

POPE JOHN HIGH SCHOOL

DETENTION BASIN RETROFIT IMPLEMENTATION PROJECT

28 ANDOVER ROAD, SPARTA TOWNSHIP

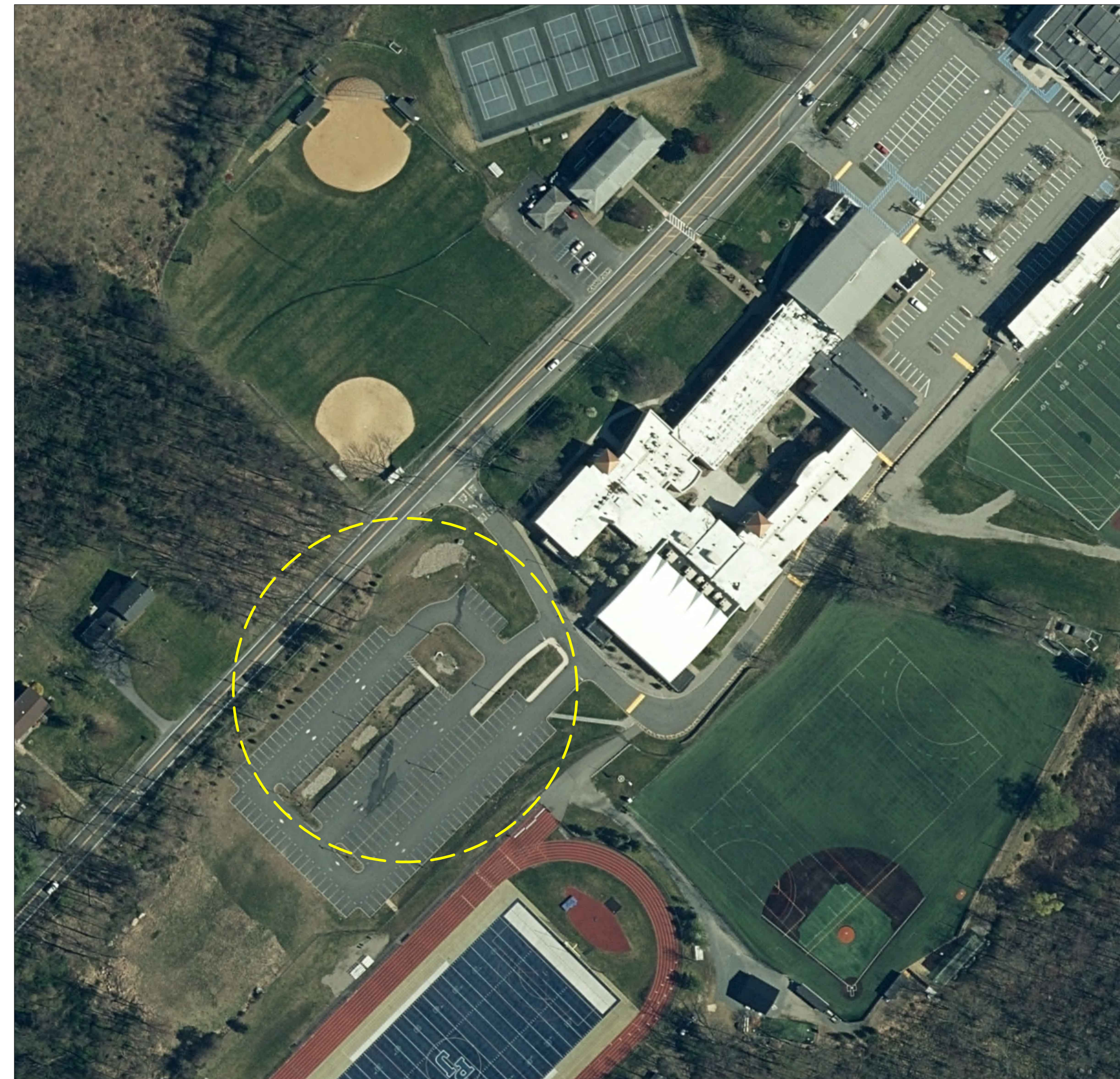
SUSSEX COUNTY, NEW JERSEY

BLOCK: 4017 LOT: 71

PROJECT DESCRIPTION:

EXISTING DETENTION BASINS (515, 330, 330, 500, AND 1,400 SQUARE FEET) RETROFITTED WITH NATIVE SHRUBS AND PERENNIAL VEGETATION. THE STORMWATER MANAGED IS APPROXIMATELY 5,260,000 GALLONS FROM A DRAINAGE AREA OF 208,350 S.F. (4.7 ACRES). THE TOTAL SUSPENDED SOLIDS REMOVED IS APPROXIMATELY 846 LBS. PER YEAR. TOTAL PHOSPHORUS LOADS MANAGED ARE APPROXIMATELY 9.87 LBS. PER YEAR. TOTAL NITROGEN LOADS MANAGED ARE APPROXIMATELY 103.4 LBS. PER YEAR.

LOCATION MAP (N.T.S):



LEGEND:

-----	EXISTING DRAINAGE AREA
———	EDGE OF PAVEMENT
←-----	EXISTING CENTERLINE
—○—○—	EXISTING FENCE
~~~~~	EXISTING TREELINE
○	EXISTING TREE/SHRUB
▨	EXISTING BUILDING
⊕	EXISTING UTILITY POLE
☀	EXISTING LIGHT POLE
▩	EXISTING CATCH BASIN
~100~	EXISTING CONTOURS
+ 100.00 CODE	EXISTING SPOT ELEVATIONS
<small>SPOT ELEVATION CODES: BL - BUILDING LINE      GS - GROUND SHOT CB - CATCH BASIN      MH - MANHOLE EP - EDGE OF PAVEMENT      SW - SIDEWALK F - FENCE      UP - UTILITY POLE</small>	
-----	LIMIT OF WORK
-----	PROPERTY LINES
▨	AREA TO BE DEPAVED
▩	PROPOSED GREEN INFRASTRUCTURE
▩	PROPOSED POROUS ASPHALT
○	PROPOSED TREE
—○—○—	PROPOSED TOP OF BERM
~100~	PROPOSED CONTOURS
+ 100.00 CODE	PROPOSED SPOT ELEVATIONS
<small>SPOT ELEVATION CODES: G - GROUND SHOT      CH - SWALE CHANNEL TOB - TOP OF BERM      TC - TOP OF CURB</small>	

**LIST OF DRAWINGS:**

SHEET NAME	TITLE
COVER	COVER SHEET
P-1	EXISTING CONDITIONS AND DEMOLITION PLAN
P-2	PROPOSED SITE PLAN
P-3	PLANTING PLAN
DT-1	DETAILS
DT-2	DETAILS 2

**GENERAL NOTES:**

- ANY OVERHEAD AND UNDERGROUND UTILITIES SHOWN ARE FROM FIELD OBSERVATIONS AND ARE NOT A COMPLETE REPRESENTATION. A UTILITY MARKOUT NEEDS TO BE CONDUCTED PRIOR TO MOBILIZATION BY THOSE RESPONSIBLE FOR EXCAVATION. NJ ONE CALL: 811 OR 800-272-1000

PLAN REVISIONS		
REV. DATE	REV. SUMMARY	REV. SHEETS
9/29/2023	AS-BUILT	COVER, P-1, P-2, P-3, DT-1

CHRISTOPHER C. OBROPTA, Ph.D., P.E.  
PROFESSIONAL ENGINEER - NJ LICENSE # 37532  
*Christopher C. Obropta*  
DATE: 6/15/2023  
APPROVED: [Signature]  
CHECKED: [Signature]  
DRAWN: CP

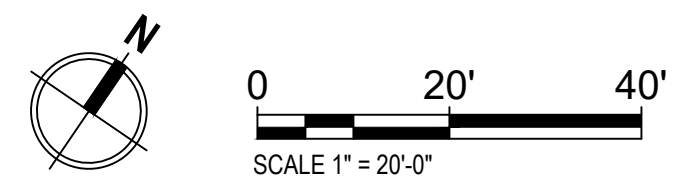
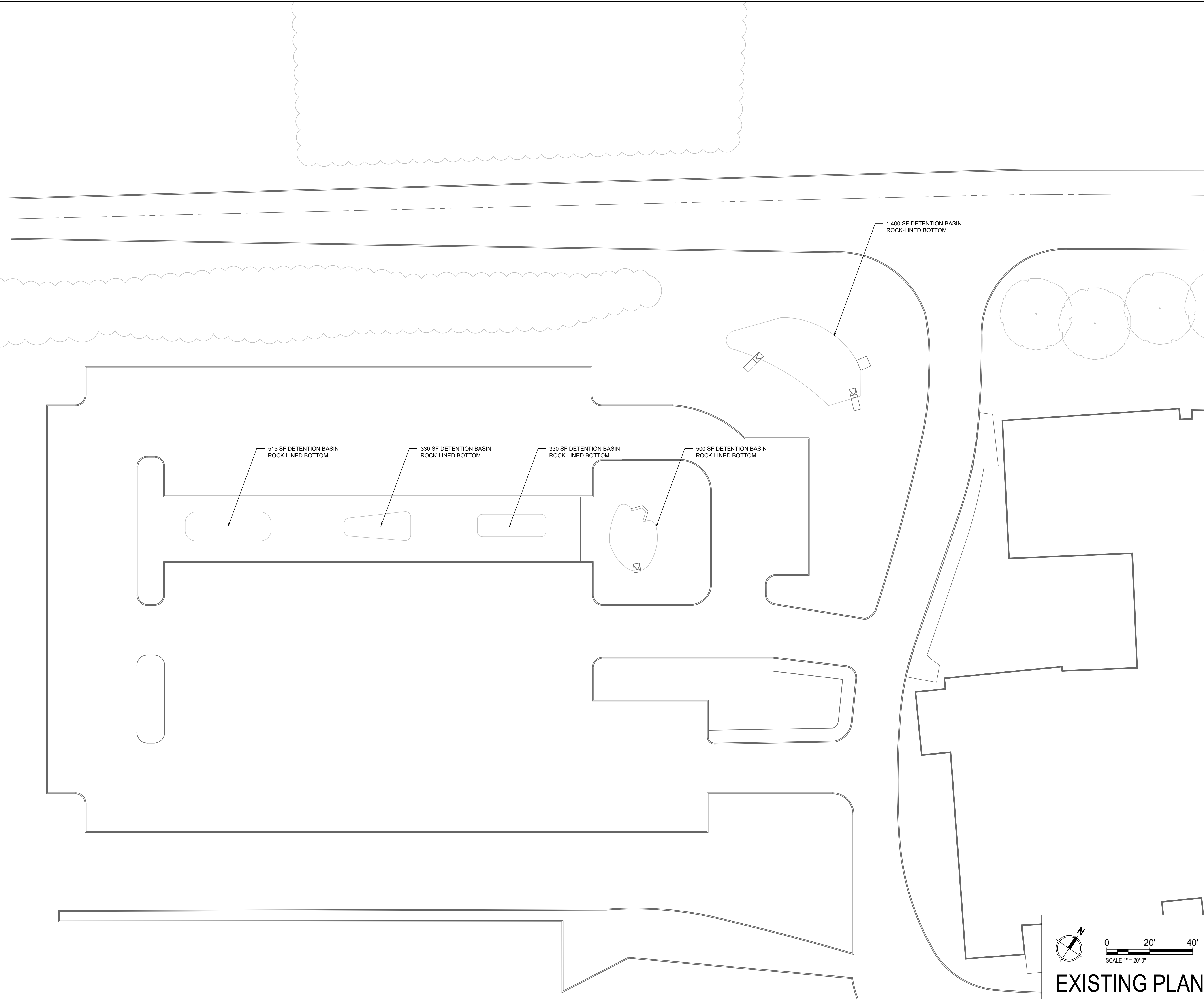
PLAN REVISIONS	DATE	DESCRIPTION
No. 1	9/29/2023	AS-BUILT

**POPE JOHN HIGH SCHOOL  
DETENTION BASIN RETROFIT  
IMPLEMENTATION PROJECT**  
28 ANDOVER RD, SPARTA TOWNSHIP  
SUSSEX COUNTY, NJ  
COVER SHEET



SHEET NAME  
**DT-1**





**EXISTING PLAN**

**CHRISTOPHER C. OBROPTA, Ph.D., P.E.**  
 PROFESSIONAL ENGINEER - NJ LICENSE # 37532  
*Christopher C. Obropta*  
 DATE: 6/15/2022

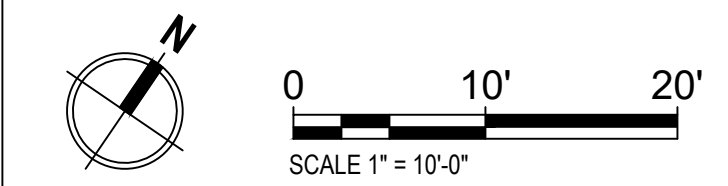
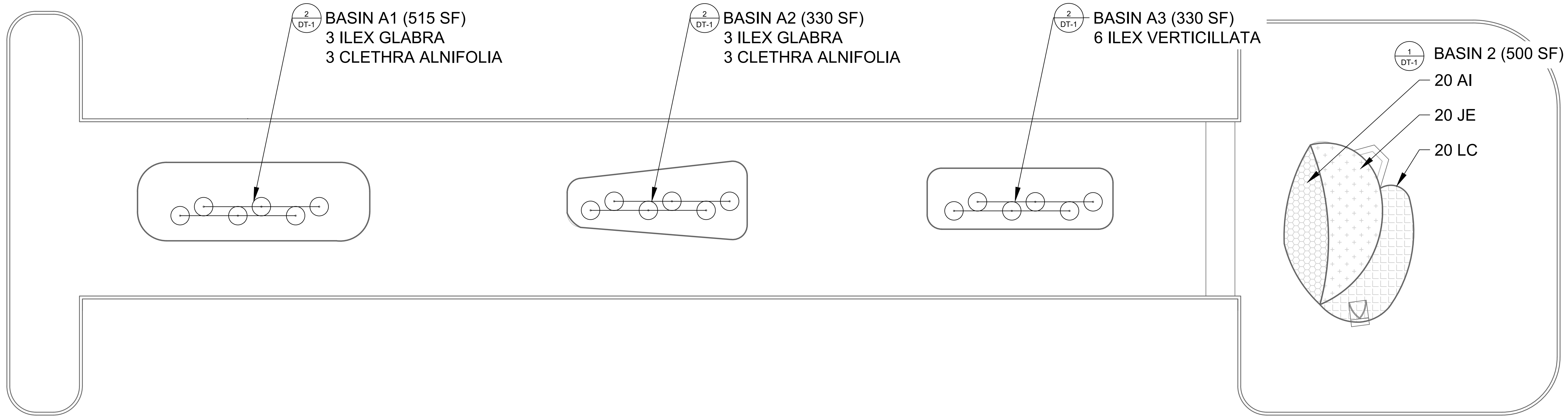
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**POPE JOHN HIGH SCHOOL  
 DETENTION BASIN RETROFIT  
 IMPLEMENTATION PROJECT**  
 28 ANDOVER RD, SPARTA TOWNSHIP  
 SUSSEX COUNTY, NJ  
**EXISTING CONDITIONS AND DEMOLITION PLAN**

**RUTGERS**  
 New Jersey Agricultural  
 Experiment Station  
 14 COLLEGE FARM ROAD, NEW BRUNSWICK NJ

SHEET NAME  
**P-1**

PLANTING SCHEDULE					
PLANT SPECIES				QUANTITY	SIZE
TYPE	KEY	BOTANICAL NAME	COMMON NAME		
BASINS					
PERENNIALS	AI	<i>Asclepias incarnata</i> "Cinderella"	SWAMP MILKWEED	20	#2 CONT.
	JE	<i>Juncus effusus</i>	SOFT RUSH	20	#1 CONT.
	LC	<i>Lobelia cardinalis</i> Black Truffle	CARDINAL FLOWER	20	#2 CONT.
SHRUBS	CA	<i>Clethra alnifolia</i> "Ruby Spice"	SWEET PEPPERBUSH	6	#3 CONT.
	IG	<i>Ilex glabra</i> "Shamrock"	INKBERRY HOLLY	6	#3 CONT.
	IV	<i>Ilex verticillata</i>	WINTERBERRY HOLLY	6	#3 CONT.



PHASE 1

**RUTGERS**  
New Jersey Agricultural  
Experiment Station

14 COLLEGE FARM ROAD, NEW BRUNSWICK NJ

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DETENTION BASIN RETROFIT  
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28 ANDOVER RD, SPARTA TOWNSHIP  
SUSSEX COUNTY, NJ  
PHASE 1 PLANTING PLAN

CHRISTOPHER C. OBROPTA, Ph.D., P.E.  
PROFESSIONAL ENGINEER - NJ LICENSE # 37532

DATE: 06/15/2023

DRAWN: CP  
CHECKED: [Signature]  
APPROVED: [Signature]

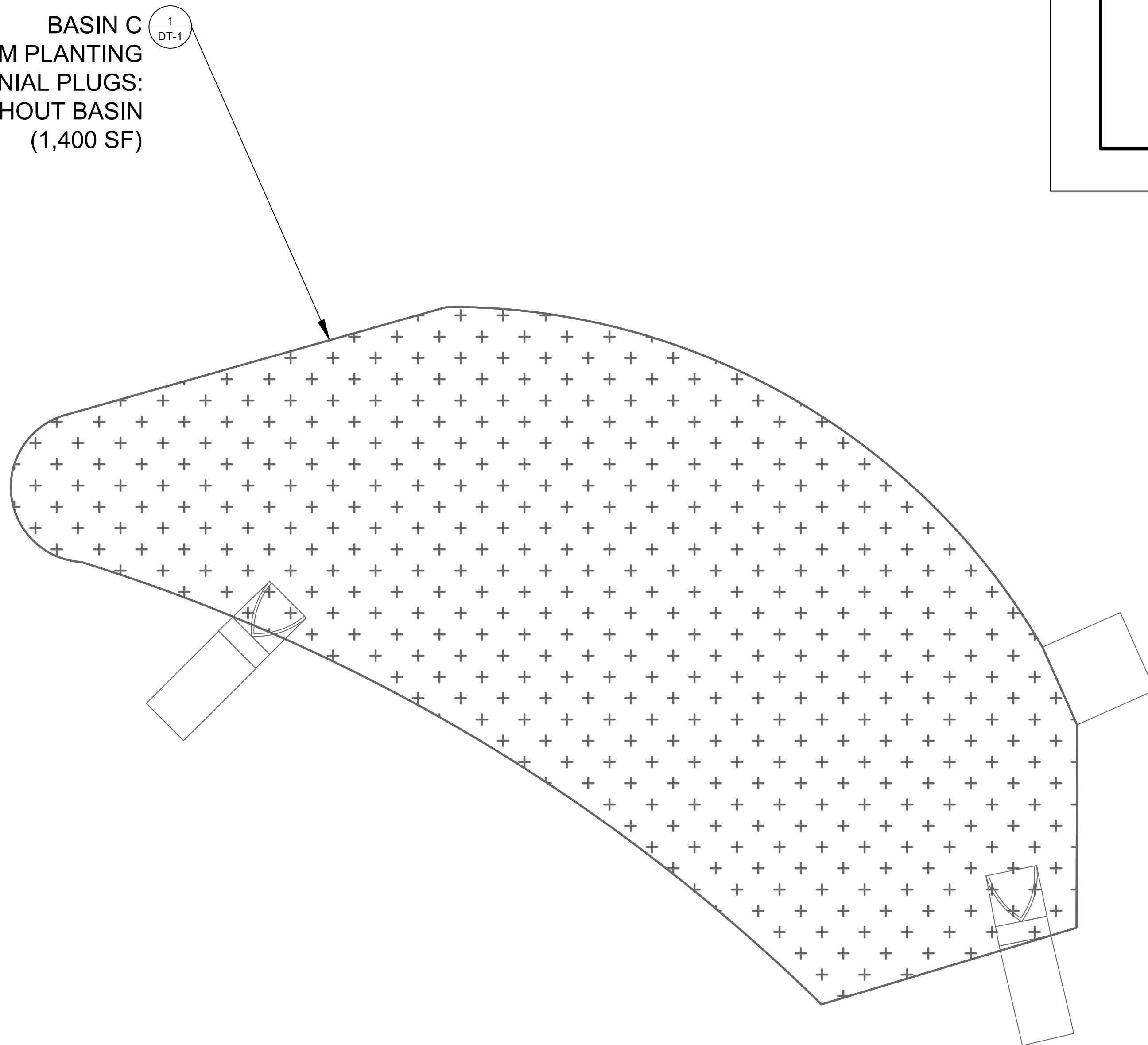
PLAN REVISIONS	No.	DATE	DESCRIPTION
	1	9/29/2023	AS-BUILT

SHEET NAME  
P-1



PLANTING SCHEDULE					
PLANT SPECIES				QUANTITY	SIZE
TYPE	KEY	BOTANICAL NAME	COMMON NAME		
RAIN GARDEN X					
PERENNIALS	AI	<i>Asclepias incarnata</i>	SWAMP MILKWEED	50	PLUG
	IVE	<i>Iris versicolor</i>	BLUE FLAG IRIS	50	PLUG
	MF	<i>Monarda fistulosa</i>	WILD BERGAMOT	50	PLUG
	PD	<i>Penstemon digitalis</i>	FOXGLOVE BEARDTONGUE	50	PLUG
	RF	<i>Rudbeckia fulgida</i>	ORANGE CONEFLOWER	50	PLUG
	SMB	<i>Symphyotrichum novi-belgii</i>	NEW YORK ASTER	50	PLUG
	SS	<i>Solidago sempervirens</i>	SEASIDE GOLDENROD	50	PLUG
	EP	<i>Echinacea purpurea</i>	PURPLE CONEFLOWER	50	PLUG
	CV	<i>Carex vulpinoidea</i>	FOX SEDGE	50	PLUG
	JE	<i>Juncus effusus</i>	SOFT RUSH	50	PLUG
	PV	<i>Panicum virgatum</i>	SWITCHGRASS	50	PLUG
	JE	<i>Sorghastrum nutans</i>	INDIANGRASS	50	PLUG
	TF	<i>Tridens flavus</i>	PURPLETOP TRIDENS	50	PLUG

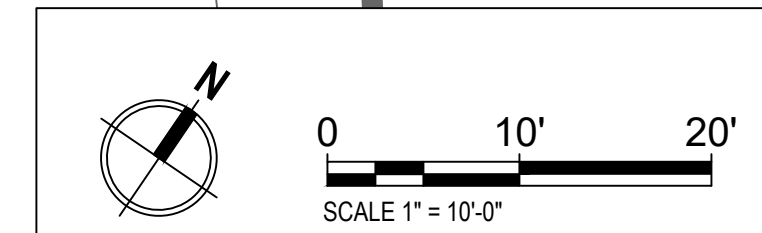
BASIN C  
 BASIN BOTTOM PLANTING  
 2" HERBACEOUS PERENNIAL PLUGS:  
 DISPERSED THROUGHOUT BASIN  
 (1,400 SF)



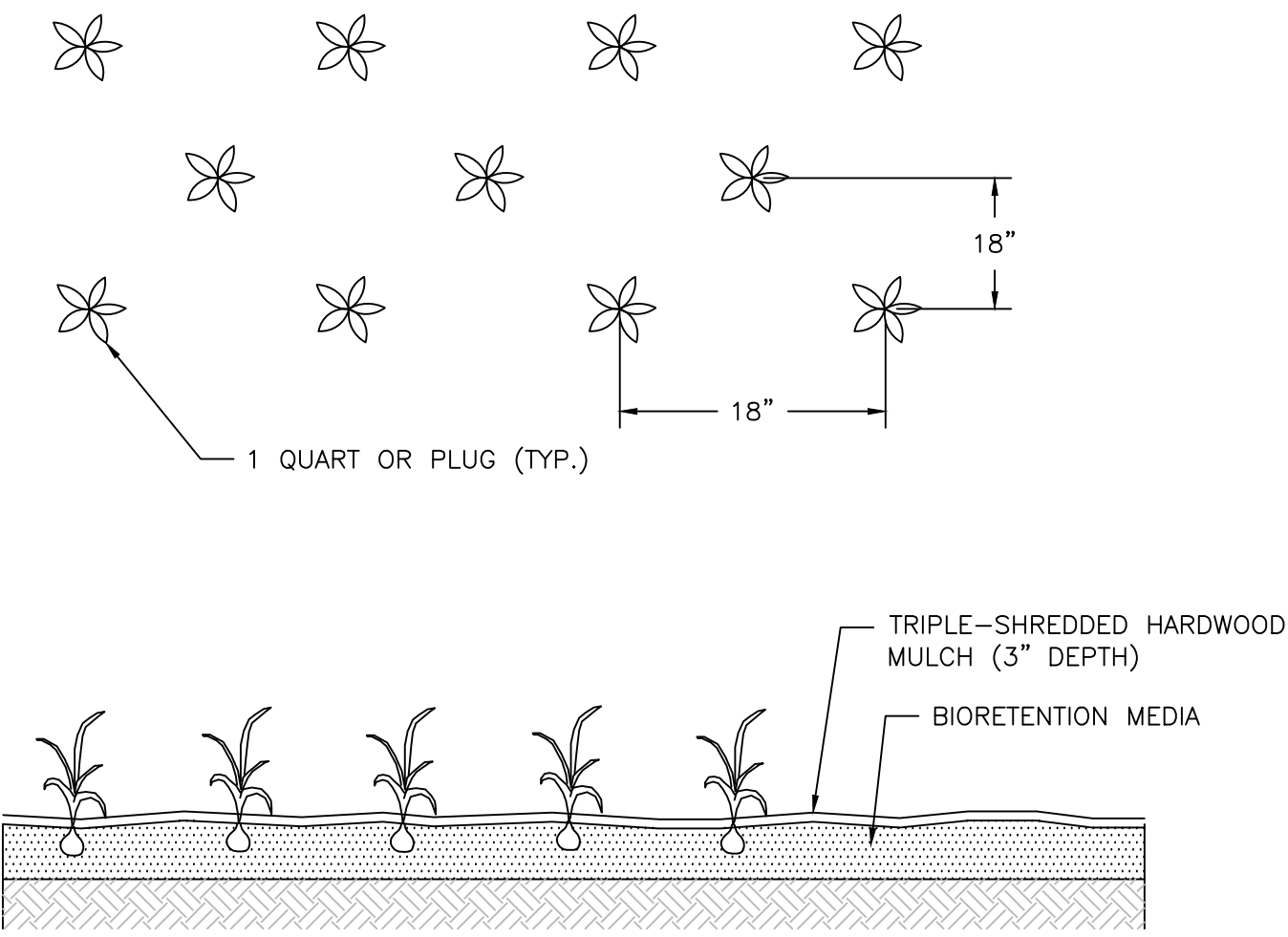
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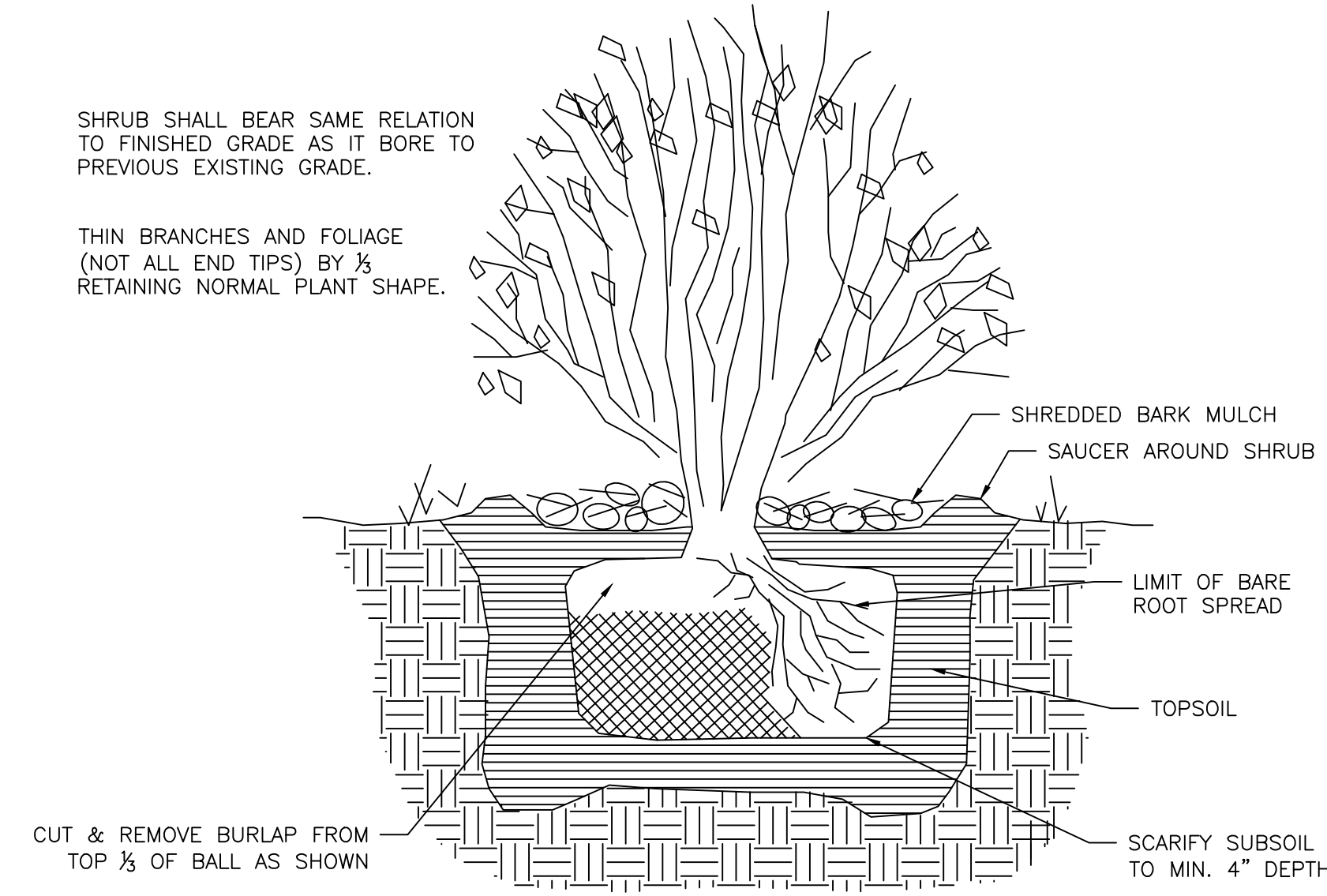
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 PHASE 2 PLANTING PLAN



PHASE 2  
 SHEET NAME  
 P-2



1 HERBACEOUS PLUG PLANTING DETAIL  
DT-1 N.T.S.



2 SHRUB PLANTING DETAIL  
DT-1 N.T.S.

OPEN LAWN AND TURF AREAS

- SEED ALL REMAINING PARK AREAS WITH TURF TYPE FALL FESCUE AND PERENNIAL RYEGRASS BLEND (LOFTS – SUMMER STRESS MIX II OR APPROVED EQUIVALENT). INSTALL AT A RATE OF 350 LBS. PER ACRE PER MANUFACTURERS SPECIFICATIONS.

TOPSOILING, SEEDING AND MULCHING NOTES

- ANY UNDISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED FOR MORE THAN 10 DAYS MUST BE SEEDED AND MULCHED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE REQUIRED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR SHALL BE SEEDED AND MULCHED WITH A QUICK GROWING TEMPORARY SEEDING MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE SEEDED AND MULCHED WITH A PERMANENT SEED MIXTURE AND MULCH.
- DIVERSIONS, CHANNELS, SEDIMENTATION BASINS, SEDIMENT TRAPS, AND STOCKPILES MUST BE SEEDED AND MULCHED IMMEDIATELY.
- GRADED AREAS SHALL BE TEMPORARILY SEEDED AND MULCHED IMMEDIATELY FOLLOWING EARTH MOVING PROCEDURES. TEMPORARY SEED SHALL BE ANNUAL RYE GRASS APPLIED AT A RATE OF 3 LBS. PER 1000 SQ. FT.
- AFTER SEEDING, HAY OR STRAW MULCH MUST BE APPLIED AT A RATE OF AT LEAST 3.0 TONS PER ACRE. MULCH SHALL BE ANCHORED BY EITHER CRIMPING WITH A COULTER IMPLEMENT, OR BY STAPLING BIODEGRADABLE NETTING TO THE SURFACE.
- SITE PREPARATION TO UPLAND AREAS: APPLY 1 TON OF AGRICULTURAL-GRADE LIMESTONE PER ACRE PLUS 10-20-10 FERTILIZER AT THE RATE OF 500 LB. PER ACRE. WORK IN WHERE POSSIBLE. SEEDING OF DISTURBED UPLAND AREAS (BEYOND LIMITS OF RIPARIAN ENHANCEMENT AREA) TO BE DONE USING MIX OF FINE FESCUE AT 35 LBS/ACRE (PURE LIVE SEED) PLUS PERENNIAL RYEGRASS AT 15 LBS/ACRE (PURE LIVE SEED).
- TOPSOIL SHALL BE A CLEAN FRIABLE LOAM WITH SUFFICIENT ORGANIC CONTENT (2.75%) TO PROMOTE PLANT VIGOR. AMENDMENTS SHALL BE ADDED AS NEEDED TO IMPROVE DEFICIENT SOILS. TOPSOIL SHALL BE RETURNED AT A LOOSE DEPTH OF FIVE INCHES TO ALLOW FOR SETTLEMENT.
- ESTABLISH PERMANENT SEEDING AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETE. UNLESS OTHERWISE INDICATED, PERMANENT SEEDING SHALL BE SEED MIXTURE SPECIFIED IN TABLE.
- SEE TABLES FOR SEED SPECIES MIXTURE AND APPLICATION RATES.
- SEED MIXES ARE AVAILABLE AT ERNST CONSERVATION SEEDS IN MEADVILLE, PA. WEBSITE: WWW.ERNSTSEED.COM OR PHONE: 1-800-873-3321.
- NATIVE SHRUBS AND HERBACEOUS PLUGS ARE AVAILABLE AT PINELANDS NURSERY AND SUPPLY, COLUMBUS NJ. WEBSITE: WWW.PINELANDSNURSERY.COM OR PHONE 1-800-667-2729

GENERAL LANDSCAPING NOTES

- ALL PLANT MATERIALS SHALL CONFIRM TO THE AMERICAN ASSOCIATION OF NURSERYMEN'S AMERICAN STANDARD FOR NURSERY STOCK (LATEST EDITION)
- INSPECTION OF PLANTING BEDS – THE LANDSCAPE ARCHITECT SHALL INSPECT ALL PLANTING AREAS BEFORE ANY TOPSOILING OR PLANTING IS BEGUN TO ENSURE THAT ADEQUATE DRAINAGE EXISTS. IF ANY AREAS TO BE LANDSCAPED SHOW EVIDENCE OF POOR DRAINAGE, THE LANDSCAPE ARCHITECT SHALL NOTIFY THE OWNER IMMEDIATELY FOR CORRECTIVE ACTION
- THE LANDSCAPE ARCHITECT SHALL APPROVE ALL PLANT MATERIAL AND STAKED PLANT LOCATIONS PRIOR TO INSTALLATION.
- ALL TREES, SHRUBS, AND GROUNDCOVER SHALL BE PLACED IN CONTINUOUS MULCHED BEDS 4" IN DEPTH. MULCH SHALL BE TRIPLE SHREDDED HARDWOOD.
- ALL TREES, SHRUBS, AND GROUNDCOVER SHALL BE AS SPECIFIED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS AND COMMENTS NOTED ON THE DRAWINGS.
- TOPSOIL SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR FOR PLANTING ACCORDING TO THE PLANS AND DETAILS.
- PREPARED TOPSOIL FOR BACKFILLING AROUND TREE BALLS SHALL BE A MIXTURE OF VOLUME OF THE FOLLOWING MATERIALS IN QUANTITIES SPECIFIED: 1/3 COMPOST, 2/3 TOPSOIL
- ALL HERBACEOUS PLUG PLANTINGS SHALL BE MINIMUM 3 INCH DEPTH. PLUGS SHALL BE PLANTED 1 FOOT O.C. AS INDICATED ON PLAN.

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PLANT SPECIES					
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PROFESSIONAL ENGINEER - NJ LICENSE # 97532  
DATE XXXXXX  
APPROVED  
DATE XXXXXX  
CHECKED  
DRAWN  
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IMPLEMENTATION PROJECT  
28 ANDOVER RD, SPARTA TOWNSHIP  
SUSSEX COUNTY, NJ  
PLANTING AND LANDSCAPING DETAILS

