KALAS FALLS PHASE 4

CONSTRUCTION INFRASTRUCTURE DRAWINGS

CID-26-0006

SITUATED IN
TOWN OF ROLESVILLE
WAKE COUNTY, NC

CID SUBMITTAL #1: MAY 1, 2026
CID SUBMITTAL #2: JULY 1, 2026
CID SUBMITTAL #3: JULY 30, 2026
CID ORIGINAL APPROVAL: AUGUST 25, 2026

PROJECT TEAM	
PROPERTY OWNER:	MITCHELL MILL ROAD INVESTORS LLC CONTACT: KARL BLACKLEY 105 WESTON ESTATES WAY CARY, NC 27513 919-481-3000
DEVELOPER:	MITCHELL MILL ROAD INVESTORS LLC CONTACT: KARL BLACKLEY 105 WESTON ESTATES WAY CARY, NC 27513 919-481-3000
SURVEYOR:	WITHERS RAVENEL CONTACT: MATT TIMBLIN, PLS 115 MACKENAN DRIVE CARY, NC 27511 919-469-3340
BUFFER/WETLAND:	WITHERS RAVENEL CONTACT: TROY BEASLEY 115 MACKENAN DRIVE CARY, NC 27511 919-469-3340
ENGINEER:	AMERICAN ENGINEERING CONTACT: ROMAN COOK, PE 4020 WESTCHASE BLVD, STE 450 RALEIGH, NC 27607 919-469-1101

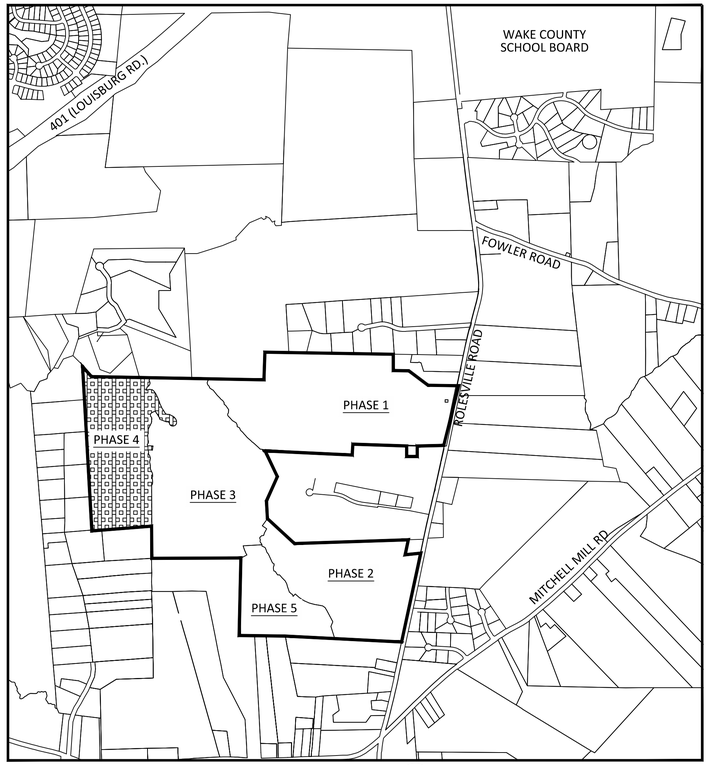
PHASE 4 PROPOSED IMPERVIOUS	
SCM	0.58 AC
ROADWAY	3.12 AC
SIDEWALK	0.99 AC
ROOFS	5.78 AC
DRIVEWAYS	0.94 AC
PARK ALLOCATION	0.17 AC
TOTAL	**11.58 AC**

REQUIRED APPROVALS	
PERMIT	PERMIT NUMBER:
TOWN OF ROLESVILLE PRELIMINARY PLAT	PR-20-05
TOWN OF ROLESVILLE CONSTRUCTION INFASTRUCTURE DRAWINGS	CID-26-0006
WAKE COUNTY EROSION CONTROL	SEC-170167-2026
WAKE COUNTY STORMWATER	SWF-170169-2026
CITY OF RALEIGH UTILITIES	MRCP-0061-2026
404 CLEAN WATER ACT NWP	SAW-2017-00595
401 WATER QUALITY CERTIFICATION	DWR#20180052

KALAS FALLS PHASE 4 SITE DATA	
DATA TYPE	NUMBER
PIN	1757-99-3263
DEED BOOK AND PAGE #	17691, 1863
KALAS FALLS PHASE 4 TRACT ACREAGE	44.56 AC
ZONING	R&PUD-CZ
WATERSHED	LOWER NEUSE RIVER
RIVER BASIN	NEUSE RIVER
TOWNSHIP	ROLESVILLE
RECEIVING WATER	HARRIS CREEK
STREAM INDEX	27-26
CLASSIFICATION	C;NSW
EXISTING USAGE	VACANT
PROPOSED USAGE	SINGLE-FAMILY DETACHED DWELLING UNITS
DENSITY	1.62
BUILDING SETBACKS	SEE SHEET 5.1 TABLE
EXISTING IMPERVIOUS	0.00 AC
PROPOSED IMPERVIOUS	11.58 AC
PROPOSED PER LOT IMPERVIOUS	+/- 4,065 SF
TOTAL AREA OF LOTS	24.12 AC
NUMBER OF LOTS	72
AVERAGE LOT SIZE	14,312 SF
MINIMUM LOT SIZE	9,688 SF
MAXIMUM LOT SIZE	31,065 SF
LIMITS OF DISTURBANCE	36.69 AC
AREA IN PUBLIC R/W	5.49 AC
OPEN SPACE	14.95 AC
ROAD DATA	PLUMFORD RIDGE DR 2,062 LF OF PUBLIC 27' B-B (50' R/W)
	KIRKENDELL ST 1,515 LF OF PUBLIC 27' B-B (50' R/W)
	STANNER HILL DR 340 LF OF PUBLIC 27' B-B (50' R/W)
	ELAM FIELD DR 596 LF OF PUBLIC 41' B-B (60' R/W)

KALAS FALLS OVERALL SITE DATA (ALL PHASES)	
DATA TYPE	NUMBER
TOTAL ACREAGE	282.73 AC
TOTAL ALLOWABLE LOTS	550
TOTAL LOTS PROVIDED	550 (455 SINGLE FAMILY + 95 TOWNHOMES)
ALLOWABLE MAX DENSITY	2.10
PROVIDED MAX DENSITY	1.94

NOTE: THE KALAS FALLS PROJECT REZONING WAS APPROVED ON 11/19/2019 (MA-19-02 AND SUP-19-01) AND RECORDED ON 02/08/2022 AS SEEN IN BK:018911 PG:02350-02356; THEREFORE, THE PROJECT IS GOVERNED BY THE 2004 UDO. THIS TABLE (ABOVE) IS PROVIDED TO ENSURE THAT THE OVERALL KALAS FALLS SITE DATA REMAIN CONSISTENT WITH, AND BELOW, THE THRESHOLDS ESTABLISHED AT THE TIME OF REZONING, AS IDENTIFIED IN THE APPROVED REZONING CONDITIONS SHOWN ON SHEET G1.1.



VICINITY MAP
SCALE: 1"=1000'

THESE IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE FOLLOWING DRAWINGS AND THE STANDARD SPECIFICATIONS OF THE TOWN OF ROLESVILLE, WAKE COUNTY, AND CITY OF RALEIGH.

PROJECT NARRATIVE:
THIS PROJECT IS LOCATED IN THE CORPORATE LIMITS OF ROLESVILLE, NORTH CAROLINA AT ROLESVILLE ROAD. IT INVOLVES THE COMBINING OF SEPARATELY PROPOSED PROJECTS KNOWN AS KALAS FALLS, ROGERS FARM AND ONE OTHER TRACT KNOWN AS THE WATKINS PROPERTY. IT DRAINS TO TRIBUTARIES OF HARRIS CREEK WHICH IS PART OF THE NEUSE RIVER BASIN. KALAS PHASE 4 IS ALSO BOUNDED ON ALL SIDES BY MOSTLY UNDEVELOPED LAND. IT IS APPROXIMATELY 0.5 MILES NORTHWEST OF THE INTERSECTION OF MITCHELL MILL ROAD AND ROLESVILLE ROAD IN WAKE COUNTY, NORTH CAROLINA. THE TOTAL AREA OF THE KALAS FALLS PROJECT IS 282.73 AC. KALAS PHASE 4 PHASE IS 44.56 ACRES.

GENERAL NOTES:
1. CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL (1-800-632-4949) TO LOCATE ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE EXISTING UTILITIES AND NOTIFY THE PROJECT ENGINEER (919-469-1101) OF ANY CONFLICTS.
3. ALL BOUNDARY AND FIELD TOPOGRAPHY PROVIDED BY WITHERS & RAVENEL ON 10-15-2018.
4. ALTHOUGH THE KALAS FALLS PROJECT AS A WHOLE HAS ENVIRONMENTAL IMPACTS ASSOCIATED WITH IT, AS CITED IN THE "REQUIRED APPROVALS" TABLE, THE KALAS FALLS PHASE 4 SUBDIVISION IS CURRENTLY DESIGNED WITH NO PROPOSED ENVIRONMENTAL IMPACTS TO BUFFERS, STREAMS, WETLANDS, OR SURFACE WATERS.
5. KALAS 4 DOES NOT HAVE A DEDICATED MAIL KIOSK. KALAS PHASE 4 UTILIZES THE MAIL KIOSK LOCATED ON KALAS PHASE 3 ALONG FALLS BLUFF DRIVE.
6. RETAINING WALLS AND ALL RETAINING WALL APPURTENANCES ARE TO BE MAINTAINED BY HOA.
7. ALL STORMWATER CONTROL MEASURES (SCM) ARE TO BE MAINTAINED BY HOA.
8. SHEET G1.2 CONTAINS LOT TABLE DETAILING LOT NUMBER, ADDRESS, MAXIMUM IMPERVIOUS COVERAGE, AND LAND USE.

SHEET INDEX	
Sheet Number	Sheet Title
G1.0	COVER SHEET
G1.1	GENERAL NOTES
G1.2	SCHEDULES
G1.3	SCHEDULES
C1.0	OVERALL EXISTING CONDITIONS
C1.1	EXISTING CONDITIONS AREA A
C1.2	EXISTING CONDITIONS AREA B
C1.3	EXISTING CONDITIONS AREA C
C2.0	STAGE 1 EROSION CONTROL OVERALL
C2.1	STAGE 1 EROSION CONTROL AREA A
C2.2	STAGE 1 EROSION CONTROL AREA B
C2.3	STAGE 1 EROSION CONTROL AREA C
C2.4	EROSION CONTROL STAGE 2 OVERALL
C2.5	STAGE 2 EROSION CONTROL AREA A
C2.6	STAGE 2 EROSION CONTROL AREA B
C2.7	STAGE 2 EROSION CONTROL AREA C
C2.8	EROSION CONTROL STAGE 3 OVERALL
C2.9	STAGE 3 EROSION CONTROL AREA A
C2.10	STAGE 3 EROSION CONTROL AREA B
C2.11	STAGE 3 EROSION CONTROL AREA C
C2.12	NPDES
C3.0	KALAS OVERALL SITE PLAN
C3.1	PHASE 4 OVERALL SITE PLAN
C3.2	SITE PLAN AREA A
C3.3	SITE PLAN AREA B
C3.4	SITE PLAN AREA C
C3.5	STRIPING & SIGNAGE PLAN
C4.0	PHASE 4 OVERALL GRADING & DRAINAGE
C4.1	GRADING & DRAINAGE AREA A
C4.2	GRADING & DRAINAGE AREA B
C4.3	GRADING & DRAINAGE AREA C
C4.4	SCM 4D Detail
C4.5	SCM 5A Detail
C4.6	SCM 4A Detail
C5.0	OVERALL UTILITY PLAN
C5.1	UTILITY PLAN AREA A
C5.2	UTILITY PLAN AREA B
C5.3	UTILITY PLAN AREA C
C6.0	PLUMFORD RIDGE DR. PLAN & PROFILE
C6.1	PLUMFORD RIDGE DR. PLAN & PROFILE
C7.0	KIRKENDELL ST. PLAN & PROFILE
C7.1	KIRKENDELL ST. PLAN & PROFILE
C10.0	STANNER HILL DR. PLAN & PROFILES
C11.0	ELAM FIELD CT. PLAN & PROFILE
C12.0	STORM PLAN & PROFILES
C12.1	STORM PLAN & PROFILES
C12.2	STORM PLAN & PROFILES
C12.3	STORM PLAN & PROFILES
C12.4	STORM PLAN & PROFILES
C12.5	STORM PLAN & PROFILES
C13.0	SEWER PLAN & PROFILES
C15.0	OVERALL LANDSCAPE PLAN
C15.1	LANDSCAPE PLAN AREA A
C15.2	LANDSCAPE PLAN AREA B
C15.3	LANDSCAPE PLAN AREA C
C15.4	LANDSCAPE DETAILS
CD1-14	CIVIL DETAILS
26-0111A	DUKE ENERGY SITE LIGHTING PLAN

RALEIGH WATER INSPECTIONS QUANTITIES	
PHASE NUMBER	4
NUMBER OF SFD LOTS	72
NUMBER OF SFD UNITS	72
8" PUBLIC WATER MAIN (LF)	4,752
8" PUBLIC SEWER MAIN (LF)	4,880
PUBLIC FORCE MAIN (LF)	N/A
PRIVATE SEWER* (LF)	N/A
WATER SERVICE STUBS (QUANTITY)	72
PUBLIC FIRE HYDRANTS (QUANTITY)	9
6" PUBLIC FIRE LINE STUB (LF)	294
SEWER SERVICE STUBS (QUANTITY)	72
AVERAGE DAILY FLOW PER PHASE**	21,900 GPD

*Sewer mains and manholes as part of a collection system
**Entire Project Flow. Based on 75gpd per bedroom for residential (Apartments, Single Family dwelling, townhouse, condos), or based on 15A NCAC 02T .0114 Wastewater Design Flow Rates for Commercial and Industrial.
The meter size must match domestic service size (Exemption - $\frac{3}{4}$" service tap with $\frac{5}{8}$" meter)

Rolesville
Genuine Community • Digital Connection • Est. 1837
Planning

CID-26-0006 / Construction Infrastructure Drawing / Kalas Falls Phase 4
APPROVED – August 25, 2026

Town of Rolesville Planning Department

EROSION CONTROL, STORMWATER AND FLOODPLAIN MANAGEMENT

APPROVED

EROSION CONTROL ☒ SEC-170167-2026
STORMWATER MGMT. ☒SWF-170169-2026
FLOOD STUDY ☐ SWF-_____
DATE 09/09/2026

Elizabeth Powell
ENVIRONMENTAL ENGINEER SIGNATURE

ATTENTION CONTRACTORS
The Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Utilities Inspector at 919-996-3245 or https://cityworks.raleighnc.gov/pucontractors/New and schedule a Pre-construction meeting prior to beginning any construction.
Raleigh Water must be contacted at (919) 996-4540 at least twenty-four hours prior to beginning any work activity around critical water and sewer infrastructure.

Failure to notify the Divisions in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for Inspection, install a downstream plug, have permitted plans on the jobsite, or any other violation of City of Raleigh Standards will result in a fine and possible exclusion from future work in the City of Raleigh.

RALEIGH WATER - PLANS AUTHORIZED FOR CONSTRUCTION
Any work authorized by this approval must proceed in accordance with the City of Raleigh Code. Approval may not be valid more than one year from the approval date unless otherwise noted.
Timothy Beasley
2026.09.22 14:25:50-04'00'

CID-26-0006
MRCP-0061-2026

North Carolina 811 Call Before You Dig
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

AMERICAN Engineering
American Engineering Associates - Southeast, P.A.
4020 Westchase Boulevard, Suite 450 Raleigh, NC 27607 919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 042383 ENGINEER ROMAN S. COOK
2026.09.09 15:28:57-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

THIS DRAWING WAS PREPARED FOR USE ON THE SPECIFIC SITE, NAMED HEREON, CONTEMPORANEOUSLY WITH ITS ISSUE DATE AS LISTED, HEREON, AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER:	9900
CHECKED BY:	RC
DRAWN BY:	DH, BG, CR, JB
DATE:	SEPTEMBER 8, 2026

SHEET TITLE:

COVER SHEET

SHEET NO.:

G1.0

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CONSTRUCTION SEQUENCE FOR THE KALAS FALLS PHASE 4, STAGE 1 SHALL BE AS FOLLOWS:

1. THE OWNER SHALL OBTAIN NCG01 PERMIT AND PAY ANY FEE THAT MAY BE ASSOCIATED WITH THIS PERMIT.
2. SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH THE WAKE COUNTY WATERSHED MANAGER.
3. ENSURE THAT ALL LIMITS OF DISTURBANCE, SURFACE WATERS, AND RIPARIAN BUFFERS ARE FLAGGED PRIOR TO INSTALLATION OF EROSION CONTROL MEASURES.
4. TREE PROTECTION FENCES, SILT FENCES, AND CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS SHOWN ON THE APPROVED EROSION CONTROL PLANS.
5. CONTRACTOR TO KEEP PERMIT BOX CURRENT ON SITE WITH NCG01 CERTIFICATE OF COVERAGE, APPLICABLE PERMITS, SELF-INSPECTION RECORDS/LOGS, MAINTENANCE RECORDS, AND ANY OTHER APPLICABLE INFORMATION. RAIN GAUGE TO BE KEPT AT PERMIT BOX.
6. APPROXIMATELY 300 LF OF ELAM FIELD DRIVE MUST BE EXTENDED TO FINAL GRADE ELEVATIONS TO PROVIDE SITE ACCESS AND ALLOW CONSTRUCTION OF TSB #4A. THIS WORK WILL REQUIRE USE OF THE TEMPORARY CONSTRUCTION EASEMENT (TCE) GRANTED BY KALAS PHASE 3. THE FOLLOWING ACTIVITIES ARE INCLUDED WITHIN THIS SCOPE:
   - STOCKPILING, CONSTRUCTION ENTRANCE, CONCRETE WASHOUT, RECORD BOX AND ALL CONSTRUCTION ACTIVITIES SHALL REMAIN ON THE KALAS PHASE 4 SITE OR WITHIN TCE LIMITS.
   - INSTALLATION OF 30" RCP CLASS IV CULVERT.
   - INSTALLATION OF PERMANENT STORM DRAINAGE INFRASTRUCTURE AS SHOWN ON SHEET C2.3 OF THE CID PLAN SET.
   - UTILITY INSTALLATION AS DETERMINED BY CONTRACTOR MEANS AND METHODS.
   - CONSTRUCTION OF TSB 4A AS SHOWN IN THE CID PLAN SET.
   - INSTALLATION OF ROLLED EROSION CONTROL BLANKET FOR STABILIZATION OF 2:1 SLOPES.
   - INSTALL RIP RAP STABILIZATION AS SHOWN IN CID PLAN SET.
7. THE TEMPORARY SEDIMENT BASINS (TSB) ARE TO BE FULLY CONSTRUCTED PRIOR TO THE INSTALLATION OF ANY TEMPORARY DIVERSION DITCHES (TDD) OR PERMANENT DIVERSION DITCHES (PDD). CONSTRUCT TSB'S 4A, 4D, AND 5A FOLLOWING THE PROJECT CID PLAN SET. CONSTRUCT TEMPORARY SKIMMER BASIN (TSKB) #1 FOLLOWING THE PROJECT APPROVED CID PLAN SET.
8. INSTALL TWO (2) TDD'S AND FOUR (4) PDD'S TO CONVEY RUNOFF TO SEDIMENT TRAPS AS SEEN IN THE APPROVED CID PLAN SET. SEE PROJECT SCHEDULE SHEET'S FOR RECOMMENDED CALCULATIONS AND LINERS. INSTALL DIVERSION DIKE #1 TO CONTROL RUNOFF ON SITE AND COVEY SEDIMENT LADEN WATER TO SEDIMENT TRAPS.
9. STOCKPILE LOCATIONS SHOULD BE ENCLOSED BY SILT FENCE AS SHOWN ON THE PLANS. SEED TEMPORARY DIVERSIONS, DIKES, AND SEDIMENT BASINS IMMEDIATELY AFTER CONSTRUCTION.
10. INSTALL ANY PERMANENT/TEMPORARY STORMWATER INFRASTRUCTURE NOTED IN STAGE 1 OF THE APPROVED CID PLAN SET. ANY PERMANENT STORMWATER INFRASTRUCTURE INSTALLED FOR STAGE 1 CONVEYANCE IS TO BE UTILIZED AND MAINTAINED THROUGH ALL THREE (3) STAGES OF EROSION AND SEDIMENT CONTROL. THE INFRASTRUCTURE WILL NEED TO BE MONITORED FOR SEDIMENT BUILD UP AND CLEANED PERIODICALLY. THESE PERMANENT PIPES AND STRUCTURES WILL SERVE THE TEMPORARY SEDIMENT BASINS AND ACT AS INLETS/OUTLETS FOR THE TDD'S AND PDD'S UNTIL THEY ARE EVENTUALLY MODIFIED TO FINAL SITE DESIGN IN STAGE 3 (FOLLOWING FINAL SITE STABILIZATION). THESE STORM DRAINAGE STRUCTURES MAY NEED TO BE MODIFIED AS THE PROJECT SITE IS BROUGHT TO THE FINAL GRADE ELEVATIONS. SEE EROSION AND SEDIMENT CONTROL PLANS FOR MORE DETAIL.
11. ANY STORMWATER INFRASTRUCTURE INSTALLED SHOULD HAVE INLETS PROTECTED WITH BLOCK AND GRAVEL INLET CONTROL, SEDIMENT TRAPS, OR OTHER APPROVED MEASURES AS SHOWN IN THE CID PLAN SET.
12. RIP RAP DISSIPATERS ARE TO BE INSTALLED AS SEEN IN THE APPROVED CID PLAN SET SCHEDULES.
13. STABILIZE SITE AREAS THAT ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH-LININGS, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAMES.
14. CALL FOR AN ONSITE INSPECTION BY THE WAKE COUNTY WATERSHED MANAGER TO OBTAIN A CERTIFICATE OF COMPLIANCE. PRIOR TO PROCEEDING TO STAGE 2, ADDITIONAL MEASURES OR DITCH EXTENSIONS MAY BE REQUIRED BY THE WAKE COUNTY FIELD INSPECTOR TO ROUTE RUNOFF TO SEDIMENT BASINS BASED ON FIELD CONDITIONS AND THESE MEASURES SHALL BE INSTALLED UPON THE INSPECTOR'S DETERMINATION.

CONSTRUCTION SEQUENCE FOR KALAS FALLS PHASE 4, STAGE 2 SHALL BE AS FOLLOWS:

1. GENERAL SITE GRADING MAY BEGIN. ANY SLOPES GREATER THAN 3:1 ARE TO HAVE ROLLED EROSION CONTROL BLANKETS UTILIZED TO PREVENT SEDIMENT LOSS WHILE AREA IS STABILIZING. SEE APPROVED EROSION CONTROL PLAN SHEETS FOR RECOMMENDED AREAS.
2. INSTALL STORM DRAINAGE INFRASTRUCTURE AS SEEN IN THE APPROVED CID PLAN SHEETS. EXCAVATE TRENCH, INSTALL SECTION(S) OF PIPE. BACKFILL AND STABILIZE GROUND DISTURBANCE WITHIN A WORKDAY. IF UNABLE TO FINALIZE SECTION OF PIPE INSTALLATION BY END OF WORKDAY. ADDITIONAL TEMPORARY E&SC MEASURES MAY BE REQUIRED TO DENUDED AREA. MODIFICATIONS AND/OR RETROFITTING OF STORM DRAINAGE INFRASTRUCTURE INSTALLED IN STAGE 1 WILL BE REQUIRED AS THE FINISH GRADE IS ESTABLISHED ON SITE.
3. ANY STORMWATER INFRASTRUCTURE INSTALLED SHOULD HAVE INLETS PROTECTED WITH BLOCK AND GRAVEL INLET CONTROL, SEDIMENT TRAPS, OR OTHER APPROVED MEASURES AS SHOWN IN THE PLANS.
4. ROAD CONSTRUCTION SHALL TAKE PLACE AS SEEN IN APPROVED CID PLAN SET. CONTRACTOR TO MAINTAIN TEMPORARY BARRICADES AT ROAD STUBS. THE CONTRACTOR SHALL ENSURE THAT AS ROADS ARE BROUGHT TO FINAL GRADE ELEVATIONS, DRAINAGE IS ADEQUATELY CAPTURED AND DIRECTED TO SEDIMENT TRAPS ON SITE.
5. CLEAN SEDIMENT BASINS WHEN ONE-HALF FULL.
6. SEED AND MULCH DENUDED AREA INCLUDING ANY CUT/FILL SLOPES WITHIN FOURTEEN (14) DAYS AFTER FINISHED GRADES ARE ESTABLISHED. ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITHIN SEVEN (7) DAYS.
7. MAINTAIN SOIL EROSION CONTROL MEASURES.
8. UTILITIES (WATER, ELECTRIC, GAS, CABLE TV, TELEPHONE, ETC.) WILL BE INSTALLED DURING THIS PHASE.
9. RETAINING WALLS, DESIGNED BY OTHERS, ARE TO BE INSTALLED.
10. SAFETY RAILS AND FENCES ARE TO BE INSTALLED.
11. TSKB #1 TO BE REMOVED ONCE CONTRIBUTING DRAINAGE AREAS ARE AT FINAL GRADE ELEVATIONS AND FULLY STABILIZED. STORM WATER RUNOFF TO BE DIRECTED TOWARD INLET PROTECTION WITH POSITIVE DRAINAGE. DIVERSION DIKE #1 CAN BE REMOVED FOLLOWING THE REMOVAL OF TSKB #1. TDD #1-#2 CAN BE REMOVED. ANY PDD'S NOT YET IMPLEMENTED ON SITE SHOULD BE DONE SO BEFORE MOVING TO STAGE 3 FOLLOWING CID APPROVED PLAN SET.
12. CALL FOR INSPECTION BY WAKE COUNTY WATERSHED MANAGER FOR APPROVAL BEFORE PROCEEDING TO STAGE 3 CONSTRUCTION.

CONSTRUCTION SEQUENCE FOR KALAS FALLS PHASE 4, STAGE 3 SHALL BE AS FOLLOWS:

1. CALL FOR AN ONSITE INSPECTION BY THE WAKE COUNTY WATERSHED MANAGER FOR APPROVAL TO CONVERT TSB'S TO STORMWATER CONTROL MEASURES (SCM'S) FOLLOWING THE APPROVED CID PLAN SET. SCM CONVERSION AND AS-BUILT DATA IS TO BE COMPLETED AT THE SAME TIME FOR ALL SCM'S ON SITE. STORMWATER INFRASTRUCTURE SHOULD BE CLEANED OUT IF SEDIMENT IS VISIBLE WITHIN THE NETWORK.
2. ANY TEMPORARY STORMWATER INFRASTRUCTURE REMAINING AT THE BEGINNING OF STAGE 3 SHALL BE REMOVED FOR THE INSTALLATION OF ALL PERMANENT STORMWATER INFRASTRUCTURE NOT YET INSTALLED.
3. VERTICAL CONSTRUCTION MAY BEGIN.
4. CLEAN/INSPECT INLET PROTECTION FOLLOWING ANY STORM EVENTS OF 1" OR EVERY FOURTEEN (14) DAYS.
5. SEED AND MULCH DENUDED AREA INCLUDING ANY CUT/FILL SLOPES WITHIN FOURTEEN (14) DAYS AFTER FINISHED GRADES ARE ESTABLISHED. ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZES WITHIN SEVEN (7) DAYS.
6. MAINTAIN SOIL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND IS ESTABLISHED.
7. REQUEST INSPECTION BY WAKE COUNTY WATERSHED MANAGER AFTER VEGETATION IS ESTABLISHED TO REMOVE REMAINING EROSION CONTROL MEASURES.
8. REMOVE REMAINING SOIL EROSION CONTROL MEASURES AND STABILIZE THE RESULTING BARE AREAS. CONTACT WAKE COUNTY WATERSHED MANAGER TO REQUEST A FINAL INSPECTION FOR APPROVAL TO CLOSE THE LAND DISTURBANCE PERMIT.
9. THE OWNER IS TO FINALIZE THE NCG01 PERMIT.

MAINTENANCE REQUIREMENTS TO BE NOTED ON THE PLAN

A. SEEDING OR COVERING STOCKPILES WITH TARPS OR MULCH IS REQUIRED AND WILL REDUCE EROSION PROBLEMS. TARPS SHOULD BE KEYED IN AT THE TOP OF THE SLOPE TO KEEP WATER FROM RUNNING UNDERNEATH THE PLASTIC.
B. IF A STOCKPILE IS TO REMAIN FOR FUTURE USE AFTER THE PROJECT IS COMPLETE (BUILDERS, ETC.), THE FINANCIAL RESPONSIBLE PARTY MUST NOTIFY WAKE COUNTY OF A NEW RESPONSIBLE PARTY FOR THAT STOCKPILE.
C. THE APPROVED PLAN SHALL PROVIDE FOR THE USE OF STAGED SEEDING AND MULCHING ON A CONTINUAL BASIS WHILE THE STOCKPILE IS IN USE.
D. ESTABLISH AND MAINTAIN A VEGETATIVE BUFFER AT THE TOE OF THE SLOPE (WHERE PRACTICAL).

MA-19-02 REZONING CONDITIONS:

a. THE MAXIMUM DEVELOPMENT DENSITY SHALL BE 2.1 DWELLING UNITS PER ACRE
b. PERMITTED USES SHALL ONLY INCLUDE SINGLE FAMILY DETACHED DWELLINGS, TOWNHOUSES, NEIGHBORHOOD RECREATION CENTER, OPEN SPACE, GREENWAY, AND ASSOCIATED ACCESSORY USES
c. TOTAL NUMBER OF DWELLING UNITS ON THE SUBJECT PROPERTY SHALL NOT EXCEED 550, AND NOT MORE THAN 95 OF THESE DWELLING UNITS ARE PERMITTED TO BE TOWNHOMES.
d. THE MINIMUM LOT SIZE FOR SINGLE FAMILY DETACHED DWELLINGS SHALL BE 6,000 SQUARE FEET, WITH A MINIMUM LOT WIDTH OF 50'.
e. DEVELOPMENT OF THE SUBJECT PROPERTY SHALL INCLUDE 250% OF THE UDO REQUIRED OPEN SPACE, AS SUCH REQUIREMENTS EXIST AS OF THE DATE OF THIS ZONING.
f. A TYPE A BUFFER (WITH BERM, IF PERMITTED) WILL BE INSTALLED AND MAINTAINED ALONG THE SUBJECT PROPERTY'S FRONTAGE ALONG ROLESVILLE ROAD.
g. UP TO 460' OF PRIVACY FENCE AND UP TO 400' OF TYPE A BUFFER SHALL BE INSTALLED AND MAINTAINED ALONG THE COMMON PROPERTY LINE OF THE STALLINGS PROPERTY (WAKE COUNTY PIN 1768-30-6321) ON BOTH SIDES OF DRESDEN DRIVE AND ALONG THE EXISTING POND DAM. THE FENCE WITHIN THE POND AREA SHALL BE PLACED SO THAT THERE IS NO IMPACT TO THE EXISTING STATE MANDATED BUFFER.
H THE EXISTING DRIVEWAY THROUGH THE SUBJECT PROPERTY (FROM ROLESVILLE ROAD) THAT SERVES AS ACCESS FOR THE STALLINGS TRACT (WAKE COUNTY PIN 1768-30-6321) AND WOODLIEF TRACT (1768-30-8414) SHALL BE REALIGNED BY THE DEVELOPER TO ALLOW CONNECTION, AND AT NO TIME SHALL ACCESS TO THOSE PROPERTIES BE BLOCKED WITHOUT PROVIDING FOR ANOTHER MEANS OF INGRESS/EGRESS.
i. ALL HOMES CONSTRUCTED ON THE PROPERTY SHALL INCLUDE EITHER CRAWL SPACE FOUNDATIONS OR STEM WALL FOUNDATIONS. ANY STEM WALL FOUNDATIONS SHALL HAVE A BRICK VENEER AROUND THE FULL PERIMETER OF THE HOUSE.
j. TRANSPORTATION IMPROVEMENTS: TO ADDRESS TRANSPORTATION IMPACTS REASONABLY EXPECTED TO BE GENERATED BY THE DEVELOPMENT, PRIOR' TO REQUEST FOR THE FIRST BUILDING PERMIT FOR THE PROPERTY, THE FOLLOWING IMPROVEMENTS SHALL BE CONSTRUCTED AND INSTALLED AS RECOMMENDED BY THE KALAS/WATKINS FAMILY PI'OPEI'TY TIA DATED AUGUST 24, 2019, ON FILE WITH THE TOWN OF ROLESVILLE:

ROLESVILLE ROAD AT SITE DRIVEWAY A:

i. CONSTRUCT DRIVEWAY A AS A FULL-MOVEMENT ACCESS POINT ONTO ROLESVILLE ROAD WITH ONE INGRESS LANE AND ONE EGRESS LANE;
ii. CONSTRUCT AN EXCLUSIVE EASTBOUND RIGHT-TURN LANE WITH 100 FEET OF FULL- WIDTH STORAGE AND APPROPRIATE TAPES ON DRIVEWAY A;
iii. CONSTRUCT AN EXCLUSIVE NORTHBOUND LEFT-TURN LANE WITH 100 FEET OF FULL- WIDTH STORAGE AND APPROPRIATE TAPER' ON ROLESVILLE ROAD; AND
iv. CONSTRUCT AN EXCLUSIVE SOUTHBOUND RIGHT-TURN LANE WITH 100 FEET OF FULL-WIDTH STORAGE AND APPROPRIATE TAPER ON ROLESVILLE ROAD.

k. TRANSPORTATION IMPROVEMENTS: TO ADDRESS TRANSPORTATION IMPACTS REASONABLY EXPECTED TO BE GENERATED BY THE DEVELOPMENT, PRIOR TO REQUEST FOR THE FIRST BUILDING PERMIT FOR THE PROPERTY, THE FOLLOWING IMPROVEMENTS SHALL BE CONSTRUCTED AND INSTALLED AS RECOMMENDED BY THE KALAS/WATKINS FAMILY PROPERTY TIA DATED AUGUST 24, 2019, ON FILE WITH THE TOWN OF ROLESVILLE:

ROLESVILLE ROAD AT SITE DRIVEWAY B:

i. CONSTRUCT DRIVEWAY B AS A FULL-MOVEMENT ACCESS POINT ONTO ROLESVILLE ROAD WITH ONE INGRESS LANE AND ONE EGRESS LANE;
ii. CONSTRUCT AN EXCLUSIVE NORTHBOUND LEFT-TURN LANE WITH 100 FEET OF FULL- WIDTH STORAGE AND APPROPRIATE TAPER ON ROLESVILLE ROAD; AND
iii. CONSTRUCT AN EXCLUSIVE SOUTHBOUND RIGHT-TURN LANE WITH 50 FEET OF FULL- WIDTH STORAGE AND APPROPRIATE TAPER ON ROLESVILLE ROAD.

TRANSPORTATION IMPROVEMENTS: TO ADDRESS TRANSPORTATION IMPACTS REASONABLY EXPECTED TO BE GENERATED BY THE DEVELOPMENT, PRIOR TO REQUEST FOR THE FIRST BUILDING PERMIT FOR THE PROPERTY, THE FOLLOWING IMPROVEMENTS SHALL BE CONSTRUCTED AND INSTALLED AS RECOMMENDED BY THE KALAS/WATKINS FAMILY PROPERTY TIA DATED AUGUST 24, 2019, ON FILE WITH THE TOWN OF ROLESVILLE:

ROLESVILLE ROAD AT SITE DRIVEWAY C:

i. CONSTRUCT DRIVEWAY C AS A FULL-MOVEMENT ACCESS POINT ONTO ROLESVILLE ROAD WITH ONE ING3'ESS LANE AND ONE EGRESS LANE;
ii. CONSTRUCT AN EXCLUSIVE EASTBOUND RIGHT-TURN LANE WITH 100 FEET OF FULL- WIDTH STORAGE AND APPROPRIATE TAPER' ON DRIVEWAY C;
iii. CONSTRUCT AN EXCLUSIVE NORTHBOUND LEFT-TURN LANE WITH 100 FEET OF FULL- WIDTH STORAGE AND APPROPRIATE TAPER ON ROLESVILLE ROAD; AND
iv. CONSTRUCT AN EXCLUSIVE SOUTHBOUND RIGHT-TURN LANE WITH 100 FEET OF FULL-WIDTH STORAGE AND APPROPRIATE TAPER ON ROLESVILLE ROAD.

m. TRANSPORTATION IMPROVEMENTS: TO ADDRESS TRANSPORTATION IMPACTS REASONABLY EXPECTED TO BE GENERATED BY THE DEVELOPMENT, THE PROPERTY OWNER OR DEVELOPER WILL PROVIDE FOR THE FOLLOWING IMPROVEMENT IN ACCORDANCE WITH AND SUBJECT TO THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) AND TOWN OF ROLESVILLE (TOWN) APPROVAL AND STANDARDS AND SPECIFICATIONS AS RECOMMENDED BY THE KALAS/WATKINS FAMILY PROPERTY TIA DATED AUGUST 24, 2019, ON FILE WITH THE TOWN OF ROLESVILLE IN ACCORDANCE WITH THE FOLLOWING:

ROLESVILLE ROAD AT MITCHELL MILL ROAD

i. THE TOWN MAY PROVIDE A FULL SIGNAL WARRANT ANALYSIS ("TOWN WARRANT ANALYSIS") PRIOR' TO APPROVAL OF THE PLAT CONTAINING THE 100"' LOT TO BE DEVELOPED UPON THE SUBJECT PROPERTY. IF A SIGNAL IS WARRANTED AS PART OF THE TOWN WARRANT ANALYSIS, TRAFFIC SIGNAL EASEMENTS TO ACCOMMODATE TRAFFIC SIGNAL EQUIPMENT SHALL BE PROVIDED BY THE OWNER OR DEVELOPER TO THE EXTENT SUCH PROPERTY IS OWNED AND CONTROLLED BY THE OWNER OR DEVELOPER AND, WITHIN 12 MONTHS OF BEING WARRANTED AND APPROVED BY THE TOWN OF ROLESVILLE AND THE NCDOT, THE PROPERTY OWNER OR DEVELOPER SHALL DESIGN, CONSTRUCT AND INSTALL A TRAFFIC SIGNAL SUBJECT TO FINAL APPROVAL BY THE TOWN OF ROLESVILLE AND THE NCDOT.

IF THE SIGNAL IS NOT WARRANTED BY THE TOWN WARRANT ANALYSIS, THE OWNER OR DEVELOPER SHALL PROVIDE A FULL SIGNAL WARRANT ANALYSIS ("OWNER' WARRANT ANALYSIS") PRIOR' TO APPROVAL OF THE PLAT CONTAINING THE 300"' LOT TO BE DEVELOPED UPON THE SUBJECT PROPERTY. IF A SIGNAL IS WARRANTED AS PART OF THE OWNER WARRANT ANALYSIS, TRAFFIC SIGNAL EASEMENTS TO ACCOMMODATE TRAFFIC SIGNAL EQUIPMENT SHALL BE PROVIDED BY THE OWNER OR DEVELOPER TO THE EXTENT SUCH PROPERTY IS OWNED AND CONTI'O1LED BY THE OWNER OR DEVELOPED AND, WITHIN 12 MONTHS OF BEING WARRANTED AND APPROVED BY THE TOWN OF ROLESVILLE AND THE NCDOT, THE PROPERTY OWNER' OR' DEVELOPER SHALL DESIGN, CONSTRUCT AND INSTALL A TRAFFIC SIGNAL SUBJECT TO FINAL APPI'OVA1 BY THE TOWN OF ROLESVILLE AND THE NCDOT.

IF THE SIGNAL IS NOT WARRANTED BY THE OWNER WARRANT ANALYSIS, THE TOWN MAY PROVIDE A FINAL FULL SIGNAL WARRANT ANALYSIS ("FINAL WARRANT ANALYSIS") PRIOR TO APPROVAL OF THE PLAT CONTAINING THE 450" LOT TO BE DEVELOPED ON THE SUBJECT P1'OPERTY. IF A SIGNAL IS WARRANTED AS PART OF THE FINAL WARRANT ANALYSIS, TRAFFIC SIGNAL EASEMENTS TO ACCOMMODATE TRAFFIC SIGNAL EQUIPMENT SHALL BE PROVIDED BY THE OWNER OR DEVELOPER TO THE EXTENT SUCH PROPERTY IS OWNED AND CONTROLLED BY THE OWNER OR DEVELOPER AND, WITHIN 12 MONTHS OF BEING WARRANTED AND APPROVED BY THE TOWN OF ROLESVILLE AND THE NCDOT, THE PROPERTY OWNER OR DEVELOPER SHALL DESIGN, CONSTRUCT AND INSTALL A TRAFFIC SIGNAL SUBJECT TO FINAL APPROVAL BY THE TOWN OF ROLESVILLE AND THE NCDOT.

ALL TRAFFIC SIGNALS TO BE INSTALLED SHALL BE CONSTRUCTED WITH STEEL POLES WITH MAST ARMS APPROVED BY THE TOWN AND NCDOT.

n. TO ADDRESS CONCERNS RELATED TO THE TIMING OF FUTURE ROLESVILLE ROAD WIDENING, SPECIFICALLY AS IT RELATES TO THAT PORTION OF ROLESVILLE ROAD FRONTAGE BETWEEN THE NORTHERN AND SOUTHERN BOUNDARIES OF THE SUBJECT PROPERTY THAT IS NOT PART OF THIS APPLICATION (THE "ROLESVILLE ROAD RIGHT-OF-WAY GAP"), THE DEVELOPER SHALL WIDEN THE ROLESVILLE ROAD RIGHT-OF-WAY GAP TO ONE-HALF OF ITS ULTIMATE SECTION. DEVELOPER'S OBLIGATIONS HEREUNDER ARE SUBJECT TO NCDOT APPROVAL, AND THERE BEING SUFFICIENT RIGHT-OF-WAY (AND ASSOCIATED EASEMENTS) FOR SUCH IMPROVEMENTS AT THE TIME THE DEVELOPER IS PERFORMING ITS OTHER ROADWAY WIDENING OBLIGATIONS FOR THE SUBJECT PROPERTY.

STOCKPILE DESIGN CRITERIA

A. A 25-FOOT TEMPORARY MAINTENANCE AND ACCESS EASEMENT SHALL BE SHOWN AROUND ALL PROPOSED STOCKPILES (EROSION CONTROL MEASURES SURROUNDING THE STOCKPILE SHALL BE SHOWN AT THE OUTER LIMIT OF THIS EASEMENT).
B. STOCKPILE FOOTPRINTS SHALL BE SETBACK A MINIMUM OF 25' FROM ADJACENT PROPERTY LINES.
C. A NOTE SHALL BE PROVIDED ON THE APPROVED PLAN THAT STOCKPILE HEIGHT SHALL NOT EXCEED 35 FEET.
D. STOCKPILE SLOPES SHALL BE 2:1 OR FLATTER.
E. APPROVED BMPS SHALL BE SHOWN ON A PLAN TO CONTROL ANY POTENTIAL SEDIMENT LOSS FROM A STOCKPILE.
F. STOCKPILING MATERIALS ADJACENT TO A DITCH, DRAINAGEWAY, WATERCOURSE, WETLAND, STREAM BUFFER, OR OTHER BODY OF WATER SHALL BE AVOIDED UNLESS AN ALTERNATIVE LOCATION IS DEMONSTRATED TO BE UNAVAILABLE.
G. ANY CONCENTRATED FLOW LIKELY TO AFFECT THE STOCKPILE SHALL BE DIVERTED TO AN APPROVED BMP.
H. OFF-SITE SPOIL OR BORROW AREAS MUST BE IN COMPLIANCE WITH WAKE COUNTY UDO AND STATE REGULATIONS. ALL SPOIL AREAS OVER AN ACRE ARE REQUIRED TO HAVE AN APPROVED SEDIMENT CONTROL PLAN. DEVELOPER/CONTRACTOR SHALL NOTIFY WAKE COUNTY OF ANY OFFSITE DISPOSAL OF SOIL, PRIOR TO DISPOSAL. FILL OF FEMA FLOODWAYS AND NON-ENCROACHMENT AREAS ARE PROHIBITED EXCEPT AS OTHERWISE PROVIDED BY SUBSECTION 14-19-2 OF THE WAKE COUNTY UNIFIED DEVELOPMENT ORDINANCE (CERTIFICATIONS AND PERMITS REQUIRED).

NOTES FOR CONSTRUCTION:

1. PLANS FOR INFRASTRUCTURE ONLY.
2. ALL CONSTRUCTION MUST BE PERFORMED IN ACCORDANCE WITH CURRENT CITY OF RALEIGH STANDARD SPECS AND DETAILS, WAKE COUNTY SPECIFICATIONS, NCDOT SPECIFICATIONS AND TOWN OF ROLESVILLE SPECIFICATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCIES BETWEEN FIELD CONDITIONS AND THESE DRAWINGS.
4. CONTRACTOR WILL KEEP STREETS CLEAN AT ALL TIMES, OR A WASH STATION WILL BE REQUIRED.
5. ALL CATCH BASINS SHALL HAVE INLET PROTECTION.
6. ALL CUT AND FILL SLOPES MUST BE STABILIZED WITHIN 14 DAYS OF ANY PHASE OF GRADING, WITH SOME SLOPES TO BE STABALIZED WITHIN 7 DAYS AS SHOWN ON CHART TO THE LEFT AND ON THE EC SHEETS..
7. TREE PROTECTION FENCING ON THIS PROJECT WILL BE INSTALLED AND INSPECTED BEFORE THE GRADING PERMIT IS ISSUED.
8. A PRE-CONSTRUCTION CONFERENCE MAY BE REQUIRED BEFORE GRADING PERMIT IS ISSUED.
9. PERMANENT GROUND COVER WILL BE ESTABLISHED IN 15 WORKING DAYS OR 90 CALENDAR DAYS WHICHEVER IS SHORTER.
10. THE AREA DESIGNATED SHALL BE USED FOR TOPSOIL STOCKPILE.
11. THIS PROJECT IS IN THE NEUSE RIVER WATERSHED. PROJECT AREA = 44.56 ACRES.
12. WETLANDS ON THIS PROJECT ARE AS SHOWN.
13. MINIMUM CORNER CLEARANCE FROM THE CURB LINE OF INTERSECTING STREETS SHALL BE AT LEAST TWENTY (20) FEET FROM THE POINT OF TANGENCY.
14. ALL TREE PROTECTION FENCING SHALL BE MAINTAINED UNTIL ALL SITE WORK IS COMPLETED. THE FENCING SHALL BE REMOVED PRIOR TO THE FINAL SITE INSPECTION FOR THE CERTIFICATE OF OCCUPANCY (CO).
15. WITHIN THE SIGHT TRIANGLES SHOWN ON ALL SITE PLAN AND LANDSCAPE PLAN SHEETS, NO OBSTRUCTION BETWEEN 2 FEET AND 8 FEET IN HEIGHT ABOVE THE CURB LINE ELEVATION SHALL BE LOCATED IN WHOLE OR PART. OBSTRUCTIONS INCLUDE, BUT ARE NOT LIMITED TO, ANY BERM, FOLIAGE, FENCE, WALL SIGN, PARKED CAR, OR OTHER OBJECT. ALL STREET TREES FALLING WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN SHALL BE LIMBED UP BETWEEN 2 FEET AND 8 FEET IN HEIGHT ABOVE THE CURB LINE ELEVATION.
16. MINIMUM CORNER CLEARANCE FROM THE CURB LINE OF INTERSECTING STREETS SHALL BE AT LEAST 20 FEET FROM THE POINT OF TANGENCY OF THE CURB. NO DRIVEWAYS SHALL ENCROACH ON THIS MINIMUM CORNER CLEARANCE.
17. ALL STREETS SHOWN ON THESE PLANS HAVE FULL WIDTH OF RIGHT-OF-WAY CLEARED AND GRADED WITHIN 50 FEET OF ALL STREET INTERSECTIONS. THE FULL WIDTH OF RIGHT-OF-WAY SHALL BE CLEARED AND GRADED ALONG ALL MAJOR, MINOR AND SENSITIVE AREA THOROUGHFARES.
18. WHEEL CHAIR ACCESS RAMPS WILL BE PROVIDED IN ACCORDANCE WITH STANDARD DRAWING SHOWN ON DETAIL SHEETS. WHERE SIDEWALK IS NOT REQUIRED ALONG THE PUBLIC RIGHT-OF-WAY, CURB IS TO BE DEPRESSED AT ALL RAMP LOCATIONS SHOWN ON THE STANDARD DETAIL.
19. ALL INDIVIDUAL LOTS SHALL HAVE AN EROSION CONTROL PLAN SUBMITTED PRIOR TO CONSTRUCTION OF HOUSES THERE UPON. IF MULTIPLE LOTS WITH A TOTAL DISTURBED AREA OF MOTRE THAN 12,000 SF ARE TO BE BUILT UPON AT ONE TIME, A COORDINATED EROSION CONTROL PLAN SHALL BE SUBMITTED.
20. ALL PUBLIC WATER AND SEWER MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
21. CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL (1-800-632-4949) TO LOCATE ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
22. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE EXISTING UTILITIES AND NOTIFY THE PROJECT ENGINEER (919-469-1101) OF ANY CONFLICTS.
23. ALL BOUNDARY AND FIELD TOPOGRAPHY PROVIDED BY WITHERS & RAVENEL.

SUP 19-01: CONDITIONS OF APPROVAL

THE SPECIAL USE APPROVAL IS MADE SUBJECT TO THE FOLLOWING CONDITIONS:

1. OVERALL DEVELOPMENT CONDITIONS
   a. ALL ZONING CONDITIONS ATTACHED TO THE RESIDENTIAL PLANNED UNIT DEVELOPMENT CONDITIONAL USE ZONING DISTRICT (R&PUD-CZ) AS APPROVED BY CASE: MA 19-02 SHALL COMPLY WITH IS PUD MASTER PLAN.
   i. WITH RESPECT TO THE ZONING CONDITION RELATED TO THE TRAFFIC SIGNAL, IF A SIGNAL IS FOUND TO BE WARRANTED BUT THE TOWN DESIRES A ROUNDABOUT OR TRAFFIC FACILITY OTHER THAN A SIGNAL TO ADDRESS THE INTERSECTION AT MITCHELL MILL ROAD AND ROLESVILLE ROAD, THE DEVELOPER AGREES TO CONTRIBUTE A PAYMENT-IN-LIEU EQUAL TO THE COST OF CONSTRUCTION OF THE SIGNAL TO THE TOWN FOR THE ALTERNATE TRAFFIC FACILITY. THE TOWN'S ACCEPTANCE OF SUCH PAYMENT-IN-LIEU SHALL BE DEEMED A COMPLETE SATISFACTION OF THE ZONING CONDITION RELATED TO THE TRAFFIC SIGNAL.
   b. THE OWNER/DEVELOPER RESERVES THE RIGHT TO DRAIN THE EXISTING PONDS ON THE PROPERTY IF IT IS DETERMINED THAT REPAIR OR RECONSTRUCTION ARE NOT FEASIBLE OF ANY OF THE PONDS OR WILL BE UNSAFE FOR THE SURROUNDING AREA.
   c. C. TO THE EXTENT POSSIBLE, THE DEVELOPER SHALL STRIPE ON-STREET PARKING SPACES WITHIN THE PUBLIC RIGHT-OF-WAY TO ALLOW FOR CONVENIENT ACCESS TO THE PUBLIC GREENWAY.
2. CONDITIONS FOR SINGLE-FAMILY RESIDENTIAL
   a. GENERAL ARCHITECTURAL REQUIREMENTS OF THE NEIGHBORHOOD WILL BE GOVERNED BY RECORDED CONDITIONS, COVENANTS AND RESTRICTIONS. THE DEVELOPER SHALL SUBMIT A COPY OF THE CONDITIONS, COVENANTS AND RESTRICTIONS TO THE TOWN OF ROLESVILLE TO ALLOW THE TOWN ATTORNEY TO REVIEW THEM BEFORE RECORDATION.
   b. ALL REQUIRED OPEN SPACE AND DRAINAGE EASEMENTS WILL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION, WITH THE EXCEPTION OF THE PUBLIC GREENWAY.
   c. IF UNMARKED HUMAN BURIALS OR HUMAN SKELETAL REMAINS ARE ENCOUNTERED AS A RESULT OF OBSTRUCTION OR AGRICULTURAL ACTIVITIES, DISTURBANCE OF THE REMAINS SHALL CEASE IMMEDIATELY AND SHALL NOT RESUME WITHOUT AUTHORIZATION FROM EITHER THE COUNTY MEDICAL EXAMINER OR THE STATE ARCHAEOLOGIST.
   d. AT NO TIME SHALL DEVELOPMENT ACTIVITIES EXCEED THE NOISE STANDARDS SET FOR THE IN ROLESVILLE TOWN CODE OF ORDINANCES CHAPTER 130.
   e. SUBJECT TO THE APPROVAL OF THE UNITED STATES POSTAL SERVICE THE DEVELOPER SHALL PROVIDE AT LEAST TWO MAIL KIOSKS SEPARATED BY AT LEAST 500 LINEAR FEET WITHIN THE SUBDIVISION FOR MAIL SERVICE.
   f. PRIOR TO ISSU

PERMANENT DIVERSION DITCHES CHART (TRIANGULAR CROSS-SECTION)

Ditch I.D. #	D.A., AC.	C	i10, in/hr	Q10, cfs	Left Side Slope, Z	Right Side Slope, Z	Avg. Ditch Slope, %	Recommend Ditch Lining (or approved equal)	Manning, n	Min. Ditch Depth, ft	Flow Velocity V10, fps	Calc.Shear Stress, psf	Allowable Linear Shear Stress, psf
PDD #1	1.98	0.50	7.20	7.13	3.00	3.00	6.00	Profile/Enkamat; 7003 (BFM)	0.033	1.25	5.02	4.68	5.00
PDD #2	1.80	0.50	7.20	6.48	3.00	3.00	7.00	Profile/Enkamat; 7003 (BFM)	0.033	1.00	5.27	4.37	5.00
PDD #3	1.58	0.50	7.20	5.69	3.00	3.00	8.00	Profile/Enkamat; 7003 (BFM)	0.033	1.00	5.44	4.99	5.00
PDD #4A	2.72	0.50	7.20	9.79	3.00	3.00	8.00	Profile/Enkamat; 7010 – 7220, seed, BFM; Veg	0.033	1.25	6.12	6.24	8.00
PDD #4B	1.45	0.50	7.20	5.22	3.00	3.00	2.00	E. Coast Ero. Blank.; Straw/Coir, 2 nets	0.033	1.25	2.96	1.56	2.60
PDD #5	0.89	0.50	7.20	3.20	3.00	3.00	2.00	Am. Excelsior Co.; Straw; 1 net	0.033	1.00	2.77	1.25	1.55
PDD #6	0.96	0.50	7.20	3.46	3.00	3.00	2.00	Am. Excelsior Co.; Straw; 1 net	0.033	1.00	2.81	1.25	1.55
PDD #7	3.91	0.50	7.20	14.08	3.00	3.00	2.50	E. Coast Ero. Blank.; Straw/Coir, 2 nets	0.033	1.50	4.33	2.34	2.60
PDD #8	0.73	0.50	7.20	2.63	3.00	3.00	3.00	NAG; 70% straw: 30% Coconut; double net	0.033	1.00	2.99	1.87	2.00
TDD #1	3.09	0.50	7.20	11.12	3.00	3.00	2.00	E. Coast Ero. Blank.; Straw/Coir, 2 nets	0.033	1.25	2.95	1.56	2.00
TDD #2	5.87	0.50	7.20	21.13	3.00	3.00	2.00	N. Am. Green; Coconut; double net	0.033	1.75	3.93	2.18	3.00

ADDRESSING PLAN

LOT #	STREET #	STREET NAME	USE	MAX IMP. COVERAGE
123	241	KIRKENDELL ST.	SFD	4065 SF
124	237	KIRKENDELL ST.	SFD	4065 SF
125	233	KIRKENDELL ST.	SFD	4065 SF
126	229	KIRKENDELL ST.	SFD	4065 SF
127	225	KIRKENDELL ST.	SFD	4065 SF
128	221	KIRKENDELL ST.	SFD	4065 SF
129	217	KIRKENDELL ST.	SFD	4065 SF
130	213	KIRKENDELL ST.	SFD	4065 SF
131	201	KIRKENDELL ST.	SFD	4065 SF
132	200	KIRKENDELL ST.	SFD	4065 SF
133	1208	PLUMFORD RIDGE DR.	SFD	4065 SF
134	1212	PLUMFORD RIDGE DR.	SFD	4065 SF
135	1216	PLUMFORD RIDGE DR.	SFD	4065 SF
136	1220	PLUMFORD RIDGE DR.	SFD	4065 SF
137	1224	PLUMFORD RIDGE DR.	SFD	4065 SF
138	1228	PLUMFORD RIDGE DR.	SFD	4065 SF
139	1232	PLUMFORD RIDGE DR.	SFD	4065 SF
140	1236	PLUMFORD RIDGE DR.	SFD	4065 SF
141	1240	PLUMFORD RIDGE DR.	SFD	4065 SF
142	1244	PLUMFORD RIDGE DR.	SFD	4065 SF
143	1248	PLUMFORD RIDGE DR.	SFD	4065 SF
144	264	KIRKENDELL ST.	SFD	4065 SF
145	1241	PLUMFORD RIDGE DR.	SFD	4065 SF
146	1237	PLUMFORD RIDGE DR.	SFD	4065 SF
147	1233	PLUMFORD RIDGE DR.	SFD	4065 SF
148	1229	PLUMFORD RIDGE DR.	SFD	4065 SF
149	1225	PLUMFORD RIDGE DR.	SFD	4065 SF
150	1221	PLUMFORD RIDGE DR.	SFD	4065 SF
151	212	KIRKENDELL ST.	SFD	4065 SF
152	216	KIRKENDELL ST.	SFD	4065 SF
153	220	KIRKENDELL ST.	SFD	4065 SF
154	224	KIRKENDELL ST.	SFD	4065 SF
155	228	KIRKENDELL ST.	SFD	4065 SF
156	232	KIRKENDELL ST.	SFD	4065 SF
157	236	KIRKENDELL ST.	SFD	4065 SF
158	252	KIRKENDELL ST.	SFD	4065 SF
159	260	KIRKENDELL ST.	SFD	4065 SF
160	1300	PLUMFORD RIDGE DR.	SFD	4065 SF
161	1304	PLUMFORD RIDGE DR.	SFD	4065 SF
162	1308	PLUMFORD RIDGE DR.	SFD	4065 SF
163	1312	PLUMFORD RIDGE DR.	SFD	4065 SF
164	1316	PLUMFORD RIDGE DR.	SFD	4065 SF
165	1320	PLUMFORD RIDGE DR.	SFD	4065 SF
166	1324	PLUMFORD RIDGE DR.	SFD	4065 SF
167	1328	PLUMFORD RIDGE DR.	SFD	4065 SF
168	1332	PLUMFORD RIDGE DR.	SFD	4065 SF
169	1336	PLUMFORD RIDGE DR.	SFD	4065 SF
170	1340	PLUMFORD RIDGE DR.	SFD	4065 SF
171	1344	PLUMFORD RIDGE DR.	SFD	4065 SF
172	8100	ELAM FIELD DR.	SFD	4065 SF
173	8104	ELAM FIELD DR.	SFD	4065 SF
174	8108	ELAM FIELD DR.	SFD	4065 SF
175	8112	ELAM FIELD DR.	SFD	4065 SF
176	8105	ELAM FIELD DR.	SFD	4065 SF
177	1333	PLUMFORD RIDGE DR.	SFD	4065 SF
178	1329	PLUMFORD RIDGE DR.	SFD	4065 SF
179	1325	PLUMFORD RIDGE DR.	SFD	4065 SF
180	7104	STANNER HILL DR.	SFD	4065 SF
181	7108	STANNER HILL DR.	SFD	4065 SF
182	7112	STANNER HILL DR.	SFD	4065 SF
183	7116	STANNER HILL DR.	SFD	4065 SF
184	7113	STANNER HILL DR.	SFD	4065 SF
185	7109	STANNER HILL DR.	SFD	4065 SF
186	7105	STANNER HILL DR.	SFD	4065 SF
187	1321	STANNER HILL DR.	SFD	4065 SF
188	1317	STANNER HILL DR.	SFD	4065 SF
189	1309	STANNER HILL DR.	SFD	4065 SF
190	265	KIRKENDELL ST.	SFD	4065 SF
191	261	KIRKENDELL ST.	SFD	4065 SF
192	257	KIRKENDELL ST.	SFD	4065 SF
275	253	KIRKENDELL ST.	SFD	4065 SF
455	249	KIRKENDELL ST.	SFD	4065 SF

NOTE: ALL PERMANENT DIVERSION DITCHES (PDD) CROSS SECTIONS ARE TRIANGULAR.
TRACTIVE FORCE, τ, IS CALCULATED USING: $\tau = (\gamma)(D_{DWN})(S_{CHAN})$
WHERE:
- γ IS THE UNIT WEIGHT OF WATER (ASSUMED TO BE 62.4 LB/FT^3)
- D_{DWN} IS THE DEPTH OF FLOW IN THE CHANNEL (FT/FT)
- S_{CHAN} IS THE SLOPE OF THE CHANNEL (FT/FT)

PLEASE SEE PERMANENT DIVERSION DITCH NOMENCLATURE ON GRADING ENLARGEMENT SHEETS WITHIN THIS PLANSET.

FEATURES ADRESSING PLAN

FEATURE	STREET #	STREET NAME
SIGN NORTH	8125	ELAM FIELD DR.
SIGN SOUTH	8124	ELAM FIELD DR.
OPEN SPACE 1	8120	ELAM FIELD DR.
OPEN SPACE 2	245	KIRKENDELL ST.
OPEN SPACE 3	1200	PLUMFORD RIDGE DR.
OPEN SPACE 4	1213	PLUMFORD RIDGE DR.
RETAINING WALL 1	8116	ELAM FIELD DR.
RETAINING WALL 2	7110	ELAM FIELD DR.
RETAINING WALL 3	7115	STANNER HILL DR.
RETAINING WALL 4	247	KIRKENDELL ST.
RETAINING WALL 5	231	KIRKENDELL ST.
RETAINING WALL 6	1235	PLUMFORD RIDGE DR.
RETAINING WALL 7	1234	PLUMFORD RIDGE DR.
RETAINING WALL 8	1314	PLUMFORD RIDGE DR.

NOTE: THE POCKET PARK, SEEN WITHIN OPEN SPACE 4 AREA, HAS 7,400 SF IMPERVIOUS ALLOCATION INCLUDED WITHIN THE PROJECT STORMWATER CALCULATIONS.

Rip Rap Dissipater Calculations (10-Year Storm)

Outlet ID	Pipe Diameter (in)	Pipe Velocity (fps)	Stone Class	Stone Depth (in)	Start Width (ft)	End Width (ft)	Length (ft)
FES 200	30	1.80	B	18	5.0	15.0	10.0
FES 400	24	5.31	B	18	4.0	12.0	8.0
FES 410	24	5.12	B	18	4.0	12.0	8.0
FES 420	30	7.85	B	18	5.0	15.0	10.0
FES 450	24	5.68	B	18	4.0	12.0	8.0
FES 480	18	3.93	B	18	3.0	9.0	6.0
FES 490	24	10.41	B	18	4.0	12.0	8.0
FES 500	30	6.62	B	18	5.0	15.0	10.0
FES 550	30	8.47	B	18	5.0	15.0	10.0
Temp. RR #11	24	10.25	B	18	4.0	12.0	8.0
Temp. RR #12	18	7.38	B	18	3.0	9.0	6.0

Calculations were determined from NCDOT Detail 876.02 Guide for Rip Rap at Pipe Outlets

Values shown in table above are minimum quantities and dimensions

TEMPORARY SEDIMENT TRAP TABLE

Basin No. (ft-elev.)	Bottom Elev. (ft-elev.)	Top of Dam Elev. (ft-elev.)	Top of Riser Elev. (ft-elev.)	Spillway Elev. (ft-elev.)	Weir Length (ft)	Riser/Barrel Size	Basin Dimensions			Skimmer Size (in)	Skimmer Hole Size (in)	Dewatering Time (days)	Drainage Area (AC)
							At Top Of Dam	At Emergency Spillway	At Bottom Of Basin				
TSKB #1	352.00	356.00	N/A	354.00	12	N/A	50'x110'	N/A	26'x86'	3	2	3.17	8.15
TSB #4A	333.00	345.50	343.00	343.50	20'	4' x 4'	**	**	**	2.5	1.75	3.53	6.33
TSB #4D	275.00	286.50	284.00	284.50	20'	4' X 4'	**	**	**	4	2	3.47	10.28
TSB #5A	270.00	281.50	279.00	280.00	20'	4' x 4'	**	**	**	4	2	3.28	9.72
*Side x side x depth			**=irregular, see plans										

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PH4 - Sanitary Sewer - STRUCTURE TABLE

STRUCTURE NAME:	DESCRIPTION	PIPES IN:	PIPES OUT
EX MH 7	SSWR MH 5' RIM = 270.18 INV IN = 261.15	8" SDR35 INV.=261.15	*15" SDR 26 INV.=260.57*
EX MH 322A	SSWR MH 4' RIM = 367.45 INV IN = 359.46	8" SDR35 INV.=359.46	*8" SDR 26 INV.=359.26*
MH 330	SSWR MH 4' RIM = 365.75 INV IN = 361.25 INV OUT = 361.05	8" SDR35 INV.=361.25	8" SDR35 INV.=361.05
MH 331	SSWR MH 4' RIM = 371.85 INV IN = 364.20 INV IN = 364.20 INV OUT = 364.00	8" SDR35 INV.=364.20 8" SDR35 INV.=364.20	8" SDR35 INV.=364.00
MH 332	SSWR MH 4' RIM = 374.30 INV IN = 365.89 INV OUT = 365.69	8" SDR35 INV.=365.89	8" SDR35 INV.=365.69
MH 333	SSWR MH 4' RIM = 375.58 INV OUT = 367.07	N/A	8" SDR35 INV.=367.07
MH 334	SSWR MH 4' RIM = 369.36 INV OUT = 365.19	N/A	8" SDR35 INV.=365.19
MH 400	SSWR MH 4' RIM = 271.30 INV IN = 263.38 INV OUT = 263.18	8" SDR35 INV.=263.38	8" SDR35 INV.=263.18
MH 401	SSWR MH 4' RIM = 281.84 INV IN = 274.29 INV OUT = 272.09	8" SDR35 INV.=274.29	8" SDR35 INV.=272.09
MH 402	SSWR MH 4' RIM = 296.47 INV IN = 285.60 INV OUT = 285.40	8" SDR 26 INV.=285.60	8" SDR35 INV.=285.40
MH 403	SSWR MH 5' RIM = 300.78 INV IN = 289.80 INV IN = 289.80 INV OUT = 287.40	8" SDR35 INV.=289.80 8" SDR35 INV.=289.80	8" SDR 26 INV.=287.40
MH 404	SSWR MH 4' RIM = 314.30 INV IN = 304.30 INV OUT = 304.10	8" SDR35 INV.=304.30	8" SDR35 INV.=304.10
MH 405	SSWR MH 4' RIM = 332.16 INV IN = 320.20 INV OUT = 320.00	8" SDR35 INV.=320.20	8" SDR35 INV.=320.00
MH 406	SSWR MH 4' RIM = 351.27 INV IN = 338.20 INV OUT = 338.00	8" SDR35 INV.=338.20	8" SDR35 INV.=338.00
MH 407	SSWR MH 4' RIM = 356.35 INV IN = 345.20 INV OUT = 345.00	8" SDR35 INV.=345.20	8" SDR35 INV.=345.00
MH 408	SSWR MH 4' RIM = 360.32 INV IN = 349.60 INV OUT = 349.40	8" SDR35 INV.=349.60	8" SDR35 INV.=349.40
MH 409	SSWR MH 4' RIM = 362.11 INV IN = 350.40 INV OUT = 350.20	8" SDR 26 INV.=350.40	8" SDR35 INV.=350.20
MH 410	SSWR MH 5' RIM = 367.12 INV IN = 354.30 INV IN = 351.80 INV OUT = 351.60	8" SDR 26 INV.=354.30 8" SDR 26 INV.=351.80	8" SDR 26 INV.=351.60
MH 411	SSWR MH 4' RIM = 370.66 INV IN = 361.40 INV OUT = 361.20	8" SDR35 INV.=361.40	8" SDR 26 INV.=361.20
MH 412	SSWR MH 4' RIM = 372.35 INV IN = 363.50 INV IN = 363.50 INV OUT = 363.30	8" SDR35 INV.=363.50 8" SDR35 INV.=363.50	8" SDR35 INV.=363.30
MH 413	SSWR MH 4' RIM = 373.96 INV IN = 365.71 INV OUT = 365.51	8" SDR35 INV.=365.71	8" SDR35 INV.=365.51
MH 414	SSWR MH 4' RIM = 374.62 INV OUT = 366.43	N/A	8" SDR35 INV.=366.43
MH 415	SSWR MH 4' RIM = 368.23 INV OUT = 364.75	N/A	8" SDR35 INV.=364.75
MH 420	SSWR MH 4' RIM = 365.53 INV IN = 357.70 INV OUT = 357.50	8" SDR35 INV.=357.70	8" SDR 26 INV.=357.50
MH 421	SSWR MH 4' RIM = 367.85 INV IN = 360.18 INV OUT = 359.65	8" SDR35 INV.=360.18	8" SDR35 INV.=359.65
MH 422	SSWR MH 4' RIM = 372.57 INV OUT = 364.33	N/A	8" SDR35 INV.=364.33
MH 430	SSWR MH 4' RIM = 302.60 INV IN = 293.20 INV OUT = 293.00	8" SDR35 INV.=293.20	8" SDR35 INV.=293.00
MH 431	SSWR MH 4' RIM = 309.76 INV IN = 300.90 INV OUT = 300.50	8" SDR35 INV.=300.90	8" SDR35 INV.=300.50
MH 432	SSWR MH 4' RIM = 318.22 INV IN = 309.37 INV OUT = 309.17	8" SDR35 INV.=309.37	8" SDR35 INV.=309.17
MH 433	SSWR MH 4' RIM = 328.16 INV IN = 318.25 INV OUT = 318.05	8" SDR35 INV.=318.25	8" SDR35 INV.=318.05
MH 434	SSWR MH 4' RIM = 354.53 INV IN = 343.24 INV OUT = 343.04	8" SDR35 INV.=343.24	8" SDR35 INV.=343.04
MH 435	SSWR MH 4' RIM = 369.52 INV OUT = 361.10	N/A	8" SDR35 INV.=361.10

PH4-Storm 5A - Structure Table

Structure Name	Details
CB-504	RIM = 308.78 INV IN = 301.75 INV OUT = 297.12
CB-505	RIM = 308.77 INV IN = 302.52 INV IN = 302.52 INV OUT = 302.02
CB-506	RIM = 320.27 INV IN = 314.20 INV OUT = 314.00
CB-507	RIM = 332.89 INV IN = 325.70 INV IN = 325.70 INV OUT = 325.50
CB-507B	RIM = 332.90 INV OUT = 326.00
CB-508	RIM = 360.44 INV IN = 353.70 INV IN = 353.70 INV OUT = 353.50
CB-508B	RIM = 360.44 INV OUT = 355.00
CB-510A	RIM = 371.92 INV IN = 367.30 INV OUT = 367.10
CB-510B	RIM = 371.94 INV IN = 367.07 INV OUT = 366.87
CB-511A	RIM = 371.99 INV IN = 368.77 INV OUT = 367.57
CB-511B	RIM = 372.10 INV OUT = 368.84
CB-520	RIM = 369.17 INV IN = 361.19 INV IN = 360.15 INV OUT = 359.95
CB-521	RIM = 369.17 INV OUT = 361.66
FES-500	INV IN = 276.00
JB-502	RIM = 295.63 INV IN = 288.75 INV OUT = 282.25
JB-503	RIM = 304.17 INV IN = 294.40 INV OUT = 291.40
JB-509	RIM = 372.17 INV IN = 359.10 INV IN = 365.40 INV OUT = 358.90
YD-501	RIM = 280.87 INV IN = 277.50 INV IN = 277.50 INV OUT = 277.00
YD-522	RIM = 363.71 INV OUT = 360.73
YD-540	RIM = 308.13 INV IN = 303.75 INV OUT = 303.50
YD-541	RIM = 344.01 INV IN = 339.00 INV OUT = 336.75
YD-542	RIM = 352.79 INV IN = 348.20 INV OUT = 348.00
YD-543	RIM = 362.37 INV OUT = 356.61
YD-550	RIM = 280.53 INV IN = 278.00 INV OUT = 277.80
YD-551	RIM = 297.06 INV IN = 290.00 INV OUT = 286.00
YD-552	RIM = 306.92 INV IN = 300.40 INV OUT = 293.40
YD-553	RIM = 328.52 INV IN = 322.50 INV OUT = 321.00
YD-554	RIM = 349.17 INV IN = 344.00 INV OUT = 342.00
YD-555	RIM = 364.12 INV OUT = 360.81

PH4-Storm 4D - Structure Table

Structure Name	Details
CB-451A	RIM = 294.92 INV IN = 288.20 INV OUT = 288.00
CB-451B	RIM = 294.96 INV OUT = 288.39
CB-452	RIM = 300.26 INV IN = 294.03 INV OUT = 291.68
CB-453	RIM = 300.48 INV IN = 294.50 INV IN = 294.50 INV OUT = 294.30
CB-454	RIM = 303.43 INV IN = 296.20 INV IN = 296.75 INV OUT = 296.00
CB-454B	RIM = 303.42 INV OUT = 297.73
CB-455	RIM = 326.49 INV IN = 319.30 INV IN = 319.55 INV OUT = 318.80
CB-455B	RIM = 326.49 INV OUT = 319.71
CB-456	RIM = 344.49 INV IN = 336.05 INV IN = 336.05 INV OUT = 335.80
CB-456B	RIM = 344.49 INV OUT = 337.27
CB-457	RIM = 352.41 INV IN = 344.60 INV OUT = 344.40
CB-458	RIM = 357.31 INV IN = 351.20 INV IN = 351.20 INV OUT = 351.00
CB-459	RIM = 360.16 INV IN = 352.60 INV IN = 352.60 INV OUT = 352.40
CB-459B	RIM = 360.13 INV OUT = 352.87
CB-461	RIM = 363.16 INV IN = 355.60 INV OUT = 355.40
CB-462	RIM = 363.16 INV OUT = 355.89
CB-470	RIM = 305.66 INV IN = 298.50 INV OUT = 298.30
FES-450	INV IN = 280.50
FES-480	INV IN = 281.00
JB-451	RIM = 296.52 INV IN = 288.00 INV IN = 286.75 INV OUT = 285.00
YD-458A	RIM = 354.62 INV OUT = 351.54
YD-461A	RIM = 359.78 INV IN = 355.10 INV OUT = 354.90
YD-471	RIM = 302.42 INV IN = 299.20 INV OUT = 299.00
YD-471A	RIM = 305.39 INV IN = 301.20 INV OUT = 301.00
YD-472	RIM = 322.48 INV IN = 318.00 INV OUT = 315.00
YD-473	RIM = 340.87 INV OUT = 334.80
YD-481	RIM = 297.80 INV IN = 289.94 INV OUT = 285.50
YD-482	RIM = 306.70 INV IN = 301.41 INV OUT = 296.62
YD-483	RIM = 339.23 INV OUT = 332.03

PH4 4A Out - Structure Table

Structure Name	Details
CS-421	RIM = 342.64 INV OUT = 337.50
FES-420	INV IN = 337.00

PH4-Storm 4A - Structure Table

Structure Name	Details
CB-402	RIM = 366.77 INV IN = 357.75 INV IN = 355.10 INV OUT = 352.34
CB-404	RIM = 373.58 INV IN = 361.80 INV OUT = 361.60
CB-405	RIM = 373.58 INV OUT = 362.07
CB-406A	RIM = 364.80 INV IN = 356.70 INV IN = 356.70 INV OUT = 356.50
CB-406B	RIM = 364.80 INV OUT = 356.73
CB-407A	RIM = 364.80 INV IN = 358.00 INV IN = 357.20 INV OUT = 357.00
CB-407B	RIM = 364.80 INV OUT = 358.03
CB-410	RIM = 370.32 INV IN = 361.60 INV IN = 361.01 INV OUT = 361.40
CB-411	RIM = 369.51 INV IN = 362.10 INV OUT = 361.90
CB-412	RIM = 369.51 INV OUT = 362.25
CB-422	RIM = 369.02 INV IN = 358.20 INV OUT = 353.21
CB-423	RIM = 367.92 INV IN = 360.20 INV OUT = 360.00
CB-424	RIM = 368.10 INV OUT = 360.27
FES-400	INV IN = 339.00
FES-408	INV OUT = 358.50
FES-410	INV IN = 340.66
JB-401	RIM = 358.49 INV IN = 350.80 INV OUT = 343.50
JB-403	RIM = 371.85 INV IN = 360.20 INV IN = 360.20 INV OUT = 360.00
JB-421	RIM = 363.71 INV IN = 347.95 INV IN = 343.20 INV OUT = 343.00
JB-430	RIM = 355.63 INV IN = 345.70 INV OUT = 345.50
YD-415	RIM = 364.69 INV OUT = 362.07
YD-431	RIM = 349.67 INV IN = 346.70 INV OUT = 346.50
YD-432	RIM = 352.54 INV IN = 348.55 INV OUT = 348.35
YD-433	RIM = 357.33 INV OUT = 353.30

Ph4 4D Out - Structure Table

Structure Name	Details
CS-491	RIM = 280.00 INV OUT = 275.35
FES-490	INV IN = 273.00

Ph4 5A Out - Structure Table

Structure Name	Details
CS-551	RIM = 279.25 INV OUT = 269.50
FES-550	INV IN = 268.50

Ph4 Culverts - Structure Table

Structure Name	Details
FES 100	INV OUT = 350.00
FES 200	INV IN = 342.60

AMERICAN Engineering
American Engineering Associates - Southeast, P.A.
4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 052383 ENGINEER ROMAN S. COOK 15:26:07-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

THIS DRAWING WAS PREPARED FOR USE ON THE SPECIFIC SITE, NAMED HEREON, CONTEMPORANEOUSLY WITH ITS ISSUE DATE AS LISTED, HEREON, AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:

SCHEDULES

SHEET NO.:

G1.2

North Carolina 811 Before You Dig
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

PH4 - Sanitary Sewer - PIPE SUMMARY

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	PIPE SIZE	PIPE MATERIAL	LENGTH	SLOPE	DOWNSTREAM INVERT (FT)	UPSTREAM INVERT (FT)
MH 330	EX MH 322A	8"	SDR35	273.76	0.58%	359.46	361.05
MH 331	MH 330	8"	SDR35	398.75	0.69%	361.25	364.00
MH 332	MH 331	8"	SDR35	167.69	0.89%	364.20	365.69
MH 333	MH 332	8"	SDR35	118.04	1.00%	365.89	367.07
MH 334	MH 331	8"	SDR35	165.39	0.60%	364.20	365.19
MH 400	Ex MH 7	8"	SDR35	25.40	7.98%	261.15	263.18
MH 401	MH 400	8"	SDR35	124.36	7.00%	263.38	272.09
MH 402	MH 401	8"	SDR35	222.30	5.00%	274.29	285.40
MH 403	MH 402	8"	SDR 26	94.18	1.91%	285.60	287.40
MH 404	MH 403	8"	SDR35	189.65	7.54%	289.80	304.10
MH 405	MH 404	8"	SDR35	198.43	7.91%	304.30	320.00
MH 406	MH 405	8"	SDR35	218.54	8.14%	320.20	338.00
MH 407	MH 406	8"	SDR35	81.19	8.38%	338.20	345.00
MH 408	MH 407	8"	SDR35	103.42	4.06%	345.20	349.40
MH 409	MH 408	8"	SDR35	58.58	1.02%	349.60	350.20
MH 410	MH 409	8"	SDR 26	113.89	1.05%	350.40	351.60
MH 411	MH 410	8"	SDR 26	101.71	6.78%	354.30	361.20
MH 412	MH 411	8"	SDR35	181.81	1.05%	361.40	363.30
MH 413	MH 412	8"	SDR35	290.55	0.69%	363.50	365.51
MH 414	MH 413	8"	SDR35	72.08	1.00%	365.71	366.43
MH 415	MH 412	8"	SDR35	157.67	0.79%	363.50	364.75
MH 420	MH 410	8"	SDR 26	283.19	2.01%	351.80	357.50
MH 421	MH 420	8"	SDR35	129.93	1.50%	357.70	359.65
MH 422	MH 421	8"	SDR35	94.41	4.39%	360.18	364.33
MH 430	MH 403	8"	SDR35	97.03	3.30%	289.80	293.00
MH 431	MH 430	8"	SDR35	111.83	6.53%	293.20	300.50
MH 432	MH 431	8"	SDR35	102.57	8.07%	300.90	309.17
MH 433	MH 432	8"	SDR35	108.39	8.00%	309.37	318.05
MH 434	MH 433	8"	SDR35	291.67	8.50%	318.25	343.04
MH 435	MH 434	8"	SDR35	297.74	6.00%	343.24	361.10

PH4-Storm 4A - PIPE SUMMARY

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	PIPE SIZE	PIPE MATERIAL	LENGTH	SLOPE	DOWNSTREAM INVERT (FT)	UPSTREAM INVERT (FT)
CB-402	JB-401	24"	Reinforced Concrete Pipe	38.61	4.00%	350.80	352.34
CB-404	JB-403	15"	Reinforced Concrete Pipe	81.66	1.71%	360.20	361.60
CB-405	CB-404	15"	Reinforced Concrete Pipe	27.00	1.00%	361.80	362.07
CB-406A	CB-402	18"	Reinforced Concrete Pipe	175.96	0.80%	355.10	356.50
CB-406B	CB-406A	15"	Reinforced Concrete Pipe	4.99	0.60%	356.70	356.73
CB-407A	CB-406A	18"	Reinforced Concrete Pipe	41.00	0.73%	356.70	357.00
CB-407B	CB-407A	15"	Reinforced Concrete Pipe	4.99	0.60%	358.00	358.03
CB-410	JB-403	15"	Reinforced Concrete Pipe	127.52	0.94%	360.20	361.40
CB-411	CB-410	15"	Reinforced Concrete Pipe	52.35	0.57%	361.60	361.90
CB-412	CB-411	15"	Reinforced Concrete Pipe	27.00	0.56%	362.10	362.25
CB-422	JB-421	15"	Reinforced Concrete Pipe	131.43	4.00%	347.95	353.21
CB-423	CB-422	15"	Reinforced Concrete Pipe	58.96	3.05%	358.20	360.00
CB-424	CB-423	15"	Reinforced Concrete Pipe	7.27	1.00%	360.20	360.27
FES-408	CB-407A	15"	Reinforced Concrete Pipe	35.87	3.62%	357.20	358.50
JB-401	FES-400	24"	Reinforced Concrete Pipe	56.09	8.02%	339.00	343.50
JB-403	CB-402	18"	Reinforced Concrete Pipe	318.22	0.71%	357.75	360.00
JB-421	FES-410	24"	Reinforced Concrete Pipe	65.14	3.59%	340.66	343.00
JB-430	JB-421	24"	Reinforced Concrete Pipe	98.46	2.34%	343.20	345.50
YD-415	CB-410	15"	Reinforced Concrete Pipe	211.36	0.50%	361.01	362.07
YD-431	JB-430	24"	Reinforced Concrete Pipe	87.16	0.92%	345.70	346.50
YD-432	YD-431	18"	Reinforced Concrete Pipe	123.03	1.34%	346.70	348.35
YD-433	YD-432	15"	Reinforced Concrete Pipe	239.52	1.98%	348.55	353.30

PH4 4A Out - PIPE SUMMARY

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	PIPE SIZE	PIPE MATERIAL	LENGTH	SLOPE	DOWNSTREAM INVERT (FT)	UPSTREAM INVERT (FT)
CS-421	FES-420	30"	Reinforced Concrete Pipe**	54.76	0.91%	337.00	337.50

PH4-Storm 4D - PIPE SUMMARY

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	PIPE SIZE	PIPE MATERIAL	LENGTH	SLOPE	DOWNSTREAM INVERT (FT)	UPSTREAM INVERT (FT)
CB-451A	JB-451	15"	Reinforced Concrete Pipe	31.99	3.91%	286.75	288.00
CB-451B	CB-451A	15"	Reinforced Concrete Pipe	6.06	3.18%	288.20	288.39
CB-452	JB-451	24"	Reinforced Concrete Pipe	92.02	4.00%	288.00	291.68
CB-453	CB-452	24"	Reinforced Concrete Pipe	27.02	1.00%	294.03	294.30
CB-454	CB-453	18"	Reinforced Concrete Pipe	42.48	3.53%	294.50	296.00
CB-454B	CB-454	15"	Reinforced Concrete Pipe	27.02	3.64%	296.75	297.73
CB-455	CB-454	18"	Reinforced Concrete Pipe	280.75	8.05%	296.20	318.80
CB-455B	CB-455	15"	Reinforced Concrete Pipe	27.01	0.60%	319.55	319.71
CB-456	CB-455	18"	Reinforced Concrete Pipe	200.00	8.25%	319.30	335.80
CB-456B	CB-456	15"	Reinforced Concrete Pipe	27.00	4.52%	336.05	337.27
CB-457	CB-456	15"	Reinforced Concrete Pipe	98.70	8.46%	336.05	344.40
CB-458	CB-457	15"	Reinforced Concrete Pipe	87.43	7.32%	344.60	351.00
CB-459	CB-458	15"	Reinforced Concrete Pipe	76.44	1.57%	351.20	352.40
CB-459B	CB-459	15"	Reinforced Concrete Pipe	26.90	1.00%	352.60	352.87
CB-461	YD-461A	15"	Reinforced Concrete Pipe	25.37	1.18%	355.10	355.40
CB-462	CB-461	15"	Reinforced Concrete Pipe	27.00	1.08%	355.60	355.89
CB-470	CB-453	15"	Reinforced Concrete Pipe	99.09	3.84%	294.50	298.30
JB-451	FES-450	24"	Reinforced Concrete Pipe	71.08	6.33%	280.50	285.00
YD-458A	CB-458	15"	Reinforced Concrete Pipe	33.75	1.00%	351.20	351.54
YD-461A	CB-459	15"	Reinforced Concrete Pipe	49.94	4.61%	352.60	354.90
YD-471	CB-470	15"	Reinforced Concrete Pipe	38.69	1.29%	298.50	299.00
YD-471A	YD-471	15"	Reinforced Concrete Pipe	66.17	2.72%	299.20	301.00
YD-472	YD-471A	15"	Reinforced Concrete Pipe	200.38	6.89%	301.20	315.00
YD-473	YD-472	15"	Reinforced Concrete Pipe	199.61	8.42%	318.00	334.80
YD-481	FES-480	18"	Reinforced Concrete Pipe	82.32	5.47%	281.00	285.50
YD-482	YD-481	18"	Reinforced Concrete Pipe	167.03	4.00%	289.94	296.62
YD-483	YD-482	15"	Reinforced Concrete Pipe	356.06	8.60%	301.41	332.03

Ph4 4D Out - PIPE SUMMARY

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	PIPE SIZE	PIPE MATERIAL	LENGTH	SLOPE	DOWNSTREAM INVERT (FT)	UPSTREAM INVERT (FT)
CS-491	FES-490	24"	Reinforced Concrete Pipe**	76.16	3.09%	273.00	275.35

PH4-Storm 5A - PIPE SUMMARY

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	PIPE SIZE	PIPE MATERIAL	LENGTH	SLOPE	DOWNSTREAM INVERT (FT)	UPSTREAM INVERT (FT)
CB-504	JB-503	24"	Reinforced Concrete Pipe	67.78	4.01%	294.40	297.12
CB-505	CB-504	24"	Reinforced Concrete Pipe	26.96	1.00%	301.75	302.02
CB-506	CB-505	18"	Reinforced Concrete Pipe	131.16	8.75%	302.52	314.00
CB-507	CB-506	18"	Reinforced Concrete Pipe	129.45	8.73%	314.20	325.50
CB-507B	CB-507	15"	Reinforced Concrete Pipe	27.00	1.11%	325.70	326.00
CB-508	CB-507	18"	Reinforced Concrete Pipe	321.35	8.65%	325.70	353.50
CB-508B	CB-508	15"	Reinforced Concrete Pipe	27.00	4.81%	353.70	355.00
CB-510A	CB-510B	15"	Reinforced Concrete Pipe	6.86	0.50%	367.07	367.10
CB-510B	JB-509	15"	Reinforced Concrete Pipe	33.94	4.33%	365.40	366.87
CB-511A	CB-510A	15"	Reinforced Concrete Pipe	27.00	1.00%	367.30	367.57
CB-511B	CB-511A	15"	Reinforced Concrete Pipe	6.96	1.00%	368.77	368.84
CB-520	JB-509	15"	Reinforced Concrete Pipe	161.15	0.53%	359.10	359.95
CB-521	CB-520	15"	Reinforced Concrete Pipe	27.00	1.74%	361.19	361.66
JB-502	YD-501	24"	Reinforced Concrete Pipe	67.33	7.05%	277.50	282.25
JB-503	JB-502	24"	Reinforced Concrete Pipe	62.96	4.21%	288.75	291.40
JB-509	CB-508	18"	Reinforced Concrete Pipe	351.23	1.48%	353.70	358.90
YD-501	FES-500	30"	Reinforced Concrete Pipe	45.77	2.18%	276.00	277.00
YD-522	CB-520	15"	Reinforced Concrete Pipe	107.48	0.54%	360.15	360.73
YD-540	CB-505	18"	Reinforced Concrete Pipe	37.01	2.65%	302.52	303.50
YD-541	YD-540	15"	Reinforced Concrete Pipe	400.22	8.25%	303.75	336.75
YD-542	YD-541	15"	Reinforced Concrete Pipe	146.08	6.16%	339.00	348.00
YD-543	YD-542	15"	Reinforced Concrete Pipe	120.11	7.00%	348.20	356.61
YD-550*	YD-501*	18"	Reinforced Concrete Pipe	32.14	0.93%	277.50	277.80
YD-551*	YD-550*	18"	Reinforced Concrete Pipe	152.07	5.26%	278.00	286.00
YD-552	YD-551	18"	Reinforced Concrete Pipe	41.59	8.17%	290.00	293.40
YD-553	YD-552	15"	Reinforced Concrete Pipe	257.14	8.01%	300.40	321.00
YD-554	YD-553	15"	Reinforced Concrete Pipe	240.00	8.12%	322.50	342.00
YD-555	YD-554	15"	Reinforced Concrete Pipe	240.16	7.00%	344.00	360.81

Ph4 5A Out - PIPE SUMMARY

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	PIPE SIZE	PIPE MATERIAL	LENGTH	SLOPE	DOWNSTREAM INVERT (FT)	UPSTREAM INVERT (FT)
CS-551	FES-550	30"	Reinforced Concrete Pipe**	82.52	1.21%	268.50	269.50

Ph4 Culverts - PIPE SUMMARY

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	PIPE SIZE	PIPE MATERIAL	LENGTH	SLOPE	DOWNSTREAM INVERT (FT)	UPSTREAM INVERT (FT)
FES 100	FES 200	30"	Reinforced Concrete Pipe*	145.67	5.08%	342.60	350.00

* DENOTES RCP CLASS IV PIPE, OTHERWISE TO BE CLASS III
** DENOTES PIPE TO BE GASKETED

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American Engineering Associates - Southeast, P.A.
4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 062383 ENGINEER ROMAN S. COOK

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

THIS DRAWING WAS PREPARED FOR USE ON THE SPECIFIC SITE, NAMED HEREON, CONTEMPORANEOUSLY WITH ITS ISSUE DATE AS LISTED, HEREON, AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:

SCHEDULES

SHEET NO.:
G1.3

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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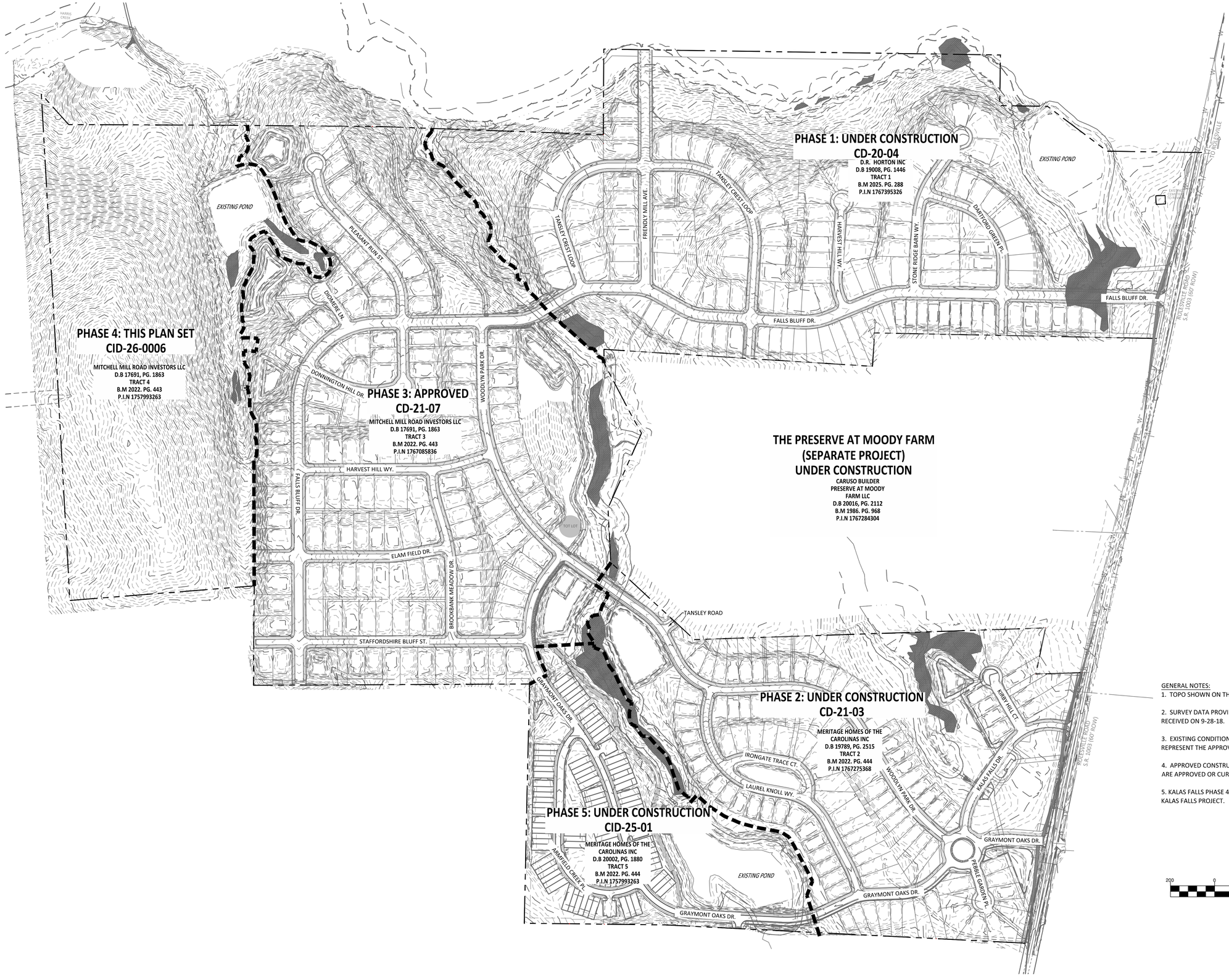

GENERAL NOTES:

1. TOPO SHOWN ON THIS SHEET IS 1' CONTOURS AND IS FIELD TOPOGRAPHY.

2. SURVEY DATA PROVIDED BY WITHERSRAVENEL WITH THE LATEST SURVEY DATA RECEIVED ON 9-28-18.

3. EXISTING CONDITIONS DEPICTED IN PRECEDING KALAS FALLS PHASES REPRESENT THE APPROVED DESIGN OR ARE CURRENTLY UNDER CONSTRUCTION.

4. APPROVED CONSTRUCTION PLANS SHOWN AS EXISTING FOR PHASES 1-3 THAT ARE APPROVED OR CURRENTLY UNDER CONSTRUCTION.

5. KALAS FALLS PHASE 4 COMPRISES 44.56 ACRES OF THE TOTAL 282.73 ACRE KALAS FALLS PROJECT.

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch =200

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Raleigh, NC 27607
919-469-1101

NORTH CAROLINA
AMERICAN ENGINEERING ASSOCIATES SOUTHEAST
C-3881
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 062383 ENGINEER ROWAN S. COOK
2026.09.09 15:26:10-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER:	9900
CHECKED BY:	RC
DRAWN BY:	DH, BG, CR, JB
DATE:	SEPTEMBER 8, 2026

SHEET TITLE:
OVERALL EXISTING CONDITIONS

SHEET NO.:
C1.0

North Carolina 811 811.com
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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WILLIAM ALONZO BROWN
ANNE RHYNE BROWN
ZONING: R-30
D.B. 18353, PG. 2113
B.M.2004, PG. 589
P.I.N. 1758902622

AGRAWALA, KAMILA
CARSON, GINA M
ZONING: R-30
D.B. 019588 PG. 815
B.M.2004, PG. 589
P.I.N. 1758901417

JONATHAN V. GILLIS
ZONING: R-30
D.B. 4974 PG. 38
TRACT 2 B.M. 1987, PG. 1527
P.I.N. 1758908610

JONES PROPERTIES LLC
ZONING: R-30
D.B. 11187 PG. 542
B.M.1971 PG. 445
P.I.N. 1758805144
SINGLE FAMILY

MITCHELL MILL ROAD
INVESTORS LLC
ZONING:R&PUD-CZ
D.B. 017691 PG. 1863
P.I.N. 1757993263
RESIDENTIAL

RGA CONSULTING LLC
ZONING: R-30
D.B. 019574 PG. 2104
B.M.2010 PG. 725
P.I.N. 1757891140
SINGLE FAMILY

ZONE 2 NEUSE RIVER BUFFER

ZONE 1 NEUSE RIVER BUFFER

50' RIPARIAN BUFFER

EXISTING 40' TEMPORARY CONSTRUCTION EASEMENT TO BE ABANDONED

EXISTING 30' SEWER EASEMENT TO BE ABANDONED

TEMPORARY CONSTRUCTION EASEMENT D.B. 17691 PG. 1843 B.M. 2017, PG. 2624

EXISTING MANLY FARM POND (WAKE-507 & NC07136)

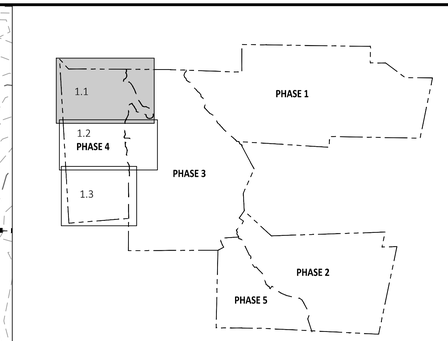
EXISTING WETLANDS

PROPERTY LINE

PHASE 4

PHASE 3

KALAS FALLS PHASE 3 (CD-21-07)



KEY MAP

EXISTING LEGEND	
	EXISTING ADJACENT PROPERTY
	EXISTING TREE LINE
	EXISTING TOPOGRAPHY
	EXISTING BOUNDARY
	EXISTING WETLANDS
	EXISTING WETLANDS AREA
	EXISTING 50' NEUSE RIPERIAN BUFFER
	EXISTING BUFFER ZONES
	EXISTING TOP OF BANK
	EXISTING OVERHEAD ELECTRIC
	EXISTING FENCE TO BE REMOVED
	EXISTING CENTERLINE
	EXISTING EOP TO BE REMOVED
	EXISTING ROW TO BE REMOVED
	EXISTING CHANNEL TO BE REMOVED
	EXISTING GRAVEL DRIVE TO BE REMOVED
	EXISTING STREAM CENTERLINE
	EXISTING GRAVEL PATHWAY
	EXISTING WATERLINE
	PHASE LINE
	FUTURE PHASES

GENERAL NOTES:
1. TOPO SHOWN ON THIS SHEET IS 1' CONTOURS AND IS FIELD TOPOGRAPHY.
2. EXISTING CONDITIONS DEPICTED ON PRECEDING KALAS FALLS PHASES REPRESENT THE APPROVED DESIGN OR ARE CURRENTLY UNDER CONSTRUCTION.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50

AMERICAN Engineering
American Engineering Associates - Southeast, P.A.
4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL ENGINEER ROMAN S. COOK SEAL 082383 2026.09.01 15:26:12-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

THIS DRAWING WAS PREPARED FOR USE ON THE SPECIFIC SITE, NAMED HEREON, CONTEMPORANEOUSLY WITH ITS ISSUE DATE AS LISTED, HEREON, AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

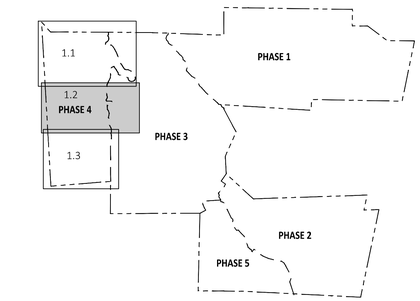
JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
EXISTING CONDITIONS AREA A

SHEET NO.:
C1.1

North Carolina 811 Before You Dig
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

Z:\Jobs\9900\Watkins Property\dwg_Working Dwgs\Phase 4\Sheet files\\Sheet No. 1.0-1.2 Phase 4 Existing Conditions.dwg



KEY MAP

EXISTING WETLANDS

EXISTING 30' SEWER EASEMENT TO BE ABANDONED

TEMPORARY CONSTRUCTION EASEMENT D.B. 17691 PG. 1843 B.M. 2017, PG. 2624

EXISTING STREAM

EXISTING 30' C.O.R. SANITARY SEWER EASEMENT D.B. 17691 PG. 1843 B.M. 2017, PG. 2624

EXISTING 40' TEMPORARY CONSTRUCTION EASEMENT TO BE ABANDONED

ZONE 2 NEUSE RIVER BUFFER

ZONE 1 NEUSE RIVER BUFFER

50' RIPARIAN BUFFER

EXISTING WETLANDS

PROPERTY BOUNDARY

KALAS FALLS PHASE 3
(CD-21-07)

FALLS BLUFF DR

DONNINGTON HILL DR

MITCHELL MILL ROAD
INVESTORS LLC
ZONING:R&PUD-CZ
D.B. 017691 PG. 1863
P.I.N. 1757993263
RESIDENTIAL

KELLY MARIE JONES &
MICHAEL STEVEN SOK
ZONING: R-30
D.B. 20081 PG. 0531
B.M.2007 PG. 1075
P.I.N. 1757897244
SINGLE FAMILY

N 67° 13' 41" W 297.25'

EXISTING SOIL DRIVE TO BE REMOVED

EXISTING ACCESS EASEMENT B.M. 1980, PG. 883

EXISTING LEGEND	
	EXISTING ADJACENT PROPERTY
	EXISTING TREE LINE
	EXISTING TOPOGRAPHY
	EXISTING BOUNDARY
	EXISTING WETLANDS
	EXISTING WETLANDS AREA
	EXISTING 50' NEUSE RIPERIAN BUFFER
	EXISTING BUFFER ZONES
	EXISTING TOP OF BANK
	EXISTING OVERHEAD ELECTRIC
	EXISTING FENCE TO BE REMOVED
	EXISTING CENTERLINE
	EXISTING EOP TO BE REMOVED
	EXISTING ROW TO BE REMOVED
	EXISTING CHANNEL TO BE REMOVED
	EXISTING GRAVEL DRIVE TO BE REMOVED
	EXISTING STREAM CENTERLINE
	EXISTING GRAVEL PATHWAY
	EXISTING WATERLINE
	PHASE LINE
	FUTURE PHASES

GENERAL NOTES:
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2. EXISTING CONDITIONS DEPICTED ON PRECEDING KALAS FALLS PHASES REPRESENT THE APPROVED DESIGN OR ARE CURRENTLY UNDER CONSTRUCTION.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

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American Engineering Associates - Southeast, P.A.
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Raleigh, NC 27607
919-469-1101

NORTH CAROLINA
AMERICAN ENGINEERING ASSOCIATES SOUTHEAST
C-3881
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL ENGINEER ROMAN S. COOK
SEAL 082383

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
EXISTING CONDITIONS AREA B

SHEET NO.:
C1.2

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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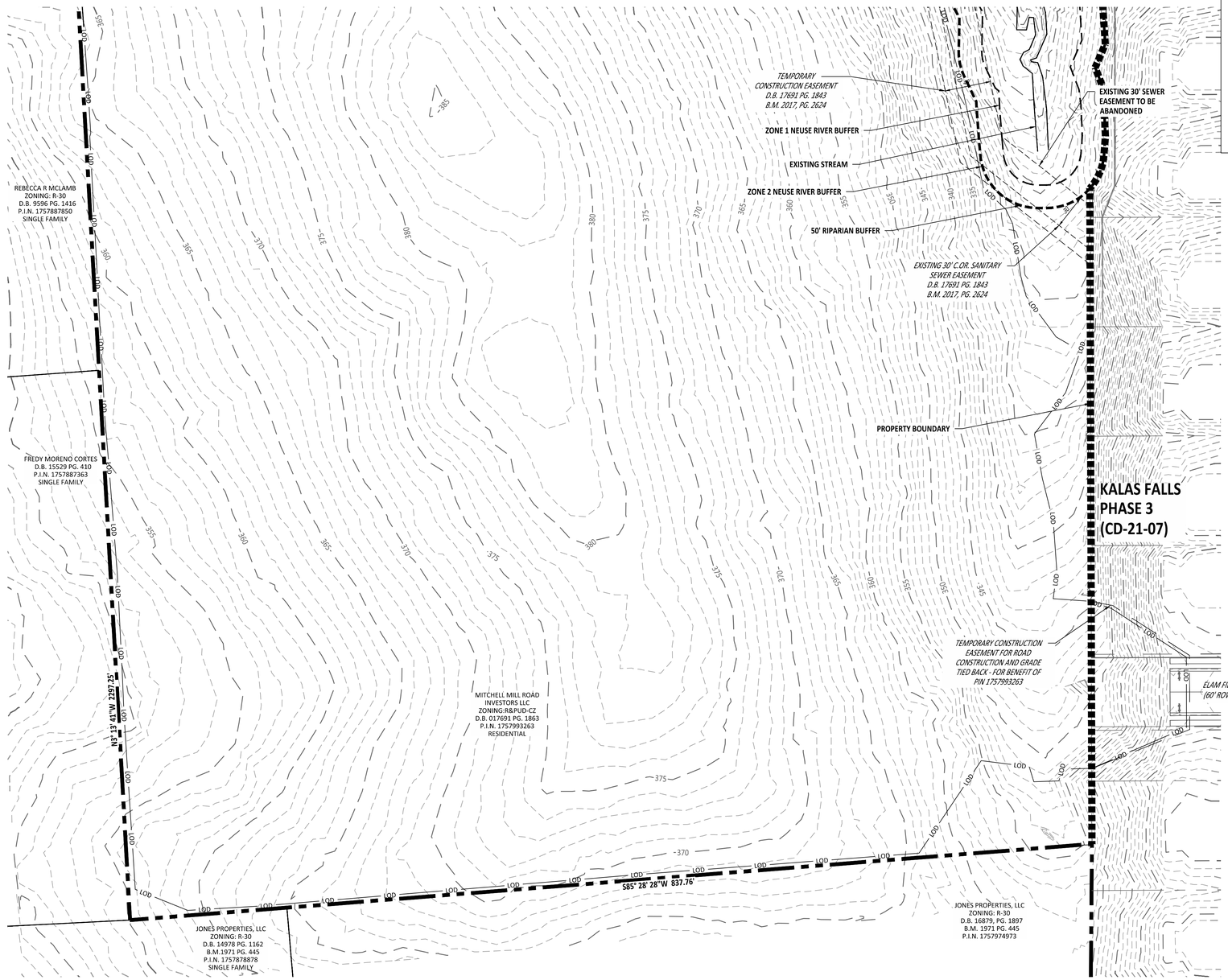

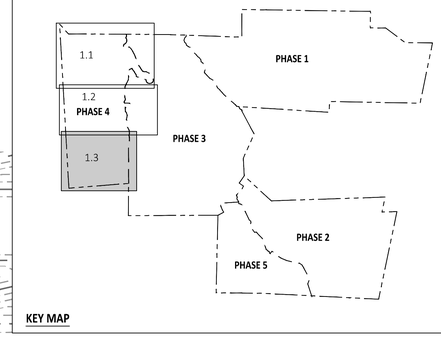

KEY MAP

EXISTING LEGEND	
	EXISTING ADJACENT PROPERTY
	EXISTING TREE LINE
	EXISTING TOPOGRAPHY
	EXISTING BOUNDARY
	EXISTING WETLANDS
	EXISTING WETLANDS AREA
	EXISTING 50' NEUSE RIPERIAN BUFFER
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	FUTURE PHASES

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GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

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Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 062383 ENGINEER ROMAN S. COOK

FOR CONSTRUCTION

NO.	DATE	REVISION:

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
EXISTING CONDITIONS AREA C

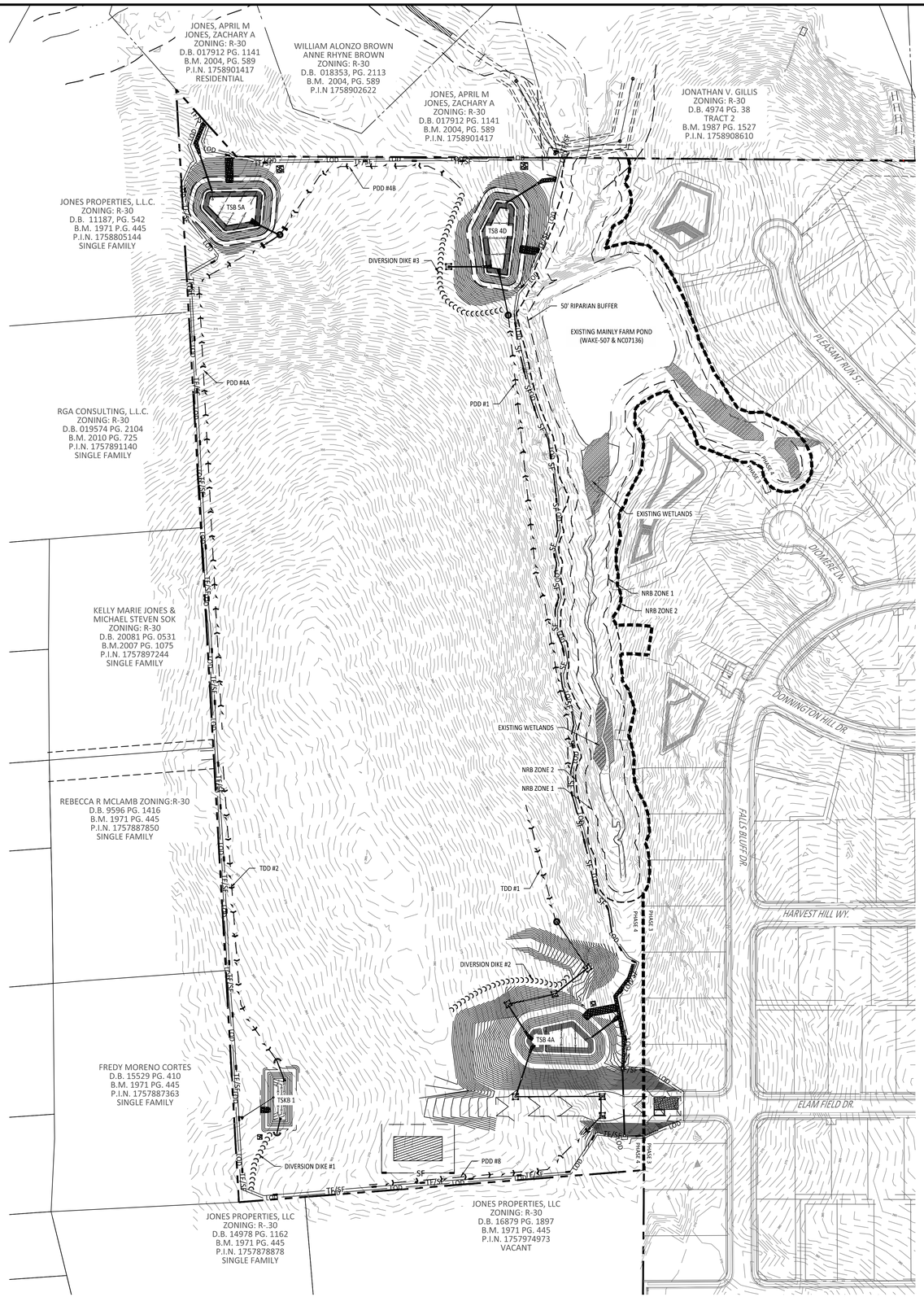
SHEET NO.:
C1.3

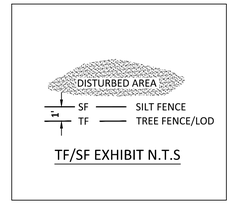
North Carolina 811 Call Before You Dig
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

Z:\Jobs\9900\Workin Property\Dwg_Working Dwgs\Phase 4\Sheet Files\1\Sheet No. 1.0-1.2 Phase 4 Existing Conditions.dwg

EROSION CONTROL NOTES:

1. TOTAL LIMITS OF DISTURBANCE: 36.67 AC
2. CONTRACTOR SHALL STRICTLY CONFINE ALL GRADING, CLEARING, AND CONSTRUCTION ACTIVITIES WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD), AS SHOWN ON PLANS. NO GRADING EXCAVATION, STOCKPILING, OR EQUIPMENT ACCESS SHALL OCCUR OUTSIDE OF THESE LIMITS.
3. THE CONTRACTOR IS RESPONSIBLE FOR CLEARLY IDENTIFYING AND MAINTAINING THE LOD IN THE FIELD (E.G. STALKING, FLAGGING, OR FENCING) PRIOR TO THE START OF WORK. ANY DISTURBANCE OUTSIDE THE APPROVED LIMITS SHALL BE IMMEDIATELY REPORT AND MAY REQUIRE REMEDIATION AT THE CONTRACTOR'S EXPENSE.
4. NO IMPACT TO JURISDICTIONAL WETLANDS, STREAMS, OR ASSOCIATED BUFFERS ARE PROPOSED AS PART OF THIS PROJECT. ALL CONSTRUCTION ACTIVITIES SHALL BE CONFINED TO UPLAND AREAS AS SHOWN ON THE APPROVED PLANS.
5. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ENCROACHMENT, DISTURBANCE, OR DEGRADATION OF ANY ADJACENT WETLANDS, STREAMS, OR BUFFERS. ANY UNAUTHORIZED IMPACTS SHALL BE IMMEDIATELY REPORTED AND MAY REQUIRE RESTORATION AT THE CONTRACTOR'S EXPENSE.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL STANDARDS, SPECIFICATIONS, AND DETAILS.
7. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE.
8. REFER TO PHASED EROSION AND SEDIMENT CONTROL PLANS TEMPORARY EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING LAND DISTURBANCE OR CLEARING CONSTRUCTION ACTIVITIES.
9. ALL EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL EVENT, AS DIRECTED BY LOCAL AUTHORITIES. REPAIRS WILL BE MADE IMMEDIATELY AS NEEDED.
10. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING SELF-INSPECTIONS AFTER EACH PHASE OF TE PROJECT UNTIL AFTER FINAL STORMWATER/SITE STABILIZATION INSPECTION AND THE SITE HAS BEEN APPROVED AS STABILIZED. PLEASE KEEP RECORDS AVAILABLE WITHIN THE PERMIT BOX AT CONSTRUCTION ENTRANCE.
11. ALL EROSION AND SEDIMENT CONTROL MEASURES, FENCING, AND PROTECTIONS ARE TO REMAIN IN PLACE UNTIL AFTER FINAL INSPECTION AND APPROVAL.
12. TREE PROTECTION FENCE SHALL BE MAINTAINED ON SITE UNTIL ALL SITE WORK IS COMPLETE AND THE FINAL SITE INSPECTION HAS BEEN SCHEDULED. FENCING SHALL BE IMMEDIATELY REMOVED PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
13. ALL 3:1 OR GREATER SLOPES ARE TO BE STABILIZED WITH SEED AND A MINIMUM OF STRAW MAT.
14. ANY DEWATERING OF STORM OR UTILITY TRENCHES IS TO BE DONE THROUGH A SILT BAG.
15. SOIL AND OTHER ERODABLE MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED ON SITE WITHIN THE CONSTRUCTION LIMITS. THESE ITEMS SHOULD BE PROTECTED BY SEDIMENT AND EROSION CONTROL MEASURES.
16. STOCKPILES TO BE STABILIZED AS REQUIRED AND INDICATED IN THE SLOPE AND SURFACE STABILIZATION NOTES ON THE EROSION CONTROL PLAN.
17. ROADSIDE DITCHES AND CHANNELS SHALL BE STABILIZED DAILY UNTIL PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
18. MAXIMUM SLOPES SHALL NOTE EXCEED 2:1 SLOPE. 2:1 SLOPES SHOULD E IMMEDIATELY STABILIZED WITH A ROLLED BLANKET PRODUCT.
19. IF THE CONSTRUCTION ENTRANCE IS FOUND INSUFFICIENT TO PREVENT SEDIMENT FROM TRACKING ONTO THE ROAD, THE CONTRACTOR SHALL UTILIZE A TIRE WASH STATION.
20. STREETS LOCATED ALONG PROJECT FRONTAGE SHALL BE KEPT CLEAN AT ALL TIMES.





TF/SF EXHIBIT N.T.S

EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
LOD	LIMITS OF DISTURBANCE	N/A	N/A
	TEMPORARY DIVERSION DITCH	CD1	6
	DIVERSION DIKE	CD3	24
	SILT FENCE OUTLET	CD3	22
	WATTLE	CD1	1
	GRAVEL INLET PROTECTION	CD1	4
	STANDARD PIPE INLET PROTECTION	CD2	11
	ROCK DOUGHNUT INLET PROTECTION	CD3	25
	SILT BAG	CD2	13
	CHECK DAM	CD1	2
	BASIN MAINTENANCE PAD	CD1	3
	RIPRAP DISSIPATOR	CD1	5
	SKIMMER	CD2&3	3&20
	SEDIMENT BASIN	CD1	3
	CONSTRUCTION ENTRANCE	CD1	8
	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16

GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)
1 inch =120

AMERICAN Engineering
American Engineering Associates - Southeast, P.A.
4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

NORTH CAROLINA
AMERICAN ENGINEERING ASSOCIATES SOUTHEAST
C-3881
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052383 ROMAN S. COOK

Roman S. Cook 15:26:17-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

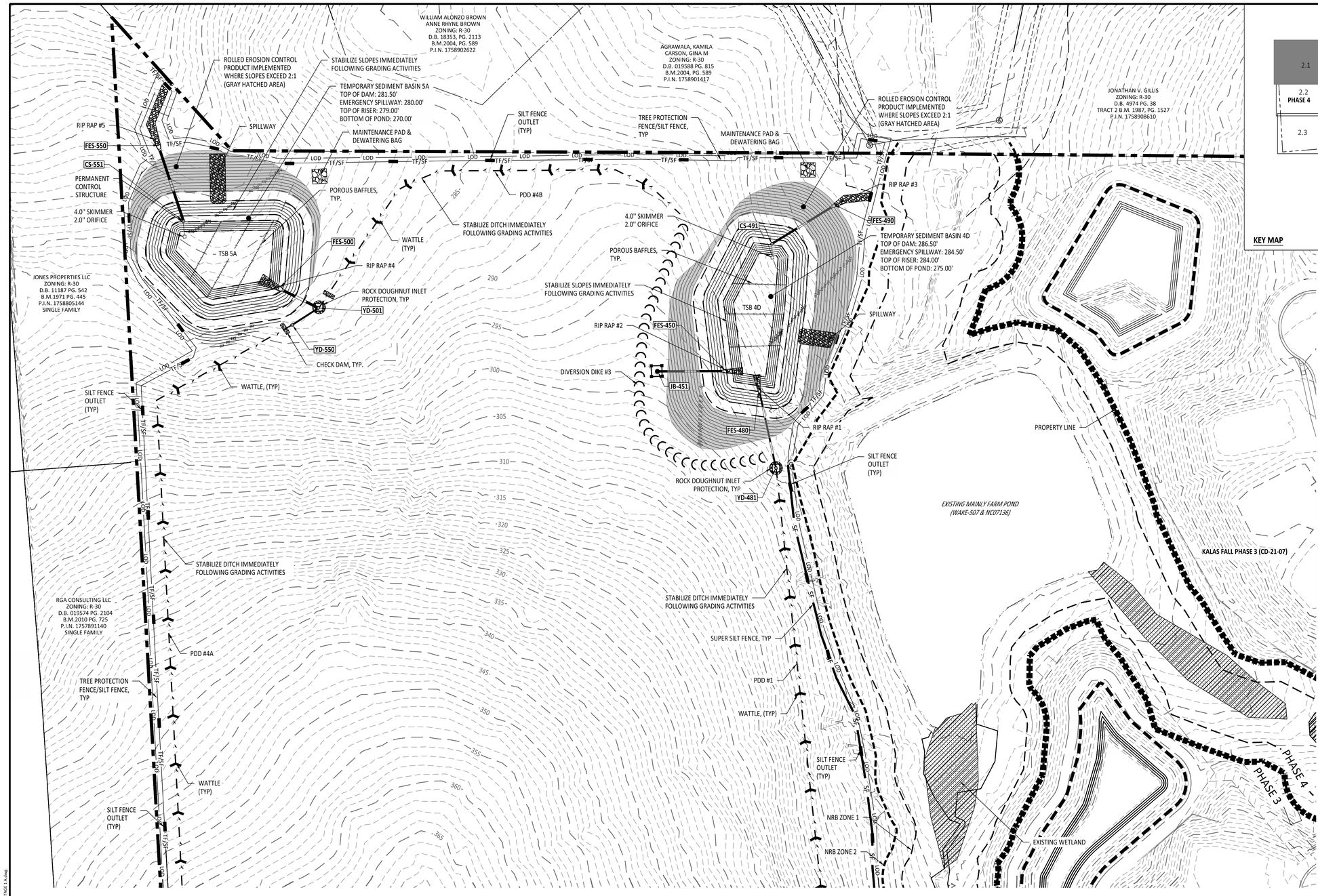
JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

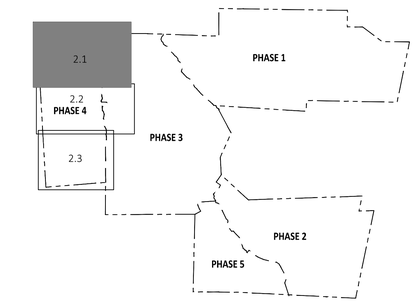
SHEET TITLE:
STAGE 1 EROSION CONTROL OVERALL

SHEET NO.:
C2.0

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

Z:\Jobs\9900\Watkins Property\dwg_Working Dwgs\Phase 4\Sheet Files\2.0 EROSION CONTROL Stage 1 OVERALL.dwg





KEY MAP

EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
LOD	LIMITS OF DISTURBANCE	N/A	N/A
	TEMPORARY DIVERSION DITCH	CD1	6
	DIVERSION DIKE	CD3	24
	SILT FENCE OUTLET	CD3	22
	WATTLE	CD1	1
	GRAVEL INLET PROTECTION	CD1	4
	STANDARD PIPE INLET PROTECTION	CD2	11
	ROCK DOUGHNUT INLET PROTECTION	CD3	25
	SILT BAG	CD2	13
	CHECK DAM	CD1	2
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	RIPRAP DISSIPATOR	CD1	5
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	SEDIMENT BASIN	CD1	3
	CONSTRUCTION ENTRANCE	CD1	8
	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

DISTURBED AREA
SF SILT FENCE
TF TREE FENCE/LOD
TF/SF EXHIBIT N.T.S

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AMERICAN ENGINEERING ASSOCIATES SOUTHEAST
C-3881
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 082383 ENGINEER ROMAN S. COOK
2026.09.08 15:26:19-04'00'

FOR CONSTRUCTION

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
STAGE 1 EROSION CONTROL AREA A

SHEET NO.:
C2.1

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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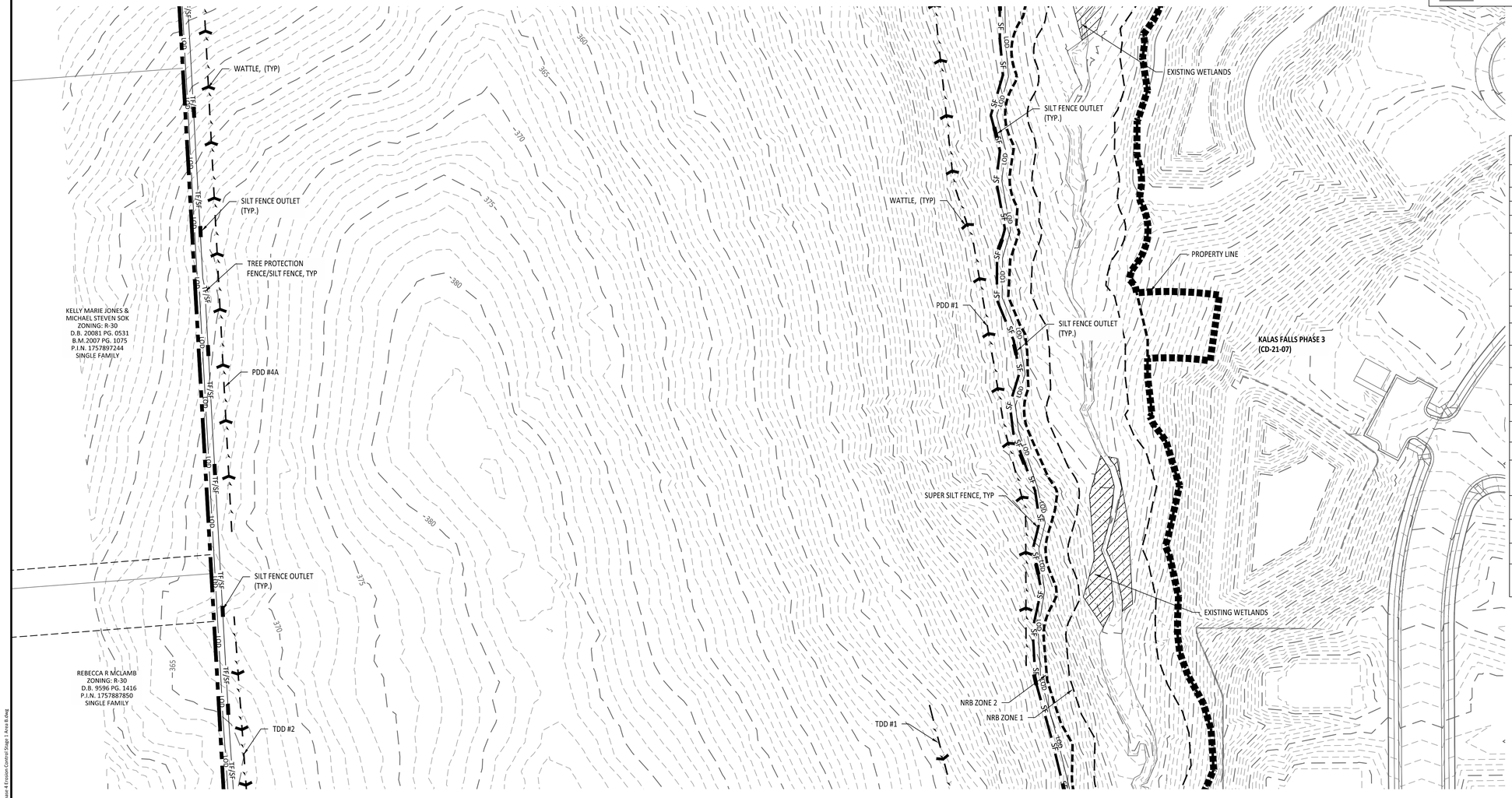

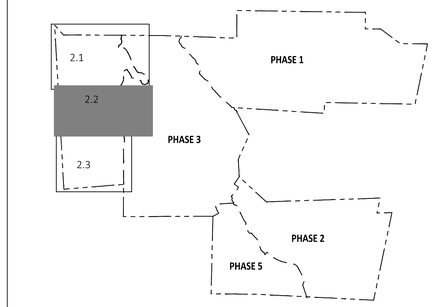

KEY MAP

EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
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	TEMPORARY DIVERSION DITCH	CD1	6
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	WATTLE	CD1	1
	GRAVEL INLET PROTECTION	CD1	4
	STANDARD PIPE INLET PROTECTION	CD2	11
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	SILT BAG	CD2	13
	CHECK DAM	CD1	2
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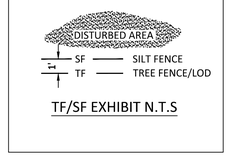
	SKIMMER	CD2&3	3&20
	SEDIMENT BASIN	CD1	3
	CONSTRUCTION ENTRANCE	CD1	8
	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50



TF/SF EXHIBIT N.T.S

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NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 062383 ENGINEER ROMAN S. COOK
2026.09.08 15:26:20-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
STAGE 1 EROSION CONTROL AREA B

SHEET NO.:
C2.2

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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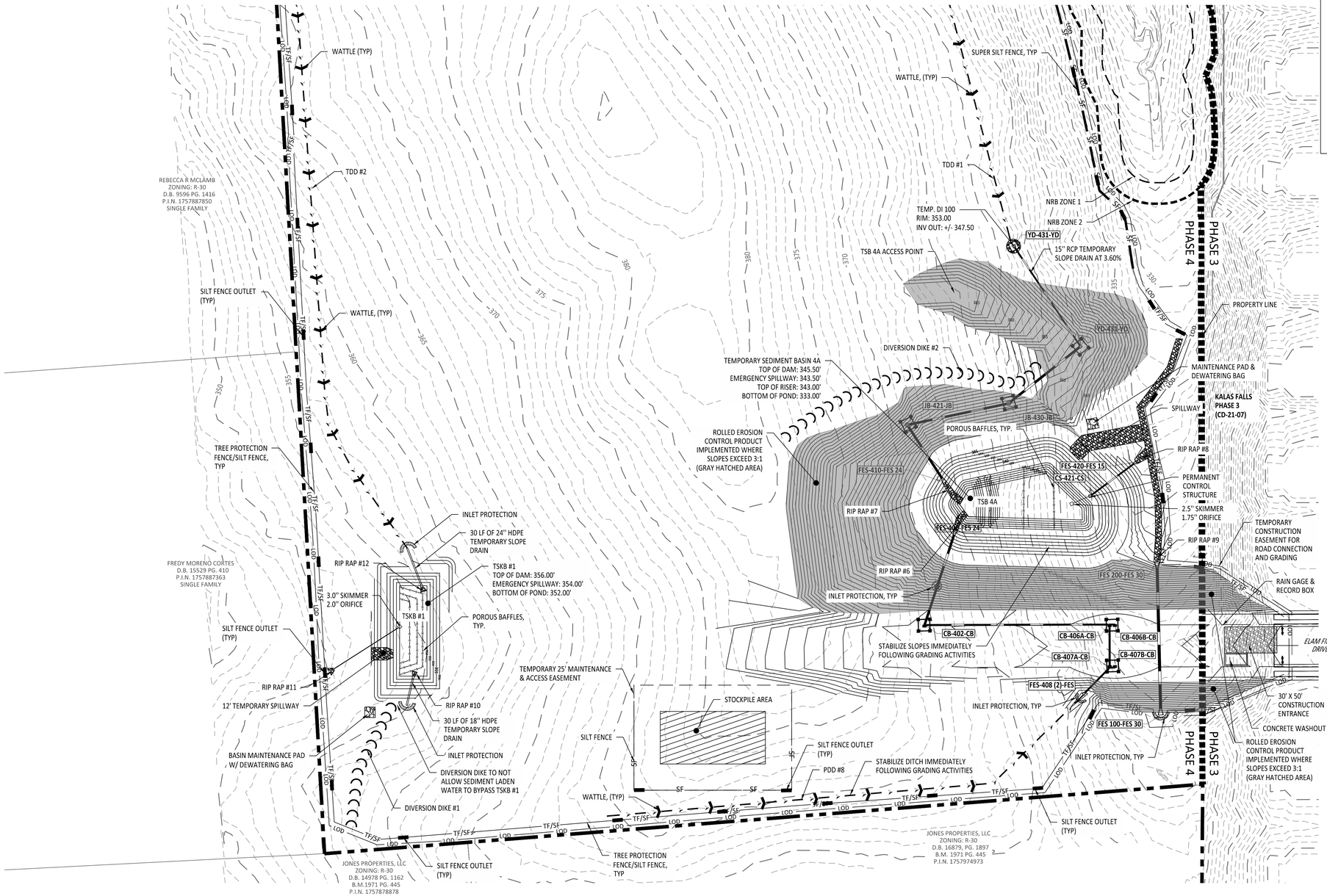

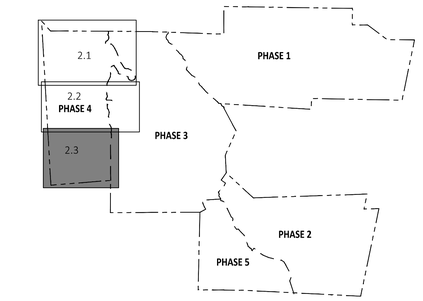

KEY MAP

EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
LOD	LIMITS OF DISTURBANCE	N/A	N/A
	TEMPORARY DIVERSION DITCH	CD1	6
	DIVERSION DIKE	CD3	24
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	SEDIMENT BASIN	CD1	3
	CONSTRUCTION ENTRANCE	CD1	8
	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

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NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 052383 ENGINEER ROMAN S. COOK
2026.09.08 15:26:22-04'00'

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
STAGE 1 EROSION CONTROL AREA C

SHEET NO.:
C2.3

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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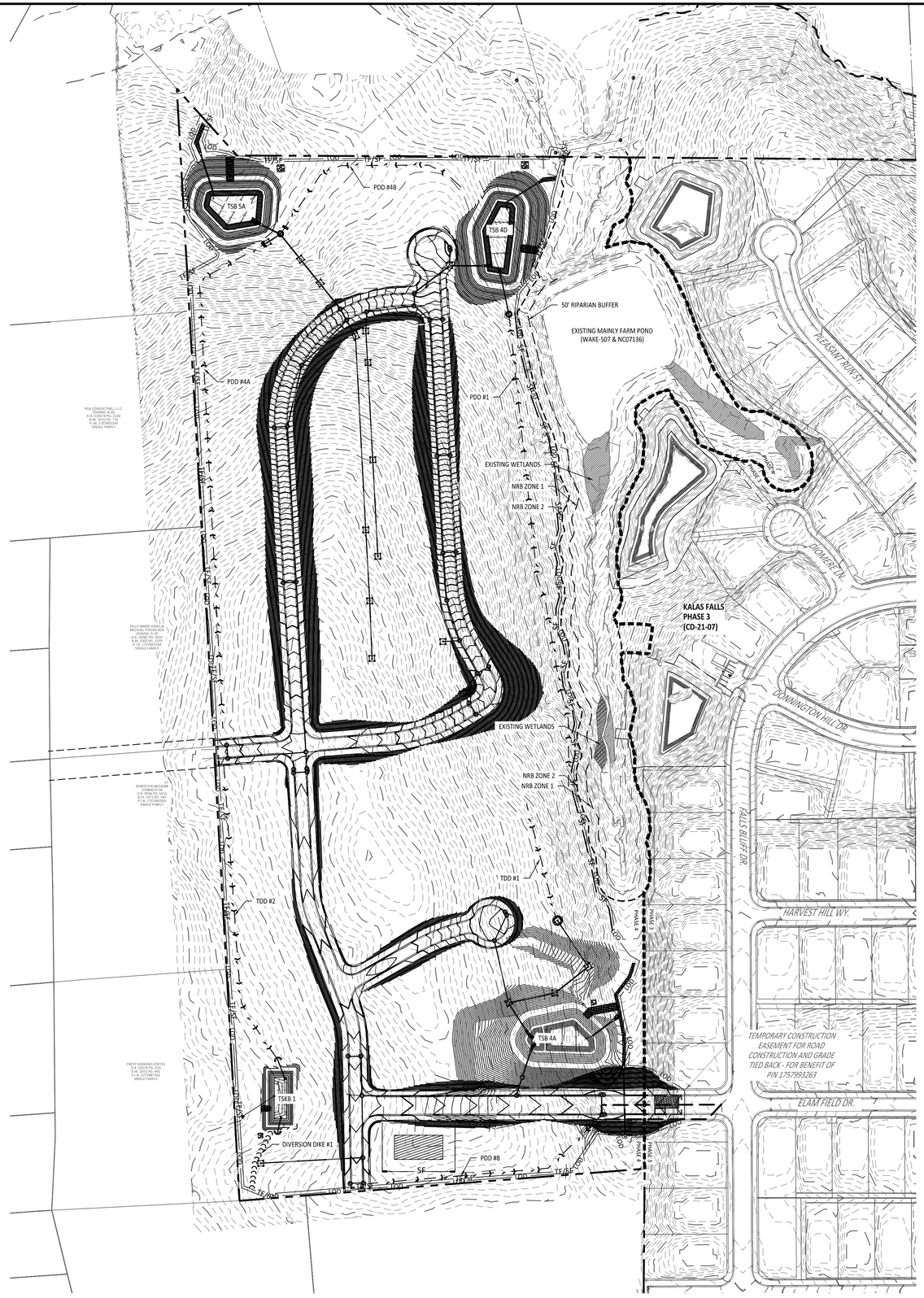
EROSION CONTROL NOTES:

1. TOTAL LIMITS OF DISTURBANCE: 36.67 AC
2. CONTRACTOR SHALL STRICTLY CONFINE ALL GRADING, CLEARING, AND CONSTRUCTION ACTIVITIES WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD), AS SHOWN ON PLANS. NO GRADING EXCAVATION, STOCKPILING, OR EQUIPMENT ACCESS SHALL OCCUR OUTSIDE OF THESE LIMITS.
3. THE CONTRACTOR IS RESPONSIBLE FOR CLEARLY IDENTIFYING AND MAINTAINING THE LOD IN THE FIELD (E.G. STALKING, FLAGGING, OR FENCING) PRIOR TO THE START OF WORK. ANY DISTURBANCE OUTSIDE THE APPROVED LIMITS SHALL BE IMMEDIATELY REPORT AND MAY REQUIRE REMEDIATION AT THE CONTRACTOR'S EXPENSE.
4. NO IMPACT TO JURISDICTIONAL WETLANDS, STREAMS, OR ASSOCIATED BUFFERS ARE PROPOSED AS PART OF THIS PROJECT. ALL CONSTRUCTION ACTIVITIES SHALL BE CONFINED TO UPLAND AREAS AS SHOWN ON THE APPROVED PLANS.
5. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ENCROACHMENT, DISTURBANCE, OR DEGRADATION OF ANY ADJACENT WETLANDS, STREAMS, OR BUFFERS. ANY UNAUTHORIZED IMPACTS SHALL BE IMMEDIATELY REPORTED AND MAY REQUIRE RESTORATION AT THE CONTRACTOR'S EXPENSE.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL STANDARDS, SPECIFICATIONS, AND DETAILS.
7. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE.
8. REFER TO PHASED EROSION AND SEDIMENT CONTROL PLANS TEMPORARY EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING LAND DISTURBANCE OR CLEARING CONSTRUCTION ACTIVITIES.
9. ALL EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL EVENT, AS DIRECTED BY LOCAL AUTHORITIES. REPAIRS WILL BE MADE IMMEDIATELY AS NEEDED.
10. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING SELF-INSPECTIONS AFTER EACH PHASE OF TE PROJECT UNTIL AFTER FINAL STORMWATER/SITE STABILIZATION INSPECTION AND THE SITE HAS BEEN APPROVED AS STABILIZED. PLEASE KEEP RECORDS AVAILABLE WITHIN THE PERMIT BOX AT CONSTRUCTION ENTRANCE.
11. ALL EROSION AND SEDIMENT CONTROL MEASURES, FENCING, AND PROTECTIONS ARE TO REMAIN IN PLACE UNTIL AFTER FINAL INSPECTION AND APPROVAL.
12. TREE PROTECTION FENCE SHALL BE MAINTAINED ON SITE UNTIL ALL SITE WORK IS COMPLETE AND THE FINAL SITE INSPECTION HAS BEEN SCHEDULED. FENCING SHALL BE IMMEDIATELY REMOVED PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
13. ALL 3:1 OR GREATER SLOPES ARE TO BE STABILIZED WITH SEED AND A MINIMUM OF STRAW MAT.
14. ANY DEWATERING OF STORM OR UTILITY TRENCHES IS TO BE DONE THROUGH A SILT BAG.
15. SOIL AND OTHER ERODABLE MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED ON SITE WITHIN THE CONSTRUCTION LIMITS. THESE ITEMS SHOULD BE PROTECTED BY SEDIMENT AND EROSION CONTROL MEASURES.
16. STOCKPILES TO BE STABILIZED AS REQUIRED AND INDICATED IN THE SLOPE AND SURFACE STABILIZATION NOTES ON THE EROSION CONTROL PLAN.
17. ROADSIDE DITCHES AND CHANNELS SHALL BE STABILIZED DAILY UNTIL PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
18. MAXIMUM SLOPES SHALL NOTE EXCEED 2:1 SLOPE. 2:1 SLOPES SHOULD E IMMEDIATELY STABILIZED WITH A ROLLED BLANKET PRODUCT.
19. IF THE CONSTRUCTION ENTRANCE IS FOUND INSUFFICIENT TO PREVENT SEDIMENT FROM TRACKING ONTO THE ROAD, THE CONTRACTOR SHALL UTILIZE A TIRE WASH STATION.
20. STREETS LOCATED ALONG PROJECT FRONTAGE SHALL BE KEPT CLEAN AT ALL TIMES.



DISTURBED AREA
SF SILT FENCE
TF TREE FENCE/LOD

TF/SF EXHIBIT N.T.S

EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
LOD	LIMITS OF DISTURBANCE	N/A	N/A
	TEMPORARY DIVERSION DITCH	CD1	6
	DIVERSION DIKE	CD3	24
	SILT FENCE OUTLET	CD3	22
	WATTLE	CD1	1
	GRAVEL INLET PROTECTION	CD1	4
	STANDARD PIPE INLET PROTECTION	CD2	11
	ROCK DOUGHNUT INLET PROTECTION	CD3	25
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	RIPRAP DISSIPATOR	CD1	5
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	SEDIMENT BASIN	CD1	3
	CONSTRUCTION ENTRANCE	CD1	8
	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16

GRAPHIC SCALE
120 0 60 120 240 480
(IN FEET)
1 inch =120

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Raleigh, NC 27607
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NORTH CAROLINA PROFESSIONAL SEAL 082383 ENGINEER ROMAN S. COOK 3026.89 Roman 15:26:24-84'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
EROSION CONTROL STAGE 2 OVERALL

SHEET NO.:
C2.4

North Carolina 811 811 it's the law!
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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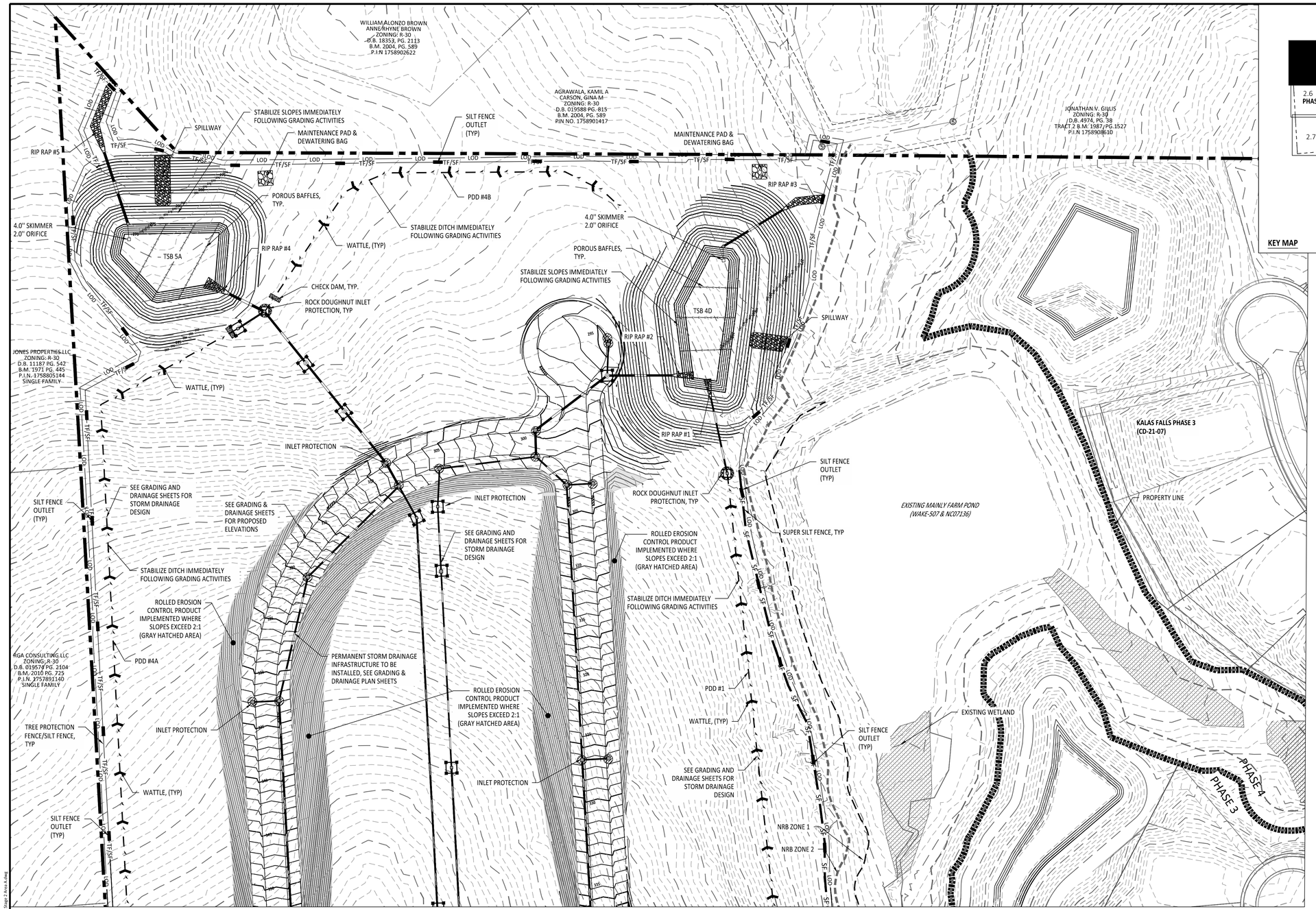

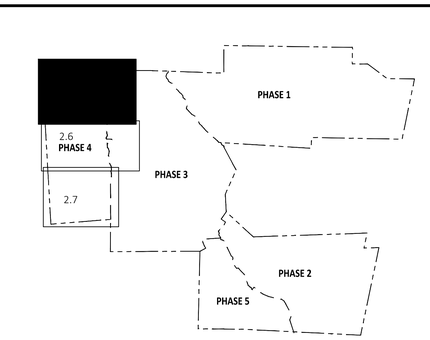

KEY MAP

EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
LOD	LIMITS OF DISTURBANCE	N/A	N/A
	TEMPORARY DIVERSION DITCH	CD1	6
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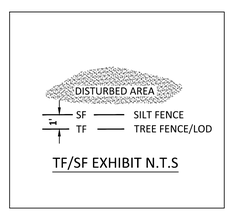
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16



TF/SF EXHIBIT N.T.S

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

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C-3881
CERTIFICATE OF AUTHORITY

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 082383 ROMAN S. COOK
2026.09.08 15:26:26-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
STAGE 2 EROSION CONTROL AREA A

SHEET NO.:
C2.5

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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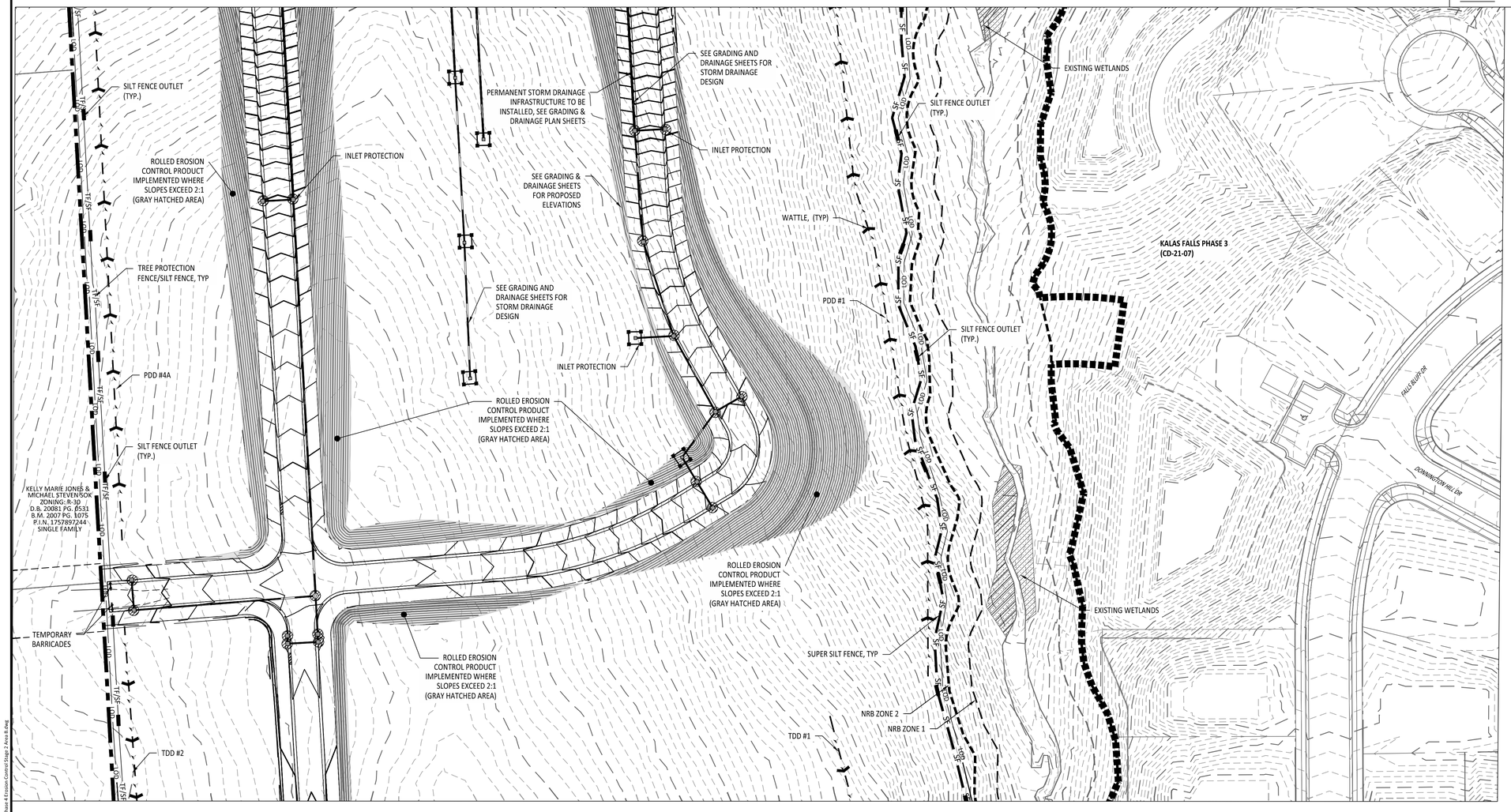
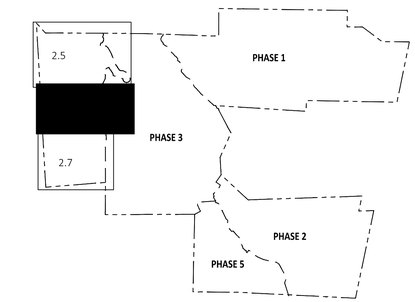




KEY MAP

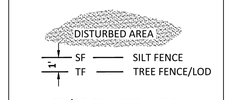
EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
LOD	LIMITS OF DISTURBANCE	N/A	N/A
	TEMPORARY DIVERSION DITCH	CD1	6
	DIVERSION DIKE	CD3	24
	SILT FENCE OUTLET	CD3	22
	WATTLE	CD1	1
	GRAVEL INLET PROTECTION	CD1	4
	STANDARD PIPE INLET PROTECTION	CD2	11
	ROCK DOUGHNUT INLET PROTECTION	CD3	25
	SILT BAG	CD2	13
	CHECK DAM	CD1	2
	BASIN MAINTENANCE PAD	CD1	3
	RIPRAP DISSIPATOR	CD1	5
	SKIMMER	CD2&3	3&20
	SEDIMENT BASIN	CD1	3
	CONSTRUCTION ENTRANCE	CD1	8
	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)

1 inch = 60



TF/SF EXHIBIT N.T.S

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4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 062383 ENGINEER ROMAN S. COOK

2026.09.08 15:26:27-84'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER:	9900
CHECKED BY:	RC
DRAWN BY:	DH, BG, CR, JB
DATE:	SEPTEMBER 8, 2026

SHEET TITLE:

STAGE 2 EROSION CONTROL AREA B

SHEET NO.:

C2.6

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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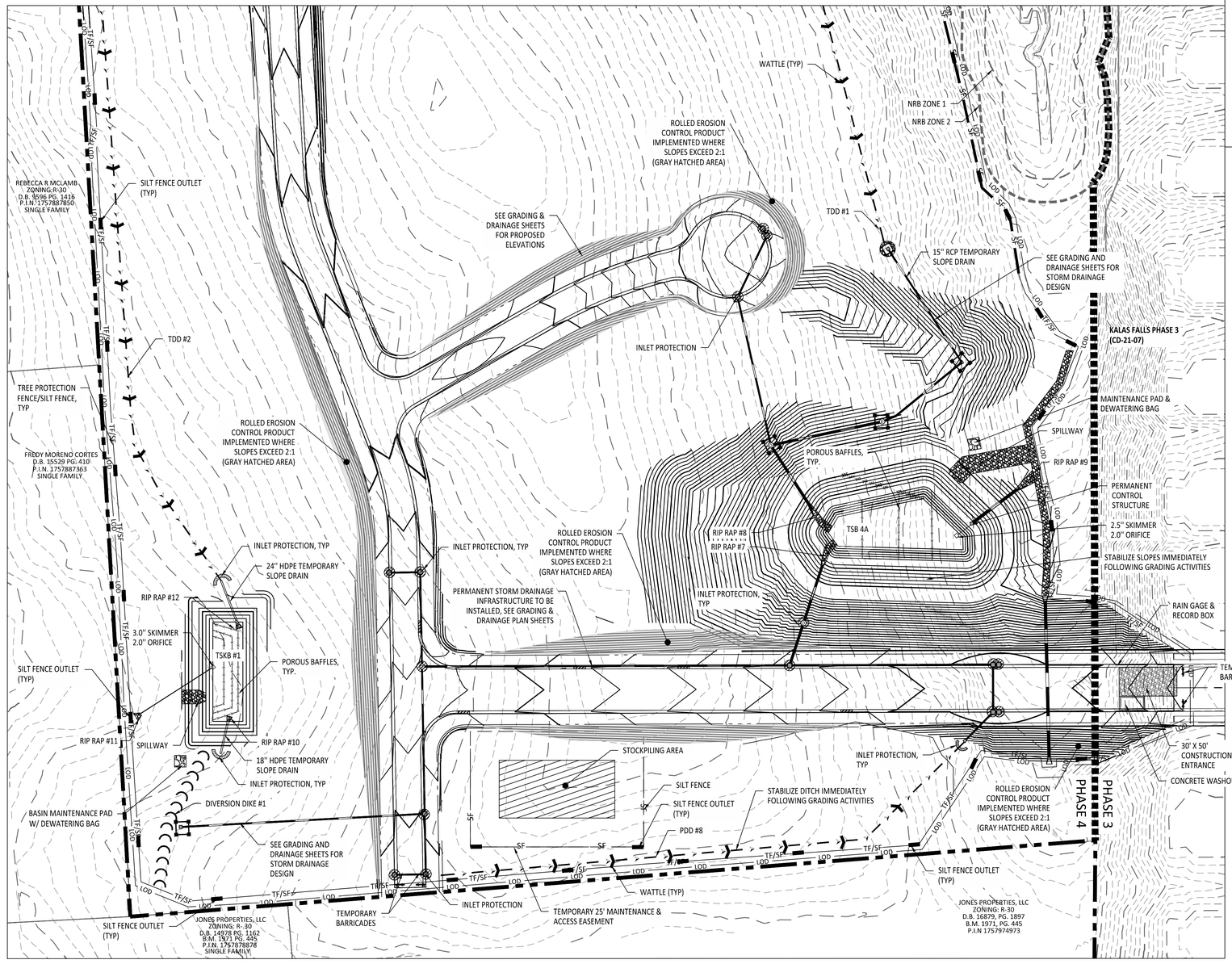
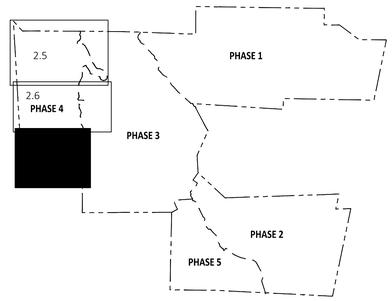
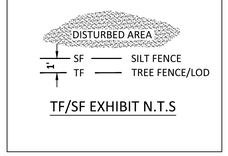




KEY MAP

EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
LOD	LIMITS OF DISTURBANCE	N/A	N/A
	TEMPORARY DIVERSION DITCH	CD1	6
	DIVERSION DIKE	CD3	24
	SILT FENCE OUTLET	CD3	22
	WATTLE	CD1	1
	GRAVEL INLET PROTECTION	CD1	4
	STANDARD PIPE INLET PROTECTION	CD2	11
	ROCK DOUGHNUT INLET PROTECTION	CD3	25
	SILT BAG	CD2	13
	CHECK DAM	CD1	2
	BASIN MAINTENANCE PAD	CD1	3
	RIPRAP DISSIPATOR	CD1	5
	SKIMMER	CD2&3	3&20
	SEDIMENT BASIN	CD1	3
	CONSTRUCTION ENTRANCE	CD1	8
	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16



TF/SF EXHIBIT N.T.S

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

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American Engineering Associates - Southeast, P.A.
4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL ENGINEER ROMAN S. COOK SEAL 062383 2026.09.01 15:26:29-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER:	9900
CHECKED BY:	RC
DRAWN BY:	DH, BG, CR, JB
DATE:	SEPTEMBER 8, 2026

SHEET TITLE:
STAGE 2 EROSION CONTROL AREA C

SHEET NO.:
C2.7

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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EROSION CONTROL NOTES:

1. TOTAL LIMITS OF DISTURBANCE: 36.67 AC
2. CONTRACTOR SHALL STRICTLY CONFINE ALL GRADING, CLEARING, AND CONSTRUCTION ACTIVITIES WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD), AS SHOWN ON PLANS. NO GRADING EXCAVATION, STOCKPILING, OR EQUIPMENT ACCESS SHALL OCCUR OUTSIDE OF THESE LIMITS.
3. THE CONTRACTOR IS RESPONSIBLE FOR CLEARLY IDENTIFYING AND MAINTAINING THE LOD IN THE FIELD (E.G. STALKING, FLAGGING, OR FENCING) PRIOR TO THE START OF WORK. ANY DISTURBANCE OUTSIDE THE APPROVED LIMITS SHALL BE IMMEDIATELY REPORT AND MAY REQUIRE REMEDIATION AT THE CONTRACTOR'S EXPENSE.
4. NO IMPACT TO JURISDICTIONAL WETLANDS, STREAMS, OR ASSOCIATED BUFFERS ARE PROPOSED AS PART OF THIS PROJECT. ALL CONSTRUCTION ACTIVITIES SHALL BE CONFINED TO UPLAND AREAS AS SHOWN ON THE APPROVED PLANS.
5. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ENCROACHMENT, DISTURBANCE, OR DEGRADATION OF ANY ADJACENT WETLANDS, STREAMS, OR BUFFERS. ANY UNAUTHORIZED IMPACTS SHALL BE IMMEDIATELY REPORTED AND MAY REQUIRE RESTORATION AT THE CONTRACTOR'S EXPENSE.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL STANDARDS, SPECIFICATIONS, AND DETAILS.
7. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE.
8. REFER TO PHASED EROSION AND SEDIMENT CONTROL PLANS TEMPORARY EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING LAND DISTURBANCE OR CLEARING CONSTRUCTION ACTIVITIES.
9. ALL EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL EVENT, AS DIRECTED BY LOCAL AUTHORITIES. REPAIRS WILL BE MADE IMMEDIATELY AS NEEDED.
10. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING SELF-INSPECTIONS AFTER EACH PHASE OF TE PROJECT UNTIL AFTER FINAL STORMWATER/SITE STABILIZATION INSPECTION AND THE SITE HAS BEEN APPROVED AS STABILIZED. PLEASE KEEP RECORDS AVAILABLE WITHIN THE PERMIT BOX AT CONSTRUCTION ENTRANCE.
11. ALL EROSION AND SEDIMENT CONTROL MEASURES, FENCING, AND PROTECTIONS ARE TO REMAIN IN PLACE UNTIL AFTER FINAL INSPECTION AND APPROVAL.
12. TREE PROTECTION FENCE SHALL BE MAINTAINED ON SITE UNTIL ALL SITE WORK IS COMPLETE AND THE FINAL SITE INSPECTION HAS BEEN SCHEDULED. FENCING SHALL BE IMMEDIATELY REMOVED PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
13. ALL 3:1 OR GREATER SLOPES ARE TO BE STABILIZED WITH SEED AND A MINIMUM OF STRAW MAT.
14. ANY DEWATERING OF STORM OR UTILITY TRENCHES IS TO BE DONE THROUGH A SILT BAG.
15. SOIL AND OTHER ERODABLE MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED ON SITE WITHIN THE CONSTRUCTION LIMITS. THESE ITEMS SHOULD BE PROTECTED BY SEDIMENT AND EROSION CONTROL MEASURES.
16. STOCKPILES TO BE STABILIZED AS REQUIRED AND INDICATED IN THE SLOPE AND SURFACE STABILIZATION NOTES ON THE EROSION CONTROL PLAN.
17. ROADSIDE DITCHES AND CHANNELS SHALL BE STABILIZED DAILY UNTIL PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
18. MAXIMUM SLOPES SHALL NOTE EXCEED 2:1 SLOPE. 2:1 SLOPES SHOULD E IMMEDIATELY STABILIZED WITH A ROLLED BLANKET PRODUCT.
19. IF THE CONSTRUCTION ENTRANCE IS FOUND INSUFFICIENT TO PREVENT SEDIMENT FROM TRACKING ONTO THE ROAD, THE CONTRACTOR SHALL UTILIZE A TIRE WASH STATION.
20. STREETS LOCATED ALONG PROJECT FRONTAGE SHALL BE KEPT CLEAN AT ALL TIMES.
21. ALL PROPOSED 2:1 SLOPES OR PROPOSED SLOPES GREATER THAN 10 FEET IN HEIGHT ARE TO BE STABILIZED AND CAN BE FOUND IN NPDES SHEET C2.12.



EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
LOD	LIMITS OF DISTURBANCE	N/A	N/A
	TEMPORARY DIVERSION DITCH	CD1	6
	DIVERSION DIKE	CD3	24
	SILT FENCE OUTLET	CD3	22
	WATTLE	CD1	1
	GRAVEL INLET PROTECTION	CD1	4
	STANDARD PIPE INLET PROTECTION	CD2	11
	ROCK DOUGHNUT INLET PROTECTION	CD3	25
	SILT BAG	CD2	13
	CHECK DAM	CD1	2
	BASIN MAINTENANCE PAD	CD1	3
	RIPRAP DISSIPATOR	CD1	5
	SKIMMER	CD2&3	3&20
	SEDIMENT BASIN	CD1	3
	CONSTRUCTION ENTRANCE	CD1	8
	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16

GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)
1 inch =120

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NORTH CAROLINA
AMERICAN ENGINEERING ASSOCIATES SOUTHEAST
C-3881
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 082383 ENGINEER ROMAN S. COOK
2026.09.08 15:26:31-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-00006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
EROSION CONTROL STAGE 3 OVERALL

SHEET NO.:
C2.8

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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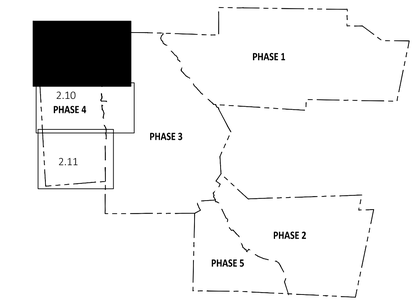

KEY MAP

EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
LOD	LIMITS OF DISTURBANCE	N/A	N/A
	TEMPORARY DIVERSION DITCH	CD1	6
	DIVERSION DIKE	CD3	24
	SILT FENCE OUTLET	CD3	22
	WATTLE	CD1	1
	GRAVEL INLET PROTECTION	CD1	4
	STANDARD PIPE INLET PROTECTION	CD2	11
	ROCK DOUGHNUT INLET PROTECTION	CD3	25
	SILT BAG	CD2	13
	CHECK DAM	CD1	2
	BASIN MAINTENANCE PAD	CD1	3
	RIPRAP DISSIPATOR	CD1	5
	SKIMMER	CD2&3	3&20
	SEDIMENT BASIN	CD1	3
	CONSTRUCTION ENTRANCE	CD1	8
	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

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Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 082383 ENGINEER ROMAN S. COOK
Roman Cook 2026.09.08 15:26:32-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
STAGE 3 EROSION CONTROL AREA A

SHEET NO.:
C2.9

North Carolina 811 811 or 1-800-632-4949
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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GRAPHIC SCALE

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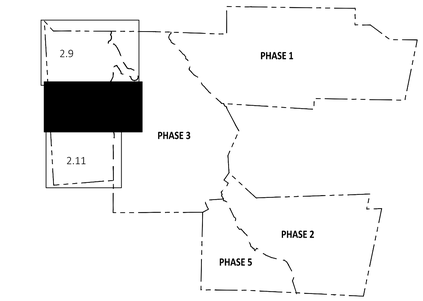
(IN FEET)
1 inch = 50



KEY MAP

EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
SF	SUPER SILT FENCE	CD2	1606.01
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	TEMPORARY DIVERSION DITCH	CD1	6
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	SEDIMENT BASIN	CD1	3
	CONSTRUCTION ENTRANCE	CD1	8
	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16

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Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 082383 ENGINEER ROMAN S. COOK

2026.09.08 15:26:34-84'00'

FOR CONSTRUCTION

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

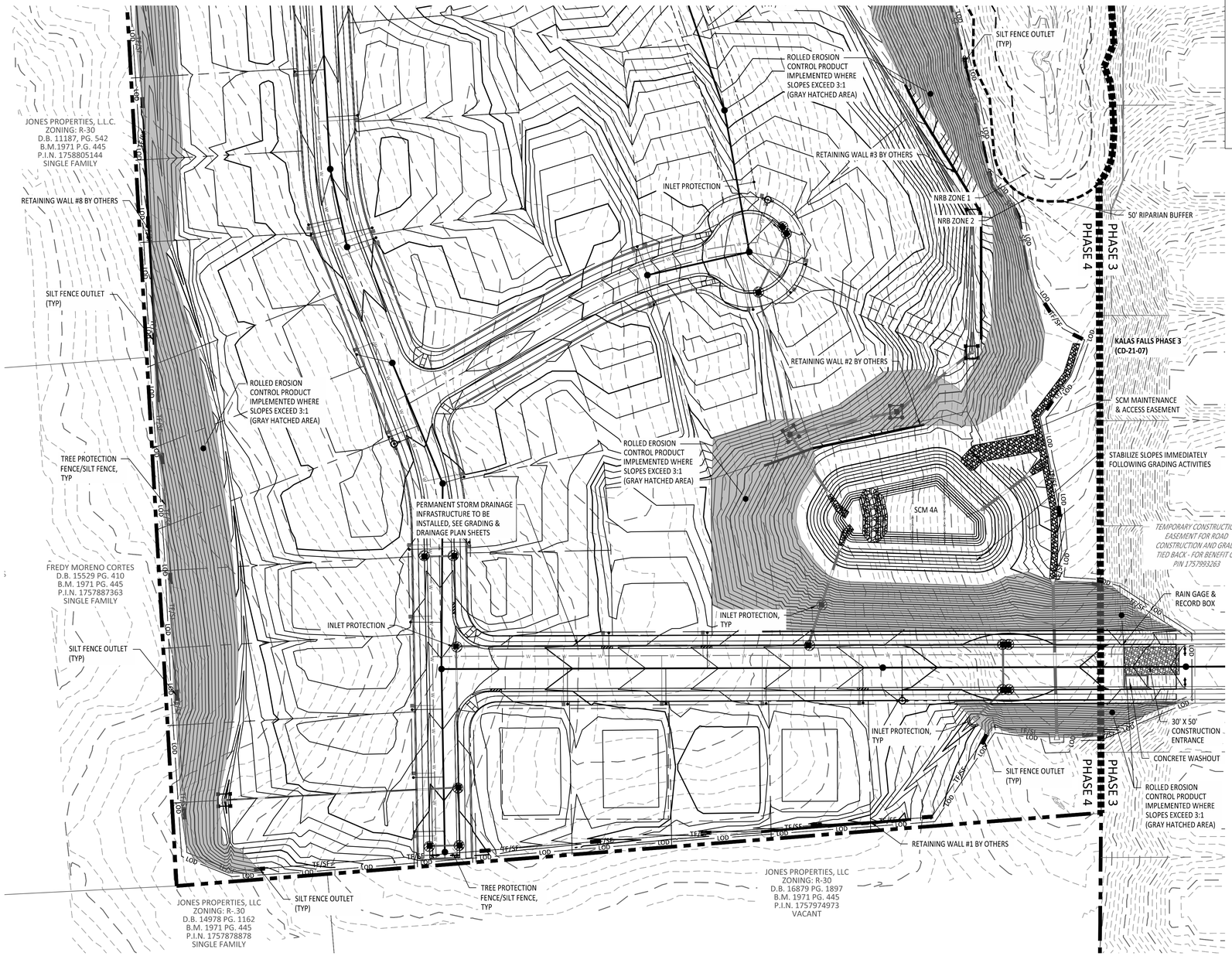
JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

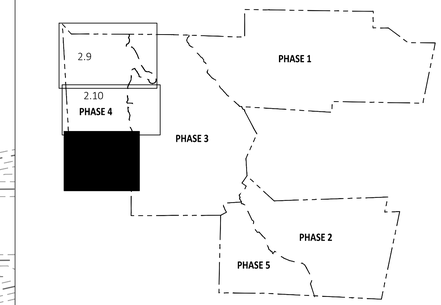
SHEET TITLE:
STAGE 3 EROSION CONTROL AREA B

SHEET NO.:
C2.10

North Carolina 811 811 or 1-800-632-4949
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

Z:\Jobs\09900\Working Prospect\Shop_Working Dwgs\Phase 4\Sheet Files\C2.10 STAGE 3 EROSION CONTROL AREA B.dwg





KEY MAP

EROSION CONTROL LEGEND		SHEET	DETAIL
TF/SF	SILT / TREE PROTECTION FENCE	CD1	9
SF	SILT FENCE	CD3	19
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	TEMPORARY DIVERSION DITCH	CD1	6
	DIVERSION DIKE	CD3	24
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	CONCRETE WASHOUT	CD5	NCGO1
	EROSION CONTROL BLANKET	CD4	
	STOCK PILE	CD2	16

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4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

NORTH CAROLINA ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 082383 ENGINEER ROMAN S. COOK

2026.09.08 15:26:36-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

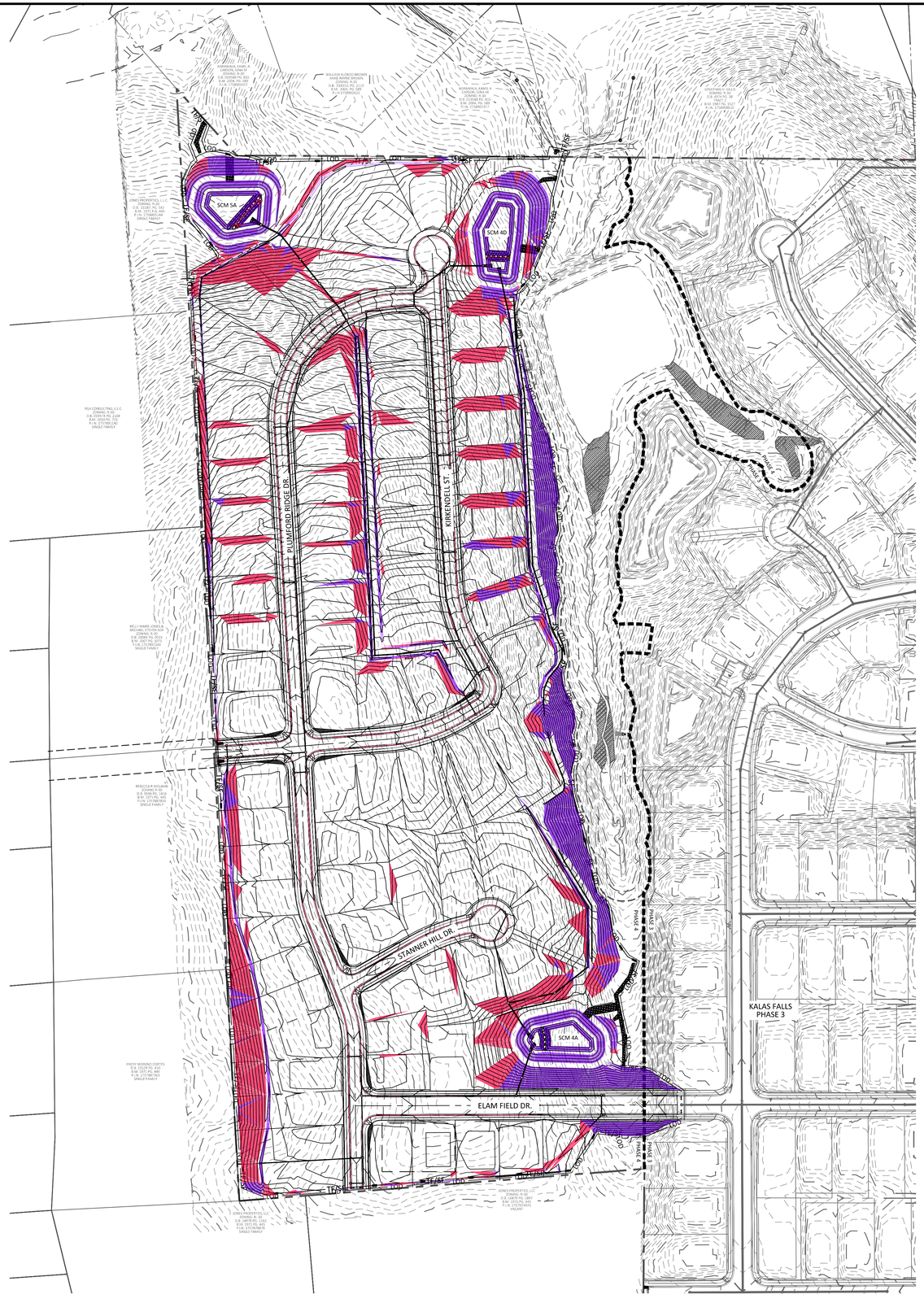
JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
STAGE 3 EROSION CONTROL AREA C

SHEET NO.:
C2.11

North Carolina 811 811 or 1-800-632-4949
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

Z:\Jobs\9900\Workfiles Property\Dwgs_Working Dwgs\Phase 4\Sheet files\2.11 STAGE 3 EROSION CONTROL AREA C.dwg



GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers. • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting (PRSM) • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

Note: The use of techniques listed above which promote and assist in establishment of vegetation does not consitute permanet stabilization prior to the establishment of permanent vegetation.

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

Stabilization Area	Site Area Description	Required Ground Stabilization Timeframes: Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
1	(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
	(b) High Quality Water (HQW) Zones	7	None
	(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
2	(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
3	(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

NDPES DOCUMENTATION NOTES

1. THIS PAGE IS SUBMITTED TO COMPLY WITH THE NPDES GENERAL STORMWATER PERMIT NCG010000.
2. THIS PAGE CAN BE APPROVED BY THE TOWN PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000 ONLY.
3. THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE EXCLUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000.
4. THE TOWN IS NOT AUTHORIZED TO ENFORCE THIS PAGE OF THE PLANS AND IT IS NOT A PART OF THE APPROVED PLANS FOR PURPOSES OF ENFORCEMENT ACTION UNDER THE CITY CODE.

NPDES STABILIZATION LEGEND	
	NPDES STABILIZATION AREA 1
	NPDES STABILIZATION AREA 2
	NPDES STABILIZATION AREA 3

SEEDBED PREPARATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO 6-INCH DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW *).
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, RE-ESTABLISHED FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

*APPLY: AGRICULTURAL LIMESTONE - 2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)
FERTILIZER - 1,000 LB/ACRE - 10-10-10
SUPERPHOSPHATE - 500 LB/ACRE - 20% ANALYSIS
MULCH - 2 TONS/ACRE - SMALL GRAIN STRAW
ANCHOR - ASPHALT EMULSION @ 300 GALS/ACRE

SEEDING SCHEDULE

SHOULDERS, SIDE DITCHES, SLOPES (Maximum 3:1)

Date	Type*	Planting Rate
Aug 15 - Nov 1	Tall Fescue or Hard Fescue	300 lb./acre
Nov 1 - Mar 1	Tall Fescue and Abriuzzi Rye or Annual Rye	300 lb./acre
Mar 1 - Apr 15	Tall Fescue or Hard Fescue	300 lb./acre
Apr 15 - June 30	Hulled common Bermuda grass, Weeping Love Grass	25 lb./acre
July 15 - Aug 15	Tall Fescue and ***Browntop Millet ***or Sorghum-Sudan Hybrids	35 lb./acre

SHOULDERS, SIDE DITCHES, SLOPES Slopes (3:1 and 2:1) (not mowed)

Date	Type*	Planting Rate
Mar 1 - Apr 15	Add Tall Fescue or	120 lb./acre
Mar 1 - June 30	Add Weeping Love Grass or	10 lb./acre
Mar 1 - June 30	Add Hulled Common Bermuda grass	25 lb./acre
June 1 - Sept 1	***Tall Fescue and ***Browntop Millet ***or Sorghum-Sudan Hybrids	120 lb./acre 35 lb./acre 30 lb./acre
Sept 1 - Mar 1	Tall Fescue Add Abruzzi Rye or Annual Rye	120 lb./acre 25 lb./acre

NOTES:
Consult Erosion Control Officer or NRCS for additional alternatives for vegetating denuded areas. The above vegetation rates are those which do well under local conditions; other seeding rate combinations are possible.
***Temporary - Reseed according to optimum season for desired permanent vegetation. Do not allow temporary cover to grow over 12 inches in height before mowing to keep fescue from being shaded out.
*Bahia grass shall not be used in City maintained areas.

GRAPHIC SCALE
120 0 60 120 240 480
(IN FEET)
1 inch =120

AMERICAN Engineering
American Engineering Associates - Southeast, P.A.
4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 052383 ENGINEER ROMAN S. COOK
Roman Cook 15:26:38-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

THIS DRAWING WAS PREPARED FOR USE ON THE SPECIFIC SITE, NAMED HEREON, CONTEMPORANEOUSLY WITH ITS ISSUE DATE AS LISTED, HEREON, AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE: NPDES

SHEET NO.: C2.12

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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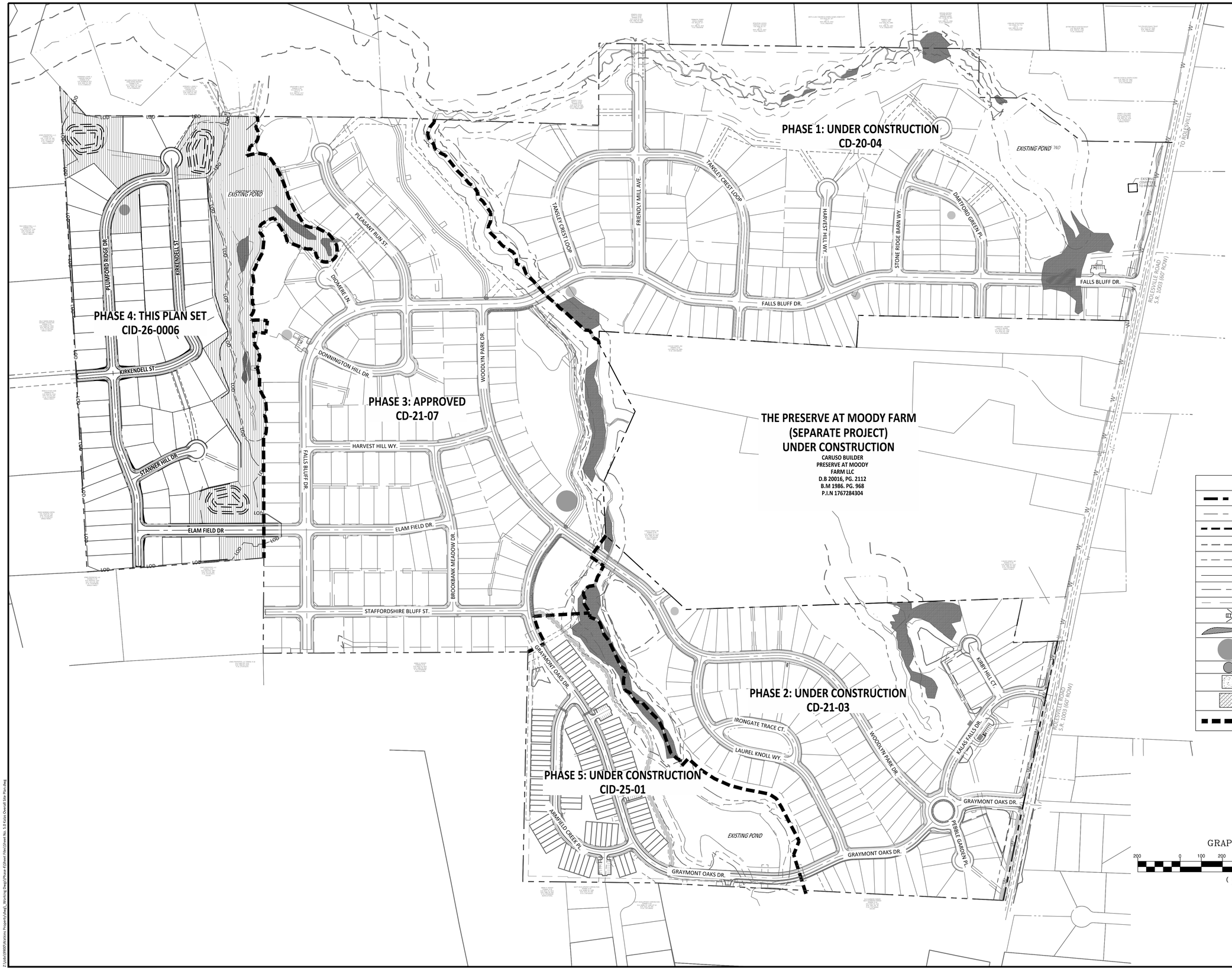

SITE LEGEND	
	EXISTING PROJECT BOUNDARY
	PROPOSED LOT LINE
	100 YEAR FLOOD EASEMENT
	BUILDING RESTRICTION LINE
	PROPOSED LOT SETBACK
	PROPOSED ROW
	PROPOSED CENTERLINE
	PROPOSED UTILITY EASEMENT
	PROPOSED HANDICAP RAMPS
	PROPOSED SIGHT TRIANGLE
	TOT LOT
	POCKET PARK
	PUBLIC ROADSIDE TRAIL
	EXISTING WETLANDS
	PROPOSED PHASELINE

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch =200

*** 3 Days Before Digging ***
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Remote Ticket Entry
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NORTH CAROLINA
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CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 062383 ROMAN S. COOK
2026.09.09 15:26:39-04'00'

FOR CONSTRUCTION

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER:	9900
CHECKED BY:	RC
DRAWN BY:	DH, BG, CR, JB
DATE:	SEPTEMBER 8, 2026

SHEET TITLE:
KALAS OVERALL SITE PLAN

SHEET NO.:
C3.0

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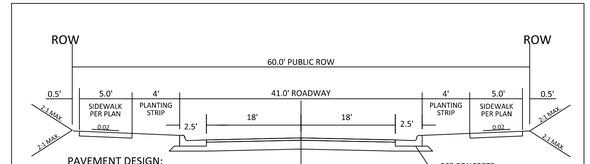
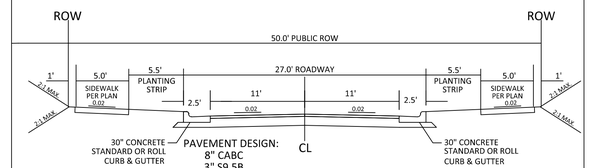


NOTE:
1. NORMAL CROWN OF 0.02 UNLESS OTHERWISE DIRECTED BY TOWN ENGINEER.
2. ASPHALT WILL BE INSTALLED AT A MIN. 1.5" LIFTS.

41' B-B ON A 60' R/W
TYPICAL SECTION



NOTE:
1. NORMAL CROWN OF 0.02 UNLESS OTHERWISE DIRECTED BY TOWN ENGINEER.
2. ASPHALT WILL BE INSTALLED AT A MIN. 1.5" LIFTS.

27' B-B ON A 50' R/W
TYPICAL SECTION

SINGLE FAMILY SETBACK TABLE					
	50'-59'	60'-69'	70'-79'	80'-100'	101'+
FRONT	20'	25'	25'	25'	25'
REAR	20'	25'	25'	25'	30'
SIDE	**	*	*	10'	12'
CORNER SIDE	10'	10'	10'	15'	18'
MINIMUM LOT SIZE	6,000 SF	6,600 SF	8,400 SF	10,400 SF	14,000 SF
* AGGREGATE 12' (MINIMUM 5') ** AGGREGATE 10' (MINIMUM 3')					

LEGEND	
PROPERTY LINE	
RIGHT-OF-WAY	
ROAD CENTERLINE	
PROPERTY SETBACKS	
PHASE LINE	
NEUSE RIVER ZONE 2	
NEUSE RIVER ZONE 1	
SURFACE WATER	
OPEN SPACE	
EXISTING WETLANDS	
10' CURB TRANSITION	
STREET ADDRESS #	XXXX

NOTE: THE MAIL KIOSK FOR THIS PHASE IS LOCATED IN THE ADJACENT KALAS PHASE 3.

GENERAL NOTE:

1. SIGHT DISTANCE TRIANGLES ARE 10'x70'. WHERE SIGHT LINES ENCROACH ONTO A PRIVATE LOT A SIGHT EASEMENT IS REQUIRED.
2. BACK OF CURB RADIUS AT INTERSECTIONS:
   - 2.1. RESIDENTIAL-RESIDENTIAL- 28'
   - 2.2. RESIDENTIAL-COLLECTOR- 30'
   - 2.3. COLLECTOR-COLLECTOR- 30'
   - 2.4. ENTRANCE AT CUL-DE-SAC- 32.5
   - 2.5. ENTRY ROADS-ROLESVILLE RD.- 35'
3. IF HANDICAP RAMP LOCATIONS CONFLICT WITH DRIVEWAY LOCATION PLEASE SEE THIS SHEET FOR STANDARD DETAIL MODIFIED DRIVEWAY DETAIL
4. ALL SCMS (4A, 4D, AND 5A) TO BE MAINTAINED BY HOA.

GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)
1 inch =120

CID-26-0006
MRCP-0061-2026

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
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NORTH CAROLINA PROFESSIONAL SEAL 052383 ENGINEER ROMAN S. COOK

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER:	9900
CHECKED BY:	RC
DRAWN BY:	DH, BG, CR, JB
DATE:	SEPTEMBER 8, 2026

SHEET TITLE:
PHASE 4 OVERALL SITE PLAN

SHEET NO.:
C3.1

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GENERAL NOTE:

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   - 2.3. COLLECTOR-COLLECTOR- 30'
   - 2.4. ENTRANCE AT CUL-DE-SAC- 32.5
   - 2.5. ENTRY ROADS-ROLESVILLE RD.- 35'
3. RETAINING WALLS AND ALL RETAINING WALL APPURTENANCES ARE TO BE MAINTAINED BY HOA.
4. THE MAIL KIOSK FOR THIS PHASE IS LOCATED IN THE ADJACENT KALAS PHASE 3.
5. ALL SCMS (4A, 5A, AND 4D) TO BE MAINTAINED BY HOA.

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KALAS FALLS PHASE 4

CONSTRUCTION INFRASTRUCTURE DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER:	9900
CHECKED BY:	RC
DRAWN BY:	DH, BG, CR, JB
DATE:	SEPTEMBER 8, 2026

SHEET TITLE:

SITE PLAN AREA A

SHEET NO.:

C3.2

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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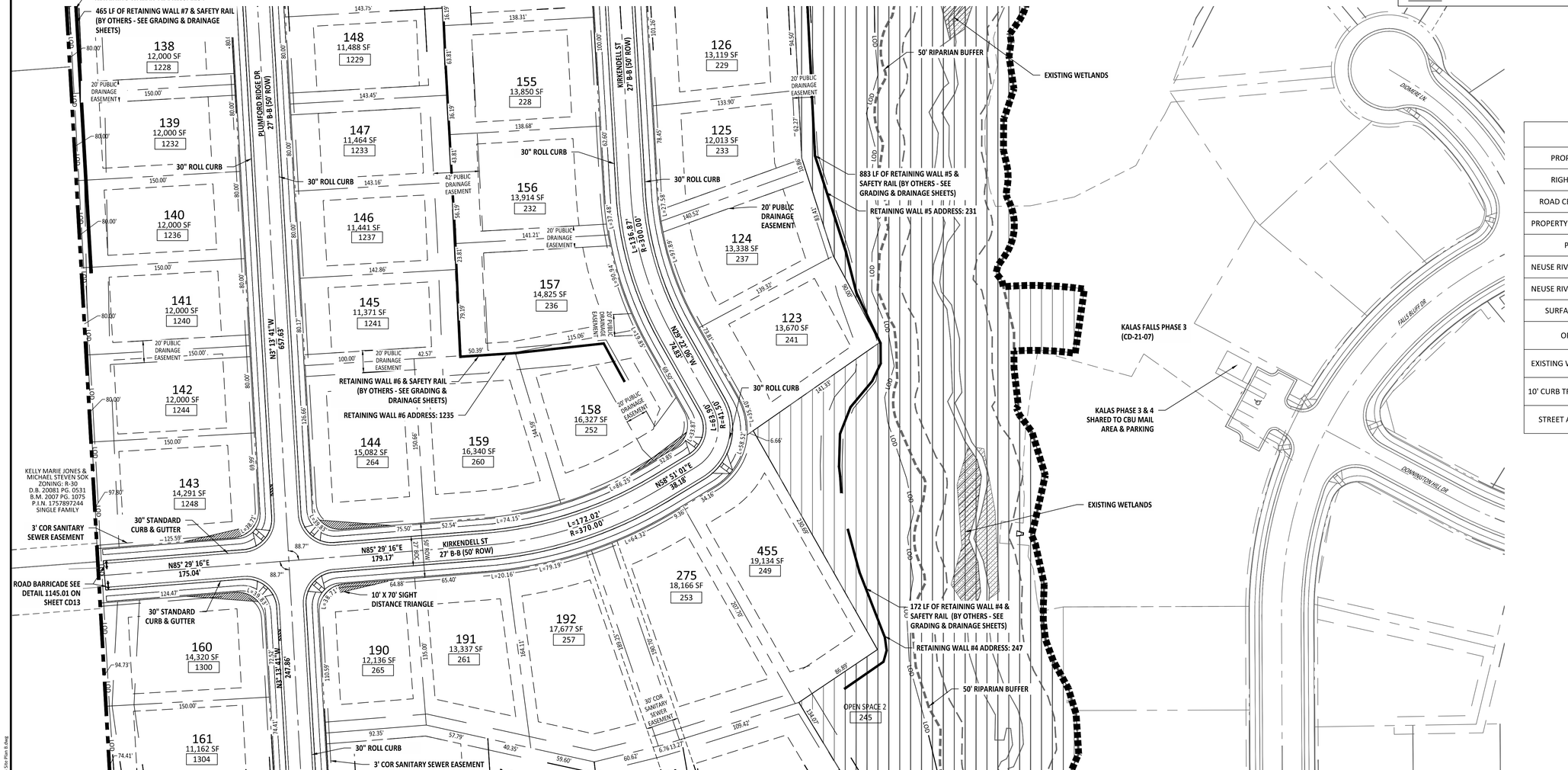

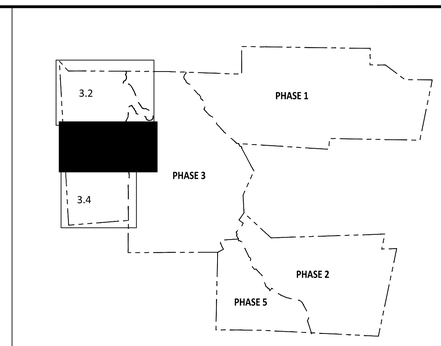

KEY MAP

LEGEND	
PROPERTY LINE	
RIGHT-OF-WAY	
ROAD CENTERLINE	
PROPERTY SETBACKS	
PHASE LINE	
NEUSE RIVER ZONE 2	
NEUSE RIVER ZONE 1	
SURFACE WATER	
OPEN SPACE	
EXISTING WETLANDS	
10' CURB TRANSITION	
STREET ADDRESS #	XXXX

GENERAL NOTE:

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2. BACK OF CURB RADIUS AT INTERSECTIONS:
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   - 2.4. ENTRANCE AT CUL-DE-SAC- 32.5
   - 2.5. ENTRY ROADS-ROLESVILLE RD.- 35'
3. RETAINING WALLS AND ALL RETAINING WALL APPURTENANCES ARE TO BE MAINTAINED BY HOA.
4. THE MAIL KIOSK FOR THIS PHASE IS LOCATED IN THE ADJACENT KALAS PHASE 3.
5. ALL SCMS (4A, 5A, AND 4D) TO BE MAINTAINED BY HOA.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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NORTH CAROLINA PROFESSIONAL SEAL 062383 ENGINEER ROMAN S. COOK

FOR CONSTRUCTION

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
SITE PLAN
AREA B

SHEET NO.:
C3.3

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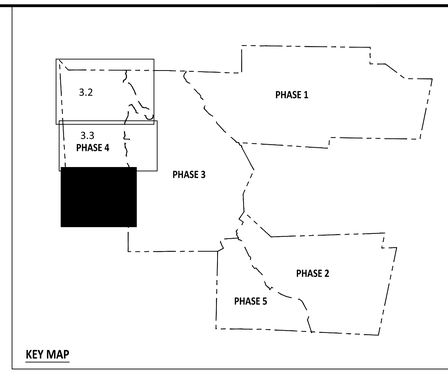

KEY MAP

LEGEND

PROPERTY LINE	
RIGHT-OF-WAY	
ROAD CENTERLINE	
PROPERTY SETBACKS	
PHASE LINE	
NEUSE RIVER ZONE 2	
NEUSE RIVER ZONE 1	
SURFACE WATER	
OPEN SPACE	
EXISTING WETLANDS	
10' CURB TRANSITION	
STREET ADDRESS #	XXXX

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

GENERAL NOTE:

1. SIGHT DISTANCE TRIANGLES ARE 10'x70'. WHERE SIGHT LINES ENCROACH ONTO A PRIVATE LOT A SIGHT EASEMENT IS REQUIRED.
2. BACK OF CURB RADIUS AT INTERSECTIONS:
   - 2.1. RESIDENTIAL-RESIDENTIAL- 28'
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   - 2.3. COLLECTOR-COLLECTOR- 30'
   - 2.4. ENTRANCE AT CUL-DE-SAC- 32.5
   - 2.5. ENTRY ROADS-ROLESVILLE RD.- 35'
3. RETAINING WALLS AND ALL RETAINING WALL APPURTENANCES ARE TO BE MAINTAINED BY HOA.
4. THE MAIL KIOSK FOR THIS PHASE IS LOCATED IN THE ADJACENT KALAS PHASE 3.
5. ALL SCMS (4A, 5A, AND 4D) TO BE MAINTAINED BY HOA.

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4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 052383 ENGINEER ROMAN S. COOK
15:26:46 -04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
SITE PLAN
AREA C

SHEET NO.:
C3.4

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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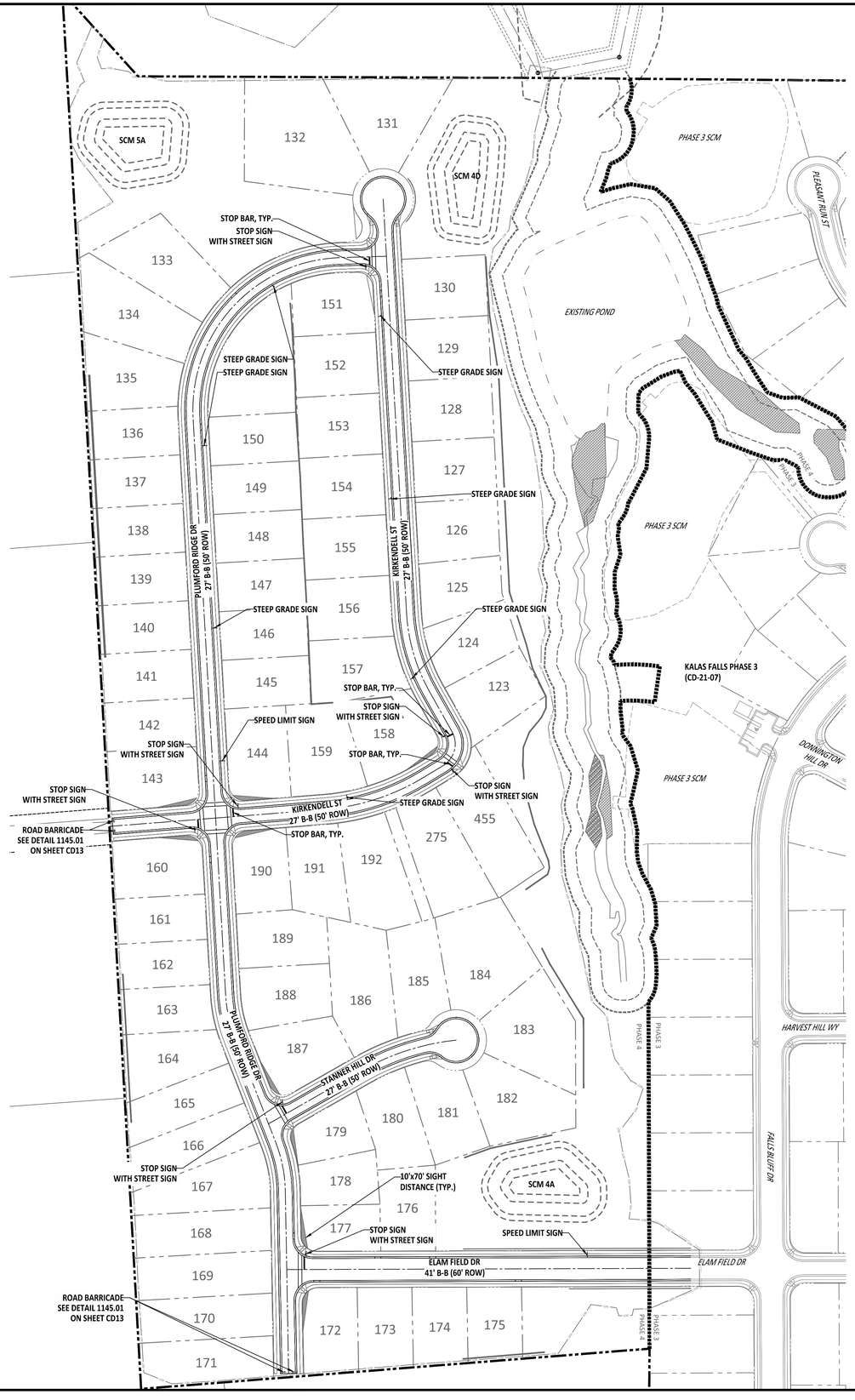

SIGNAGE		
SIGN TYPE	MUTCD STD.	SIZE
STOP	R1-1	30" x 30"
SPEED LIMIT	R2-1	18" x 24"
STEEP GRADE	W7-3P	18" x 24"

PAVEMENT MARKINGS			
MARKING TYPE	NCDOT STD.	SIZE	COLOR
STANDARD CROSSWALK	1205.07	24-IN	WHITE
STOP BAR	1205.01	24-IN	WHITE

LEGEND	
PROPERTY LINE	
RIGHT-OF-WAY	
PHASE LINE	
NEUSE RIVER ZONE 2	
NEUSE RIVER ZONE 1	
SURFACE WATER	
EXISTING WETLANDS	

PAVEMENT MARKINGS & SIGNAGE NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC TYPE EXCEPT FOR PARKING SPACE LINES WHICH SHALL BE ALKYN-RESIN PAINT.
2. CONTRACTOR TO REFERENCE NCDOT STANDARDS AS NOTED FOR MORE DETAIL ON STRIPING.
3. ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY TOWN OF ROLESVILLE PRIOR TO SIGN INSTALLATION.
4. ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
5. ALL SIGNS ARE TO BE MOUNTED WITH 7 FT MINIMUM CLEARANCE TO THE BOTTOM OF THE SIGN, ON 3 LB GALVANIZED STEEL U-CHANNEL POST AND SET WITHIN 3 FT DEEP X 12 INCH DIAMETER CONCRETE FOOTING.
6. POSTED SPEED LIMIT SHALL BE 25 MPH.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch =100

North Carolina 811
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NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 082383 ENGINEER ROMAN S. COOK

2026.09.08 15:26:48-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

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KALAS FALLS PHASE 4

CONSTRUCTION INFRASTRUCTURE DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:

STRIPING & SIGNAGE PLAN

SHEET NO.:

C3.5

Z:\Jobs\9900\Kalas Property\Revit_Working Dwgs\Phase 4\Sheet Files\Sheet No. 14.0 Phase 4 Transportation Plan.dwg



LEGEND	
PROPERTY LINE	
RIGHT-OF-WAY	
PHASE LINE	
NEUSE RIVER ZONE 2	
NEUSE RIVER ZONE 1	
SURFACE WATER	
EXISTING WETLANDS	

GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)
1 inch =120

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NORTH CAROLINA PROFESSIONAL SEAL 062383 ENGINEER ROMAN S. COOK

FOR CONSTRUCTION

NO.	DATE	REVISION:

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
PHASE 4 OVERALL GRADING & DRAINAGE

SHEET NO.:
C4.0

North Carolina 811 811 or 1-800-632-4949
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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LEGEND	
PROPERTY LINE	
RIGHT-OF-WAY	
PHASE LINE	
NEUSE RIVER ZONE 2	
NEUSE RIVER ZONE 1	
SURFACE WATER	
EXISTING WETLANDS	

GRADING & DRAINAGE NOTES

1. PDD ABBREVIATES PERMANENT DIVERSION DITCH
2. THIS GRADING PLAN SUPPORTS THE IMPLEMENTATION OF CRAWL SPACE AND BASEMENT FOUNDATIONS. CONTRACTOR TO DETERMINE THE PREFERRED FOUNDATION TYPE ON A LOT BY LOT BASIS.
3. PAD ELEVATIONS HAVE BEEN PROVIDED FOR SELECT LOTS WHERE IT IS ANTICIPATED THAT THE FOUNDATION WILL HAVE TO BE BUILT UP FROM PROPOSED GRADE TO MAINTAIN DRAINAGE AND GRADING DESIGN ON SITE.
4. EXT. FFE ABBREVIATES ESTIMATED FINISH FLOOR ELEVATION.
5. THE ESTIMATED FINISH FLOOR ELEVATION, FINE GRADING, AND DRIVEWAY & BUILDING LOCATIONS TO BE ESTABLISHED BY THE CONTRACTOR/ARCHITECT AT THE TIME OF BUILDING PERMITS.
6. APPROVED CID DRAINAGE PATTERNS AND EASEMENTS TO BE MAINTAINED WITH FINE GRADING ACTIVITIES.
7. DRIVEWAY LONGITUDINAL SLOPES TO BE A MINIMUM OF 2.00% AND A MAXIMUM OF 10.00%.
8. BUILDING AND DRIVEWAYS SHOWN ARE APPROXIMATES TO CONVEY DESIGN INTENT.
9. CHECK DAMS ARE TO BE 1.5-FEET IN HEIGHT AND SPAN THE ENTIRE DIVERSION DITCH CROSS SECTION.
10. ROCK CHECK DAMS ARE INDICATED AT APPROXIMATE 50 LINEAR FOOT INTERVALS. FINAL LOCATIONS SHALL BE FIELD-ADJUSTED BY THE CONTRACTOR TO AVOID CONFLICTS WITH UTILITIES, DRAINAGE STRUCTURES, AND OTHER SITE INFRASTRUCTURE.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

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NORTH CAROLINA ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 052383 ENGINEER ROMAN S. COOK 10/26/2026 15:26:51 -04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
GRADING & DRAINAGE AREA A

SHEET NO.:
C4.1

North Carolina 811 811 or 1-800-632-4949

*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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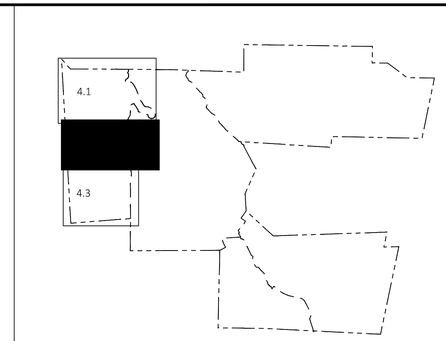

LEGEND	
PROPERTY LINE	
RIGHT-OF-WAY	
PHASE LINE	
NEUSE RIVER ZONE 2	
NEUSE RIVER ZONE 1	
SURFACE WATER	
EXISTING WETLANDS	

GRADING & DRAINAGE NOTES

1. PDD ABBREVIATES PERMANENT DIVERSION DITCH
2. THIS GRADING PLAN SUPPORTS THE IMPLEMENTATION OF CRAWL SPACE AND BASEMENT FOUNDATIONS. CONTRACTOR TO DETERMINE THE PREFERRED FOUNDATION TYPE ON A LOT BY LOT BASIS.
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GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

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NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3887 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 062383 2026.09.09 ENGINEER ROMAN S. COMPTON

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
GRADING & DRAINAGE AREA B

SHEET NO.:
C4.2

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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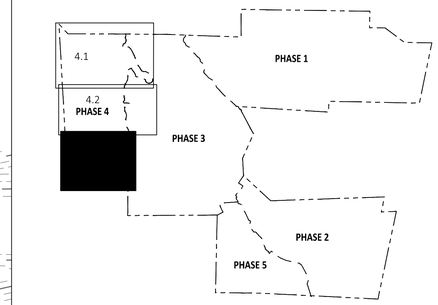

KEY MAP

LEGEND	
PROPERTY LINE	
RIGHT-OF-WAY	
PHASE LINE	
NEUSE RIVER ZONE 2	
NEUSE RIVER ZONE 1	
SURFACE WATER	
EXISTING WETLANDS	

GRADING & DRAINAGE NOTES

1. PDD ABBREVIATES PERMANENT DIVERSION DITCH
2. THIS GRADING PLAN SUPPORTS THE IMPLEMENTATION OF CRAWL SPACE AND BASEMENT FOUNDATIONS. CONTRACTOR TO DETERMINE THE PREFERRED FOUNDATION TYPE ON A LOT BY LOT BASIS.
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4. EXT. FFE ABBREVIATES ESTIMATED FINISH FLOOR ELEVATION.
5. THE ESTIMATED FINISH FLOOR ELEVATION, FINE GRADING, AND DRIVEWAY & BUILDING LOCATIONS TO BE ESTABLISHED BY THE CONTRACTOR/ARCHITECT AT THE TIME OF BUILDING PERMITS.
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9. CHECK DAMS ARE TO BE 1.5-FEET IN HEIGHT AND SPAN THE ENTIRE DIVERSION DITCH CROSS SECTION.
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GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50

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NORTH CAROLINA PROFESSIONAL SEAL 062383 ENGINEER ROMAN S. COOK 2026.03.09 15:26:55-04'00'

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER:	9900
CHECKED BY:	RC
DRAWN BY:	DH, BG, CR, JB
DATE:	SEPTEMBER 8, 2026

SHEET TITLE:
GRADING & DRAINAGE AREA C

SHEET NO.:
C4.3

North Carolina 811 811.com
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Remote Ticket Entry
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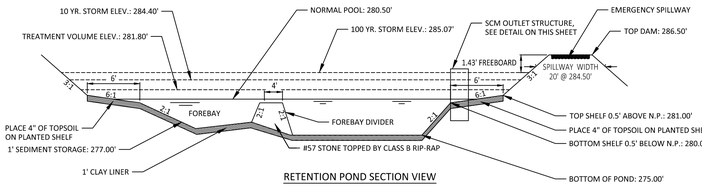
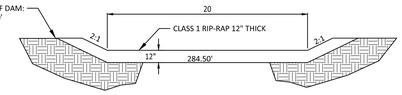


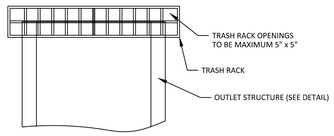
RETENTION POND SECTION VIEW



EMERGENCY SPILLWAY SECTION VIEW
N.T.S.

SCM 4D SECTION VIEW
N.T.S.

NOTES:
1. SEE SHEET G1.1 FOR SCM CONVERSION SEQUENCE.
2. FOREBAY DIVIDERS ARE TO BE INSTALLED WHILE CONVERTING FROM SEDIMENT BASIN TO WET POND.
3. SCM 4D TO BE MAINTAINED BY HOA.



NOTES:
1. TRASH RACK SHALL BE 6" CLEAR OF STRUCTURE TOP AND SIDES. THE TRASH RACK NEED NOT COVER THE TREATMENT OUTLET PIPE.
2. TRASH RACK SHALL BE FASTENED TO EACH SIDE OF THE STRUCTURE AT AT LEAST 2 POINTS. IT SHALL BE EASILY REMOVED FOR MAINTENANCE OR ENTRY INTO THE STRUCTURE.
3. TRASH RACK SHALL ACCOMMODATE VALVE SHAFT THOUGH AN OPENING.
4. TRASH RACK SHALL BE MADE OF DURABLE MATERIAL WHICH WILL NOT RUST OR DETERIORATE IN SUNLIGHT.
5. TOP OF TRASH RACK SHALL HAVE A GRID OF BARS (MAX. 5"\x5").

TRASH RACK DETAIL
N.T.S.

PLANT LIST VEGETATED SHELF PLANT SCHEDULE:

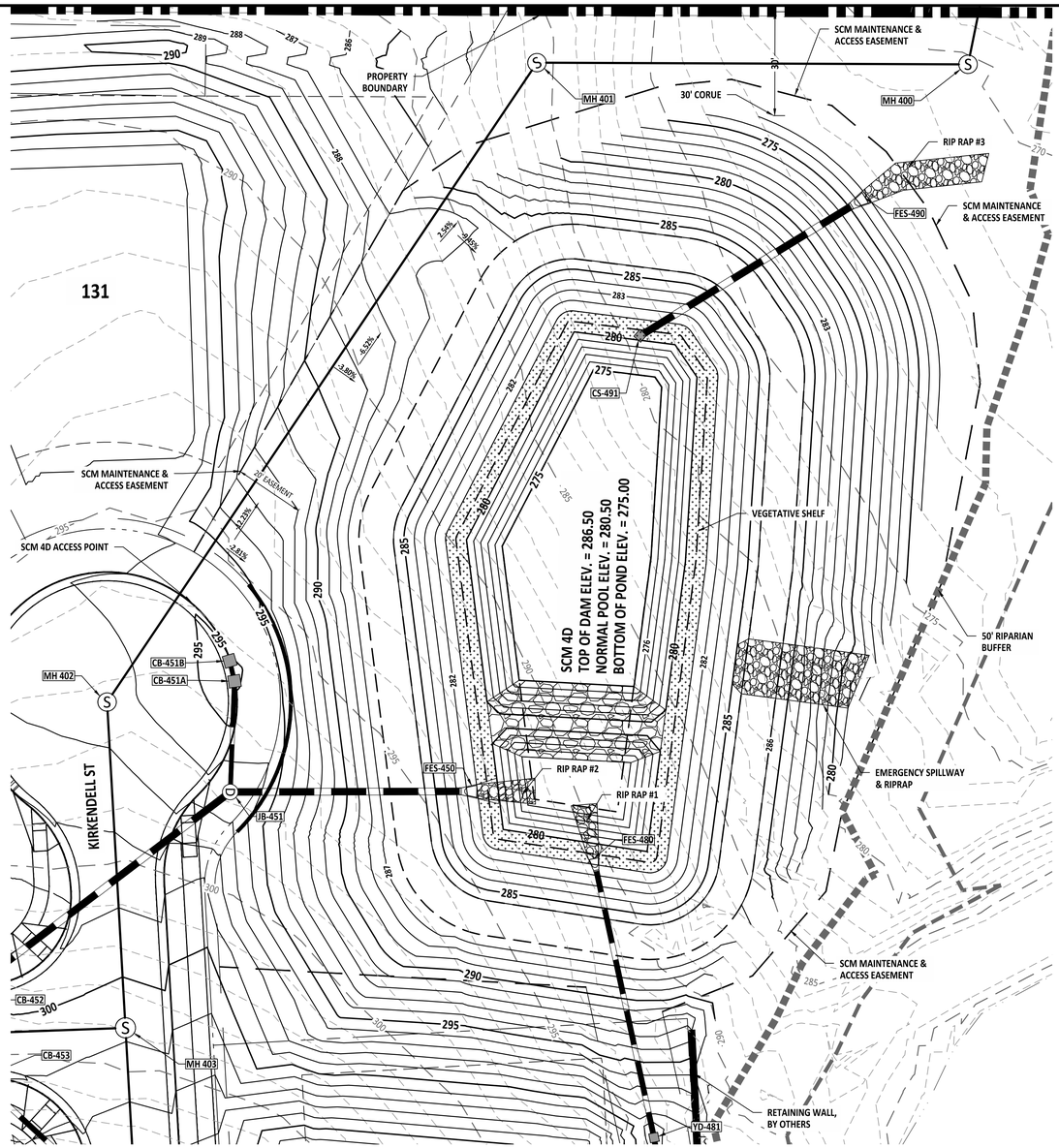
VEGETATED SHELF (HERB.)

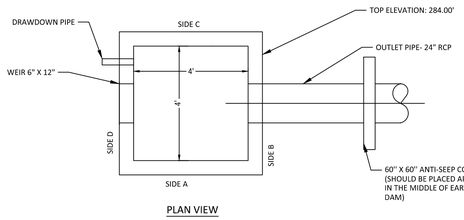
EF	EUPATORUIM FISTRULOSUM	JOE PYE WEED	4-6" POT @ 3' SPACING
HC	HIBICUS COCCINEA	SCARLET ROSE MALLOW	4-6" POT @ 3' SPACING
CG	CHELONE GLABRA	WHITE TURTLEHEAD	4-6" POT @ 3' SPACING
LC	LOBELIA CARDINALIS	CARDINAL FLOWER	4-6" POT @ 3' SPACING

LANDSCAPE PLAN:

VEGETATED SHELF= 2,290 sf (USE 573 PLANTS FROM LIST ABOVE)
USE EQUAL NUMBER OF PLANTS FROM LIST ABOVE

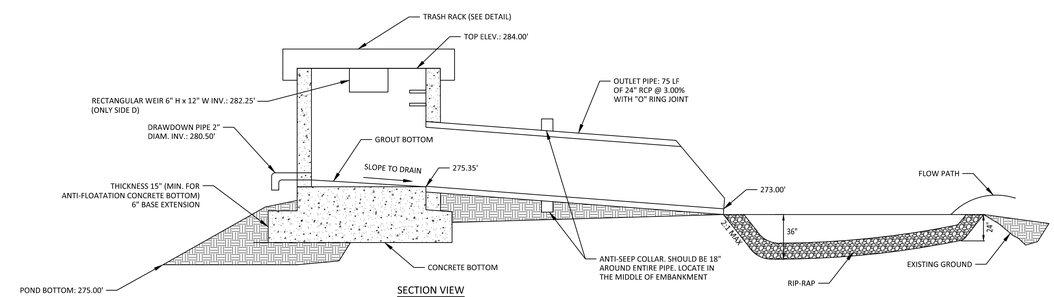
CALCULATION: 50 PLANTS PER 200 SF





PLAN VIEW

NOTES:
1. WALL THICKNESS AND REINFORCEMENT TO BE DETERMINED BY PRECAST CONCRETE MANUFACTURER.
2. OUTLET STRUCTURE ELEVATIONS SHOWN ON THE DETAILS ON THIS SHEET ARE CRITICAL AND MUST BE WITHIN 0.02' OF THAT SHOWN. IF OUTLET STRUCTURES ARE PRE-CAST OFF-SITE, THE HOLE FOR THE OUTLET PIPE SHALL BE ENLARGED TO ALLOW UP TO 0.3' OF VERTICAL MOVEMENT. WHEN INSTALLED, THE EXCESS OPENING SHALL BE FILLED WITH GROUT.
3. OUTLET PIPES SHALL HAVE AN ANTI-SEEP COLLAR OF CONCRETE LOCATED APPROXIMATELY UNDER THE MIDDLE OF THE DAM IN WHICH IT IS LOCATED. IT SHALL CONSIST OF CONCRETE POURED AROUND THE PIPE IN A VERTICAL DIRECTION. THE COLLAR SHALL BE A SQUARE 8" THICK AND SHALL EXTEND 18" BEYOND THE OUTSIDE OF THE PIPE IN EACH DIRECTION.
4. TREATMENT OUTLET PIPE SHALL NOT BE PVC BUT OTHER MATERIAL SUCH AS GSP WHICH IS NOT SUBJECT TO DETERIORATION IN SUNLIGHT.



SECTION VIEW

OUTLET STRUCTURE SCM 4D
N.T.S.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20

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919-469-1101

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NORTH CAROLINA PROFESSIONAL SEAL 082383 ENGINEER ROMAN S. COOK
2026.09.08 15:26:56-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
SCM 4D DETAIL

SHEET NO.:
C4.4

North Carolina 811 811.com
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North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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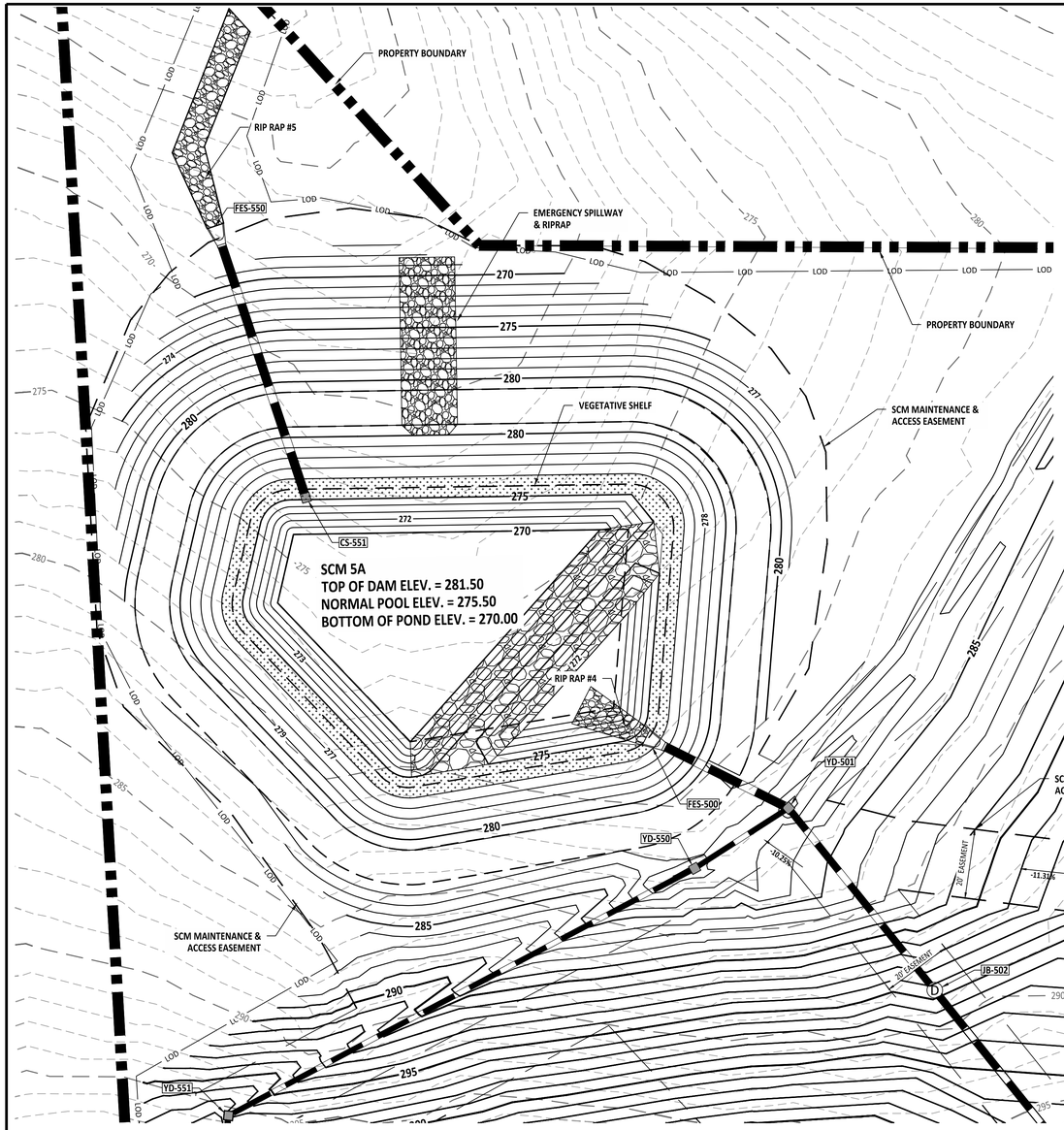
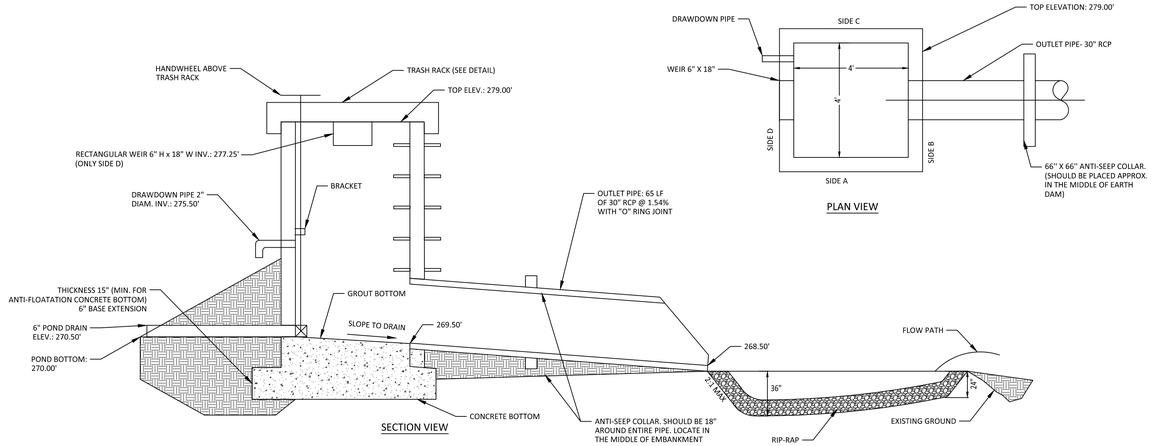
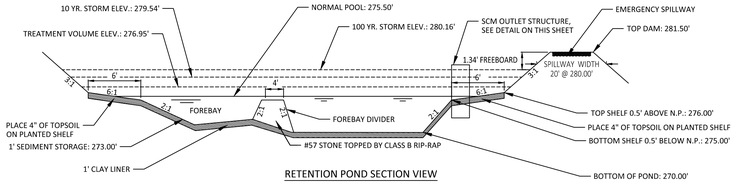




OUTLET STRUCTURE SCM 5A
N.T.S.

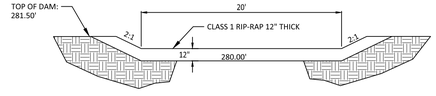
NOTES:
1. WALL THICKNESS AND REINFORCEMENT TO BE DETERMINED BY PRECAST CONCRETE MANUFACTURER.
2. OUTLET STRUCTURE ELEVATIONS SHOWN ON THE DETAILS ON THIS SHEET ARE CRITICAL AND MUST BE WITHIN 0.02' OF THAT SHOWN. IF OUTLET STRUCTURES ARE PRE-CAST OFF-SITE, THE HOLE FOR THE OUTLET PIPE SHALL BE ENLARGED TO ALLOW UP TO 0.3' OF VERTICAL MOVEMENT. WHEN INSTALLED, THE EXCESS OPENING SHALL BE FILLED WITH GROUT.
3. OUTLET PIPES SHALL HAVE AN ANTI-SEEP COLLAR OF CONCRETE LOCATED APPROXIMATELY UNDER THE MIDDLE OF THE DAM IN WHICH IT IS LOCATED. IT SHALL CONSIST OF CONCRETE POURED AROUND THE PIPE IN A VERTICAL DIRECTION. THE COLLAR SHALL BE A SQUARE 8" THICK AND SHALL EXTEND 18" BEYOND THE OUTSIDE OF THE PIPE IN EACH DIRECTION.
4. TREATMENT OUTLET PIPE SHALL NOT BE PVC BUT OTHER MATERIAL SUCH AS GSP WHICH IS NOT SUBJECT TO DETERIORATION IN SUNLIGHT.



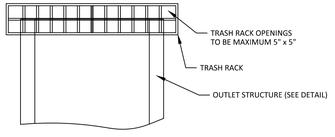
RETENTION POND SECTION VIEW

SCM 5A SECTION VIEW
N.T.S.

NOTES:
1. SEE SHEET G1.1 FOR SCM CONVERSION SEQUENCE.
2. FOREBAY DIVIDERS ARE TO BE INSTALLED WHILE CONVERTING FROM SEDIMENT BASIN TO WET POND.
3. SCM 5A TO BE MAINTAINED BY HOA.



EMERGENCY SPILLWAY SECTION VIEW
N.T.S.



NOTES:
1. TRASH RACK SHALL BE 6" CLEAR OF STRUCTURE TOP AND SIDES. THE TRASH RACK NEED NOT COVER THE TREATMENT OUTLET PIPE.
2. TRASH RACK SHALL BE FASTENED TO EACH SIDE OF THE STRUCTURE AT AT LEAST 2 POINTS. IT SHALL BE EASILY REMOVED FOR MAINTENANCE OR ENTRY INTO THE STRUCTURE.
3. TRASH RACK SHALL ACCOMMODATE VALVE SHAFT THOUGH AN OPENING.
4. TRASH RACK SHALL BE MADE OF DURABLE MATERIAL WHICH WILL NOT RUST OR DETERIORATE IN SUNLIGHT.
5. TOP OF TRASH RACK SHALL HAVE A GRID OF BARS (MAX. 5"x5").

TRASH RACK DETAIL
N.T.S.

PLANT LIST VEGETATED SHELF PLANT SCHEDULE:

VEGETATED SHELF (HERB.)

EF	EUPATORUIM FISTRULOSUM	JOE PYE WEED	4-6" POT @ 3' SPACING
HC	HIBICUS COCCINEA	SCARLET ROSE MALLOW	4-6" POT @ 3' SPACING
CG	CHELONE GLABRA	WHITE TURTLEHEAD	4-6" POT @ 3' SPACING
LC	LOBELIA CARDINALIS	CARDINAL FLOWER	4-6" POT @ 3' SPACING

LANDSCAPE PLAN:
VEGETATED SHELF= 2,195 sf (USE 549 PLANTS FROM LIST ABOVE)
USE EQUAL NUMBER OF PLANTS FROM LIST ABOVE

CALCULATION: 50 PLANTS PER 200 SF

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20

AMERICAN Engineering
American Engineering Associates - Southeast, P.A.
4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 062583 ENGINEER ROMAN S. COOK 2026.03.09 15:26:58-04'00'

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

THIS DRAWING WAS PREPARED FOR USE ON THE SPECIFIC SITE, NAMED HEREON, CONTEMPORANEOUSLY WITH ITS ISSUE DATE AS LISTED, HEREON, AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

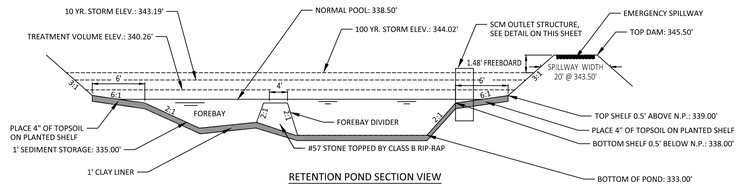
JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
SCM 5A DETAIL

SHEET NO.:
C4.5

North Carolina 811 811.com
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

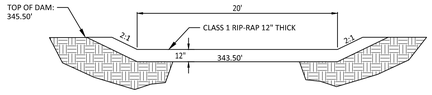
Z:\Jobs\0900\Watkins Property\Land_Working Dwgs\Phase 4\Sheet Files\Sheet No. 4.5 Phase 4 SCM 5A Detail.dwg



RETENTION POND SECTION VIEW

SCM 4A SECTION VIEW

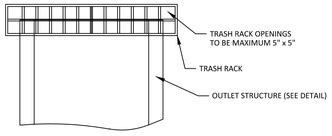
N.T.S.



EMERGENCY SPILLWAY SECTION VIEW

N.T.S.

NOTES:
1. SEE SHEET G1.1 FOR SCM CONVERSION SEQUENCE.
2. FOREBAY DIVIDERS ARE TO BE INSTALLED WHILE CONVERTING FROM SEDIMENT BASIN TO WET POND.
3. SCM 4A TO BE MAINTAINED BY HOA.



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TRASH RACK DETAIL

N.T.S.

PLANT LIST VEGETATED SHELF PLANT SCHEDULE:

VEGETATED SHELF (HERB.)

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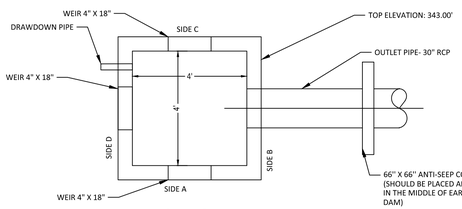
LANDSCAPE PLAN:

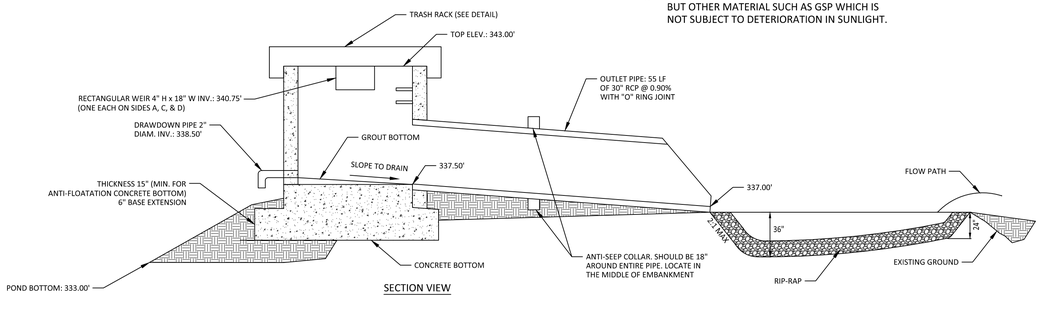
VEGETATED SHELF= 2,054 sf (USE 514 PLANTS FROM LIST ABOVE)
USE EQUAL NUMBER OF PLANTS FROM LIST ABOVE

CALCULATION: 50 PLANTS PER 200 SF



PLAN VIEW

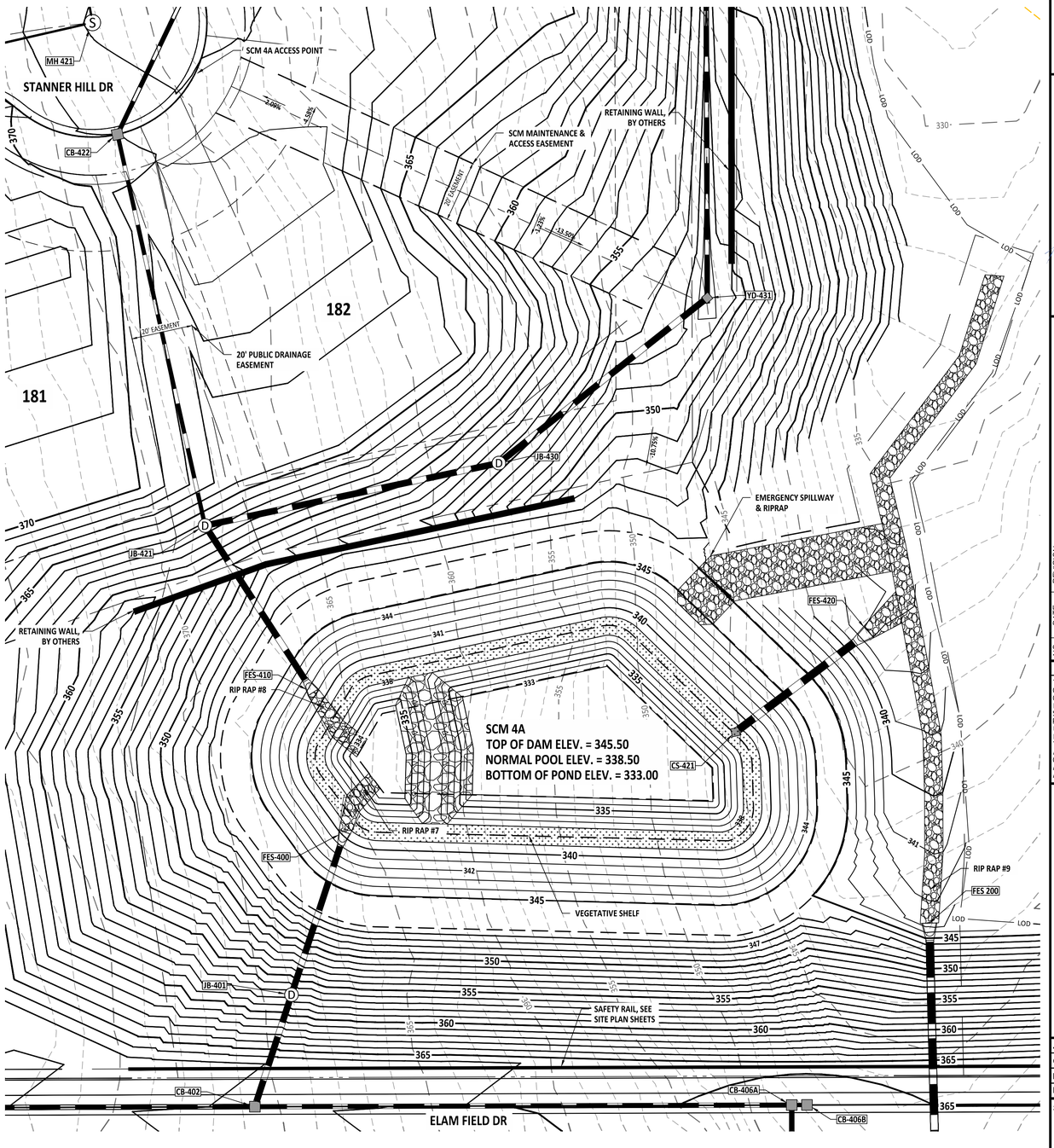
NOTES:
1. WALL THICKNESS AND REINFORCEMENT TO BE DETERMINED BY PRECAST CONCRETE MANUFACTURER.
2. OUTLET STRUCTURE ELEVATIONS SHOWN ON THE DETAILS ON THIS SHEET ARE CRITICAL AND MUST BE WITHIN 0.02' OF THAT SHOWN. IF OUTLET STRUCTURES ARE PRE-CAST OFF-SITE, THE HOLE FOR THE OUTLET PIPE SHALL BE ENLARGED TO ALLOW UP TO 0.3' OF VERTICAL MOVEMENT. WHEN INSTALLED, THE EXCESS OPENING SHALL BE FILLED WITH GROUT.
3. OUTLET PIPES SHALL HAVE AN ANTI-SEEP COLLAR OF CONCRETE LOCATED APPROXIMATELY UNDER THE MIDDLE OF THE DAM IN WHICH IT IS LOCATED. IT SHALL CONSIST OF CONCRETE POURED AROUND THE PIPE IN A VERTICAL DIRECTION. THE COLLAR SHALL BE A SQUARE 8" THICK AND SHALL EXTEND 18" BEYOND THE OUTSIDE OF THE PIPE IN EACH DIRECTION.
4. TREATMENT OUTLET PIPE SHALL NOT BE PVC BUT OTHER MATERIAL SUCH AS GSP WHICH IS NOT SUBJECT TO DETERIORATION IN SUNLIGHT.



SECTION VIEW

OUTLET STRUCTURE SCM 4A

N.T.S.



GRAPHIC SCALE

30 0 10 20 40 80

(IN FEET)
1 inch = 20

AMERICAN Engineering
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Raleigh, NC 27607
919-469-1101

NORTH CAROLINA AMERICAN ENGINEERING ASSOCIATES SOUTHEAST C-3881 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 062383 ENGINEER ROMAN S. COOK

FOR CONSTRUCTION

NO.	DATE	REVISION:

STIPULATION FOR REUSE

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER:	9900
CHECKED BY:	RC
DRAWN BY:	DH, BG, CR, JB
DATE:	SEPTEMBER 8, 2026

SHEET TITLE:

SCM 4A DETAIL

SHEET NO.:

C4.6

North Carolina 811
*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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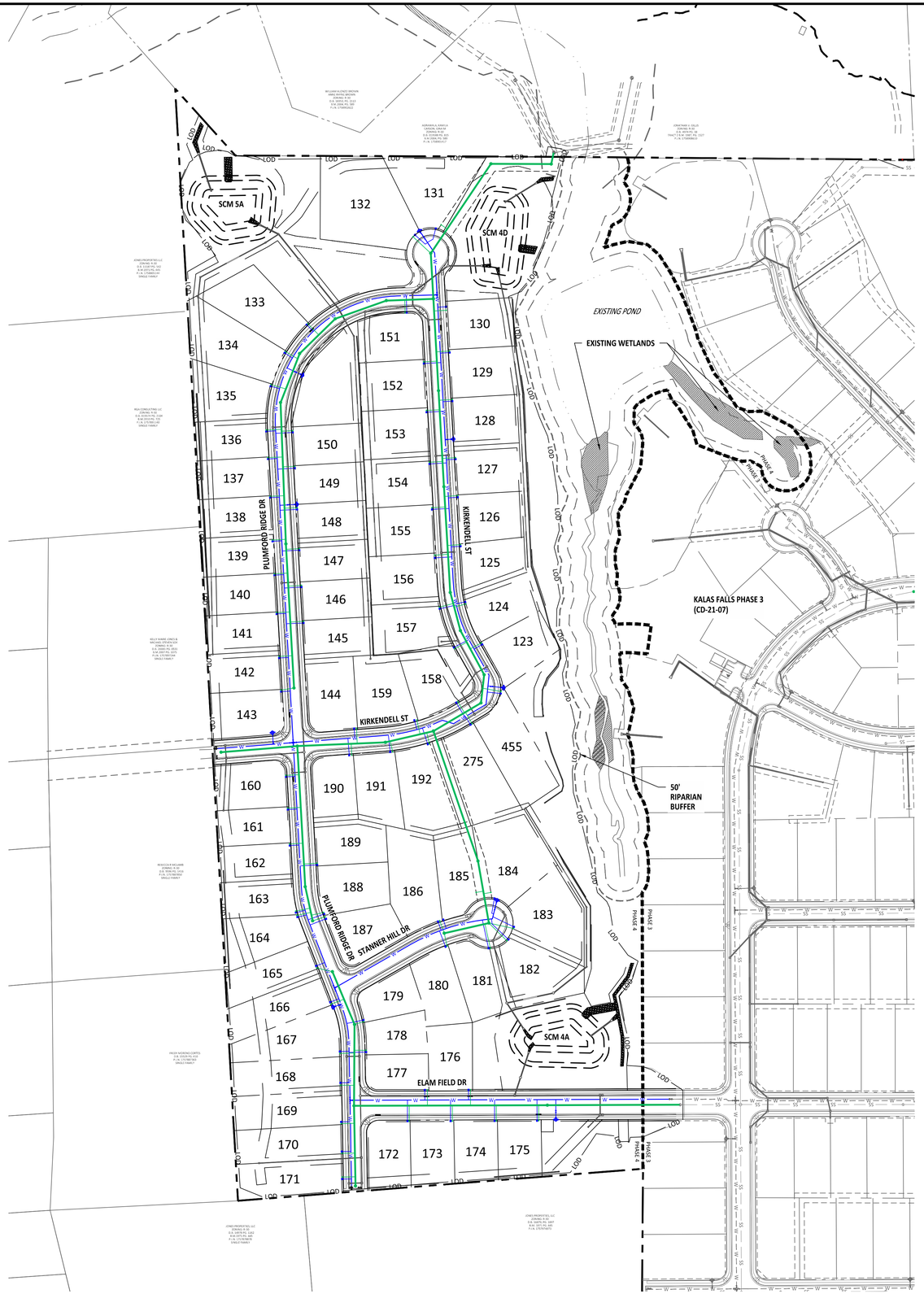

NOTE: THE 100 YEAR FLOOD-LINE AS ON THESE PLANS WERE TAKEN FROM THE FLOOD STUDY PREPARED BY DONLAD A SEVER, PE (024627) OF HUGH J. GILLEECE, III AND ASSOCIATES, P.A.

LEGEND	
PROPERTY LINE	
RIGHT-OF-WAY	
PHASE LINE	
NEUSE RIVER ZONE 2	
NEUSE RIVER ZONE 1	
SURFACE WATER	
EXISTING WETLANDS	

GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)

1 inch =120

JAN2025

STANDARD UTILITY NOTES

1. All materials & construction methods shall be in accordance with Raleigh Water design standards, details & specifications (reference: Raleigh Water Handbook, current edition)
2. Utility separation requirements:
   a. A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to waterline specifications. However, the minimum separation shall not be less than 25' from a private well or 50' from a public well.
   b. When installing water &/or sewer mains, the horizontal separation between utilities shall be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed is the water main in a separate trench with the elevation of the water main at least 18" above the top of the sewer & must be approved by the Raleigh Water Director. All distances are measured from outside diameter outside diameter.
   c. Where it is impossible to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to waterline specifications.
   d. 5.0' minimum horizontal separation is required between all sanitary sewer & storm sewer facilities, unless DIP material is specified for sanitary sewer.
   e. Maintain 18" min. vertical separation at all watermain & RCP storm drain crossings; maintain 18" min. vertical separation at all sanitary sewer & RCP storm drain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete cradle having 6" min. clearance (per Raleigh Water details W-41 & S-49).
   f. All other underground utilities shall cross water & sewer facilities with 18" min. vertical separation required.
3. Any necessary field revisions are subject to review & approval of an amended plan &/or profile by Raleigh Water prior to construction.
4. Developer shall provide 30 days advance written notice to owner for any work required within an existing City of Raleigh Utility Easement traversing private property.
5. Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24-hour advance notice to Raleigh Water.
6. SEWER BYPASS PUMPING – A bypass plan sealed by an NC Professional Engineer shall be provided to Raleigh Water prior to pumping operations for approval. The operations and equipment shall comply with the Raleigh Water Handbook.
7. 3.0' minimum cover is required on all water mains & sewer force mains. 4.0' minimum cover is required on all reuse mains.
8. It is the developer's responsibility to abandon or remove existing water & sewer services not being used in redevelopment of a site unless otherwise directed by Raleigh Water. This includes abandoning tap at main & removal of service from ROW or easement per Raleigh Water Handbook procedure.
9. Install water services with meters located at ROW or within a 2'x2' Waterline Easement immediately adjacent. NOTE: it is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure.
10. Inspections of 4" and larger water mains of the private distribution system will be inspected as part of the infrastructure permit.
11. Private sewer mains as part of a collection system are permitted and inspected under the private Infrastructure permit for sewer.
12. Any water or sewer services on private property that will be installed under Construction Drawings may require a Plumbing Utility Permit in the City of Raleigh. Consult with the Engineering Inspection Coordinator during the pre-construction meeting on the necessary permits.
13. Install sewer services with cleanouts located at ROW or easement line & spaced per the current NC Plumbing code.
14. Pressure reducing valves are required on all water services exceeding 80 psi; backwater valves are required on all sanitary sewer services having building drains lower than 1.0' above the next upstream manhole.
15. All environmental permits applicable to the project must be obtained from NCDWQ, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.
16. NCDOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction.
17. Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the RW FOG Program Coordinator prior to issuance of a UC and/or Building Permit. Contact (919) 996-4516 or fog@raleighnc.gov for more information.
18. Cross-connection control protection devices are required based on the degree of health hazard involved as listed in Appendix B of the Rules Governing Public Water Systems in North Carolina.
19. The devices shall meet the American Society of Sanitary Engineering (ASSE) standards and be on the University of Southern California approval list.
20. The device and installation shall meet the guidelines of Appendix A – Guidelines and Requirements for the Cross Connection Program in Raleigh's Service Area.
21. The devices shall be installed and tested (both, initial and periodic testing thereafter) in accordance with the manufacturer's recommendations or the local cross connection control program, whichever is more stringent. Contact Cross.connection@raleighnc.gov for more information.
22. NOTICE for projects that involve an oversized main or urban main replacement. Any City reimbursement greater than $250,000.00 must undergo the public bidding process.
23. Private sub-metering – No resale of water shall occur without approval of the North Carolina Utility Commission. Sub-metering shall be in accordance with Section 1400 of the "SAFE DRINKING WATER ACT".

ATTENTION CONTRACTORS

The Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Utilities Inspector at 919-996-3245 or https://cityworks.raleighnc.gov/pucontractors/New and schedule a Pre-construction meeting prior to beginning any construction.
Raleigh Water must be contacted at (919) 996-4540 at least twenty-four hours prior to beginning any work activity around critical water and sewer infrastructure.

Failure to notify the Divisions in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for Inspection, install a downstream plug, have permitted plans on the jobsite, or any other violation of City of Raleigh Standards will result in a fine and possible exclusion from future work in the City of Raleigh.

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NORTH CAROLINA PROFESSIONAL SEAL 052383 ENGINEER ROMAN S. COOK

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KALAS FALLS PHASE 4
CONSTRUCTION INFRASTRUCTURE
DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER:	9900
CHECKED BY:	RC
DRAWN BY:	DH, BG, CR, JB
DATE:	SEPTEMBER 8, 2026

SHEET TITLE:

OVERALL UTILITY PLAN

SHEET NO.:

C5.0

North Carolina 811

*** 3 Days Before Digging ***
North Carolina 811
811 or 1-800-632-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

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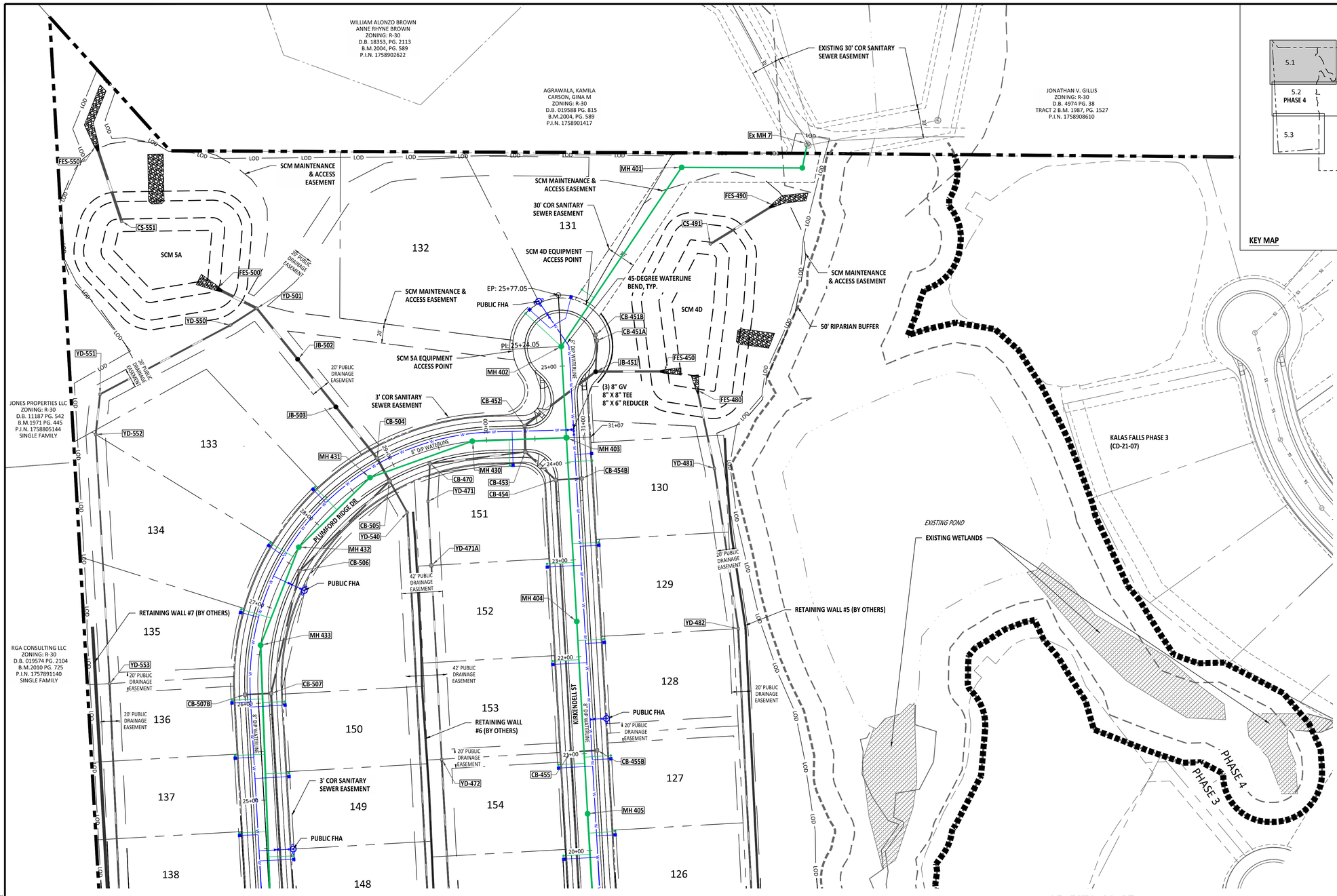

UTILITY NOTES:

1. CORUE STANDS FOR CITY OF RALEIGH PUBLIC UTILITY EASEMENT
2. FHA STANDS FOR FIRE HYDRANT ASSEMBLY
3. GV STANDS FOR GATE VALVE
4. WATER SERVICES TO BE COMPRISED OF ¾" TYPE "K" SOFT COPPER PIPE PER CITY DETAIL
5. WATER METERS TO BE ¾" PER CITY DETAIL
6. SEER SERVICES TO BE COMPRISED OF 4" PVC PER CITY DETAIL

ATTENTION CONTRACTORS

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DRAWINGS
CID-26-0006
0 MAINLY FARM ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY: RC
DRAWN BY: DH, BG, CR, JB
DATE: SEPTEMBER 8, 2026

SHEET TITLE:
UTILITY PLAN
AREA A

SHEET NO.:
C5.1

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