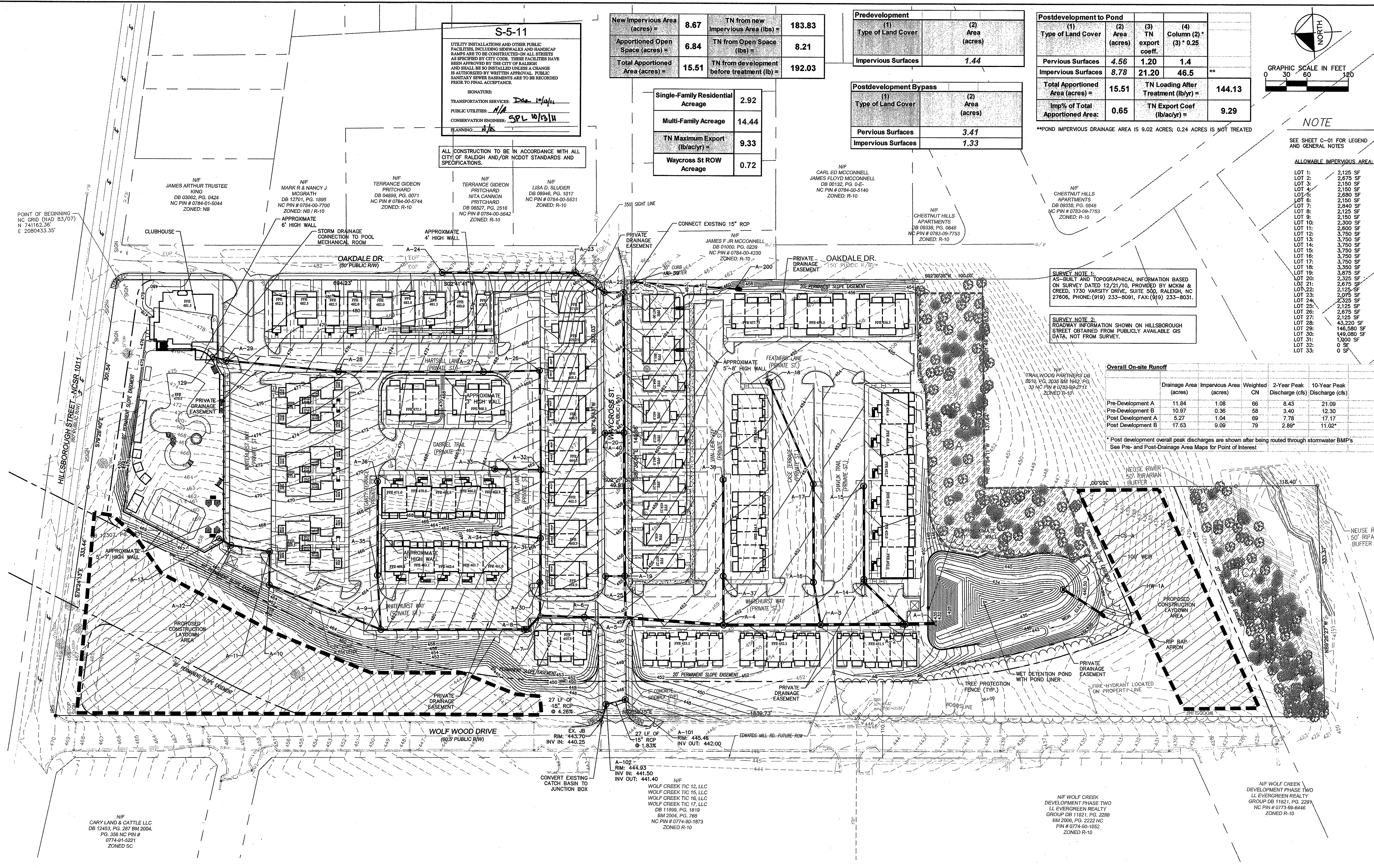


Sheet Set: Retreat at Raleigh - Overall Grading and Drainage Plan - C-06. This document, together with the conceptual and design information presented herein, is intended only for the specific purpose and client for which it was prepared. No part of this document shall be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without prior written permission of Kimley-Horn and Associates, Inc.



S-5-11

UTILITY INSTALLATIONS AND OTHER PUBLIC FACILITIES, INCLUDING SIDEWALKS AND HANDICAP RAMPS ARE TO BE CONSTRUCTED ON ALL STREETS AS SPECIFIED BY CITY CODE. THESE FACILITIES HAVE BEEN APPROVED BY THE CITY OF RALEIGH AND SHALL BE SO INSTALLED UNLESS A CHANGE IS AUTHORIZED BY WRITTEN APPROVAL. PUBLIC SANITARY SEWER EASEMENTS ARE TO BE RECORDED PRIOR TO FINAL ACCEPTANCE.

SIGNATURE: *[Signature]* DATE: 10/14/11

PUBLIC UTILITIES: *N/A* SPL 10/13/11

CONSERVATION ENGINEER: *[Signature]*

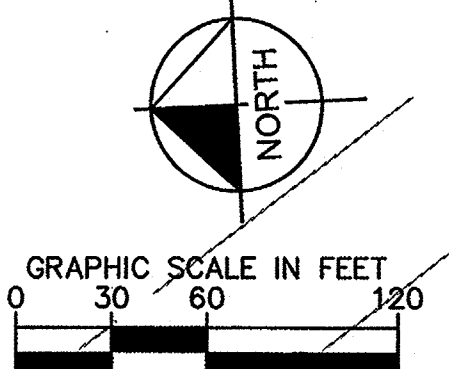
New Impervious Area (acres) =	8.67	TN from new Impervious Area (lbs) =	183.83
Apportioned Open Space (acres) =	6.84	TN from Open Space (lbs) =	8.21
Total Apportioned Area (acres) =	15.51	TN from development before treatment (lb) =	192.03

Single-Family Residential Acreage	2.92
Multi-Family Acreage	14.44
TN Maximum Export (lb/acre) =	9.33
Waycross St ROW Acreage	0.72

Predevelopment	
(1) Type of Land Cover	(2) Area (acres)
Impervious Surfaces	1.44

Postdevelopment Bypass	
(1) Type of Land Cover	(2) Area (acres)
Pervious Surfaces	3.41
Impervious Surfaces	1.33

Postdevelopment to Pond			
(1) Type of Land Cover	(2) Area (acres)	(3) TN export coeff.	(4) Column (2) * (3) * 0.25
Pervious Surfaces	4.56	1.20	1.4
Impervious Surfaces	8.78	21.20	46.5
Total Apportioned Area (acres) =	15.51	TN Loading After Treatment (lb/yr) =	144.13
Imp% of Total Apportioned Area:	0.65	TN Export Coef (lb/acre) =	9.29



NOTE

SEE SHEET C-01 FOR LEGEND AND GENERAL NOTES

ALLOWABLE IMPERVIOUS AREA:

LOT 1:	2,125 SF
LOT 2:	2,675 SF
LOT 3:	2,150 SF
LOT 4:	1,150 SF
LOT 5:	2,680 SF
LOT 6:	2,150 SF
LOT 7:	2,840 SF
LOT 8:	2,125 SF
LOT 9:	2,150 SF
LOT 10:	2,300 SF
LOT 11:	2,600 SF
LOT 12:	3,750 SF
LOT 13:	3,750 SF
LOT 14:	3,750 SF
LOT 15:	3,750 SF
LOT 16:	3,750 SF
LOT 17:	3,750 SF
LOT 18:	3,350 SF
LOT 19:	3,875 SF
LOT 20:	2,325 SF
LOT 21:	2,675 SF
LOT 22:	2,125 SF
LOT 23:	2,075 SF
LOT 24:	2,325 SF
LOT 25:	2,125 SF
LOT 26:	2,675 SF
LOT 27:	2,125 SF
LOT 28:	43,220 SF
LOT 29:	146,580 SF
LOT 30:	149,080 SF
LOT 31:	1,900 SF
LOT 32:	0 SF
LOT 33:	0 SF

SURVEY NOTE 1:
AS-BUILT AND TOPOGRAPHICAL INFORMATION BASED ON SURVEY DATED 12/21/10, PROVIDED BY MCKIM & CREED, 1730 VARSITY DRIVE, SUITE 500, RALEIGH, NC 27606, PHONE: (919) 233-8091, FAX: (919) 233-8031.

SURVEY NOTE 2:
ROADWAY INFORMATION SHOWN ON HILLSBOROUGH STREET OBTAINED FROM PUBLICLY AVAILABLE GIS DATA, NOT FROM SURVEY.

Overall On-site Runoff					
	Drainage Area (acres)	Impervious Area (acres)	Weighted CN	2-Year Peak Discharge (cfs)	10-Year Peak Discharge (cfs)
Pre-Development A	11.84	1.08	66	8.43	21.09
Pre-Development B	10.97	0.36	58	3.40	12.30
Post Development A	5.27	1.04	69	7.78	17.17
Post Development B	17.53	9.09	79	2.89*	11.02*

* Post development overall peak discharges are shown after being routed through stormwater BMP's. See Pre- and Post-Drainage Area Maps for Point of Interest.

No.	REVISIONS	DATE	BY
2	CITY OF RALEIGH 2ND REVIEW COMMENTS	10/07/11	WJB
1	CITY OF RALEIGH 1ST REVIEW COMMENTS	9/21/11	WJB

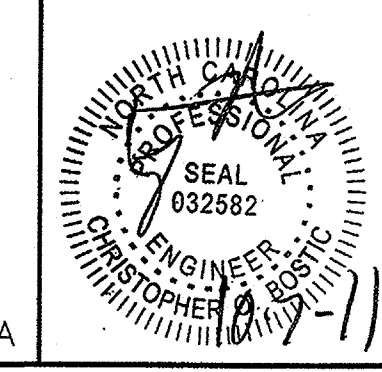
Kimley-Horn and Associates, Inc.

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PHONE: 919-835-1494 FAX: 919-653-5847
WWW.KIMLEY-HORN.COM

KHA PROJECT 011170001	DATE 7/29/11
SCALE AS SHOWN	DESIGNED BY COB
DRAWN BY WJB	CHECKED BY PAB

THE RETREAT AT RALEIGH

PREPARED FOR
LANDMARK PROPERTIES



OVERALL GRADING AND DRAINAGE PLAN

SHEET NUMBER
C-06