

James V. Fitzgerald ASBS Pollution Reduction Program

Upland BMPs: LID Projects

Approved by Selection Committee June 9, 2014

LID Site #6 – Cooperator ID#: 202.0814.03

Site Information:

This property is west of Highway 1 in Moss Beach in the community on the bluffs above Fitzgerald Marine Reserve. Residence is on a ~7000 square foot parcel and runoff is straight into a drainage ditch that discharges into the ASBS. The property has a variety of hardscape features, receives runoff from the street, and contributes runoff to an adjacent neighbor's property.

Integrated Project BMPs:

- Install a 8x15 foot rain garden and a 35 foot vegetated swale to capture and filter runoff from asphalt roof (420 square feet), roadway and other areas of property
- Replace concrete driveway with permeable asphalt (425 square feet) to improve infiltration

Treatment Description:

Roof runoff is directed through the existing gutters and downspouts to a rain garden. The rain garden provides infiltration as primary treatment and will overflow into a treatment swale that outlets to the public road. The existing driveway is replaced with a permeable asphalt driveway. The permeable asphalt provides infiltration as primary treatment and will overflow into an underdrain that outlets to the public road.

Stormwater Capture/Treatment:

Rain Garden/Swale System: 71%

Permeable Asphalt: 82%

PROJECT 202.0814.03

WATER QUALITY IMPROVEMENT PLAN

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FINAL DESIGN DRAWINGS AND ATTACHED SPECIFICATIONS: 02 40 10 DEMOLITION, 03 30 20 PERVIOUS CONCRETE, 32 30 20 GRAVEL EROSION PROTECTION, 32 30 40 VEGETATED SWALE, 32 30 60 RAIN GARDEN, 33 40 00 STORM DRAINAGE UTILITIES.
2. SAN MATEO RESOURCE CONSERVATION DISTRICT SHALL BE RESPONSIBLE FOR OBTAINING ANY NEEDED PERMITS, EASEMENTS, AND/OR RIGHT-OF-WAYS, AND MEETING ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES AND SHALL CALL NORTHERN CALIFORNIA UNDERGROUND SERVICE ALERT AT '811' AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION. SPECIAL SAFETY PRECAUTIONS SHALL BE TAKEN WHEN WORKING IN THE VICINITY OF GAS, OIL, AND ELECTRICAL LINES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING LOCATIONS OF TEMPORARY ACCESS, STAGING AREAS, AND OTHER FACILITIES TO PRECONSTRUCTION CONDITION. DISTURBANCE OF EXISTING STRUCTURES AND VEGETATION MUST BE AVOIDED OR MINIMIZED TO THE FULLEST POSSIBLE EXTENT.
5. LANDOWNER SHALL BE RESPONSIBLE FOR THE SUCCESSFUL ESTABLISHMENT AND MAINTENANCE OF VEGETATION PRACTICES.
6. CONTRACTOR SHALL ENSURE THAT THE USE AND/OR STORAGE OF PETROLEUM POWERED EQUIPMENT SHALL BE ACCOMPLISHED IN A MANNER TO PREVENT THE POTENTIAL RELEASE OF PETROLEUM MATERIALS INTO WATERS OF THE STATE.
7. CAL-OSHA SAFETY REQUIREMENTS SHALL BE IN EFFECT DURING ALL CONSTRUCTION.
8. CONTACT THE SAN MATEO RESOURCE CONSERVATION DISTRICT AT LEAST 7 DAYS PRIOR TO START OF CONSTRUCTION. PHONE: (650) 726-4660.

AS-BUILT NOTES

1. THIS AS-BUILT PLAN REPRESENTS THE STATUS OF THE PROJECT AS INSTALLED IN THE FIELD. IT IS NOT A CERTIFICATION OF THE COMPLETENESS OF THE WORK OR THE CONSISTENCY OF THE WORK WITH THE ORIGINAL DESIGN DOCUMENTS. IN SOME CASES DEVIATIONS FROM THE ORIGINAL DESIGN DOCUMENTS MAY LEAD TO OPERATIONS OR MAINTENANCE ISSUES. THE ENGINEER ACCEPTS NO LIABILITY FOR FAILURES OR PROBLEMS ARISING FROM DEVIATIONS FROM THE ORIGINAL DESIGN DOCUMENTS.

SHEET INDEX

1. TITLE SHEET AND GENERAL NOTES
2. LAYOUT PLAN
3. CONSTRUCTION DETAILS
4. CONSTRUCTION DETAILS

VICINITY MAP

NOT TO SCALE



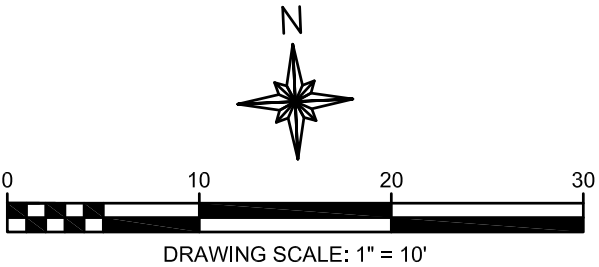
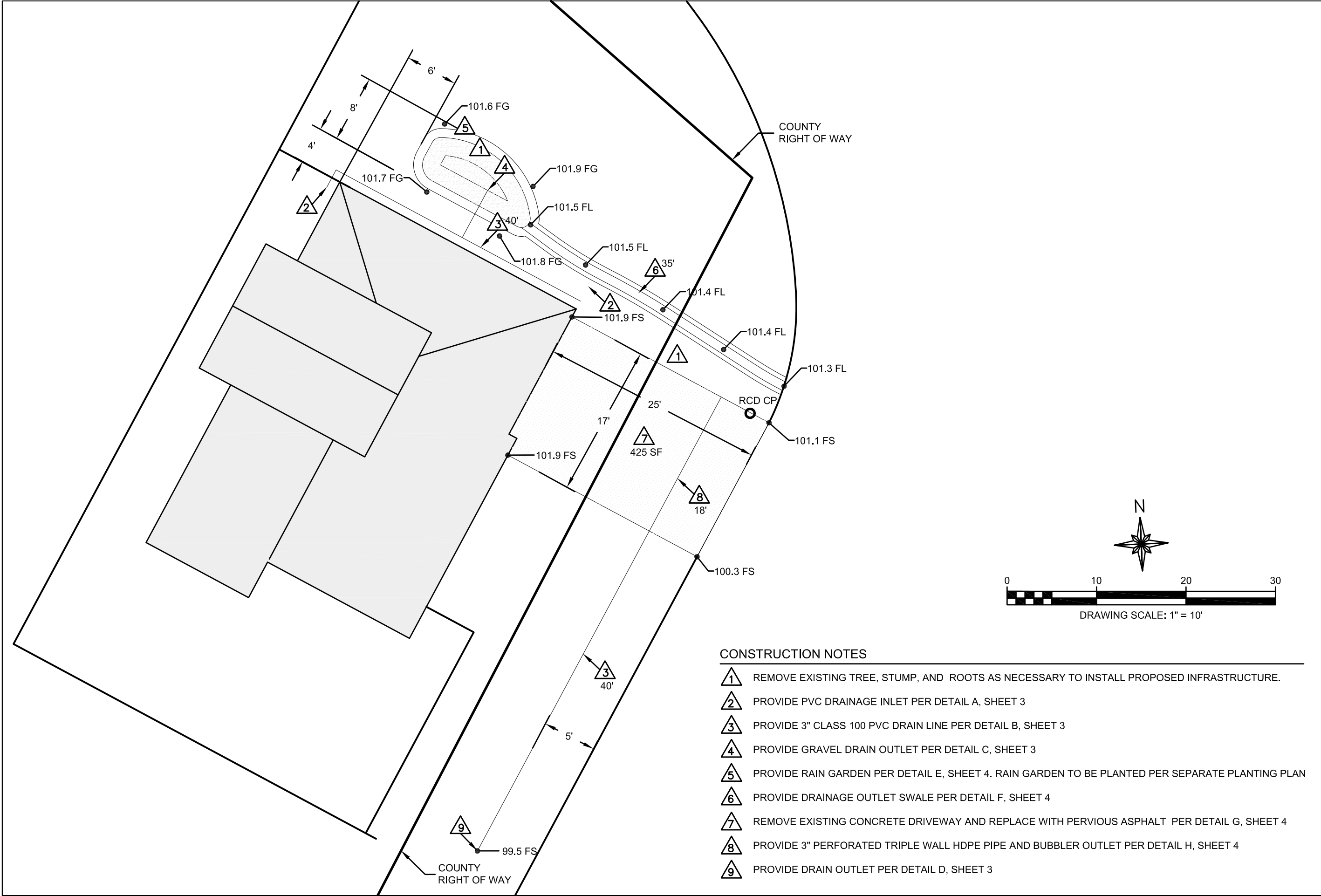
AS-BUILT

DRAWN BY: _____
DESIGNED BY: _____
APPROVED BY: _____

PROJECT 202.0814.03
TITLE SHEET & GENERAL NOTES

PLAN DATE
2/26/16

SHEET
01 OF 04



- CONSTRUCTION NOTES**
- 1 REMOVE EXISTING TREE, STUMP, AND ROOTS AS NECESSARY TO INSTALL PROPOSED INFRASTRUCTURE.
 - 2 PROVIDE PVC DRAINAGE INLET PER DETAIL A, SHEET 3
 - 3 PROVIDE 3" CLASS 100 PVC DRAIN LINE PER DETAIL B, SHEET 3
 - 4 PROVIDE GRAVEL DRAIN OUTLET PER DETAIL C, SHEET 3
 - 5 PROVIDE RAIN GARDEN PER DETAIL E, SHEET 4. RAIN GARDEN TO BE PLANTED PER SEPARATE PLANTING PLAN
 - 6 PROVIDE DRAINAGE OUTLET SWALE PER DETAIL F, SHEET 4
 - 7 REMOVE EXISTING CONCRETE DRIVEWAY AND REPLACE WITH PERVIOUS ASPHALT PER DETAIL G, SHEET 4
 - 8 PROVIDE 3" PERFORATED TRIPLE WALL HDPE PIPE AND BUBBLER OUTLET PER DETAIL H, SHEET 4
 - 9 PROVIDE DRAIN OUTLET PER DETAIL D, SHEET 3

DRAWN BY: _____

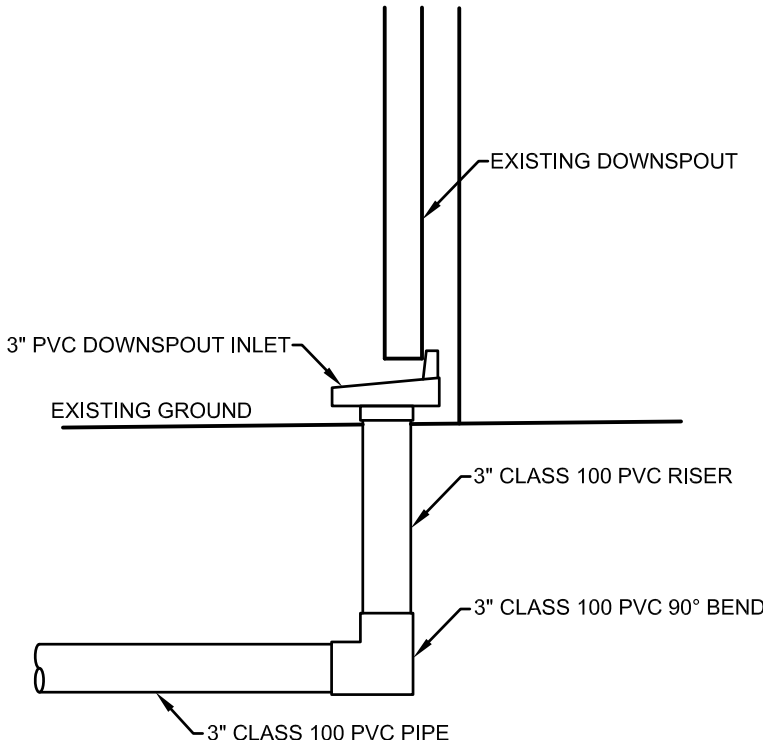
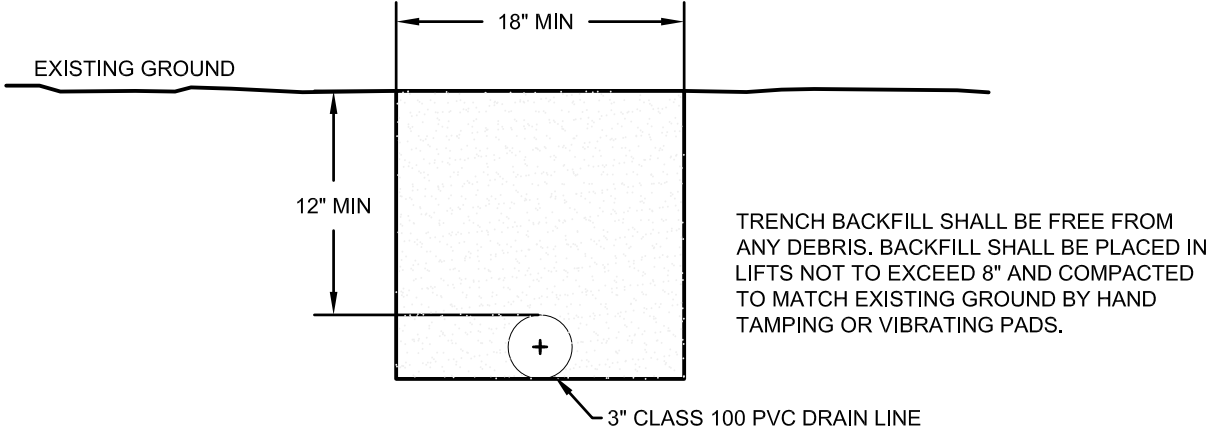
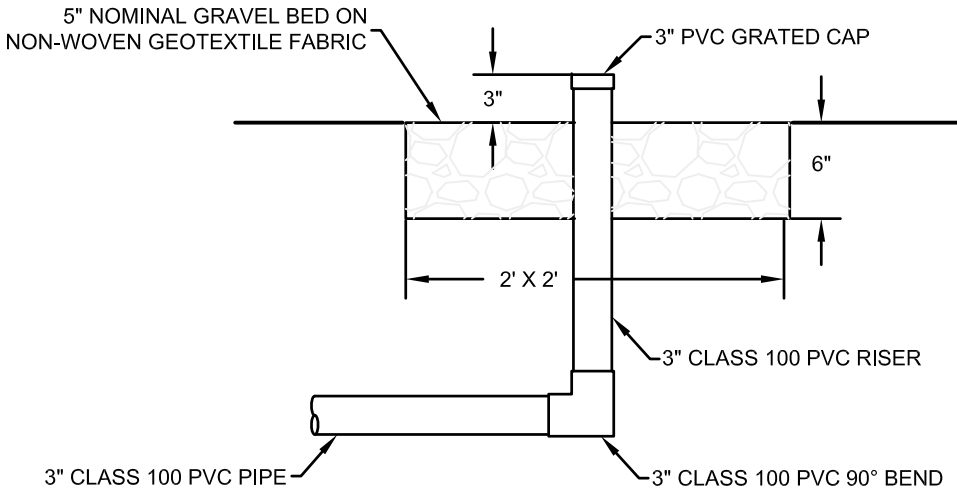
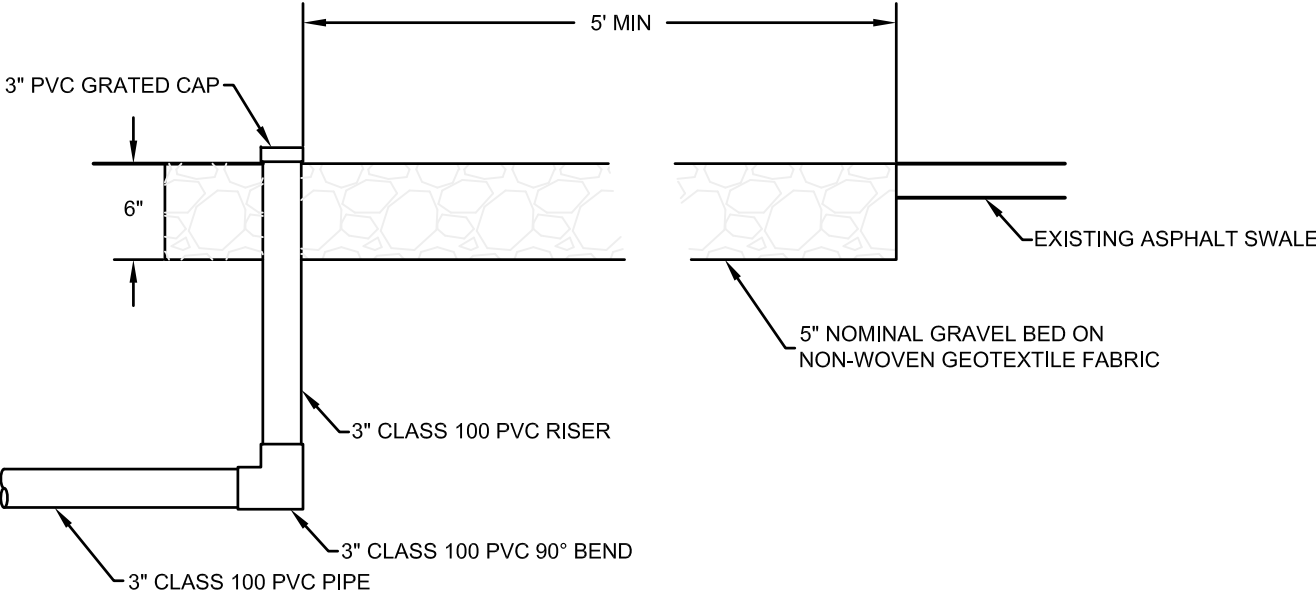
DESIGNED BY: _____

APPROVED BY: _____

PROJECT 202.0814.03
LAYOUT PLAN

PLAN DATE
2/26/16

SHEET
02 OF 04

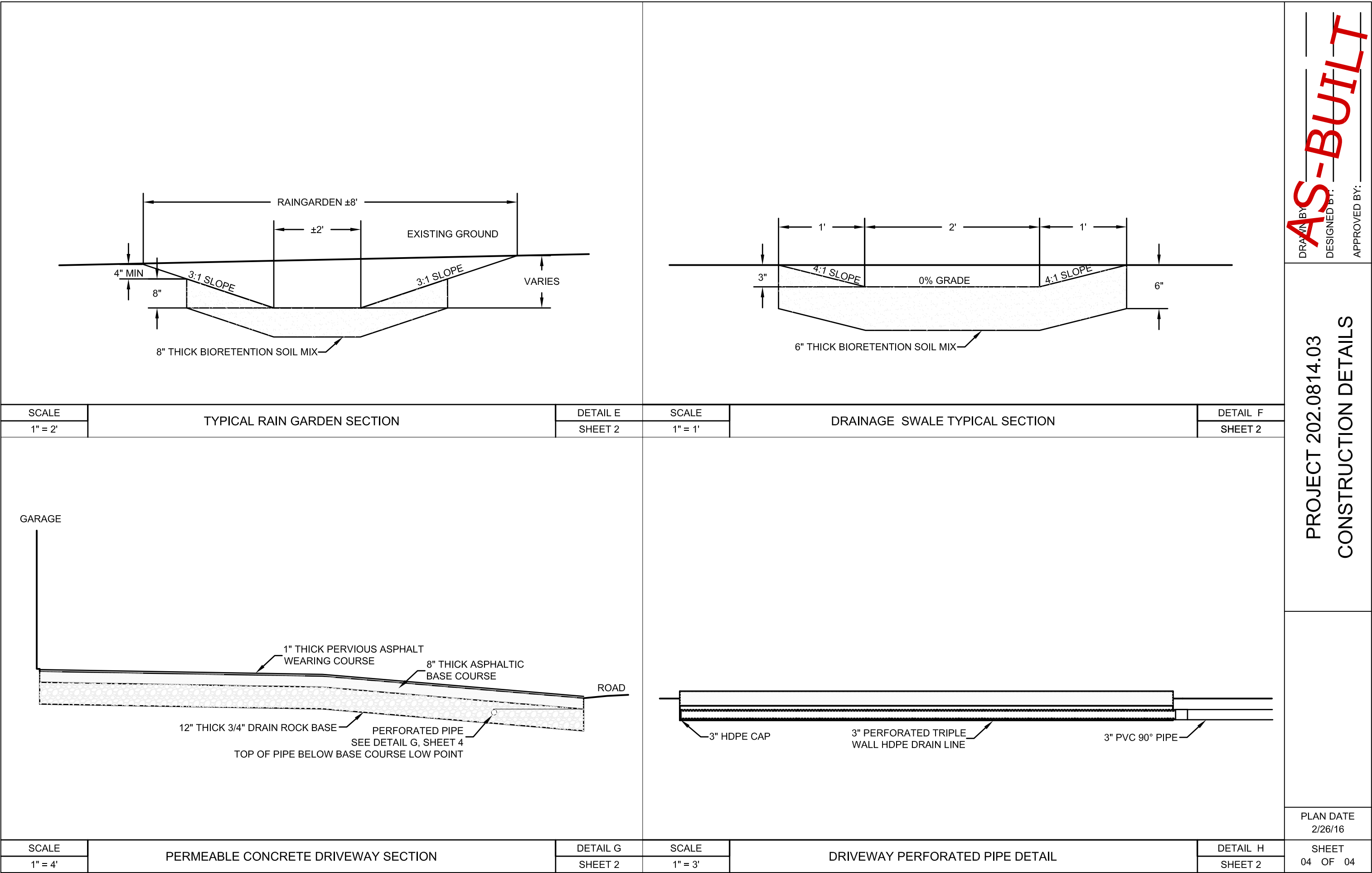
								<div>PROJECT 202.0814.03</div> <div>CONSTRUCTION DETAILS</div>
SCALE 1" = 1'		DOWNSPOUT INLET DETAIL		SCALE 1" = 1'		DRAIN LINE TYPICAL TRENCH SECTION		
		DETAIL A SHEET 2				DETAIL B SHEET 2		
								<div>PLAN DATE 2/26/16</div> <div>SHEET 03 OF 04</div>
SCALE 1" = 1'		GRAVEL DRAINAGE OUTLET DETAIL		SCALE 1" = 1'		GRAVEL DRAINAGE OUTLET DETAIL		
		DETAIL C SHEET 2				DETAIL D SHEET 2		

AS-BUILT

DRAWN BY: _____

DESIGNED BY: _____

APPROVED BY: _____





1. Final plant selection, locations and placement shall be verified in field by Ecological Concerns Incorporated prior to installation.
2. Plant spacing at 1 foot/On-Center
3. All plants 1 gallon container size

