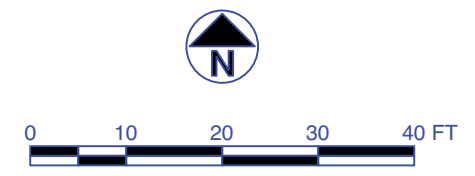


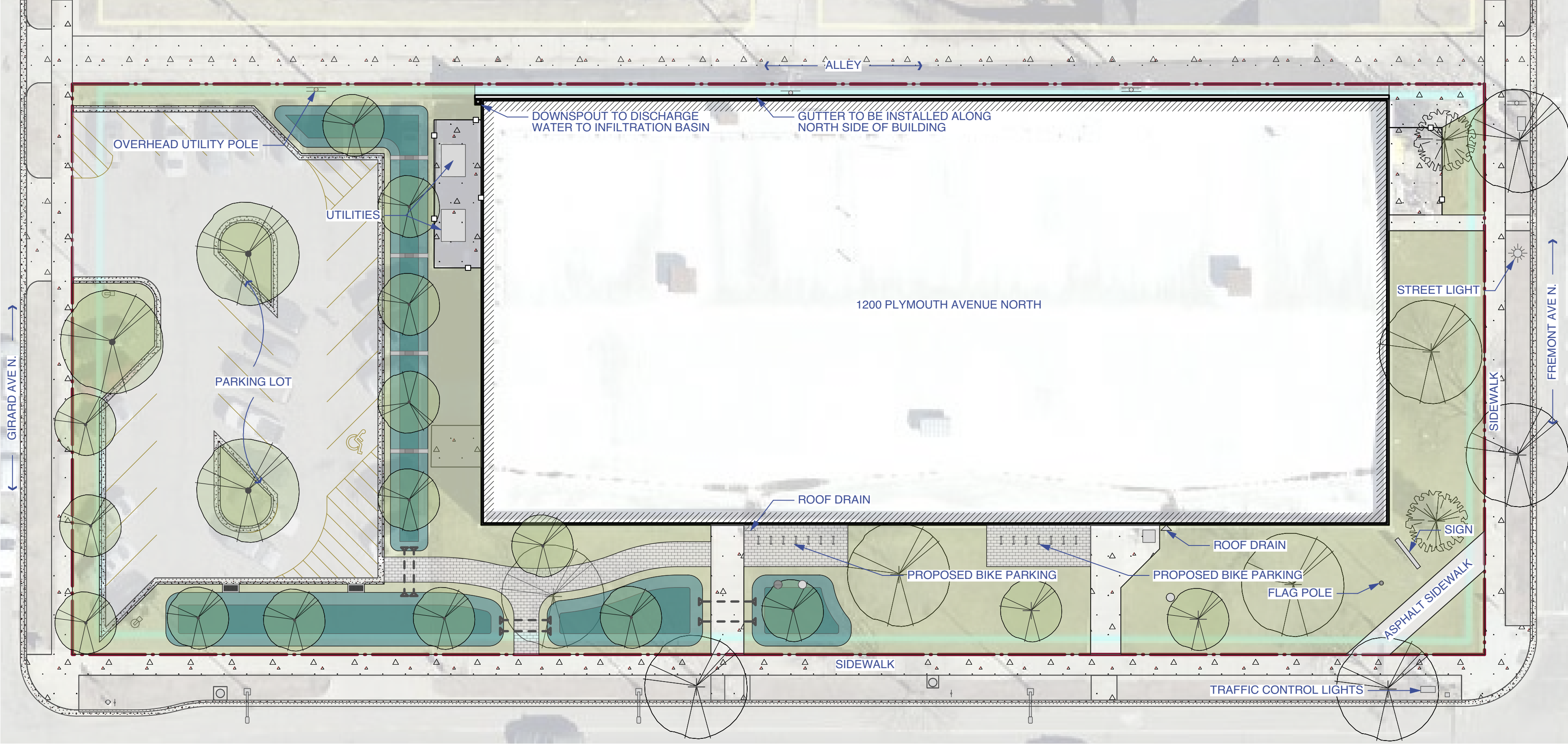
KEY

	MANHOLE
	CATCH BASIN
	PROPERTY LINE
	FENCE
	LIGHT
	LIGHT
	STREET SIGN
	HYDRANT







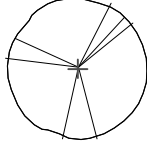
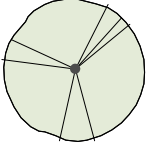
- NOTES**
1. DIMENSIONS ARE APPROXIMATE
 2. DRAWING BASED ON 2015 AERIAL PHOTOGRAPHY
 3. UTILITY LOCATIONS ARE APPROXIMATE
 4. ROOF DRAINS ARE ASSUMED TO BE DIRECTLY CONNECTED TO STORMSEWER

PROJECT: RENEWABLE ENERGY PARTNERS
LOCATION: 1200 PLYMOUTH AVE N.
 MINNEAPOLIS, MN 55411
DATE: 1/17/2019
DRAWING TITLE: EXISTING CONDITIONS
DRAWING NUMBER: L100
REVISIONS: 1/11/2019
SCALE: 1" = 20'-0"
ORIGINAL SHEET SIZE: 11" BY 17"
DRAWN BY: ROGUE ARC, LLC





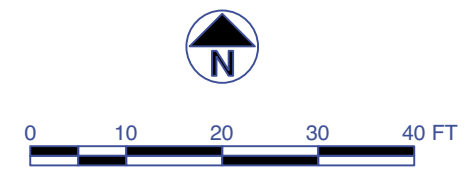
KEY

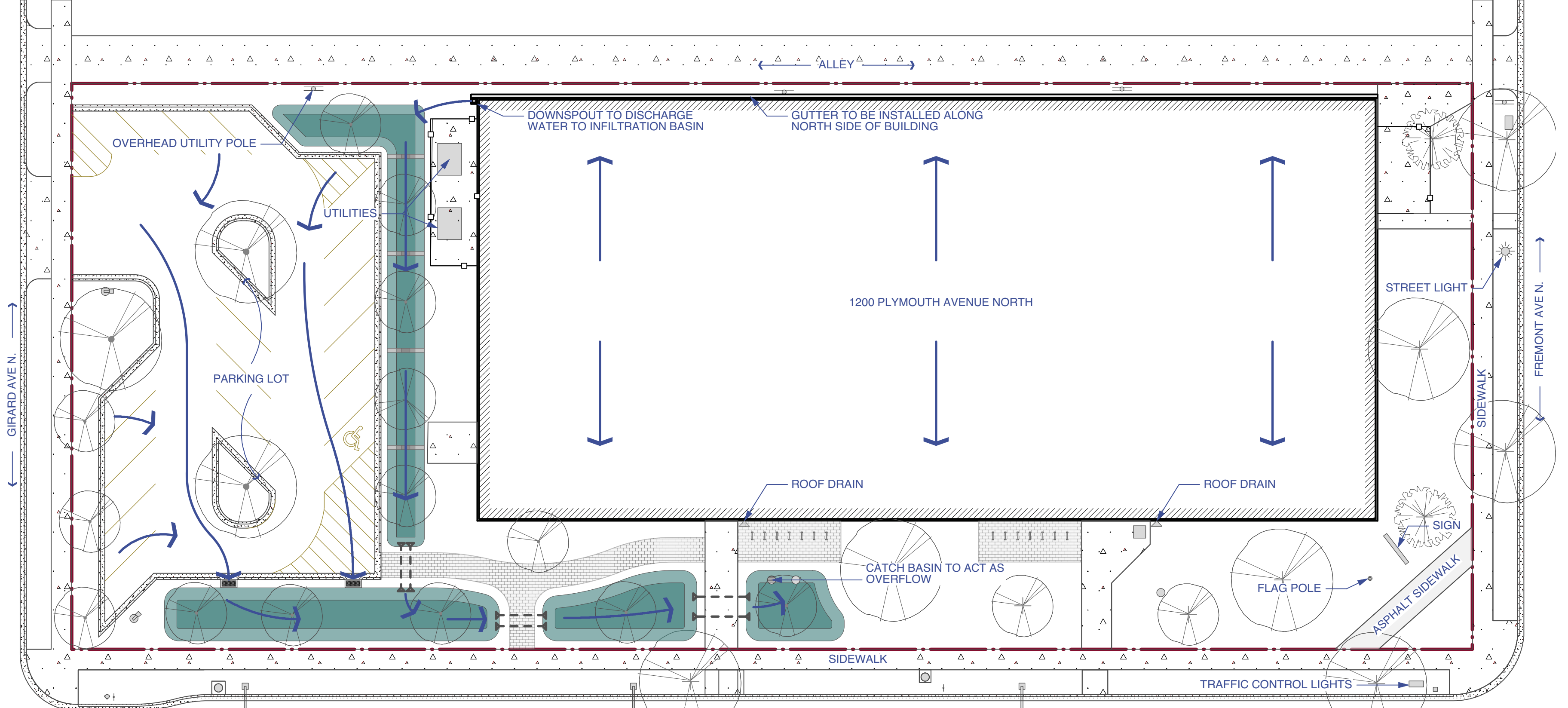
	INFILTRATION BASIN		PERMEABLE PAVERS
	LOW-MOW FESCUE MIX		
	CHECK DAM/WEIR		
	EQUALIZER PIPES		
	PRE-TREATMENT		
	EXISTING TREE		PROPOSED TREE

- NOTES**
1. RAIN GARDEN PONDING DEPTH: 0'-9"
 2. AMENDED SOILS DEPTH: 2'-0"
 3. PRE-TREATMENT STRUCTURE WITH CLEAN-OUT SUMP TO CONSTRUCTED FROM STONE BLOCKS OR CONCRETE
 4. EQUALIZER PIPES TO BE 6"-8" IN DIAMETER
 5. EMERGENCY SURFACE OVERFLOWS TO BE CONSTRUCTED AT EACH RAIN GARDEN LOCATION TO PREVENT WATER BACK-UP TOWARDS BUILDING STRUCTURE
 6. AMENDED SOILS MIX TO CONTAIN APPROXIMATELY 25% COMPOST AND 75% WASHED SAND
 7. PLANTING PLAN TO BE DETERMINED
 8. PERFORATED PIPE [UNDERDRAIN] TO BE SUSPENDED IN AMENDED SOILS MIX. INVERT OF DRAINTILE WILL BE 1'-0" FROM BOTTOM AMENDED SOILS. UNDERDRAIN WILL HAVE A SHUT-OFF VALVE AND WILL BE DIRECTLY CONNECTED TO STORMSEWER INFRASTRUCTURE ON-SITE.
 9. EXISTING CATCH BASIN ON-SITE WILL ACT AS PRIMARY OVERFLOW FOR SYSTEM
 10. LAYOUT OF PRACTICES AND PARKING LOT IS CONCEPTUAL AND SUBJECT TO MODIFICATIONS DURING DESIGN DEVELOPMENT AND CONSTRUCTION DOCUMENTS

PROJECT: RENEWABLE ENERGY PARTNERS
LOCATION: 1200 PLYMOUTH AVE N.
 MINNEAPOLIS, MN 55411

DATE: 1/17/2019
DRAWING TITLE: PROPOSED CONDITIONS
DRAWING NUMBER: L200
REVISIONS: 1/11/2019
SCALE: 1" = 20'-0"
ORIGINAL SHEET SIZE: 11" BY 17"
DRAWN BY: ROGUE ARC, LLC






KEY

	INFILTRATION BASIN		EQUALIZER PIPES
	PERMEABLE PAVERS		PRE-TREATMENT
	WATER FLOW		CHECK DAM/WEIR

- NOTES**
1. NORTH HALF OF BUILDING SHEET FLOWS TO ALLEY- GUTTER AND DOWNSPOUT TO BE INSTALLED ALONG NORTH SIDE OF BUILDING AND DISCHARGE WATER TO INFILTRATION BASIN
 2. SOUTH SIDE OF BUILDING SHEET FLOWS TO ROOF DRAINS AND ENTERS STORM SEWER
 3. ALL BASINS ARE INTERCONNECTED VIA 6"-6" EQUALIZER PIPES
 4. CATCH BASIN LOCATED IN SOUTHEAST INFILTRATION BASIN ITO ACT AS OVERFLOW
 5. EMERGENCY SURFACE OVERFLOWS TO BE CONSTRUCTED AT EACH RAIN GARDEN LOCATION TO PREVENT WATER BACK-UP TOWARDS BUILDING STRUCTURE

PROJECT: RENEWABLE ENERGY PARTNERS
LOCATION: 1200 PLYMOUTH AVE N. MINNEAPOLIS, MN 55411
DATE: 1/17/2019
DRAWING TITLE: STORMWATER CONCEPT
DRAWING NUMBER: L300
REVISIONS: 1/11/2019
SCALE: 1" = 20'-0"
ORIGINAL SHEET SIZE: 11" BY 17"
DRAWN BY: ROGUE ARC, LLC



Contributing Watershed Data

Target Rainfall Capture	2.25	in	
Soil Type	B	HSG	
Soil IR	0.30 - 0.45	in/hr	
Surface	Sq-Ft	Acres	CN
Parking Lot	7,292	0.167	98
Roof	11,183	0.257	98
Sidewalk	0	0	98
Turf Grass/Lawn	6,563	0.151	79
Infiltration Basin	3,121	0.072	55
Total	28,159	0.646	NA
% Impervious	26%		

Total Site Land Cover: Before

Surface	Sq-Ft	Acres	CN
Parking Lot	11,515	0.264	98
Roof	22,366	0.513	98
Sidewalk	1,910	0.044	98
Turf Grass/Lawn	7,474	0.172	79
Infiltration Basin	0	0	55
Total	43,265	0.993	NA
% Impervious	31%		

Total Site Land Cover: After

Surface	Sq-Ft	Acres	CN	% Change
Parking Lot	7,292	0.167	98	-37%
Roof	22,366	0.513	98	0%
Sidewalk	2,876	0.066	98	51%
Turf Grass/Lawn	7,610	0.175	79	2%
Infiltration Basin	3,121	0.072	55	100%
Total	43,265	0.993	NA	0%
% Impervious	24%			

Infiltration Basin Information

Sq-Ft	Ponding	Amended Soils Depth	Storage (cu-ft)
3,121	9"	2'0"	2,692

Annual Pollutant Reductions

	Before	After	Reduction	Red. %
Volume (cu-ft/yr)	31,496	1,250	30,246	96%
TSS (lbs/year)	273.6	11.67	261.93	96%
TP (lbs/year)	0.5026	0.0250	0.4776	95%

