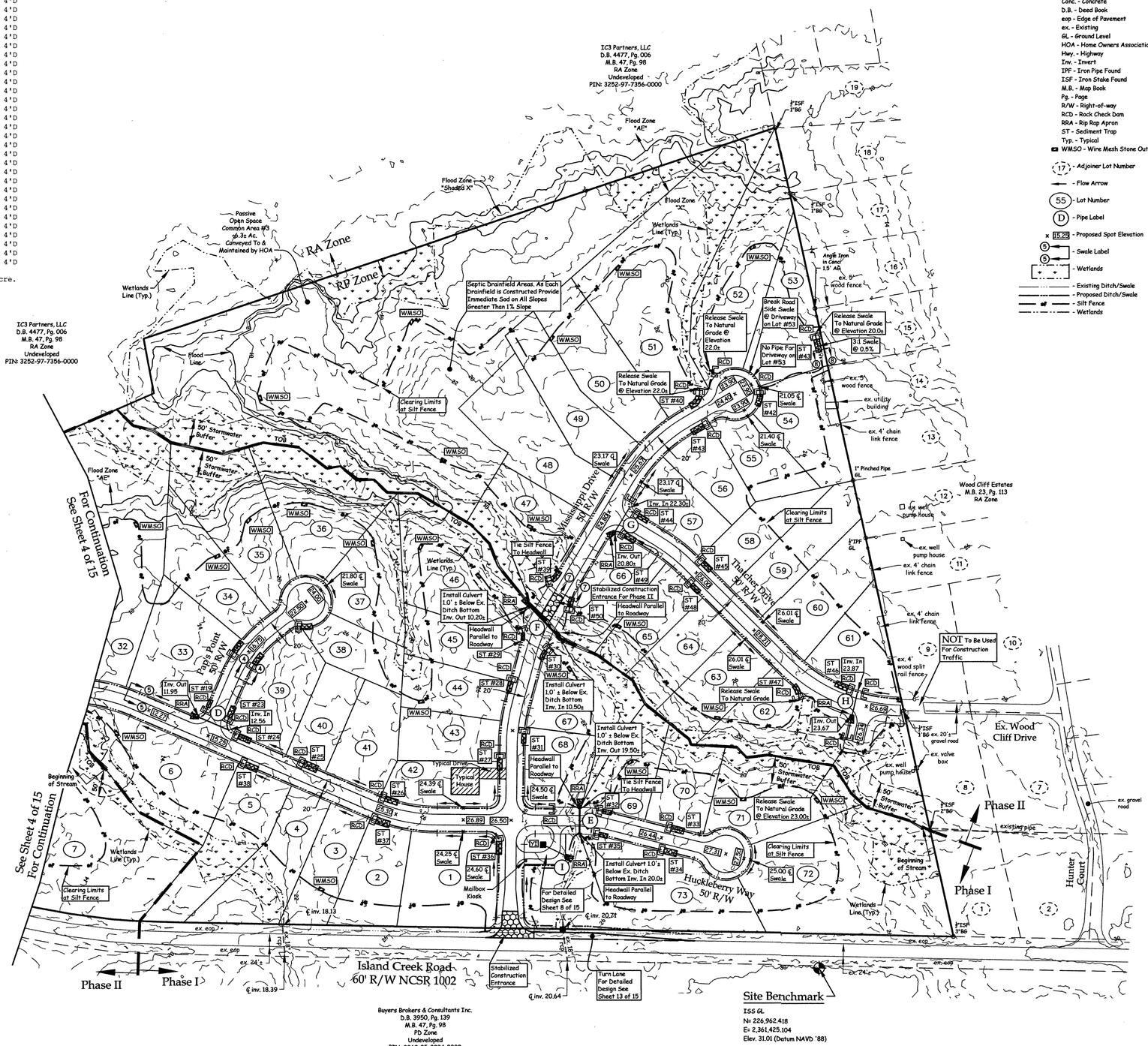
Sediment Trap Chart

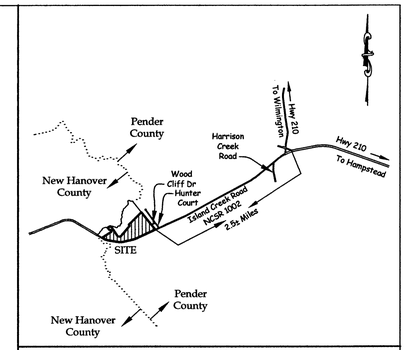
Sediment Trap	Disturbed Area (Acres)	Volume (Cubic Yards)	Size (Length x Width x Depth)
#19	0.11	15	15'L x 7'W x 4'D
#20	0.27	36	24'L x 10'W x 4'D
#21	0.20	27	21'L x 9'W x 4'D
#22	0.26	35	24'L x 10'W x 4'D
#23	0.23	31	21'L x 10'W x 4'D
#24	0.26	35	24'L x 10'W x 4'D
#25	0.38	51	27'L x 13'W x 4'D
#26	0.27	36	24'L x 10'W x 4'D
#27	0.21	28	21'L x 9'W x 4'D
#28	0.18	24	18'L x 9'W x 4'D
#29	0.09	12	13.5'L x 6'W x 4'D
#30	0.15	20	17'L x 8'W x 4'D
#31	0.24	24	18'L x 9'W x 4'D
#32	0.15	20	17'L x 8'W x 4'D
#33	0.28	38	24'L x 11'W x 4'D
#34	0.28	38	24'L x 11'W x 4'D
#35	0.14	19	16'L x 8'W x 4'D
#36	0.27	36	24'L x 10'W x 4'D
#37	0.35	47	26'L x 12'W x 4'D
#38	0.28	38	24'L x 11'W x 4'D
#39	0.23	31	21'L x 10'W x 4'D
#40	0.30	40	25'L x 11'W x 4'D
#41	0.26	35	24'L x 10'W x 4'D
#42	0.23	31	21'L x 10'W x 4'D
#43	0.30	40	25'L x 11'W x 4'D
#44	0.20	27	21'L x 9'W x 4'D
#45	0.23	31	21'L x 10'W x 4'D
#46	0.29	39	24'L x 11'W x 4'D
#47	0.17	23	18'L x 9'W x 4'D
#48	0.19	26	20'L x 9'W x 4'D
#49	0.23	31	21'L x 10'W x 4'D
#50	0.18	24	18'L x 9'W x 4'D

Design Standard - 133.3 CY Sediment Trap Volume per Disturbed Acre.



Legend:

- Ac. - Acreage
- AG - Above Ground
- BG - Below Ground
- ℄ - Centerline
- Conc. - Concrete
- D.B. - Deed Book
- eop - Edge of Pavement
- ex. - Existing
- GL - Ground Level
- HOA - Home Owners Association
- Hwy. - Highway
- Inv. - Invert
- IPF - Iron Pipe Found
- ISF - Iron Stake Found
- M.B. - Map Book
- Pg. - Page
- R/W - Right-of-way
- RCD - Rock Check Dam
- RRA - Rip Rap Apron
- ST - Sediment Trap
- Typ. - Typical
- WMSO - Wire Mesh Stone Outlet
- (17) - Adjoiner Lot Number
- Flow Arrow
- (55) - Lot Number
- (D) - Pipe Label
- x 15.25 - Proposed Spot Elevation
- (S) - Swale Label
- (S) - Wetlands
- Existing Ditch/Swale
- Proposed Ditch/Swale
- Silt Fence
- Wetlands



Vicinity Sketch

Scale: 1"=5000'

Drainage Pipe Chart

PIPE	AREA (acres)	Q10 (cfs)	DIAMETER (inches)	GRADE (%)	LENGTH (lf)	OUTLET VELOCITY (fps)
D	2.2	7.9	24" RCP	1.0	60	6.6
E	11.1	35.0	36" RCP	1.1	44	9.9
F	34.4	98.0	48" RCP	0.5	72	9.2
G	0.85	3.1	18" RCP	2.88	52	7.6
H	0.79	2.8	18" RCP	0.45	44	3.8
I	0.11	0.4	15" RCP	1.14	44	3.1

Q=CiA
C=0.5
tc=5 min.
i10=7.2 in/hr.

RCP = Reinforced Concrete Pipe
CFS = Cubic Feet per Second
LF = Linear Feet
FPS = Feet per Second

NOTE:
1. Contractor shall use invert elevations shown on plans for construction. Grades shown above are rounded.

Swale Calculations Chart

Section	Area (acres)	Q10 (cfs)	Side-Slope	Channel Slope(%)	Velocity (bare)(fps)	Velocity (grassed)(fps)
4 - 4	0.32	1.2	3:1	4.47	4.3	2.2
5 - 5	2.74	9.9	3:1	2.69	6.1	3.0
6 - 6	0.26	0.9	3:1	2.45	3.2	1.6
7 - 7	1.16	4.2	3:1	3.62	6.7	3.4
8 - 8	1.74	6.3	3:1	0.5	2.9	1.4

Q=ciA
C=0.5
i10=7.2 in/hr.

Friction Factors
n=0.02 Bare Earth
n=0.05 Grass
$v=\frac{1.49}{n} R^{2/3} s^{1/2}$

Note:
1. See grading plan for typical section locations.
2. Sections selected are worse case sections: All swales and ditches that are 1.0% or steeper in grade are to be immediately sodded.

Note:

Contractor shall insure that he and all his workers (contractors, subcontractors and other site personnel) do not damage construction stakes or other measures used in laying out the project whether by the Engineer or another entity including those under the employ of the contractor. Contractor shall cause his workers to observe and verify to the fullest extent practicable that stakes, other measures and grades are, or appear to be, accurate and correct, and immediately, but prior to any associated work, notify the staking entity of any potential conflict, error or question regarding the work. The Engineer shall not be responsible if all of the above measures are not strictly adhered to. The Engineer shall not be responsible where due to damage, his staking can not be verified. For critical or costly components of the work, where the contractor believes that staking may not be preserved, the contractor shall request the staking entity to place staking in an area where its preservation can be insured.

Rev. 12/18/14 BLD - Revise Lots 6-7, 34-37, 42-46, 62-67, 69-72, Common Areas, and Phase Line
Rev. 12/09/14 BLD - Revise Owner, Pipe F, and Add Site Benchmark

Field Book: Island Creek, Pg. 1-13. Island Creek 2 Pg. 1-7
Data Collector: ISLAND CREEK, ISLAND CREEK 2, ISLAND CREEK 3, ISLAND CREEK 4, ISLAND CREEK 5, ISLAND CREEK 6, ISLAND CREEK 7, ISLAND CREEK 8
Disk Name: Acad #2501
Filename: IC-Preliminary Gen.dwg BLD
Job No.:5140217-5746

NORTH CAROLINA PROFESSIONAL SEAL 34978 ENGINEER JOHN A. HOUSTON 11/6/14

Grading, Drainage, Erosion and Sedimentation Control Plan

THE RESERVE ON ISLAND CREEK

Topsail Twp., Pender Co., North Carolina

Owner/Developer:
IC3 Partners, LLC
PO Box 7122
Jacksonville, NC 28541
(910) 455-6956

DATE: 10/17/14
SCALE: 1"=100'

GRAPHIC SCALE: 1"=100'
0 50 100 200 300 FEET

Parker & Associates, Inc.
Consulting Engineers - Land Surveyors - Land Planners
P.O. Box 976 - 28541-0976
306 New Bridge Street - 28540
Jacksonville, North Carolina
Phone (910) 455-2414 - Fax (910) 455-3441
Firm License Number: F-0108
Shaping Horizons

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