TRC COVERSHEET (Revised July 1, 2022)

City of Greensboro

Mailing Address: P.O. Box 3136, Greensboro NC 27402–3136
Office Address: 300 West Washington Street, Greensboro NC 27402
Questions? Please contact Jason Earliwine at jason.earliwine@greensboro–nc.gov or 336–373–4576

PLAN TYPE:	REVIEW FEE:
Site Plans	$1,400 plus $20 per 1,000 sq. ft. gross floor area
Multifamily Developments	$1,400 plus $25 per dwelling unit
Single Family Subdivisions	$1,400 plus $40 per lot
Minor Revisions	$320 plus the per lot, square footage, or dwelling unit listed below applied to any increase

Resubmittal of Plan for TRC Review (Per Review for 4th and Subsequent Reviews): $430
Wireless Telecommunication Facilities/New Towers: $1,400
Wireless Telecommunication Facilities/Co–locations: $160

Site Specific Development Plan Approval to obtain a Zoning Vested Right — Applicable review fee as listed above plus $1,140 for sites of less than 1 acre, $1,335 for sites of 1 to 4.9 Acres, or $1,525 for sites of 5 or more acres.

Landscape/Tree Conservation fees are payable prior to scheduling for TRC action.
Landscape Plan if submitted separately: $50
Tree/Land Disturbance Permit: $50
Tree Protection/Landscaping Inspection or Reinspection: $85 each

Please go to https://gsoapps.greensboro–nc.gov/SOALite/V5.03/WebClient/index.html?applicationName=PlanReview&authMode=c&AuthMode=c to submit a plan for review.

Review turn–around target is 10 working days.
Please use Design Review Checklist to ensure your plan is complete:
https://www.greensboro–nc.gov/home/showpublisheddocument/7661/637291302940830000

Project Summary (Completed by Design Agent):

A. **Site Street Addresses (All):** 9206 W MARKET ST.
COLFAX, NC 27235
B. **Project Name:** HEARTLAND LIVING & REHABILITATION
C. **Project Description:** PROPOSED 1-STORY BUILDING 107-UNIT ASSISTED LIVING FACILITY
D. **Type(s) of Plan:** Site Plan X Group Development Plan ____ TRC Lite: ____
Preliminary Subdivision ____ Site Specific Plan(Zoning Vested Right) ____
E. **Owner/Applicant** CENTURY CARE MANAGMENT
Email JIM.SCHMIDLIN@CENTURY-CARE.COM Phone (910) 263-1275
F. **Design Agent** BRENT SIEVERS, PE FEI (FLEMING ENGINEERING, INC)
Email BSIEVERS@feiconsulting.com Phone (336) 544-6432
G. **Also Report Comments to** ____
Email ____ Phone ____
H. **Tract Acres** 21.40 I. **Zoning District:** CD-O J. **Zoning Overlay:** ____
K. **Watershed:** ⚠ UPPER REEDY FORK CRK, GREENSBORO (WS-III), EAST FORK DEEP RIVER, UPPER RANDEMAN (WS-IV) L. **Current Use:** VACANT
M. **Proposed Use:** ASSISTED LIVING FACILITY
N. **Parking Required:** 53 SPACES **Proposed:** 125 SPACES
O. **# of Lots Now:** 2 **Proposed:** 1
P. **Multifamily Development: # of Units Total:** N/A
By type: Apartments N/A Townhomes N/A Condominiums N/A
Q. **Open Space (Res'l Projects) Required:** N/A **Proposed:** N/A
R. **Non-Res'l Gross Floor Area (GFA), by sf:**
Existing 0 SF – To Be Demolished 0 SF
+Proposed 76,085 SF = Total Resulting GFA 76,085 SF
S. **Built-Upon Area (BUA), by sf/ac and % of lot:**
Existing 15,332 SF / 0 35 AC / 1 64% – To Be Demolished 15,332 SF / 0 35 AC / 1 64%
+Proposed 178,301 SF / 4 09 AC / 19 13% = Total Resulting BUA 178,301 SF / 4 09 AC / 19 13%
T. **Will building(s) be sprinked?** Yes X No ____
U. **Building occupancy code under the Building Code:** I-2 & S-1

Stormwater Management/Watershed Information:

Stormwater Control/Improvements(s): N/A
Maximum Amount of BUA Allowed Per Stormwater Control Design: N/A
Distance to Nearest Floodway: MORE THAN 2000LF
On–site soil types(s): CkB - Clifford sandy loam, CkC - Clifford sandy loam, PpE2 - Poplar Forest clay loam, SmD - Siloam sandy loam
Hydrology groups(s): GROUP A (CKB, CKC), GROUP B (PPE2), GROUP D (SMD)
Amount of site to be disturbed: 14.67 AC

Check as Appropriate:

LANDSCAPE, TREE CONSERVATION APPROVAL AND INSPECTION:
To request an inspection or a pre–construction meeting contact the City Arborist at 336–373–2150

- [X] A LANDSCAPE PLAN (which depicts the plant types and locations) must be submitted to the Planning Department for review and approval WITHIN 90 DAYS OF RECEIVING A BUILDING PERMIT. The Landscape Plan must be approved before installation of plant material.
- [X] The required LANDSCAPE PLANT MATERIAL must be installed and inspected PRIOR to receiving a Certificate of Occupancy.
- [X] The required TREE PROTECTION FENCING must be installed and inspected PRIOR to land disturbance.
- [X] The required TREE CONSERVATION & REFORESTATION AREAS(s) must be inspected PRIOR to receiving a Certificate of Occupancy.

WATERSHED APPROVAL AND INSPECTION
(Questions? Contact Water Resources Engineering at 336–373–2055)

- [ ] A FINAL PLAT dedicating the DMUE and access easements must be recorded PRIOR to receiving a Certificate of Occupancy.
- [ ] Construction of the WATER QUALITY DEVICE (POND) must be complete and the "Engineer's Certification of Completion" sent to the Water Resources Department PRIOR to receiving a Certificate of Occupancy.
- [ ] Any sediment that enters the Pond during the construction must be removed PRIOR to issuance of a Certification of Occupancy.

FLOODPLAIN APPROVAL
(Questions? Contact Water Resources Engineering at 336–373–2055)

- [ ] Elevation Certification Required
- [ ] Floodplain Development Permit Required

AIRPORT AIR OPERATION AREA ALTERNATIVE STORMWATER CONTROL:
(Questions? Contact Water Resources Engineering at 336–373–2055)

- [X] This development is within 5 statute miles of Piedmont Triad International Airport air operation area. For such projects, according to Session Law 2012–200, the NCDEQ North Carolina Best Management Practice Manual provides acceptable alternative Stormwater control measures other than wet ponds or those that promote standing water. The design engineer has reviewed these alternatives.

SOIL EROSION CONTROL:
(Questions? Contact Erosion Control Officer at 336–373–2030)

- [ ] Watershed Pond Construction or Surety/ Improvement Guarantee Required

WATER RESOURCES CONSTRUCTION APPROVAL:
(Questions? Contact Water Resources Engineering at 336–373–2055)
**Permit application fees required before construction plans are released.*

Water System*
- [X] State Water Permit Required
- [ ] Outside City – Utility Agreement and Annexation Petition Required

Sanitary Sewer System*
- [X] State Water Sewer System Permit Required
- [ ] Outside City – Utility Agreement and Annexation Petition Required

ENGINEERING CONSTRUCTION APPROVAL:
(Questions? Contact Development Services/Engineering at 336–373–2052)
**Engineering Inspection Fees required before construction plans are released.*

- [X] Utility Construction Plan Approval Required*
- [X] Pavement Cut Permit May be Required*
- [ ] Roadway Construction Plans Required*
- [X] Storm Sewer System – Permit Required to tie into Storm Sewer System
- [ ] – Driveway Culvert Inspection Required

TRANSPORTATION APPROVAL: *(Questions? Contact GDOT at 336–373–GDOT)*
Driveway permit issued? ____ Number ____
*Do Not Issue Building Permit until any required Driveway Permit has been issued.

- [ ] City of Greensboro Driveway Permit Required
- [X] N.C. Department of Transportation Driveway Permit Required

SUBDIVISION APPROVAL:

- [ ] A Final Plat Must Be Recorded Prior to TRC Approval of this Submittal or Prior to Issuance of a Building Permit (PB: ____ Pg: ____)

City of Greensboro
Water Resources Department
COLLECTION SYSTEM EXTENSION PERMIT APPROVAL

Project Origin: X City ____ Private
Type of Project: ____ City Owned X Privately Owned
____ Portions Public and Privately Owned

Per Article 21 of Chapter 143 of the North Carolina General Statues, as Amended, and Other Laws, Rules and Regulations, Permission is hereby granted by the City of Greensboro, a delegated permitting authority approved by the North Carolina Environmental Management Commission, for the construction and operation of the collection system depicted on these plans and throughout the permitting process.

City of Greensboro and its staff are not responsible for errors in designs, calculations, drawings or statements, or finding and correcting any errors or deficiencies submitted by applicants or their consultants, and disclaim any liability for errors, in accordance with North Carolina General Statute 130A–26.2. Any person who knowingly makes any false statement, representation, or certification in any application or design documents shall be guilty of a Class 2 misdemeanor, which may include a fine not to exceed $10,000 per violation.

Permittee shall be responsible for adherence to all conditions of the City of Greensboro Water Resources Department as Checked.

____ Wastewater Collection System Extension Master Permit (Public)
____ Individual Wastewater Collection System Extension Permit (Private)

Any significant changes (size, type, connections, length, alignment, etc) to that approved on the these plans or permitting documents shall be reviewed and approved by the City of Greensboro prior to Construction.

Approved by: ____ ;City of Greensboro
COG Permit # WRCS00: ____ Approval Date: ____

Completion of this Statement is required with submittal of Engineering Construction Drawings
FINANCIAL RESPONSIBILITY ACKNOWLEDGMENT *(Engineering Construction)*

____ is to provide a one–year warranty to guarantee the public improvement from failure due to faulty workmanship or materials. Once the project is complete, this individual or corporation will be required to sign a notarized agreement. Upon completion and return of this agreement, they will receive a final acceptance letter and the year warranty will begin. The City of Greensboro will not release bonds or accept public infrastructure for maintenance without a final inspection.

____
Signature of Financial Responsibility (Individual or Corporation)
Address: ____
Telephone: ____

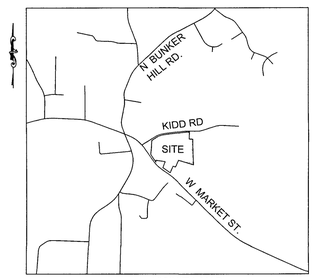
Revision to Plan in Process:

Revision Summary	Revision Date	Revised by

Revision to Approved Plan ____ (Tracking #)

Revision Summary	Revision Date	Approved by/Date

(Vicinity Map north to top)



VICINITY MAP
1"=2000'

(Construction Plans Review Stamps)

CITY OF GREENSBORO
SOIL EROSION
APPROVED Mark Cain
DATE 7/15/26

WATER	2,209	L F	X	$1 50 =	$ 3,313 50
SEWER	388	L F	X	$1 50 =	$ 582
RDWY	0	L F	X	$1 50 =	$ 0
TOTAL					$ 3,895 50

DATE FEE(S) RECEIVED BY CITY OF GREENSBORO ____

CITY OF GREESNBORO REQUIREMENTS FOR ISSUANCE OF "FINAL CO"
1 SUBMIT COPY OF RECORDED OPERATION & MAINTENANCE AGREEMENT
AGREEMENT MUST REFERENCE OPERATION & MAINTENANCE PLAN FOR SCM
2 SUBMIT COPY OF RECORDED EASEMENT PLAT
PLAT MUST REFERENCE OPERATION AND MAINTENANCE AGREEMENT FOR SCM
3 SUBMIT SIGNED & SEALED ENGINEER'S CERTIFICATION
4 SUBMIT SURVEYED 'AS-BUILT' OF SCM
5 FINAL INSPECTION TO BE PERFORMED BY CITY OF GREENSBORO WATER RESOURCES DEPARTMENT

This Watershed Plan and/or **Site Plan, Preliminary Subdivision, Group Development** was **APPROVED** by the Technical Review Committee on ____.

TRC approval represents the maximum possible development of the site. Other approvals (including Construction Plans Review) could reduce the amount of development possible on this site.

Conformance with this Approved Plan is your responsibility. Any change in land use, lot lines, building location, parking, drives, utility lines, landscaping, etc. must be resubmitted for review and approval **PRIOR** to such change being made.

Per Land Development Ordinance Sections 30–4–15.8 and 30–4–17.5, in general **this Approval expires in 2 years.**
Site Plans: Approval also expires if construction or development activity is begun and then discontinued for a period greater than 180 days.
Preliminary Subdivision: Approval also expires if a final plat is not recorded within 2 years, or if there is a lapse of more than 2 years between the recordings of phases or section.

This Approval covers site design only. Separate application, review, approval and/or permits are required for signs, construction plans, building plans, final plats or anything other than site design.

2025-3430
(Clerk of the TRC) (Date) (Tracking #*)
**Agent: Add Case # Prior to Resubmittal*

(Clerk of the TRC) (Date of Approval of Minor Revision or Re–approval)

ABBREVIATIONS

ABAN	ABANDONED
AC	ACRES
AGG	AGGREGATE
ARV	AIR RELEASE VALVE
ASPH	ASPHALT
ABC	ASPHALT BASE COURSE
BC	BACK OF CURB
BFP	BACKFLOW PREVENTER
BEG	BEGIN
BMP	BEST MANAGEMENT PRACTICES
BOL	BOLLARD
BTM	BOTTOM
BLDG	BUILDING
CIP	CAST IRON PIPE
CB	CATCH BASIN
CL	CENTERLINE
CO	CLEANOUT
CBU	CLUSTER BOX UNIT
COMM	COMMUNICATION
CONC	CONCRETE
CMON	CONCRETE MONUMENT
CONST	CONSTRUCTION
CMP	CORRUGATED METAL PIPE
CRK	CREEK
CY	CUBIC YARDS
C&G	CURB AND GUTTER
CI	CURB INLET
DB	DEED BOOK
DEMO	DEMOLITION
DIA	DIAMETER
DOM	DOMESTIC
DCA	DOUBLE CHECK ASSEMBLY
DE	DRAINAGE EASEMENT
DWG	DRAWING
DWY	DRIVEWAY
DI	DROP INLET
DIP	DUCTILE IRON PIPE
ESMT	EASEMENT
EC	EDGE OF CONCRETE
EG	EDGE OF GRAVEL
EP	EDGE OF PAVEMENT
E	ELECTRICAL
EMH	ELECTRICAL MANHOLE
EL,ELEV	ELEVATION
EX	EXISTING
FC	FACE OF CURB
FO	FIBER OPTIC
FG	FINISH GRADE
FFE	FINISHED FLOOR ELEVATION
FDC	FIRE DEPARTMENT CONNECTION
FH	FIRE HYDRANT
FES	FLARED END SECTION
FL	FLOW LINE
FIP	FOUND IRON PIPE
FIR	FOUND IRON ROD
G	GAS
GV	GATE VALVE
GI	GRATE INLET
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HDPE	HIGH DENSITY POLYETHYLENE
HYD	HYDRANT
INV	INVERT
IRR	IRRIGATION
LT	LEFT OFFSET FROM CENTERLINE
LP	LIGHT POLE
LF	LINEAR FEET
MH	MANHOLE
MAX	MAXIMUM
MBL	MAXIMUM/MINIMUM BUILDING LINE
MJ	MECHANICAL JOINT
MIN	MINIMUM
MON	MONUMENT
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OHP	OVERHEAD UTILITIES
PG	PAGE
PED	PEDESTRIAN
PB	PLAT BOOK
PVC	POLYVINYL CHLORIDE
PCC	PORTLAND CEMENT CONCRETE
PWR	POWER
PP	POWER POLE
PL	PROPERTY LINE
PROP	PROPOSED
R	RADIUS
RR	RAILROAD
RPZ	REDUCED PRESSURE BACKFLOW
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
RT	RIGHT OFFSET FROM CENTERLINE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
SVC	SERVICE LATERAL
SIP	SET IRON PIPE
S/W	SIDEWALK
SDE	SIGHT DISTANCE EASEMENT
SF	SQUARE FEET
STD	STANDARD
STA	STATION
SD	STORM DRAIN
STMH	STORM MANHOLE
TMH	TELEPHONE MANHOLE
TPED	TELEPHONE PEDESTAL
TEMP	TEMPORARY
T/C	TOP OF CURB
TBM	TRAVERSE BENCHMARK
TYP	TYPICAL
UG	UNDERGROUND
UE	UTILITY EASEMENT
VG	VALLEY GUTTER
VCP	VITRIFIED CLAY PIPE
WTR	WATER
WL/WM	WATER MAIN
WV	WATER VALVE
YI	YARD INLET

SYMBOLS & LINETYPE LEGEND

PROPOSED	EXISTING	
		ADA ACCESSIBLE ROUTE
		CENTERLINE
	UC	COMMUNICATIONS (UNDERGROUND)
	800	CONTOUR LINES
		CREEK, STREAM OR WATER BODY
		CURB & GUTTER
DL		DISTURBED AREA
		DITCH
		DIVERSION BERM
		DIVERSION BERM (CLEAN)
		DRAINAGE AREA
ACE ACE	ACE ACE	EASEMENT (ACCESS)
BMPE BMPE	BMPE BMPE	EASEMENT (BMP)
DMUE DMUE	DMUE DMUE	EASEMENT (DMUE)
		EASEMENT (DRAINAGE)
PSSE	ESSE ESSE	EASEMENT (SANITARY)
PSTE	EUE EUE	EASEMENT (STORM)
PWE	EWE EWE	EASEMENT (WATER)
		EASEMENT (MISC)
//	//	ELECTRIC (OVERHEAD)
UE	UE UE	ELECTRIC (UNDERGROUND)
		EROSION BAFFLE
		FENCE
		FLOODPLAIN
	FW FW	FLOODWAY
G	G G	GAS LINE
		GUARDRAIL
		LANDSCAPE BUFFER
LA	LA LA	LANDSCAPED AREA
		PHASE LINE
		PROPERTY LINE (ADJACENT)
		PROPERTY LINE (SUBJECT)
		RAILROAD TRACKS
		RIGHT OF WAY
RD RD	RD RD	ROOF DRAIN
FM	FM FM	SANITARY SEWER (FORCEMAIN)
SS		SANITARY SEWER (GRAVITY)
	SB SB	SETBACKS
SF SF		SILT FENCE
		STORM DRAIN
		STREAM BUFFER (ZONE 1)
		STREAM BUFFER (ZONE 2)
w w		WATER MAIN
		WOODS LINE

PROPOSED	EXISTING	
BFP	BFP	BACKFLOW PREVENTER
		BENCHMARK
		BLOWOFF
		CATCH BASIN
		COMMUNICATION BOX OR MANHOLE
		COMPUTED POINT
		CURB INLET
		DRAINAGE MANHOLE
		ELECTRIC METER
		ELECTRIC PEDESTAL
		FIBER OPTIC PEDESTAL OR MARKER
		FIRE DEPARTMENT CONNECTION
		FLARED END SECTION
		GAS METER OR MARKER
		GAS VALVE
		HEADWALL OR ENDWALL
		HVAC
		HYDRANT
		IRON PIPE
		LIGHT POLE
		MISCELLANEOUS METER
		MISCELLANEOUS UTILITY PEDESTALOR MARKER
		REDUCER
		RIGHT OF WAY MONUMENT
		ROCK DAM
		SANITARY CLEANOUT
		SANITARY MANHOLE
		SHRUB
		TRANSFORMER
		TRANSMISSION TOWER
		TREE (CANOPY)
		TREE (UNDERSTORY)
		UTILITY POLE
		WATER METER
		WATER VALVE
		WELL
		YARD GRATE
		YARD INLET
1		SWALE NUMBER

HATCHING & SHADING

- ASPHALT
- BUILDING
- CONCRETE
- GRAVEL
- RIP RAP
- ROCK

ALL CONSTRUCTION MUST CONFORM TO THE UNDERGROUND UTILITY PROTECTION ACT

BEFORE YOU DIG! CONTACT ONE-CALL CENTER

Civil Engineers and Land Surveyors
4196 Mendenhall Oaks Pkwy
High Point, NC 27265
www.ferconsulting.com
(336) 852-9797
License No. C-0950

HEARTLAND LIVING & REHABILITATION

ABBREVIATIONS & LEGEND

DEVELOPER INFORMATION
CENTURY CORE MANAGEMENT
130 EDINBURGH, SUITE 208
CARY, NC 27511
PHONE EMAIL

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/01/2026	COG EROSION CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

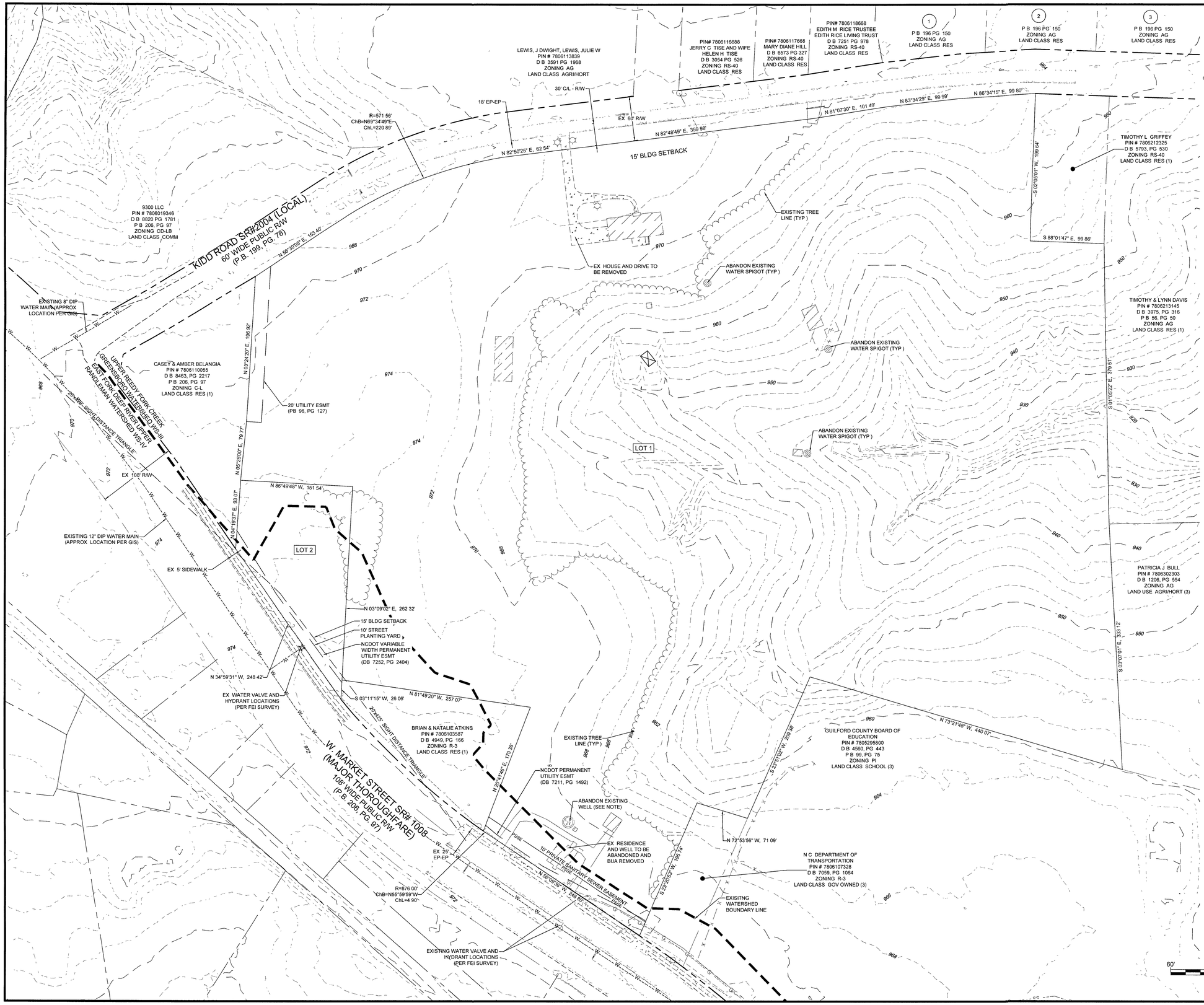
K:\FEI\Engineering\Drawings_&_Permits\PROJECTS\03079 001 3309 W Market St & 1 Mi\Civil\Sheets\03079 001 ABBREVIATIONS & LEGEND.dwg

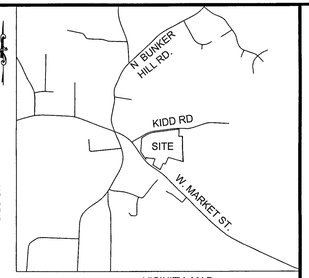
DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE N/A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027339 BRENTLEY G. SIEVERS
02/26

SHEET

2 OF 23





VICINITY MAP
1"=2000'

SITE DATA

LOT 1
9206 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY, LLC
PIN 7806107946
D B 8920, PG 2977
P B 218, PG 5
ZONING CD-O
AREA 20 73 AC

LOT 2
9220 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY
OWNER ADDRESS 130 EI
SOUTH DR, STE 208 CAR
PIN 7806101797
D B 8942, PG 2134
ZONING CD-O
AREA 0 67 AC

TOTAL AREA 21 40 AC

WATERSHED DATA
WATERSHED REEDY FORK
WATERSHED CLASSIFICATION WS-III NSW
RIVER BASIN CAPE FEAR RIVER BASIN
SOIL TYPES CKB, CKC, PPE2, SMD
AVG SLOPE 9 4%
DISTURBED AREA 14 67 AC

DENSITY CALCULATION
TOTAL 107 UNITS/21 4 AC = 5 0 (UNITS PER ACRE)
BUILDING COVERAGE 1 9 AC/21 4 AC = 8 9% OF TOTAL ACREAGE

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HEARTLAND LIVING & REHABILITATION

EXISTING CONDITIONS

PROJECT LOCATION
9206 W MARKET ST
COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/01/2026	COG EROSION CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

K:\Drawings_&_Projects\PROJECTS\2026\03079 001\9206 W Market St & 115 Kidd Rd\Drawings\Plans\

DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE 1" = 60'

NORTH CAROLINA PROFESSIONAL SEAL 027339 ENGINEER BRENTLEY G SEWELL
02/26

SHEET
3 OF 23

CBU NOTE
1 THE MAIL KIOSK WILL BE LOCATED INSIDE THE BUILDING FOR ALL RESIDENTS TO UTILIZE

SITE LIGHTING NOTE
1 THIS PLAN COMPLIES WITH THE OUTDOOR LIGHTING STANDARDS OF THE GREENSBORO LDO, INCLUDING THE 35 FOOT MAX POLE HEIGHT *REQUIREMENT, THE REQUIREMENT FOR CUT-OFF LIGHT FIXTURES,* AND THE LIGHT TRESPASS REQUIREMENT IN 30-9-6 6

TRANSPORTATION NOTES
1 NO PLANTINGS OR OTHER OBJECTS SHALL BE WITHIN SIGHT TRIANGLES AT A HEIGHT BETWEEN 2 5' AND 8' (CANOPY) ABOVE THE FINISHED GRADE OF THE PROPOSED DRIVEWAY OR WITHIN ANY STREET INTERSECTION SIGHT TRIANGLE
2 NO VEHICLES ACCESSING THIS SITE SHALL BACK TO OR FROM THE PUBLIC RIGHT OF WAY
3 NO VEHICLES ACCESSING THIS SITE SHALL QUEUE IN THE PUBLIC RIGHT OF WAY
4 REFERENCE COG STD 416-A FOR ACCEPTABLE DRIVEWAY GRADES
5 DRIVEWAY TO BE CONSTRUCTED PER COG 416-B
6 SIDEWALK TO BE CONSTRUCTED PER COG 418-A
7 REPAIR/REPLACE/INSTALL ANY DAMAGED OR MISSING CURB AND GUTTER ALONG PROPERTY FRONTAGE PER 30" NCDOT 846 01
8 REPAIR/REPLACE/INSTALL ANY DAMAGED OR MISSING SIDEWALK ALONG PROPERTY FRONTAGE PER COG 418-A
9 MAINTAIN A 5' UTILITY CLEARANCE AT DRIVES
10 PROVIDE MINIMUM 4' SIDEWALK WIDTH CLEARANCE AROUND ALL ABOVE GROUND UTILITIES

BUILDING OCCUPANCY
89 PRIVATE BEDROOMS
18 SEMI-PRIVATE BEDROOMS
107 UNITS TOTAL

COMMON FACILITIES
REQUIREMENT 30 SF PER UNIT
CALCULATION 107 UNITS x 30 SF = 3,210 SF
PROVIDED 10,528 SF OF DINING AND SOCIAL SPACES

PARKING SCHEDULE
PROPOSED USE(S) ASSISTED LIVING FACILITY
NUMBER OF UNITS 107
REQUIRED PARKING 1 PER 2 UNITS
PARKING CALCULATION 107 UNITS / 2 = 53 SPACES
PARKING PROVIDED 125 SPACES
(INCLUDING 6 VAN ACCESSIBLE SPACES AND 4 STANDARD ACCESSIBLE SPACES)

BUILT UPON AREA BREAKDOWN TABLE

TYPE	AREA (SF)	AREA (AC)	PERCENT (%)
EXISTING (REMOVED)	15,332	0 35	1 64
BUILDING	83,413	1 91	8 95
PAVMENT	82,274	1 89	8 83
SIDEWALK/MISC.	12,613	0 29	1 35
OPEN SPACE	753,905	17 31	80 87
TOTAL BUA	178,301	4 09	19 13
TOTAL AREA	932,206	21 40	100 00

KIDD ROAD SR# 2004 (LOCAL)
60' WIDE PUBLIC R/W
(P.B. 199, PG. 78)

9300 LLC
PIN # 7806019346
D B 8820 PG 1781
P B 206, PG 97
ZONING CD-LB
LAND CLASS COMM

CASEY & AMBER BELANGIA
PIN # 7806110055
D B 8463, PG 2217
P B 206, PG 97
ZONING C-L
LAND CLASS RES (1)

LEWIS, J DWIGHT, LEWIS, JULIE W
PIN # 7806113839
D B 3591 PG 1968
ZONING AG
LAND CLASS AGRI/HORT

PIN# 7806116688
JERRY C TISE AND WIFE
HELEN H TISE
D B 3054 PG 526
ZONING RS-40
LAND CLASS RES

PIN# 7806117868
MARY DIANE HILL
D B 6573 PG 327
ZONING RS-40
LAND CLASS RES

PIN# 7806118568
EDITH M RICE TRUSTEE
EDITH RICE LIVING TRUST
D B 7251 PG 978
ZONING RS-40
LAND CLASS RES

1
P B 196 PG 150
ZONING AG
LAND CLASS RES

2
P B 196 PG 150
ZONING AG
LAND CLASS RES

3
P B 196 PG 150
ZONING AG
LAND CLASS RES

TIMOTHY L GRIFFEY
PIN # 7806212325
D B 5793, PG 530
ZONING RS-40
LAND CLASS RES (1)

TIMOTHY & LYNN DAVIS
PIN # 7806213145
D B 3975, PG 316
P B 56, PG 50
ZONING AG
LAND CLASS RES (1)

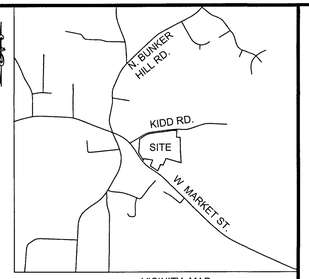
PATRICIA J BULL
PIN # 7806302303
D B 1206, PG 554
ZONING AG
LAND USE AGRI/HORT (3)

GUILFORD COUNTY BOARD OF EDUCATION
PIN # 7805295800
D B 4560, PG 443
P B 99, PG 75
ZONING PI
LAND CLASS SCHOOL (3)

BRIAN & NATALIE ATKINS
PIN # 7806103587
D B 4949, PG 166
ZONING R-3
LAND CLASS RES (1)

N C DEPARTMENT OF TRANSPORTATION
PIN # 7806107328
D B 7059, PG 1064
ZONING R-3
LAND CLASS GOV OWNED (3)

VICINITY MAP
1"=2000'



SITE DATA

LOT 1
9206 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY, LLC
PIN 7806107946
D B 8920, PG 2977
P B 218, PG 5
ZONING CD-O
AREA 20 73 AC

LOT 2
9220 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY LLC
OWNER ADDRESS 130 EDINBURGH SOUTH DR, STE 208 CARY, NC 27235
PIN 7806101797
D B 8942, PG 2134
ZONING CD-O
AREA 0 67 AC

TOTAL AREA 21 40 AC

WATERSHED DATA
WATERSHED REEDY FORK
WATERSHED CLASSIFICATION WS-III NSW
RIVER BASIN CAPE FEAR RIVER BASIN
SOIL TYPES CkB, CkC, PPE2, SMD
AVG SLOPE 9 4%
DISTURBED AREA 14 67 AC

DENSITY CALCULATION
TOTAL 107 UNITS/21 4 AC = 5 0 (UNITS PER ACRE)
BUILDING COVERAGE 1 9 AC/21 4 AC = 8 9% OF TOTAL ACREAGE

ZONING DATA
ZONING DISTRICT CD-O
(CONDITIONAL OFFICE)

MIN LOT WIDTH	60'
MIN LOT DEPTH	100'
SETBACKS	
STREET	15'
SIDE & REAR	
ADJACENT TO RM-5, RM-8 AND ALL R- DISTRICTS	15'
ADJACENT TO ALL OTHER DISTRICTS	0'
MAX HEIGHT	
ADJACENT TO RESIDENTIAL DISTRICTS	50'
ADJACENT TO ALL OTHER DISTRICTS	80'

CD-O ZONING CONDITIONS AS OF 02/18/2025
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SIDEWALK INSTALLATION AND INSPECTION
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WHEN SIDEWALK AND/OR DRIVEWAYS ARE READY FOR INSPECTION, CONTACT DEVELOPMENT SERVICES AT (336) 373-2400 FOR THE ASSIGNMENT OF AN INSPECTOR

PLUMBING PERMIT NOTICE
PLUMBING INSPECTION REQUIRED ON WATER SERVICES SMALLER THAN 3" AND 6" SEWER SERVICE CALL DEVELOPMENT SERVICES AT (336) 373-2155 FOR PERMIT

EXISTING WATER METER REMOVAL
COORDINATE EXISTING WATER METER REMOVAL WITH THE CITY OF GREENSBORO METER SHOP (336) 373-2071

EXISTING WELL REMOVAL
CONTRACTOR SHALL OBTAIN A WELL ABANDONMENT PERMIT THROUGH THE CITY OF GREENSBORO PRIOR TO THE REMOVAL OF THE EXISTING WELL

ENCROACHMENT AGREEMENT REQUIRED FOR WATER AND SANITARY SEWER INSTALLATION
CONTACT NCDOT 336-487-0100

CONSTRUCTION INSPECTION:
CONSTRUCTION INSPECTION REQUIRED FOR 6" WATER LINE AND/OR 8" SANITARY SEWER.
CALL (336) 373-2377 TO SCHEDULE INSPECTION.

ONE ZONED LOT NOTE

THE SUBJECT PARCELS SHALL BE CONSIDERED ONE ZONING LOT FOR THE PURPOSES OF COMPLIANCE WITH THE CITY OF GREENSBORO LAND DEVELOPMENT ORDINANCE ALL APPLICABLE ZONING REQUIREMENTS, INCLUDING BUT NOT LIMITED TO SETBACKS, YARDS, LOT COVERAGE, PARKING, LANDSCAPING, AND BUFFERING, SHALL BE MET ACROSS THE COMBINED PARCELS AS A SINGLE ZONING LOT THE PARCELS SHALL REMAIN UNDER COMMON OWNERSHIP UNLESS FORMALLY RECOMBINED BY RECORDED PLAT

GENERAL NOTES

1 AREA DETERMINED UTILIZING COMPUTER SOFTWARE
2 GRID TIE INFORMATION BASED ON MONUMENTATION AND DATUM AS SHOWN, ALL DISTANCES ARE GROUND DISTANCES (US FEET) UNLESS OTHERWISE SHOWN
3 NO NGS MONUMENTS WERE RECOVERED WITHIN 2000' OF THIS PROPERTY
4 NO SUBSURFACE INVESTIGATION PERFORMED BY FLEMING ENGINEERING, INC
5 UTILITY LOCATION WORK SHOWN HEREON WAS DERIVED BY ABOVE GROUND INDICATORS ONLY, UNLESS OTHERWISE NOTED
6 THIS PROPERTY IS SUBJECT TO ANY EASEMENTS, AGREEMENTS OR RIGHTS OF WAY RECORDED PRIOR TO THE DATE OF THIS MAP WHICH WERE NOT VISIBLE AT THE TIME OF INSPECTION
7 THE SURVEYOR HAS NOT PERFORMED A TITLE INVESTIGATION ON THIS PROPERTY, THEREFORE, THIS MAP IS SUBJECT TO ANY AND ALL FACTS AN ACCURATE TITLE INVESTIGATION MAY DISCLOSE
8 THIS MAP DOES NOT MEET O S 47-30 AND IS NOT FOR RECORDING OR CONVEYANCE
9 THE CLASSIFICATION OF THIS SURVEY IS NORTH CAROLINA CLASS A
10 HORIZONTAL DATUM NAD83(2011)
11 ANY SIGNS TO BE PLACED ON SITE MUST BE SUBMITTED SEPARATELY FOR ZONING REVIEW
12 ANY STRUCTURE TO BE REMOVED SHALL REQUIRE A SEPARATE DEMOLITION PERMIT FROM THE BUILDING INSPECTIONS DEPARTMENT
13 MEANS OF EGRESS ILLUMINATION SHALL BE PROVIDED THROUGHOUT EXIT DISCHARGES IN ACCORDANCE WITH NCBC
14 ALL EXISTING AND PROPOSED OVERHEAD POWER LINES ARE INDICATED ON THE SITE PLAN IF NO OVERHEAD POWER LINES ARE INDICATED, THERE SHALL BE NONE WITHIN 10 FEET OF THE PROPERTY LIMITS
15 HANDICAP SIGNAGE SHALL BE INSTALLED BETWEEN PARKING SPACES ON CHANNEL POST MOUNTED IN BOLLARD (SEE DETAIL SHEET)

SITE PLAN NOTES

1 ALL CONSTRUCTION SHALL CONFORM TO THE LATEST CITY OF GREENSBORO, NCDEQ AND NCDOT STANDARDS AND SPECIFICATIONS
2 ALL DIMENSIONS SHOWN ON SITE PLAN ARE TO FACE OF CURB UNLESS OTHERWISE NOTED
3 SOIL UNDER BUILDINGS AND PAVED AREAS SHALL BE COMPACTED TO STANDARD PROCTOR MAXIMUM DRY DENSITY AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER AND SHALL CONFORM TO CITY OF GREENSBORO REQUIREMENTS WITHIN PUBLIC RIGHT OF WAY
4 CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED CONTRACTOR TO CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811" REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY
5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND/OR RELOCATION OF ALL EXISTING UTILITIES IN COORDINATION WITH THE APPROPRIATE UTILITY, AGENCY, OR COMPANY CONTRACTOR TO COORDINATE ACTIVITIES WITH UTILITY COMPANIES INVOLVED IN ANY RELATED RELOCATION (I E POWER POLES, TELEPHONE PEDESTALS, WATER METERS, ETC)
6 EXISTING UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND THE BEST AVAILABLE RECORD DRAWINGS THE CONTRACTOR SHALL VERIFY CONDITIONS PRIOR TO BEGINNING CONSTRUCTION ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY
7 ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN

DUMPSTER
PLEASE SCHEDULE A CALL AT LEAST SIX WEEKS BEFORE PLACING A DUMPSTER ALL NEW DUMPSTER PAD CONSTRUCTIONS MUST COMPLY WITH THE SPECIFICATIONS SET FORTH BY THE CITY OF GREENSBORO FOR BOTH SINGLE AND DOUBLE PADS/ENCLOSURES (HTTP //WWW GREENSBORO-NC GOV/INDEX ASPX?PAGE=522) ACCORDING TO THE CITY OF GREENSBORO DUMPSTER SCREENING REQUIREMENTS 30-9-7 4 D , ALL DUMPSTERS OR SIMILARLY LARGE WASTE RECEPTACLES, INCLUDING COMPACTORS, MUST BE SHIELDED FROM PUBLIC VISIBILITY ALONG THE STREET RIGHT-OF-WAY THE COMMON ELEMENTS PERTAINING TO ANY PRIVATE STREETS OR DRIVES, EXISTING OR PLANNED GREENWAYS (AS DEPICTED IN THE ADOPTED BIPED PLAN), AND ANY RESIDENTIAL ZONING DISTRICT ARE AS FOLLOWS 1 DUMPSTERS MUST BE CONCEALED USING AN OPAQUE WALL OR FENCE CHAIN-LINK FENCING WITH WOVEN SLATS OR OPAQUE MATERIALS IS DEEMED UNACCEPTABLE FOR SCREENING DUMPSTERS AND APPLIES TO BOTH GATES AND ENCLOSURE SIDES 2 THE OPAQUE SCREENING MATERIAL OR STRUCTURE MUST MAINTAIN A MINIMUM HEIGHT OF EIGHT FEET SINGLE DUMPSTER PADS/ENCLOSURES SHOULD MEASURE TEN FEET IN WIDTH SHOULD THE 2 DUMPSTER PAD INCORPORATE AN ENCLOSURE, THE ENTRANCE SHOULD BE TWELVE FEET WIDE, WHICH IS TWO FEET WIDER THAN THE PAD DOUBLE DUMPSTER PADS SHOULD SPAN TWENTY FEET IN WIDTH IF THE DUMPSTER PAD IS TO FEATURE AN ENCLOSURE, THE ENTRANCE SHOULD BE TWENTY-TWO FEET WIDE, TWO FEET GREATER THAN THE PAD IT IS IMPERATIVE TO SCHEDULE A SITE VISIT PRIOR TO THE POURING OF CONCRETE FOR ANY NEW DUMPSTER PAD JAMES JORDAN, SOLID WASTE & RECYCLING, SOLID WASTE DIVISION
336-373-2256 JAMES JORDAN@GREENSBORO-NC GOV

26' DRIVE AISLE PAVEMENT SECTION (HEAVY DUTY)
N T S
3" S9 5B PLACED IN 2 LIFTS
8" ABC

PARKING SPACE PAVEMENT SECTION (LIGHT DUTY)
N T S
SUBGRADE COMPACTED TO A MINIMUM 98% STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D 698), REFER TO SOILS REPORT IF AVAILABLE
2" S9 5B
6" ABC

Civil Engineers and Land Surveyors
4196 Mendenhall Oaks Pkwy
High Point, NC 27265
www.feiconsulting.com
(336) 852-9797
License No. C-0950

HEARTLAND LIVING & REHABILITATION

SITE PLAN

DEVELOPER INFORMATION
CENTURY CARE MANAGEMENT
130 EDINBURGH , SUITE 208
CARY, NC 27511
JAMES.CROFFORD@CENTURY-CARE.COM

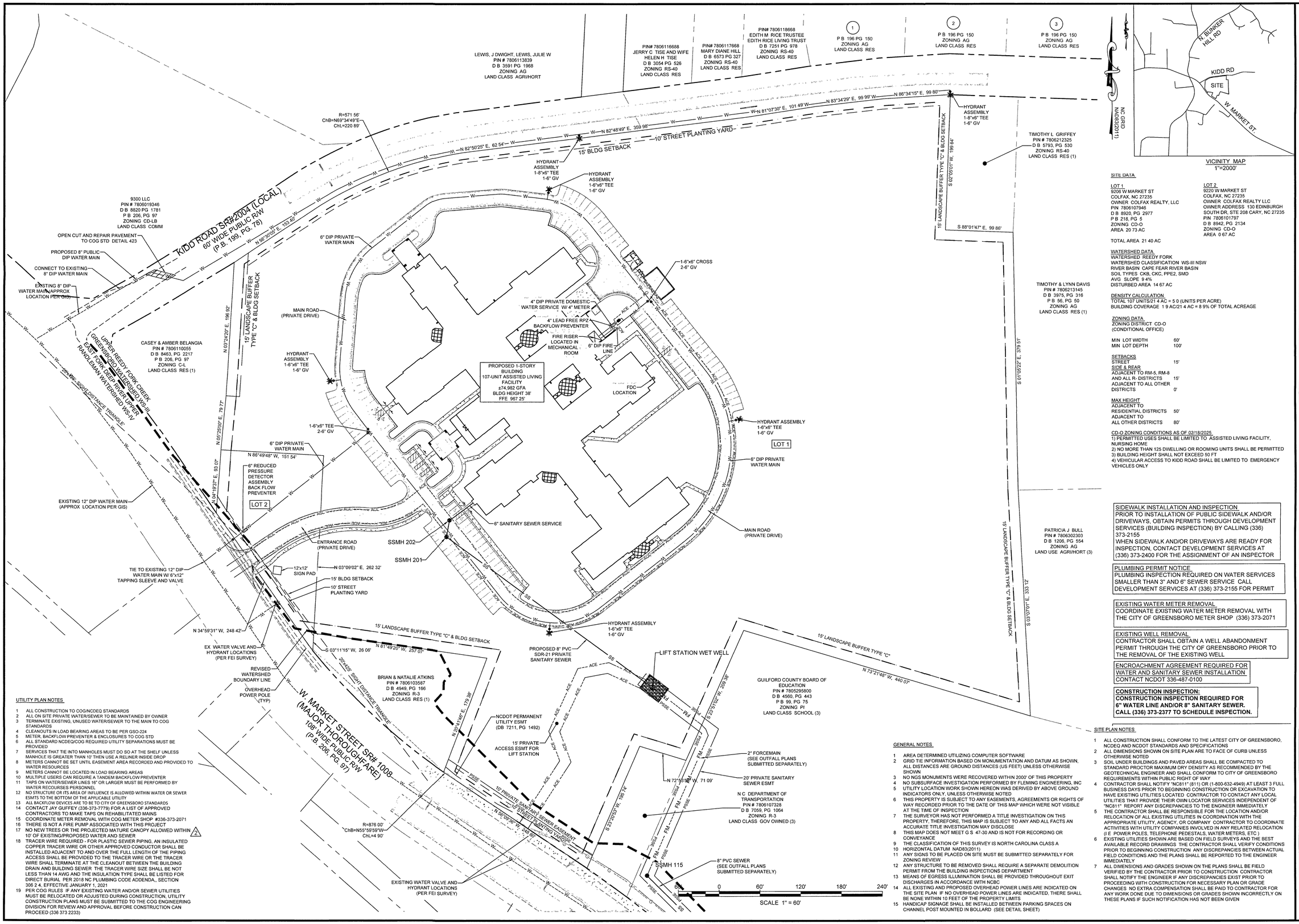
PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/01/2026	COG EROSION CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE 1" = 60'

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027339 BRANTLEY C SWEARS
02/26

SHEET
4 OF 23



VICINITY MAP
1"=2000'

SITE DATA

LOT 1
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(CONDITIONAL OFFICE)

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CONSTRUCTION INSPECTION:
CONSTRUCTION INSPECTION REQUIRED FOR 6" WATER LINE AND/OR 8" SANITARY SEWER. CALL (336) 373-2377 TO SCHEDULE INSPECTION.

UTILITY PLAN NOTES

1 ALL CONSTRUCTION TO COG/NCDEQ STANDARDS
2 ALL ON SITE PRIVATE WATER/SEWER TO BE MAINTAINED BY OWNER
3 TERMINATE EXISTING, UNUSED WATER/SEWER TO THE MAIN TO COG STANDARDS
4 CLEANOUTS IN LOAD BEARING AREAS TO BE PER GSO-224
5 METER, BACKFLOW PREVENTER & ENCLOSURES TO COG STD
6 ALL STANDARD NCDEQ/COG REQUIRED UTILITY SEPARATIONS MUST BE PROVIDED
7 SERVICES THAT TIE INTO MANHOLES MUST DO SO AT THE SHELF UNLESS MANHOLE IS GREATER THAN 10' THEN USE A RELINER INSIDE DROP
8 METERS CANNOT BE SET UNTIL EASEMENT AREA RECORDED AND PROVIDED TO WATER RESOURCES
9 METERS CANNOT BE LOCATED IN LOAD BEARING AREAS
10 MULTIPLE USERS CAN REQUIRE A TANDEM BACKFLOW PREVENTER
11 TAPS ON WATER/SEWER LINES 16" OR LARGER MUST BE PERFORMED BY WATER RECOURSES PERSONNEL
12 NO STRUCTURE OR ITS AREA OF INFLUENCE IS ALLOWED WITHIN WATER OR SEWER ESMTS TO THE BOTTOM OF THE APPLICABLE UTILITY
13 ALL BACKFLOW DEVICES ARE TO BE TO CITY OF GREENSBORO STANDARDS
14 CONTACT JAY GUFFEY (336-373-7776) FOR A LIST OF APPROVED CONTRACTORS TO MAKE TAPS ON REHABILITATED MAINS
15 COORDINATE METER REMOVAL WITH COG METER SHOP #336-373-2071
16 THERE IS NOT A FIRE PUMP ASSOCIATED WITH THIS PROJECT
17 NO NEW TREES OR THE PROJECTED MATURE CANOPY ALLOWED WITHIN 10' OF EXISTING/PROPOSED WATER AND SEWER (2)
18 TRACER WIRE REQUIRED - FOR PLASTIC SEWER PIPING, AN INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLED ADJACENT TO AND OVER THE FULL LENGTH OF THE PIPING ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE AT THE CLEANOUT BETWEEN THE BUILDING DRAIN AND BUILDING SEWER THE TRACER WIRE SIZE SHALL BE NOT LESS THAN 14 AWG AND THE INSULATION TYPE SHALL BE LISTED FOR DIRECT BURIAL PER 2018 NC PLUMBING CODE ADDENDA,, SECTION 306 2 4, EFFECTIVE JANUARY 1, 2021
19 PER COG RULES IF ANY EXISTING WATER AND/OR SEWER UTILITIES MUST BE RELOCATED OR ADJUSTED DURING CONSTRUCTION, UTILITY CONSTRUCTION PLANS MUST BE SUBMITTED TO THE COG ENGINEERING DIVISION FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION CAN PROCEED (336 373 2233)

GENERAL NOTES

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License No C-0950

FEI

HEARTLAND LIVING & REHABILITATION

UTILITY PLAN

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

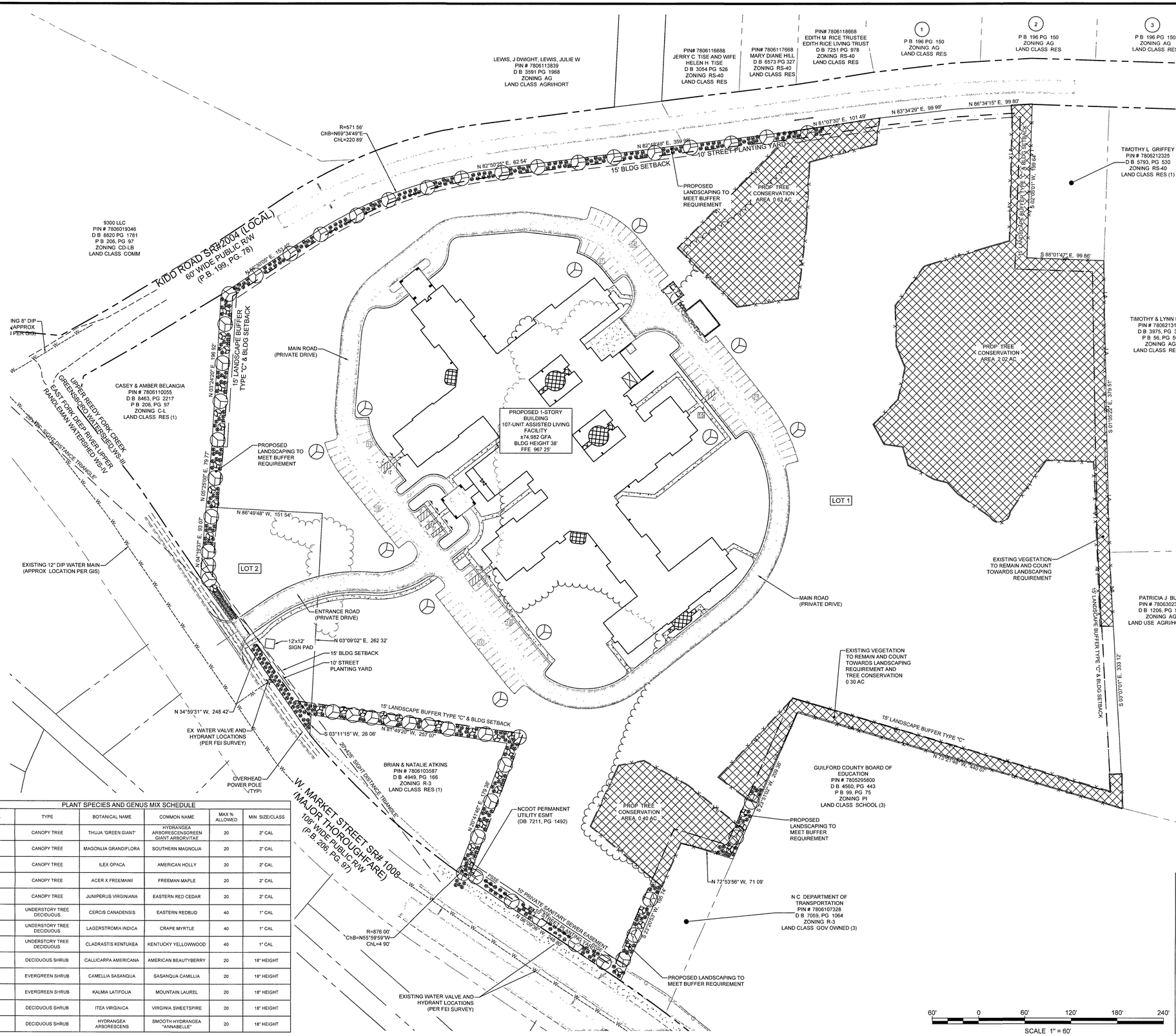
NO	DATE	REVISION NOTE
1	04/01/2026	COG EROSION CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

F:\FEI\projects\Drawings_N_Thesis\PROJ\03079 001 9206 W Market St & 113 Kidd Rd\Drawings\Sheets

DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE 1" = 60'

NORTH CAROLINA PROFESSIONAL SEAL 027339 ENGINEER BRENTLEY C SWEARS
04/21/26

SHEET
5 OF 23



SITE DATA

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D B 8920, PG 2977
P B 218, PG 5
ZONING CD-O
AREA 20 73 AC

TOTAL AREA 21 40 AC

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WATERSHED CLASSIFICATION WS-III NSW
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SOIL TYPES CKB, CKC, PPE2, SMD
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ZONING DATA
ZONING DISTRICT CD-O
(CONDITIONAL OFFICE)

MIN LOT WIDTH	60'
MIN LOT DEPTH	100'

SETBACKS

STREET	15'
SIDE & REAR	
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ADJACENT TO ALL OTHER DISTRICTS	0'

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ADJACENT TO RESIDENTIAL DISTRICTS	50'
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4) VEHICULAR ACCESS TO KIDD ROAD SHALL BE LIMITED TO EMERGENCY VEHICLES ONLY

TREE CONSERVATION/RESTORATION AREA
TCA REQUIRED 10 00% x 21 40 ACRES (932,184 SF) = 2 14 (93,218 4 SF)
REFORESTATION RATE 400 SF PER 2" CALIPER TREE
-93,218 4 SF / 400 SF = 233 046 = (234) 2" CALIPER TREES REQUIRED
- (234) 2" CALIPER TREES X 400 S F = 93,600 S F
TCA PROVIDED 3 34 AC (145,490 S F)

TREE CONSERVATION NOTES

1 CONTACT THE PLANNING DIRECTOR TO SCHEDULE A PRE-CONSTRUCTION MEETING BEFORE ANY TREE DISTURBANCE, EXCEPT AS NOTED IN SEC 30-4-26 3(C)(5) , OCCURS ON THIS SITE

2 ALL TREE CONSERVATION DEVICES MUST BE INSTALLED BEFORE INSPECTION BY THE PLANNING DIRECTOR AND BEFORE ANY TREE DISTURBANCE ACTIVITIES, EXCEPT AS NOTED IN SEC 30-4-26 3(C)(5), OCCUR

3 REMOVAL OF OR DAMAGE TO TREES IN THE TREE CONSERVATION AREA WILL BE SUBJECT TO ALL AVAILABLE REMEDIES AND PENALTIES UNDER THE CITY'S DEVELOPMENT ORDINANCE

4 NO PARKING, STORAGE, DIRT STOCKPILING, CONCRETE WASHOUT OR ANY OTHER ACTIVITIES IS PERMITTED IN THE TREE CONSERVATION AREA

LANDSCAPING NOTES

1 PER COG DEVELOPMENT ORDINANCE 30-10-2 5 C ON LOTS OF RECORD THAT EXISTED PRIOR TO JULY 1, 1992 THAT ARE LESS THAN 55,000 SQUARE FEET IN AREA, NO DEVELOPMENT IS REQUIRED TO LANDSCAPE MORE THAN 15% OF THE SITE

2 A MINIMUM 5-FOOT WIDE PLANTING YARD WITH A COMBINATION OF VEGETATION AND/OR OPEN DECORATIVE FENCING AT LEAST 2 5 FEET IN HEIGHT AND A MAXIMUM OF 3 5 FEET IN HEIGHT SHALL BE PROVIDED AT OWNER'S DISCRETION

3 STREETSCAPE CANOPY TREES ARE SPREAD OUT WITHIN SITE DUE TO SITE CONSTRAINTS

4 NO NEW TREES OR THE PROJECTED MATURE CANOPY ALLOWED WITHIN 10' OF EXISTING/PROPOSED WATER AND SEWER

LANDSCAPE BUFFER YARD
PLANTING YARD TYPE C
AVERAGE WIDTH 15 FT
LENGTH 1,090 FT
CANOPY TREES (2 PER 100 FT)
REQUIRED 22
PROVIDED 22
UNDERSTORY TREES (3 PER 100 FT)
REQUIRED 33
PROVIDED 33
SHRUBS (17 PER 100 FT)
REQUIRED 186
PROVIDED 186

STREET PLANTING YARD
WIDTH 10 FT
LENGTH 1,333 FT
CANOPY TREES (2 PER 100 FT)
REQUIRED 27
PROVIDED 27
SHRUBS (17 PER 100 FT)
REQUIRED 227
PROVIDED 227

PARKING LOT LANDSCAPING
PARKING AREA 1 TREE PER 12 SPACES*
SPACES 125
CANOPY TREES
REQUIRED 11
PROVIDED 11
*A MAXIMUM DISTANCE OF 100' IS REQUIRED FROM ANY PARKING SPACE TO A PLANTING AREA PLANTING AREAS WILL BE COMPRISED OF (1) TREE

TOTAL LANDSCAPING PROVIDED

CANOPY TREES	60
UNDERSTORY TREES	33
SHRUBS	413

PLANT SPECIES AND GENUS MIX SCHEDULE

SYMBOL	TYPE	BOTANICAL NAME	COMMON NAME	MAX % ALLOWED	MIN SIZE/CLASS
	CANOPY TREE	THUJA 'GREEN GIANT'	HYDRANGEA ARBORESCENS/GREEN GIANT ARBORVITAE	20	2" CAL
	CANOPY TREE	MAGONLIA GRANDIFLORA	SOUTHERN MAGNOLIA	20	2" CAL
	CANOPY TREE	ILEX OPACA	AMERICAN HOLLY	20	2" CAL
	CANOPY TREE	ACER X FREEMANII	FREEMAN MAPLE	20	2" CAL
	CANOPY TREE	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	20	2" CAL
	UNDERSTORY TREE DECIDUOUS	CERCIS CANADENSIS	EASTERN REDBUD	40	1" CAL
	UNDERSTORY TREE DECIDUOUS	LAGERSTROMIA INDICA	CRAPE MYRTLE	40	1" CAL
	UNDERSTORY TREE DECIDUOUS	CLADRASTIS KENTUKEA	KENTUCKY YELLOWWOOD	40	1" CAL
	DECIDUOUS SHRUB	CALLICARPA AMERICANA	AMERICAN BEAUTYBERRY	20	18" HEIGHT
	EVERGREEN SHRUB	CAMELLIA SASANQUA	SASANQUA CAMILLIA	20	18" HEIGHT
	EVERGREEN SHRUB	KALMIA LATIFOLIA	MOUNTAIN LAUREL	20	18" HEIGHT
	DECIDUOUS SHRUB	ITEA VIRGINICA	VIRGINIA SWEETSPIRE	20	18" HEIGHT
	DECIDUOUS SHRUB	HYDRANGEA ARBORESCENS	SMOOTH HYDRANGEA "ANNABELLE"	20	18" HEIGHT

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HEARTLAND LIVING & REHABILITATION

LANDSCAPE PLAN

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

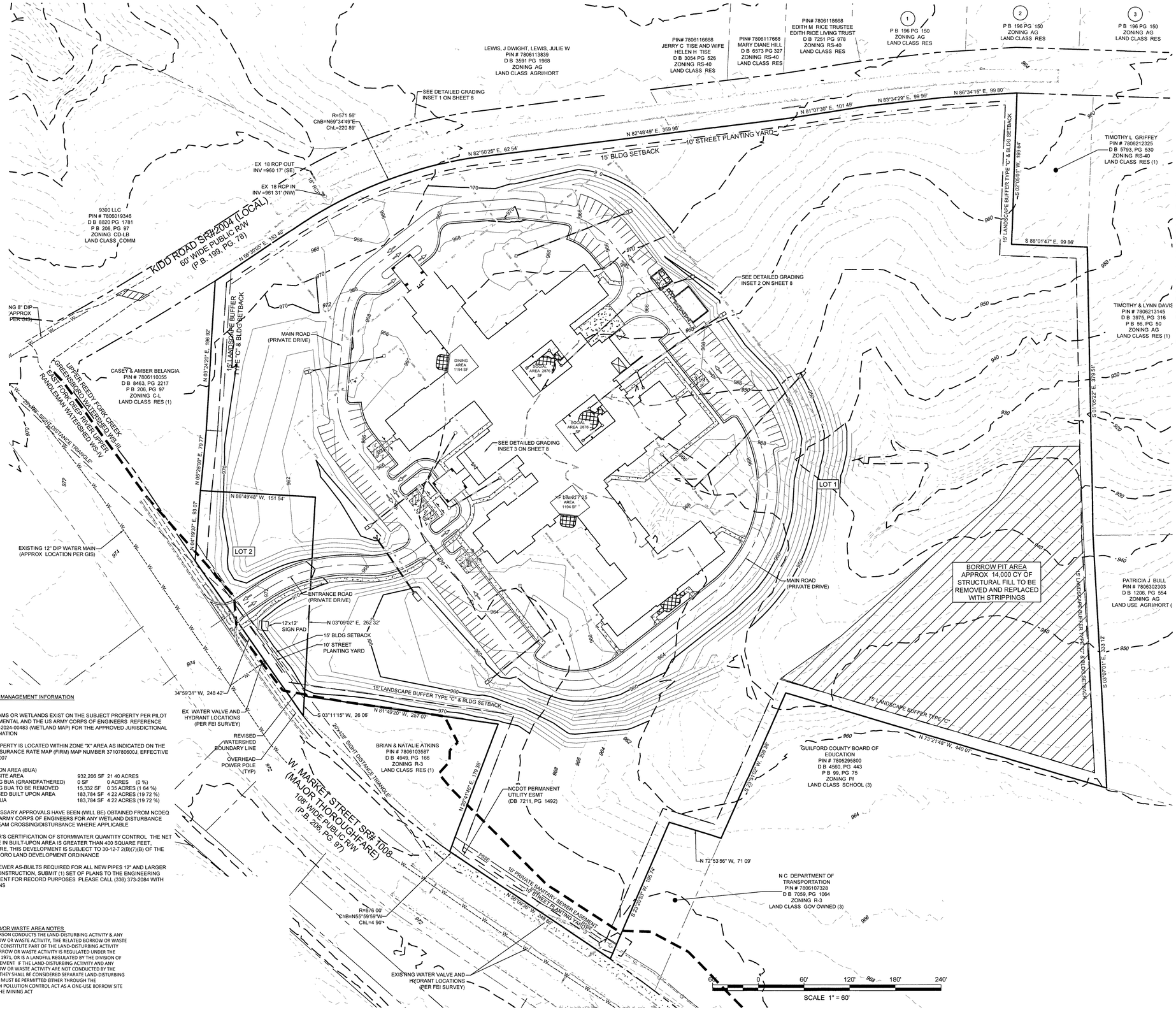
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2	03/13/2026	WATERSHED COMMENTS

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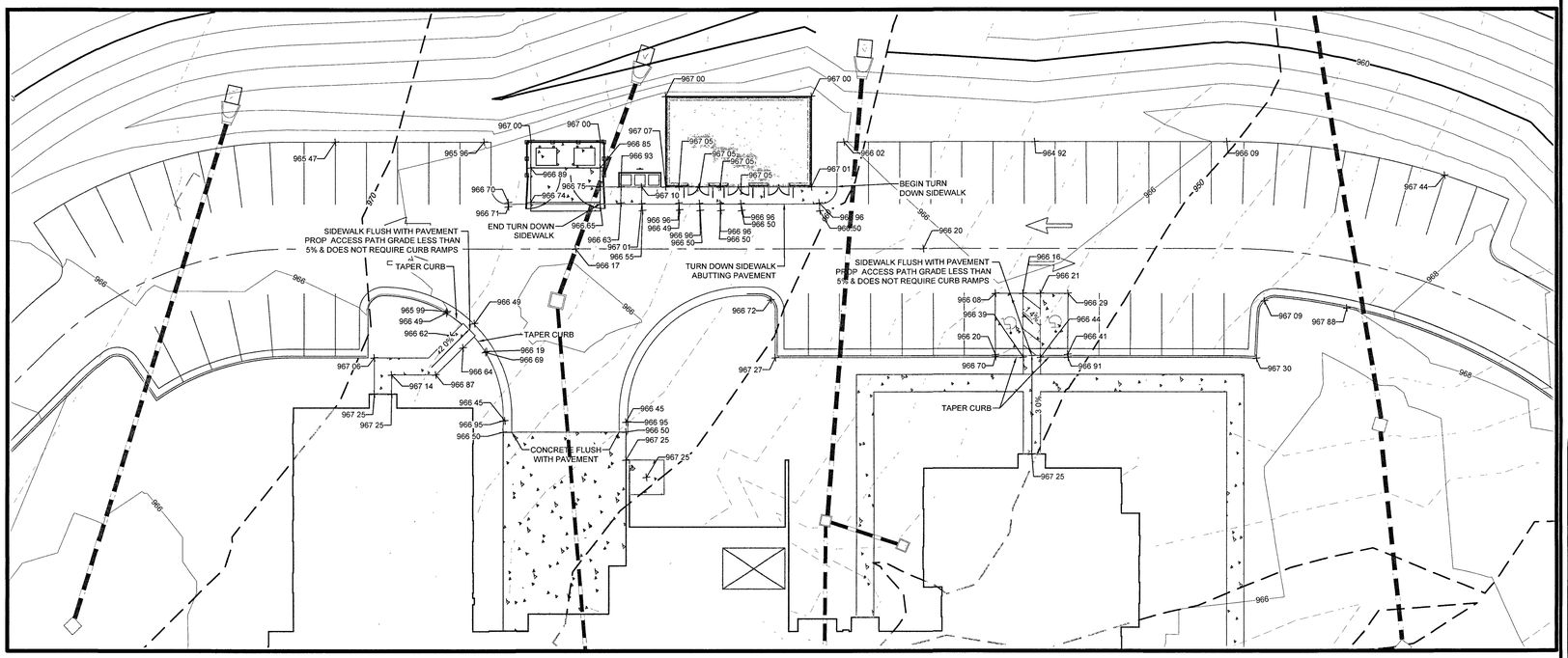
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CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE 1" = 60'

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027339 BRENTLEY G SILVERS
05/21/26

SHEET
6 OF 23

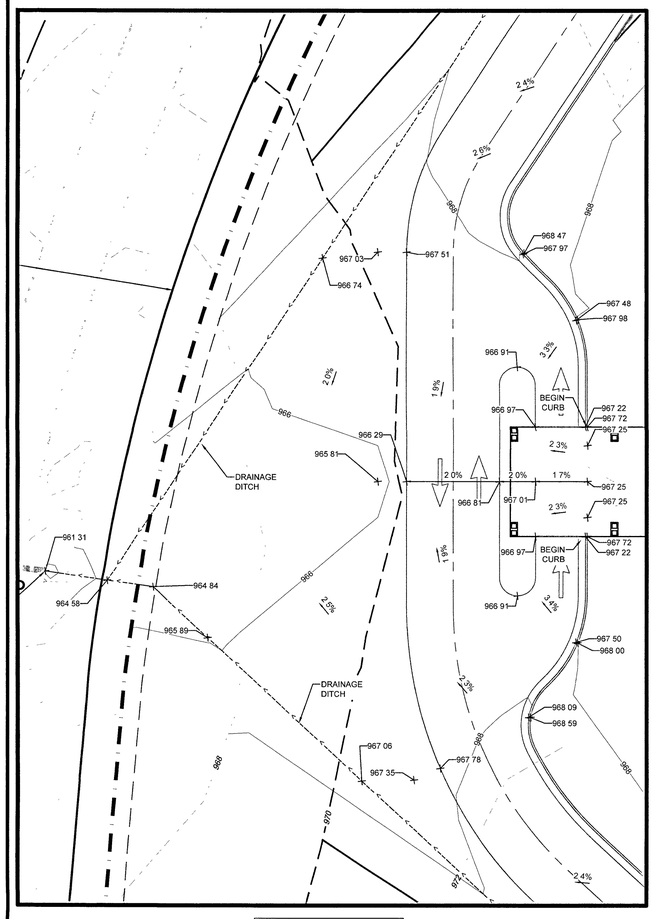

KIDD ROAD SR# 2004 (LOCAL)
60' WIDE PUBLIC R/W
(P B. 199, PG. 78)
W. MARKET STREET SR# 1008
(MAJOR THOROUGHFARE)
108' WIDE PUBLIC R/W
(P B. 206, PG. 97)
9300 LLC
PIN # 7806019346
D B 8920,PG 1781
P B 206, PG 97
ZONING CD-LB
LAND CLASS COMM
LEWIS, J DWIGHT, LEWIS, JULIE W
PIN # 7806113839
D B 3591 PG 1988
ZONING AG
LAND CLASS AGRI/HORT
PIN# 7806116688
JERRY C TISE AND WIFE
HELEN H TISE
D B 3054 PG 526
ZONING RS-40
LAND CLASS RES
PIN# 7806117868
MARY DIANE HILL
D B 6573 PG 327
ZONING RS-40
LAND CLASS RES
PIN# 7806118668
EDITH M RICE TRUSTEE
EDITH RICE LIVING TRUST
D B 7251 PG 978
ZONING RS-40
LAND CLASS RES
1
P B 196 PG 150
ZONING AG
LAND CLASS RES
2
P B 196 PG 150
ZONING AG
LAND CLASS RES
3
P B 196 PG 150
ZONING AG
LAND CLASS RES
TIMOTHY L GRIFFEY
PIN # 7806212325
D B 5793, PG 530
ZONING RS-40
LAND CLASS RES (1)
TIMOTHY & LYNN DAVIS
PIN # 7806213145
D B 3975, PG 316
P B 56, PG 50
ZONING AG
LAND CLASS RES (1)
CASEY & AMBER BELANGIA
PIN # 7806110055
D B 8463, PG 2217
P B 206, PG 97
ZONING C-L
LAND CLASS RES (1)
BRIAN & NATALIE ATKINS
PIN # 7806103587
D B 4949, PG 166
ZONING R-3
LAND CLASS RES (1)
GUILFORD COUNTY BOARD OF EDUCATION
PIN # 7805295800
D B 4560, PG 443
P B 99, PG 75
ZONING PI
LAND CLASS SCHOOL (3)
N C DEPARTMENT OF TRANSPORTATION
PIN # 7806107328
D B 7059, PG 1064
ZONING R-3
LAND CLASS GOV OWNED (3)
PATRICIA J BULL
PIN # 7806302303
D B 1206, PG 554
ZONING AG
LAND USE AGRI/HORT (
LOT 1
LOT 2
BORROW PIT AREA
APPROX 14,000 CY OF STRUCTURAL FILL TO BE REMOVED AND REPLACED WITH STRIPPINGS
SEE DETAILED GRADING INSET 1 ON SHEET 8
SEE DETAILED GRADING INSET 2 ON SHEET 8
SEE DETAILED GRADING INSET 3 ON SHEET 8
MAIN ROAD (PRIVATE DRIVE)
ENTRANCE ROAD (PRIVATE DRIVE)
DINING AREA 1194 SF
SOCIAL AREA 2976 SF
SOCIAL AREA 2976 SF
SOCIAL AREA 2725 SF
SOCIAL AREA 1194 SF
12'x12' SIGN PAD
15' BLDG SETBACK
10' STREET PLANTING YARD
15' LANDSCAPE BUFFER TYPE "C" & BLDG SETBACK
15' LANDSCAPE BUFFER TYPE "C"
10' PRIVATE SANITARY SEWER EASEMENT
NCDOT PERMANENT UTILITY ESMT (DB 7211, PG 1492)
EXISTING 12" DIP WATER MAIN (APPROX LOCATION PER GIS)
EX WATER VALVE AND HYDRANT LOCATIONS (PER FEI SURVEY)
EXISTING WATER VALVE AND HYDRANT LOCATIONS (PER FEI SURVEY)
REVISED WATERSHED BOUNDARY LINE
OVERHEAD POWER POLE (TYP)
NG 8" DIP APPROX PER GIS
EX 18 RCP OUT INV =960 17' (SE)
EX 18 RCP IN INV =961 31' (NW)
UPPER REEDY FORK CREEK
GREENSBORO WATERSHED WS-III
E. FORK REEDY RIVER UPPER
RANDLEMAN WATERSHED WS-IV
20'x45' SIGHT DISTANCE TRIANGLE
R=571 56'
ChB=N69°34'49"E
ChL=220 89'
R=876 00'
ChB=N55°59'59"W
ChL=4 90'
N 82°48'49" E, 359 98'
N 82°50'25" E, 62 54'
N 81°07'30" E, 101 49'
N 83°34'29" E, 99 99'
N 86°34'15" E, 99 80'
S 88°01'47" E, 99 86'
S 01°05'22" E, 379 51'
S 03°07'01" E, 333 12'
N 56°30'05" E, 153 40'
N 03°34'20" E, 186 92'
N 06°25'00" E, 79 77'
N 04°19'37" E, 93 07'
N 86°49'48" W, 151 54'
N 03°09'02" E, 262 32'
S 03°11'15" W, 26 06'
N 81°49'20" W, 257 07'
N 34°59'31" W, 248 42'
N 29°41'05" E, 179 39'
S 29°51'02" W, 208 96'
N 72°53'56" W, 71 09'
S 23°20'55" W, 165 74'
N 56°09'36" W, 248 60'
S 87°05'00" W, 199 64'
N 73°21'48" W, 440 07'
TYP
TYP
TYP

NC GRID
NAD83(2011)



DETAILED
GRADING INSET 2

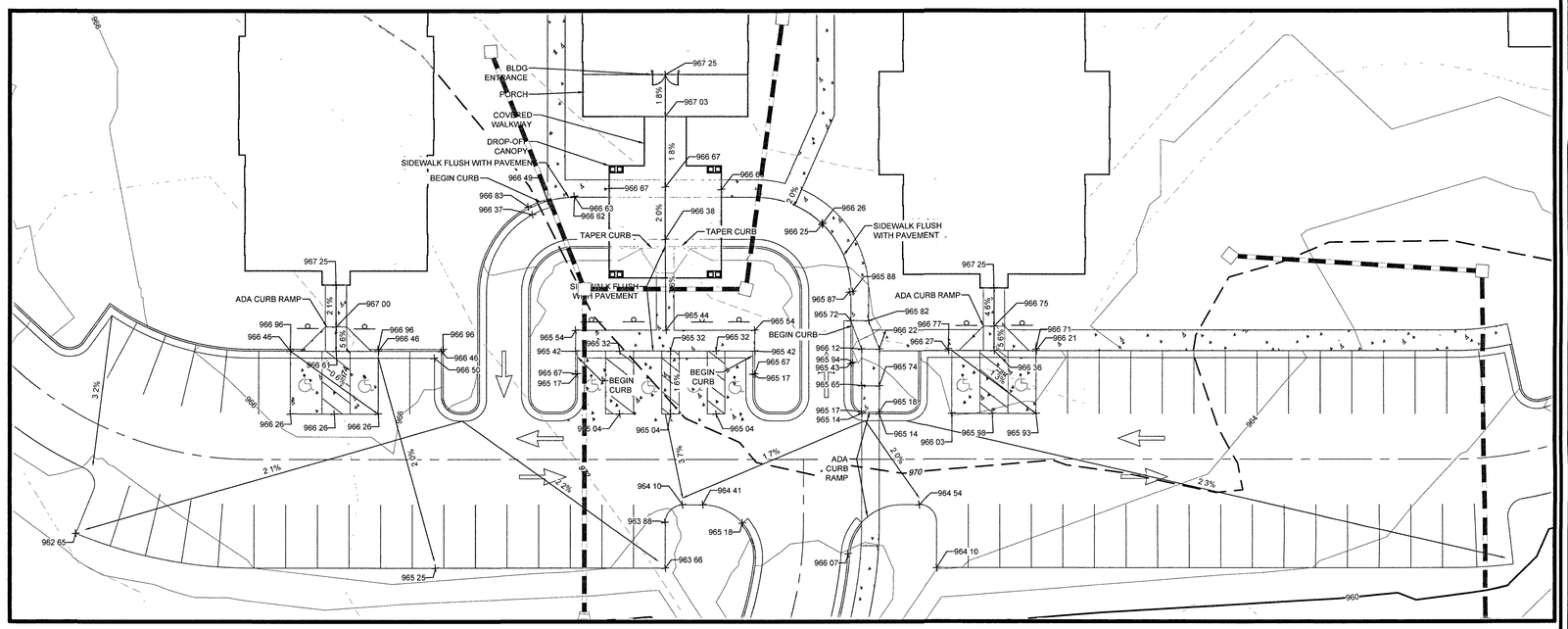
20' 0 20' 40' 60' 80'
SCALE 1" = 20'



DETAILED
GRADING INSET 1

20' 0 20' 40' 60' 80'
SCALE 1" = 20'

ROOF DRAINAGE WILL UTILIZE SPLASH
PADS AND DRAIN TO YARD INLETS.



DETAILED
GRADING INSET 3

20' 0 20' 40' 60' 80'
SCALE 1" = 20'

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HEARTLAND LIVING & REHABILITATION

DETAILED GRADING INSETS

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

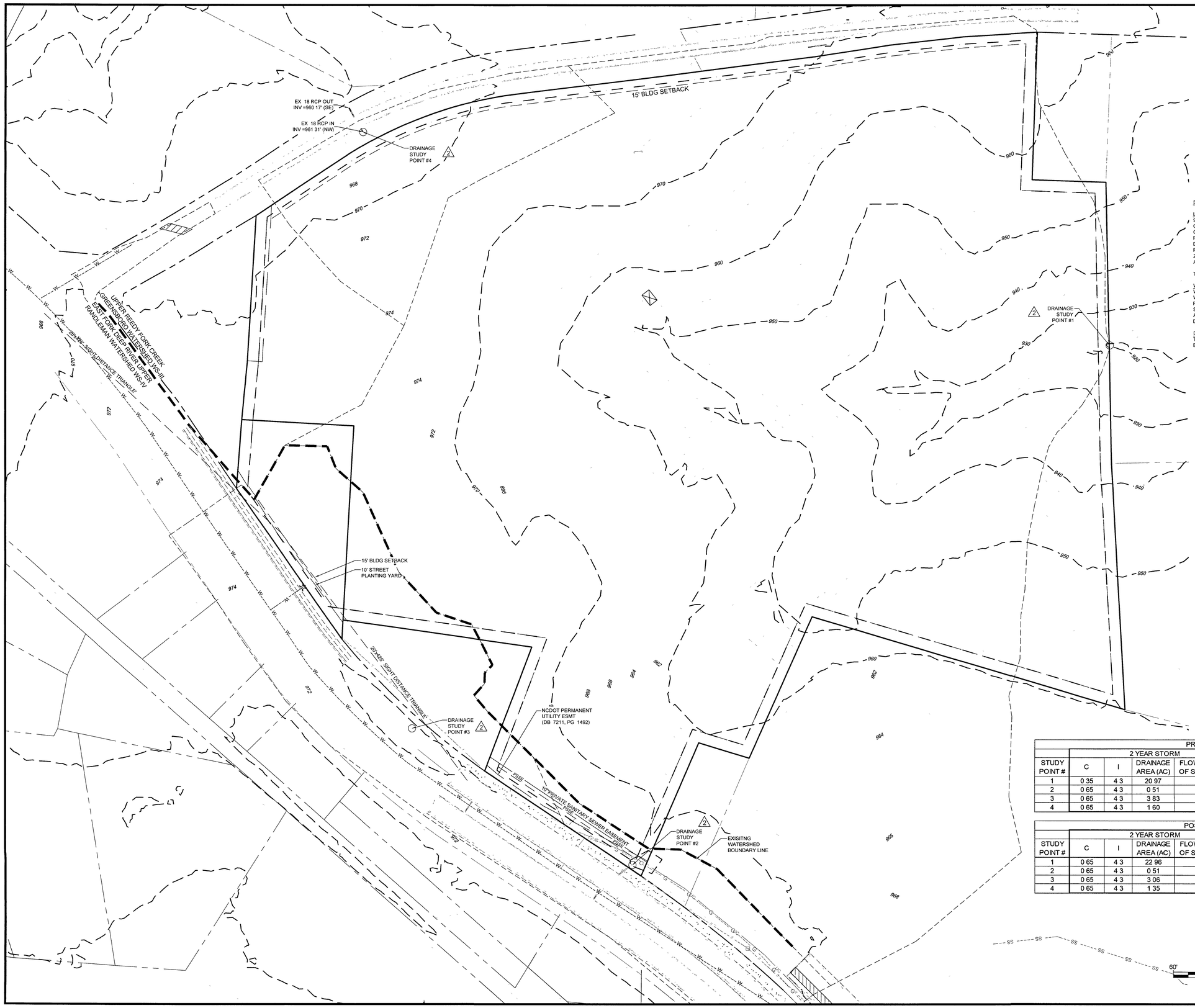
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DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE #########

NORTH CAROLINA
PROFESSIONAL
SEAL
027339
ENGINEER
BRENTLEY G. SAWYERS
02/26

SHEET
8 OF 23



VICINITY MAP
1"=2000'

SITE DATA

LOT 1
9206 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY, LLC
PIN 7806107946
D B 8920, PG 2977
P B 218, PG 5
ZONING CD-O
AREA 20 73 AC

LOT 2
9220 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY
OWNER ADDRESS 130 EI
SOUTH DR, STE 208 CAR
PIN 7806101797
D B 8942, PG 2134
ZONING CD-O
AREA 0 67 AC

TOTAL AREA 21 40 AC

WATERSHED DATA
WATERSHED REEDY FORK
WATERSHED CLASSIFICATION WS-III NSW
RIVER BASIN CAPE FEAR RIVER BASIN
SOIL TYPES CKB, CKC, PPE2, SMD
AVG SLOPE 9 4%
DISTURBED AREA 14 67 AC

DENSITY CALCULATION
TOTAL 107 UNITS/21 4 AC = 5 0 (UNITS PER ACRE)
BUILDING COVERAGE 1 9 AC/21 4 AC = 8 9% OF TOTAL ACREAGE

ONE ZONED LOT NOTE

THE SUBJECT PARCELS SHALL BE CONSIDERED ONE ZONING LOT FOR THE PURPOSES OF COMPLIANCE WITH THE CITY OF GREENSBORO LAND DEVELOPMENT ORDINANCE ALL APPLICABLE ZONING REQUIREMENTS, INCLUDING BUT NOT LIMITED TO SETBACKS, YARDS, LOT COVERAGE, PARKING, LANDSCAPING, AND BUFFERING, SHALL BE MET ACROSS THE COMBINED PARCELS AS A SINGLE ZONING LOT THE PARCELS SHALL REMAIN UNDER COMMON OWNERSHIP UNLESS FORMALLY RECOMBINED BY RECORDED PLAT

PRE-DEVELOPMENT

STUDY POINT #	2 YEAR STORM C	I	DRAINAGE AREA (AC)	FLOW TO POINT OF STUDY (CFS)	10 YEAR STORM C	I	DRAINAGE AREA (AC)	FLOW TO POINT OF STUDY (CFS)
1	0 35	4 3	20 97	31 56	0 35	5 48	20 97	40 22
2	0 65	4 3	0 51	1 43	0 65	5 48	0 51	1 83
3	0 65	4 3	3 83	10 70	0 65	5 48	3 83	13 64
4	0 65	4 3	1 60	4 48	0 65	5 48	1 60	5 71

POST-DEVELOPMENT

STUDY POINT #	2 YEAR STORM C	I	DRAINAGE AREA (AC)	FLOW TO POINT OF STUDY (CFS)	10 YEAR STORM C	I	DRAINAGE AREA (AC)	FLOW TO POINT OF STUDY (CFS)
1	0 65	4 3	22 96	64 16	0 65	5 48	22 96	81 77
2	0 65	4 3	0 51	1 43	0 65	5 48	0 51	1.83
3	0 65	4 3	3 06	8 55	0 65	5 48	3 06	10 90
4	0 65	4 3	1 35	3 77	0 65	5 48	1 35	4 80

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HEARTLAND LIVING & REHABILITATION

PRE DEVELOPMENT DELINEATION

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

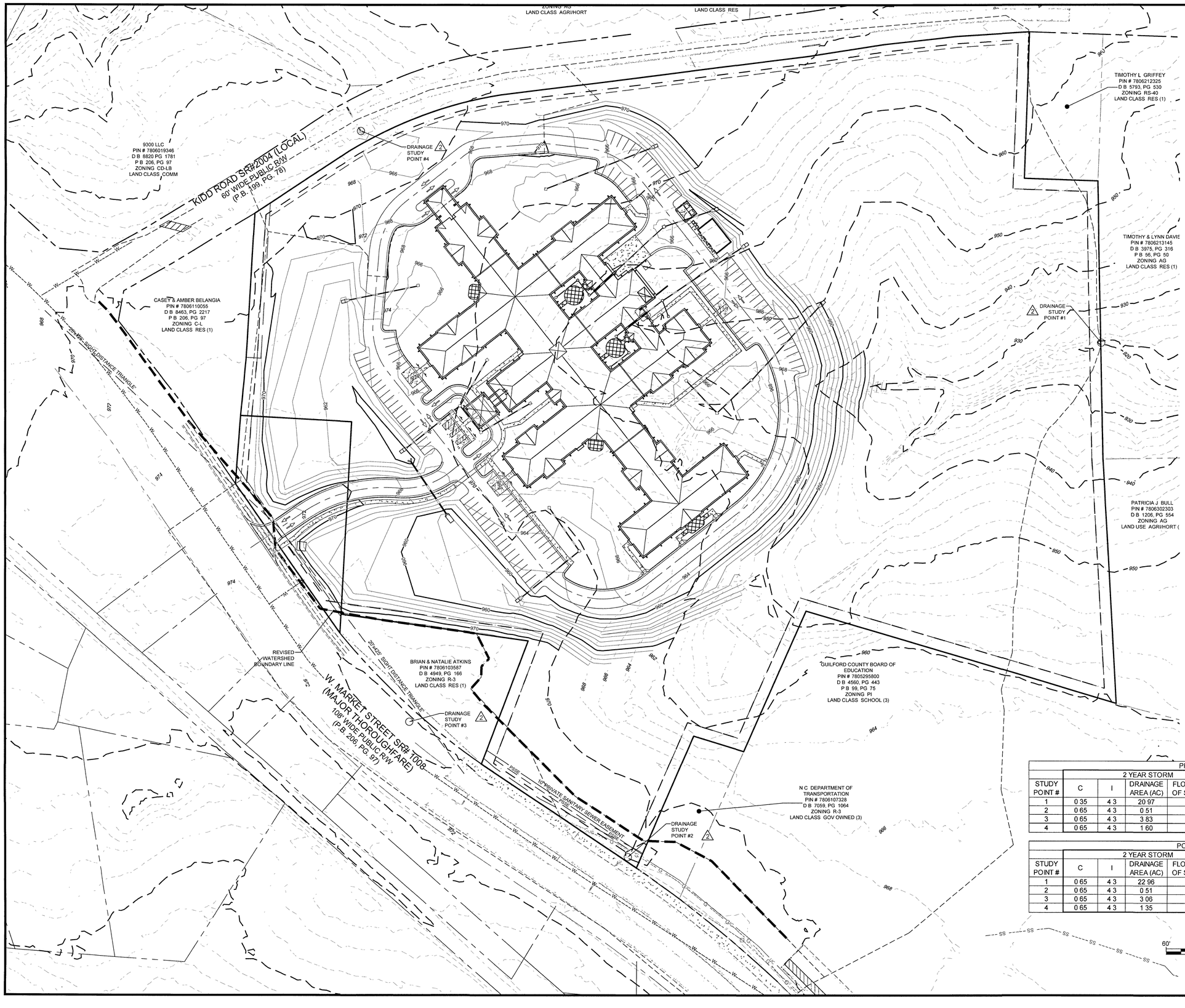
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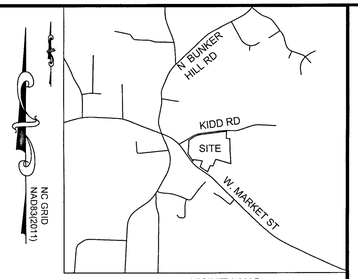
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CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE 1" = 60'

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027339 ENGINEER BRENTLEY G SAWYERS
05/21/26

SHEET
9 OF 23





SITE DATA

LOT 1
9206 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY, LLC
PIN 7806107946
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AREA 20 73 AC

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AREA 0 67 AC

TOTAL AREA 21 40 AC

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WATERSHED CLASSIFICATION WS-III NSW
RIVER BASIN CAPE FEAR RIVER BASIN
SOIL TYPES CKB, CKC, PPE2, SMD
AVG SLOPE 9 4%
DISTURBED AREA 14 67 AC

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PRE-DEVELOPMENT

STUDY POINT #	2 YEAR STORM C	2 YEAR STORM I	2 YEAR STORM DRAINAGE AREA (AC)	2 YEAR STORM FLOW TO POINT OF STUDY (CFS)	10 YEAR STORM C	10 YEAR STORM I	10 YEAR STORM DRAINAGE AREA (AC)	10 YEAR STORM FLOW TO POINT OF STUDY (CFS)
1	0 35	4 3	20 97	31 56	0 35	5 48	20 97	40 22
2	0 65	4 3	0 51	1 43	0 65	5 48	0 51	1 83
3	0 65	4 3	3 83	10 70	0 65	5 48	3 83	13 64
4	0 65	4 3	1 60	4 48	0 65	5 48	1 60	5 71

POST-DEVELOPMENT

STUDY POINT #	2 YEAR STORM C	2 YEAR STORM I	2 YEAR STORM DRAINAGE AREA (AC)	2 YEAR STORM FLOW TO POINT OF STUDY (CFS)	10 YEAR STORM C	10 YEAR STORM I	10 YEAR STORM DRAINAGE AREA (AC)	10 YEAR STORM FLOW TO POINT OF STUDY (CFS)
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4	0 65	4 3	1 35	3 77	0 65	5 48	1 35	4 80

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HEARTLAND LIVING & REHABILITATION

POST DEVELOPMENT DELINEATION

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
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2	03/13/2026	WATERSHED COMMENTS
3		
4		
5		

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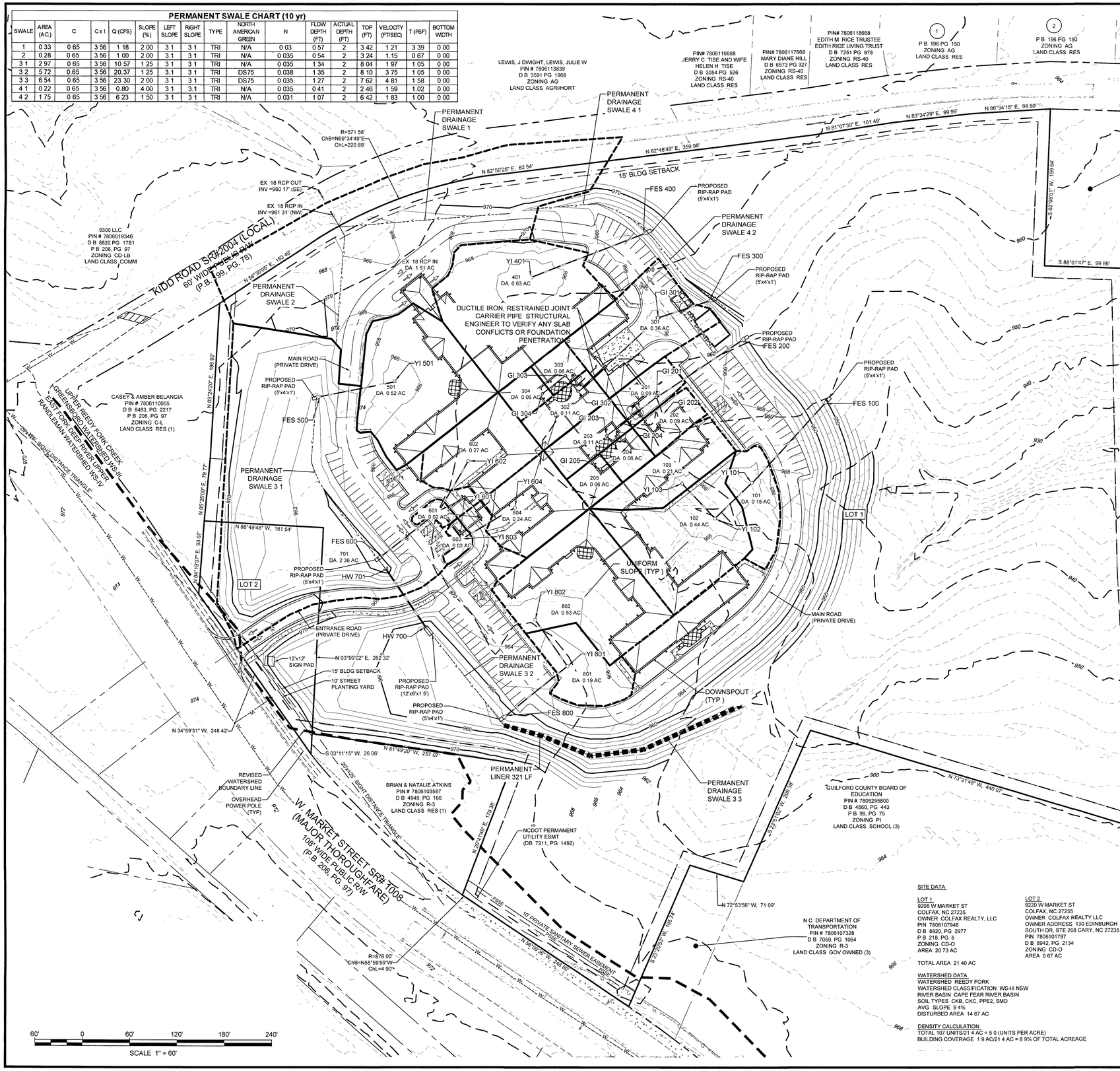
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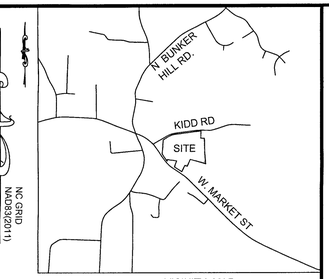
NORTH CAROLINA PROFESSIONAL SEAL 027339 ENGINEER BRENTLEY G SAYERS
05/21/26

SHEET
10 OF 23

PERMANENT SWALE CHART (10 yr)

SWALE	AREA (AC.)	C	C x I	Q (CFS)	SLOPE (%)	LEFT SLOPE	RIGHT SLOPE	TYPE	NORTH AMERICAN GREEN	N	FLOW DEPTH (FT)	ACTUAL DEPTH (FT)	TOP (FT)	VELOCITY (FT/SEC)	T (FSF)	BOTTOM WIDTH
1	0 33	0 65	3 56	1 18	2 00	3 1	3 1	TRI	N/A	0 03	0 57	2	3 42	1 21	3 39	0 00
2	0 28	0 65	3 56	1 00	2 00	3 1	3 1	TRI	N/A	0 035	0 54	2	3 24	1 15	0 67	0 00
3 1	2 97	0 65	3 56	10 57	1 25	3 1	3 1	TRI	N/A	0 035	1 34	2	8 04	1 97	1 05	0 00
3 2	5 72	0 65	3 56	20 37	1 25	3 1	3 1	TRI	DS75	0 038	1 35	2	8 10	3 75	1 05	0 00
3 3	6 54	0 65	3 56	23 30	2 00	3 1	3 1	TRI	DS75	0 035	1 27	2	7 62	4 81	1 58	0 00
4 1	0 22	0 65	3 56	0 80	4 00	3 1	3 1	TRI	N/A	0 035	0 41	2	2 46	1 59	1 02	0 00
4 2	1 75	0 65	3 56	6 23	1 50	3 1	3 1	TRI	N/A	0 031	1 07	2	6 42	1 83	1 00	0 00





VICINITY MAP
1"=2000'

ONE ZONED LOT NOTE

1 THE SUBJECT PARCELS SHALL BE CONSIDERED ONE ZONING LOT FOR THE PURPOSES OF COMPLIANCE WITH THE CITY OF GREENSBORO LAND DEVELOPMENT ORDINANCE ALL APPLICABLE ZONING REQUIREMENTS, INCLUDING BUT NOT LIMITED TO SETBACKS, YARDS, LOT COVERAGE, PARKING, LANDSCAPING, AND BUFFERING, SHALL BE MET ACROSS THE COMBINED PARCELS AS A SINGLE ZONING LOT THE PARCELS SHALL REMAIN UNDER COMMON OWNERSHIP UNLESS FORMALLY RECOMBINED BY RECORDED PLAT

STORMWATER MANAGEMENT INFORMATION

1 NO STREAMS OR WETLANDS EXIST ON THE SUBJECT PROPERTY PER PILOT ENVIRONMENTAL AND THE US ARMY CORPS OF ENGINEERS REFERENCE FILE SAW-2024-00483 (WETLAND MAP) FOR THE APPROVED JURISDICTIONAL DETERMINATION

2 THIS PROPERTY IS LOCATED WITHIN ZONE "X" AREA AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 3710780600J, EFFECTIVE ON 6/18/2007

3 BUILT UPON AREA (BUA)

TOTAL SITE AREA	932,206 SF	21 40 ACRES
EXISTING BUA (GRANDFATHERED)	0 SF	0 ACRES (0 %)
EXISTING BUA TO BE REMOVED	15,332 SF	0 35 ACRES (1 64 %)
PROPOSED BUILT UPON AREA	183,784 SF	4 22 ACRES (19 72 %)
TOTAL BUA	183,784 SF	4 22 ACRES (19 72 %)

4 ALL NECESSARY APPROVALS HAVE BEEN (WILL BE) OBTAINED FROM NCDEQ AND U S ARMY CORPS OF ENGINEERS FOR ANY WETLAND DISTURBANCE AND STREAM CROSSING/DISTURBANCE WHERE APPLICABLE

5 ENGINEER'S CERTIFICATION OF STORMWATER QUANTITY CONTROL THE NET INCREASE IN BUILT-UPON AREA IS GREATER THAN 400 SQUARE FEET, THEREFORE, THIS DEVELOPMENT IS SUBJECT TO 30-12-7 2(B)(7)(B) OF THE GREENSBORO LAND DEVELOPMENT ORDINANCE

6 STORM SEWER AS-BUILTS REQUIRED FOR ALL NEW PIPES 12" AND LARGER AFTER CONSTRUCTION, SUBMIT (1) SET OF PLANS TO THE ENGINEERING DEPARTMENT FOR RECORD PURPOSES PLEASE CALL (336) 373-2084 WITH QUESTIONS

BORROW AND/OR WASTE AREA NOTES

IF THE SAME PERSON CONDUCTS THE LAND-DISTURBING ACTIVITY & ANY RELATED BORROW OR WASTE ACTIVITY, THE RELATED BORROW OR WASTE ACTIVITY SHALL CONSTITUTE PART OF THE LAND-DISTURBING ACTIVITY UNLESS THE BORROW OR WASTE ACTIVITY IS REGULATED UNDER THE MINING ACT OF 1971, OR IS A LANDFILL REGULATED BY THE DIVISION OF WASTE MANAGEMENT IF THE LAND-DISTURBING ACTIVITY AND ANY RELATED BORROW OR WASTE ACTIVITY ARE NOT CONDUCTED BY THE SAME PERSON, THEY SHALL BE CONSIDERED SEPARATE LAND-DISTURBING ACTIVITIES AND MUST BE PERMITTED EITHER THROUGH THE SEDIMENTATION POLLUTION CONTROL ACT AS A ONE-USE BORROW SITE OR THROUGH THE MINING ACT

SITE DATA

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COLFAX, NC 27235
OWNER COLFAX REALTY, LLC
PIN 7806107946
D B 8920, PG 2977
P B 218, PG 5
ZONING CD-O
AREA 20 73 AC

LOT 2
9220 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY LLC
OWNER ADDRESS 130 EDINBURGH SOUTH DR, STE 208 CARY, NC 27235
PIN 7806101797
D B 8942, PG 2134
ZONING CD-O
AREA 0 67 AC

TOTAL AREA 21 40 AC

WATERSHED DATA
WATERSHED REEDY FORK
WATERSHED CLASSIFICATION WS-III NSW
RIVER BASIN CAPE FEAR RIVER BASIN
SOIL TYPES CKB, CKC, PPE2, SMD
AVG SLOPE 9 4%
DISTURBED AREA 14 67 AC

DENSITY CALCULATION
TOTAL 107 UNITS/21 4 AC = 5 0 (UNITS PER ACRE)
BUILDING COVERAGE 1 9 AC/21 4 AC = 8 9% OF TOTAL ACREAGE

2 GENERAL WATERSHED AREA AND OTHER WATERSHED DISTRICT PERFORMANCE

Table 12–10

Maximum Points	Factor	Point Value	Points
25	1 Clustering		
	Minimal	10	10
	Moderate	15	
	Major	20	
	Exceptional	25	
25	2 Built-Upon Area		
	0-3%	25	
	3 01-7%	20	
	7 01-10%	15	
	10 01-15%	10	
	15 01-20%	5	5
25	3 Proximity to Floodway as Defined by FEMA		
	More than 2000 Feet	25	25
	1000-2000 Feet	20	
	500-1000 Feet	15	
	100-500 feet	10	
	50-100 Feet	5	
10	4 Soil Imitations as Defined on Pg 29 and Tbl 7, Pg 57 Gul Co Soil Survey		
	Slight	10	
	Moderate	5	
25	5 Drainage-Protect and Use Natural Drainageways		
	Piped or Improved Drainage With Riprap	5	
	Dispersed Drainage or Protected Drainageways	10	10
	Dispersed Drainage and Protected Drainageways (or Dispersed and No Drainageway)	20	
	Enhanced and Protected Natural Drainageways	25	
25	6 Average Pre-development Slope of Land Subject to Grading or Filling		
	0-6%	25	
	6 01-10%	20	20
	10 01-15%	5	
25	7 Stream Buffer Along Drainageways		
	No Drainageway Present on Property or Within 50 Feet	25	25
	50 Feet, All Wooded Except for Sewers and Required Streets	25	
	50 Feet, At Least Half Wooded	20	
	50 feet, No Grading or Fill Except For Sewers and Required Streets	15	
	40 Feet, Same Restrictions	10	
25	8 Stormwater Runoff Control Strategies		
	Divide the % of Stormwater (Runoff) Controlled by 4		0
10	9 Sewage Disposal		
	Public Sewer Service	10	10
10	10 Street & Driveway Design		
	With Vegetated Ditches	10	
	With Piped Drainage and/or Curb and Gutter and Energy Dissipators	5	5
33	11 Wooded Area		
	Divide the % of Tract to Remain Wooded by 3 and % Thickly Planted in Tree Stands by 6		5
	12 Grading Reduction and Other bonuses		
	NR <1 Driveway per 300 Feet of Frontage	5	5
	All Creation of Wetlands	Up to 20	0
	All Other Measures	Up to 10	5
	Total		125

Notes
(1) All plans must have at least 120 points and meet all other requirements to be approved
(2) Use this table for low-density option only
Abbreviations BUA = Built-upon area, SF=single-family detached, MF=multi-family, NR=nonresidential, All=all types

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HEARTLAND LIVING & REHABILITATION

DRAWING TITLE: DRAINAGE PLAN

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

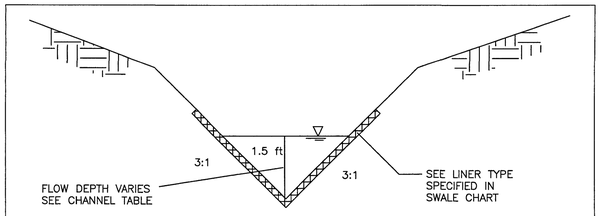
NO	DATE	REVISION NOTE
1	04/01/2026	COG EROSION CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

J:\FEI\Engineering\Drawings_&_Permits\HPDO\2025\3001 3200 Mendenhall & 1161 Kivett Dr\Drawings\Drawings

DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE 1" = 60'

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027339 BRENTLEY C SUTTERS
05/21/26

SHEET
11 OF 23



TYPICAL DITCH CHANNEL CROSS-SECTION:
N.T.S.

TABLE 1042-1
ACCEPTANCE CRITERIA FOR RIP RAP AND STONE FOR EROSION CONTROL

Class	Required Stone Sizes, inches		
	Minimum	Midrange	Maximum
A	2	4	6
B	5	8	12
1	5	10	17
2	9	14	23

ZONE	APRON MATERIAL	LENGTH OF APRON	
		TO PROTECT CULVERT L1	TO PREVENT SCOUR HOLE USE L2 ALWAYS L2
1	STONE FILLING (FINE) CL A	3 X D_o	4 x D_o
2	STONE FILLING (LIGHT) CL B	3 X D_o	6 x D_o
3	STONE FILLING (MEDIUM) CL 1	4 X D_o	8 x D_o
4	STONE FILLING (HEAVY) CL 1	4 X D_o	8 x D_o
5	STONE FILLING (HEAVY) CL 2	5 X D_o	10 x D_o
6	STONE FILLING (HEAVY) CL 2	6 X D_o	10 x D_o
7	SPECIAL STUDY REQUIRED (ENERGY DISSIPATORS, STILLING BASIN OR LARGER SIZE STONE)		

Figure 8.06d

Width = 3 times pipe dia (min)

DETERMINATION OF STONE SIZES FOR DUMPED STONE CHANNEL LININGS AND REVETMENTS

Step 1. Use figure 8 06 b 3 to determine maximum stone size (e g for 12 Fps = 20" or 550 lbs

Step 2. Use figure 8 06 b 4 to determine acceptable size range for stone (for 12 FPS it is 125-500 lbs for 75% of stone, and the maximum and minimum range in weight should be 25-500 lbs)

NOTE: In determining channel velocities for stone linings and revetment, use the following coefficients of roughness

	Diameter (inches)	Manning's "n"	Min of lining	thickness (inches)
Fine	3	0 031	9	12
Light	6	0 035	12	18
Medium	13	0 040	18	24
Heavy	23	0 044	30 (Channels)	36 (Dissapators)

NEW YORK DOT DISSIPATOR METHOD FOR USE IN DEFINED CHANNELS

(Source "Bank and channel lining procedures", New York Department of Transportation, Division of Design and Construction, 1971)

NOTE To use the following chart you must know
(1) Q full capacity
(2) Q_{10}
(3) V full
(4) V_{10}

where Q = discharge in cfs and V = Velocity in FPS

ESTIMATION OF STONE SIZE AND DIMENSIONS FOR CULVERT APRONS

Step 1) Compute flow velocity V_o at culvert or paved channel outlet

Step 2) For pipe culverts D_o is diameter
For pipe arch, arch and box culverts, and paved channel outlets, $D_o = A_o$ where A = cross-sectional area of flow at outlet

For multiple culverts, use D_o = 1 25 x D_o of single culvert

Step 3) For apron grades of 10% or steeper, use recommendations For next higher zone (Zones 1 through 6)

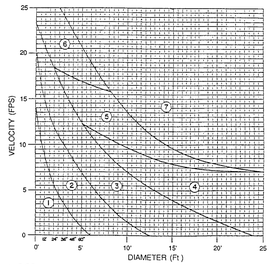
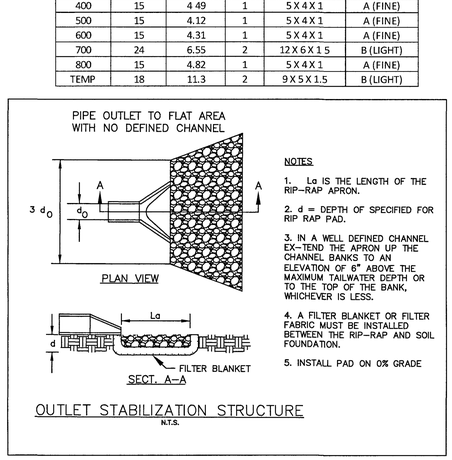


Figure 8.06c

PRECIPITATION FREQUENCY ESTIMATES										
by duration for ARI (years)	1	2	5	10	25	50	100	200	500	1000
5-min.	4 52	5 39	6 28	6 85	7 49	7 87	8 2	8.45	8.68	8 8
10-min.	3 62	4 3	5 02	5 48	5 96	6 27	6 51	6 7	6 86	6 93
15-min	3 01	3 61	4 24	4 62	5 04	5 29	5 49	5 63	5 76	5 8
30-min	2 07	2 49	3 01	3 35	3 73	3 98	4 2	4 38	4 58	4 69
60-min.	1 29	1 56	1 93	2 18	2 48	2 7	2 89	3 07	3 29	3 43

RIP RAP TABLE					
OUTLET	PIPE SIZE (IN)	VELOCITY (FPS)	ZONE	DIMENSION (FT) (L X W X D)	STONE CLASS
100	15	6 57	1	5 X 4 X 1	A (FINE)
200	15	3.84	1	5 X 4 X 1	A (FINE)
300	15	4.5	1	5 X 4 X 1	A (FINE)
400	15	4 49	1	5 X 4 X 1	A (FINE)
500	15	4.12	1	5 X 4 X 1	A (FINE)
600	15	4.31	1	5 X 4 X 1	A (FINE)
700	24	6.55	2	12 X 6 X 1 5	B (LIGHT)
800	15	4.82	1	5 X 4 X 1	A (FINE)
TEMP	18	11.3	2	9 X 5 X 1.5	B (LIGHT)



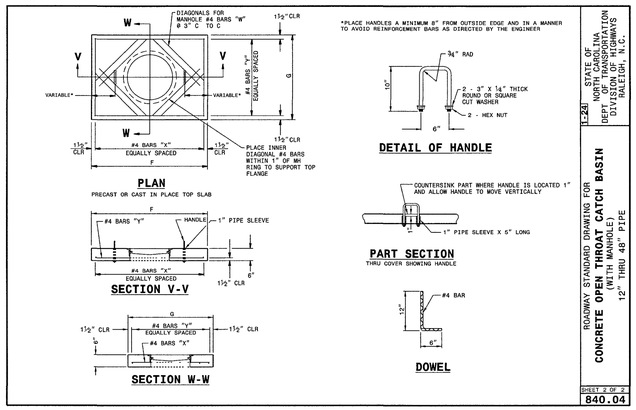
OUTLET STABILIZATION STRUCTURE
N.T.S.

STORM STRUCTURE ELEVATION NOTES

- YARD INLET (YI) = THROAT ELEVATION
- CATCH BASIN (CB) = TOP OF CURB ELEVATION
- GRATE INLET (GI) = TOP OF GRATE
- FLARED END SECTION (FES) = TOP OF PIPE
- HEADWALL (HW) = TOP OF HEADWALL

10 Year Storm Structure Chart	
STRUCTURE NAME	ELEVATION (SEE NOTES)
FES 100	951 11
FES 200	962 12
FES 300	962 29
FES 400	962 82
FES 500	963 38
FES 600	961 72
FES 800	958 13
GI 201	967 25
GI 202	967 25
GI 203	967 25
GI 204	967 25
GI 205	967 25
GI 301	965 74
GI 302	967 25
GI 303	967 25
GI 304	967 25
HW 700	960 26
HW 701	961 23
YI 101	965 00
YI 102	965 25
YI 103	965 25
YI 401	965 25
YI 501	965 25
YI 601	965 00
YI 602	967 25
YI 603	965 00
YI 604	967 25
YI 801	962 50
YI 802	964 50

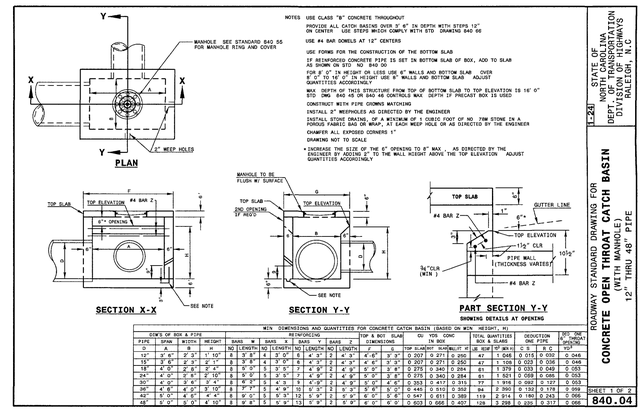
10-Year Storm Sewer Chart										
Start Structure	End Structure	Start Invert Elev (ft)	End Invert Elev (ft)	Start HGL Elev (ft)	End HGL Elev (ft)	Pipe Size & Material	Length (ft)	Slope	Flow Rate (cfs)	Velocity (ft/s)
101	100	953 30	949 59	953 74	950 03	15" RCP	135 26	2 74%	2 84	6 57
102	101	961 00	960 35	961 52	960 87	15" RCP	61 44	1 06%	2 32	4 56
103	102	961 81	961 20	962 10	961 90	15" RCP	57 57	1 06%	0 75	1 08
201	200	962 15	960 60	962 53	960 98	15" RCP	128 05	1 21%	1 44	3 84
202	201	964 20	963 97	964 38	964 14	12" HDPE	21 32	1 09%	0 32	2 28
203	201	963 19	962 40	963 48	962 80	12" HDPE	77 65	1 03%	0 81	2 56
204	203	963 68	963 39	963 88	963 76	12" HDPE	26 33	1 08%	0 41	1 40
205	204	964 20	963 88	964 34	964 05	12" HDPE	30 38	1 07%	0 21	1 47
301	300	961 55	960 77	962 02	961 24	15" RCP	65 93	1 18%	2 07	4 50
302	301	963 17	961 80	963 45	962 37	12" HDPE	136 00	1 01%	0 81	1 80
303	302	963 62	963 37	963 82	963 74	12" HDPE	23 36	1 09%	0 41	1 40
304	303	964 20	963 82	964 34	964 00	12" HDPE	35 63	1 06%	0 21	1 48
401	400	962 81	961 30	963 32	961 81	15" RCP	151 48	1 00%	2 25	4 49
501	500	962 81	961 86	963 27	962 32	15" RCP	94 94	1 00%	1 86	4 12
601	600	961 20	960 20	961 66	960 66	15" RCP	91 17	1 09%	1 96	4 31
602	601	962 72	961 40	963 01	961 98	15" RCP	69 63	1 90%	0 97	1 69
603	601	961 83	961 40	962 16	961 99	15" RCP	42 95	1 00%	0 93	1 62
604	603	962 78	962 03	963 09	962 34	15" RCP	74 92	1 00%	0 85	2 80
701	700	958 48	957 51	959 31	958 34	24" RCP	87 68	1 11%	8 49	6 55
801	800	957 64	956 61	958 18	957 15	15" RCP	98 08	1 05%	2 57	4 82
802	801	959 84	957 84	960 20	958 59	15" RCP	68 52	2 92%	1 89	2 57



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.	1-24

ROADWAY STANDARD DRAWING FOR
CONCRETE OPEN THROAT CATCH BASIN
(WITH MANHOLE)
12" THRU 48" PIPE

SHEET 2 OF 2 **840.04**



CON'S OF BOX & PIPE				MIN DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN HEIGHT, H)													
				REINFORCING				TOP & BOT SLAB DIMENSIONS				CU YDS CONC	TOTAL QUANTITIES		DEDUCTION FOR PIPE OPENING		SPL DIA CONCRETE COLLAR
PIPE	SPAN	WIDTH	HEIGHT	BARS W	BARS X	BARS Y	BARS Z	T	A	B	H		TOP SLAB	WALLS	TOP SLAB	WALLS	
12"	1' 0"	1' 0"	1' 0"	NO REINFORCING			NO	6"	1' 0"	1' 0"	1' 0"	0 1	0 1	0 1			0 01
15"	1' 3"	1' 3"	1' 3"	8	3" @ 1' 0"	3	4" @ 1' 0"	6"	1' 3"	1' 3"	1' 3"	0 207	0 271	0 255	47	1 046	0 015	0 032	0 046
15"	3' 6"	2' 3"	2' 1"	8	3" @ 1' 0"	4	4" @ 1' 0"	6"	3' 6"	2' 3"	2' 1"	0 207	0 271	0 255	47	1 109	0 033	0 036	0 046
18"	4' 0"	2' 6"	2' 4"	8	6" @ 1' 0"	5	3" @ 1' 0"	7"	4' 0"	2' 6"	2' 4"	0 275	0 340	0 284	63	1 379	0 033	0 049	0 053
24"	4' 0"	2' 6"	2' 10"	8	6" @ 1' 0"	5	3" @ 1' 0"	7"	4' 0"	2' 6"	2' 10"	0 275	0 340	0 284	63	1 521	0 033	0 065	0 053
30"	4' 0"	2' 6"	3' 4"	8	6" @ 1' 0"	5	4" @ 1' 0"	7"	4' 0"	2' 6"	3' 4"	0 353	0 417	0 315	77	1 916	0 092	0 127	0 053
36"	4' 6"	4' 0"	3' 10"	8	7" @ 1' 0"	5	4" @ 1' 0"	12	4' 6"	3' 6"	3' 10"	0 445	0 512	0 358	84	2 390	0 132	0 178	0 069
42"	5' 0"	4' 6"	4' 4"	8	8" @ 1' 0"	5	5" @ 1' 0"	12	5' 0"	3' 6"	4' 4"	0 547	0 611	0 389	119	2 914	0 180	0 243	0 096
48"	5' 0"	5' 0"	4' 10"	8	9" @ 1' 0"	5	5" @ 1' 0"	13	5' 0"	3' 6"	4' 10"	0 603	0 666	0 407	126	3 298	0 220	0 317	0 096

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.	1-24

ROADWAY STANDARD DRAWING FOR
CONCRETE OPEN THROAT CATCH BASIN
(WITH MANHOLE)
12" THRU 48" PIPE

SHEET 1 OF 2 **840.04**

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High Point, NC 27265
www.feiconsulting.com
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License No C-0950

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HEARTLAND LIVING & REHABILITATION

DRAINAGE DETAILS & CHARTS

PROJECT LOCATION
TOWNSHIP GOLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/01/2026	COG EROSION CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

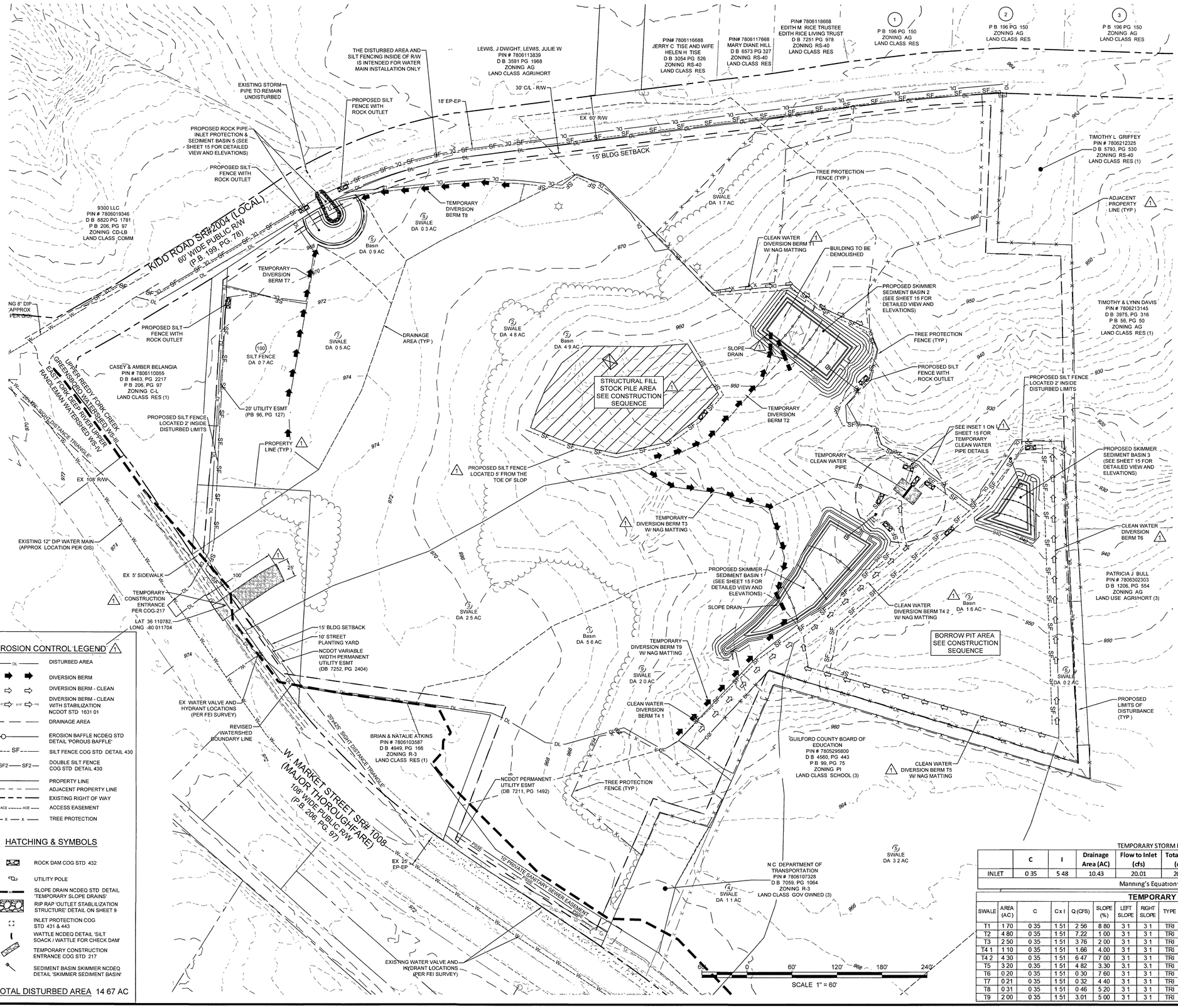
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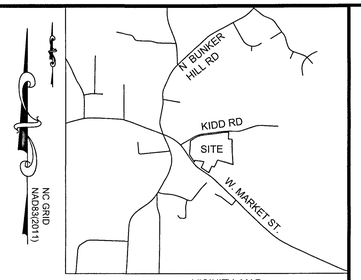
DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE N/A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027339 BRANTLEY SIEVERS

SHEET

12 OF 23





VICINITY MAP
1"=2000'

SITE DATA

LOT 1
9206 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY, LLC
PIN 7806107946
D B 8920, PG 2977
P B 218, PG 5
ZONING CD-O
AREA 20 73 AC

LOT 2
9220 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY
OWNER ADDRESS 130 EI
SOUTH DR, STE 208 CAR
PIN 7806101797
D B 8942, PG 2134
ZONING CD-O
AREA 0 67 AC

TOTAL AREA 21 40 AC

WATERSHED DATA
WATERSHED REEDY FORK
WATERSHED CLASSIFICATION WS-III NSW
RIVER BASIN CAPE FEAR RIVER BASIN
SOIL TYPES CKB, CKC, PPE2, SMD
AVG SLOPE 9 4%
DISTURBED AREA 14 67 AC

DENSITY CALCULATION
TOTAL 107 UNITS/21 4 AC = 5 0 (UNITS PER ACRE)
BUILDING COVERAGE 1 9 AC/21 4 AC = 8 9% OF TOTAL ACREAGE

STAGE 1 - SITE CONSTRUCTION SEQUENCE 1

1 HOLD PRECONSTRUCTION MEETING TO OBTAIN GRADING PERMIT CONTACT CITY OF GREENSBORO A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION BEGINNING
2 CLEAR ONLY ENOUGH OF SITE TO INSTALL TEMPORARY EROSION CONTROL MEASURES AND CLEAN WATER DIVERSION STABILIZED CLEAN WATER DIVERSIONS IMMEDIATELY WITH NORTH AMERICAN GREEN MATTING AS NOTED
3 INSTALL ROCK OUTLETS WITHIN SILT FENCE SECTIONS AT AREAS OF CONCENTRATED FLOW)
6 SEED, MULCH AND TACK/MATT TRAPS AND BERMS UPON CONSTRUCTION
7 CALL FOR INSPECTION AFTER EROSION CONTROL MEASURE INSTALLATION BEFORE MASS GRADING
8 INSTALL TEMPORARY DIVERSION BERMS ALONG WITH THE TEMPORARY STORM PIPE FOR CLEAN WATER DIVERSION AND STABILIZE IMMEDIATELY WITH MATTING BACKFILL STORM PIPE CROSSING TO ALLOW ACCESS TO THE BORROW PIT AREA
9 HAVE EROSION CONTROL INSPECTED BY CITY OF GREENSBORO SOIL EROSION SECTION STAFF BEFORE PRECEDING WITH STRIPPING OR MINING STRUCTURAL FILL

EROSION CONTROL LEGEND 1

- DISTURBED AREA
- DIVERSION BERM
- DIVERSION BERM - CLEAN
- DIVERSION BERM - CLEAN WITH STABILIZATION NCDOT STD 1631 01
- DRAINAGE AREA
- EROSION BAFFLE NCDEQ STD DETAIL 'POROUS BAFFLE'
- SILT FENCE COG STD DETAIL 430
- DOUBLE SILT FENCE COG STD DETAIL 430
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING RIGHT OF WAY
- ACCESS EASEMENT
- TREE PROTECTION

HATCHING & SYMBOLS

- ROCK DAM COG STD 432
- UTILITY POLE
- SLOPE DRAIN NCDEQ STD DETAIL 'TEMPORARY SLOPE DRAINS'
- RIP RAP 'OUTLET STABILIZATION STRUCTURE' DETAIL ON SHEET 9
- INLET PROTECTION COG STD 431 & 443
- WATTLE NCDEQ DETAIL 'SILT SOACK / WATTLE FOR CHECK DAM'
- TEMPORARY CONSTRUCTION ENTRANCE COG STD 217
- SEDIMENT BASIN SKIMMER NCDEQ DETAIL 'SKIMMER SEDIMENT BASIN'

TOTAL DISTURBED AREA 14 67 AC

TEMPORARY STORM PIPE CHART - 10 YEAR STORM

	C	I	Drainage Area (AC)	Flow to Inlet (cfs)	Total Flow (cfs)	Pipe Material	$n_{Manning's}$	Slope (ft/ft)	Theoretical Pipe Dia. (in)	Actual Pipe Dia. (in)
INLET	0 35	5 48	10.43	20.01	20 01	HDPE	0.012	0.0178	19 94	24

Manning's Equation: $Q = (1.49/n) * A * R_h^{2/3} * s^{1/2}$

TEMPORARY SWALE CHART (2 yr)

SWALE	AREA (AC)	C	C x I	Q (CFS)	SLOPE (%)	LEFT SLOPE	RIGHT SLOPE	TYPE	NORTH AMERICAN GREEN	N	FLOW DEPTH (FT)	ACTUAL DEPTH (FT)	TOP (FT)	VELOCITY (FT/SEC)	T (PSF)	BOTTOM WIDTH
T1	1 70	0 35	1 51	2 56	8 80	3 1	3 1	TRI	C125BN	0 035	0 40	2	2 40	5 40	2 20	0 00
T2	4 80	0 35	1 51	7.22	1 00	3 1	3 1	TRI	N/A	0 035	1 26	2	7 56	1.52	0 79	0 00
T3	2 50	0 35	1 51	3 76	2 00	3 1	3 1	TRI	DS75	0 035	0 66	2	3 96	2 86	0 82	0 00
T4 1	1 10	0 35	1 51	1.66	4 00	3 1	3 1	TRI	N/A	0 035	0 52	2	3.12	2 05	1 30	0 00
T4 2	4 30	0 35	1 51	6 47	7 00	3 1	3 1	TRI	C125BN	0 035	0 58	2	3 48	6 36	2 53	0 00
T5	3 20	0 35	1 51	4 82	3.30	3 1	3.1	TRI	DS75	0 035	0 65	2	3 90	3 85	1 34	0 00
T6	0 20	0 35	1 51	0 30	7 60	3 1	3 1	TRI	N/A	0 035	0 25	2	1 50	1 65	1 19	0 00
T7	0 21	0 35	1 51	0 32	4 40	3 1	3 1	TRI	N/A	0 035	0.30	2	1 80	1 22	0 82	0 00
T8	0 31	0 35	1 51	0 46	5 20	3 1	3 1	TRI	N/A	0 035	0 32	2	1 92	1 53	1 04	0 00
T9	2 00	0 35	1 51	3.01	5 00	3 1	3 1	TRI	DS75	0 035	0.50	2	3 00	4 06	1 56	0 00

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HEARTLAND LIVING & REHABILITATION

EROSION CONTROL STAGE 1

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/01/2026	COG EROSION CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

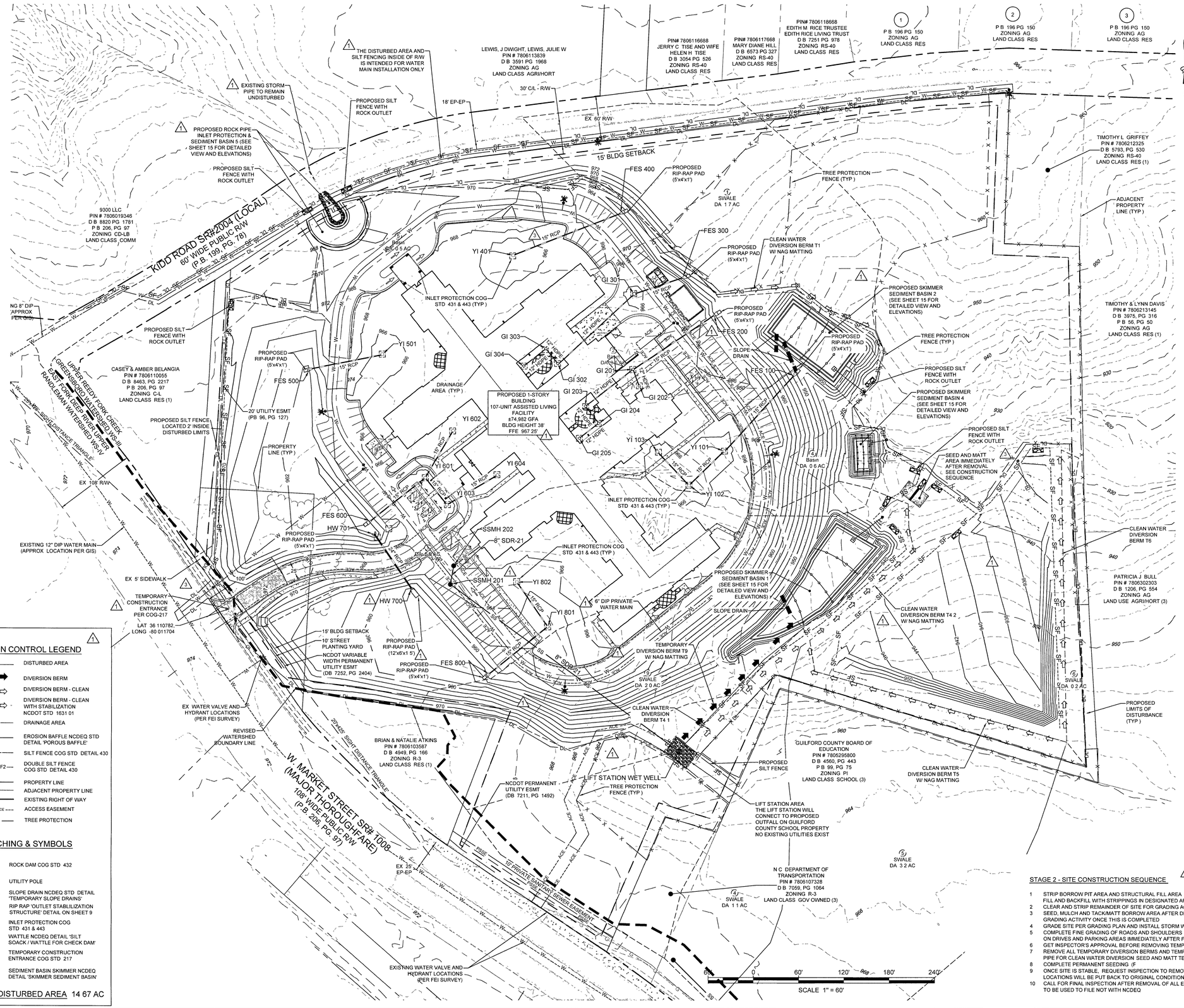
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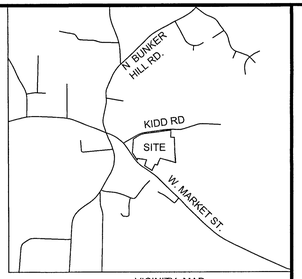
DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE 1" = 60'

NORTH CAROLINA PROFESSIONAL SEAL 027339 ENGINEER BRENTLEY C SIEVERS

SHEET

13 OF 23





VICINITY MAP
1"=2000'

SITE DATA

LOT 1
9206 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY, LLC
PIN 7806107946
D B 8920, PG 2977
P B 218, PG 5
ZONING CD-O
AREA 20 73 AC

LOT 2
9220 W MARKET ST
COLFAX, NC 27235
OWNER COLFAX REALTY
OWNER ADDRESS 130 Ei
SOUTH DR, STE 208 CAR
PIN 7806101797
D B 8942, PG 2134
ZONING CD-O
AREA 0 67 AC

TOTAL AREA 21 40 AC

WATERSHED DATA
WATERSHED REEDY FORK
WATERSHED CLASSIFICATION WS-III NSW
RIVER BASIN CAPE FEAR RIVER BASIN
SOIL TYPES CkB, CkC, PPE2, SMD
AVG SLOPE 9 4%
DISTURBED AREA 14 67 AC

DENSITY CALCULATION
TOTAL 107 UNITS/21 4 AC = 5 0 (UNITS PER ACRE)
BUILDING COVERAGE 1 9 AC/21 4 AC = 8 9% OF TOTAL ACREAGE

EROSION CONTROL LEGEND

- DL — DISTURBED AREA
- DIVERSION BERM
- DIVERSION BERM - CLEAN
- DIVERSION BERM - CLEAN WITH STABILIZATION NCDOT STD 1631 01
- DRAINAGE AREA
- EROSION BAFFLE NCDEQ STD DETAIL 'POROUS BAFFLE'
- SF — SILT FENCE COG STD DETAIL 430
- SF2 — SF2 — DOUBLE SILT FENCE COG STD DETAIL 430
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING RIGHT OF WAY
- ACE — ACE — ACCESS EASEMENT
- X — X — TREE PROTECTION

HATCHING & SYMBOLS

- ROCK DAM COG STD 432
- UTILITY POLE
- SLOPE DRAIN NCDEQ STD DETAIL 'TEMPORARY SLOPE DRAINS'
- RIP RAP 'OUTLET STABILIZATION STRUCTURE' DETAIL ON SHEET 9
- INLET PROTECTION COG STD 431 & 443
- WATTLE NCDEQ DETAIL 'SILT SOACK / WATTLE FOR CHECK DAM'
- TEMPORARY CONSTRUCTION ENTRANCE COG STD 217
- SEDIMENT BASIN SKIMMER NCDEQ DETAIL 'SKIMMER SEDIMENT BASIN'

TOTAL DISTURBED AREA 14 67 AC

STAGE 2 - SITE CONSTRUCTION SEQUENCE

1. STRIP BORROW PIT AREA AND STRUCTURAL FILL AREA USE GRADES SHOWN ON STAGE 2 EC PLAN TO EXCAVATE STRUCTURAL FILL AND BACKFILL WITH STRIPPINGS IN DESIGNATED AREA
2. CLEAR AND STRIP REMAINDER OF SITE FOR GRADING ACTIVITY STRIPPINGS ARE TO BE PLACED IN THE BORROW PIT AREA
3. SEED, MULCH AND TACK/MATT BORROW AREA AFTER DISPOSING OF ALL STRIPPINGS AREA TO BE CLOSED FOR ALL FURTHER GRADING ACTIVITY ONCE THIS IS COMPLETED
4. GRADE SITE PER GRADING PLAN AND INSTALL STORM WATER PIPING WITH INLET PROTECTION
5. COMPLETE FINE GRADING OF ROADS AND SHOULDERS PLACE ABC STONE AND ASPHALT PER PLAN ENSURE STONE PLACEMENT ON DRIVES AND PARKING AREAS IMMEDIATELY AFTER FINE GRADING AND BEFORE BUILDING CONSTRUCTION
6. GET INSPECTOR'S APPROVAL BEFORE REMOVING TEMPORARY EROSION CONTROL MEASURES
7. REMOVE ALL TEMPORARY DIVERSION BERMS AND TEMPORARY CLEAN WATER DIVERSION BERMS REMOVE TEMPORARY STORM PIPE FOR CLEAN WATER DIVERSION SEED AND MATT TEMPORARY STORM PIPE REMOVAL AREA
8. COMPLETE PERMANENT SEEDING (F
9. ONCE SITE IS STABLE, REQUEST INSPECTION TO REMOVE SEDIMENT TRAPS AND SILT FENCE THE FINAL STATE OF BASIN LOCATIONS WILL BE PUT BACK TO ORIGINAL CONDITIONS AS CLOSELY AS POSSIBLE
10. CALL FOR FINAL INSPECTION AFTER REMOVAL OF ALL EROSION MEASURES TO CLOSE PERMIT AND BE ISSUED A CLOSING LETTER TO BE USED TO FILE NOT WITH NCDEQ

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HEARTLAND LIVING & REHABILITATION

EROSION CONTROL STAGE 2

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/01/2026	COG EROSION CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

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CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE 1" = 60'

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027339 SHENTLEY C SIEVERS

SHEET
14 OF 23

NC GRID
NAD83(2011)

EROSION CONTROL LEGEND

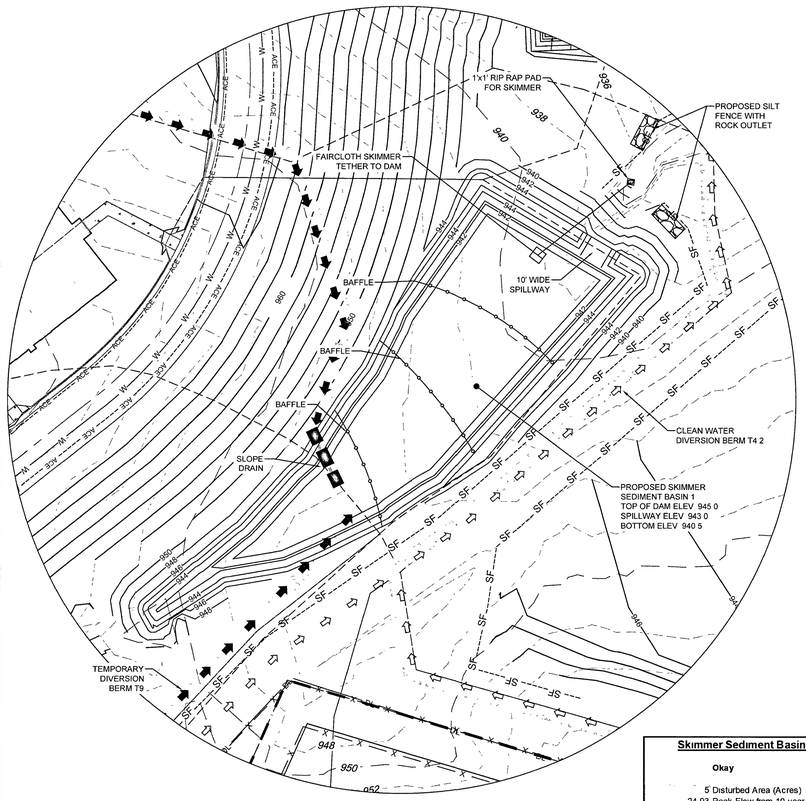
- DISTURBED AREA (DL)
- DIVERSION BERM
- DIVERSION BERM - CLEAN
- DIVERSION BERM - CLEAN WITH STABILIZATION NCDOT STD 1631 01
- DRAINAGE AREA
- EROSION BAFFLE NCDEQ STD DETAIL 'POROUS BAFFLE'
- SILT FENCE (SF) COG STD DETAIL 430
- DOUBLE SILT FENCE (SF2) COG STD DETAIL 430
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING RIGHT OF WAY
- ACCESS EASEMENT (ACE)
- TREE PROTECTION (X)

HATCHING & SYMBOLS

- ROCK DAM COG STD 432
- UTILITY POLE
- SLOPE DRAIN NCDEQ STD DETAIL 'TEMPORARY SLOPE DRAINS'
- RIP RAP 'OUTLET STABILIZATION STRUCTURE' DETAIL ON SHEET 9
- INLET PROTECTION COG STD 431 & 443
- WATTLE NCDEQ DETAIL 'SILT SOACK / WATTLE FOR CHECK DAM'
- TEMPORARY CONSTRUCTION ENTRANCE COG STD 217
- SEDIMENT BASIN SKIMMER NCDEQ DETAIL 'SKIMMER SEDIMENT BASIN'

TOTAL DISTURBED AREA: 14 67 AC

SKIMMER SEDIMENT BASIN 1
DETAILED VIEW
SCALE 1" = 30'



Skimmer Sediment Basin (2)

Okay

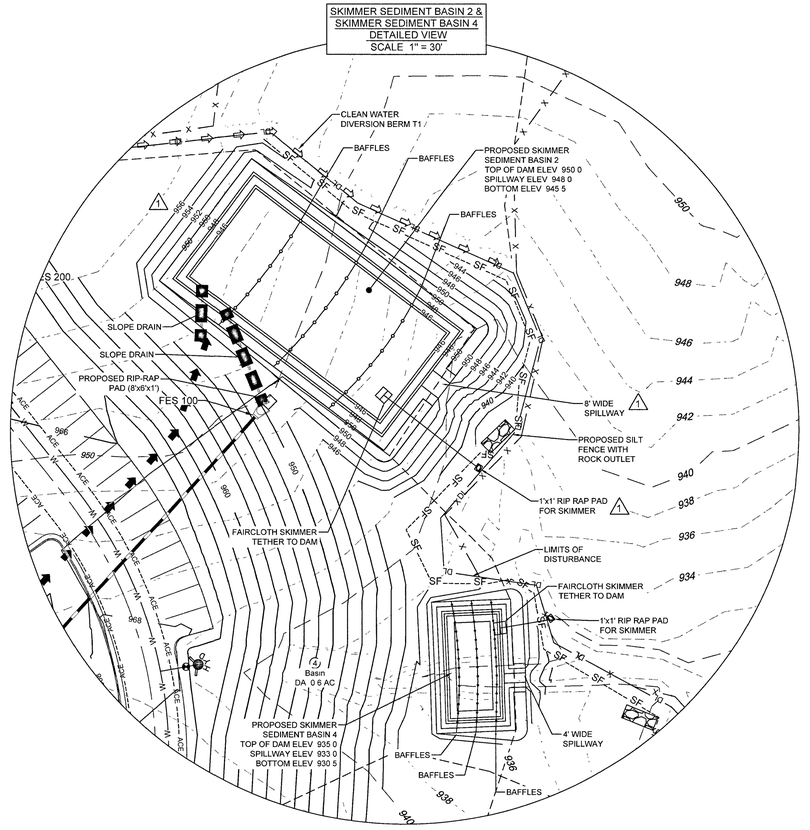
5	Disturbed Area (Acres)
17 81	Peak Flow from 10-year Storm (cfs)
9000	Required Volume ft³
5788	Required Surface Area ft²
53 8	Suggested Width ft
107 6	Suggested Length ft
54	Trial Top Width ft
108	Trial Top Length ft
2	Trial Side Slope Ratio Z:1
2	Trial Depth ft (2 to 3 5 feet above grade)
46	Bottom Width ft
100	Bottom Length ft
4600	Bottom Area ft²
10411	Actual Volume ft³ Okay
5832	Actual Surface Area ft² Okay
8	Trial Weir Length ft
1	Trial Depth of Flow ft
24 0	Spillway Capacity cfs Okay
2	Skimmer Size (inches)
0 167	Head on Skimmer (feet)
1 75	Orifice Size (1/4 inch increments)
3 11	Dewatering Time (days)
	Suggest about 3 days

Skimmer Sediment Basin (4)

Okay

0 6	Disturbed Area (Acres)
2 14	Peak Flow from 10-year Storm (cfs)
1080	Required Volume ft³
695	Required Surface Area ft²
18 6	Suggested Width ft
37 3	Suggested Length ft
23	Trial Top Width ft
45	Trial Top Length ft
2	Trial Side Slope Ratio Z:1
2	Trial Depth ft (2 to 3 5 feet above grade)
15	Bottom Width ft
37	Bottom Length ft
555	Bottom Area ft²
1569	Actual Volume ft³ Okay
1035	Actual Surface Area ft² Okay
4	Trial Weir Length ft
1	Trial Depth of Flow ft
12 0	Spillway Capacity cfs Okay
1 5	Skimmer Size (inches)
0 125	Head on Skimmer (feet)
0 75	Orifice Size (1/4 inch increments)
2 35	Dewatering Time (days)
	Suggest about 3 days

SKIMMER SEDIMENT BASIN 2 & SKIMMER SEDIMENT BASIN 4
DETAILED VIEW
SCALE 1" = 30'



Skimmer Sediment Basin (1)

Okay

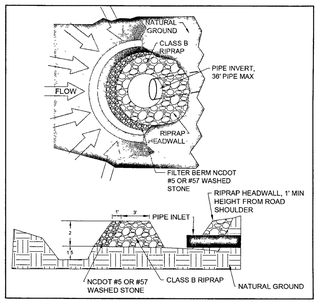
5	Disturbed Area (Acres)
24 93	Peak Flow from 10-year Storm (cfs)
9000	Required Volume ft³
8104	Required Surface Area ft²
63 7	Suggested Width ft
127 3	Suggested Length ft
40	Trial Top Width ft
230	Trial Top Length ft
2	Trial Side Slope Ratio Z:1
2	Trial Depth ft (2 to 3 5 feet above grade)
32	Bottom Width ft
222	Bottom Length ft
7104	Bottom Area ft²
16283	Actual Volume ft³ Okay
9200	Actual Surface Area ft² Okay
10	Trial Weir Length ft
1	Trial Depth of Flow ft
30 9	Spillway Capacity cfs Okay
2	Skimmer Size (inches)
0 167	Head on Skimmer (feet)
1 75	Orifice Size (1/4 inch increments)
3 11	Dewatering Time (days)
	Suggest about 3 days

Skimmer Sediment Basin (3)

Okay

1 6	Disturbed Area (Acres)
5 70	Peak Flow from 10-year Storm (cfs)
2880	Required Volume ft³
1852	Required Surface Area ft²
30 4	Suggested Width ft
60 9	Suggested Length ft
32	Trial Top Width ft
64	Trial Top Length ft
2	Trial Side Slope Ratio Z:1
2	Trial Depth ft (2 to 3 5 feet above grade)
24	Bottom Width ft
56	Bottom Length ft
1344	Bottom Area ft²
3371	Actual Volume ft³ Okay
2048	Actual Surface Area ft² Okay
4	Trial Weir Length ft
1	Trial Depth of Flow ft
12 0	Spillway Capacity cfs Okay
2	Skimmer Size (inches)
0 167	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3 05	Dewatering Time (days)
	Suggest about 3 days

ROCK PIPE INLET PROTECTION DETAIL

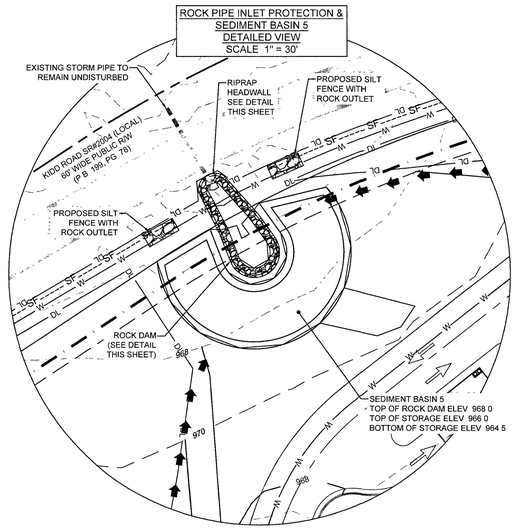


Sediment Basin (5)

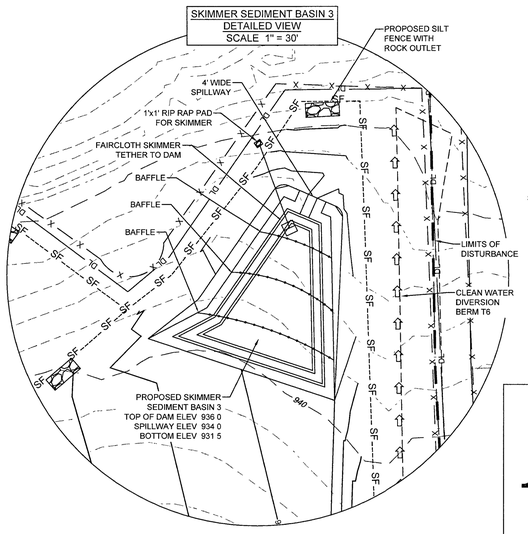
Okay

0 9	Disturbed Area (Acres)
3 21	Peak Flow from 10-year Storm (cfs)
3240	Required Volume ft³
55 4	Suggested Diameter ft
27	Trial Top Width ft
100	Trial Top Length ft
2	Trial Side Slope Ratio Z:1
1 5	Trial Depth ft (2 to 3 5 feet above grade)
21	Bottom Width ft
36	Cross Sectional Area ft²
2100	Bottom Area ft²
3600	Actual Volume ft³ Okay
2700	Actual Surface Area ft² Okay

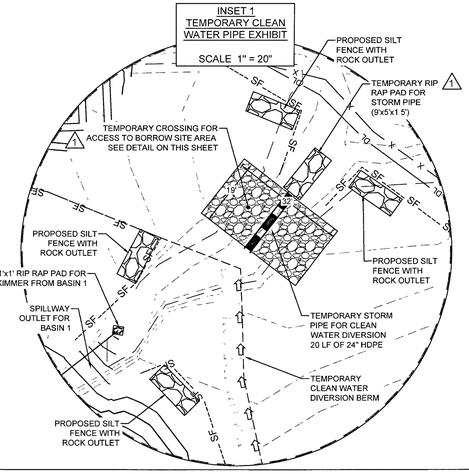
ROCK PIPE INLET PROTECTION & SEDIMENT BASIN 5
DETAILED VIEW
SCALE 1" = 30'

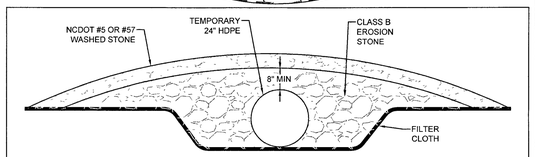


SKIMMER SEDIMENT BASIN 3
DETAILED VIEW
SCALE 1" = 30'



INSET 1
TEMPORARY CLEAN WATER PIPE EXHIBIT
SCALE 1" = 20'





1 TEMPORARY PIPE CROSSING DETAIL
NTS

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www feiconsulting com
(336) 852-9797
License No. C-0950

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HEARTLAND LIVING & REHABILITATION

EROSION CONTROL - DETAILED BASINS

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

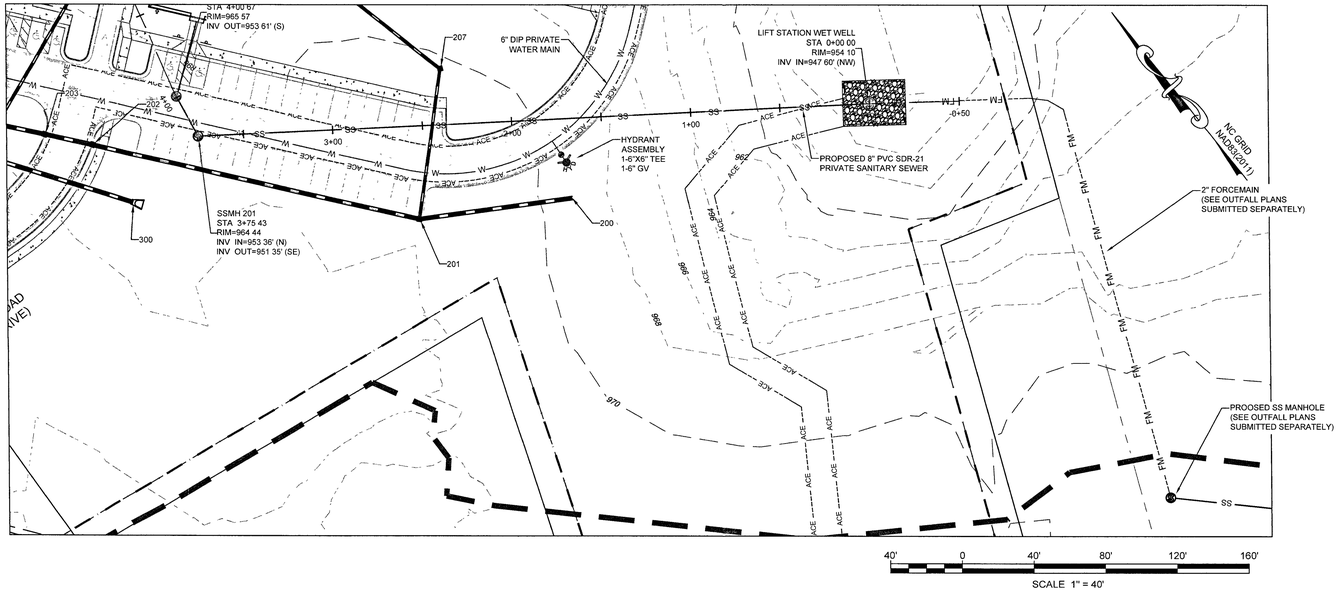
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2	03/13/2026	WATERSHED COMMENTS
3		
4		
5		

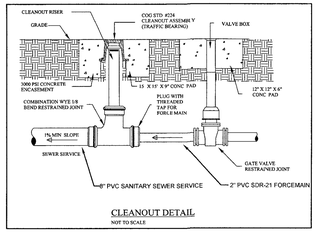
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DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE VARIES

NORTH CAROLINA PROFESSIONAL SEAL 027339 ENGINEER BRENTLEY C SIEVERS

SHEET
15 OF 23



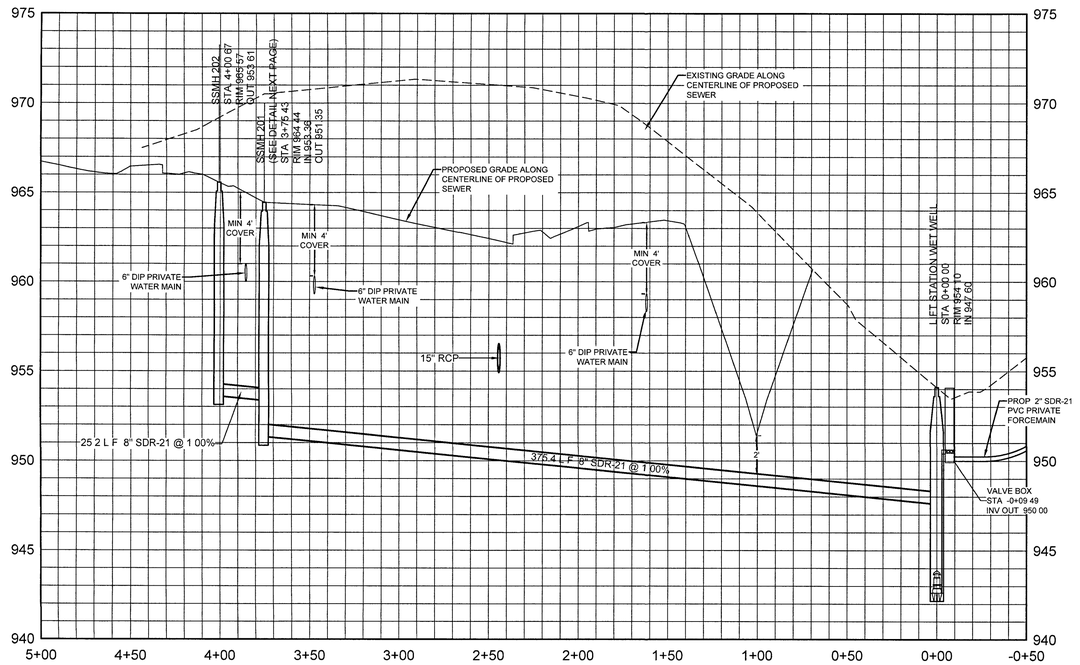


CLEANOUT DETAIL
NOT TO SCALE



VICINITY MAP
1"=2000'

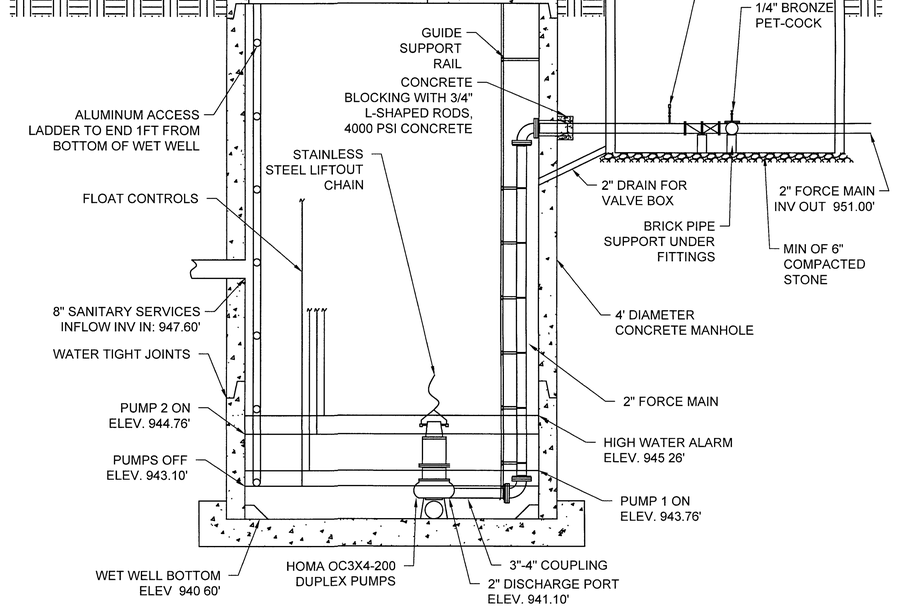
200 - 201 PROFILE
HORIZ SCALE: 1" = 40'
VERT SCALE: 1" = 4'



0 40 80
HORIZ 1"=40'

0 4 8
VERT. 1"=4'

LIFT STATION DETAIL
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HEARTLAND LIVING & REHABILITATION

LIFT STATION DETAILS

PROJECT LOCATION
TOWNSHIP GOLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/01/2026	COG EROSION CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS
3		
4		
5		

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DATE 02/06/2026
PROJECT NO 03079 001
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NORTH CAROLINA PROFESSIONAL SEAL 027339 ENGINEER BRENTLEY C. REVERS
02/12/26

SHEET
16 OF 23

SERIES B1B TRASH BASKET

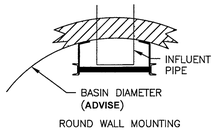
HALLIDAY PRODUCTS
www.HallidayProducts.com
Phone: (800) 298-1027
Local: (407) 298-4470
Sales@HallidayProducts.com

STANDARD FEATURES:

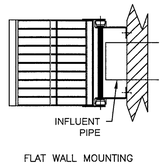
- ALL ALUMINUM CONSTRUCTION
- SOLID ALUMINUM WHEELS AND STAINLESS STEEL AXLES
- 1 3/8" (35 MM) TYPE "D" RUNG W/ SLIP RESISTANT SURFACE
- BAR SCREEN STYLE BASKET
- HEAVY DUTY LADDER/GUIDE RAIL COMBINATION
- AVAILABLE W/O LADDER RUNGS (GUIDE RAILS ONLY)
- CUSTOM SIZES AVAILABLE
- ALSO AVAILABLE IN T-304 OR T-316 S.STL. CONSTRUCTION

REQUIRED INFORMATION:

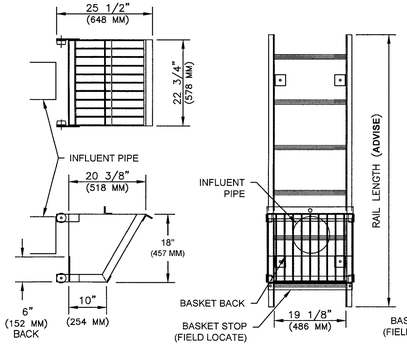
- BASIN DIAMETER
- RAIL LENGTH
- STANDOFF LENGTH (7" [178 MM] MIN. FOR LADDER COMBO)



ROUND WALL MOUNTING



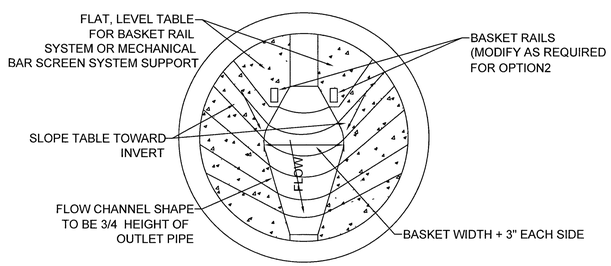
FLAT WALL MOUNTING



BASKET

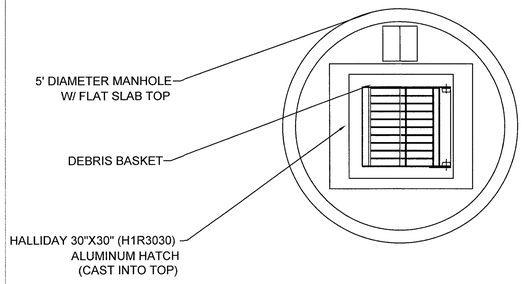
BASKET AND RAILS

B1B SERIES R0

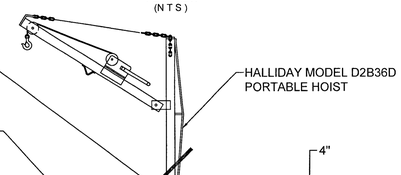


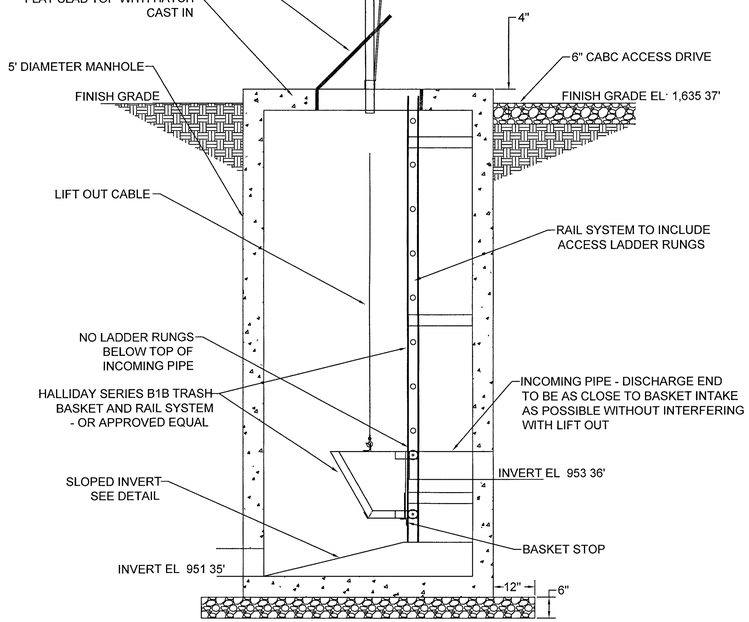
INVERT DETAIL
(N T S)

HALLIDAY FLOOR MOUNTED
HOIST SOCKET MODEL D2S LINED
(CAST IN PLACE MODELD2R EMBEDDED
HOIST SOCKET ACCEPTABLE)



BSMH OPTION 1 DETAIL
PLAN VIEW
(N T S)





BSMH OPTION 1 DETAIL
ELEVATION VIEW
(N T S)

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License No C-0950

HEARTLAND LIVING & REHABILITATION

EFFLUENT PRE-TREATMENT SYSTEM DETAILS

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/01/2026	COG EROSION CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS
3		
4		
5		

I:\FEI\Owners\Q\Drawings_&_Projects\PROJECTS\03079 001 1500 W Market St & 115 Vail Rd\Drawings\Sheets

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DATE 02/06/2026
PROJECT NO 03079 001
REF NO
SCALE #########

NORTH CAROLINA PROFESSIONAL SEAL 027339 ENGINEER BRENTLEY G SIEVERS
02/26

SHEET
17 OF 23

Self-Inspection Guidelines

In accordance with self-inspection rules outlined in NCGS 113A-54.1, the person conducting the inspections shall make a record of the site inspection by documenting the following items:

Installation of perimeter erosion and sediment control measures

Signature **Date**

Clearing and grubbing of existing ground cover

Signature **Date**

Completion of any phase of grading of slopes or fills

Signature **Date**

Installation of storm drainage facilities

Signature **Date**

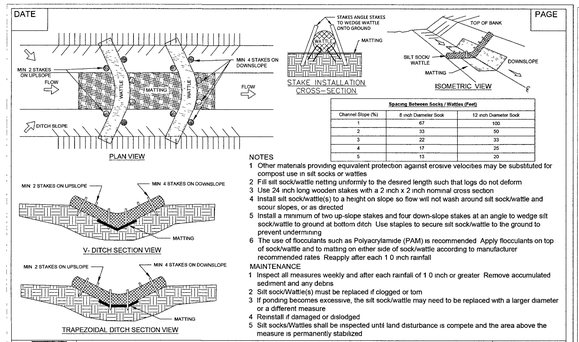
Completion of construction or development

Signature **Date**

Establishment of permanent ground cover sufficient to restrain erosion

Signature **Date**

DATE PAGE



NOTES
1 Other materials providing equivalent protection against erosive velocities may be substituted for compost use in silt socks or wattles
2 Fill silt sock/wattle netting uniformly to the desired length such that logs do not deform
3 Use 24 inch long wooden stakes with a 2 inch x 2 inch nominal cross section
4 Install silt sock/wattle(s) to a height on slope so flow will not wash around silt sock/wattle and scour slopes, or as directed
5 Install a minimum of two up-slope stakes and four down-slope stakes at an angle to wedge silt sock/wattle to ground at bottom ditch Use staples to secure silt sock/wattle to the ground to prevent undermining
6 The use of flocculants such as Polyacrylamide (PAM) is recommended Apply flocculants on top of sock/wattle and to matting on either side of sock/wattle according to manufacturer recommended rates Reapply after each 1 0 inch rainfall

MAINTENANCE
1 Inspect all measures weekly and after each rainfall of 1 0 inch or greater Remove accumulated sediment and any debris
2 Silt sock/Wattle(s) must be replaced if clogged or torn
3 If ponding becomes excessive, the silt sock/wattle may need to be replaced with a larger diameter or a different measure
4 Reinstall if damaged or dislodged
5 Silt socks/Wattles shall be inspected until land disturbance is compete and the area above the measure is permanently stabilized

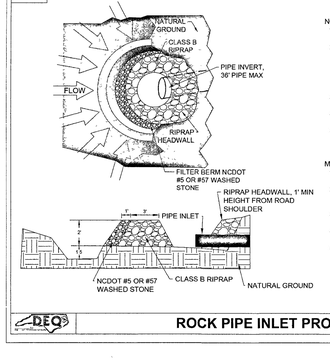
Spacing Between Socks / Wattles (Feet)		
Channel Slope (%)	8 inch Diameter Sock	12 inch Diameter Sock
1	67	100
2	33	50
3	22	33
4	17	25
5	13	20

DEQ

SILT SOCK / WATTLE FOR CHECK DAM

Effective Date 9/1/2023 In accordance with the 2013 Design Manual Updates

DATE PAGE



NOTES
1 Clear the area of all debris that might hinder excavation and disposal of spoil
2 Install the Class B or Class 1 riprap in a semi-circle around the pipe inlet The stone should be built up higher on each end where it ties into the embankment The minimum crest width of the riprap should be 3 feet, with a minimum bottom width of 11 feet The minimum height should be 2 feet, but also 1 foot lower than the embankment of diversions
3 A 1 foot thick layer of NC DOT #5 or #57 stone should be placed on the outside slope of the riprap
4 The sediment storage area should be excavated around the outside of the stone horseshoe 18 inches below natural grade
5 When contributing drainage area has been stabilized, remove the pipe and rock, fill depression, establish final grading elevations, compact the area properly, and stabilize with ground cover

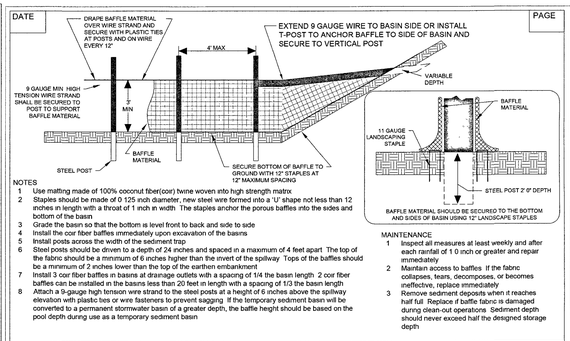
MAINTENANCE
1 Inspect all measures at least weekly and after each rainfall of 1 0 inch or greater and repair immediately
2 Remove sediment and restore the sediment storage area to its original dimensions when the sediment has accumulated to one-half the design depth of the trap
3 Place the sediment that is removed in the designated disposal area and replace the contaminated part of the gravel facing
4 Check the structure for damage Any riprap displaced from the stone horseshoe must be replaced immediately
5 After all the sediment-producing areas have been permanently stabilized, remove the structure and all the unstable sediment Smooth the area to blend with the adjoining areas and provide permanent ground cover

DEQ

ROCK PIPE INLET PROTECTION

Effective Date 9/1/2023 In accordance with the 2013 Design Manual Updates

DATE PAGE



NOTES
1 Use matting made of 100% coconut fiber(coir) twine woven into high strength matrix
2 Staples should be made of 0 125 inch diameter, new steel wire formed into a 'U' shape not less than 12 inches in length with a throat of 1 inch in width The staples anchor the porous baffles into the sides and bottom of the basin
3 Grade the basin so that the bottom is level front to back and side to side
4 Install the coir fiber baffles immediately upon excavation of the basins
5 Install posts across the width of the sediment trap
6 Steel posts should be driven to a depth of 24 inches and spaced in a maximum of 4 feet apart The top of the fabric should be a minimum of 6 inches higher than the invert of the spillway Tops of the baffles should be a minimum of 2 inches lower than the top of the earthen embankment
7 Install 3 coir fiber baffles in basins at drainage outlets with a spacing of 1/4 the basin length 2 coir fiber baffles can be installed in the basins less than 20 feet in length with a spacing of 1/3 the basin length
8 Attach a 9-gauge high tension wire strand to the steel posts at a height of 6 inches above the spillway elevation with plastic ties or wire fasteners to prevent sagging If the temporary sediment basin will be converted to a permanent stormwater basin of a greater depth, the baffle height should be based on the pool depth during use as a temporary sediment basin

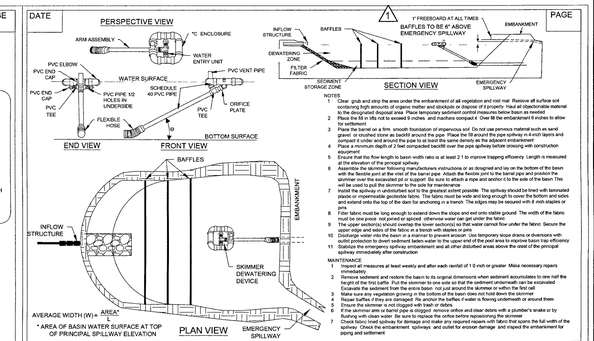
MAINTENANCE
1 Inspect all measures at least weekly and after each rainfall of 1 0 inch or greater and repair immediately
2 Maintain access to baffles If the fabric collapses, tears, decomposes, or becomes ineffective, replace immediately
3 Remove sediment deposits when it reaches half full Replace if baffle fabric is damaged during clean-out operations Sediment depth should never exceed half the designed storage depth

DEQ

POROUS BAFFLES

Effective Date 9/1/2023 In accordance with the 2013 Design Manual Updates

DATE PAGE



NOTES
1 Clear, grub and strip the area under the embankment of all vegetation and root mat Remove all surface soil containing high amounts of organic matter and stockpile or dispose of it properly Haul all objectionable material to the designated disposal area Place temporary sediment control measures below basin as needed
2 Place the fill in lifts not to exceed 9 inches and machine compact it Over fill the embankment 6 inches to allow for settlement
3 Place the barrel on a firm, smooth foundation of impervious soil Do not use pervious material such as sand, gravel or crushed stone as backfill around the pipe Place the fill around the pipe spillway in 4-inch layers and compact it under and around the pipe to at least the same density as the adjacent embankment
4 Place a minimum depth of 2 feet compacted backfill over the pipe spillway before crossing with construction equipment
5 Ensure that the flow length to basin width ratio is at least 2 1 to improve trapping efficiency Length is measured at the elevation of the principal spillway
6 Assemble the skimmer following manufacturers instructions or as designed and lay on the bottom of the basin with the flexible joint at the inlet of the barrel pipe Attach the flexible joint to the barrel pipe and position the skimmer so that the orifice plate is set at the 1800 angle for a riser and anchor it to the side of the basin The weir will be used to pull the skimmer to the side for maintenance
7 Install the spillway in undisturbed soil to the greatest extent possible. The spillway should be lined with laminated plastic or impermeable geotextile fabric The fabric must be wide and long enough to cover the bottom and sides and extend onto the top of the dam for anchoring in a trench The edges may be secured with 8 inch staples or nails
8 Fiber fabric must be long enough to extend down the slope and exit onto stable ground The width of the fabric must be one piece not joined or spliced otherwise water can get under the fabric
9 The upper section(s) should overlap the lower section(s) so that water cannot flow under the fabric Secure the upper edge and sides of the fabric in a trench with stakes or pins
10 Divert runoff from outside the basin area away from the temporary slope drains or downslopes with outlet protection to divert sediment laden water to the upper end of the pool area to improve basin trap efficiency
11 Stabilize the emergency spillway embankment and all other disturbed areas above the crest of the principal spillway immediately after construction

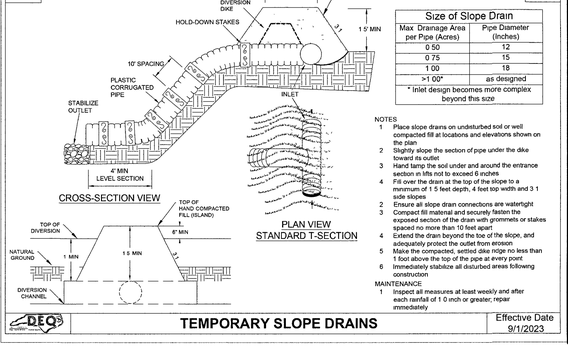
MAINTENANCE
1 Inspect all measures at least weekly and after each rainfall of 1 0 inch or greater Make necessary repairs immediately
2 Remove sediment and restore the basin to its original dimensions when sediment accumulates to one half the height of the first baffle Pull the skimmer to one side so that the sediment underneath can be excavated Excavate the sediment from the entire basin not just around the skimmer or within the first cell
3 Make sure any vegetation growing in the bottom of the basin does not hold down the skimmer
4 Repair baffles if they are damaged Re anchor the baffles if water is flowing underneath or around them
5 Check for clogging of the orifice after each storm event
6 If the skimmer jets or barrel pipe is clogged remove orifice and clear debris with a plumber's snake or by flushing with clean water Be sure to replace the orifice before repositioning the skimmer
7 Check fabric lined spillway for damage and make any required repairs with fabric that spans the full width of the spillway Check the embankment spillways and outlet for erosion damage and inspect the embankment for piping and settlement

DEQ

SKIMMER SEDIMENT BASIN

Effective Date 9/1/2023 In accordance with the 2013 Design Manual Updates

DATE PAGE



Size of Slope Drain	
Max Drainage Area per Pipe (Acres)	Pipe Diameter (Inches)
0 50	12
0 75	15
1 00	18
>1 00*	as designed
* Inlet design becomes more complex beyond this size	

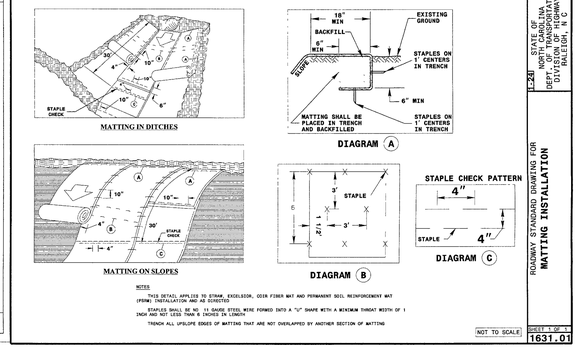
NOTES
1 Place slope drains on undisturbed soil or well compacted fill at locations and elevations shown on the plan
2 Slightly slope the section of pipe under the dike toward its outlet
3 Hand tamp the soil under and around the entrance section in lifts not to exceed 6 inches
4 Fill over the drain at the top of the slope to a minimum of 1 5 feet depth, 4 feet top width and 3 1 side slopes
2 Ensure all slope drain connections are watertight
3 Compact fill material and securely fasten the exposed section of the drain with compression or stakes spaced no more than 10 feet apart
4 Extend the drain beyond the toe of the slope, and adequately protect the outlet from erosion
5 Make the compacted, settled dike ridge no less than 1 foot above the top of the pipe at every point
6 Immediately stabilize all disturbed areas following construction

MAINTENANCE
1 Inspect all measures at least weekly and after each rainfall of 1 0 inch or greater; repair immediately

DEQ

TEMPORARY SLOPE DRAINS

Effective Date 9/1/2023



NOTES
THIS DETAIL APPLIES TO STRAW, EXCELSIOR, COIR FIBER MAT AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION AND AS DIRECTED

STAPLES SHALL BE NO 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH

TRENCH ALL UPSLOPE EDGES OF MATTING THAT ARE NOT OVERLAPPED BY ANOTHER SECTION OF MATTING

NOT TO SCALE

SHEET 1 OF 1
1631.01

DEFINITION GRAVELED AREA TO BE LOCATED AT POINTS WHERE VEHICLES ENTER AND LEAVE A CONSTRUCTION SITE

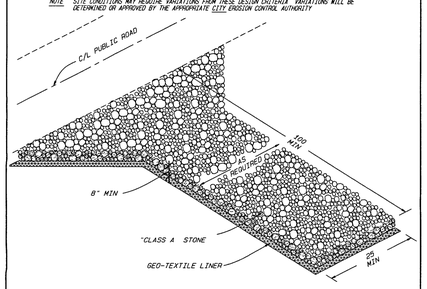
PURPOSE TO PROVIDE A BUFFER AREA WHERE VEHICLES CAN DROP THEIR MUD AND SEDIMENT TO AVOID TRANSPORTING IT ONTO PUBLIC ROADS, TO CONTROL EROSION FROM SURFACE RUNOFF, AND TO HELP CONTROL DUST

CONDITIONS TO BE USED WHEREVER TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD OR OTHER PAVED OFF-SITE AREA CONSTRUCTION PLANS SHOULD LIMIT TRAFFIC TO PROPERLY CONSTRUCTED ENTRANCES

DESIGN CRITERIA AGGREGATE SIZE - USE "CLASS A" STONE WITH GEO-TEXTILE LINER

DIMENSIONS OF GRAVEL PAD - THICKNESS = 8" MINIMUM
WIDTH = 29' MINIMUM OF FULL WIDTH AT ALL POINTS OF THE VEHICULAR ENTRANCE AND EXIT AREA, WHICHEVER IS GREATER
LENGTH = 100' MINIMUM WITH GEO-TEXTILE LINER
LOCATION = LOCATE CONSTRUCTION ENTRANCES AND EXITS TO LIMIT SEDIMENT FROM LEAVING THE SITE AND TO PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES AVOID STEEP GRADES AND ENTRANCES AT CURVES IN PUBLIC ROADS

NOTE SITE CONDITIONS MAY REQUIRE VARIATIONS FROM THESE DESIGN CRITERIA VARIATIONS WILL BE DETERMINED OR APPROVED BY THE APPROPRIATE CITY EROSION CONTROL AUTHORITY



CONSTRUCTION ENTRANCE DETAIL

NOTE
IN ADDITION THIS TEMPORARY GRAVEL ENTRANCE WILL REDUCE IMPACT OF STREET FLUSHING FEE EFFECTIVE JULY 1, 1997 CITY OF GREENSBORO ORDINANCE SECT 26-27, "STREET FLUSHING FEES"

1 CITY OF GREENSBORO

TEMPORARY CONSTRUCTION ENTRANCE DETAIL (CITY REQUIREMENTS)	STD.NO.	REV.
	217	9/06 3/09

PERMANENT SEEDING

Planting Type	Planting Rates/ Acres	Planting Dates
Tall Fescue (Low Maintenance)	100-150 lbs	Aug 15 - Oct 15 Feb 15 – May 1
Tall Fescue waterways and lawns (High Maintenance)	200-250 lbs	Aug 1 - Oct 15 Feb 15- May 1
Blend of two turf-type tall fescues (90%) and two or more improved Kentucky bluegrass varieties (10%) high maintenance	200-250 lbs	Aug 15 – Oct 15 Feb 15 – May 1
Tall fescue and Kobe or Korean Lespedeza	100 lbs and 20-25 lbs	Feb 15 – May 1 Aug 15 - Oct 15
Tall Fescue and Sericea Lespedeza	50 lbs 60 lbs	Nov 1 – Feb 1 *(unscarified)*
Tall fescue and German Millet or Sudangrass	60 lbs 30 lbs	July and August
Tall Fescue and Ryegrass	70 lbs 25 lbs	Nov 1- Jan 30
Common Bermudagrass	8 lbs *(hulled)* 15-20 lbs *(unhulled)*	Apr 15 -June 30 Feb 1 – Mar 30

Notes
1 *For spring seeding, use scarified lespedeza seed For late fall and winter seeding, use unscarified seed*
2 *Annuals, such as millet, sudangrass, and ryegrass, must be kept at 10-12" maximum height*

Purpose
To permanently stabilize disturbed areas created by construction activities and minimize soil erosion

Practical Applications
Where bare soil on construction activities is not covered by structures or other erosion control measures

Preparation
Prepare seedbed by ripping, chiseling, harrowing, or plowing to a depth of 6" that produces a loose, friable surface Remove all stones, boulders, stumps, or debris from the surface which would prohibit germination or plant growth

Incorporate into the soil 800-1000 lbs of 10-10-10 fertilizer plus 500 lbs of 20% superphosphate per acre and 2 tons of dolomitic lime per acre unless soil tests indicate that a lower rate of lime can be used

Mulch after seeding with 1 5 tons of grain straw per acre and crimp straw into the soil or tack with liquid asphalt at 400 gallons per acre or emulsified asphalt at 300 gallons per acre

TEMPORARY SEEDING

Planting Type	Planting Rates/ Acres	Planting Dates
Rye grain and Kobe Lespedeza	120 lbs 50 lbs	Jan 1 – May 1
German Millet or Sudan grass	40-50 lbs	May 1 – Aug 15
Rye grain *(oats may be substituted before Oct 1 or wheat from Oct 1 – Nov 15)*	120 lbs	Aug 15 – Dec 30
Annual Rye grass	40 lbs	Aug 15 – Nov 30
Weeping Lovegrass	5 lbs	May 1 – Aug 15

Notes
Weeping Lovegrass is a perennial grass but is included here because of its adaptability to poor soil conditions, and is drought tolerant

Purpose
Seeding disturbed areas with annual grasses or legumes to provide temporary ground cover to minimize soil erosion

Practical Applications
Where bare soil has been exposed by construction activities, and vegetative cover is needed for less than one year These areas may include temporary sediment traps, diversions, stockpiles, building pads, etc It may also be used as a temporary perimeter buffer

Preparation
Prepare seedbed by ripping, harrowing, chiseling, or plowing to a depth of at least 6 inches that produces a loose friable surface Remove all stones, boulders, stumps, or debris from the surface which would prohibit germination or plant growth

Apply 750-1000 lbs of 10-10-10 fertilizer and up to 2 tons of dolomitic lime per acre (Note lime may not be required if a soil test indicates a pH of 6 5 or higher)

Mulch after seeding with 1 5 tons of grain straw per acre and crimp straw into the soil or tack with with liquid asphalt at 400 gallons per acre or emulsified asphalt at 300 gallons per acre

PERMANENT SEEDING		
PLANTS & MIXTURE	PLANTING RATE LBS/ACRE	PLANTING DATES
TALL FESCUE (LOW MAINTENANCE)	100-150	SEPT 1 - APRIL 15
TALL FESCUE WATERWAYS & LAWNS (HIGH MAINTENANCE)	200-250	SEPT 1 - APRIL 16
BLEND OF TWO TURF TYPE TALL FESCUES (90%) AND TWO OR MORE IMPROVED KENTUCKY BLUEGRASS VARIEITES (10%) (HIGH MAINTENANCE)	200-250	SEPT 1 - APRIL 17
TALL FESCUE AND KOBE OR KOREAN LESPEDEZA 1	100 AND 10	MAY 1 - SEPT 1
TALL FESCUE AND SERICEA LESPEDEZA 1	50 AND 15	SEPT 1 - APRIL 15
TALL FESCUE AND GERMAN MILLET OR SUDANGRASS 2	60 AND 30	SEPT 1 - APRIL 16
TALL FESCUE AND RYEGRAIN 2	70 AND 25	SEPT 1 - APRIL 17
COMMON BERMUDAGRASS	25	APRIL 15 - JUNE 30
1 FOR SPRING SEEDINGS, USE SCARIFIED LESPEDEZA SEED FOR LATE FALL AND WINTER SEEDINGS, USE UNSCARIFIED SEED		
2 ANNUALS SUCH AS MILLET, SUDANGRASS AND RYEGRAIN MUST BE KEPT AT 10"-12" MAXIMUM HEIGHT		
PREPARATION PREPARE SEEDBED BY RIPPING, CHISELING, HARROWING OR PLOWING TO DEPTH OF SIX INCHES SO AS TO PRODUCE A LOOSE, FRIABLE SURFACE REMOVE ALL STONES, BOULDERS, STUMPS OR DEBRIS FROM THE SURFACE WHICH WOULD PROHIBIT GERMINATION OR PLANT GROWTH INCORPORATE INTO THE SOIL 800 TO 1,000 POUNDS OF 10-10-10 FERTILIZER PLUS 500 POUNDS OF TWENTY PERCENT (20%) SUPERPHOSPHATE PER ACRE AND TWO TONS OF DOLOMITIC LIME PER ACRE UNLESS SOIL TESTS INDICATE THAT A LOWER RATE OF LIME BE USED MULCH AFTER SEEDING WITH 2 0 TONS OF GRAIN STRAW PER ACRE AND EITHER CRIMP STRAW INTO SOIL OR TACK WITH LIQUID ASPHALT AT 400 GALLONS PER ACRE OR EMULSIFIED ASPHALT AT 300 GALLONS PER ACRE		

TEMPORARY SEEDING RECOMMENDATIONS		
PLANTING TYPE	PLANTING RATE LBS/ACRE	PLANTING DATES
RYE GRAIN AND KOBE LESPEDEZA	120 50	JAN 1 - MAY 1
GERMAN MILLET OR SUDAN GRASS	40-50	MAY 1 - AUG 15
RYE GRAIN (OATS MAY BE SUBSTITUTED BEFORE OCT 1 OR WHEAT FROM OCT 1 - NOV 15)	120	AUG 15 - DEC 30
ANNUAL RYE GRASS WEEPING LOVEGRASS	40 5	AUG 15 - NOV 30 MAY 1 - AUG 15
1 WEEPING LOVEGRASS IS A PERENNIAL GRASS BUT IS INCLUDED HERE BECAUSE OF ITS ADAPTABILITY TO POOR SOIL CONDITIONS, AND IS DROUGHT TOLERANT		
PREPARATION PREPARE SEEDBED BY RIPPING, CHISELING, HARROWING OR PLOWING TO DEPTH OF SIX INCHES SO AS TO PRODUCE A LOOSE, FRIABLE SURFACE REMOVE ALL STONES, BOULDERS, STUMPS OR DEBRIS FROM THE SURFACE WHICH WOULD PROHIBIT GERMINATION OR PLANT GROWTH APPLY 750-1000 LBS OF 10-10-10 FERTILIZER AND UP TO 2 TONS OF DOLOMITIC LIME PER ACRE (NOTE LIME MAY NOT BE REQUIRED IF A SOIL TEST INDICATES A PH OF 6 5 OR HIGHER) MULCH AFTER SEEDING WITH 1 5 TONS OF GRAIN STRAW PER ACRE AND CRIMP STRAW INTO SOIL OR TACK WITH LIQUID ASPHALT AT 400 GALLONS PER ACRE OR EMULSIFIED ASPHALT AT 300 GALLONS PER ACRE		

Ground Stabilization Timeframes*		
Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter Dikes, Swales, Ditches and Slopes	7 Days	None
High Quality Water (HQW) Zones	7 Days	None
Slopes Steeper than 3 1	7 Days	If slopes are 10' or less in length and are not steeper than 2 1, 14 Days are allowed
Slopes 3 1 or flatter	14 Days	7 Days for slopes greater than 50 feet in length
All other areas with Slopes flatter than 4 1	14 Days	None (except for perimeters and HQW zones)
* Extensions of time may be approved by the permitting authority based on weather or other site-specific conditions that make compliance impracticable (Section II 8(2)(b))		

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FEI

HEARTLAND LIVING & REHABILITATION

DETAILS (EC 1)

DEVELOPER INFORMATION
HEARTLAND DEVELOPMENT
130 EDINBURGH SUITE 208
CARY, NC 27511
PHONE EMAIL

PROJECT LOCATION
TOWNSHIP GOLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

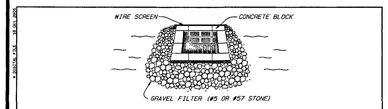
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2	03/13/2026	WATERSHED COMMENTS

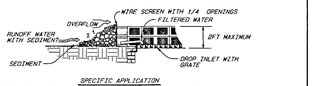
J:\Engineering\Drawings_&_Permits\PROJECTS\19-001 W Market St & 114 Acre Site\Drawings\Details

DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO XX
SCALE N/A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027339 BRENTLEY C. SEVERS 02/26

SHEET
18 OF 23

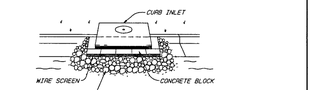


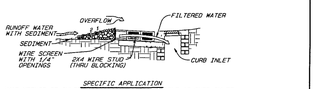


SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS SUITABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE MAXIMUM CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER





SPECIFIC APPLICATION

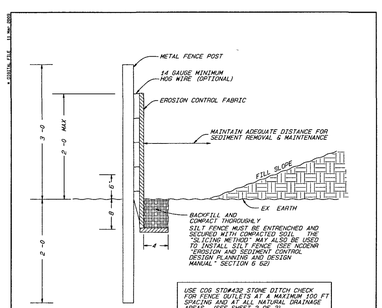
THIS METHOD OF INLET PROTECTION IS ARE SUITABLE AT CURB INLET WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE MAXIMUM DRAINAGE AREA = 1 ACRE

BLOCK AND GRAVEL CURB INLET SEDIMENT FILTER

1 OF 3

CITY OF GREENSBORO

STANDARD STORMWATER INLET PROTECTION MEASURES	STD.NO.	REV.
	431	DEC 2006



SILT FENCE MUST BE ENTRENCHED AND SECURED WITH COMPACTED SOIL IN ACCORDANCE WITH THE RULES TO BE USED TO INSTALL A SILT FENCE UNDER "EROSION AND SEDIMENT CONTROL DESIGN PLANNING AND DESIGN MANUAL" SECTION 6.62)

USE CGS STD#430 STONE DITCH CHECK FOR FENCE OUTLETS AT A MAXIMUM 100 FT SPACING AND AT ALL NATURAL DRAINAGE AREAS (SEE SHEET 2 OF 2)

NOTES

-SPACING OF POSTS USING HOG WIRE WITH APPROVED EROSION CONTROL FABRICS TO BE 8 -0 ON CENTER
-SPACING OF POSTS WITHOUT HOG WIRE USING APPROVED EROSION CONTROL FABRICS TO BE 6 -0 ON CENTER

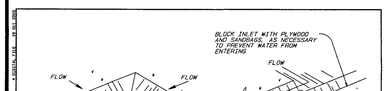
POST METAL T-POST 5 -0 OR 8 -0 IN HEIGHT DEPENDING ON FILL SLOPE WITH 1 X 2 LBS/F STEEL CONSTRUCTION
FABRIC 3 -0 IN WIDTH (MUST BE STANDARD SPECIFICATIONS FOR SILT FENCE - ASTM D 7) WITH 12" BURIED IN TRENCH
STONE (IF USED) #4 WASHED STONE PLACED 1 -0 DEEP AT SILT FENCE

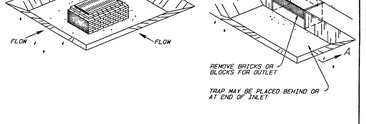
-SPLITES IN FABRIC SHOULD BE OVERLAPPED A MIN OF 4 FT
-MAXIMUM DRAINAGE AREA = 1/4 ACRE PER 100 FT OF FENCE FOR 2R OR LESS SLOPE
-SILT FENCE TO BE REMOVED AFTER CONSTRUCTION IS COMPLETE AS DIRECTED BY THE CONSTRUCTION INSPECTOR

PAGE 1 OF 2

CITY OF GREENSBORO

1 SILT FENCE DETAIL	STD.NO.	REV.
	430	12/05 03/09 03/09





NOTE

- WHERE CURB IS IN PLACE, PROVIDE A 1 -0 WIDE OPENING IN THE CURB OR USE A SANDBAG DAM TO FORCE WATER OVER THE CURB TO THE TRAP

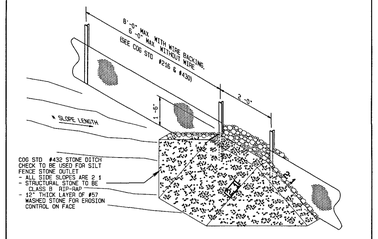
- MINIMUM STORAGE VOLUME = 1800 CU FT PER ACRE DISTURBED WITH MAXIMUM DRAINAGE AREA OF 1 ACRE

2 OF 3

CITY OF GREENSBORO

STANDARD STORMWATER INLET PROTECTION MEASURES	STD.NO.	REV.
	431	DEC 2006

MAXIMUM AREA TO BE RETAINED BY SILT FENCE		
GROUND SLOPE (X)	SLOPE LENGTH (ft.) s	MAXIMUM DRAINAGE AREA (SQ. FT.)
<2%	100	10, 000
2%-5%	75	7, 500
5%-10%	50	5, 000
10%-20%	25	2, 500
>20%	15	1, 500



NOTES

1 *NON-ERODSIVE OUTLETS ARE TO BE PLACED IN THE SILT FENCE AS SHOWN ON THE PROJECT PLANS AND AS DIRECTED BY THE CONSTRUCTION INSPECTOR*

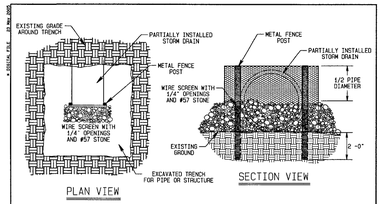
2 *NON-ERODSIVE OUTLETS ARE TO BE LOCATED AT ALL NATURAL DRAINAGE AREAS AND DEPRESSIONS, WITH THE EXCEPTION OF PERENNIAL STREAMS*

3 *THE MAXIMUM DRAINAGE AREA IMPOUNDED AT EACH OUTLET MUST NOT EXCEED 1/4 ACRE*

PAGE 2 OF 2

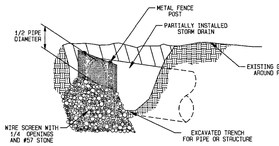
CITY OF GREENSBORO

1 SILT FENCE DETAIL	STD.NO.	REV.
	430	12/05 03/09 03/09



PLAN VIEW

SECTION VIEW



ISOMETRIC VIEW

NOTES

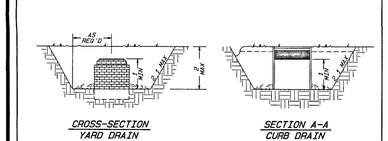
1 THIS MEASURE IS BEST USED WHERE STORM DRAIN TIES INTO EXISTING STORM DRAIN SYSTEM AND FLOWS OFFSITE UNTREATED

2 THE OVER FLOW NOT COVERED BY #57 STONE SHALL BE APPROX 1/2 OF THE PIPE DIAMETER

3 ATTACH WIRE SCREEN TO METAL FENCE POST ON EACH SIDE OF PIPE

CITY OF GREENSBORO

PARTIALLY INSTALLED STORM SEWER PROTECTION	STD.NO.	REV.
	443	06-05



STONE / WIRE INLET PROTECTION

NOTES

POST TO BE SET AT EACH CORNER OF INLET IN ANY CASE THERE IS TO BE NO MORE THAN 6 -0 BETWEEN POSTS

POST METAL T-POST 5 -0 IN HEIGHT 4 FT MAXIMUM SPACING

WIRE SCREEN 3 -0 IN WIDTH WITH 1/4" OPENINGS

STONE #57 STONE TO BE PLACED 16" DEEP AT WIRE SCREE

3 OF 3

CITY OF GREENSBORO

STANDARD STORMWATER INLET PROTECTION MEASURES	STD.NO.	REV.
	431	DEC 2006

NOTES

ENSURE THAT THE DRAINAGE AREA ABOVE THE CHECK DAM DOES NOT EXCEED 1/4 ACRE WITHOUT TYPE B BASIN (2 ACRES MAXIMUM)

STABILIZE OVERFLOW AREAS ALONG THE CHANNEL TO RESIST EROSION CAUSED BY CHECK DAMS

CITY OF GREENSBORO

1 STANDARD TEMPORARY STONE DITCH CHECK	STD.NO.	REV.
	215	10/10 06/05 11/09

Date

Page

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 ths sheet may not apply depending on site conditions and the delegated authority having jurisdiction

SECTION E GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	**Stabilize within ths many calendar days after ceasng land disturbance**	**Timeframe variations**
(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 feet or less in length and are not steeper than 2 1, 14 days are allowed
(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
(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

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 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

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1 Select flocculants that are appropriate for the soils being exposed during construction, selecting from the lnc *DWR List of Approved PAMS/Flocculants*
2 Apply flocculants at or before the inlets to Erosion and Sediment Control Measures
3 Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions
4 Provde ponding area for containment of treated Stormwater before discharging offsite
5 Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures

EQUIPMENT AND VEHICLE MAINTENANCE

1 Maintain vehicles and equipment to prevent discharge of fluids
2 Provide drip pans under any stored equipment
3 Identify leaks and repair as soon as feasible, or remove leaking equipment from the project
4 Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible)
5 Remove leaking vehicles and construction equipment from service until the problem has been corrected
6 Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1 Never bury or burn waste Place litter and debris in approved waste containers
2 Provide a sufficient number and size of waste containers (e g dumpster, trash receptacle) on site to contain construction and domestic wastes
3 Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available
4 Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland
5 Cover waste containers at the end of each workday and before storm events or provide secondary containment Repair or replace damaged waste containers
6 Anchor all lightweight items in waste containers during times of high winds
7 Empty waste containers as needed to prevent overflow Clean up immediately if containers overflow
8 Dispose waste off-site at an approved disposal facility
9 On business days, clean up and dispose of waste in designated waste containers

PAINT AND OTHER LIQUID WASTE

1 Do not dump paint and other liquid waste into storm drains, streams or wetlands
2 Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available
3 Contain liquid wastes in a controlled area
4 Containment must be labeled, sized and placed appropriately for the needs of site
5 Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites

PORTABLE TOILETS

1 Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags
2 Provde staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas
3 Monitor portable toilets for leaking and properly dispose of any leaked material Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit

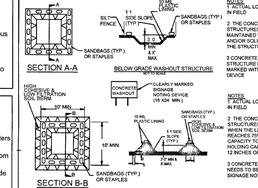
EARTHEN STOCKPILE MANAGEMENT

1 Show stockpile locations on plans Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available
2 Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile
3 Provde stable stone access point when feasible
4 Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs

HAZARDOUS AND TOXIC WASTE

1 Create designated hazardous waste collection areas on-ste
2 Place hazardous waste containers under cover or in secondary containment
3 Do not store hazardous chemcals, drums or bagged materials directly on the ground

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



NOTES
1 INITIAL LOCATION DETERMINED IN FIELD

2 THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY

3 CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE

NOTES
1 INITIAL LOCATION DETERMINED IN FIELD

2 THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY OR HAS 12 INCHES OF HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD

3 CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE

CONCRETE WASHOUTS

1 Do not discharge concrete or cement slurry from the ste
2 Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility
3 Manage washout from mortar mixers in accordance with the above dem and in addtion place the mxer and associated materials on impervious barrier and within lot perimeter silt fence
4 Install temporary concrete washouts per local requirements, where applicable If an alternate method or product is to be used, contact your approved authority for review and approval If local standard details are not available, use one of the two types of temporary concrete washouts provded on this detail
5 Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receving surface waters Liquid waste must be pumped out and removed from project
6 Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow
7 Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout Additional controls may be required by the approving authority
8 Install at least one sign directing concrete trucks to the washout within the project limits Post signage on the washout itself to identify ths location
9 Remove leavings from the washout when at approximately 75% capacity to limit overflow events Replace the tarp, sand bags or other temporary structural components when no longer functional When utilizing alternative or proprietary products, follow manufacturer's instructions
10 At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility Fill pit, if applicable, and stabilize any disturbance caused by removal of washout

HERBICIDES, PESTICIDES AND RODENTICIDES

1 Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions
2 Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental posoning
3 Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water If a spill occurs, clean area immediately
4 Do not stockpile these materials onsite

NORTH CAROLINA *Environmental Quality*

NCG-01 GROUND COVER & MATERIALS HANDLING

Date

Page

PART II, SECTION G, ITEM (4)

DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basns and traps that receve runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless ths is infeasible The circumstances in which it is not feasble to withdraw water from the surface shall be rare (for example, times with extended cold weather) Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met

(a) The E&SC plan authority has been provded with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Secton C, Item (2)(c) and (d) of this permit,
(c) Dewatering discharges are treated with controls to mnmmze discharges of pollutants from stormwater that is removed from the sediment basn Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, wet tanks, and filtration systems
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices descnbed in Item (c) above is disposed of in a manner that does not cause deposition of sediment nto waters of the United States

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A SELF-INSPECTION

Self-inspections are required during normal busness hours in accordance with the table below When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection In addition, when a storm event of equal to or greater than 1 0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day Any time when inspections were delayed shall be noted in the Inspection Record

Inspect	Frequency (during normal bussness hours)	Inspection records must include
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts If no daily rain gauge observations are made dunng weekend on holiday periods, and no ndividual-day rainfall information is available, record the cumulative rain measurement for those unattended days (ths will determne if a site inspection is needed) Days on which no rainfall occurred shall be recorded as "Zero " The permittee may use another rain-monitonng device approved by the Divison
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1 0 inch in 24 hours	1 Identification of the measures inspected 2 Date and Time of the inspection 3 Name of the person performing the inspection 4 Indication of whether the measures were operating properly 5 Description of maintenance needs for the measure 6 Description, Evidence, and date of corrective actions taken
(3) Stormwater discharge outfalls(SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1 0 inch in 24 hours	1 Identification of the discharge outfalls inspected 2 Date and Time of the inspection 3 Name of the person performing the inspection 4 Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration 5 Indication of visible sediment leaving the site 6 Description, Evidence, and date corrective actions taken
(4) Perimeter of Site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1 0 inch in 24 hours	If visible Sedimentation is found outside site limits, then record of the following shall be made 1) Actions taken to clean up or stabilize sediment that has left the site limits 2) Description, Evidence and date of corrective actions taken 3) An explanation as to the actions taken to control future releases
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1 0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or has visible increased turbidity from the construction activity, then a record of the following shall be made 1)Description, Evidence and date of corrective actions taken 2)Records of required reports to the appropriate Divison Regional Office per Part III, Secton C, Item(2)(e) of this permit
(6) Ground Stabilizaton Measures	After each phase of grading	1 The phase of grading (installation of perimeter E&SC measures, cleaning and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover) 2 Documentation that the required ground stabilization measures have been provided within the required timeframe or assurance that they will be provded as soon as possble

NOTE The rain inspection resets the required 7 calendar day inspection requirement

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B RECORDKEEPING

1 E&SC Plan Documentation

The approved E&SC plan as well as any approved devation shall be kept on the site The approved E&SC plan must be kept up-to-date throughout the coverage under this permit The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours

Item to Document	Document Requirements
(a) Each E&SC measure has been installed and does not significantly devate from the locations, dimensions and relative elevations shown on the approved E&SC plan	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan This documentation is required upon the initial installation of the E&SC measures are modified after initial installation
(b) A phase of grading has been completed	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase
(c) Ground cover is located and installed in accordance with the approved E&SC plan	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications
(d) The maintenance and repair requirements for all E&SC measures have been performed	Complete, date and sign an inspection report
(e) Corrective actions have been taken to E&SC measures	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action

2 Additional Documentation to be Kept on Site

In addtion to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Divison provides a site-specific exemption based on unique site conditions that make ths requirement not practical

(a) This General Permit as well as the Certificate of Coverage, after it is received

(b) Records of inspections made during the previous twelve months The permittee shall record the required observations on the Inspection Record Form provided by the Divison or a similar inspection form that includes all the required elements Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records

3 Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C REPORTING

1 Occurrences that Must be Reported

Permittees shall report the following occurrences

(a) Visible sediment deposition in a stream or wetland
(b) Oil spills if
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume)

(c) Releases of hazardous substances in excess of reportable quantities under Secton 311 of the Clean Water Act (Ref 40 CFR 110 3 and 40 CFR 117 3) or Section 102 of CERCLA (Ref 40 CFR 302 4) or G S 143-215 85
(d) Anticipated bypasses and unanticipated bypasses
(e) Noncompliance with the conditions of this permit that may endanger health or the environment

2 Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Divison regional office within the timeframes and in accordance with the other requirements listed below Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368

Occurrence	Reporting Timeframe (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• Within 24 hours, an oral or electronic notification • Within 7 Calendar Days, a report that contains a description of the sediment and actions taken to address the cause of the deposition Divison staff may wave the requirement for a written report on a case-by-case basis • If the stream is named on the NC 303(d) list as impaired for sediment-related caused, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters condtions
(b) Oil spills and release of hazardous substances per item 1(b)-(c) above	• Within 24 Hours, an oral or electronic notification The notification shall include information about the date, time, nature, volume and location of the spill or release
(c) Anticipated bypasses [40 CFR 122 41(m)(3)]	• *A report at least ten days before the date of the bypass, if possible* The report shall include an evaluation of the anticipated quality and effect of the bypass
(d) Unanticipated bypasses [40 CFR 122 41(m)(3)]	• Within 24 Hours, an oral or electronic notification • Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122 41(l)(7)]	• Within 24 Hours, an oral or electronic notification • Within 7 calendar days, a report that contains a description of the noncompliance, and its causes, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue, and steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance [40 CFR 122 41(l)(6) • Divison staff may waive the requirement for a written report on a case-by-case basis

NORTH CAROLINA *Environmental Quality*

NCG-01 SELF INSPECTION

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FEI

HEARTLAND LIVING & REHABILITATION

DETAILS (EC 2)

DEVELOPER INFORMATION
CROSLEY INVESTMENT, LLC
130 EDINBURGH, SUITE 208
CARY, NC 27511
PHONE EMAIL

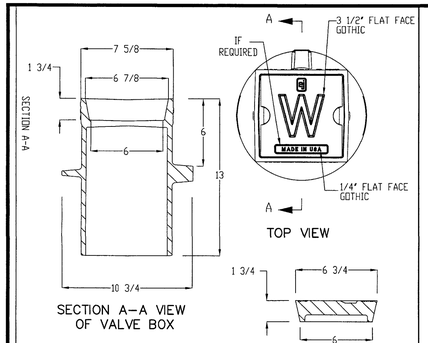
PROJECT LOCATION
TOWNSHIP GREENSBORO
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/04/2025	CGS EC 2 COMMENTS
2	08/13/2025	CGS EC 2 COMMENTS
3	03/13/2026	WATERSHED COMMENTS

DRAWN BY FEI
CHECKED BY FEI
DATE 02/08/2026
PROJECT NO 03079 001
REF NO XX
SCALE N/A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027339 BRENTLEY G. SEVERS
03/26

SHEET
19 OF 23



SECTION A–A VIEW OF VALVE BOX

SECTION VIEW OF VALVE BOX COVER

NOTES
1 VALVE BOX EXTENSION SHALL BE EITHER 6" DIA SOIL PIPE OR SCH 40 PVC PIPE
2 EXTENSION TO BE ONE SOLID PIECE OF PIPE UNLESS BURIAL DEPTH IS GREATER THAN STANDARD LENGTH OF PIPE. A BELL OR COUPLING SHALL BE UTILIZED AT THE TOP OF VALVE CONNECTION (SEE COG STD #101)
3 LETTER HEIGHT 3-1/2".
4 COUNTERSINK LETTER 3/16".
5 TO BE USED IN PAVED OR NON-PAVED AREAS
6 ALL CASTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M306
7 DUE TO VARIATIONS IN CASTINGS OF DIFFERENT MANUFACTURER'S, DIMENSIONS SHALL BE WITHIN REASONABLE TOLERANCES AS PRE-APPROVED BY GREENSBORO WATER RESOURCES DEPARTMENT AND/OR FIELD INSPECTOR PRIOR TO INSTALLATION
8 VALVE BOX MAY BE REQUIRED TO BE "MADE IN U.S.A." IF FEDERAL FUNDS ARE INVOLVED

CITY OF GREENSBORO

WATER VALVE BOX AND EXTENSION	STD. NO.	REV.
	102	03-93 03-12 08-02 12-12 09-10 03-15

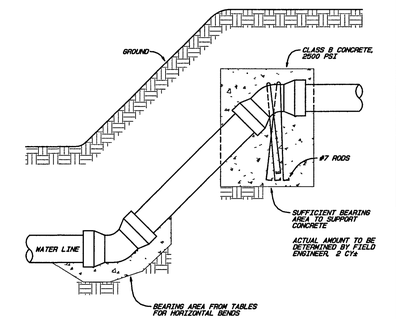
SIZE AND DEGREE OF BEND	STATIC THRUST IN POUNDS	FILL IN DRY OR WET SAND 1,500 LBS/FT³	SOFT CLAY 2,000 LBS/FT³	GRAVEL CRUSHED ROCK 1,800 LBS/FT³	ALLUVIAL SILT OR MUD 1,600 LBS/FT³	FIRM SHALE, COMPACTED EARTH 3,000 LBS/FT³	SAND CLAY OR LOAM 1,800 LBS/FT³	QUICKSAND, WET POOR SILT 1,900 LBS/FT³	ROCK POOR TO FIRM
6"									
11-1/4°	812	1 FT²	1	1	1	1	1	1	1
22-1/2°	1653	1 FT²	1	1	1	1	1	2	1
45°	3247	1 FT²	2	1	1	1	1	4	1
90°	5994	2 FT²	3	1	1	1	2	6	1
PLUG	4239	1 FT²	2	1	1	1	1	4	1
8"									
11-1/4°	1444	1 FT²	1	1	1	1	1	2	1
22-1/2°	2939	1 FT²	2	1	1	1	1	3	1
45°	5773	2 FT²	3	1	1	1	2	6	1
90°	10656	3 FT²	6	1	2	2	3	11	2
PLUG	7536	2 FT²	4	1	1	1	2	8	1
12"									
11-1/4°	3248	1 FT²	2	1	1	1	1	3	1
22-1/2°	6612	2 FT²	4	1	1	1	2	7	1
45°	12988	3 FT²	7	1	2	2	3	13	2
90°	23976	6 FT²	12	2	3	3	6	24	3
PLUG	16956	4 FT²	9	1	2	2	4	17	2
16									
11-1/4°	5775	2 FT²	3	1	1	1	2	6	1
22-1/2°	11756	3 FT²	6	1	2	1	3	12	1
45°	23090	6 FT²	12	2	3	3	6	23	3
90°	42624	11 FT²	22	3	6	6	11	43	4
PLUG	30144	8 FT²	15	2	4	4	8	30	3

BASED ON TEST PRESSURE OF 150 PSI

NOTES
REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR
USE 6"-90° BEND VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY

CITY OF GREENSBORO

STANDARD REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS	STD. NO.	REV.
	106	

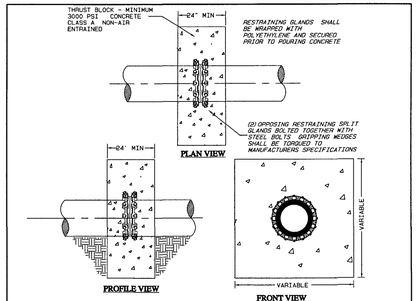


CUBIC YARDS OF CONCRETE TO ANCHOR VERTICAL BEND

PIPE DIA.	11-1/4° BEND		22-1/2° BEND		45° BEND	
6"	812 #	1/2 CY	1653 #	1/2 CY	3247 #	1.0 CY
8"	1444 #	1/2 CY	2939 #	3/4 CY	5773 #	1.5 CY
12"	3248 #	1.0 CY	6612 #	1-3/4 CY	12988 #	3.5 CY
16"	5775 #	1-1/2 CY	11756 #	3.0 CY	23090 #	6.0 CY

CITY OF GREENSBORO

STANDARD VERTICAL BEND ANCHORS	STD. NO.	REV.
	110	08-08 03-09



NOTES
1 SEE CITY OF GREENSBORO - WATER LINE AND SEWER LINE STANDARD CONSTRUCTION SPECIFICATIONS, SUB-ARTICLE 3.03 & 3.03 FOR (TRENCH AND BACKFILL) AND (TRENCH STABILIZATION) REQUIREMENTS
2 THRUST BLOCK SHALL BE ORIENTED APPROXIMATELY CENTER OF PIPE JOINT
3 ADDITIONALLY, A WELDED COLLAR (INSTALLED BY PIPE MANUFACTURER) MAY BE USED IN LIEU OF RESTRAINING GLANDS. ALL OTHER DESIGN REQUIREMENTS SHALL APPLY AS SHOWN
4 FOR PIPES LARGER THAN 16" DIAMETER, THE DEADMAN THRUST RESTRAINT WITH BLOCKING MUST BE DESIGNED AND SEALED BY A N.C. PROFESSIONAL ENGINEER
5 ANY PROPOSED MODIFICATIONS TO THIS STANDARD BASED ON THE FIELD CONDITIONS MUST BE PRE-APPROVED BY THE CITY OF GREENSBORO FIELD INSPECTOR AND/OR THE ENGINEER OF RECORD
6 QUANTITIES SHOWN BELOW ARE TO THE NEAREST QUARTER YARD AND ARE BASED ON MINIMUM MASS WEIGHT REQUIREMENTS OF THE TEST PRESSURES SHOWN

MINIMUM CUBIC YARDS OF CONCRETE REQUIRED

PIPE DIAMETER	150 PSI TEST PRES.	200 PSI TEST PRES	250 PSI TEST PRES
6"	0.75	1.0	1.25
8"	1.5	2.0	2.25
10"	2.0	3.0	3.5
12"	3.0	4.0	5.0
16"	5.5	7.25	9.0

CITY OF GREENSBORO

DEADMAN THRUST RESTRAINT WITH MASS WEIGHT BLOCKING	STD. NO.	REV.
	118	05-13 06-15

INSTALL ON 4PT SADDLE WITH A 6 NIPPLE AND A 2 WHEEL VALVE
3 MVR 2 CONNECTION
4 MVR 2 CONNECTION
6 MVR 2 CONNECTION

MASTER METER ACCURACY (GPM FLOW)	
1 (QCAL)	1.0%
2 (QCAL)	1.0%
3 (QCAL)	1.0%
4 (QCAL)	1.0%
10 TO DOMAIN	1.0%

DIMENSIONS				
LETTER	3 METER	4 METER	6 METER	8 METER
A	18.5	19.5	21	24
B	11	13	15	18
C	7	8	10	12
D	12	14	16	17
E	15	16	18	20
F	75	88	103	120
G	65	73	88	97

1 DO NOT CONSTRUCT VAULTS IN LOAD BEARING AREAS
2 VAULT WALLS, TOPS AND FLOORS SHALL BE MANUFACTURED OF REINFORCED CONCRETE PANELS, OR POURED CONCRETE MONOLITHIC BLOCK WALLS AND REINFORCED PRECAST CONCRETE TOP
3 IF BLOCK WALLS ARE USED, OUTSIDE OF WALLS SHALL BE COATED WITH TWO COATS OF ASPHALTIC EMULSION TO DAMP PROOF
4 SUMP SHALL BE 12" SQUARE BY 12" DEEP WITH A 4" GRAVITY DRAIN CAN BE USED IF THERE IS SUFFICIENT HEADLOSS FOR DRAINAGE
5 BY PASS LINE IS THE SAME SIZE AS THE METER AND MUST BE INSTALLED WITH A SEAL CITY OF GREENSBORO
6 THE ACCURACY OF ANY DEFECTIVE METER SHALL NOT BE GREATER THAN THE ACCURACY OF THE MASTER METER

CITY OF GREENSBORO WATER RESOURCES DPT	3", 4", 6" & 8" METERS	GSO-7 REVISED 01-26-22

SIZES: 3" - 10"
LEAD FREE REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND INSTALLATION

1 THE BACKFLOW DEVICE SHALL BE LOCATED WITHIN 10' OF AND ON THE PROPERTY SIDE OF THE METER OR AT THE FIRST POINT OF CONTACT INSIDE OF THE BUILDING WITH PRIOR APPROVAL FROM THE CROSS CONNECTION COORDINATOR
2 ALL REDUCED PRESSURE BACKFLOW DEVICES SHALL BE INSTALLED ABOVE GROUND, IN A HORIZONTAL POSITION
3 SHUT OFF VALVES SHALL BE RESILIENT SEAT WITH FLANGED ENDS AND HANDWHEEL
4 ALL INTERIOR AND EXTERIOR IRON SURFACES SHALL HAVE EPOXY COATINGS TO CONFORM TO ANSI/AWWA C550, OR MANUFACTURED OF STAINLESS STEEL
5 THE BACKFLOW DEVICE SHALL HAVE 4 TEST COCKS WITH ONE BEING INSTALLED ON THE CITY SIDE OF THE INLET VALVE, AND THREE IN BETWEEN SHUT OFF VALVE #1 AND SHUT OFF VALVE #2
6 FOR A LIST OF APPROVED BACKFLOW DEVICES CALL METER SERVICES AT (336)373-7839
7 APPROVED ABOVE GROUND ENCLOSURES HUBBELL POWER SYSTEMS "HOT BOX" OR POLY-EZ BOX, HYDROCOWL, SAFE-T-COVER, SMI (MODEL #B-30-SZD, B41-SZD, B51-SZD) OR BFP PRODUCTS (MODEL #232-APD, 322-APD, 65-APD) ENCLOSURE DESIGN SHALL BE A TWO PIECE DESIGN ASSEMBLY WITH A HINGE AND LOCKING HASP ALL ENCLOSURES SHALL HAVE A DRAIN
8 A FLOOR DRAIN AND THE RELIEF VALVE DISCHARGE PIPING IS REQUIRED IF A BACKFLOW IS INSTALLED INSIDE OF THE BUILDING THE FLOOR DRAIN AND RELIEF VALVE DISCHARGE PIPING MUST BE SIZED ADEQUATELY TO HANDLE THE VOLUME OF WATER BEING DISCHARGED FROM THE BACKFLOW
9 INDOOR INSTALLATIONS REQUIRE AN AIR GAP PVC DRAIN TO DIRECT FLOW OF WATER TOWARDS FLOOR DRAIN, AND ELBOW INTO FLOOR DRAIN
10 TANDEM BACKFLOWS ARE REQUIRED IF SERVICE CANNOT BE INTERRUPTED

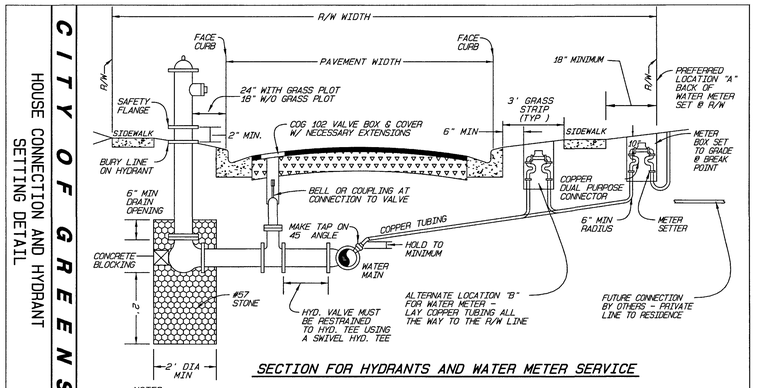
DATE 6-15-88	REDUCED PRESSURE BACKFLOW PREVENTER	CITY OF GREENSBORO	GSO-15
REVISED 7-3-2023	TYPE 3" - 10"	WATER RESOURCES DEPARTMENT	SCALE NOT TO SCALE

CITY OF GREENSBORO

HOUSE CONNECTION AND HYDRANT SETTING DETAIL

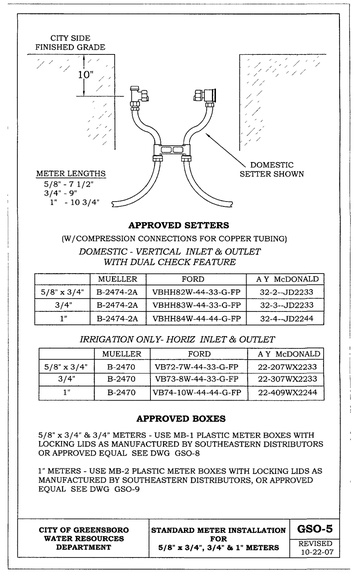
STD. NO.	REV.
101	12-12 03-15 09-19

SHEET 1 OF 3



SECTION FOR HYDRANTS AND WATER METER SERVICE

NOTES:
1 TWO MEG-A-LUGS BETWEEN VALVE & HYDRANT MAY BE USED INSTEAD OF CONCRETE BLOCKING
2 THE WATER METER SHALL BE INSTALLED IN LOCATION "A" UNLESS DETERMINED BY THE INSPECTOR TO NOT BE FEASIBLE. THE WATER METER AND SEWER CLEANOUT SHOULD BE SIDE BY SIDE AT THE R/W LINE WITH A MINIMUM 18" SEPARATION BETWEEN THE CLOSEST EDGE OF THE WATER METER AND THE CENTER OF THE SEWER CLEANOUT.
3 IF LOCATION "A" IS NOT FEASIBLE, THE WATER METER SHALL BE PLACED AT LOCATION "B" IN THE GRASS STRIP WITH THE CLEANOUT REMAINING AT THE R/W LINE.
4. IF THE INSPECTOR DETERMINES THAT NEITHER LOCATION "A" NOR "B" IS FEASIBLE, THE INSPECTOR WILL DECIDE WHAT IS THE BEST LOCATION
5 THE BURY LINE ON THE HYDRANT SHOULD BE AS CLOSE AS FEASIBLE TO 0 2 FT ABOVE THE TOP OF CURB GRADE.



APPROVED SETTERS

(W/COMPRESSION CONNECTIONS FOR COPPER TUBING)

DOMESTIC - VERTICAL INLET & OUTLET WITH DUAL CHECK FEATURE

	MUELLER	FORD	A Y McDONALD
5/8" x 3/4"	B-2474-2A	VBHH82W-44-33-G-FP	32-2--JD2233
3/4"	B-2474-2A	VBHH83W-44-33-G-FP	32-3--JD2233
1"	B-2474-2A	VBHH84W-44-44-G-FP	32-4--JD2244

IRRIGATION ONLY- HORIZ. INLET & OUTLET

	MUELLER	FORD	A Y McDONALD
5/8" x 3/4"	B-2470	VB72-7W-44-33-G-FP	22-207WX2233
3/4"	B-2470	VB73-8W-44-33-G-FP	22-307WX2233
1"	B-2470	VB74-10W-44-44-G-FP	22-409WX2244

APPROVED BOXES

5/8" x 3/4" & 3/4" METERS - USE MB-1 PLASTIC METER BOXES WITH LOCKING LIDS AS MANUFACTURED BY SOUTHEASTERN DISTRIBUTORS OR APPROVED EQUAL SEE DWG GSO-8

1" METERS - USE MB-2 PLASTIC METER BOXES WITH LOCKING LIDS AS MANUFACTURED BY SOUTHEASTERN DISTRIBUTORS, OR APPROVED EQUAL SEE DWG GSO-9

CITY OF GREENSBORO WATER RESOURCES DEPARTMENT	STANDARD METER INSTALLATION FOR 5/8" x 3/4", 3/4" & 1" METERS	GSO-5 REVISED 10-22-07

BOX SIZE: 24" WIDE x 36" LONG x 30" DEEP

MATERIAL: FIBERGLASS REINFORCED POLYMER CONCRETE AND FIBERGLASS REINFORCED POLYMER

COVER TYPE TIER 5 IS REQUIRED FOR NON-TRAFFIC BEARING AREAS
TIER 15 IS REQUIRED FOR TRAFFIC BEARING AREAS

**DUE TO VARIATIONS IN CASTINGS OF DIFFERENT MANUFACTURER'S, DIMENSIONS SHALL BE WITHIN REASONABLE TOLERANCES AS PRE-APPROVED BY GREENSBORO WATER RESOURCES DEPARTMENT AND/OR FIELD INSPECTOR PRIOR TO INSTALLATION

APPROVED METER BOXES
- CDR / QUAZITE AS MFG BY HUBBELL POWER SYSTEMS
- HIGHLINE PRODUCTS

MEETS ASTM C857 A-16 STANDARDS

DESIGN LOADS - BOX & COVER		
LIVE LB/WHEEL	LIVE + IMPACT LB/WHEEL	SIDE PSF
16,000	20,800	30/80
TEST LOADING SHALL MEET A MINIMUM SAFETY FACTOR OF 1.5 - ASTM C497		

GSO-10 REVISED 06-07-21

Meter Box and Cover for 1 1/2" and 2" Meters

City of Greensboro Water Resources Department

Civil Engineers and Land Surveyors
4196 Mendenhall Oaks Pkwy
High Point, NC 27265
www.fenconsulting.com
(336) 852-9797
License No. C-0950

HEARTLAND LIVING & REHABILITATION

DETAILS (WATER)

DEVELOPER INFORMATION
CASTLE HARLAN PARTNERS MANAGEMENT
130 EDINBURGH SUITE 208
CARY, NC 27511
PHONE EMAIL

PROJECT LOCATION
TOWNSHIP CATFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

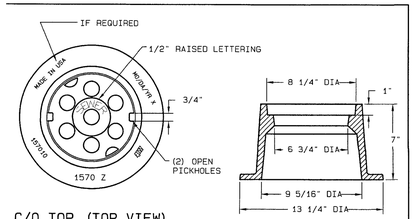
NO	DATE	REVISION NOTE
1	04/09/2026	CITY OF GREENSBORO REVIEW COMMENTS
2	03/13/2026	WATERSHED COMMENTS

C:\FEI\Engineering\Drawings_&_Projects\PROJ\03079.001 2026 04 Master\B & L\18 mill Rd\Drawings\Details

DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079.001
REF NO XX
SCALE N/A

NORTH CAROLINA PROFESSIONAL SEAL 027339 ENGINEER BRENTLEY C SUTTERS
02/26

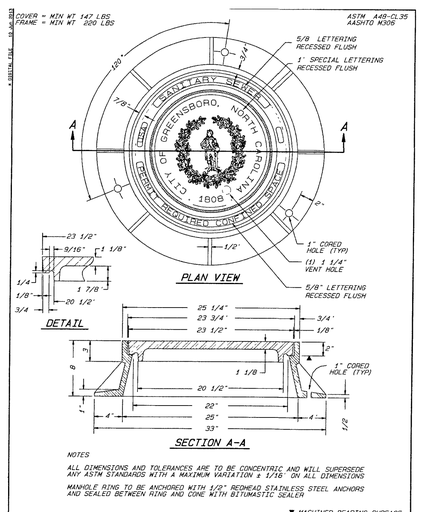
SHEET
20 OF 23



NOTES
1 LOAD BEARING CLEAN-OUT TO BE INSTALLED IN LOAD BEARING AREAS AS DESIGNATED BY THE DESIGN ENGINEER OR FIELD ENGINEER
2 THE CLEANOUT ASSEMBLY IS TO BE SET A MIN 1/2", NO GREATER THAN 4", FROM THE LOAD BEARING ASSEMBLY COVER
3 THE DESIGN SHOULD BE A HEAVY DUTY TYPE, GRAY IRON (ASTM A48 CL35B), WITH A CURVED COATING
4 A 15"X15" CONCRETE PAD IS REQUIRED FOR THE BASE. THE CONCRETE PAD WILL NEED TO BE 9" THICK WITHIN 2' OF CONCRETE UNDERNEATH THE 7" TALL BASE)
5 ALL CASTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M306
6 THE CLEAN-OUT COVER AND COVER BASE SHALL BE HEAVY DUTY SUCH AS EJ MODEL CDS6SC2403 OR COG PRE-APPROVED EQUIVALENT
7 CLEAN-OUT MAY BE REQUIRED TO BE "MADE IN U S A " IF FEDERAL FUNDS ARE INVOLVED

CITY OF GREENSBORO

SEWER CLEANOUT (C/O) ASSEMBLY, LOAD BEARING	STD.NO.	REV.
	224	12-12

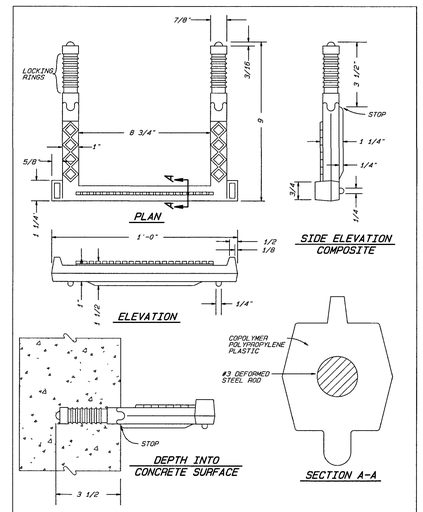


NOTES
ALL DIMENSIONS AND TOLERANCES ARE TO BE CONCENTRIC AND WILL SUPERSEDE ANY ASTM STANDARDS WITH A MAXIMUM VARIATION ± 1/16 ON ALL DIMENSIONS
MANHOLE RING TO BE ANCHORED WITH 1/2" REDHEAD STAINLESS STEEL ANCHORS AND SEALED BETWEEN RING AND CONE WITH BITUMASTIC SEALER

▼ MACHINED BEARING SURFACE

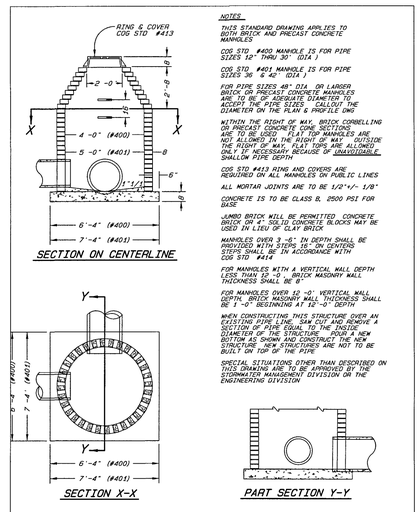
CITY OF GREENSBORO

STANDARD MANHOLE RING AND COVER	STD.NO.	REV.
	205	12-05 06-13



CITY OF GREENSBORO

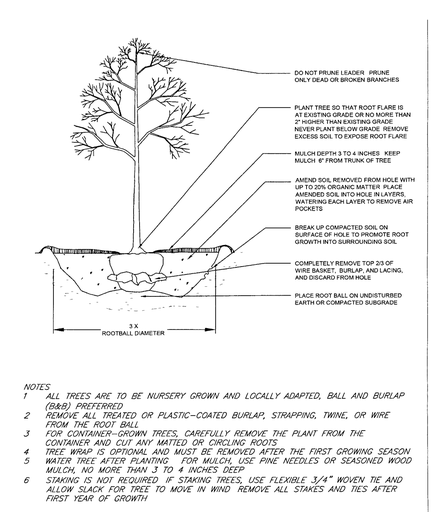
STANDARD MANHOLE STEP FOR PRECAST CONCRETE MANHOLE	STD.NO.	REV.
	206	



NOTES
THIS STANDARD DRAWING APPLIES TO BOTH BRICK AND PRECAST CONCRETE MANHOLES
CDS STD. #400 MANHOLE IS FOR PIPE SIZES 12" THRU 30" DIA.)
CDS STD. #401 MANHOLE IS FOR PIPE SIZES 36" & 42" DIA.)
FOR PIPE SIZES 48" DIA. OR LARGER BRICK OR PRECAST CONCRETE MANHOLES ARE TO BE OF ADEQUATE DIAMETER TO ACCEPT THE PIPE SIZES. CALCULATE THE DIAMETER ON THE PLAN & PROFILE DWG
WITHIN THE RIGHT OF WAY, BRICK CORBELLING OR PRECAST CONCRETE CONE SECTIONS ARE TO BE USED. FLAT TOP MANHOLES ARE NOT ALLOWED IN THE RIGHT OF WAY. OUTSIDE THE RIGHT OF WAY, FLAT TOPS ARE ALLOWED ONLY IF NECESSARY BECAUSE OF UNAVOIDABLE SHALLOW PIPE DEPTH
CDS STD #413 RING AND COVERS ARE REQUIRED ON ALL MANHOLES ON PUBLIC LINES
ALL MORTAR JOINTS ARE TO BE 1/2"+/- 1/8"
CONCRETE IS TO BE CLASS B, 2500 PSI FOR BASE
JUMBO BRICK WILL BE PERMITTED. CONCRETE BRICK OR 4" SOLID CONCRETE BLOCKS MAY BE USED IN LIEU OF CLAY BRICK
MANHOLES OVER 3'-6" IN DEPTH SHALL BE PROVIDED WITH STEPS 16" ON CENTERS. STEPS SHALL BE IN ACCORDANCE WITH CDS STD #414
FOR MANHOLES WITH A VERTICAL WALL DEPTH OVER 12'-0", BRICK MASONRY WALL THICKNESS SHALL BE 8"
FOR MANHOLES OVER 12'-0" VERTICAL WALL DEPTH, BRICK MASONRY WALL THICKNESS SHALL BE 1'-0" BEGINNING AT 12'-0" DEPTH
WHEN CONSTRUCTING THIS STRUCTURE OVER AN EXISTING PIPE LINE, SAW CUT AND REMOVE A SECTION OF PIPE EQUAL TO THE INSIDE DIAMETER OF THE STRUCTURE. POUR A NEW BOTTOM AS SHOWN AND CONSTRUCT THE NEW STRUCTURE AROUND IT. PIPES ARE NOT TO BE BUILT ON TOP OF THE PIPE.
SPECIAL SITUATIONS OTHER THAN DESCRIBED ON THIS DRAWING ARE TO BE APPROVED BY THE STORMWATER MANAGEMENT DIVISION OR THE ENGINEERING DIVISION

CITY OF GREENSBORO

BRICK MASONRY STORM SEWER MANHOLE	STD.NO.	REV.
	400 / 401	09-95 06-07 06-99 06-14 09-02



NOTES
1 ALL TREES ARE TO BE NURSERY GROWN AND LOCALLY ADAPTED, BALL AND BURLAP (B&B) PREFERRED
2 REMOVE ALL TREATED OR PLASTIC-COATED BURLAP, STRAPPING, TWINE, OR WIRE FROM THE ROOT BALL
3 FOR CONTAINER-GROWN TREES, CAREFULLY REMOVE THE PLANT FROM THE CONTAINER AND CUT ANY MATTED OR CIRCLING ROOTS
4 TREE WRAP IS OPTIONAL AND MUST BE REMOVED AFTER THE FIRST GROWING SEASON
5 WATER TREE AFTER PLANTING. FOR MULCH, USE PINE NEEDLES OR SEASONED WOOD MULCH, NO MORE THAN 3 TO 4 INCHES DEEP
6 STAKING IS NOT REQUIRED. IF STAKING TREES, USE FLEXIBLE 1/4" WOVEN TIE AND ALLOW SLACK FOR TREE TO MOVE IN WIND. REMOVE ALL STAKES AND TIES AFTER FIRST YEAR OF GROWTH

CITY OF GREENSBORO

CITY OF GREENSBORO
STANDARD TREE PLANTING DETAIL

MINIMUM REQUIREMENTS**

	LOCAL	COLLECTOR	THOROUGHFARE
RADIUS (R)	15'	20'	25'
GRASS STRIP	3'	3'	5'
MINIMUM DRIVEWAY WIDTH (W)	24'	24'	24'

**SEE COG DRIVEWAY MANUAL FOR DETAILED INFORMATION
-NO DRIVEWAY SHALL BE LOCATED WITHIN 5' (AS MEASURED ALONG THE STREET CURB STARTING AT THE DRIVEWAY RADIUS) OF ANY MUNICIPAL OR STATE OWNED FEATURE (I.E. CURB INLETS, FIRE HYDRANTS, UTILITY POLES OR SIMILAR STRUCTURES)
-STREET TYPE DRIVEWAY SHALL BE USED ON ALL COMMERCIAL DRIVEWAYS LOCATED ON THOROUGHFARES. STREET TYPE DRIVEWAYS MAY ALSO BE REQUIRED ON COLLECTOR STREETS BASED ON BUSINESS TYPE AND TRAFFIC VOLUME. SUCH DETERMINATION WILL BE MADE DURING THE COMMERCIAL DRIVEWAY PERMITTING PROCESS.

CITY OF GREENSBORO

DRIVEWAY-COMMERCIAL STREET TYPE	STD.NO.	REV.
	416-B	09-11 12-12

NOTES
1 DRIVEWAY CROSSES AND/OR ADJACENT TO CURB RAMPS IN GRADES EXCEEDING THE GRADES SHOWN WILL BE SUBJECT TO FIELD REVIEW AND APPROVAL
2 STREET CROSS SLOPES IN EXCESS OF 2% REQUIRE A SECTION IN THE DRIVEWAY APRON TO ACCOMMODATE THE VEHICLE TRANSITION. THE SLOPE SHOWN IN THE SURFACE DATA AND DETAIL SHOWN ARE MAXIMUMS

2 OF 2

CITY OF GREENSBORO

DRIVEWAY SECTION, COMMERCIAL	STD.NO.	REV.
	416-A	06-04 10-12

NOTE SLOPE OF GRASS STRIP MAY BE VARIED IF CONSTRAINTS WARRANT SUCH. ENGINEER'S APPROVAL WILL BE REQUIRED

** MINIMUM SIDEWALK WIDTH IS 6' WHEN VARIOUS CONSTRAINTS MAKE A GRASS STRIP (A) NOT FEASIBLE. ALL CASES WHERE A GRASS STRIP IS LESS THAN THE MINIMUM STATED IN THE CHART ON SHEET 2 OR IS NONEXISTENT MUST BE APPROVED BY THE GREENSBORO DEPT. OF TRANSPORTATION

NOTE
GRASS STRIP WIDTH, SIDEWALK WIDTH & SIDEWALK LOCATION MUST CONFORM TO THE TABLE SHOWN ON SHEET 2 BASED ON THE STREET'S CLASSIFICATION. ANY EXCEPTIONS MUST BE APPROVED BY THE GREENSBORO DEPT. OF TRANSPORTATION

PAGE 1 OF 2

CITY OF GREENSBORO

SIDEWALK STANDARD FOR USE WITH TYPICAL STREET SECTIONS	STD.NO.	REV.
	418-A	09-11 12-11 06-13

STREET CLASSIFICATION	GRASS STRIP "A"	SIDEWALK LOCATION
LOW DENSITY LOCAL	3' MIN	MIN 1 SIDE
MEDIUM DENSITY LOCAL	3' MIN	MIN 1 SIDE
HIGH DENSITY LOCAL RESIDENTIAL	3 MIN	BOTH SIDES
HIGH DENSITY LOCAL NON-RESIDENTIAL	3 MIN	BOTH SIDES
RESIDENTIAL COLLECTOR	3' MIN	MIN 1 SIDE
NON-RESIDENTIAL COLLECTOR	3' MIN	MIN 1 SIDE
MINOR THOROUGHFARE	5 MIN	BOTH SIDES
MAJOR THOROUGHFARE	5' MIN	BOTH SIDES

NOTES
1 SIDEWALK WIDTH IS **5' MIN.** FOR ALL STREET CLASSIFICATIONS
2 ALL ROADWAY PROJECTS MUST CONFORM TO THE STANDARDS FOUND IN TABLES 5.1 - 5.6 IN THE "STREET DESIGN STANDARDS MANUAL" PUBLISHED BY THE CITY OF GREENSBORO'S DEPT. OF TRANSPORTATION
3 THIS STANDARD, #418-A, IS A SUMMARY OF THOSE DESIGN GUIDELINES AS THEY RELATE TO SIDEWALK LOCATION, SIDEWALK WIDTH AND GRASS STRIP WIDTH AS A FUNCTION OF STREET CLASSIFICATION
4 ANY EXCEPTIONS TO THE GUIDELINES CONTAINED IN THIS STANDARD MUST BE APPROVED IN ADVANCE BY THE GREENSBORO DEPT. OF TRANSPORTATION
5 A 1/2" EXPANSION JOINT WILL BE REQUIRED AT THE END OF ALL CONCRETE CURB RAMPS AND EVERY 30 FT. THROUGHOUT THE SIDEWALK. TOOL JOINTS WILL BE REQUIRED FOR EVERY 5 FT. FOR 5 FT. WIDE SIDEWALKS AND EVERY 6 FT. FOR 6 FT. WIDE SIDEWALKS. EXPANSION AND TOOL JOINTS SHALL NOT EXCEED 1/2". WHEN SIDEWALKS INTERSECT A CURB LINE OR DRIVEWAY, AN EXPANSION JOINT SHALL BE INSTALLED
6 USE CLASS "B" CONCRETE. SIDEWALKS ARE TO BE 4" THICK
7 SIDEWALK CROSS SLOPE TARGET IS 2% CROSS SLOPE CANNOT BE GREATER THAN 2% AND CANNOT BE LESS THAN 1%

PAGE 2 OF 2

CITY OF GREENSBORO

SIDEWALK STANDARD FOR USE WITH TYPICAL STREET SECTIONS	STD.NO.	REV.
	418-A	09-11 12-11 06-13

NOTES
ON NEW INSTALLATION A MAX. OF TWO GRADE RINGS SHALL BE USED
CONCRETE SHALL BE CLASS AA, 4000 PSI AS PER ASTM C-478
STEEL REINFORCING SHALL MEET ASTM C-185 (4" DIA) OR ASTM C-478 (5 DIA)
MANHOLES OVER 3'-6" IN DEPTH SHALL BE PROVIDED WITH STEPS 16" ON CENTERS STEPS SHALL BE IN ACCORDANCE W/ COG STD #206

MANHOLES (MAX. PIPE O.D.)

MH DIA	45° DEFL	90° DEFL
4'	31-1/2"	25"
5'	42"	32"
6'	51"	38"

* PRECAST INVERT (OPTIONAL)

CITY OF GREENSBORO

STANDARD 4' I.D. & 5' I.D. ECCENTRIC PRECAST CONCRETE SANITARY MANHOLE WITH EXPANDED BASE	STD.NO.	REV.
	200 / 201	95-99 03-98 02-02 08-02 05-95

HEARTLAND LIVING & REHABILITATION

DETAILS (SEWER)

DEVELOPER INFORMATION
HEARTLAND CARE ASSOCIATES, LLC
130 EDINBURGH, SUITE 208
CARY, NC 27511
PHONE EMAIL

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/XX/2026	CSS/LED/COG/GW CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO XX
SCALE N/A

NORTH CAROLINA PROFESSIONAL SEAL 027339 ENGINEER BRENTLEY C. FRIVERS
02/26

SHEET
21 OF 23

Civil Engineers and Land Surveyors
4196 Mendenhall Oaks Pkwy
High Point, NC 27265
www.feiconsulting.com
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License No. C-0950

DUMPSTER AREA NOTES

PLEASE SCHEDULE A CALL AT LEAST SIX WEEKS BEFORE PLACING A DUMPSTER. ALL NEW DUMPSTER PAD CONSTRUCTIONS MUST COMPLY WITH THE SPECIFICATIONS SET FORTH BY THE CITY OF GREENSBORO FOR BOTH SINGLE AND DOUBLE PADS/ENCLOSURES (HTTP://WWW.GREENSBORO-NC.GOV/INDEX.ASPX?PAGE=522). ACCORDING TO THE CITY OF GREENSBORO DUMPSTER SCREENING REQUIREMENTS 30-9-7.4.D., ALL DUMPSTERS OR SIMILARLY LARGE WASTE RECEPTACLES, INCLUDING COMPACTORS, MUST BE SHIELDED FROM PUBLIC VISIBILITY ALONG THE STREET RIGHT-OF-WAY. THE COMMON ELEMENTS PERTAINING TO ANY PRIVATE STREETS OR DRIVES, EXISTING OR PLANNED GREENWAYS (AS DEPICTED IN THE ADOPTED BIPED PLAN), AND ANY RESIDENTIAL ZONING DISTRICT ARE AS FOLLOWS:

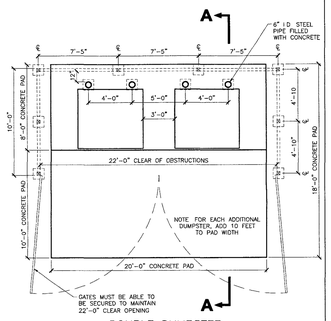
1. DUMPSTERS MUST BE CONCEALED USING AN OPAQUE WALL OR FENCE. CHAIN-LINK FENCING WITH WOVEN SLATS OR OPAQUE MATERIALS IS DEEMED UNACCEPTABLE FOR SCREENING DUMPSTERS AND APPLIES TO BOTH GATES AND ENCLOSURE SIDES.

2. THE OPAQUE SCREENING MATERIAL OR STRUCTURE MUST MAINTAIN A MINIMUM HEIGHT OF EIGHT FEET.

SINGLE DUMPSTER PADS/ENCLOSURES SHOULD MEASURE TEN FEET IN WIDTH. SHOULD THE DUMPSTER PAD INCORPORATE AN ENCLOSURE, THE ENTRANCE SHOULD BE TWELVE FEET WIDE, WHICH IS TWO FEET WIDER THAN THE PAD.

DOUBLE DUMPSTER PADS SHOULD SPAN TWENTY FEET IN WIDTH. IF THE DUMPSTER PAD IS TO FEATURE AN ENCLOSURE, THE ENTRANCE SHOULD BE TWENTY-TWO FEET WIDE, TWO FEET GREATER THAN THE PAD.

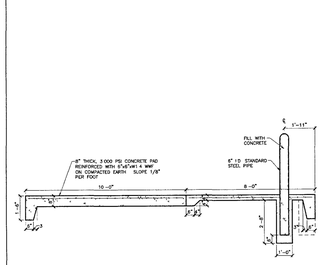
IT IS IMPERATIVE TO SCHEDULE A SITE VISIT PRIOR TO THE POURING OF CONCRETE FOR ANY NEW DUMPSTER PAD. JAMES JORDAN, SOLID WASTE & RECYCLING, SOLID WASTE DIVISION 336-373-2256. JAMES.JORDAN@GREENSBORO-NC.GOV



DOUBLE DUMPSTER

CITY OF GREENSBORO

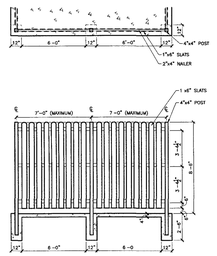
DOUBLE DUMPSTER PAD WITH GATES	STD. NO 1001	REV. 10/01/07



SECTION "A"

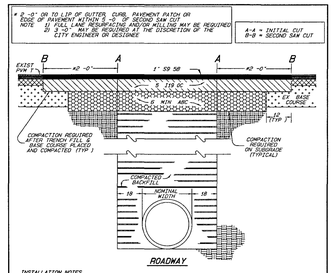
CITY OF GREENSBORO

DUMPSTER PAD - SECTION A	STD. NO. 1003	REV. 9/12/07



CITY OF GREENSBORO

ELEVATION OF SCREEN ENCLOSURE	STD NO. 1008	REV. 9/12/07



INSTALLATION NOTES

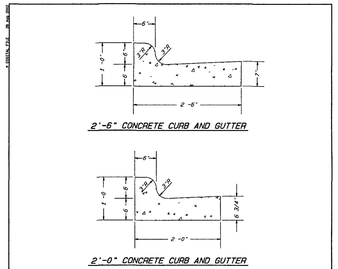
119 SC INSTALLED IN TWO LIFTS OF 2-1/2".
MATERIAL DEPTHS SHOULD EQUAL EXISTING PLUS 1" OR MINIMUMS SHOWN (WHICH EVER IS GREATER)
FILL MATERIAL COMPACTED TO 95% STANDARD PROCTOR LIFTS NOT TO EXCEED 8 INCHES
PROVIDE TACK COAT TO ALL VERTICAL PAVEMENT SURFACES
SECOND PAVEMENT REMOVAL LINE B-B TO BE SAW CUT ONLY.
MAY VARY BASED ON FIELD CONDITIONS AT DISCRETION OF FIELD INSPECTOR

ADDITIONAL NOTES

1. TEMPORARY STEEL PLATES ARE ALLOWED TO BE INSTALLED OVER A TRENCH OPENING
2. EDGES OF STEEL PLATE MUST BE MILLED TO ALLOW THE PLATE TO SET FLUSH WITH THE ADJACENT ASPHALT SURFACE OR ASPHALT COLD PATCH MATERIAL MUST BE PLACED AT ADJACENT PAVEMENT EDGE
3. ANCHORS ARE REQUIRED TO TEMPORARILY FASTEN THE STEEL PLATE TO THE ASPHALT TO PREVENT SLIDING OF PLATE
4. STEEL PLATES MUST BE MAINTAINED UNTIL THE AREA IS READY FOR A PERMANENT ASPHALT REPAIR
5. STEEL PLATES ARE NOT TO BE USED DURING THE WINTER MONTHS
6. ADVANCE WARNING SIGNS INDICATING "BUMP AHEAD" OR "UNEVEN PAVEMENT AHEAD" SHALL BE UTILIZED WHEN STEEL PLATES ARE USED

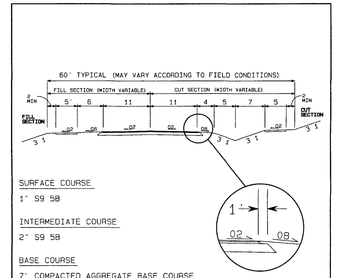
CITY OF GREENSBORO

PAVEMENT REPAIR FOR PIPE/UTILITY PLACED UNDER EXISTING PAVEMENT (ROADWAY)	STD.NO. 423	REV. 02-12 03-15 03-15



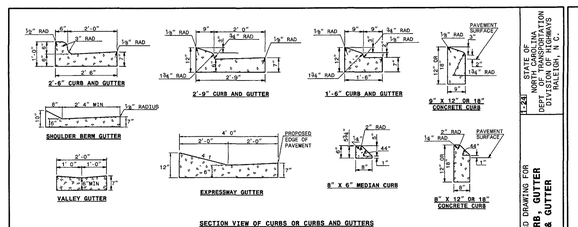
CITY OF GREENSBORO

STANDARD CONCRETE CURB AND GUTTER	STD.NO. 501	REV. 03-01



CITY OF GREENSBORO

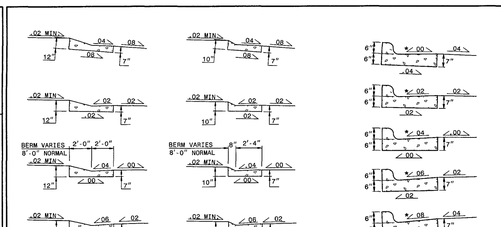
RESIDENTIAL STREET SECTION- RIBBON PAVEMENT WITH SIDEWALK	STD.NO. 611	REV. 12-17 03-18



SECTION VIEW OF CURBS OR CURBS AND GUTTERS

SECTION VIEW OF JOINTS

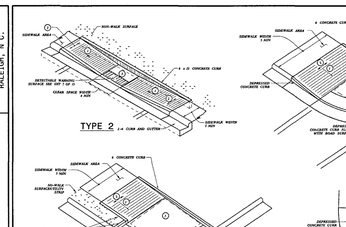
ROADWAY STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-26 | SHEET 1 OF 4 | 846.01



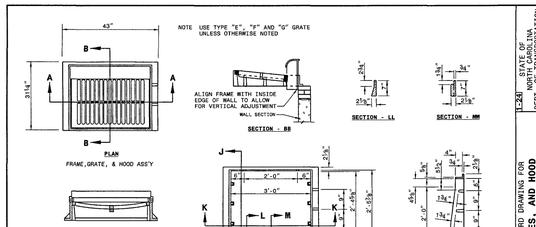
SECTION VIEWS OF EXPRESSWAY GUTTER AND SHOULDER BERM GUTTER SUPERELEVATION RATES

SECTION VIEWS OF 1'-6", 2'-6" (DEPICTED) AND 2'-9" CURB AND GUTTER SUPERELEVATION RATES

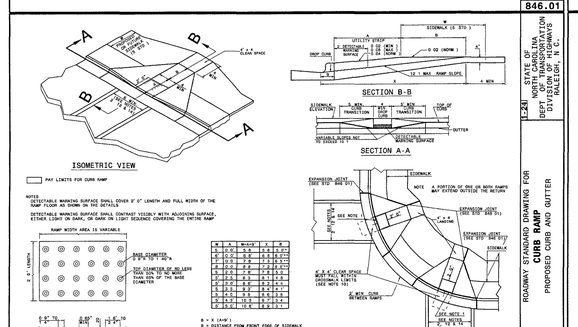
ROADWAY STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-26 | SHEET 2 OF 4 | 846.01



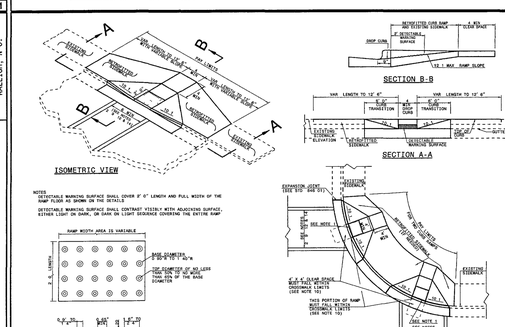
ROADWAY STANDARD DRAWING FOR CURB RAMP PARALLEL RAMP
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-26 | SHEET 4 OF 13 | 848.06



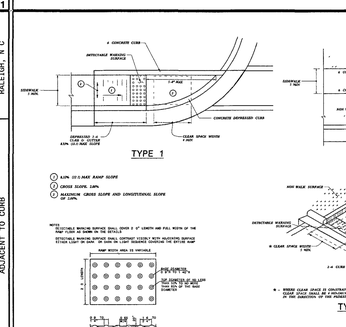
ROADWAY STANDARD DRAWING FOR FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-26 | SHEET 1 OF 3 | 840.03



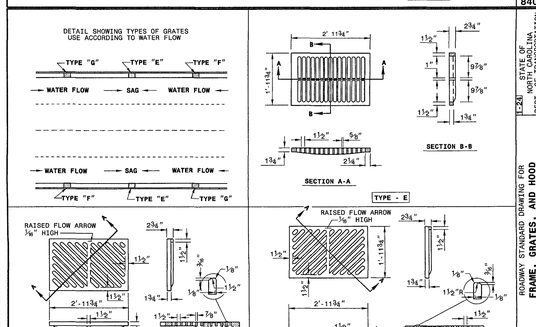
ROADWAY STANDARD DRAWING FOR CURB RAMP PROPOSED CURB AND GUTTER
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-26 | SHEET 1 OF 13 | 848.06



ROADWAY STANDARD DRAWING FOR CURB RAMP CURB RAMP AND EXISTING SIDEWALK ADJACENT TO CURB
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-26 | SHEET 3 OF 13 | 848.06



ROADWAY STANDARD DRAWING FOR CURB RAMP DIRECTIONAL RAMP
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-26 | SHEET 6 OF 13 | 848.06



ROADWAY STANDARD DRAWING FOR FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1-26 | SHEET 2 OF 3 | 840.03

Civil Engineers and Land Surveyors
4196 Mendenhall Oaks Pkwy
High Point, NC 27265
www.feiconsulting.com
(336) 852-9797
License No C-0950

FEI

HEARTLAND LIVING & REHABILITATION

DETAILS (ROAD)

PROJECT LOCATION
TOWNSHIP COLFAX
COUNTY GUILFORD
STATE NORTH CAROLINA

DEVELOPER INFORMATION
CENTURY CARE MANAGMENT
130 EDINBURGH, SUITE 208
CARY, NC 27511
PHONE EMAIL

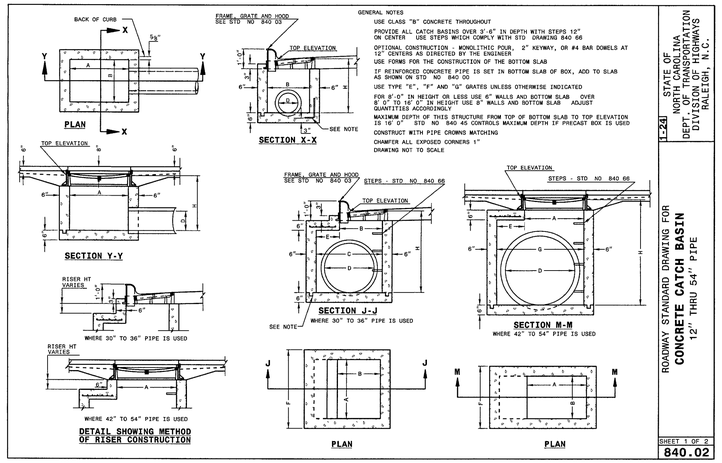
NO	DATE	REVISION NOTE
1	04/XX/2026	CSG/LDE/RZ/SUP/CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

F:\FEI Projects\Drawings_&_Permits\PROJECTS\2021\2021.1005.XX Master\4.3.1.1\Civil\Roads\Details.dwg

DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO XX
SCALE N/A

NORTH CAROLINA PROFESSIONAL SEAL 027339 ENGINEER BRENTLEY G. SWEETEN
03/12/26

SHEET
22 OF 23



GENERAL NOTES

USE CLASS "B" CONCRETE THROUGHOUT

PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER USE STEPS WHICH COMPLY WITH STD DRAWING 840 66

OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD NO 840 00

USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED

FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB ADJUST QUANTITIES ACCORDINGLY

MAXIMUM DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 16'-0" STD NO 840 45 CONTROLS MAXIMUM DEPTH IF PRECAST BOX IS USED

CONSTRUCT WITH PIPE CROWNS MATCHING

CHAMFER ALL EXPOSED CORNERS 1"

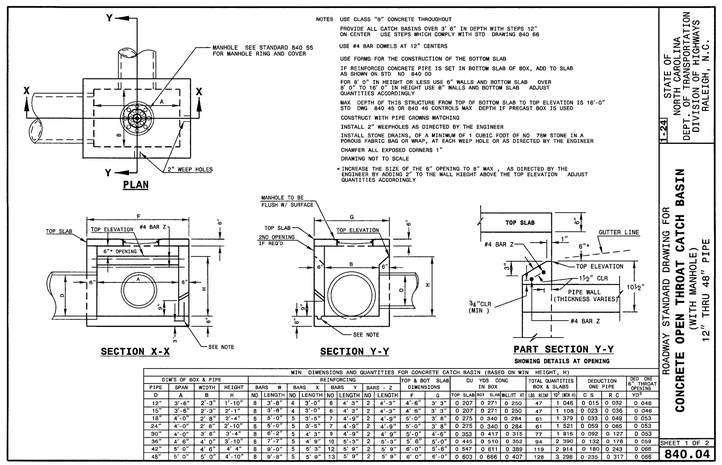
DRAWING NOT TO SCALE

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-24

ROADWAY STANDARD DRAWING FOR
CONCRETE CATCH BASIN
12" THRU 54" PIPE

SHEET 1 OF 2
840.02



NOTES USE CLASS "B" CONCRETE THROUGHOUT

PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER USE STEPS WHICH COMPLY WITH STD DRAWING 840 66

USE #4 BAR DOWELS AT 12" CENTERS

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD NO 840 00

FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB ADJUST QUANTITIES ACCORDINGLY

MAX DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 16'-0" STD DWG 840 45 OR 840 46 CONTROLS MAX DEPTH IF PRECAST BOX IS USED

CONSTRUCT WITH PIPE CROWNS MATCHING

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER

INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER

CHAMFER ALL EXPOSED CORNERS 1"

DRAWING NOT TO SCALE

• INCREASE THE SIZE OF THE 6" OPENING TO 8" MAX., AS DIRECTED BY THE ENGINEER BY ADDING 2" TO THE WALL HEIGHT ABOVE THE TOP ELEVATION ADJUST QUANTITIES ACCORDINGLY

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

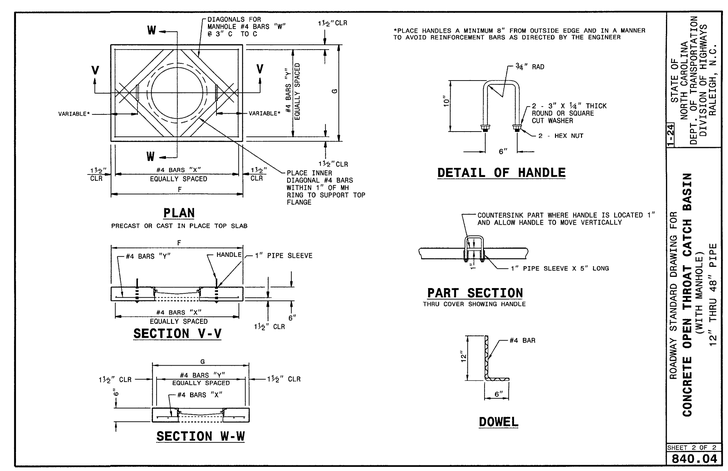
1-24

ROADWAY STANDARD DRAWING FOR
CONCRETE OPEN THROAT CATCH BASIN
(WITH MANHOLE)
12" THRU 48" PIPE

SHEET 1 OF 2
840.04

DIMS OF BOX & PIPE				REINFORCING							TOP & BOT SLAB DIMENSIONS		CU YDS CONC IN BOX		TOTAL QUANTITIES BOX & SLABS		DEDUCTION ONE PIPE		DFD ONE 6" THROAT OPENING
PIPE	SPAN	WIDTH	HEIGHT	BARS W		BARS X		BARS Y		BARS Z	F	G	TOP SLAB	BOT SLAB	WALLS	LBS REIN	CY BOX	C S	B C	YDS
D	A	B	H	NO	LENGTH	NO	LENGTH	NO	LENGTH	NO	LENGTH									
12"	3'-6"	2'-3"	1'-10"	5	3'-8"	4	3'-0"	6	4'-5"	2	4'-3"	4'-6"	3' 3"	0 207	0 271	0 250	47	1 046	0 015	0 050	0 046
15"	3'-6"	2'-3"	2'-1"	5	3'-8"	4	3'-0"	6	4' 3"	2	4'-3"	4'-6"	3' 3"	0 207	0 271	0 292	47	1 108	0 023	0 035	0 046
18"	4'-0"	2' 8"	2'-4"	5	3'-0"	5	3'-0"	7	4'-0"	2	4'-3"	5'-0"	3' 8"	0 275	0 340	0 284	61	1 379	0 033	0 049	0 053
24"	4'-0"	2' 8"	2'-10"	5	3'-5"	7	4'-0"	7	4'-9"	2	4'-9"	5'-0"	3' 8"	0 275	0 340	0 284	61	1 521	0 059	0 085	0 053
30"	4'-6"	4'-0"	3'-4"	5	4'-3"	9	4'-5"	12	4'-9"	2	4'-9"	6'-0"	4' 3"	0 352	0 417	0 315	77	1 916	0 092	0 122	0 053
36"	4'-6"	4'-0"	3'-10"	5	4'-9"	10	5'-3"	2	5'-3"	5	5'-0"	5'-0"	0 445	0 510	0 352	84	2 390	0 132	0 178	0 059
42"	5'-0"	4'-6"	4'-4"	5	5'-3"	12	5'-6"	2	5'-9"	5	6'-0"	5'-6"	0 547	0 611	0 389	119	2 914	0 180	0 243	0 066
48"	5'-0"	5'-0"	4'-10"	5	5'-9"	13	5'-9"	2	6'-3"	5	6'-0"	6'-0"	0 603	0 686	0 407	128	3 298	0 235	0 317	0 066

WIN DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON WIN HEIGHT, H)



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-24

ROADWAY STANDARD DRAWING FOR
CONCRETE OPEN THROAT CATCH BASIN
(WITH MANHOLE)
12" THRU 48" PIPE

SHEET 2 OF 2
840.04

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-24

ROADWAY STANDARD DRAWING FOR
FRAME, GRATES, AND HOOD
FOR USE ON STANDARD CATCH BASIN

SHEET 1 OF 2
840.03

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-24

ROADWAY STANDARD DRAWING FOR
FRAME, GRATES, AND HOOD
FOR USE ON STANDARD CATCH BASIN

SHEET 2 OF 2
840.03

GENERAL NOTES

USE CLASS "B" CONCRETE THROUGHOUT

PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER USE STEPS WHICH COMPLY WITH STD DRAWING 840 66

OPTIONAL CONSTRUCTION - MONOLITHIC POUR 2" KEYWAY OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD NO 840 00

MAX DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 12'-0" STD DWG 840 45 OR 840 46 CONTROLS MAXIMUM DEPTH IF PRECAST BOX IS USED

CONSTRUCT WITH PIPE CROWNS MATCHING

SEE STANDARD DRAWING 840 25 FOR ATTACHMENT OF FRAMES AND GRATES NOT SHOWN

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER

INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER

CHAMFER ALL EXPOSED CORNERS 1"

DRAWING NOT TO SCALE

DIMENSIONS AND QUANTITIES FOR DROP INLET(BASED ON MIN HEIGHT, H)						
DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONC IN BOX		DEDUCTIONS FOR ONE PIPE
PIPE	SPAN	WIDTH	MIN HEIGHT	BOTTOM SLAB	WALL PER FT HT	C M R C
D	A	B	H			
12"	3'-0"	2'-0"	2'-0"	0 222	0 222	0 092 0 015 0 026
15"	/	/	2' 3"	/	/	0 648 0 023 0 036
18"	/	/	2'-6"	/	/	0 703 0 033 0 049
24"	/	/	3'-0"	/	/	0 814 0 059 0 085
30"	3'-0"	2'-0"	3'-6"	0 222	0 222	0 925 0 092 0 127

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-24

ROADWAY STANDARD DRAWING FOR
CONCRETE DROP INLET
12" THRU 30" PIPE

SHEET 1 OF 1
840.14

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-24

ROADWAY STANDARD DRAWING FOR
DROP INLET FRAME AND GRATES
FOR USE WITH STD. DWG.S 840.14 AND 840.15

SHEET 1 OF 1
840.16

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-24

ROADWAY STANDARD DRAWING FOR
MANHOLE FRAME AND COVER

SHEET 1 OF 1
840.54

HEARTLAND LIVING & REHABILITATION

DETAILS (STORM)

DEVELOPER INFORMATION
CLIFTON CARLTON DEVELOPMENT
130 EDINBURGH SUITE 208
CARY, NC 27511
PHONE EMAIL

Civil Engineers and Land Surveyors
4196 Mendenhall Oaks Pkwy
High Point, NC 27265
www.feiconsulting.com
(336) 852-9797
License No. C-0950

PROJECT LOCATION
TOWNSHIP GUILFORD
COUNTY GUILFORD
STATE NORTH CAROLINA

NO	DATE	REVISION NOTE
1	04/XX/2026	CONTROL COMMENTS
2	03/13/2026	WATERSHED COMMENTS

DRAWN BY FEI
CHECKED BY FEI
DATE 02/06/2026
PROJECT NO 03079 001
REF NO XX
SCALE N/A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027339 BRENTLEY O. SUMMERS
02/26

SHEET
23 OF 23