

# MASS GRADING / EROSION CONTROL WALLBROOK - Lot 8

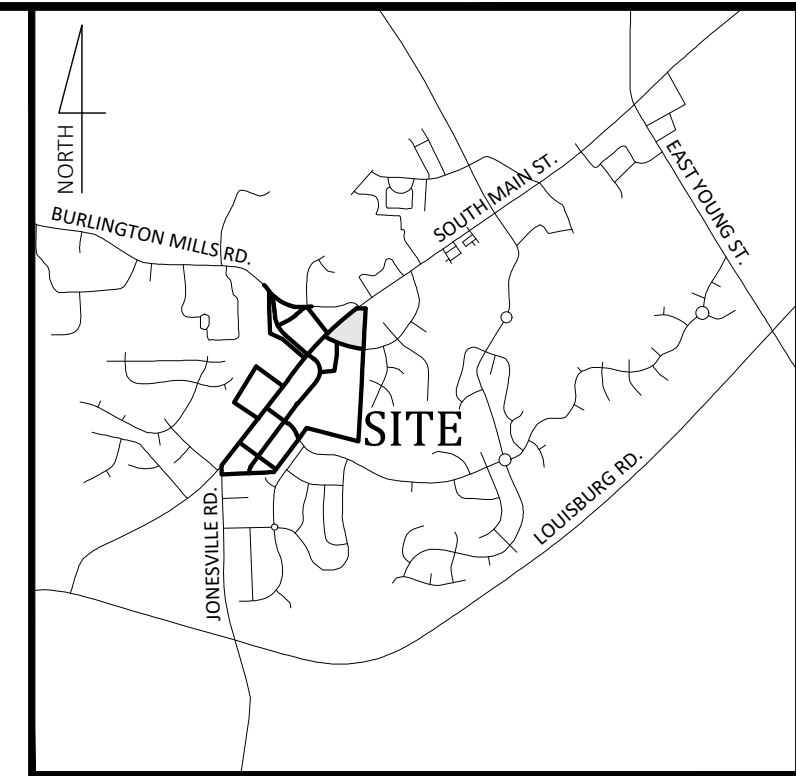
S. Main St. / US-401 Business & Wall Creek Drive, Town of Rolesville, Wake County, North Carolina

Project No.: CID 24-\_\_

1. Update with Rolesville project number- CID-24-03

PROJ No. REVISED

V1 -  
CID-24-03



Vicinity Map  
NOT TO SCALE

- Final Drawing -  
Issued for Permit  
Review Purposes Only

REVISIONS:

CROSLAND  
SOUTHEAST



### Sheet Index

#	Title
△ C0.1	Cover
△ C0.2	Existing Conditions & Demolition Plan
△ C1.0	Erosion Control Notes & Legend
△ C1.1	Erosion Control Phase 1
△ C1.2	Erosion Control Phase 2 & Mass Grading Plan
△ C2.1	Details
△ C2.2	Details
REF	Survey - Johnson, Mirmiran & Thompson (4 Sheets)
REF	Tree Preservation Plan - PR-21-04 REVISED (1 Sheet)

2. There are only 3 sheets included with this submittal; include the fourth sheet or update the index

REVISED TO 3 SHEETS

### Site Data

PIN NUMBERS:	1758-67-1871
REAL ESTATE ID:	0509438
CURRENT ZONING:	GC-C2
ACREAGE IN PARCEL:	5.35 ACRES
ACREAGE IN PUBLIC R/W:	0.00 ACRES
TOTAL ACREAGE DISTURBED:	2.80 ACRES
WATERSHED:	Lower Neuse
RIVER BASIN:	Neuse
CURRENT USE:	VACANT / WOODED
EXISTING IMPERVIOUS:	0 SF
PROPOSED IMPERVIOUS:	0 SF
PROPOSED USE(S):	NON-RESIDENTIAL/COMMERCIAL/RETAIL
LOTS IN DEVELOPMENT:	LOT 8
REFERENCES:	DB 018103 PG 01563 BM2023 PG 01602

### Owner/Developer

Wallbrook Landco, LLC  
3 Keel St, Ste 2  
Wrightsville Beach, NC

### Engineer

Ark Consulting Group, PLLC  
2755-B Charles Blvd  
Greenville, NC  
Contact: Bryan C. Fagundus, PE

COVER  
**WALLBROOK - LOT 8**  
MASS GRADING / EROSION CONTROL  
Town of Rolesville Project No. CID 24-\_\_  
Rolesville, Wake County, North Carolina  
S Main St. / US-401 Business & Wall Creek Drive

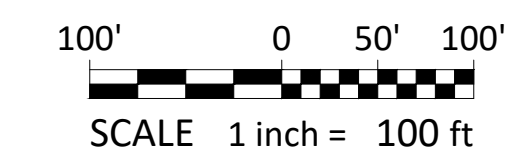
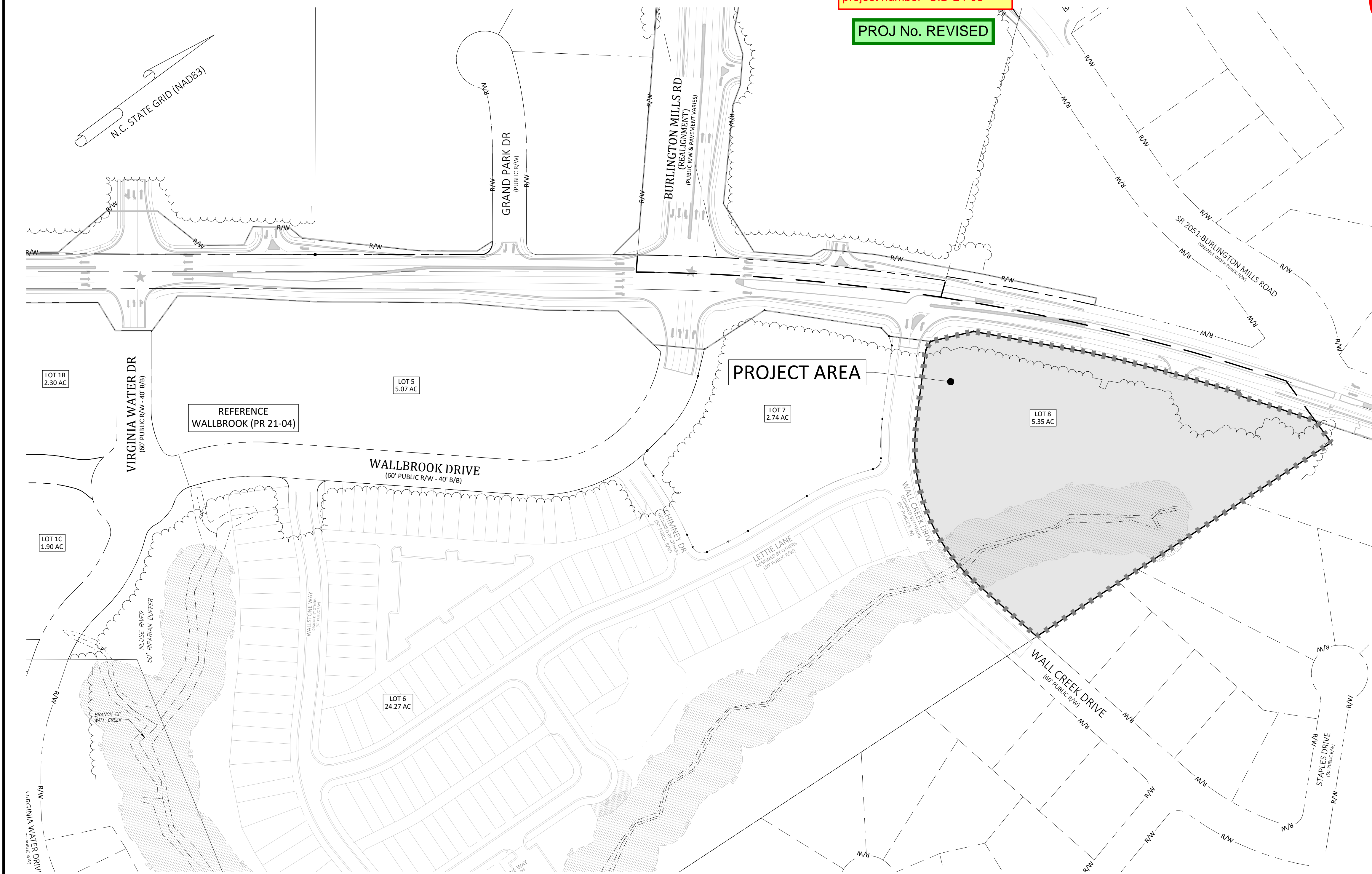
NC License: P-1199  
**ARK CONSULTING GROUP PLLC**  
ENGINEERS & PLANNERS  
2755-B Charles Blvd  
Greenville, NC 27638  
(757) 558-0888  
www.arkconsultinggroup.com  
BRYAN C. FAGUNDUS  
P.E.  
4/1/2024

**EROSION AND SEDIMENT CONTROL**  
**APPROVED PLAN**  
DATE \_\_\_\_\_  
PERMIT NO. S-\_\_\_\_\_  
Wake County Environmental Services  
Sedimentation & Erosion Control  
919-856-7400



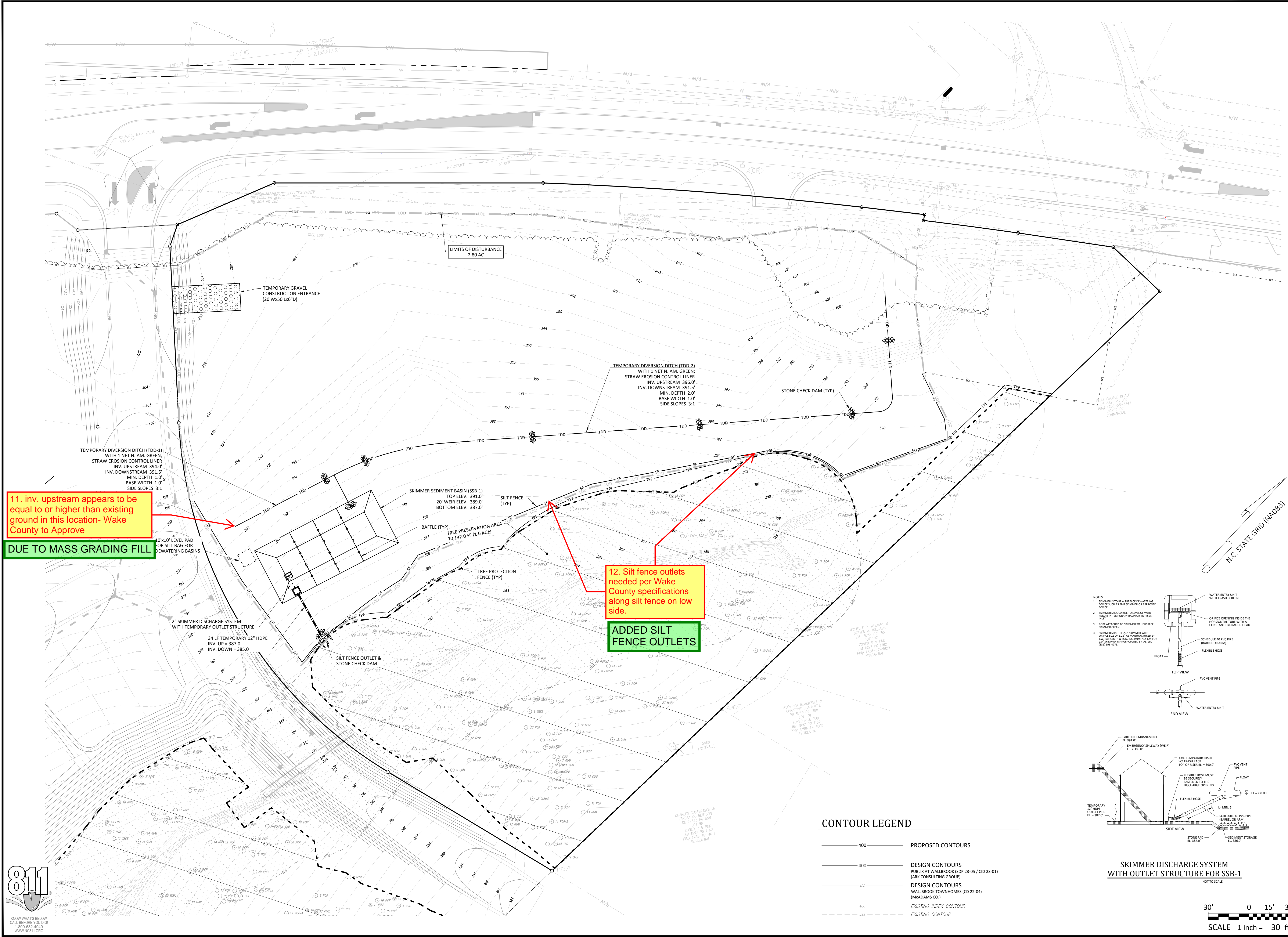
Project Manager:	BCF
Drawn By:	DLC
Checked By:	TN
Project Number:	21089
Drawing Number:	D-1472
<b>C0.1</b>	
Date:	April 1, 2024

V2 - Response to  
V1 Engineering  
mark-ups



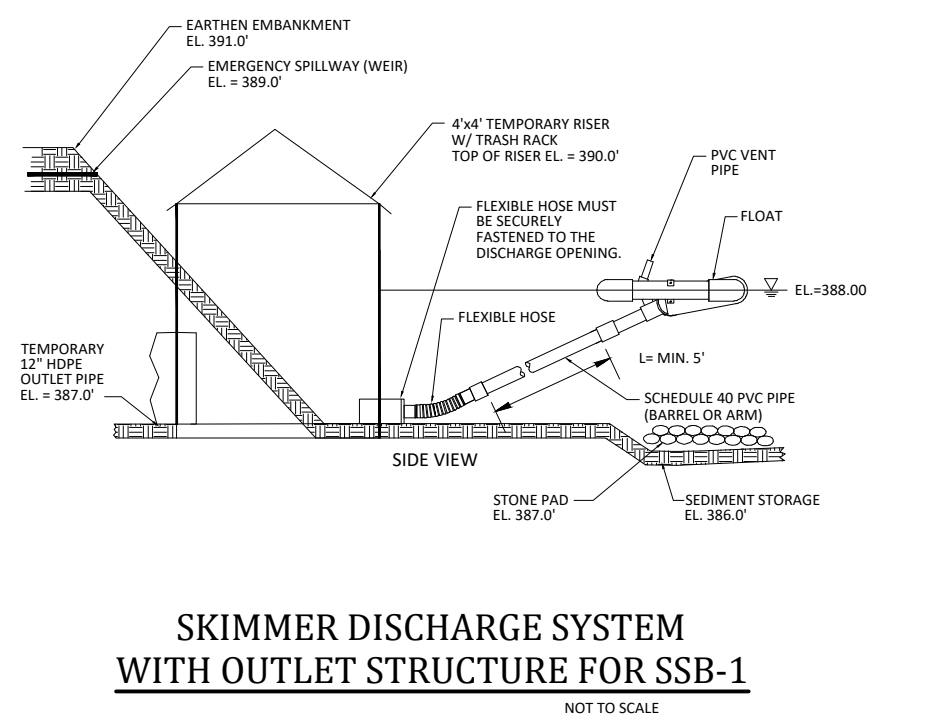
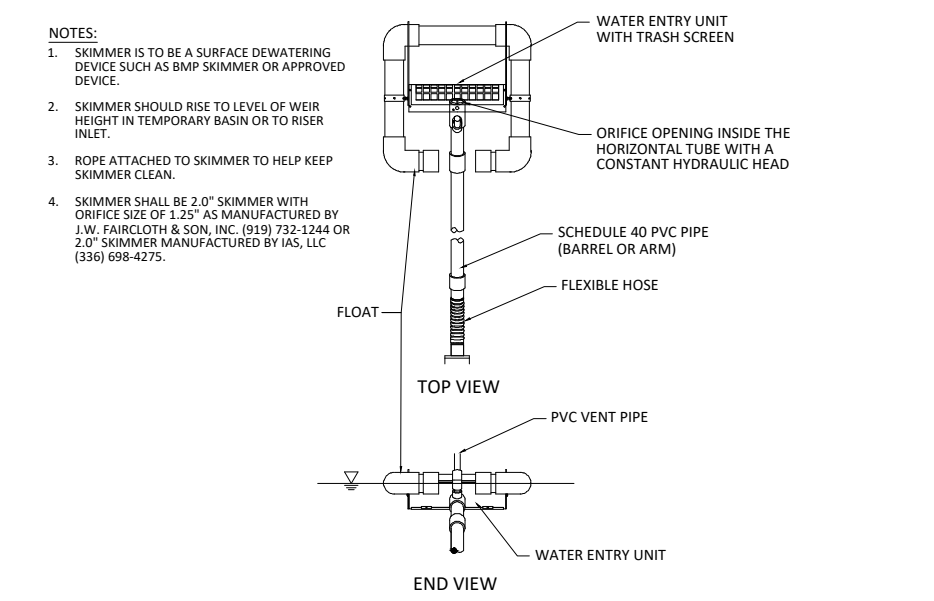
ENVIRONMENTAL CONSULTANT SIGNATURE





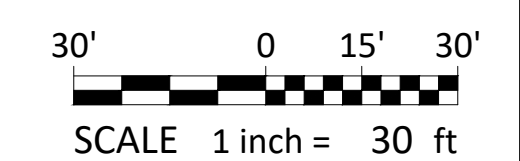
11. inv. upstream appears to be equal to or higher than existing ground in this location- Wake County to Approve  
 DUE TO MASS GRADING FILL

12. Silt fence outlets needed per Wake County specifications along silt fence on low side.  
 ADDED SILT FENCE OUTLETS



**CONTOUR LEGEND**

400	PROPOSED CONTOURS
400	DESIGN CONTOURS PUBLIC AT WALLBROOK (SDP 23-05 / CID 23-01) (ARK CONSULTING GROUP)
400	DESIGN CONTOURS WALLBROOK TOWNHOMES (CD 22-04) (McADAMS CD.)
400	EXISTING INDEX CONTOUR
399	EXISTING CONTOUR

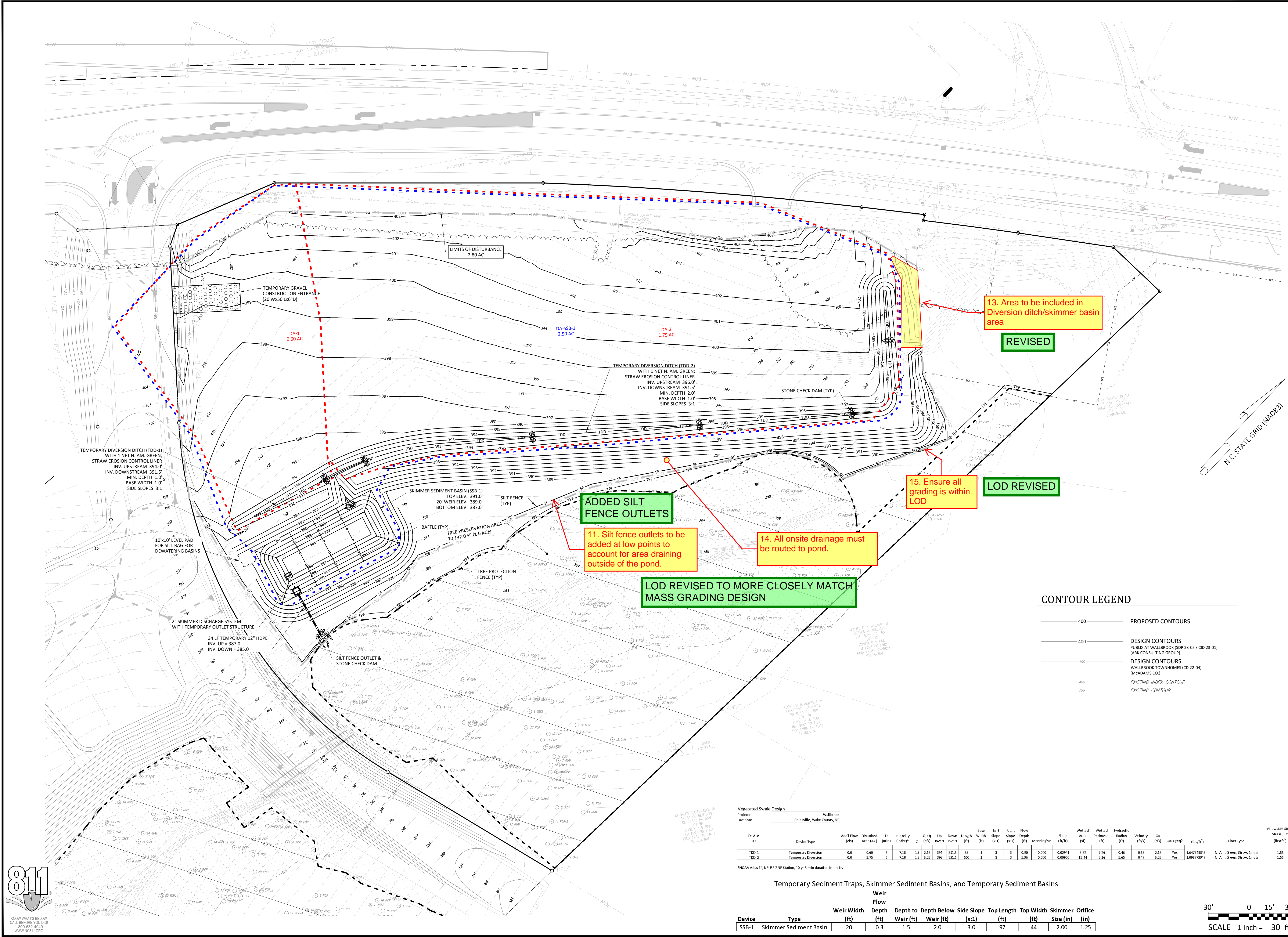


**EROSION CONTROL PHASE 1**  
**WALLBROOK - LOT 8**  
 MASS GRADING / EROSION CONTROL  
 Town of Rolesville Project No. CID 24-  
 Rolesville, Wake County, North Carolina

S Main St. / US-401 Business & Wall Creek Drive  
 Rolesville, NC 27588  
 (757) 558-0888  
 www.arkconsultinggroup.com

Project Manager: BCF  
 Drawn By: DLC  
 Checked By: TN  
 Project Number: 21089  
 Drawing Number: D-1472

**C1.1**  
 Date: April 1, 2024



**- Final Drawing -**  
 Issued for Permit  
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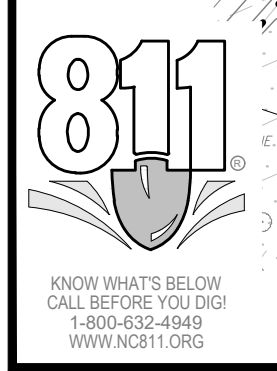
**EROSION CONTROL PHASE 2 & MASS GRADING PLAN**  
**WALLBROOK - LOT 8**  
 MASS GRADING / EROSION CONTROL  
 Town of Rolesville Project No. CID 24-  
 S Main St. / US-401 Business & Wall Creek Drive  
 Rolesville, Wake County, North Carolina

NC License: P-1129  
**ARK CONSULTING GROUP PLLC**  
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 2755-B Charles Blvd.  
 Raleigh, NC 27608  
 (919) 878-0888  
 www.arkconsultinggroup.com

Project Manager: BCF  
 Drawn By: DLC  
 Checked By: TN  
 Project Number: 21089  
 Drawing Number: D-1472

**C1.2**

Date: April 1, 2024



Vegetated Swale Design

Project: Wallbrook  
 Location: Rolesville, Wake County, NC

Device ID	Device Type	Adoff Flow (cfs)	Disturbed Area (Ac)	Tc (min)	Intensity (in/hr)	Qreq (cfs)	Qreq Invert (ft)	Down Length (ft)	Base Width (ft)	Left Slope (ft:1)	Right Slope (ft:1)	Flow Depth (ft)	Manning's (ft/s)	Slope (ft/ft)	Wetted Area (sq ft)	Wetted Perimeter (ft)	Hydraulic Radius (ft)	Velocity (ft/s)	Qa (cfs)	Qa-Qreq?	T (hr/ft)	Allowable Shear Stress (lb/ft <sup>2</sup> )	Liner Type		
TDD-1	Temporary Diversion	0.0	0.60	5	7.18	0.5	2.15	394	391.5	85	1	3	3	0.90	0.020	3.32	2.36	0.46	0.65	2.15	Yes	1.64774845	N. Am. Green; Straw; 1 nets	1.55	
TDD-2	Temporary Diversion	0.0	1.75	5	7.18	0.5	6.28	396	391.5	500	1	3	3	1.96	0.020	0.0000	13.84	9.36	1.65	0.47	6.28	Yes	1.69772947	N. Am. Green; Straw; 1 nets	1.55

\*NOAA Atlas 14, NEURIS 2NE Station, 30 or 5 min duration intensity

Temporary Sediment Traps, Skimmer Sediment Basins, and Temporary Sediment Basins

Device	Type	Weir		Depth	Side Slope	Top Length	Top Width	Skimmer Orifice	
		Width (ft)	Depth (ft)					Weir (ft)	Size (in)
SSB-1	Skimmer Sediment Basin	20	0.3	1.5	2.0	3.0	97	44	2.00 1.25

