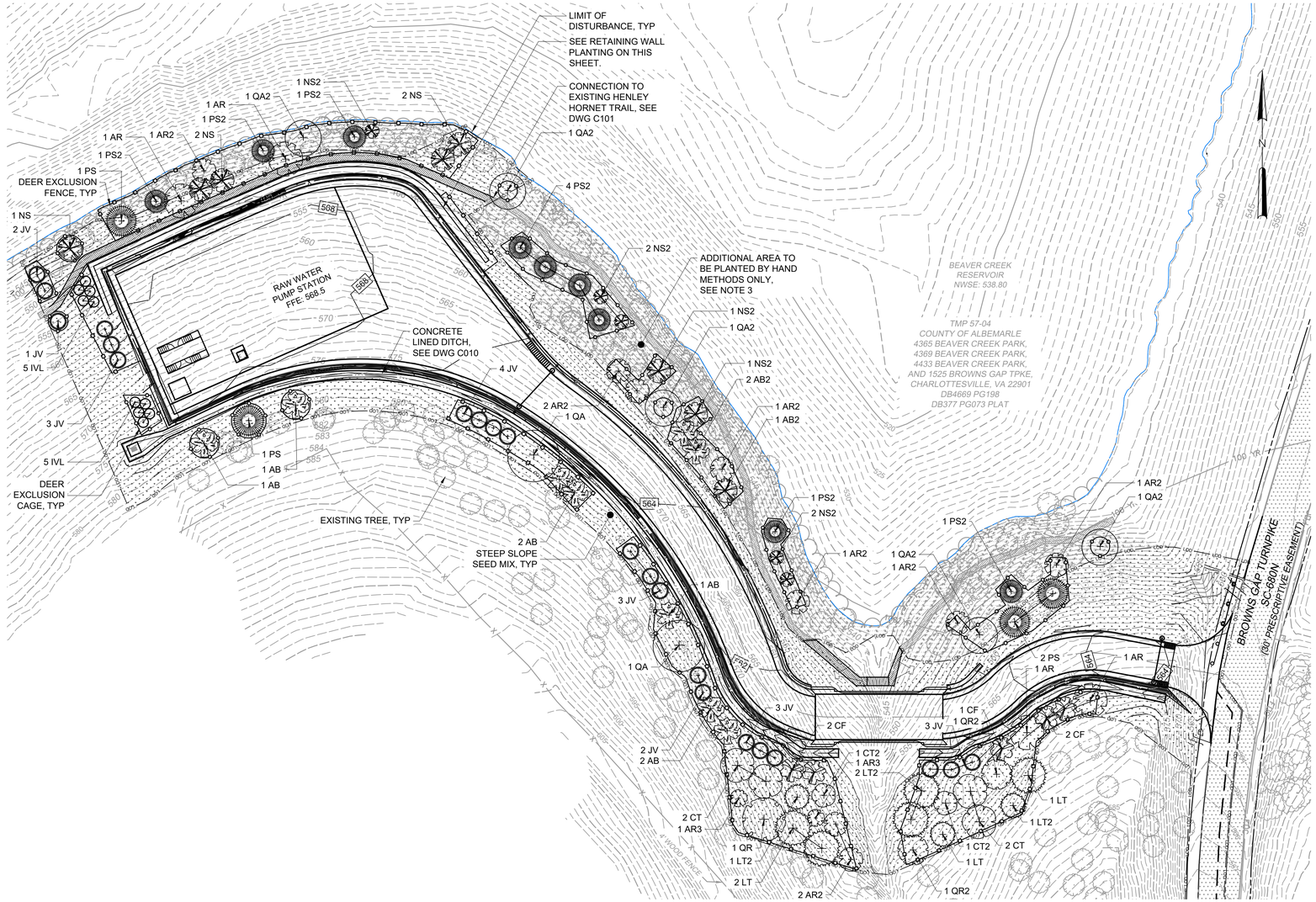


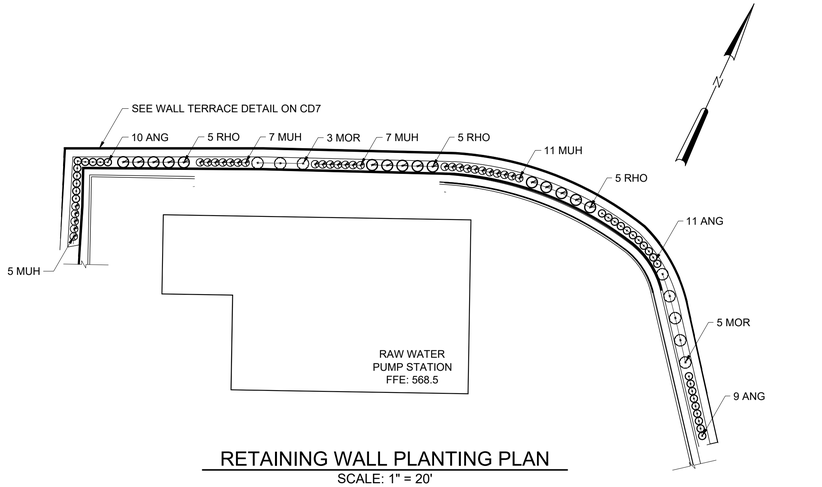
PLANTING PLAN
SCALE: 1" = 30'

SCALE: 1" = 30'

30 15 0 30'

NOTES:

1. SEE LANDSCAPE NOTES, PLANTING SCHEDULE, AND SEEDING SCHEDULES ON DWG L002.
2. SEE PLANTING DETAILS ON DWGS L003 AND L004.
3. ADDITIONAL AREA OUTSIDE OF LIMIT OF DISTURBANCE TO BE PLANTED BY HAND METHODS ONLY. NO MECHANICAL METHODS TO BE USED. SEE SPECIFICATION 32 90 00 - FINAL GRADING AND LANDSCAPING.
4. PLACEMENT OF DEER EXCLUSION CAGES AND DEER EXCLUSION FENCE SHALL BE FIELD DIRECTED. DEER EXCLUSION CAGES SHOWN ARE NOT TO SCALE. SEE DETAIL ON DWG L003.



RETAINING WALL PLANTING PLAN
SCALE: 1" = 20'

SCALE: 1" = 20'

20' 10' 0 20'

LEGEND:

EDGE OF WATER

DEER EXCLUSION FENCE

DEER EXCLUSION CAGE

TREES - CANOPY

AR / AR2 / AR3: *Acer rubrum* - red maple

CT / CT2: *Carya tomentosa* - mocknut hickory

LT / LT2: *Liriodendron tulipifera* - tulip poplar

QA / QA2: *Quercus alba* - white oak

QR / QR2: *Quercus rubra* - northern red oak

TREES - UNDERSTORY

AB / AB2: *Amelanchier arboriea* - downy serviceberry

CF: *Cornus florida* - flowering dogwood

NS / NS2: *Nyssa sylvatica* - black tupelo

TREES - EVERGREEN

PS / PS2: *Pinus strobus* - white pine

JV: *Juniperus virginiana* - eastern red cedar

SHRUBS

MOR: *Morella cerifera* - southern wax myrtle

RHO: *Rhododendron catawbiense* - catawba azalea

HERBACEOUS

ANG: *Andropogon gerardii* - big bluestem

MUH: *Muhlenbergia capillaris* - muhly grass

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	C. RAMO
DESIGNED BY:	K.CROOKS
DRAWN BY:	K.CROOKS
CHECKED BY:	K.WARD

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE 0 1/2" 1"

ISSUED FOR BIDDING

Hazen
HAZEN AND SAWYER
210 RIDGE MCINTIRE ROAD, SUITE 400
CHARLOTTESVILLE, VA 22903

RIVANNA WATER AND SEWER AUTHORITY
CHARLOTTESVILLE, VIRGINIA

BEAVER CREEK RAW WATER
PUMP STATION
INTAKE AND TRANSMISSION MAIN

LANDSCAPE
PROPOSED PLANTING PLAN

DATE:	MARCH 2026
HAZEN NO.:	31570-001
CONTRACT NO.:	1
DRAWING NUMBER:	L001

File: C:_DCACCDOCS\HAZEN AND SAWYER\31570-001_BCR WATER PUMP STATION AND INTAKE\PROJECT FILES\01_DESIGN\CIVIL\00_LANDSCAPE\L001 Saved by KCROOKS Save date: 2/20/2026 9:28 AM
PLOT DATE: 3/21/2026 9:23 AM BY: JMCCLURE

SEEDING NOTES:

1. SIXTY (60) DAYS PRIOR TO SEEDING, THE GERMINATION AND PURITY TEST RESULTS FOR EACH SPECIES IN THE SEED MIX SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. ALL SEEDING OPERATIONS MUST BE SCHEDULED AND APPROVED AT LEAST FIVE (5) DAYS IN ADVANCE TO ENSURE THE ENGINEEER IS PRESENT TO OBSERVE THE WORK.
3. TWO (2) WEEKS PRIOR TO SEEDING, SOIL NUTRIENT, SALINITY, AND PH SHALL BE TAKEN FROM REPRESENTATIVE LOCATIONS IN THE AREA TO BE SEEDED. TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE COMMENCEMENT OF SEEDING OPERATIONS.
4. ALL SEED SHALL BE INTERAGENCY CERTIFIED UNDER THE AUSPICES OF A STATE SEED IMPROVEMENT COOPERATIVE AND SHALL BEAR THEIR SEALS OF CERTIFICATION ON EACH 50 POUND BAG. PERMANENT SEED SHALL BE 75% PURE LIVE SEED MINIMUM AND SEED QUANTITY SHALL BE ADJUSTED BASED UPON THE PURE LIVE SEED PERCENTAGE OF EACH SPECIES IN THE SEED MIX.
5. SEED BROUGHT TO THE PROJECT SITE SHALL BE IN UNOPENED BAGS SHOWING THE NET WEIGHT, COMPOSITION OF THE MIX, SUPPLIERS NAME AND GUARANTEE OF ANALYSIS. SEED SHALL BE STORED IN ORIGINAL UNOPENED PACKAGES, KEPT DRY, AND NOT OPENED UNTIL NEEDED FOR USE. DAMAGED OR FAULTY PACKAGES SHALL NT BE USED AND WILL BE REJECTED. SEED SHALL HAVE BEEN HARVESTED FOR PLANTING IN THE CURRENT OR PREVIOUS GROWING SEASON AND SHALL HAVE BEEN PACKED WITHIN THE LAST NINE (9) MONTHS.
6. SEED MIXTURES SHALL BE AS SPECIFIED IN THE CONTRACT DRAWINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. SEED MATERIALS WILL BE INSPECTED BY THE ENGINEER UPON ARRIVAL AT THE PROJECT SITE AND PRIOR TO PLANTING. ANY MATERIALS NOT IN COMPLIANCE WITH SPECIFICATIONS SHALL BE REJECTED AND REMOVED FROM THE PROJECT SITE BY THE CONTRACTOR.
8. ALL SEED MATERIALS SHALL BE PROTECTED FROM DRYING OUT AND FROM WIND DAMAGE DURING DELIVERY.
9. ALL SEEDING SHALL OCCUR PRIOR TO INSTALLATION OF PLANT MATERIAL.
10. SEED BED PREPARATION SHALL CONSIST OF DECOMPACTION AS NEEDED TO THE SATISFACTION OF THE ENGINEER AND REMOVAL OF ALL DEBRIS AND OBSTACLES SUCH AS ROCKS AND STUMPS.
11. DO NOT BROADCAST SEED BY MECHANICAL APPLICATION WHEN THE WIND VELOCITY IS SUCH AS TO PREVENT UNIFORM DISTRIBUTION.
12. ALL SEEDING SHALL BE INSTALLED DURING TIMEFRAMES IDENTIFIED IN THE CONTRACT SPECIFICATIONS.
13. SEED SHALL BE BROADCAST BY HAND OR MECHANICALLY USING A DROP HOPPER. SEED SHALL BE BLENDED THOROUGHLY WITH A SAND FILLER AND UNIFORMLY BROADCAST OVER THE ENTIRE AREA TO BE SEEDED THEN HAND RAKED1/8 TO ¼ INCH INTO THE SOIL.
14. SEED SHALL BE WATERED AS RECOMMENDED BY THE SEED MANUFACTURER TO ACHIEVE SPECIFIED GROWTH AND COVERAGE.
15. ACCEPTABLE SEEDING WILL BE 85% GERMINATION AND COVERAGE OF THE SEEDED AREA WITH THE SEEDED SPECIES. ANY AREA NOT MEETING THIS REQUIREMENT SHALL BE RESEEDED WITH THE ORIGINAL SEED MIX AT NO COST TO THE COUNTY.

PLANTING NOTES:

1. ALL LANDSCAPE SHALL BE INSTALLED BY THE FIRST PLANTING SEASON FOLLOWING THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY WITHIN THE DEVELOPMENT, OR A PHASE THEREOF.
2. ALL LANDSCAPE AND SCREENING SHALL BE MAINTAINED IN A HEALTHY CONDITION BY THE CURRENT OWNER OR A PROPERTY OWNERS' ASSOCIATION AND REPLACED WHEN NECESSARY. REPLACEMENT MATERIAL SHALL COMPLY WITH THE APPROVED LANDSCAPE PLAN.
3. SEE PLANTING DETAILS ON DWG L003.
4. THE CONTRACTOR SHALL INSTALL PLANTS GROWN AND ACCLIMATED TO THE PROPER USDA CLIMATIC ZONE AND HYDROPHYTIC REGIME FOR THE PROJECT SITE AS INDICATED IN THE CONTRACT SPECIFICATIONS.
5. ALL PLANT MATERIAL SHALL BE STRAIGHT NATIVE SPECIES, CULTIVARS AND VARIETIES SHALL BE REJECTED.
6. ALL TREES SHALL BE FURNISHED LOW TO THE GROUND. CLUMP FORMS ARE ACCEPTABLE PROVIDED THEY DO NOT HAVE WEAK CROTCHES.
7. ROOTS OF CONTAINERIZED PLANT MATERIAL SHALL BE WELL DEFINED AND DEVELOPED TO SIDES AND BOTTOM OF CONTAINERS. ROOT-BOUND CONTAINERIZED PLANT MATERIAL WILL BE REJECTED.
8. ALL PLANT MATERIAL SHALL BE INSTALLED DURING TIMEFRAMES IDENTIFIED IN THE CONTRACT SPECIFICATIONS.
9. ALL PLANTS SHALL BE CERTIFIED AND INSPECTED FREE OF ALL FUNGUS, GRUBS, AND INSECTS THAT MAY HAVE A DELETERIOUS EFFECT ON THE SURROUNDING FAUNA AND FLORA.
10. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OF DAMAGE TO ANY TREES NOT SCHEDULED FOR REMOVAL. ANY TREE DAMAGED BY THE CONTRACTOR NOT SCHEDULED TO BE REMOVED SHALL BE REPLACED IN KIND WITH TREE OR TREES OF EQUAL CALIPER AND VARIETY AS APPROVED BY THE ENGINEER. PROCUREMENT AND INSTALLATION OF ALL REPLACEMENT TREES SHALL BE AT CONTRACTORS EXPENSE.
11. NO SUBSTITUTIONS OF SPECIFIED PLANTS WILL BE ACCEPTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

SITE PLANTING

QUANTITY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	FORM	SPACING	COMMENTS
SHRUBS							
10	IV	*Ilex verticillata*	winterberry holly	#3	cont.	as shown	multistem (minimum 4 canes)
TREES							
5	AR	*Acer rubrum*	red maple	#20	cont.	as shown	1.5"-1.75" cal./10.0'-12.0' height
2	AR2	*Acer rubrum*	red maple	#10	cont.	as shown	1"-1-.25" cal./8.0'-10.0' height
2	AR3	*Acer rubrum*	red maple	#7	cont.	as shown	3/4" cal./6.0'-8.0' height
7	AB	*Amelanchier arborea*	downy serviceberry	#10	cont.	as shown	1.0"-1.25" cal./8.0'-10.0' height
4	CT	*Carya tomentosa*	mocknut hickory	#10	cont.	as shown	1.0"-1.25" cal./8.0'-10.0' height
2	CT2	*Carya tomentosa*	mocknut hickory	#7	cont.	as shown	3/4" cal./6.0'-8.0' height
5	CF	*Cornus florida*	flowering dogwood	#10	cont.	as shown	1.0"-1.25" cal./8.0'-10.0' height
21	JV	*Juniperus virginiana*	eastern red cedar	#15	cont.	as shown	6.0'-7.0' height
5	LT	*Liriodendron tulipfera*	tulip poplar	#10	cont.	as shown	1"-1-.25" cal./8.0'-10.0' height
3	LT2	*Liriodendron tulipfera*	tulip poplar	#7	cont.	as shown	3/4" cal./6.0'-8.0' height
3	NS	*Nyssa sylvatica*	black tupelo	#20	cont.	as shown	1.5"-1.75" cal./10.0'-12.0' height
4	PS	*Pinus strobus*	white pine	#15	cont.	as shown	6.0'-7.0' height
2	QA	*Quercus alba*	white oak	#20	cont.	as shown	1.5"-1.75" cal./10.0'-12.0' height
1	QR	*Quercus rubra*	northern red oak	#10	cont.	as shown	1.0"-1.25" cal./8.0'-10.0' height
2	QR2	*Quercus rubra*	northern red oak	#7	cont.	as shown	3/4" cal./6.0'-8.0' height

RETAINING WALL PLANTING

QUANTITY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	FORM	SPACING	COMMENTS
GRASSES							
30	MUH	*Muhlenbergia capillaris*	muhly grass	#1	cont.	as shown	
30	ANG	*Andropogon gerardii*	big bluestem	#1	cont.	as shown	
SHRUBS							
8	MOR	*Morella cerifera*	southern wax myrtle	#2	cont.	as shown	multistem (minimum 4 canes)
15	RHO	*Rhododendron catawbiense*	catawba azalea	#2	cont.	as shown	multistem (minimum 4 canes)

ADDITONAL AREA TO BE PLANTED BY HAND METHODS ONLY

QUANTITY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	FORM	SPACING	COMMENTS
TREES							
7	AR2	*Acer rubrum*	red maple	#10	cont.	as shown	1"-1-.25" cal./8.0'-10.0' height
2	AB2	*Amelanchier arborea*	downy serviceberry	#7	cont.	as shown	3/4" cal./6.0'-8.0' height
9	NS2	*Nyssa sylvatica*	black tupelo	#7	cont.	as shown	1.0" cal./6.0'-8.0' height
9	PS2	*Pinus strobus*	white pine	#7	cont.	as shown	4.0'-5.0' height
5	QA2	*Quercus alba*	white oak	#10	cont.	as shown	1"-1-.25" cal./6.0'-8.0' height

STEEP SLOPE SEED MIX (24,975 SF)

SCIENTIFIC NAME	COMMON NAME	% by wt.
Andropogon gerardii 'Bison'	big bluestem 'Bison'	12
Elymus virginicus	Virginia wildrye	12
Elymus canadensis	Canada wildrye	12
Panicum virgatum	switchgrass	12
Sorghastrum nutans 'Holt'	indiangrass 'Holt'	12
Agrostis prennans	autumn bentgrass	5
Rudbeckia hirta	blackeyed susan	5
Echinacea purpurea	purple coneflower	5
Coreopsis lanceolata	lanceleaf coreopsis	5
Heliopsis helianthoides	oxeye sunflower	5
Aster pilosus	heath aster	5
Monarda fistulosa	wild bergamot	5
Asclepias syrica	common milkweed	5
	Total	**100**

Note: Seed Steep Slope Mix at a rate of 30 lbs/acre and overseed with Cover Crop.

COVER CROP (20,520 SF)

SCIENTIFIC NAME	COMMON NAME
Avena sativa	oats
Secale cereale	winter rye

Seed Cover Crop at a rate of 15 lbs/acre. Use oats cover crop during spring planting season; Use winter rye during fall planting season.

TREE CANOPY CALCULATIONS

Step		Totals
A. Tree Canopy Requirement		
A1*	Surveyed Site Area within Parcel 57-04	102,420 sqft (2.35 acres)
A2	Percentage of 10-year Tree Canopy required =	0.1
A3	Total Tree Canopy Requirement (A1 * A2)	10,242 sqft
B. Tree Removals		
B1	Total number of Tree Removals	128
C. Tree Preservation		
C1**	Total Canopy area meeting standards of Albemarle County Planting List *Tree * 10 yr Canopy for trees 3-3.5" cal (canopy factor changes per tree)*	65,379 sf
C2	Multiplier for Preserving Existing Trees	1.25
C3	Total 10 yr Canopy Area for Existing Trees (C1 * C2)	82,080 sf
D. Tree Planting		
D1	Total Area of Canopy provided by Native Trees	8,702sf
E. Total of 10-Year Tree Canopy Provided		
E2	Total of canopy area provided through tree planting (D1) =	8,702sf
E3 ***	Total of 10-year Tree Canopy provided (E1 + E2) =	90,782 sf

** Total parcel area of 57-04 is 182.55 acres.*
Approximate breakdown of this area obtained by GIS aerials
2.35 acres Surveyed (see above).
80.4 acres water
8.9 acres developed (ie roadways, buildings, maintained lawn, dam spillway)
86.3 acres forested.

Non surveyed site area = 182.5

Identified gross site area does not include Beaver Creek Reservoir and portions of Parcel 57-4 (A1) that are developed (i.e. roadways, buildings, maintained lawn). Area is approximated using GIS aerials and available survey information.

*** C1 only includes existing trees surveyed within the project site area.*

****E3 does not provide an accurate picture of the total 10-year Tree Canopy provided. This number only reflects the information surveyed and proposed. 23 Proposed trees are not included in the calculation due to smaller caliper sizes proposed.*

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER: C. RAMO
DESIGNED BY: K.CROOKS
DRAWN BY: K.CROOKS
CHECKED BY: K.WARD
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE 0 1/2" 1"

ISSUED FOR BIDDING

Hazen
HAZEN AND SAWYER
210 RIDGE MCINTIRE ROAD, SUITE 400
CHARLOTTESVILLE, VA 22903

RIVANNA WATER AND SEWER AUTHORITY
CHARLOTTESVILLE, VIRGINIA

BEAVER CREEK RAW WATER
PUMP STATION
INTAKE AND TRANSMISSION MAIN

LANDSCAPE
LANDSCAPE NOTES, SCHEDULES, AND
TREE CANOPY CALCULATIONS

DATE: MARCH 2026
HAZEN NO.: 31570-001
CONTRACT NO.: 1
DRAWING NUMBER: L002

File: C:_DC\ACCDOCS\HAZEN AND SAWYER\31570-001_BCR WATER PUMP STATION AND INTAKE\PROJECT FILES\01_DESIGN\CIVIL\00_LANDSCAPE\L002 Saved by KCROOKS Save date: 2/20/2026 9:30 AM
PLOT DATE: 3/21/2026 9:24 AM BY: JMCCLURE