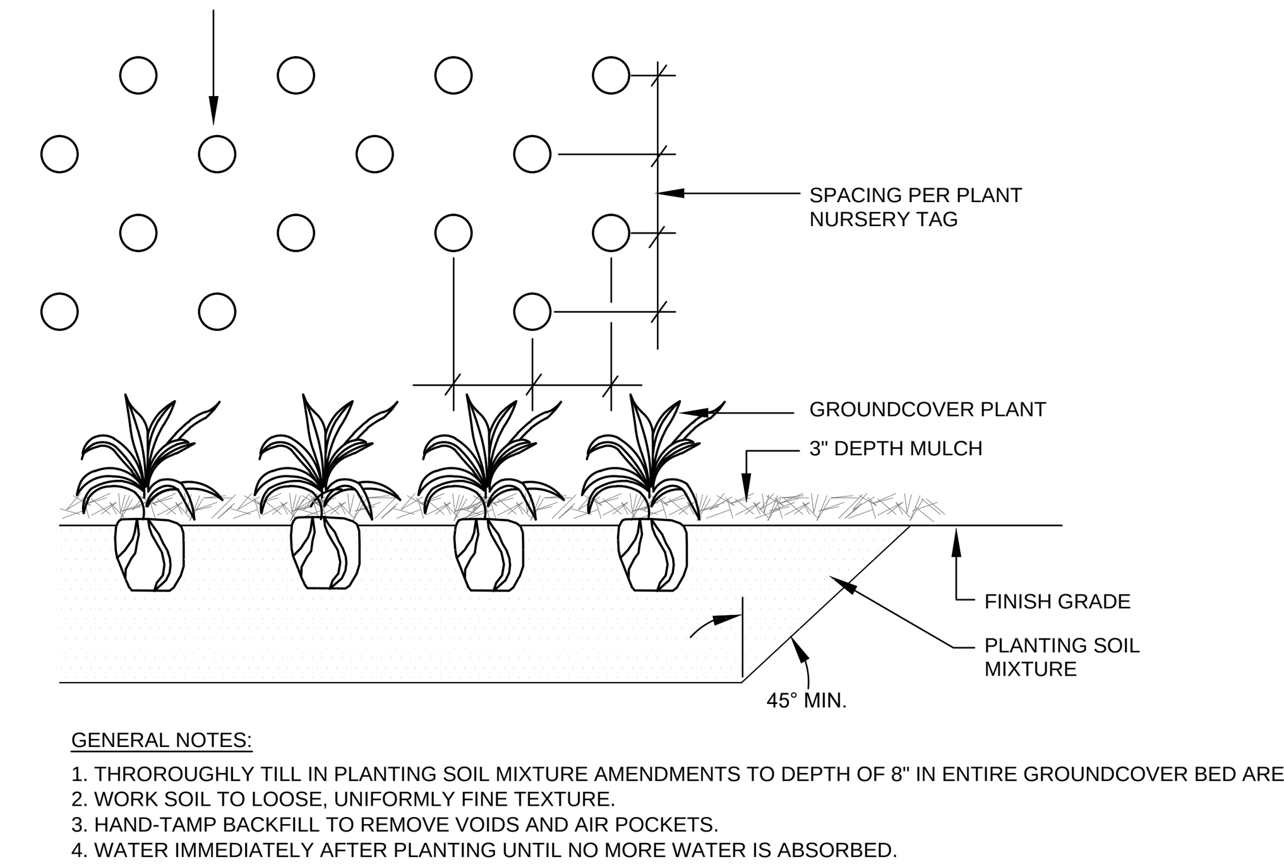
BEE ZONE BOUNDARY MARKERS

NO SCALE



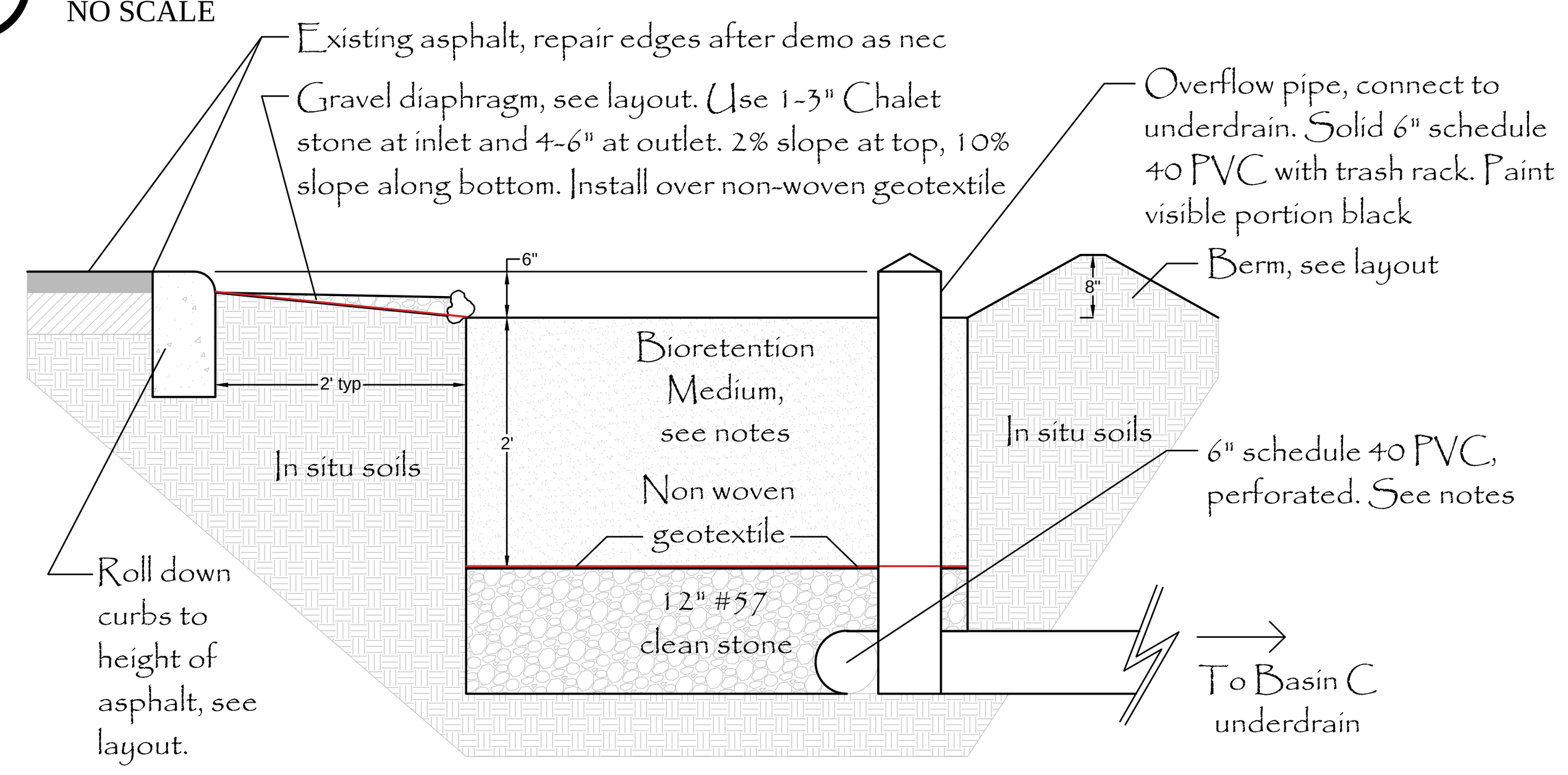
Tree Planting

Scale: none



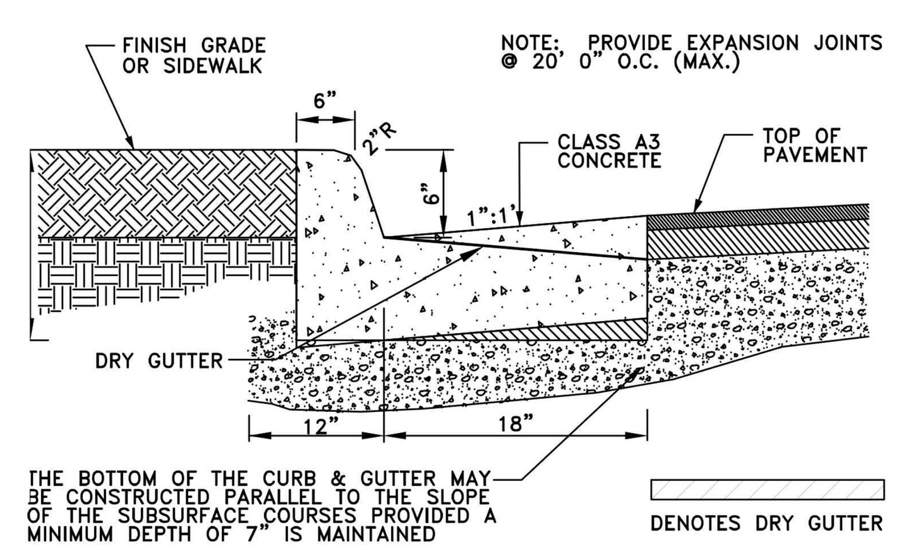
Perennial Planting

Scale: none



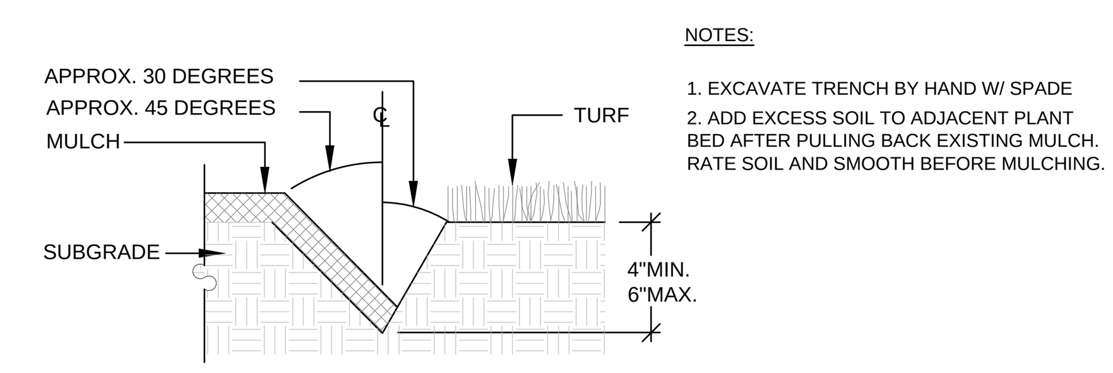
BIORETENTION BASIN B

NO SCALE



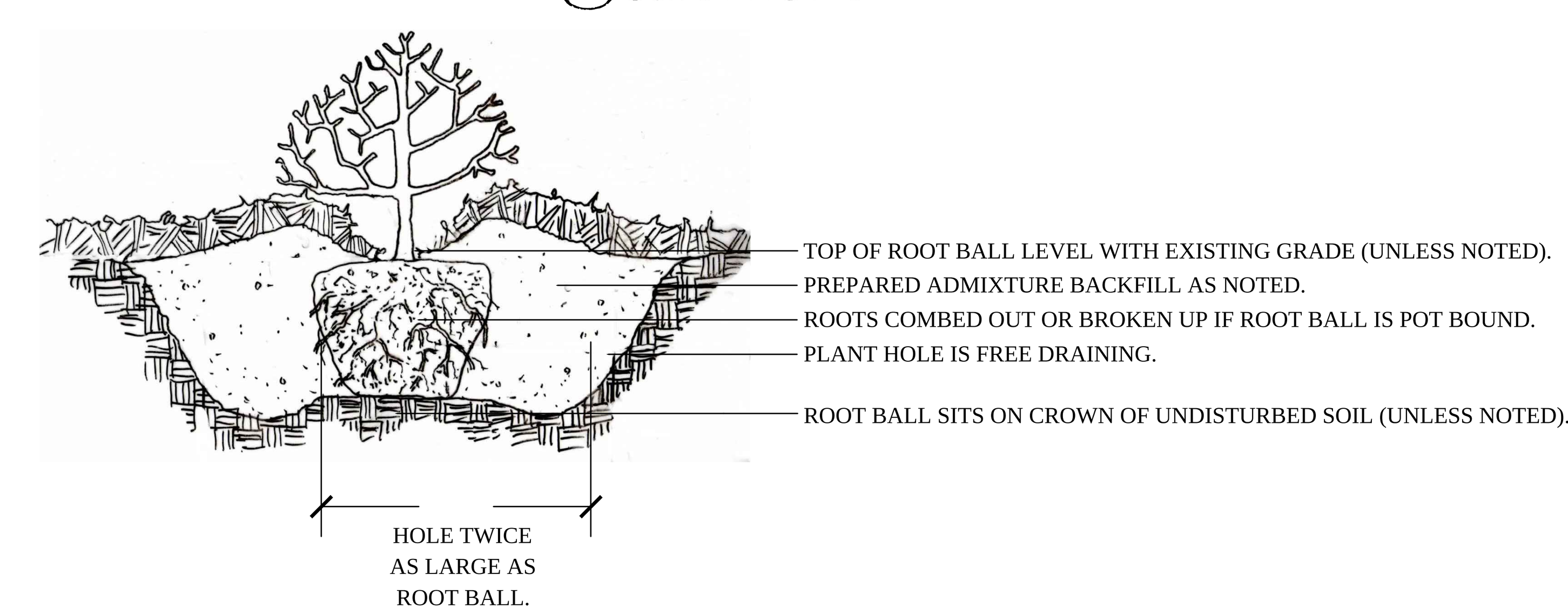
CURB AND GUTTER

NO SCALE



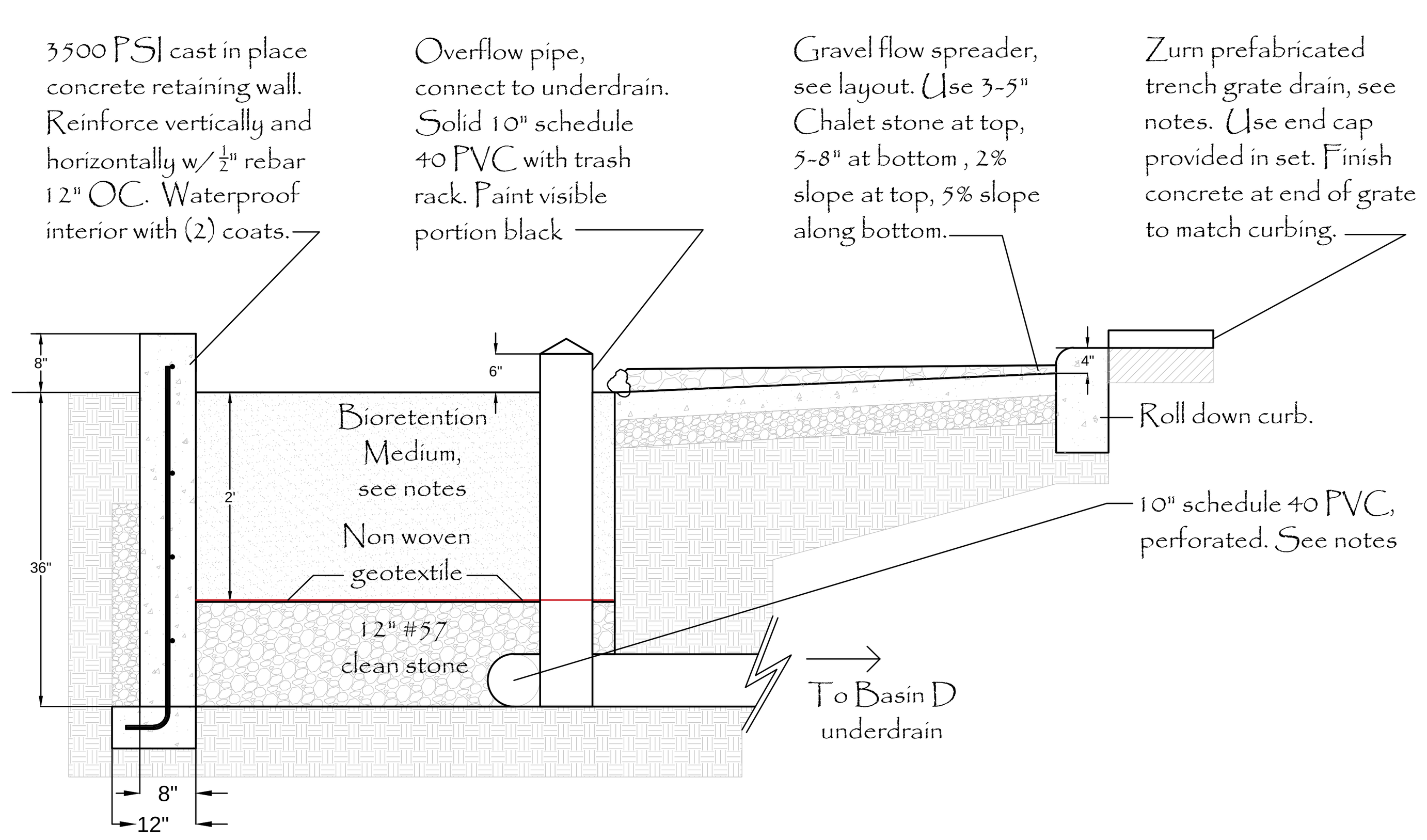
Planting Bed Edge

Scale: none



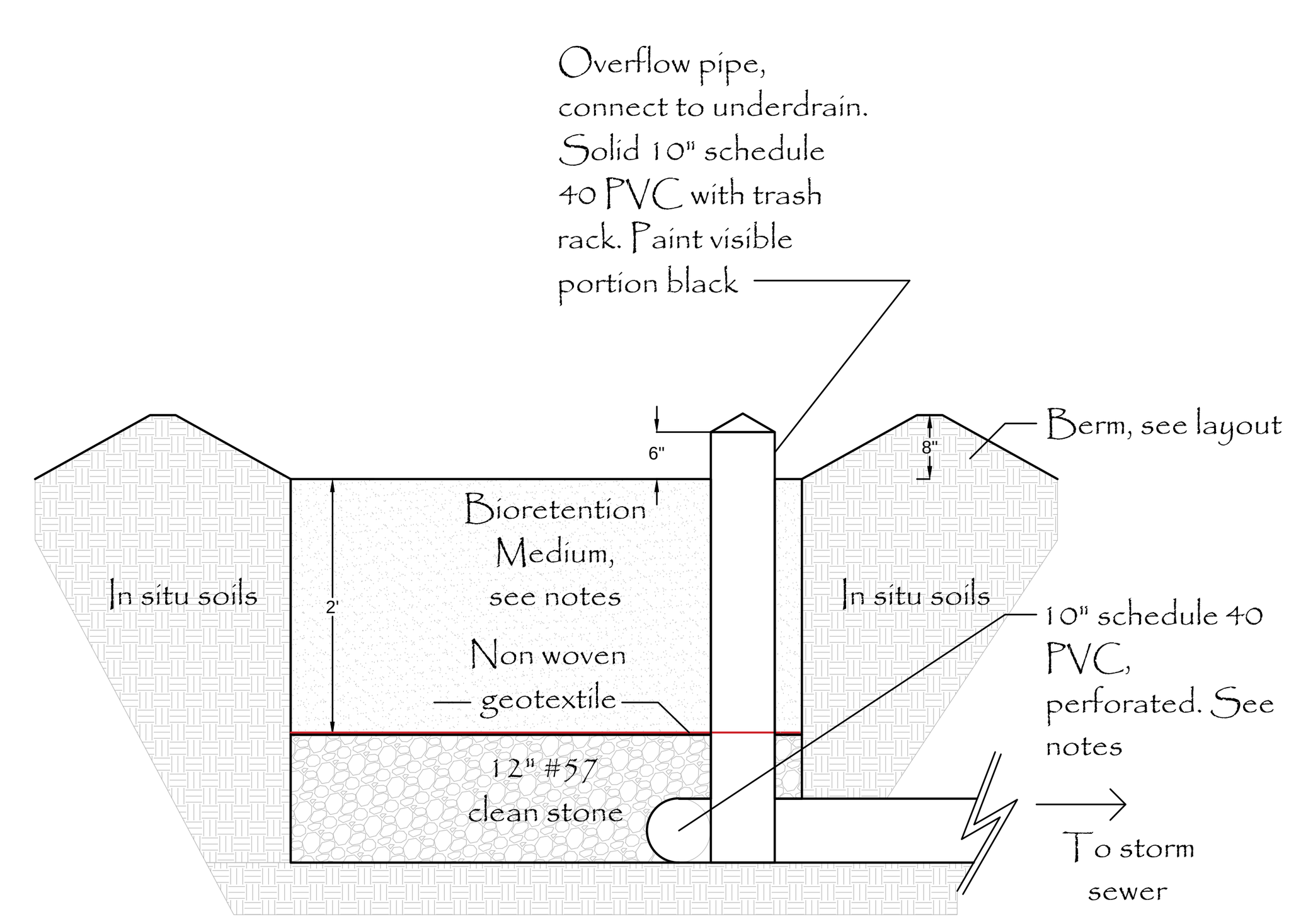
Shrub Planting

Scale: none



BIORETENTION BASIN C

NO SCALE



BIORETENTION BASIN D

NO SCALE

NOTES

THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES IS SHOWN ON THIS PLAN, CONTRACTOR TO CONTACT MISS UTILITY AS WELL.

CONTRACTOR TO ASSUME ALL RESPONSIBILITY FOR CONSTRUCTION METHODS EMPLOYED AND FIELD VERIFY ALL DIMENSIONS. ISSUES AND CONCERNS SHALL BE REPORTED TO FOUR WINDS.

CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AT ALL TIMES DURING THE DEMOLITION AND BUILDING PROCESS.

CONTRACTOR TO OBTAIN ALL BUILDING PERMITS, SOIL STUDIES, AND STRUCTURAL DETAILS AS REQUIRED BY THE MUNICIPALITY.

NO PUBLIC THOROUGHFARES INCLUDING SIDEWALKS SHALL BE BLOCKED DURING DEMOLITION OR CONSTRUCTION WITHOUT PROPERLY DISPLAYED MUNICIPALITY PERMITS. NO HOLES SHALL BE LEFT OPEN OVERNIGHT WITHOUT SECURING PERIMETER FENCING OR INSTALLING CAUTION TAPE AROUND THE HOLE.

CONTRACTOR AND MASON AND/ OR PLANTING SUBCONTRACTORS IF APPILCABLE TO ATTEND A PRECONSTRUCTION MEETING WITH JRA REPRESENTATIVES AND FOUR WINDS DESIGN.

THE BOTTOM OF THE BIORETENTION BASIN SHALL BE SCARIFIED BEFORE INSTALLATION OF SOIL IF THE BASIN HAS RECEIVED ANY FOOT TRAFFIC OR COMPACTION. MAINTAIN SOIL DEPTH AS NOTED.

THE BIORETENTION SOIL SHALL BE 85% COARSE (MORTAR) SAND, 10% HIGH GRADE TOPSOIL, AND 5% LEAF OR MUSHROOM COMPOST.

EXCAVATORS OR BACKHOES SHOULD WORK FROM THE SIDES TO EXCAVATE THE BIORETENTION AREA TO ITS APPROPRIATE DESIGN DEPTH AND DIMENSIONS. EXCAVATING EQUIPMENT SHOULD HAVE SCOOPS WITH ADEQUATE REACH SO THEY DO NOT HAVE TO SIT INSIDE THE FOOTPRINT OF THE BIORETENTION AREA. CONTRACTORS SHOULD USE A CELL CONSTRUCTION APPROACH IN LARGER BIORETENTION BASINS, WHEREBY THE BASIN IS SPLIT INTO 500 TO 1,000 SQ. FT. TEMPORARY CELLS WITH A 10-15 FOOT EARTH BRIDGE IN BETWEEN, SO THAT CELLS CAN BE EXCAVATED FROM THE SIDE.

CONTRACTOR TO DOCUMENT DEPTH OF BIORETENTION LAYER DEPTH WITH PHOTOGRAPHS OF A TAPE MEASURE IN THE FULLY EXCAVATED HOLE AND AT EACH SUCCESSIVE LAYER FOR SUBMISSION TO JRA. DELIVER THE SOIL MEDIA FROM AN APPROVED VENDOR, AND STORE IT ON AN ADJACENT IMPERVIOUS AREA OR PLASTIC SHEETING. APPLY THE MEDIA IN 12-INCH LIFTS UNTIL THE DESIRED TOP ELEVATION OF THE BIORETENTION AREA IS ACHIEVED.

SOIL TESTING: CONTRACTOR TO PROVIDE TESTING OF THE BIORETENTION SOIL MIX FOR ACCEPTABLE PHOSPHOROUS LEVELS. THE MIX SHALL HAVE A P-INDEX BETWEEN 10 AND 30 OR BETWEEN 7 AND 21MG/ KG OF PHOSPHOROUS TOTAL IN THE SOIL MIX.

THE BEE ZONE SHALL BE COLORED WITH THE FOLLOWING:

C0 M20 Y40 K10

PVC OUTFALL PIPES SHALL INCREASE TO 8" AT FIRST JUNCTION AND 12" AT SECOND JUNCTION.

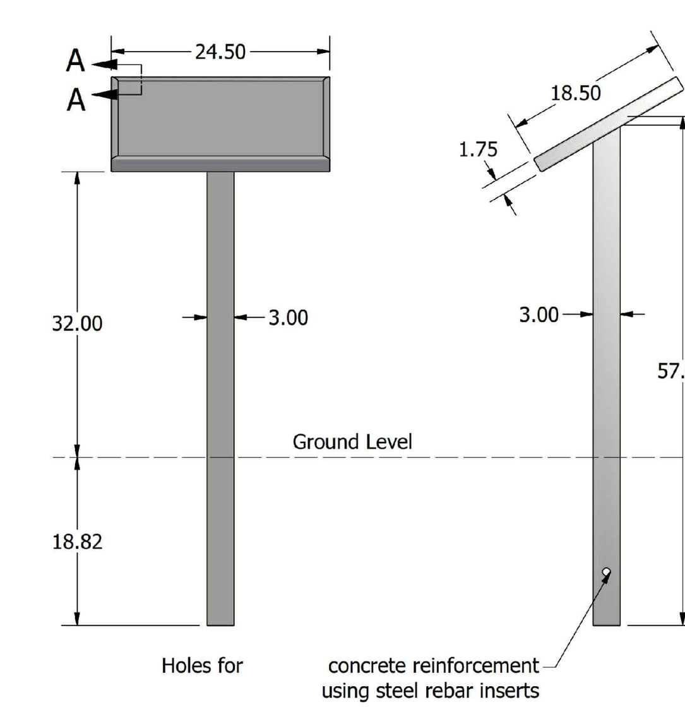
THERE SHALL BE A 2-4" DROP FROM ALL DOWNSPOUT, SPLASH BLOCK, OR CURB INLET INTO BIORETENTION DRAINAGE AREAS.

THE TRENCH GRATES SHALL BE Z882 24 FOOT COMPLETE KIT BY ZURN, (LINEAR FALL, HEEL PROOF ADA COMPLIANT, ADD FOR REBAR). ENCASE IN MIN 12" 3500 PSI CONCRETE REINFORCED WITH ½" REBAR 4" OC HORIZONTALLY ALL SIDES. SEE BIORETENTION BASIN D DETAIL FOR INLET AND GRAVEL FLOW SPREADER.

UNDERDRAINS SHALL BE SCHEDULE 40 PVC IN SIZES NOTED. PERFORATIONS SHALL BE ⅜", 6" OC. SET UNDERDRAINS ON A 2% SLOPE MIN TO NEXT BASIN OR OUTFALL.

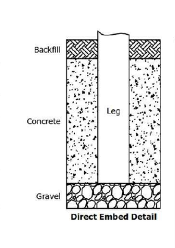
NON-WOVEN GEOTEXTILE SHALL HAVE A FLOW RATE > 110 GAL/MIN/ SQ FT (GEOTEX 351 OR EQUIVALENT).

UPON COMPLETION OF ALL WORK SHOWN IN PAGES 1-3, A VOLUNTEER CREW WILL INSTALL THE REMAINDER OF THE PLANTS. AFTER THE VOLUNTEER WORK IS COMPLETE CONTRACTOR SHALL CHECK FINISHED GRADES OF THE BIORETENTION AREA, LOOSEN ANY COMPACTED SOIL, INSTALL MULCH, AND FULLY CLEAN UP THE SITE INCLUDING POWER WASHING MASONRY SURFACES.



HARDWARE INCLUDED

Type	QTY	Image
1/4"-20 x 3/8" Stainless Steel Hex Drive Button Head Screws	4 each	
5/32" Hex Key	1 each	
1/4" Aluminum Drive Rivets	2 each	



Single Pedestal Exhibit Base
James River Association

Frame Size: 24.5"w x 18.5"h
Trim Size: 23.875"w x 17.875"h
Visual Area: 23"w x 17"h
Frame Color:
Finish: der Coated Textured

* Post holes should be dug below the frost line depth. Pannier recommends height from ground to bottom of frame to be 32".

Plant Schedule

Code	Botanical Name	Common Name	Quantity	Size
AA	Amelanchier arborea	Serviceberry	2	6-8'
Mix A	Asclepias incarnata	Swamp Milkweed	22	1 Gal
CA	Carpinus carolinana (standard form)	American Hornbeam	4	8-10'
EP	Echinacea purpurea 'PowWow'	Purple Coneflower	11	1 Gal
Mix A	Hibiscus moscheutos 'Disco Belle Red'	Rosemallow	20	1 Gal
Mix A	Iris lousiana 'Black Gamecock'	Sweetflag	20	1 Gal
Mix A	Juncus effusus 'Blue Arrow'	Bog Rush	20	1 Gal
JV	Junierpus virginiana	Redcedar	7	10-12'
NS	Nyssa sylvatica	Tupelo	3	2" Cal
PH	Panicum virgatum 'Heavy Metal'	Switch Grass	3	3 Gal
PV	Panicum virgatum 'Shenandoah'	Switch Grass	190	3 Gal
PS	Penstemon sp 'Red Rocks'	Beard Tongue	58	1 Gal
PO	Platanus occidentalis	Sycamore	1	2.5" Cal
QC	Quercus coccinea	Scarlet Oak	7	2.5" Cal
RF	Rudbeckia fulgida 'Little Gold Star'	Black-eyed Susan	35	1 Gal
TD	Taxodium distichum	Baldcypress	3	8-10'
TS	Tradescantia virginiana	Spiderwort	13	1 Gal

ALLIANCE for the Chesapeake Bay · Altria · James River Association · RVA H2O · DEQ Virginia Department of Environmental Quality

DETAILS
Not for construction

FOUR WINDS DESIGN, LC

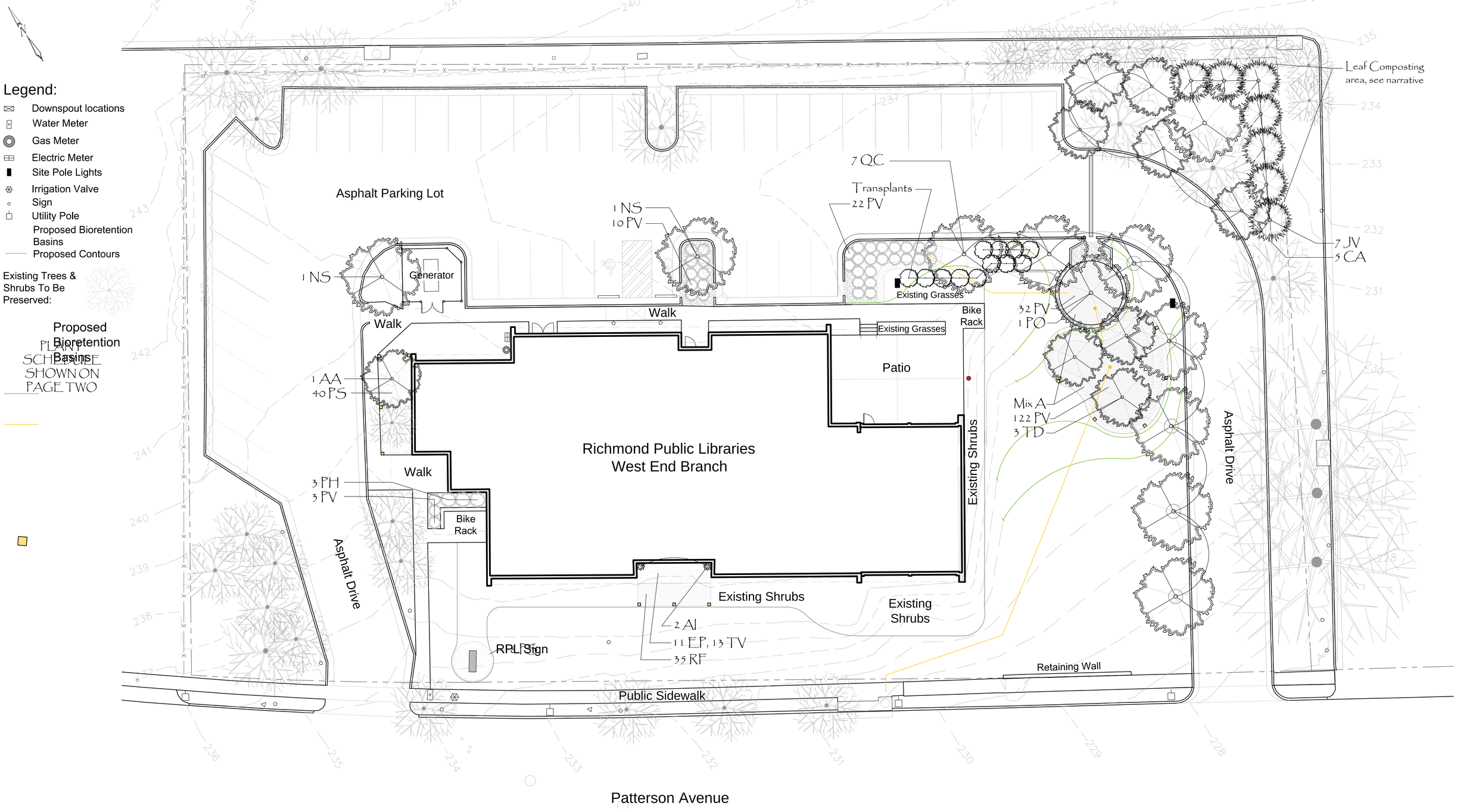
12 0 12 24 36
Scale: 1" = 12'

Greening Richmond Public Libraries

IMPROVING THE HEALTH OF THE JAMES RIVER BY REDUCING STORMWATER POLLUTION

West End Branch Library

5420 Patterson Avenue, Richmond, 23226



ALLIANCE for the Chesapeake Bay · Altria · James River Association · RVA H2O · Bay Backyards · United States Environmental Protection · DEQ Virginia Department of Environmental Quality

PLANTING PLAN
Not for construction

FOUR WINDS DESIGN, LC

12 0 12 24 36
Scale: 1" = 12'

Date: 3-8-21

Sheet 4 of 4