COOK
COMMUNITIES

February 14th, 2022

Hall County Board of Commissioners
2875 Browns Bridge Road
Gainesville, GA 30504

LETTER OF INTENT

Use Subject to Board of Commissioner Approval
Subdivision Approval - 11.8 acres
Hardy & Nancy Creek Road, Gainesville, GA 30506
Tax Parcel No. 10121 000015, 10121 000015A & 10121 000015B

Cook Communities submits this Letter of Intent, Application and Site Plan for the purpose of subdividing three existing parcels totaling 11.8 acres into eleven (11) 1-acre+ Single-Family residential building lots. The subject property has existing road frontage along Nancy Creek Road and Hardy Road in Hall County. The proposed residential lots will be a minimum of 1-acre in size and will meet the requirements for the existing R-I zoning district. Most of the property is moderate-to-heavily wooded and adjoins U.S.A.C.E. Property for Lake Lanier. A 10-slip community dock is being proposed with 10 building lots having a deeded slip. Subdivision covenants will be put into place for the neighborhood to control the architectural elevations, landscaping, and overall development standards. An architectural review committee will be implemented to review all proposed home plans prior to construction. The proposed homes will exceed the standards of the surrounding areas. While Cook Communities is a residential home builder, the proposed lots will be marketed to individuals and custom homebuilders. The City of Gainesville will provide water service to the property and each lot will utilize an individual onsite septic system.

The applicant and its representatives welcome the opportunity to meet with Hall County staff to answer any questions or concerns you may have concerning the application.

Respectfully,

Cook Communities

Keith Cook

STORMWATER MANAGEMENT REPORT

FOR

HARDY ROAD SUBDIVISION

(R-I ZONING)
TAX PARCEL #'s:
10121 000015, 10121 000015A & 10121 000015B
HALL COUNTY, GEORGIA
COOK JOB #21-012

PREPARED BY:

COOK

3120 FRONTAGE ROAD
GAINESVILLE, GA 30504
www.thecookandcompany.com
P.E.F. #007278

CONTACT: C. LUKE PRESSLEY, P.E.
PHONE: (678) 267-7153
EMAIL: luke@thecookandcompany.com

PREPARED FOR:

SHADOW STONE
PARTNERS, L.L.C.
3120 FRONTAGE ROAD
GAINESVILLE, GA 30504

REPORT DATE:
January 31st, 2022

GEORGIA REGISTERED No. 36163 PROFESSIONAL ENGINEER C. LUKE PRESSLEY

COOK ©

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INTRODUCTION

The purpose of this report is to evaluate the stormwater management and water quality for the proposed 11.80-acre Single-Family Residential Subdivision located along Nancy Creek Road and Hardy Road in Hall County, Georgia. The enclosed analysis addresses the design issues as outlined in the Georgia Stormwater Management Manual (GSMM), latest edition.

EXISTING CONDITIONS

The Subject Property currently consists of 3 existing parcels totaling 11.80 Acres. The existing zoning for the three parcels is R-1 Residential. All three parcels generally drain to the south and discharge directly into Lake Sydney Lanier. Offsite water comes onto the site along the northern and western portions of the property. Approximately 30 acres drain through the site and discharges into Lake Lanier. No portion of the Subject Property lies within a Special Flood Hazard Area (Zone "A") as per Hall County F.I.R.M. Community Panel No. 13139C0180G, effective April 4th, 2018.

PROPOSED CONDITIONS

The proposed improvements consist of subdividing the 3 existing R-1 zoned parcels into 11 single-family detached residential building lots. Future improvements will be at the discretion of the lot purchaser; however, restrictions will be placed on each building lot in regards to the stormwater BMP's required to comply with the stormwater quality requirements for the parcels. Each future home constructed will be required to implement downspout disconnects, enhanced dry swales and one (1) bio-retention/rain garden feature prior to receiving a Certificate of Occupancy. A standard detail for this bio-retention area is included on the Final Plat to ensure compliance with this requirement. Detailed calculations for these measures are included in the following report.

STORMWATER QUALITY

The purpose of this section is to present a method for conformance with current Hall County Regulations for the proposed development. The water quality facility described herein will conform to the Georgia Stormwater Management Manual, latest edition.

As part of the Georgia Stormwater Management Manual, all stormwater runoff generated from a site shall be adequately treated before discharge. Stormwater management systems (which can include both structural stormwater controls and better site design practices) should be designed to remove 80% of the average annual post-development total suspended solids (TSS) load.

In order to analyze the TSS loading for individual sites, a Site Development Review Tool was developed to facilitate the evaluation of development projects in accordance with recommendations in the Georgia Stormwater Management Manual. This tool allows the designer to objectionably analyze their site and provide the necessary BMP's to satisfy current GSMM requirements.

Each future home constructed will be required to implement downspout disconnects, enhanced dry swales and one (1) bio-retention/rain garden feature. The bio-retention serve as the primary BMP to meet the stormwater requirements for the site. Each bio-retention to provide a minimum of 1,000 c.y. of storage. A standard detail is included on the Final Plat to ensure compliance with this requirement, a copy is included within this report.

These BMP's will serve to improve the water quality and reduce the TSS loading rate at or below the maximum allowable rate. The Storm Water Quality Performance Review Form can be found in Appendix B.

FIGURES

FIGURE 1

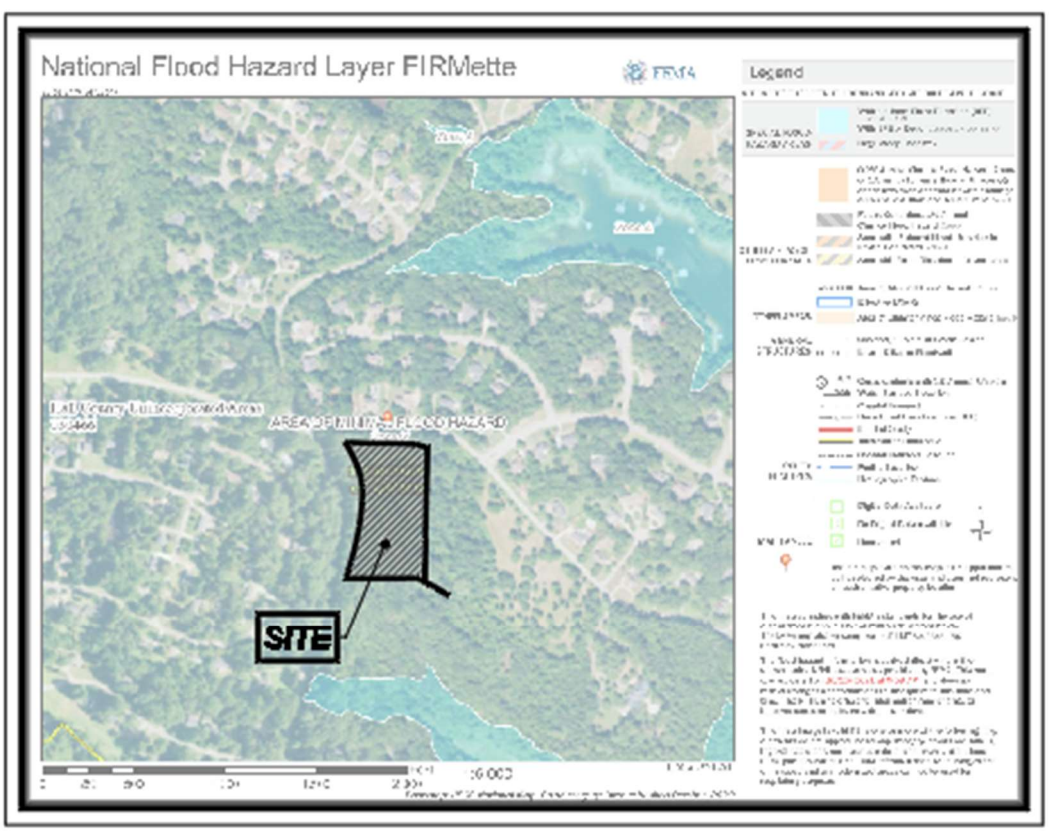
VICINITY MAP

VICINITY MAP

N.T.S.

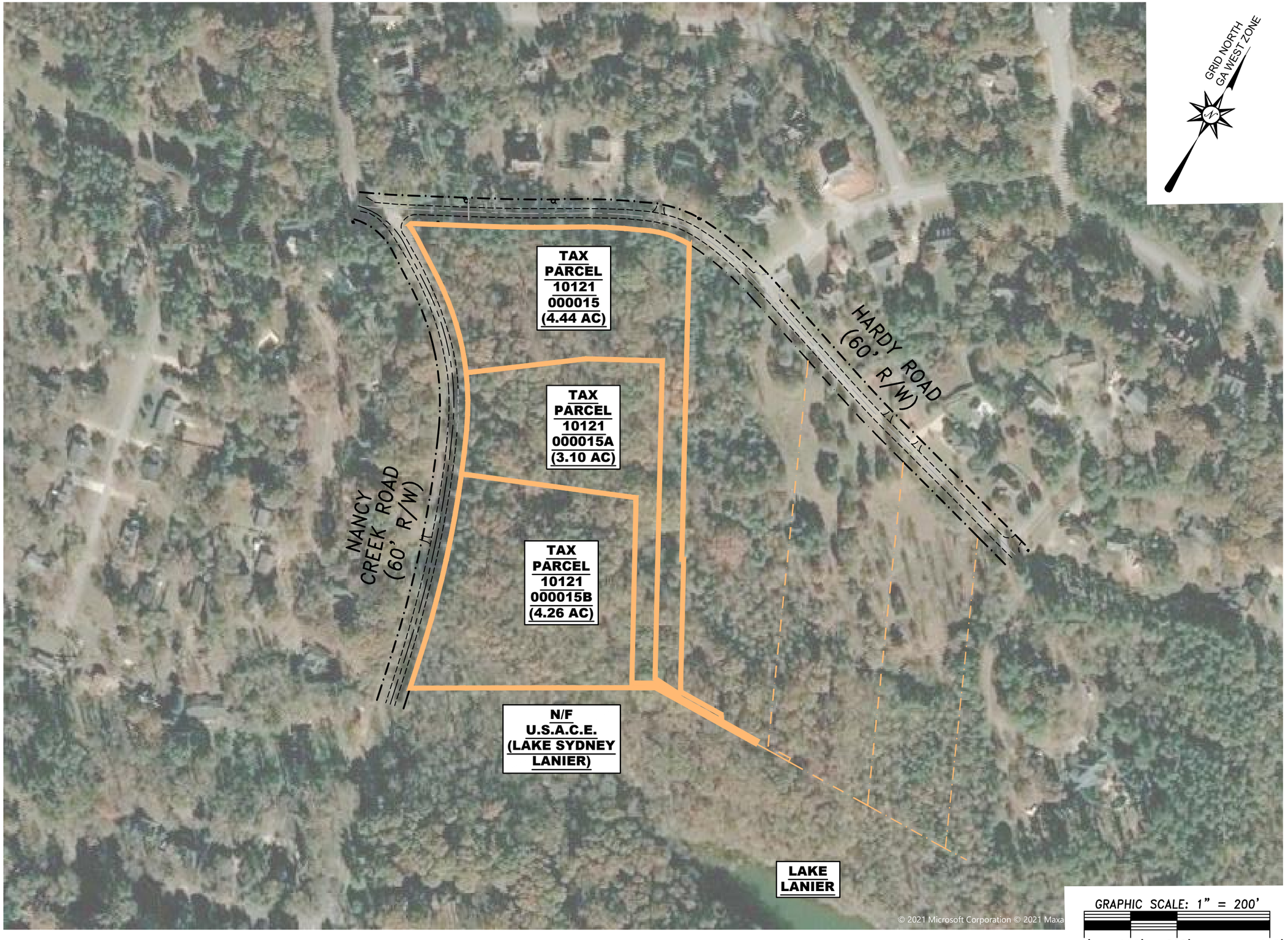
FIGURE 2

FEMA MAP



FIRM PANEL NO. 13139C0180G

N.T.S.



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GAINESVILLE, GA 30504
CONTACT:
GEOFF COOK
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PROJECT NAME:

HARDY ROAD

TASK:

PRE-DEVELOPED MAP (AERIAL)

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G.S.W.C.C. LEVEL II CERTIFIED DESIGN PROFESSIONAL No. 0000013059

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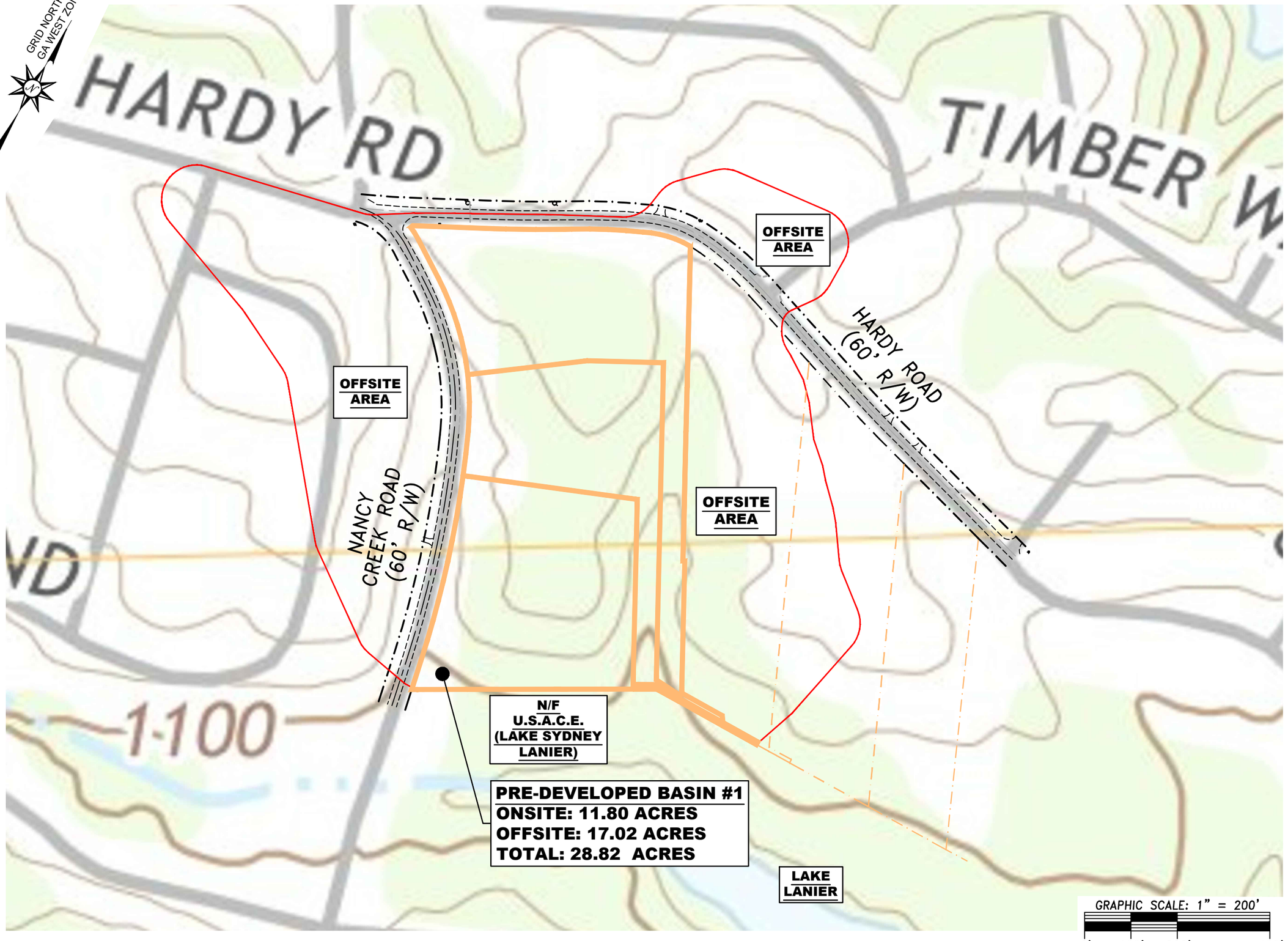
JWW DESIGN	AS SHOWN SCALE
1/31/22 DATE	21-012 PROJECT No.



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SHEET
2 of 4

JWW DESIGN	AS SHOWN SCALE
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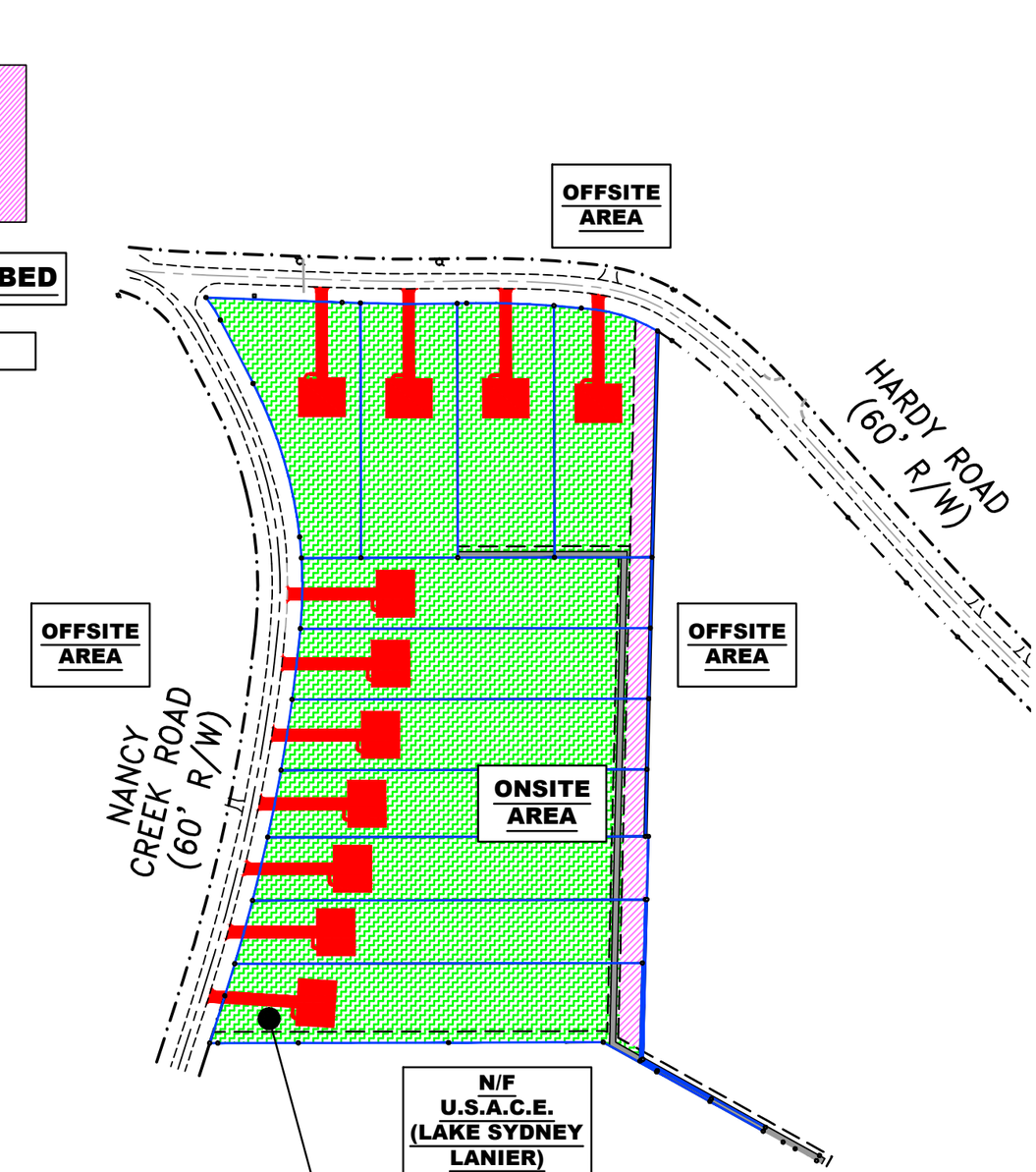
IMPERVIOUS

DISTURBED PERVIOUS

UNDISTURBED

OFFSITE AREA NOT INCLUDED IN CALCULATIONS



POST-DEVELOPED BASIN #1
ONSITE: 11.80 ACRES
OFFSITE: 17.02 ACRES
TOTAL: 28.82 ACRES

GRAPHIC SCALE: 1" = 200'

0' 100' 200' 400'

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TASK:

WATER QUALITY MAP

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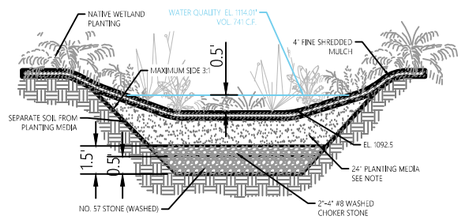


NOTE:
NATIVE SOILS IF THEY HAVE AT LEAST 0.5 INCH/HR INFILTRATION ABILITY. OTHERWISE ENGINEERED MEDIA IS NEEDED INCLUDING COARSE SAND, SILT, CLAY, AND OTHER ORGANIC MATTER. THE RECOMMENDED STANDARD MEDIA DEPTH IS 36 INCHES, WITH A MINIMUM DEPTH OF 18 INCHES AND A MAXIMUM DEPTH OF 48 INCHES. A QUALIFIED, LICENSED PROFESSIONAL SHOULD TEST THE SOILS TO DETERMINE THE BEST DEPTH OF SOIL FOR THE PRACTICE. SEE BIORETENTION PLANTING PLANTS FOR ADDITIONAL ENGINEERED SOIL INFORMATION.

ZONE 2 PLANTING SCHEDULE:
(NORMAL POOL ELEVATION TO 1 FOOT DEPTH)

CONTRACTOR TO PROVIDE A MIXTURE OF GRASS, SEDGE, AND PERENNIALS. PLANTINGS SHALL BE SPACED AT 4' O.C. THROUGHOUT ZONE 2.

SCIENTIFIC NAME	COMMON NAME	HABIT
LEERSIA ORYZOIDES	RICE CUT GRASS	GRASS
PANICUM VIRGATUM	SWITCHGRASS	GRASS
CYPERUS ODORATUS	FLAT SEDGE	SEDGE
JUNCUS EFFUSUS	SOFT RUSH	SEDGE
SCIRPUS CALIFORNICUS	GIANT BULRUSH	SEDGE
SCIRPUS VALIDUS	SOFTSTEM BULRUSH	SEDGE
SAURURUS CERNUUS	LIZARD'S TAIL	PERENNIAL
SCIRPUS AMERICANUS	THREE-SQUARE	PERENNIAL
THALIA GENICULATA	ALLIGATOR FLAG	PERENNIAL
HIBISCUS COCCINEUS	SWAMP HIBISCUS	PERENNIAL
PONTEDERIA CORDATA	PICKERELWEED	PERENNIAL

ZONE 3 PLANTING SCHEDULE:
(SHORELINE FRINGE)

CONTRACTOR TO PROVIDE A MIXTURE OF GRASS, SEDGE, AND PERENNIALS. PLANTINGS SHALL BE SPACED AT 10' O.C. THROUGHOUT ZONE 3.

SCIENTIFIC NAME	COMMON NAME	HABIT
CEPHALANTHUS OCCIDENTALIS	COMMON BUTTONBUSH	SHRUB
ILEX VERTICILLATA	WINTERBERRY	SHRUB
ILEX DECIDUA	DECIDUOUS HOLLY	SHRUB
LINDERA BENZOIN	SPICEBUSH	SHRUB

CONTRACTOR TO UTILIZE A 60 / 20 / 20 RATIO FOR GRASS / SEDGE / PERENNIAL

CONTRACTOR TO UTILIZE AT LEAST (2) SPECIES FROM AVAILABLE SCHEDULE

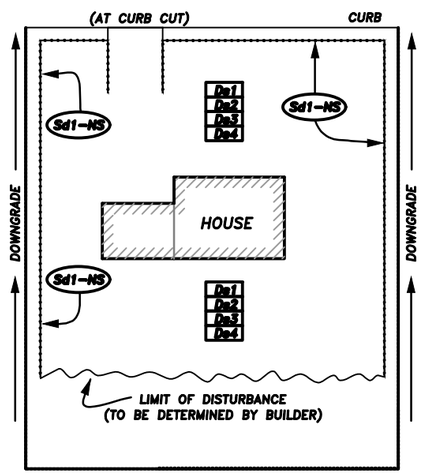
ENGINEERED SOILS MIXTURE:
THE NATIVE SOILS CANNOT SUFFICE FOR THE PLANTING MEDIA USED WITHIN THE BIORETENTION AREA PLANTING BEDS. THEN AN ENGINEERED SOIL MIX SHOULD BE PROVIDED THAT MEETS THE FOLLOWING SPECIFICATIONS:

TEXTURE: SANDY LOAM OR LOAMY SAND
SAND CONTENT: SOILS SHOULD CONTAIN 25%-60% COARSE, WASHED SAND
TOPSOIL CONTENT: SOILS SHOULD CONTAIN 20%-30% TOPSOIL
ORGANIC CONTENT: SOILS SHOULD CONTAIN 10%-25% ORGANIC MATTER
CLAY: SOILS SHOULD CONTAIN LESS THAN 15%

INFILTRATION RATE: SOILS SHOULD HAVE AN INFILTRATION RATE OF AT LEAST 0.50 INCHES PER HOUR (UNIFORM ASTHOUGH INFILTRATION RATE OF BETWEEN 2 AND 6 INCHES IS PREFERRED
PHOSPHORUS (MEHLICH): SOILS SHOULD HAVE A P-INDEX OF LESS THAN 30.
EXCHANGE CAPACITY (CEC): SOILS SHOULD HAVE A CEC THAT EXCEEDS 10 MILLIEQUIVALENTS (MEQ) PER 100 GRAMS OF DRY WEIGHT
PH: SOILS SHOULD HAVE A PH OF 6-8

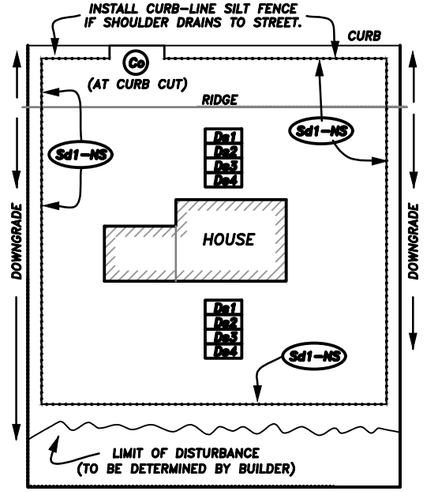
COOK | BIORETENTION SCHEMATIC + PLANTINGS (WITHOUT UNDERDRAIN)

SLOPE TOWARD FRONT



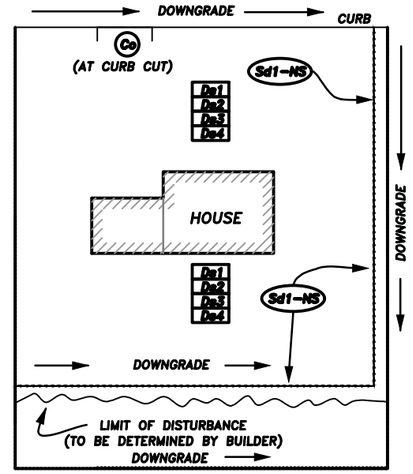
COOK | EROSION CONTROL RESIDENTIAL LOTS (TYPICAL)

SLOPE TOWARD REAR



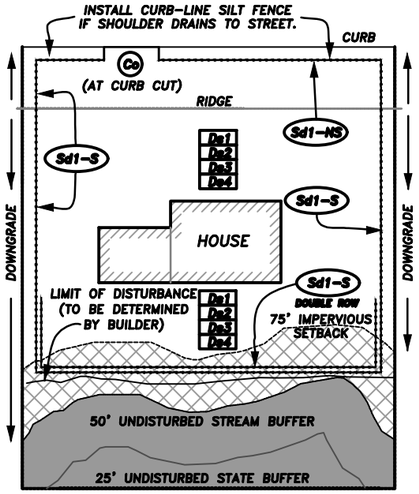
COOK | EROSION CONTROL RESIDENTIAL LOTS (TYPICAL)

SLOPE TOWARD SIDE & REAR



COOK | EROSION CONTROL RESIDENTIAL LOTS (TYPICAL)

LOTS ADJACENT TO STREAM AND STATE BUFFERS



COOK | EROSION CONTROL RESIDENTIAL LOTS (TYPICAL)

GENERAL NOTES FOR BUILDING LOT DETAILS

1. THE SECONDARY PERMITTEE IS RESPONSIBLE TO COORDINATE BEST MANAGEMENT PRACTICES (BMPS) FOR THE INDIVIDUAL LOT WITH THE REQUIREMENTS LISTED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN (ES&PCP OR PLAN). THE SECONDARY PERMITTEE BMPS WILL SUPPORT AND COMPLEMENT THE OVERALL ES&PCP OBJECTIVES.
2. THE SECONDARY PERMITTEE IS RESPONSIBLE TO IMPLEMENT THE APPLICABLE SECTIONS OF THE ES&PCP INCLUDING DETAILS, AND PROVISIONS FOR WASTE MATERIALS, POLLUTANTS, AND BMP MAINTENANCE.
3. THE SECONDARY PERMITTEE ACKNOWLEDGES RECEIPT OF THE APPLICABLE SECTIONS OF THE ES&PCP BY SIGNING THE ATTACHED FORM.
4. THE SECONDARY PERMITTEE SHALL MAKE MODIFICATIONS IMMEDIATELY AND NOTIFY THE PRIMARY PERMITTEE WITHIN 24 HOURS OF ANY DESIGN DEFICIENCIES, OR SIGNIFICANT CHANGES, THAT AFFECT IMPLEMENTATION OF THE PRIMARY ES&PCP.
5. THE SECONDARY PERMITTEE SHALL, IF NOTIFIED OF PLAN DEFICIENCIES BY THE GEORGIA EPD, NOTIFY THE PRIMARY PERMITTEE WITHIN 24 HOURS OF THE DEFICIENCIES.
6. THE SECONDARY PERMITTEE WILL PERFORM INSPECTION AND MAINTENANCE ACTIVITIES AS DESCRIBED IN THE PRIMARY PERMITTEE ES&PCP NOTES.
7. THE BMPS SHOWN ON THIS PLAN MAY REQUIRE MODIFICATION IF CONSTRUCTION ACTIVITIES MODIFY THE OVERALL FLOW PATTERN ON THE BUILDING LOT. THE SECONDARY PERMITTEE MAY NEED TO PROVIDE ADDITIONAL BMPS IF CONSTRUCTION ACTIVITIES CREATE THE POTENTIAL FOR CONCENTRATED STORMWATER FLOW NOT ANTICIPATED BY THIS PLAN.
8. CONSTRUCTION ACTIVITIES ARE NOT AUTHORIZED WITHIN ANY DESIGNATED BUFFER AT STATE OR FEDERAL WATERS.
9. THE SECONDARY PERMITTEE SHALL SELECT THE APPROPRIATE LOT DETAIL BASED ON THE DRAINAGE PATTERN OF EACH INDIVIDUAL LOT. ADJUSTMENTS FOR LOT-SPECIFIC CONDITIONS SHALL BE MADE IF NEEDED.
10. THE SECONDARY PERMITTEE SHALL PHASE IMPLEMENTATION OF THE BMPS TO MATCH CONSTRUCTION ACTIVITIES PRIOR TO INITIATING LAND-DISTURBING ACTIVITIES. BMPS SHALL BE MODIFIED TO ACCOUNT FOR CHANGES IN SITE CONDITIONS, SUCH AS PAVING OF DRIVEWAYS, ETC., SHOWN ON THE RESPECTIVE DETAILS.
11. USE TWO ROWS OF TYPE C SILT FENCE (SD1-C) ALONG STATE WATER BUFFERS AND OPEN CHANNEL DRAINAGE EASEMENTS.
12. AT SECONDARY PERMITTEE'S OPTION, STAKED AND ENTRENCHED HAY BALES (SD1-HB) MAY BE USED IN PLACE OF A SILT FENCE.

COOK | EROSION CONTROL RESIDENTIAL LOTS (TYPICAL)

GENERAL NOTES FOR BUILDING LOT DETAILS (CONTINUED)

13. SILT FENCE SHALL BE PLACED TO FILTER STORMWATER RUNOFF CONSISTENT WITH THE FOLLOWING CRITERIA. THE MAXIMUM SLOPE LENGTH BEHIND A SILT FENCE SHALL NOT EXCEED THE VALUES SHOWN IN THE TABLE BELOW. THE DRAINAGE AREA SHALL NOT EXCEED 1/4 ACRE FOR EVERY 100 FEET OF SILT FENCE.

LAND SLOPE (PERCENT)	MAXIMUM SLOPE LENGTH BEHIND SILT FENCE (FEET)
LESS THAN 2	100
2 TO 5	75
5 TO 10	50
10 TO 20	25
GREATER THAN 20*	15
* IN AREAS WHERE THE SLOPE IS GREATER THAN 20 PERCENT, A FLAT AREA LENGTH OF 10 FEET BETWEEN THE TOE OF THE SLOPE TO THE FENCE SHOULD BE PROVIDED.	

14. ANY OTHER BMP AFFECTED BY THE SECONDARY PERMITTEE'S CONSTRUCTION ACTIVITIES SHALL BE REPAIRED OR CLEANED BY THE SECONDARY PERMITTEE AS SOON AS PRACTICAL.
15. IT IS RECOMMENDED THE BUILDER REAPPLY TEMPORARY STABILIZATION (DS1) TO ANY RECENTLY DISTURBED AREA ON A REGULAR BASIS. DS1 SHALL BE APPLIED BY THE 14TH DAY CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE.
16. CLEAN STREETS OF SIGNIFICANT MUD THAT CREATE A HAZARD TO THE PUBLIC OR THAT CAN ENTER A STORMWATER CONVEYANCE SYSTEM.
17. UTILITY CONTRACTORS SHALL RESTORE OR REPLACE DAMAGED SILT FENCE OR HAY BALES, OR OTHER BMPS, BEFORE LEAVING THE SITE DAILY. UTILITY CONTRACTORS SHALL APPLY DS1 ON ANY SECTION AS SOON AS CONSTRUCTION ACTIVITIES ARE COMPLETED.

COOK | EROSION CONTROL RESIDENTIAL LOTS (TYPICAL)

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PROJECT NAME:
HARDY ROAD

TASK:
HYDROLOGY / EROSION CONTROL DETAILS

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SHEET
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JWW DESIGN	AS SHOWN SCALE
1/31/22 DATE	21-012 PROJECT No.

APPENDIX A

HYDROLOGIC CALCULATIONS

WEIGHTED CURVE NUMBER CALCULATION

Pre-Developed Basin #1

(Reference Table 3.1.5-1 of the Georgia Stormwater Manual, 2016 Edition)

Project:	21-012 Hardy Road Subdivision
Location:	Hall County, GA
Calculated By:	JWW
Date:	1/31/2022
Drainage Basin:	Pre-Developed Basin #1

	DESCRIPTION	AREA	CURVE NUMBER	
	ONSITE - Wood/Forrest (Good Cover)	11.8 AC.	55	
	OFFSITE - Wood/Forrest (Thin Stand)	6.5 AC.	60	
	OFFSITE - Streets and Roads (Includes Right-of-Way)	3.0 AC.	89	
	OFFSITE - Low Density Residential (1 to 2 Acres Avg. Lot Size)	7.5 AC.	67	
	Total Onsite	**11.80 AC.**	**55.0**	
	Total Offsite	**17.02 AC.**	**68.2**	
	Total Area:	**28.82 AC.**		
	Weighted Curve Number Calculated:	62.8		
	Weighted Curve Number Used:	**62.8**		

TIME OF CONCENTRATION CALCULATION

Average Lot for BMP Sizing

(Reference the Georgia Stormwater Management Manual, 2016 Edition)

Project:	21-012 Hardy Road Subdivision
Location:	Hall County, GA
Calculated By:	JWW
Date:	1/31/2022
Description:	Average Lot for BMP Sizing

Upland Flow				Sub Total
	Surface Description:	Grass		
	Flow Length (<300 Feet):	100 feet		
	Land Slope:	0.030 ft/ft		
	Manning's Roughness n:	0.01		
	Surface Type:	Woods		
	Travel Time (t):	1.0 minutes		1.0 minutes

Shallow Concentrated Flow				
	Surface Description	Woods		
	Flow Length	457 feet		
	Watercourse Slope:	0.046 ft/ft		
	Average Velocity:	3.46 ft/s	Equation 3.1.9	
	Travel Time (t):	2.2 minutes		2.2 minutes

Main Drainage Channel				
	Surface Description:	Ditch		
	Channel Slope:	0.060 ft/ft		
	Flow Length:	1009 feet		
	Average velocity:	2.50 ft/s		
	Travel Time (t)	6.7 minutes		6.7 minutes

Time of Concentration	**=**	9.9 minutes	**USE 10.0 Minutes 0.17 Hours**

WEIGHTED CURVE NUMBER CALCULATION

Average Lot for BMP Sizing

(Reference Table 3.1.5-1 of the Georgia Stormwater Manual, 2016 Edition)

Project:	21-012 Hardy Road Subdivision
Location:	Hall County, GA
Calculated By:	JWW
Date:	1/31/2022
Description:	Average Lot for BMP Sizing

	DESCRIPTION	AREA	CURVE NUMBER
	ONSITE Impervious (Driveways, Buildings, Patios, Etc.)	0.30 AC.	98
	ONSITE Disturbed Pervious (Lawns, Landscaped Areas, Etc.)	0.50 AC.	61
	ONSITE Wood/Forrest (Thin Stand)	0.25 AC.	60
	Total Onsite	**1.05 AC.**	**71.3**
	Weighted Curve Number Used:	**71.5**	

APPENDIX B

STORMWATER QUALITY

PERFORMANCE REVIEW FORMS

Georgia Stormwater Management Manual
Stormwater Quality Site Development Review Tool
Version 2.2

General Information

Name of Developer:	Hardy Land Partners	**Date Submitted:**	1.31.22
Development Name:	Hardy Road Subdivision	**Permit Number:**	
Site Location / Address:	Nancy Creek Road & Hardy Road	**Developer Contact:**	
		Phone Number:	
		Name of Engineer(s):	John Worsley
Development Type:	Low Density Residential	**Maintenance Responsibility:**	Homeowner

Site Summary

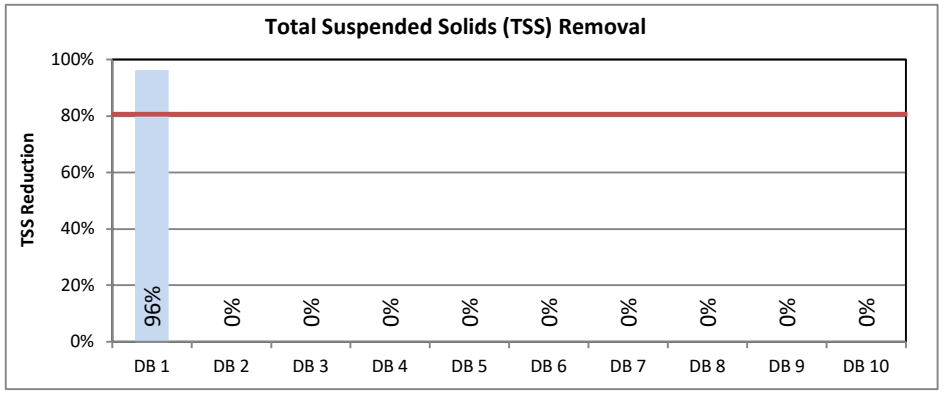
Total Pre-Development Area (ac):	**11.80**
Total Post-Development Area (ac):	**1.05**
Total Treated Area (ac):	**0.80**
Total Untreated Area (ac):	**0.25**

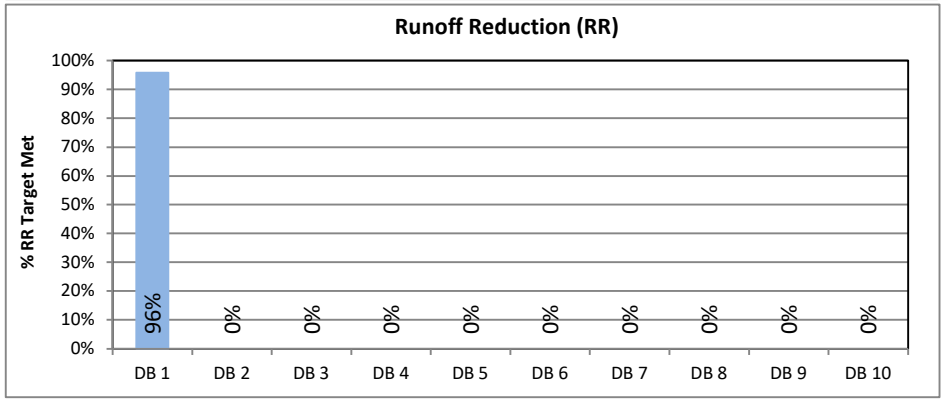
		I (ac)	P (ac)	CA (ac)
BMPs - Average Lot	**DB 1**	0.30	0.75	0.00
Drainage Basin 2	**DB 2**	0.00	0.00	0.00
Drainage Basin 3	**DB 3**	0.00	0.00	0.00
Drainage Basin 4	**DB 4**	0.00	0.00	0.00
Drainage Basin 5	**DB 5**	0.00	0.00	0.00
Drainage Basin 6	**DB 6**	0.00	0.00	0.00
Drainage Basin 7	**DB 7**	0.00	0.00	0.00
Drainage Basin 8	**DB 8**	0.00	0.00	0.00
Drainage Basin 9	**DB 9**	0.00	0.00	0.00
Drainage Basin 10	**DB 10**	0.00	0.00	0.00
	TOTAL	**0.30**	**0.75**	**0.00**

I = Impervious Area, P = Pervious Area, CA = Conservation Area

Target Runoff Reduction Volume Achieved?	**No**
Target TSS Removal Achieved?	**Yes**

Total Target Runoff Reduction Volume (cf)	1,171
Runoff Reduction Volume Achieved (cf)	1,122
Total Target Water Quality Volume (cf)	1,405
% TSS Removal Achieved	96%





Official Use Only

Tracking #:		**Conditions of Approval:**	
Reviewed By:			
Date Approved:			

Georgia Stormwater Management Manual
Stormwater Quality Site Development Review Tool, v2.2

Development Name: Hardy Road Subdivision
Drainage Basin Name: BMPs - Average Lot

data input cells
calculation cells
constant values

Site Data

Indicate Pre-Development Land Cover and Runoff Curve Numbers in the Site's Disturbed Area

Cover Type	HSG* A (acres)	CN	HSG B (acres)	CN	HSG C (acres)	CN	HSG D (acres)	CN	Total	% Cover
Woods - Fair Condition		36	11.80	60		73		79	11.80	100%
Select a land cover type…		0		0		0		0	0.00	0%
Select a land cover type…		0		0		0		0	0.00	0%
Select a land cover type…		0		0		0		0	0.00	0%
Select a land cover type…		0		0		0		0	0.00	0%
Local Jurisdiction Input									0.00	0%
Other									0.00	0%
Total	0.00		11.80		0.00		0.00		11.80	100%

*HSG = hydrologic soil group

Impervious (ac)	0.00
Weighted CN	60
Potential Max Soil Retention, S_{pre} (in)	6.67

Indicate Post-Development Land Cover and Runoff Curve Numbers in the Site's Disturbed Area

Cover Type	HSG A (acres)	CN	HSG B (acres)	CN	HSG C (acres)	CN	HSG D (acres)	CN	Total	% Cover
Impervious		98	0.30	98		98		98	0.30	29%
Open space - Fair condition (grass cover 50% to 75%)		49	0.50	69		79		84	0.50	48%
Woods - Fair Condition		36	0.25	60		73		79	0.25	24%
Select a land cover type…		0		0		0		0	0.00	0%
Select a land cover type…		0		0		0		0	0.00	0%
Local Jurisdiction Input									0.00	0%
Other									0.00	0%
Total	0.00		1.05		0.00		0.00		1.05	100%

Impervious (ac)	0.30
Rv	0.31
Weighted CN	75
Potential Max Soil Retention, S_{post} (in)	3.31

Conservation Area Credits

Scenario 1: Natural Conservation Area **See the GSMM Volume 2, Section 2.3.3.3 for more information.*

☐ Check the box if a portion of the post-developed area is protected by a conservation easement or equivalent form of protection.

Area (ac) of development protected by a conservation easement or equivalent form of protection.

Note: The green cell will unlock if the Scenario 1 box above is checked

Scenario 2: Site Reforestation/Revegetation **See the GSMM Volume 2, Section 4.22 for more information.*

☐ Check the box if a portion of the post-developed area employs site reforestation/revegetation and is protected by a conservation easement or equivalent form of protection.

Area (ac) of development reforested/revegetated and protected by a conservation easement or equivalent form of protection.

Note: The green cell will unlock if the Scenario 2 box above is checked

Scenario 3: Soil Restoration **See the GSMM Volume 2, Section 4.23 for more information.*

☐ Check the box if a portion of the post-developed area employs soil restoration and is protected by a conservation easement or equivalent form of protection.

Area (ac) of development with restored soils and protected by a conservation easement or equivalent form of protection.

Note: The green cell will unlock if the Scenario 3 box above is checked

Scenario 4: Site Reforestation/Revegetation & Soil Restoration **See the GSMM Volume 2, Section 4.22 and 4.23 for more information.*

☐ Check the box if the same portion of the post-developed area employs site reforestation/revegetation and soil restoration, and is protected by a conservation easement or equivalent form of protection.

Area (ac) with restored soils in a reforested & revegetated area and protected by a conservation easement or equivalent form of protection.

Note: The green cell will unlock if the Scenario 4 box above is checked

Total Conservation Area Credit (acres) **0.00**

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Water Quality Goals

Target Runoff Reduction Storm (in): 1.00

Total Site Area for Water Quality Volume (acres)	1.05
Target Runoff Reduction Volume (cf)	1,171
Target Water Quality Volume (cf)	1,405

Select BMPs for Runoff Reduction and Water Quality

		Area Draining to Each BMP			Storage Volume Provided by BMP (cf)	RR Conveyance Volume Provided by BMP (cf)	Down-stream BMP	Runoff Reduction Calculations						WQ Calculations	
		On-site Pervious Area (acres)	On-site Impervious Area (acres)	Offsite Area (acres)				RR Volume from Direct Drainage (cf)	RR Volume from Upstream Practices (cf)	Total RR Volume Received by BMP (cf)	Runoff Reduction %	RR Achieved (cf)	Remaining RR Volume (cf)	WQ_v from Direct Drainage (cf)	Effective TSS Removal %
BMP 1	Downspout Disconnect (A & B hydrologic soils)		0.02			66	BMP 2	66	0	66	50%	33	33	79	80%
BMP 2	Bioretention Basin (w/o underdrain)	0.25	0.14		1,000			511	33	544	100%	544	0	613	100%
BMP 3	Downspout Disconnect (A & B hydrologic soils)		0.02			69	BMP 4	69	0	69	50%	34	34	83	80%
BMP 4	Enhanced Dry Swale (w/o underdrain)	0.25	0.13		511			476	34	511	100%	511	0	572	100%
BMP 5	Select a BMP…							0	0	0	N/A	0	0	0	N/A
BMP 6	Select a BMP…							0	0	0	N/A	0	0	0	N/A
BMP 7	Select a BMP…							0	0	0	N/A	0	0	0	N/A
BMP 8	Select a BMP…							0	0	0	N/A	0	0	0	N/A
BMP 9	Select a BMP…							0	0	0	N/A	0	0	0	N/A
BMP 10	Select a BMP…							0	0	0	N/A	0	0	0	N/A
	TOTAL	0.50	0.30	0.00				1,122				1,122		1,346	
	UNTREATED AREA (acres)	0.25	0.00												

Target Runoff Reduction Volume (cf)	1,171
Target Achieved?	No
Remaining Runoff Reduction Volume (cf)	49

Target Water Quality Volume (cf)	1,405
% TSS Removal Achieved	96%
Target Achieved?	Yes!
Remaining TSS Removal %	0%