

CURVE	RADIUS	CHORD BEARING	CHORD LENGTH
C1	51.00'	S 27°19'04" E	41.51'
C2	51.00'	S 16°06'12" W	33.89'
C3	51.00'	S 52°36'50" W	30.00'
C4	51.00'	N 88°14'26" W	38.28'
C5	51.00'	N 44°18'57" W	38.02'
C6	51.00'	N 01°54'25" W	35.76'

LINE	BEARING	DISTANCE
L1	N 09°47'04" W	39.08'
L2	S 03°49'42" W	43.67'
L3	S 44°32'15" W	42.37'
L4	S 44°32'15" W	82.21'
L5	S 44°32'15" W	82.21'
L6	S 44°32'15" W	45.79'
L7	S 44°32'15" W	50.86'
L8	S 42°02'43" E	51.53'
L9	S 41°43'15" E	32.54'
L10	S 28°05'38" W	50.08'
L11	N 58°47'07" W	90.51'
L12	N 58°47'07" W	80.00'
L13	N 58°47'07" W	50.25'
L14	N 58°43'50" W	80.00'
L15	N 58°43'50" W	80.00'
L16	N 36°53'55" E	99.99'
L17	N 36°53'55" E	80.40'
L18	N 36°53'55" E	80.40'
L19	N 36°53'55" E	80.40'
L20	S 58°43'50" E	99.82'
L21	S 58°43'50" E	80.00'
L22	S 58°43'50" E	80.00'
L23	N 36°53'55" E	87.37'
L24	N 42°01'41" W	23.87'
L25	N 67°34'03" E	51.00'
L26	N 36°53'55" E	737.47'
L29	S 82°22'26" E	67.70'
L30	N 81°35'09" W	18.22'
L31	N 43°46'44" W	40.31'
L32	S 88°37'36" W	22.99'
L33	S 82°22'26" E	1.36'
L34	N 76°48'16" W	36.68'
L35	S 60°02'54" W	9.63'
L36	N 81°35'09" W	42.59'

SUMMARY

ADDRESS: KINGS LANDING ROAD, HAMPSTEAD, NC 28443

MAP/PARCEL NUMBER: 4203-51-5690-0000

ZONED: DR-656 PG-318 RP (RESIDENTIAL PERFORMANCE)

TOTAL TRACT SIZE: 16.9 ACRES

NUMBER OF SINGLE FAMILY LOTS: 19

R.O.W. WIDTH: 50 FT

LENGTH OF ROADWAY: 1,050 LF

OPEN SPACE: 0.94 AC (0.03 AC PER UNIT)

ACTIVE OPEN SPACE: 0.62 AC (MIN 50% OF REQ OPEN SPACE)

LIMIT OF DISTURBANCE AREA: 1.86 AC (11% OF TOTAL SITE)

LANDSCAPE BUFFERS: TYPE A ALONG KING LAND ROAD, TYPE B ALONG INTERIOR PERIMETER

DIMENSIONAL REQUIREMENTS:

RP (RESIDENTIAL PERFORMANCE)

	REQUIRED	PROVIDED
MIN. LOT AREA	15,000 SF	15,246 SF
MIN. LOT WIDTH	80 FT	80 FT
MIN. FRONT YARD	30 FT	30 FT
MIN. SIDE YARD	10 FT	10 FT
MIN. CORNER YARD	15 FT	15 FT
MIN. REAR YARD	25 FT	25 FT
MAX. BUILDING HEIGHT	35 FT	35 FT
MIN. BUILDING SEPARATION	30 FT	30 FT
OPEN SPACE (0.03 AC / UNIT)	0.57 AC	0.84 AC
ACTIVE OPEN SPACE (MIN 50% OF REQ OPEN SPACE)	0.29 AC	0.62 AC

IMPERVIOUS CALCULATIONS

1050' STREET X 18' WIDE=18,900 SQ FT (.4339 AC)

TOTAL AREA IN TRACT=16.9 ACRES

16.9 X .4339=7.33 AC MAXIMUM IMPERVIOUS

88,340-18,900 STREET=69,440 FOR LOTS

69,440 DIVIDED BY 19 LOTS=3,654.7 SQ FT IMPERVIOUS/ LOT

PROPERTY CURRENTLY OWNED BY:

DARYL BURGESS & GAIRY CANADY

102 PECAN LANE

RICHLANDS, NC 28574

PENDER COUNTY UTILITY NOTES

NO CONSTRUCTION OF UTILITIES TO COMMENCE UNTIL A PRE-CONSTRUCTION MEETING IS COMPLETED WITH PENDER COUNTY UTILITIES.

ALL PIPING TO BE PVC.

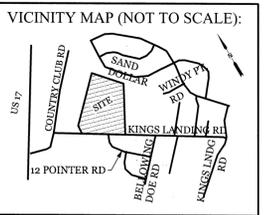
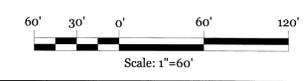
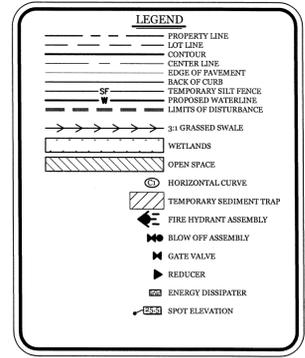
ALL FITTINGS MUST BE RESTRAINED.

ALL RESTRAINTS TO BE "GRIP RING" STYLE.

- NOTES:**
- PLAN BASED ON SURVEY BY GAIRY CANADY LAND SURVEYING, DATED APRIL 29, 2015.
 - WATER SERVICE SHALL BE PENDER COUNTY UTILITIES.
 - SANITARY SEWAGE TO BE ON SITE SEPTICS.
 - WETLAND LINE IS BASED ON FIELD WORK PREPARED BY APPLIED RESOURCE MANAGEMENT, P.C.
 - PROPOSED SWALE #3-6 TO FAN OUT AND MATCH EXISTING GRADE AT WETLANDS.
 - LOTS 1, 17, 18, AND 19 SHALL HAVE NOT DIRECT ACCESS TO KINGS LANDING RD.
 - ESTIMATED AM & PM PEAK HOUR TRIPS PER THE INSTITUTE OF TRANSPORTATION ENGINEERS TRIP GENERATION MANUAL:
 - 7-9AM = 25 TRIPS
 - 4-6PM = 29 TRIPS
 - AVERAGE DAILY 2 WAY = 275 TRIPS
 - EXISTING TRAFFIC COUNT PER NCDOT: = 970 TRIPS PER DAY (2011)

WETLANDS TABLE

LINE	BEARING	DISTANCE
L50	S 70°37'43" W	93.40'
L51	S 52°26'33" W	63.96'
L52	S 79°04'47" W	72.35'
L53	S 67°02'22" W	98.32'
L54	S 47°05'27" W	97.14'
L55	S 57°57'29" W	74.87'
L56	S 18°00'14" W	39.68'
L57	S 56°58'27" E	22.84'
L58	N 55°29'33" E	77.30'
L59	N 63°39'33" E	84.81'
L60	N 60°26'48" E	86.49'
L61	N 72°52'35" E	66.24'
L62	N 68°10'18" E	102.09'
L63	N 85°56'09" E	68.20'
L64	N 83°51'46" E	36.17'
L65	S 05°26'24" W	45.44'
L66	S 81°53'10" W	81.43'
L67	S 84°20'33" W	86.65'
L68	S 67°50'15" W	88.16'
L69	S 63°11'08" W	76.83'
L70	S 61°08'08" W	83.58'
L71	S 44°48'00" W	55.63'
L72	S 12°50'49" W	25.16'
L73	S 32°46'03" E	55.33'
L74	S 58°22'12" E	70.64'
L75	S 44°12'39" E	58.17'
L76	S 62°19'56" E	55.44'
L77	S 65°10'06" E	77.08'
L78	S 78°47'49" E	82.14'
L79	S 77°55'05" E	106.56'
L80	S 31°15'44" E	23.40'
L81	S 61°13'16" W	42.25'
L82	N 73°35'49" W	11.97'
L83	N 52°34'24" E	157.74'
L84	N 22°39'44" E	59.18'
L85	N 62°51'49" W	36.52'
L86	N 77°29'27" W	81.72'
L87	S 41°05'37" W	67.68'
L88	S 82°56'06" W	15.12'
L89	N 28°49'06" W	60.31'
L90	N 68°33'01" W	65.25'
L91	N 45°48'02" W	43.51'
L92	S 54°42'04" W	68.38'
L93	S 89°24'58" W	54.30'
L94	N 61°22'43" W	65.33'
L95	N 60°16'58" W	106.45'
L96	S 86°29'15" W	49.70'
L97	S 72°20'35" W	96.69'
L98	S 42°00'49" W	110.02'
L99	S 05°23'25" E	29.18'
L100	S 57°07'13" E	44.34'
L101	N 54°31'57" E	44.26'
L102	S 44°13'56" E	34.78'
L103	S 52°03'35" E	67.97'
L104	S 14°41'53" W	10.81'
L105	S 60°23'28" W	71.95'
L106	N 86°48'13" W	63.69'
L107	S 06°09'41" W	36.07'
L108	S 03°15'02" E	76.16'
L109	S 62°31'13" E	45.58'
L110	S 81°46'51" W	77.98'
L111	N 60°22'20" E	20.63'



REVISIONS

NO.	DATE	DESCRIPTION

INTRACOASTAL ENGINEERING, PLLC

5725 Oleander Dr. Unit E-7
Wilmington, North Carolina, 28403
Phone: 910.859.8983
Email: charlie@intracoastalengineering.com
License Number: P-0662

FOR KINGS RANSOM PH II

KINGS LANDING ROAD,
PENDER COUNTY, NC 28443

SITE, GRADING, UTILITY, EROSION CONTROL & STORMWATER PLAN

CHARLES D. CALDER

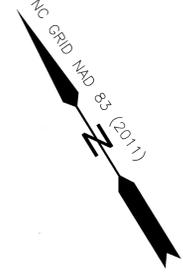
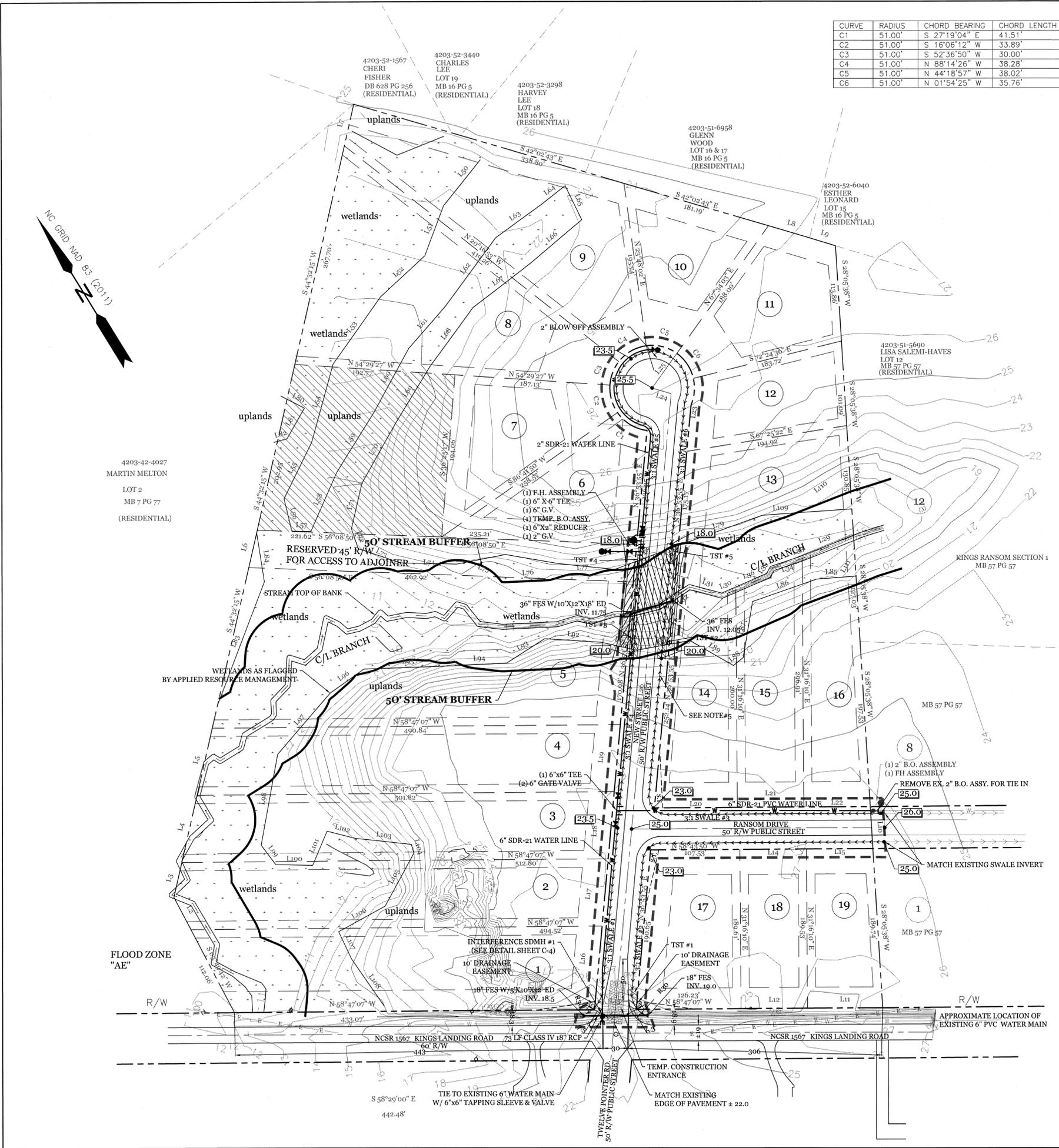
NORTH CAROLINA PROFESSIONAL SEAL
032555
ENGINEER

CLIENT INFORMATION:

GAIRY CANADY
2780 KINSTON HIGHWAY
RICHLANDS, NC 28574
PHONE (910) 324-4616
FAX (910) 324-8430

DRAWN: JAB SHEET SIZE: 24x36
CHECKED: CDC DATE: 7/8/2015
APPROVED: CDC SCALE: 1" = 60'

PROJECT NUMBER: 2015-019
DRAWING NUMBER: **C-1**



4203-42-4027
MARTIN MELTON
LOT 2
MB 7 PG 77
(RESIDENTIAL)

FLOOD ZONE
"AE"

4203-52-1567
CHERI FISHER
DB 628 PG 256
(RESIDENTIAL)

4203-52-3440
CHARLES LEE
LOT 19
MB 16 PG 5
(RESIDENTIAL)

4203-52-3298
HARVEY LEE
LOT 18
MB 16 PG 5
(RESIDENTIAL)

4203-51-6958
GLENN WOOD
LOT 16 & 17
MB 16 PG 5
(RESIDENTIAL)

4203-52-6040
LEONARD
LOT 15
MB 16 PG 5
(RESIDENTIAL)

4203-51-5690
LISA SALEM-HAVES
LOT 12
MB 57 PG 57
(RESIDENTIAL)

(1) 2" B.O. ASSEMBLY
(1) FH ASSEMBLY
REMOVE EX. 2" B.O. ASSY. FOR TIE IN

(1) F.H. ASSEMBLY
(1) 6" X 6" TEE
(1) 6" G.V.
(1) TEMPL. B.O. ASSY.
(1) 6" X 2" REDUCER
(1) 2" G.V.

(1) 6" X 6" TEE
(2) 6" GATE VALVE

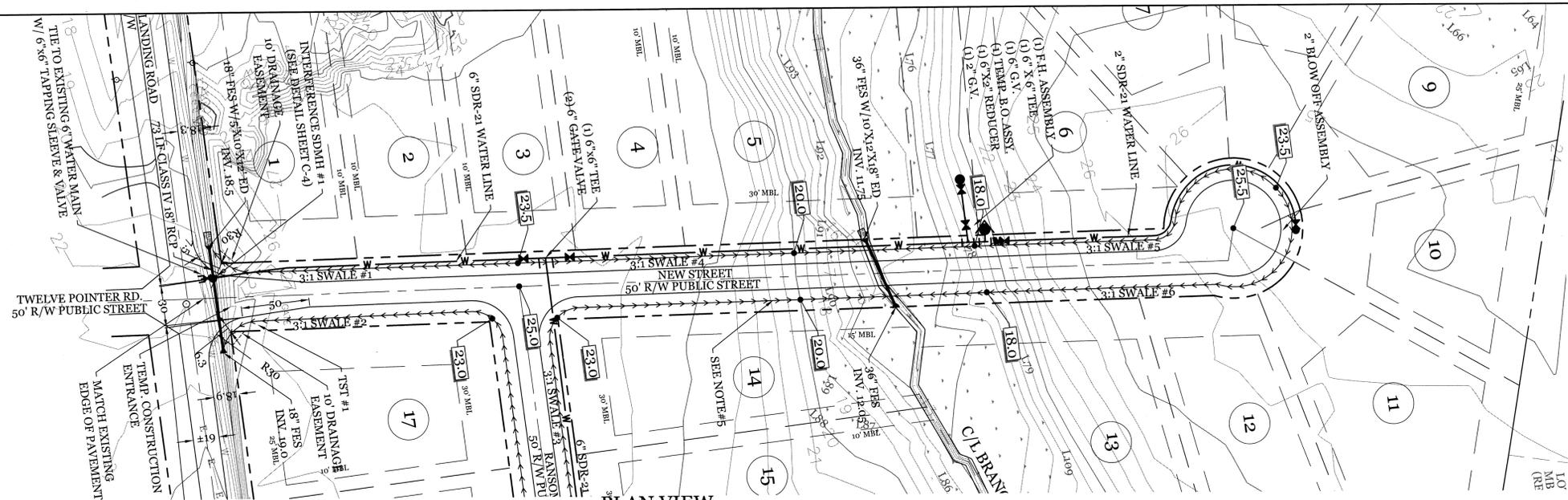
INTERFERENCE SDMH #1
(SEE DETAIL SHEET C-4)

10' DRAINAGE EASEMENT
18" FES
INV. 19.0

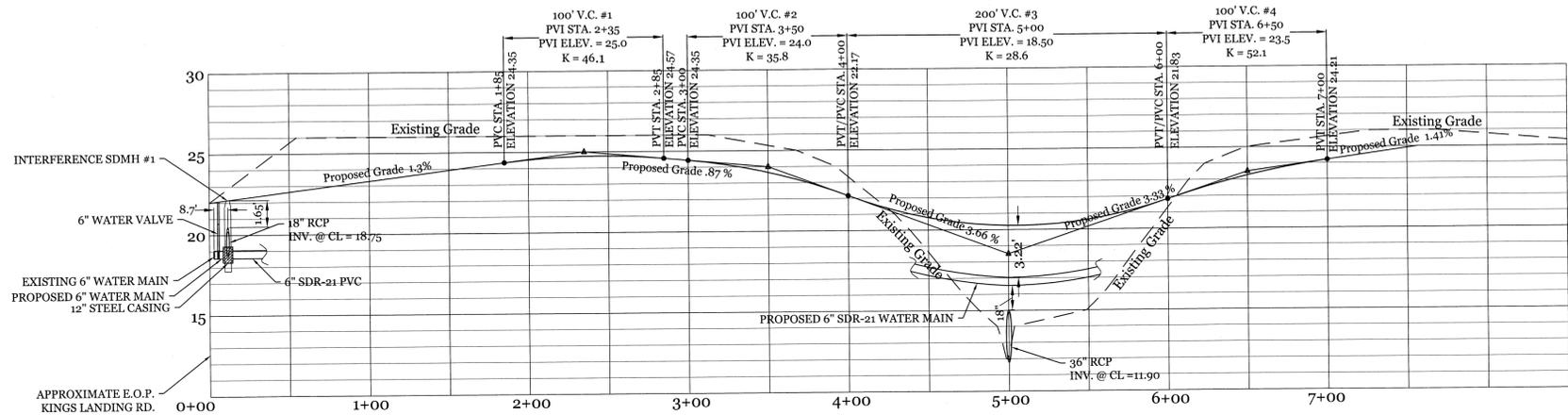
TIE TO EXISTING 6" WATER MAIN
W/ 6" X 6" TAPPING SLEEVE & VALVE

TEMP. CONSTRUCTION ENTRANCE
MATCH EXISTING EDGE OF PAVEMENT ± 22.0

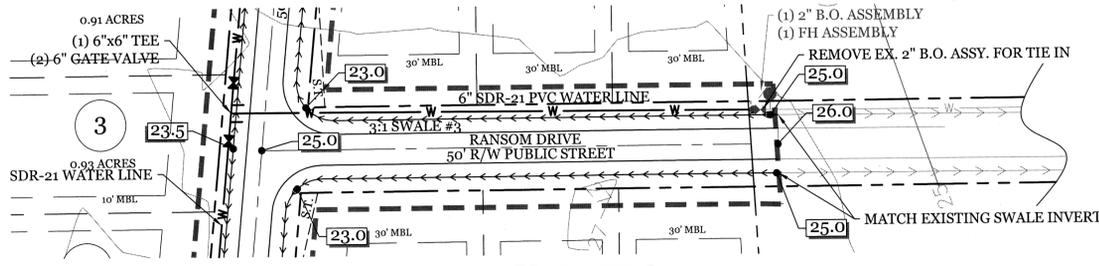
APPROXIMATE LOCATION OF EXISTING 6" PVC WATER MAIN



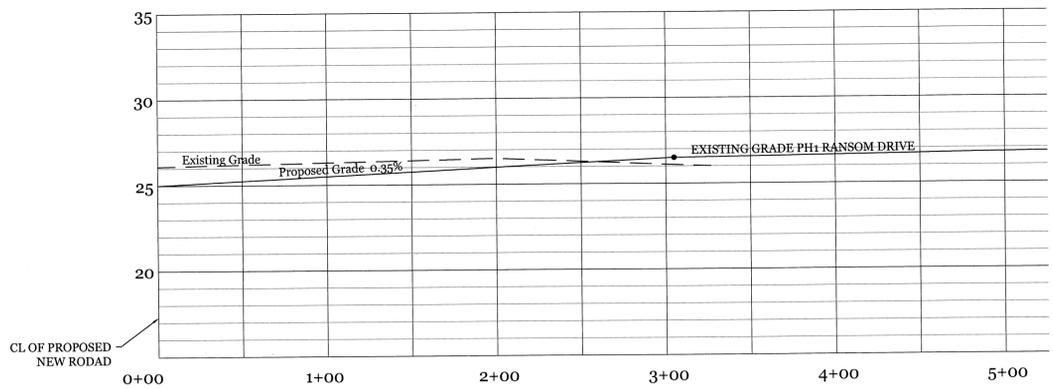
PLAN VIEW
1" = 50'



PROFILE VIEW
HORIZONTAL - 1" = 50'
VERTICAL - 1" = 5'



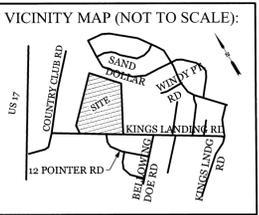
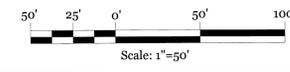
PLAN VIEW
1" = 50'



PROFILE VIEW
HORIZONTAL - 1" = 50'
VERTICAL - 1" = 5'

LEGEND

- PROPERTY LINE
- LOT LINE
- CONTOUR
- CENTER LINE
- EDGE OF PAVEMENT
- BACK OF CURB
- TEMPORARY SILL FENCE
- PROPOSED WATERLINE
- LIMITS OF DISTURBANCE
- 3:1 GRASSED SWALE
- WETLANDS
- OPEN SPACE
- HORIZONTAL CURVE
- ▭ TEMPORARY SEDIMENT TRAP
- ▲ FIRE HYDRANT ASSEMBLY
- BLOW OFF ASSEMBLY
- ◆ GATE VALVE
- ▼ REDUCER
- ENERGY DISSIPATER
- SPOT ELEVATION



REVISIONS

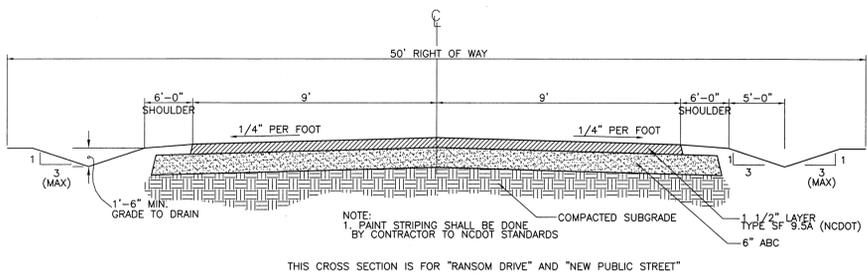
INTRACOASTAL ENGINEERING, PLLC
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Phone: 910.859.8983
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PLAN PROFILE FOR KINGS RANSOM PH II
KINGS LANDING ROAD,
PENDER COUNTY, NC 28443

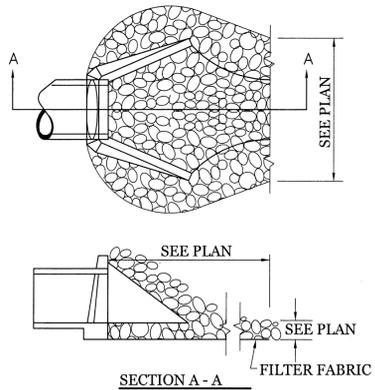
CLIENT INFORMATION:
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RICHLANDS, NC 28574
PHONE (910) 324-4616
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DRAWN:	JAE	SHEET SIZE:	24x36
CHECKED:	CDC	DATE:	7/8/2015
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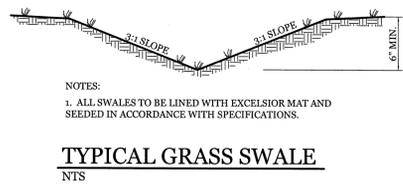
DRAWING NUMBER: **C-2** 2 OF 4



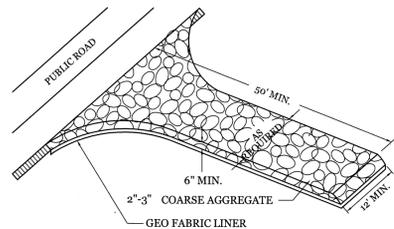
PROPOSED PUBLIC ROAD SECTION
NTS



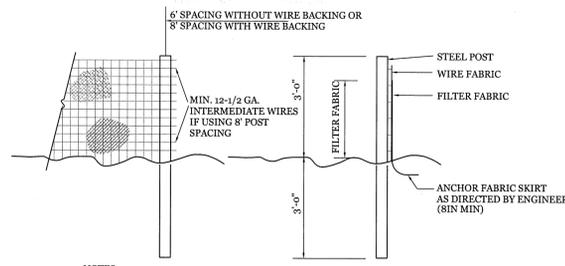
ENERGY DISSIPATOR
NTS



TYPICAL GRASS SWALE
NTS

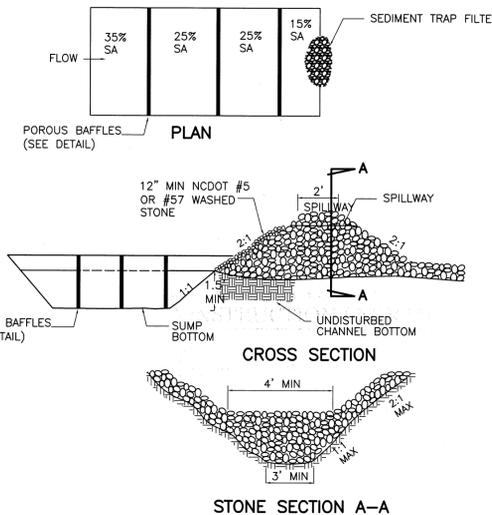


TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
NTS



- NOTES:**
- FENCE FABRIC SHALL BE A MIN. OF 22" IN WIDTH AND SHALL HAVE A MIN. OF SIX LINE WIRES WITH 12" STAY SPACING.
 - FABRIC SHALL BE FOR EROSION CONTROL AND MIN. OF 36" IN WIDTH. FABRIC SHALL BE FASTENED ADEQUATELY TO THE WIRE FABRIC AS DIRECTED BY THE ENGINEER.
 - STEEL POST SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

TEMPORARY SILT FENCE
NTS



STONE SECTION A-A

TEMPORARY SEDIMENT TRAP TABLE					
NO.	AREA (SQ. FT.)	REQ'D (PROVIDED)	L	W	D
1	0.64	2304	2700	45'	20' 3.0'
2	0.71	2556	2700	45'	20' 3.0'
3	0.35	1260	1350	30'	15' 3.0'
4	0.50	1800	1800	40'	15' 3.0'
5	0.54	1944	2400	40'	20' 3.0'

SEE PLAN SHEET FOR LOCATION

- NOTES:**
- SEDIMENT TRAP WILL BE CONSTRUCTED FIRST, SUMP SECONDLY.
 - SEDIMENT TRAP HEIGHT TO BOTTOM OF SPILLWAY WILL BE NO LESS THAN TWO FEET.
 - SPILLWAY DEPTH SHALL BE ONE FOOT.
 - STONE FACE SHOULD BE NO LESS THAN 6 INCHES MEASURED PERPENDICULARLY FROM THE FACE OF THE LARGE STONE.
 - SUMP DIMENSIONS SHOULD ALLOW FOR A MINIMUM OF 3600 CF/ACRE OF SEDIMENT STORAGE.
 - DEPTH OF SEDIMENT IN SUMP WILL BE CHECKED AFTER EACH STORM AND CLEANED AS NECESSARY (MIN. ONCE EACH 6 MONTHS).
 - REMOVAL OF SEDIMENT TRAP WILL BE DONE IN SUCH A WAY AS TO LIMIT SILTATION.

TEMPORARY SEDIMENT TRAP DETAIL
NTS

LATE WINTER & EARLY SPRING TEMPORARY GRASSING DETAIL

SEEDING MIXTURE SPECIES	RATE (lb/acre)
Rye (grain)	120
Annual Lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	50

Omit annual Lespedeza when duration of temporary cover is not to extend beyond June.

SEEDING DATES:
Mountains - Above 2500 ft: Feb. 15-May 15
Below 2500 ft: Feb. 1-May 1
Piedmont - Jan. 1-May 1
Coastal Plain - Dec. 1-Apr. 15

SOIL AMENDMENTS
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
Refer to growth is not fully adequate. Re-seed, refer to growth is not fully adequate. Re-seed, refer to growth is not fully adequate. Re-seed, refer to growth is not fully adequate.

TEMPORARY SUMMER GRASSING DETAIL

SEEDING MIXTURE SPECIES	RATE (lb/acre)
GERMAN MILLET	40

IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUNDGRASS MAY BE SUBSTITUTED AT A RATE OF 50 LB/ACRE.

SEEDING NOTES
MOUNTAINS - MAY 15-AUG. 15
PIEDMONT - MAY 1-AUG. 15
COASTAL PLAIN - APR. 15-AUG. 15

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
REFER TILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFER TILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

TEMPORARY FALL GRASSING DETAIL

SEEDING MIXTURE SPECIES	RATE (lb/acre)
Rye (grain)	120

SEEDING NOTES
MOUNTAINS - AUG. 15-DEC. 15
PIEDMONT - AUG. 15-DEC. 15
COASTAL PLAIN - AUG. 15-DEC. 30

SOIL AMENDMENTS
FOLLOW SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILIZER.

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
Repair and refer to growth is not fully adequate. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) Lespedeza in late February or early March.

SPRING-SUMMER PERMANENT GRASSING DETAIL

SEEDING MIXTURE SPECIES	RATE (lb/acre)
PENSACOLA BAHAGRASS	50
SERICIA LESPEDEZA	30
COMMON BERMUDAGRASS	10
GERMAN MILLET	10
TALL FESCUE	50

SEEDING NOTES
1. WHERE A NEAT APPEARANCE IS DESIRED, OMIT SERICIA.
2. USE COMMON BERMUDAGRASS ONLY ON ISOLATED SITES WHERE IT CANNOT BE COME A PEST. BERMUDAGRASS MAY BE REPLACED WITH 5 lb/acre CENTEDEDGRASS.

SEEDING DATES
APRIL 1 - JULY 15

SOIL AMENDMENTS
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 3,000 lb/acre GROUND AGRICULTURE LIMESTONE AND 500 lb/acre 10-10-10 FERTILIZER.

MULCH
APPLY 4,000 lb/acre GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH. ANCHOR BY TACKING WITH ASPHALT, NETTING, OR BY CRIMPING WITH A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
REFER TILIZE THE FOLLOWING APRIL WITH 50 lb/acre NITROGEN. REPEAT AS GROWTH REQUIRES. MAY BE MOWED ONLY ONCE A YEAR. WHERE A NEAT APPEARANCE IS DESIRED, OMIT SERICIA AND MOW AS OFTEN AS NEEDED.

FALL-WINTER PERMANENT GRASSING DETAIL

SEEDING MIXTURE SPECIES	RATE (lb/acre)
TALL FESCUE (BLEND OF TWO OR THREE IMPROVED VARIETIES)	200
RYE (GRAIN)	25

SEEDING DATES
JANUARY - APRIL
AUGUST - DECEMBER

SOIL AMENDMENTS
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 3,000-5,000 lb/acre GROUND AGRICULTURE LIMESTONE (USE THE LOWER RATE ON SANDY SOILS) AND 1,000 lb/acre 10-10-10 FERTILIZER.

MULCH
APPLY 4,000 lb/acre GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR BY CRIMPING WITH A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
FERTILIZE ACCORDING TO SOIL TESTS OR APPLY 40 lb/acre NITROGEN IN JANUARY OR FEBRUARY, 40 lb IN SEPTEMBER AND 40 lb IN NOVEMBER. FROM A 12-4-8, 16-4-8, OR SIMILAR TURF FERTILIZER. AVOID FERTILIZER APPLICATIONS DURING WARM WEATHER, AS THIS INCREASES STAND LOSSES TO DISEASE. RESEED, FERTILIZE, AND MULCH DAMAGED AREAS IMMEDIATELY. MOW TO A HEIGHT OF 2.5-3.5 INCHES AS NEEDED.

SITE WORK NOTES:

- THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS BOTH ON AND ADJACENT TO THE SITE. EXISTING SITE CONDITIONS TAKEN FROM PLAN BASED ON PRELIMINARY SURVEY BY GAIRY CANADY SURVEYING.
- WETLAND LINE IS BASED ON FIELD WORK PREPARED BY APPLIED RESOURCE MANAGEMENT & SURVEYED BY GAIRY CANADY SURVEYING.
- WATER SERVICES WILL BE INSTALLED BY THE DEVELOPER'S CONTRACTOR AND INSPECTED BY PENDER COUNTY UTILITIES.
- ALL MATERIALS USED SHALL CONFORM TO PENDER COUNTY UTILITIES REQUIREMENTS. NON-CONFORMING MATERIAL WILL NOT BE ACCEPTED FOR FINAL CERTIFICATION.
- A ONE YEAR WAITING PERIOD DOES NOT BEGIN UNTIL NCDENR FINAL APPROVAL OF THE SYSTEM HAS BEEN RECEIVED. A WRITTEN COPY OF THE WARRANTY WILL BE REQUIRED PRIOR TO FINAL ACCEPTANCE.
- CLEARING: CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN LIMITS OF CONSTRUCTION UNLESS OTHERWISE DESIGNATED TO REMAIN.
- GRUBBING AND STRIPPING: CONTRACTOR SHALL RAKE AND REMOVE ROOTS, STUMPS, VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITHIN LIMITS OF CONSTRUCTION.
- MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.
- DISPOSAL: CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
- FILL AND COMPACTION SHOULD COMPLY WITH GEOTECHNICAL RECOMMENDATIONS.
- THE CONTRACTOR SHALL NOTE THAT THE GRADING PLAN MAY NOT REPRESENT A BALANCED EARTHWORK CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT AND FILL QUANTITIES AND COMPLETE INSTALLATION TO SPECIFIED GRADES.
- THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM AN OFF-SITE PROPERLY PERMITTED FACILITY AS REQUIRED.
- THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. BEFORE COMMENCING ANY EXCAVATIONS IN OR ALONG ROADWAYS OR RIGHT-OF-WAYS, PUBLIC AREAS OR IN PRIVATE EASEMENTS, THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE PERSONNEL OF THEIR INTENT TO EXCAVATE, IN WRITING, NOT LESS THAN 10 DAYS PRIOR TO EXCAVATING.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE DISCONNECTION/ RECONNECTION AND/OR THE RELOCATION OF ALL EXISTING UTILITIES WITH APPROPRIATE PERSONNEL.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE. FURTHERMORE THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES OR QUESTIONS TO THE ENGINEER PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL PROVIDE ANY AND ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK UNLESS OTHERWISE DIRECTED BY OWNER.
- ALL PVC UTILITY MAINS SHALL BE INSTALLED WITH A MINIMUM OF 96" COVER AT FINAL GRADE.
- ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO MEET ALL LOCAL AND STATE CODES. METERS, TAPS, MATERIALS, WORKMANSHIP AND ALL FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL REQUIREMENTS.
- ALL PAVEMENT, BASE AND SUBGRADE SHALL CONFORM TO NCDOT STANDARDS INCLUDING WORKMANSHIP, MATERIALS AND EQUIPMENT. APPROPRIATE BARRICADES, SIGNS, LIGHTS OR OTHER TRAFFIC CONTROL DEVICES SHALL BE PROVIDED IN ACCORDANCE WITH NCDOT TO MAINTAIN SAFETY AND TWO WAY TRAFFIC.
- ALL AREAS SHALL BE GRADED AND DRAINAGE. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO INSTALLATION. ALL AREAS SHALL BE SLOPED TO DRAIN AWAY FROM BUILDINGS AT ALL TIMES.
- CONCRETE STORM DRAINAGE PIPE SHALL BE CLASS III WITH RUBBER GASKETED JOINTS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
- CONCRETE FOR WALKS, CURBS AND DRIVES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS - AIR ENTRAINED.
- FIELD TESTING SHALL BE DONE BY AN INDEPENDENT TESTING LABORATORY PAID FOR BY THE OWNER. FURTHER TESTING REQUIRED DUE TO A FAILED TEST WILL BE PAID FOR BY THE CONTRACTOR.
- ALL UTILITY SERVICES, SUCH AS ELECTRIC POWER, CATV, GAS & TELEPHONE SHALL BE INSTALLED UNDERGROUND.
- PROFESSOR SHALL COMPLY WITH PENDER COUNTY CONNECTION REQUIREMENTS. WATER METERS(CAN NOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND N.C.D.E.N.R. HAS ISSUED THEIR "FINAL APPROVAL" AND AS-BUILTS ARE RECEIVED AND "FINAL APPROVAL" ISSUED BY THE PUBLIC WATER SUPPLY SECTION OF NCDENR, AND "FINAL ENGINEERING CERTIFICATION" ISSUED BY DIVISION OF WATER QUALITY SECTION OF NCDENR.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY & FOR DRIVEWAY ARE TO BE TO NCDOT STANDARDS
- PENDER COUNTY UTILITIES TO BE PROVIDED NECESSARY EASEMENTS OR RECORDED PLAT

CONSTRUCTION SEQUENCE:

- CONSTRUCTION OF SITE TO START WITH INSTALLATION OF CONSTRUCTION ENTRANCE, TREE PROTECTION, AND SILT FENCE ALONG ALL LOCATIONS PER PLANS. ALL SLOPED AREAS SHOULD BE SEED IN ACCORDANCE TO SPECIFICATIONS WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE ACTIVITY. THE REMAINING DISTURBED AREA OUTSIDE OF WETLANDS SHOULD BE GRADED AND SEED IN ACCORDANCE TO SPECIFICATIONS WITHIN 15 WORKING DAYS OF CEASE OF ANY PHASE ACTIVITY.
- NO CUT SLOPE OR FILL SLOPE SHALL EXCEED A RISE OR FALL OF ONE FOOT FOR EVERY RUN OF 3 FEET (1 VERTICAL TO 3 HORIZONTAL).
- NO SEDIMENT WILL BE ALLOWED TO EXIT THE SITE. ALL EROSION SHALL BE CONTROLLED INCLUDING SIDE SLOPES DURING AND AFTER CONSTRUCTION.
- INSTALL PRIMARY EROSION CONTROL MEASURES BEFORE BEGINNING CONSTRUCTION INCLUDING BUT NOT LIMITED TO GRAVEL CONSTRUCTION ENTRANCE, SILT FENCE, CHECK DAMS, ETC. INSTALL ALL SECONDARY EROSION CONTROL MEASURES AS SOON AS POSSIBLE AFTER BEGINNING CONSTRUCTION.
- ALL EROSION CONTROL MEASURES TO BE INSPECTED AFTER EACH RAIN. SILT FENCE, SILT TRAPS, AND INLET PROTECTION TO BE CLEANED WHEN HALF FULL.
- IF APPLICABLE, CONSTRUCT PROPOSED RETENTION POND TO ACT AS A SEDIMENT BASIN DURING CONSTRUCTION. REMOVE ACCUMULATION OF SILT AS REQUIRED TO ALLOW PROPER FUNCTIONING. RESTORE POND TO DESIGN LEVELS AT THE COMPLETION OF CONSTRUCTION.
- IF APPLICABLE, INSTALL DROP INLETS WITH INLET PROTECTION TO ACT AS SILT TRAPS DURING CONSTRUCTION. REMOVE ACCUMULATED SILT AS NEEDED TO PREVENT SILT FROM ENTERING STORM DRAIN PIPING.
- A 4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL NEW AREAS TO BE GRADED.
- ALL DISTURBED AREAS SHALL BE SEED IN ACCORDANCE WITH SEEDING SCHEDULE AS SOON AS POSSIBLE BUT NO LATER THAN 15 WORKING DAYS OF CEASE OF ANY PHASE ACTIVITY. ALL SLOPED AREAS TO BE SEED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE ACTIVITY. MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PROJECT IS COMPLETE.
- MORE STRINGENT MEASURES MAY BE REQUIRED TO HALT EROSION IF THOSE ON THIS PLAN PROVE TO BE LESS EFFECTIVE. TEMPORARY SILT FENCE MAY BE NEEDED AT PROPERTY BOUNDARY.
- REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF CONSTRUCTION. ALL PERMANENT MEASURES SHALL BE WELL ESTABLISHED PRIOR TO PROJECT COMPLETION.

MAINTENANCE PLAN

- ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF INCH RAINFALL.
- ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
- SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION. BLOCK AND GRAVEL INLET, ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
- DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE IN THE SEDIMENT FENCE THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.

GROUND STABILIZATION CRITERIA

SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME 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 ft. in length
* All other areas with slopes flatter than 4:1	14 Days	None (except for perimeters & HQW Zones)

Note: Ground Stabilization chart may be required by NPDES permit.

VICINITY MAP (NOT TO SCALE):



REVISIONS

NO.	DATE	DESCRIPTION

INTRACOASTAL ENGINEERING, PLLC
5725 Oleander Dr., Unit E-7
Wilmington, North Carolina 28403
Phone: 910 859 4983
Email: Charlie@intracoastalengineering.com
License Number: P-0662

DETAILS FOR KINGS RANSOM PH II KINGS LANDING ROAD, PENDER COUNTY, NC 28443

CHARLES D. CATEP ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL
032555
7-8-15

CLIENT INFORMATION:
GAIRY CANADY
2780 KINSTON HIGHWAY
RICHLANDS, NC 28574
PHONE (910) 324-4616
FAX (910) 324-8430

DRAWN: JAE SHEET SIZE: 24x36
CHECKED: CDC DATE: 7/8/2015
APPROVED: CDC SCALE: NTS
PROJECT NUMBER: 2015-019

DRAWING NUMBER: **C-3**
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