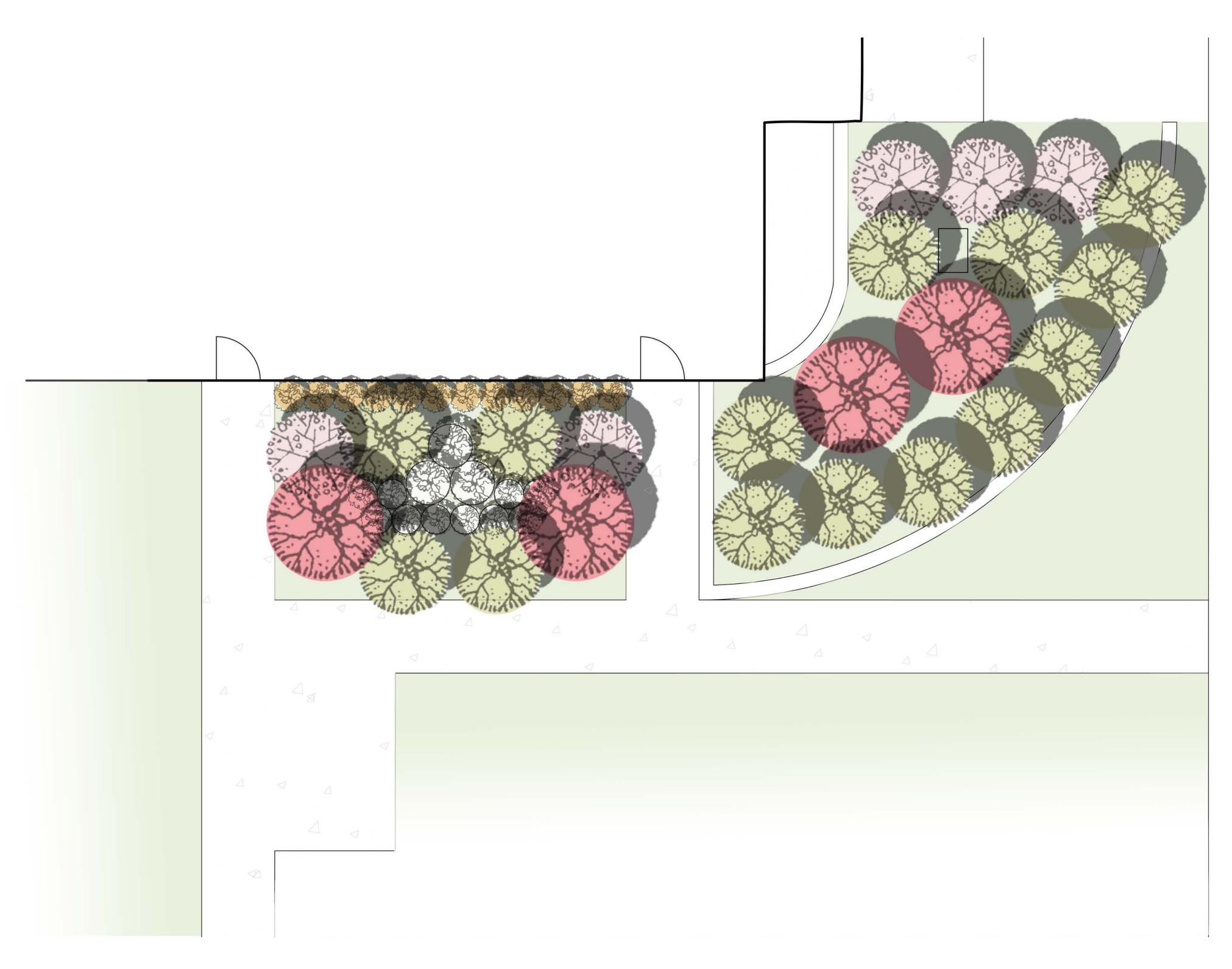
# METZGER RESIDENCE HALL RAIN GARDEN DESIGN

BUCSH CAMPUS, RUTGERS UNIVERSITY New Brunswick, NJ 08901







### SITE DESCRIPTION

1. GRADING OF THE NORTHEAST LANDSCAPE SLOPES TOWARD THE BUILDING, GENERALLY TOWARD THE SOUTHEAST.

2. STORMWATER FROM THE BUILDING'S ROOD IS CAPTURED BY 5 DRAINAGE PIPE AND DRAINED TO THE LAWN AREA IN FRONT OF THE METZGER HALL.

3. LARGE RIVER ROCKS SERVE AS GROUNDCOVER ON THE POTENTIAL RAIN GARDEN AREA.

4. ACCORDING TO USDA SOIL SURVEY, THE SOIL ON-SITE IS KLINESVILLE-URBAN LAND COMPLEX SOILS.

5. THE INFILTRATION TESTS INDICATE THE SOIL ON-SITE IS RALETIVELY COMPACTED, ONLY MODERATE TO SLOW INFILTRATION RATES OF 1.5" PER HOUR.

6. EXISTING PLANTINGS INCLUDE 5 MAGNOLIA TREES, SEVERAL SHRUBS AND GRASSES NEAR THE BUILDING AND LAWN AREA.

EXISTING CONDITION PLAN

SCALE: 1"=20'

#### GENERAL NOTES

1. THE CATCHMENT AREAS OF THE RAIN GARDEN CONSIDERED FOR THE SITE INCLUDE THE NORTHEAST SIDE OF THE BUILDING ROOF, LAWN AREAS ON THE NORTHEAST SIDE OF THE BUILDING, THE IMPERVIOUS SURFACE AND THE EXISTING DRAINAGE AREA.

2. THE VOLUME OF THE CAPTURED STORMWATER ON SITE IS BASED ON A 2" RAIN FALL DEPTH PER DAY.

3. CONSIDERING THE EXISTING SOIL CONDITION, THE DEPTH OF RAIN GARDEN SHOULD BE 6". CALCULATIONS OF THE SIZE OF RAIN GARDEN ARE INCLUDED ON THIS SHEET.

4. CONSIDERING THE CATCHMENT AREA FOR THE SITE, SUGGESTED RAIN GARDEN SIZE AND AREA ARE SHOWN IN DIAGRAM ON SHEET L-001.

5. PRESERVE ALL EXISTING CONCRETE PAVING.

6. PRESERVE THE BRICK RETAINING WALL FROM DEMOLISHED WALLS TO REUSE IN NEW DESIGN RETAINING WALL.

7. CONSIDERING THE EXISTING SOIL CONDITION, ALL SOIL OF PLANTING AREAS SHOULD BE AMENDED. THE AMENDED PLANTING SOIL SHOULD BE 18" DEEP MINIMUM. CERTAIN DETAIL IS INCLUDED ON THIS SHEET.

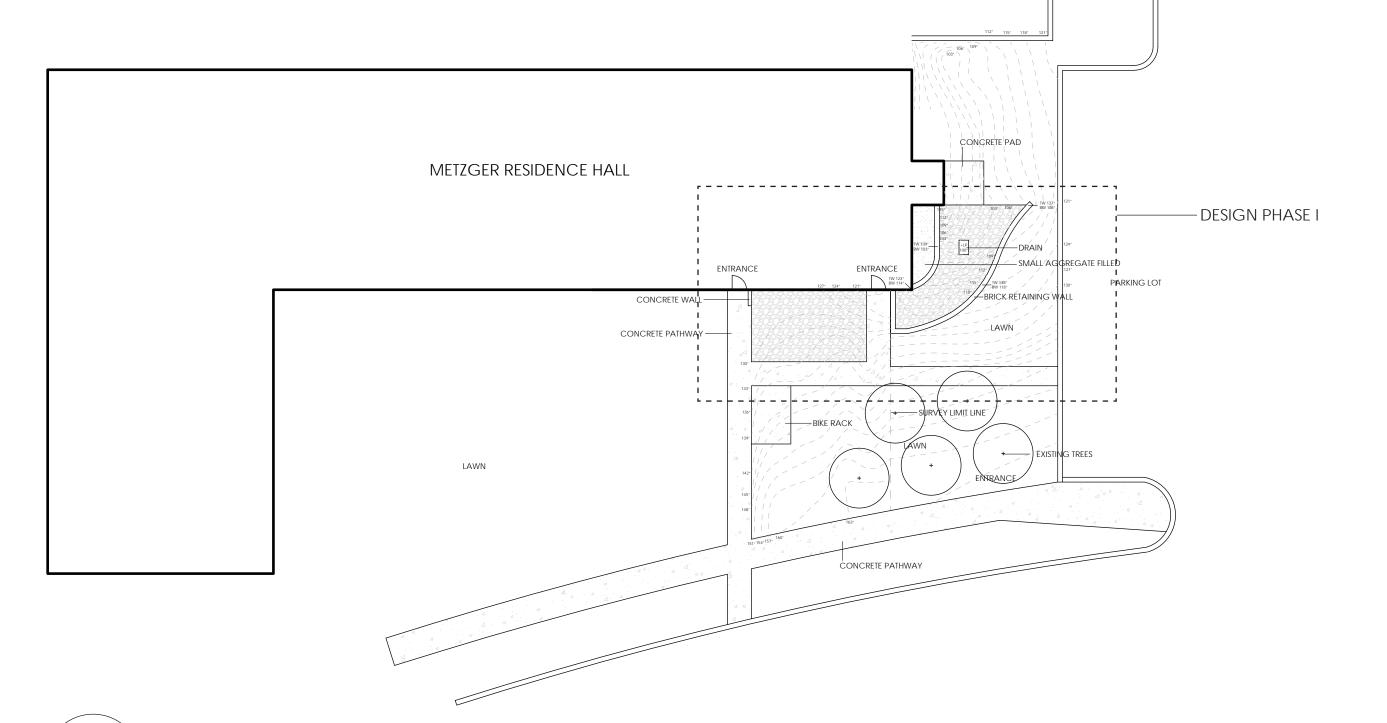
Catchment Area	Catchment Area sqft	Infiltration	Runoff	Rainfall Depth (ft)	Rain Garden Depth (ft)	Rain Garden Size sqft
Building Roof	4875	0%	100%	0.167	0.5	1628.25
Paved Area	804	0%	100%	0.167	0.5	268.536
Lawn	8260	20%	80%	0.167	0.5	2758.84
	4655.626					
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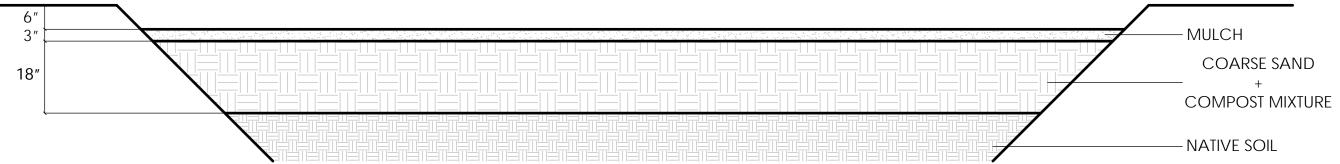
CATCHMENT AREA CALCULATION

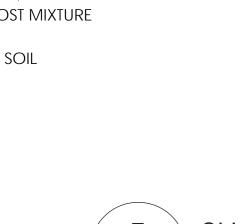


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CATCHMENT AREA DIAGRAM L001/ NTS







SUGGESTED RAIN GARDE AREA DIAGRAM



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DRAWN BY

**BO PENG** 

PROJECT

METZGER RESIDENCE HALL PLANTING DESIGN

LOCATION

RUTGERS UNIVERSITY BUCSH CAMPUS

SHEET TITLE

EXISTING CONDITION

DATE 12.07.2017

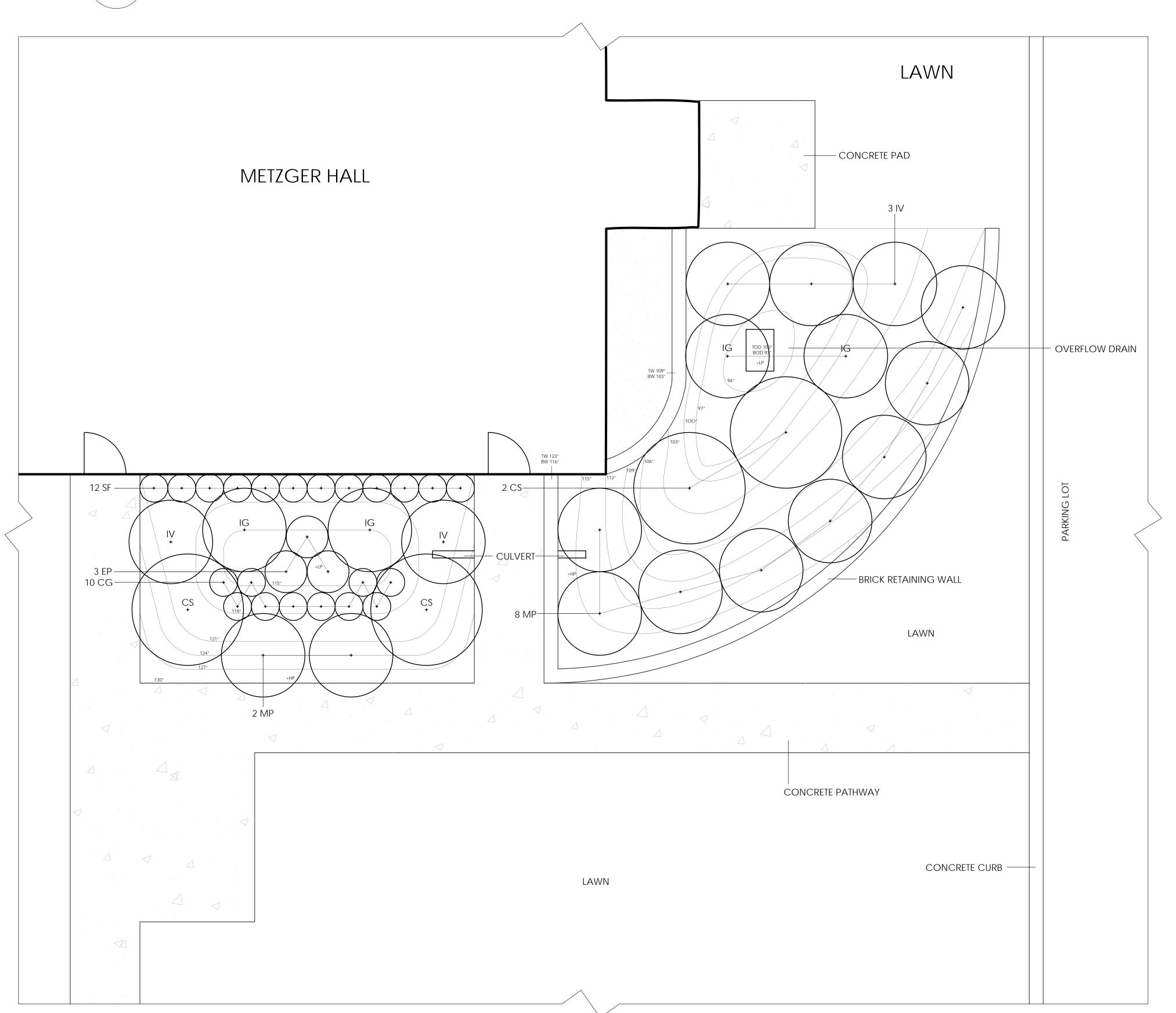


L-001



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Qty.	Sym.	Botanical Name	Scientific Name	Plant Type	Height	Spread	Water Perference	Bloom Time	Bloom Color	Flower	Fruit	Foliage	Winter Interest	Stormwater Management	Erosion Control	Sun Perference	Attracts	Shade Tolerate	Deer Tolerate	Drought Tolerate	Other Tolerate
4	IG	llex glabra	Inkberry Holly	Evergreen Shrub	5'-8'	5'-8'	Medium - Wet	5-6	Greenish-white	Insignificant	Berries	Evergreen		Base Area	Υ	Full sun - Part shade	Birds	Υ	Υ		Rabbit / Wet soil / Air pollution
3	EP	Eupatorium perfoliatum	American Boneset	Herb	4'-6'	3'-4'	Medium - Wet	7-9	White	Showy				Base Area		Full sun - Part shade	Butterflies		Υ		Clay soil / Wet soil
10	CG	Chelone glabra	White Turtlehead	Herb	2'-3'	1.5'-2.5'	Medium - Wet	8-10		Showy				Base Area	Υ	Part shade	Butterflies	Υ			Wet soil
5	IV	llex verticillata	Winterberry Holly	Deciduous Shrub	3'-12'	3'-12'	Medium - Wet	6-7	Greenish-white	Insignificant	Showy		Showy berries	Slope Area	Υ	Full sun - Part shade	Birds				Clay soil / Wet soil / Air pollution
4	CS	Cornus sericea	Red Twig Dogwood	Deciduous Shrub	6'-9'	7'-10'	Medium - Wet	5-6	White	Showy	Showy	Red - Orange	Stem color	Slope Area	Υ	Full sun - Part shade	Birds / Butterflies		Υ		Clay soil / Wet soil
12	SF	Solidago flexicaulis	Broad Leaf Goldenrod	Herb	1'-3'	1'-3'	Medium	7-9	Yellow	Showy				Slope Area		Full sun - Part shade	Butterflies	Y	Y		Clay soil
10	MP	Myrica pensylvanica	Bayberry	Deciduous Shrub	5'-10'	5'-10'	Dry - Medium	5	Yellowish-green	Insignificant	Showy		Semi-evergreen	Buffer Area	Y	Full sun - Part shade	Birds			Υ	Wet soil

1 PLANT SCHEDULE L002







llex glabra





Eupatorium perfoliatum





Chelone glabra





llex verticillata





Cornus sericea



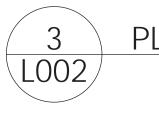


Solidago flexicaulis





Myrica pensylvanica



PLANT PALETTE



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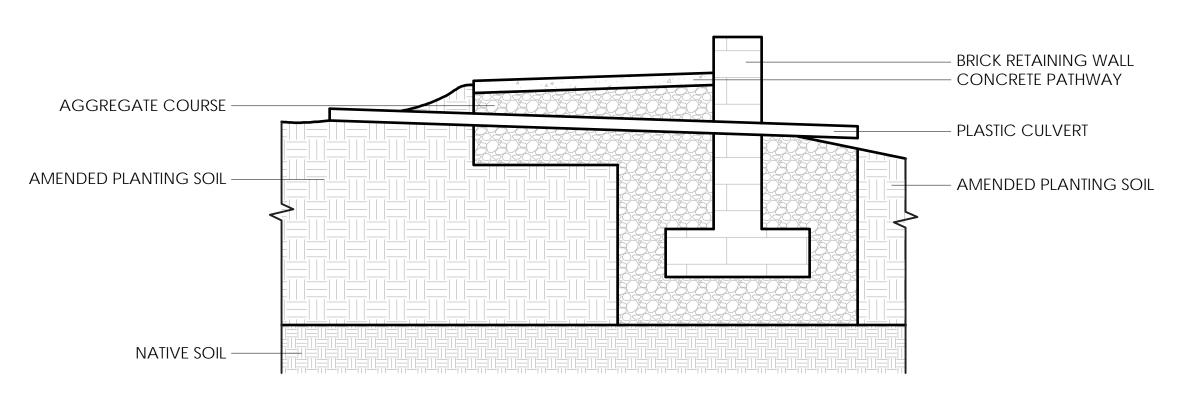
PLANTING PLAN

DATE 12.07.2017

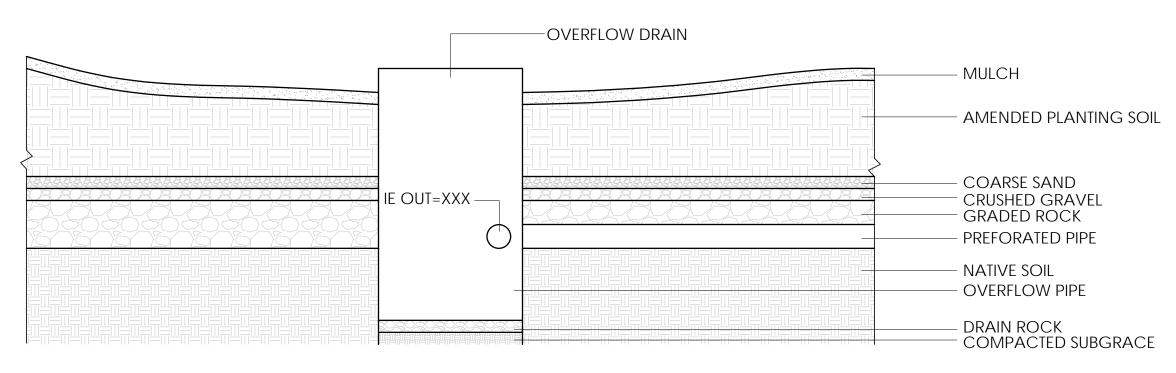


L-002





**CULVERT & RETAINING WALL DETAIL** L003 | SCALE: 1/2"=1'-0"



OVERFLOW DRAIN DETAIL L003 | SCALE: 1/2"=1'-0"

## SHRUB PLANTING DETAIL NOTES (TYP.)

1. FOR CONTAINER GROWN TREES FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL, THEN CUT OR PULL APART ANY ROOT CIRCLING THE PERIMETER OF THE CONTAINER.

2. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZAE SPORES AND FERTILIZER TABLETS IN THE SOIL IMMEDI-ATELY AROUND THE ROOT BALL AT RATE SPECIFIED BY THE MANUFACTURER.

3. PRIOR TO INSTALLATION CONFIRM THE SOILS WILL DRAIN PROPERLY. IF NECESSARY PROVIDE PROPER DRAINAGE.

4. THOROUGHLY SOAK THE ROOT BALL AND THE ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.

# SHREDDED HARDWOOD MULCH - AMENDED PLANTING SOIL SHRUB ROOTBALL

3 SHRUB PLANTING DETAIL L003 | SCALE: 1/2"=1'-0"

#### PLANTING NOTES

1. THE LANDSCAPE CONTRACTOR WILL STAKE OUT PLANT LOCATIONS IN THE FIELD. THE LANDSCAPE DESIGNER AND OWNER RESERVE THE RIGHT TO OBSERVE THESE LOCATIONS PRIOR TO COMMENCING PLANT PIT EXCAVATION. THE CONTRACTOR WILL MAKE ADJUSTMENTS AS REQUIRED BY LANDSCAPE DEISGNER AND/OR OWNER.

2. NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE DESIGNER. THIS SHALL APPLY TO SUBSTITUTIONS OF SPECIES, SIZE AND QUANTITY.

3. ALL TREES AND SHRUBS SHALL BE OF HEALTHY VIGOROUS STOCK GROWN IN A RECOGNIZED NURSERY IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE AND THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS, FREE OF DISEASE AND DEFECTS.

4. PLANTS WITH UNDERSIZED OR BROKEN ROOT BALLS, EXCESSIVE CULLING AND/OR GIRDLING OF ROOTS, INJURY FROM ROUGH TREATMENT, OR DROUGHT STRESS WILL WITH UNDERSIZED OR BROKEN ROOT BALLS. EXCESSIVE CURLING AND/OR DROUGHT STRESS WILL BE REJECTED.

5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO GUARANTEE THAT ROOT BALLS ARE PROPERLY SIZED. PLEASE BE AWARE THAT FOR PROPER SIZING, EXCESS ALIEN SOIL SHALL BE REMOVED PRIOR TO DIGGING, SEE DIAGRAM 1.A

6. ROOT BALLS SHALL BE KEPT MOIST AT ALL TIMES.

7. PLANTS SHALL BE COVERED DURING TRANSPORT TO PREVENT DESICCATION FROM WIND. IN WARM WEATHER PLANTS SHALL BE COVERED JUST PRIOR TO TRAVEL AND UNCOVERED IMMEDIATELY UPON REACHING DESTINATION TO AVOID HEAT BUILD UP UNDER THE TARP. PLANT MATERIAL SHALL NOT BE LEFT IN DIRECT SUNLIGHT OR ON HEAT ABSORPTION MATERIALS, SUCH AS BUT NOT LIMITED TO, ASPHALT AND/ OR METAL TRUCK BEDS TO PREVENT THE WILTING OF MATERIAL.

8. TREES SHALL BE MOVED BY THEIR ROOT BALL NOT THEIR TRUNK. TREES LARGER THAN 6" SHALL BE MOVED WITH PROPER STRAPPING SECURING ROOT BALL TO EQUIPMENT. WEAVE STRAPPING THROUGH THE LACING, NOT AROUND THE TRUNK. TREE TRUNK SHALL BE PROTECTED AT ALL TIME FROM COMPRESSION AND SEARING.

9. IF PLANTS ARE NOT PLANTED IMMEDIATELY ON SITE, PROPER CARE SHALL BE TAKEN:

A. PLACE IN PARTIAL SHADE WHEN POSSIBLE.

B. COVER ROOT BALL WITH MOISTENED MULCH OR AGED WOODCHIPS.

C. SUPPLY PROPER IRRIGATION AS NOT TO ALLOW THE ROOT BALL TO DRY OUT.

D. UNTIE PLANT MATERIAL AND ALLOW PROPER SPACING OF PLANTS FOR AIR CIRCULATION TO PREVENT DIS-EASE, WILTING, LEAF LOSS AND GENERAL HEATH OF PLANTS.

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SHEET TITLE

CONCRETE PATHWAY

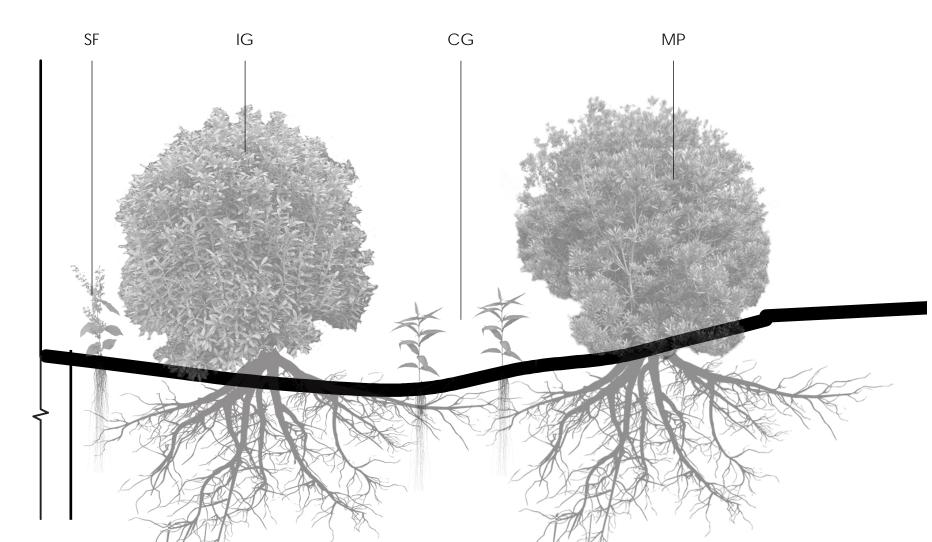
AGGREGATE BASE

- NATIVE SOIL

DETAILS

DATE 12.07.2017

RAIN GARDEN SECTION



MULCH AMENDED PLANTING SOIL PLASTIC WATER BARRIER -

L003/ SCALE: 1/2"=1'-0"

RAIN GARDEN PLANTS SECTION L003 | SCALE: 1/2"=1'-0"

L-003