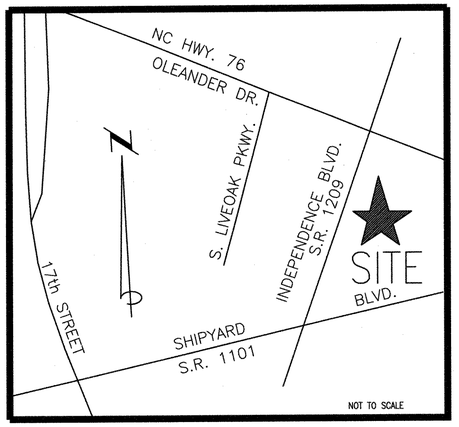
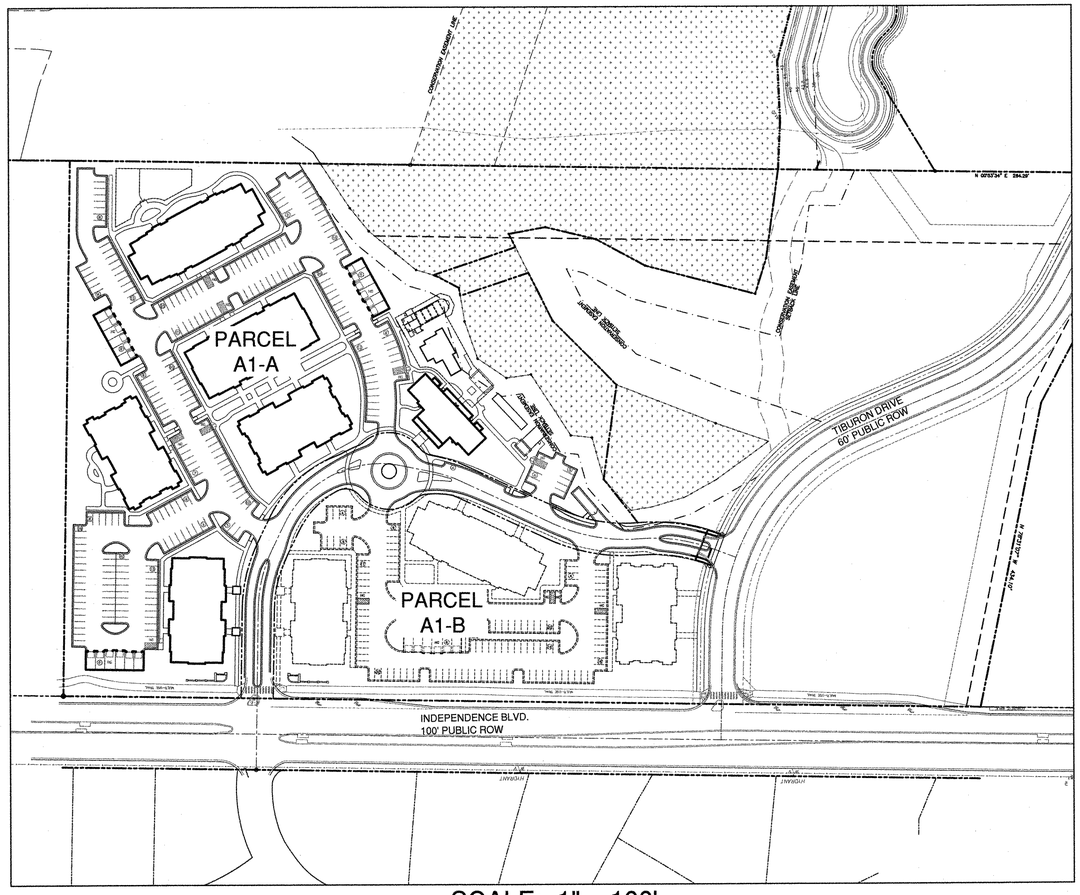


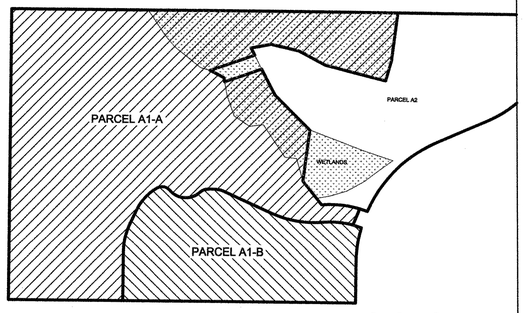
LOCATION MAP

TIBURON PARC APARTMENTS

PHASE I AND II
WILMINGTON, NC
NEW HANOVER COUNTY



SCALE: 1" = 100'



PARCEL BOUNDARY DIVISIONS

NOT TO SCALE

OWNER/DEVELOPER
THE OLEANDER COMPANY, INC.
NELSON MACRAE, PRESIDENT
P.O. BOX 3145
WILMINGTON, NC 28406
910-392-3300

SURVEYOR
HANOVER DESIGN SERVICES, P.A.
1123 FLORAL PARKWAY
WILMINGTON NC 28403
910-343-8002

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITES 300 & 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nkteng.com
licence #C-0520

For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED DRAINAGE PLAN
Date: _____ Permit # _____
Signed: _____

Approved Construction Plan

	Name	Date
Planning		
Public Utilities		
Traffic		
Fire		

SYMBOL	DATE	DESCRIPTION	BY

REVISIONS

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COVER SHEET
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nkteng.com
licence #C-3641

12073

DES. JST
CKD. JPN
DRWN. NKS
DATE 12/31/12

NORTH CAROLINA PROFESSIONAL SEAL 9651 ENGINEER JOHN S. TUNSTALL
FOR PERMIT ONLY

C0

SRB

BUILDING DATA PHASE I

BUILDING TYPE	# ON SITE	STORIES	HEIGHT	UNITS/BUILDING	UNITS/TOTAL		BLDG. AREA TOTAL	FOOTPRINT TOTAL
TYPE I	1	3	39'±	24	24		25,248 SF	10,955 SF
TYPE II	1	3	38.5'±	24	24		31,699 SF	13,350 SF
TYPE III	2	3	38'±	30	60		50,856 SF	21,460 SF
TYPE IV	1	4	49.5'±	32	32		39,544 SF	13,020 SF
TYPE V	1	2	33'±	5	5		9,306 SF	6,000 SF
GARAGE	3	1	14.5'±				6,318 SF	6,318 SF
MAIL KIOSK	1	1	14.5'±				830 SF	830 SF
POOL HOUSE	1	1	14.5'±				564 SF	1,324 SF
TOTAL	11				145		164,365 SF	73,257 SF

BUILDING TYPE	CONSTUCTION TYPE	1 BR	2 BR	3 BR	TOTAL UNITS	BLDG AREA	FOOT PRINT	APPROX. BLDG. DIMS AT WIDEST POINT
TYPE I	V-B	12	12		24	25,248 SF	10,955 SF	150' X 79'
TYPE II	V-B		12	12	24	31,699 SF	13,350 SF	197' X 75'
TYPE III	V-B	24	6		30	25,428 SF	10,730 SF	142' X 83'
TYPE IV	V-A		32		32	39,544 SF	13,020 SF	177' X 79'
TYPE V		5			5	9,306 SF	6,000 SF	123' X 65'
GARAGE						2,106 SF	2,106 SF	81' X 26'
MAIL KIOSK						830 SF	830 SF	43' X 21'
POOL HOUSE						564 SF BLDG. 760 SF CANOPY	1,324 SF	35' X 20' 20' X 38'

BUILDING DATA PHASE II

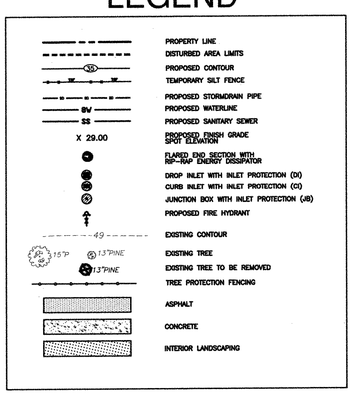
BUILDING TYPE	# ON SITE	STORIES	HEIGHT	UNITS/BUILDING	UNITS/TOTAL		BLDG. AREA TOTAL	FOOTPRINT TOTAL
TYPE I	1	3	39'±	24	24		25,248 SF	10,955 SF
TYPE II	1	3	38.5'±	24	24		31,699 SF	13,350 SF
TYPE III	1	3	38'±	30	30		25,428 SF	10,730 SF
GARAGE	1	1	14.5'±				2,106 SF	2,106 SF
TOTAL	4				78		84,481 SF	37,141 SF

WATER/SEWER USAGE

BLDG. TYPE	DOMESTIC GPM*	DOMESTIC GPD*	NCDENR SEWER (15A, 2T RULES GPD)
TYPE I	55 GPM	2160 GPD	24X240 GPD=5760 GPD
TYPE II	60.5 GPM	3600 GPD	12X240 GPD+12X360 GPD=7200 GPD
TYPE III	56.4 GPM	2160 GPD	30X240 GPD=7200 GPD
TYPE IV	74 GPM	3840 GPD	32X240 GPD=7680 GPD
TYPE V	30.8 GPM	1300 GPD	5X240 GPD+2X25 GPD=1250 GPD

*INFORMATION PROVIDED BY PLUMBING ENGINEER

LEGEND



PHASE I & II SITE DATA TABLE

USE:	MULIT-FAMILY APARTMENTS
TOTAL SITE AREA:	14.15 ACRES (616,403 SF)
UPLAND AREA PHI:	7.41 ACRES (322,868 SF)
UPLAND AREA PHII:	3.37 ACRES (146,698 SF)
WETLAND AREA PHI:	2.32 ACRES (101,190 SF)
RIGHT-OF-WAY AREA PHI:	1.05 ACRES (45,647 SF)
ALLOWABLE DENSITY: SITE AREA 14.15AC X 17U/AC = 241 UNITS; PROPOSED: 223 UNITS	
PARCEL ID#:	R06109-004-024-000
MAP ID#:	313609.16.2484.000
ZONING:	MF-M
CAMA LAND USE:	URBAN
BUILDING SETBACKS: (REQUIRED)	FRONT SETBACK: 35' TYPICAL, (BLDG. #1& #6 39' MIN.) INTERIOR SIDE SETBACK: 20' TYPICAL, (BLDG. #2 24' MIN.) CORNER SIDE SETBACK: 30' TYPICAL, (BLDG. #7 34' MIN.) REAR SETBACKS: 25' TYPICAL, (BLDG. #3 29' MIN.)
BUILDING SETBACKS: (PROPOSED)	FRONT SETBACK: 47.84' INTERIOR SIDE SETBACK: 24' CORNER SIDE SETBACK: 34' REAR SETBACKS: 29'
MAX. LOT COVERAGE:	30%
PROPOSED LOT COVERAGE:	17.91%
MAX. BUILDING HEIGHT:	96' (HEIGHTS OVER 35' REQUIRE ADDITIONAL SETBACK)
PROPOSED MAX. BUILDING HEIGHT:	49.5'±

PARKING REQUIREMENT

PARKING REQ'D: MULTI-FAMILY — MAX.: 2.5 SPACES PER UNIT; MIN.: 1 BR-1.5 PER UNIT, 2 BR-2 PER UNIT, 3 BR-2.25 PER UNIT

PHASE I REQUIRED MAX:
(65+68+12)=145X2.5=363

PHASE I REQUIRED MIN:
1 BR (65X1.5)=98
2 BR (68X2)=136
3 BR (12X2.25)=27
TOTAL=261
HC ACCESSIBLE=6

PHASE I PROVIDED MIN:
OFF STREET: 243
HC ACCESSIBLE: 7
GARAGE PARKING: 18 (3 ARE HC)
ON STREET: 4
TOTAL: 272

BICYCLE PARKING:
PHASE I=15 REQD.

BICYCLE PARKING:
PHASE I=15 PROVIDED

PHASE II REQUIRED MAX:
(36+30+12)=78X2.5=195

PHASE II REQUIRED MIN:
1 BR (36X1.5)=54
2 BR (30X2)=60
3 BR (12X2.25)=27
TOTAL=141
HC ACCESSIBLE=3

PHASE II PROVIDED MIN:
OFF STREET: 132
HC ACCESSIBLE: 4
GARAGE PARKING: 6 (1 IS HC)
TOTAL: 142

BICYCLE PARKING:
PHASE I=10 REQD.

BICYCLE PARKING:
PHASE I=10 PROVIDED

LANDSCAPING REQUIREMENTS (REFER TO LANDSCAPE PLAN)

15 TREES PER DISTURBED ACRE REQUIRED
INTERIOR LANDSCAPING: 8% OF INTERIOR AREA OF PARKING FACILITY
STREETYARD LANDSCAPING: 18 MULTIPLIER
FOUNDATION PLANTINGS: 12% FACE OF BUILDING X LENGTH
OPEN SPACE: 35%

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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SITE DATA
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nktseng.com
licence #C-3641

12073

DES. JST
CKD. JPN
DRWN. NKS
DATE 12/31/12

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 8461 JOHN P. NORRIS, III — JOHN S. TUNSTALL, III — FOR REVIEW ONLY

C1

SRB

F:\Projects\2012\12073 Midtown Apartments at Tiburon Parc\12073 Plans\dwg\12073.master-c2.dwg, 1/7/2013 1:05:19 PM

CONSERVATION EASEMENT
NORTH CAROLINA COASTAL LAND TRUST
BK 3348 PG 985-997
THE OLEANDER COMPANY
BK 531 PG 67

REQUIRED BUFFER BETWEEN R-15 AND MF-M WILL BE SATISFIED BY THE EXISTING CONSERVATION EASEMENT.

EXISTING TIBURON PARC REGIONAL STORMWATER POND.

WETLAND PRESERVATION A
2.94 AC

BLDG. #3
TYPE II
3 STORIES
24 UNITS
FFE=49.50'

BLDG. #5
TYPE IV
4 STORIES
32 UNITS
FFE=49.50'

BLDG. #4
TYPE III
3 STORIES
30 UNITS
FFE=49.50'

BLDG. #2
TYPE III
3 STORIES
30 UNITS
FFE=49.00'

BLDG. #1
TYPE I
3 STORIES
24 UNITS
FFE=49.00'

LEASING CENTER
TYPE V
2 STORIES
5 UNITS
FFE=49.00'

BLDG. #8
TYPE II
FUTURE
3 STORIES
24 UNITS

BLDG. #6
FUTURE
TYPE I
3 STORIES
24 UNITS

BLDG. #7
TYPE III
FUTURE
3 STORIES
30 UNITS

FUTURE PHII

EXIST. TWIN 18" RCP'S

30" FES WITH CLASS B RIP-RAP ENERGY DISSIPATOR
15'LX15'WX12'D
I=41.45

DITCH WITH 3:1 SIDE SLOPES

TIE NEW DITCH INTO EXIST. DITCH.

STORMWATER TREATMENT FOR IMPERVIOUS AREA WITHIN THE 25' CONSERVATION EASEMENT SETBACK WILL BE COLLECTED BY TRENCH DRAIN WITH PERFORATED PIPE INFILTRATION SYSTEM.

CONSERVATION EASEMENT SETBACK LINE

EXISTING JB-15
T=47.50(RAISE TO GRADE)
I=41.70

INDEPENDENCE BOULEVARD
100'PUBLIC R\W

SCALE: 1" = 40'
0 40 80 120

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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GRADING, DRAINAGE AND EROSION CONTROL PLAN
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

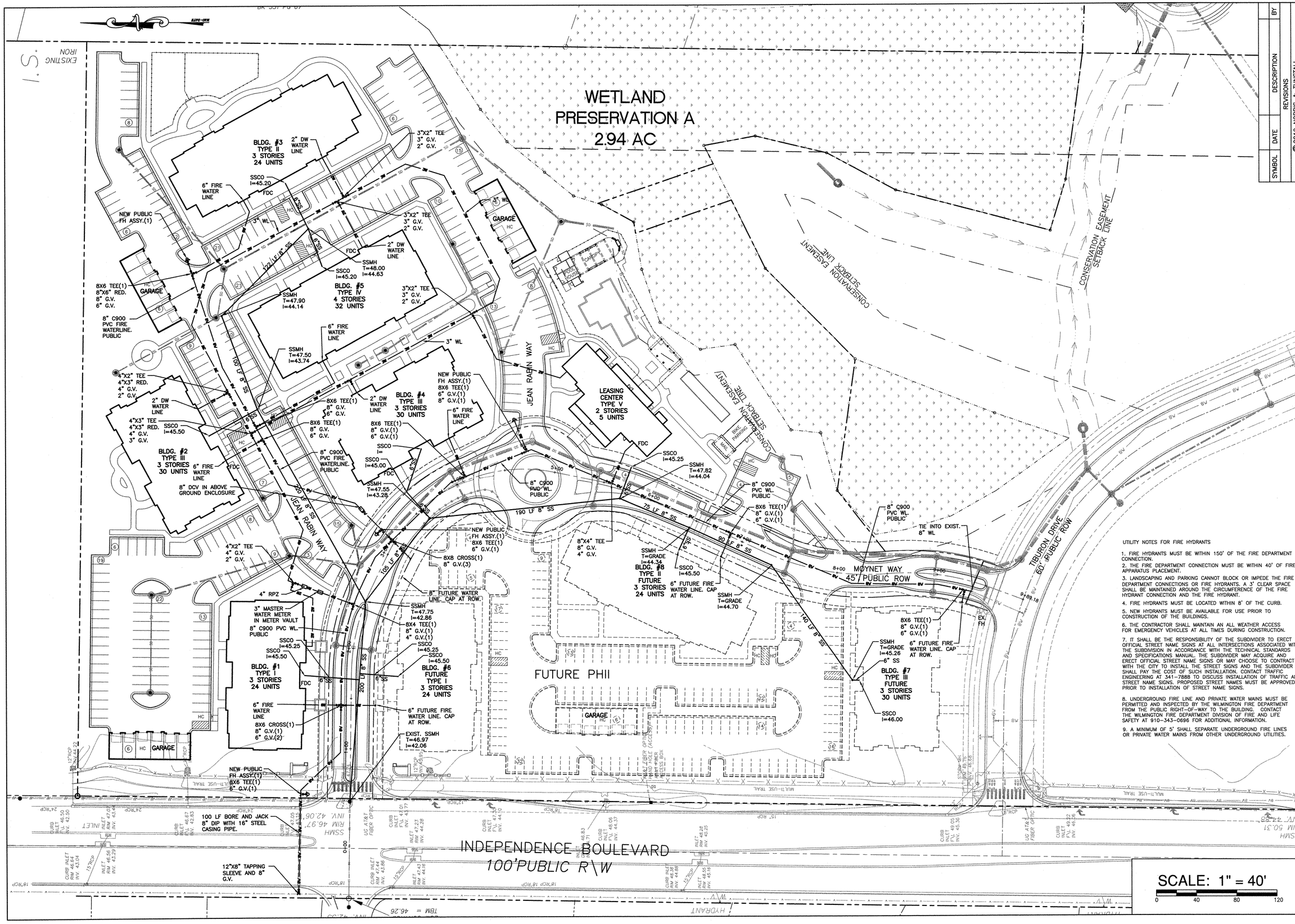
NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nkteng.com
licence #C-3641

12073

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	1/7/13

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 019863 JOHN P. TUNSTALL
PRELIMINARY NOT FOR CONSTRUCTION

C2



UTILITY NOTES FOR FIRE HYDRANTS

1. FIRE HYDRANTS MUST BE WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION.
2. THE FIRE DEPARTMENT CONNECTION MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
3. LANDSCAPING AND PARKING CANNOT BLOCK OR IMPEDE THE FIRE DEPARTMENT CONNECTIONS OR FIRE HYDRANTS. A 3' CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE FIRE HYDRANT CONNECTION AND THE FIRE HYDRANT.
4. FIRE HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
5. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDINGS.
6. THE CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
7. IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
8. UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
9. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.

SCALE: 1" = 40'
0 40 80 120

SYMBOL	DATE	DESCRIPTION	BY

REVISIONS

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UTILITY PLAN
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nkteng.com
licence #C-3641

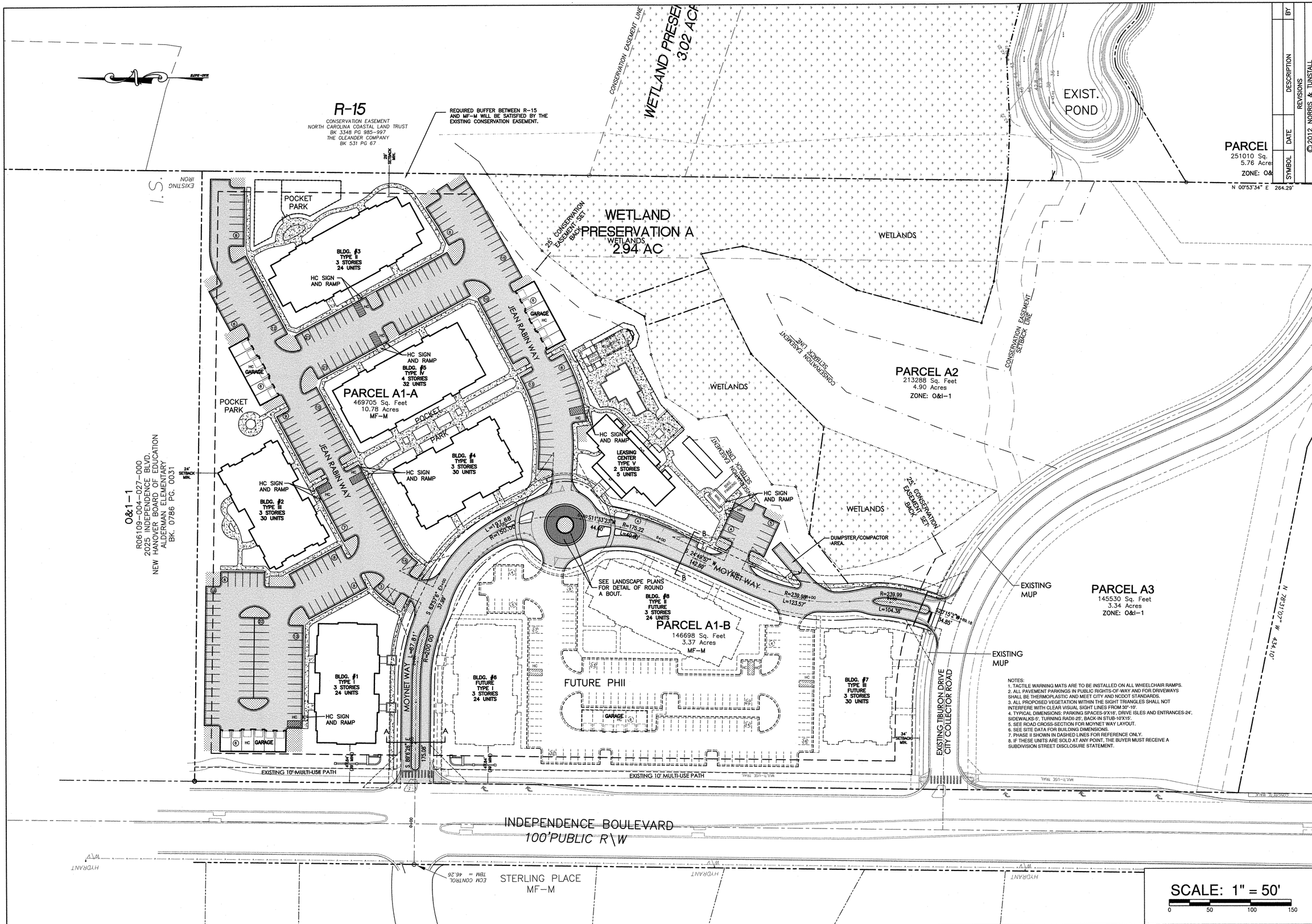
12073

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	12/31/12

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 019861 JOHN P. NORRIS, III JOHN S. TUNSTALL

PRELIMINARY NOT FOR CONSTRUCTION

C3



NOTES:
1. TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
2. ALL PAVEMENT PARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS SHALL BE THERMOPLASTIC AND MEET CITY AND NCDOT STANDARDS.
3. ALL PROPOSED VEGETATION WITHIN THE SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30"-10'.
4. TYPICAL DIMENSIONS: PARKING SPACES-9'X18', DRIVE ISLES AND ENTRANCES-24', SIDEWALKS-5', TURNING RADII-25', BACK-IN STUB-10'X19'.
5. SEE ROAD CROSS-SECTION FOR MOYNET WAY LAYOUT.
6. SEE SITE DATA FOR BUILDING DIMENSIONS.
7. PHASE II SHOWN IN DASHED LINES FOR REFERENCE ONLY.
8. IF THESE UNITS ARE SOLD AT ANY POINT, THE BUYER MUST RECEIVE A SUBDIVISION STREET DISCLOSURE STATEMENT.

SYMBOL	DATE	DESCRIPTION	BY

REVISIONS

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LAYOUT PLAN
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

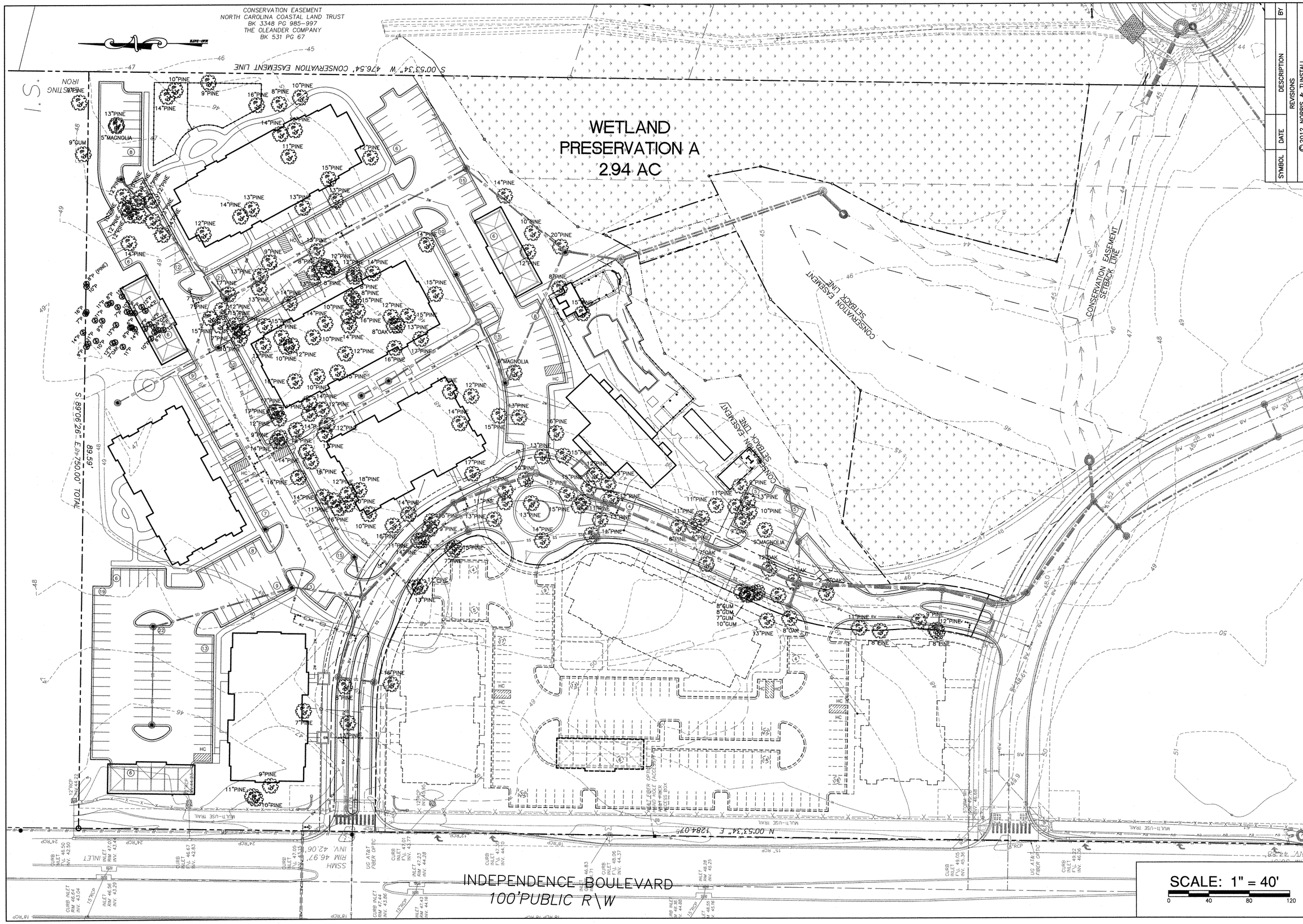
NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nktseng.com
licence #C-3641

12073

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	1/7/13

NORTH CAROLINA PROFESSIONAL SEAL 19861 ENGINEER JOHN P. NORRIS, III
FOR REFERENCE ONLY

C4



SYMBOL	DATE	DESCRIPTION	BY

REVISIONS

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TREE PLAN
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

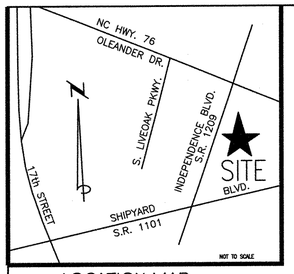
NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nkteng.com
licence #C-3641

12073

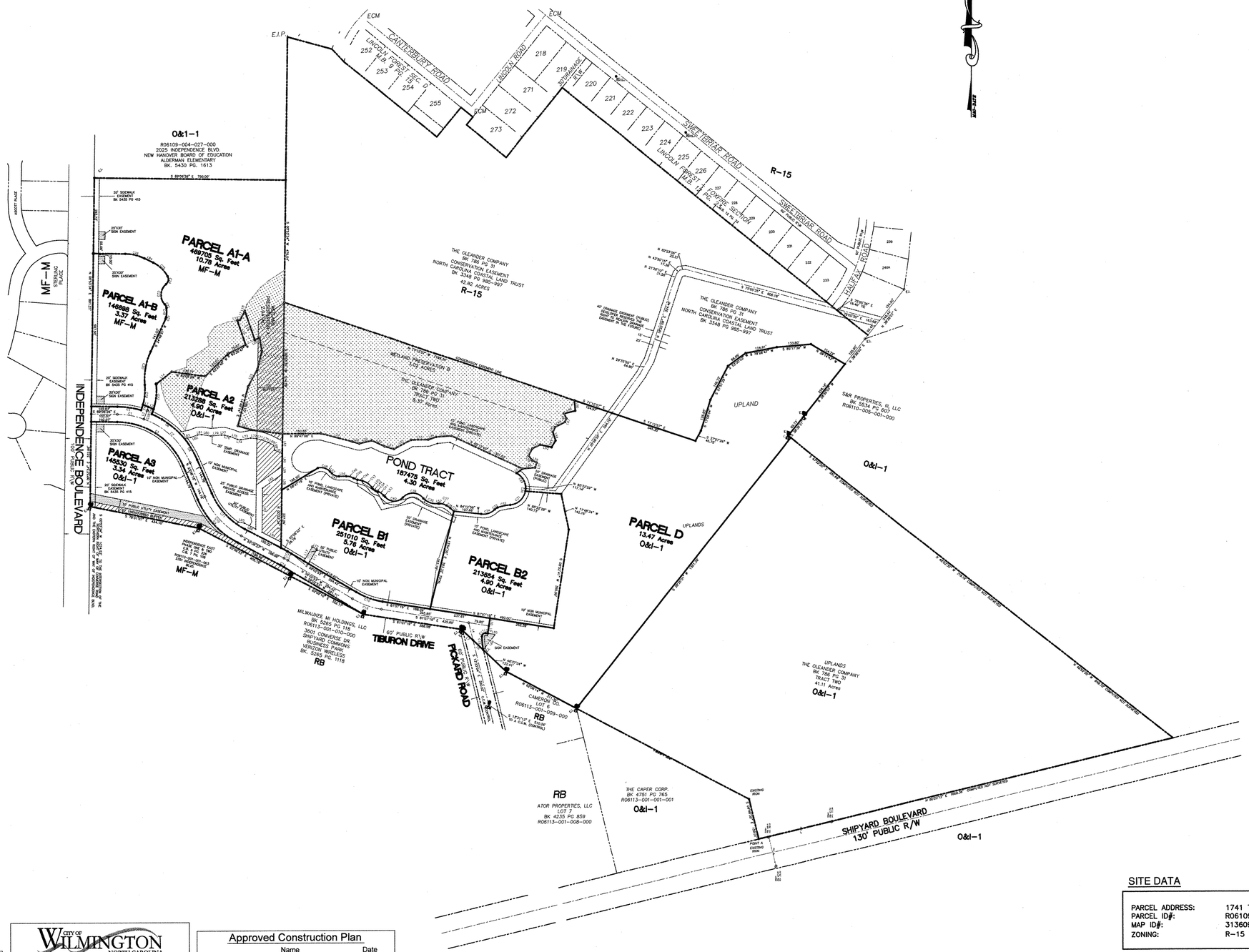
DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	12/19/12

NORTH CAROLINA PROFESSIONAL ENGINEER JOHN S. TUNSTALL
Review

C5



LOCATION MAP



SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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PARCEL PLAN

TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
THE OLEANDER COMPANY
1303-A INDEPENDENCE BLVD.
WILMINGTON, NC 28403

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC. 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nnsteng.com
licence #C-3641

12073

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	12/31/12

NORTH CAROLINA PROFESSIONAL SEAL 8541 ENGINEER JOHN P. NORRIS, JR. NORRIS & TUNSTALL

C6

For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED DRAINAGE PLAN
Date: _____ Permit # _____
Signed: _____

Approved Construction Plan

	Name	Date
Planning		
Public Utilities		
Traffic		
Fire		

SITE DATA

PARCEL ADDRESS:	1741 TIBURON DRIVE
PARCEL ID#:	R06109-004-024-000
MAP ID#:	313609.16.2484.000
ZONING:	R-15 (SEE PLAN)

SCALE: 1" = 200'
0 50 100 150

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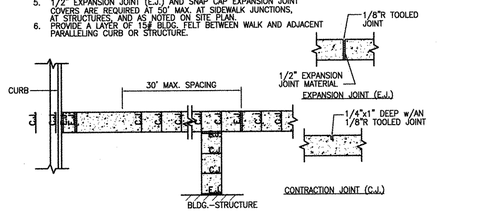
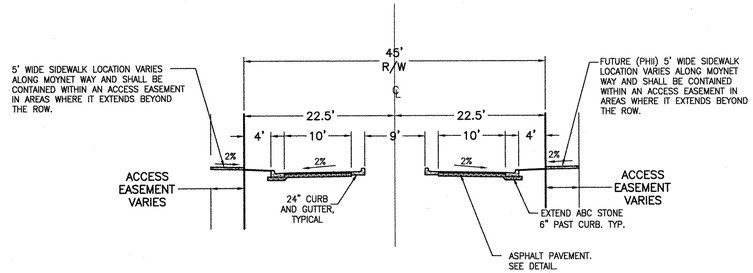
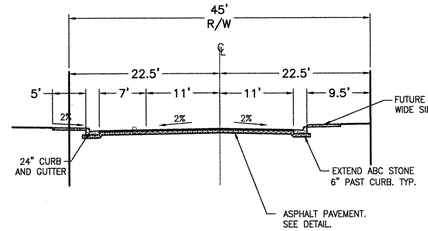
NOTES:
1. SIDEWALK THICKNESS SHALL BE 4" UNLESS NOTED OTHERWISE.
2. CONTRACTION JOINTS (C.J.) SPACE SAME AS SIDEWALK WIDTH.
3. THICKEN SIDEWALK TO 6" AT DRIVEWAYS.
4. THICKEN SIDEWALK TO 6" IN LAST 3' WHERE IT ABUTS PAVEMENT WITH NO CURB.
5. 1/2" EXPANSION JOINT (E.J.) AND SNAP CAP EXPANSION JOINT COVERS ARE REQUIRED AT 50' MAX. AT SIDEWALK JUNCTIONS, AT STRUCTURES, AND AS NOTED ON SITE PLAN.
6. PROVIDE A LAYER OF 15# BLDG. FELT BETWEEN WALK AND ADJACENT PARALLELING CURB OR STRUCTURE.



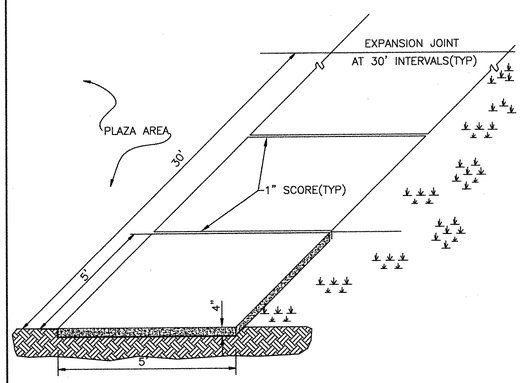
SIDEWALK JOINT DETAILS
NTS



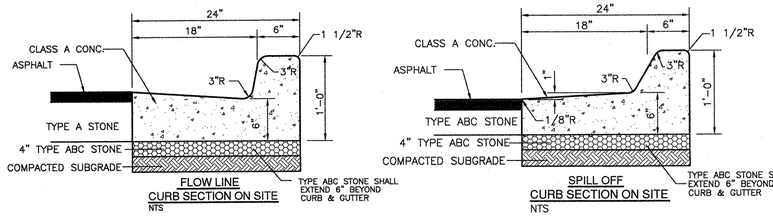
PROPOSED STREET SECTION
SECTION A-A



PROPOSED STREET SECTION WITH ON STREET PARKING
SECTION B-B



STANDARD SIDEWALK DETAIL
SD 8-15
NOT TO SCALE

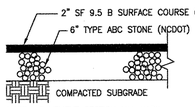


FLOW LINE
CURB SECTION ON SITE
NTS

NOTE: CURB TYPE DEPENDS ON GRADES SHOWN ON GRADING PLAN. GRADES INDICATING FALL AWAY FROM CURB SHALL BE SPILL OFF TYPE CURB. GRADES INDICATING CURB ACCEPTING FLOW SHALL BE FLOW LINE TYPE.

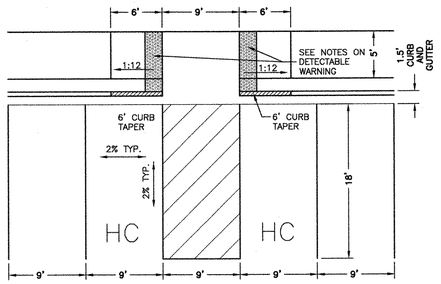
SPILL OFF
CURB SECTION ON SITE
NTS

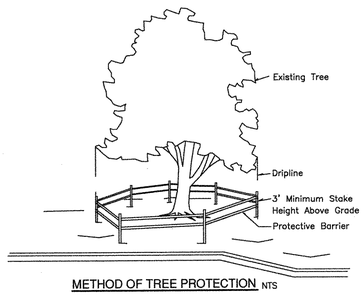
NOTE: CURB TYPE DEPENDS ON GRADES SHOWN ON GRADING PLAN. GRADES INDICATING FALL AWAY FROM CURB SHALL BE SPILL OFF TYPE CURB. GRADES INDICATING CURB ACCEPTING FLOW SHALL BE FLOW LINE TYPE.



NOTE: PAVEMENT SECTION MAY VARY DEPENDING UPON FIELD CONDITIONS. CONTRACTOR SHALL COORDINATE w/OWNER & GEOTECHNICAL ENGINEER TO DETERMINE ACTUAL PAVEMENT SECTION.

ASPHALT PAVEMENT SECTION
N.T.S.

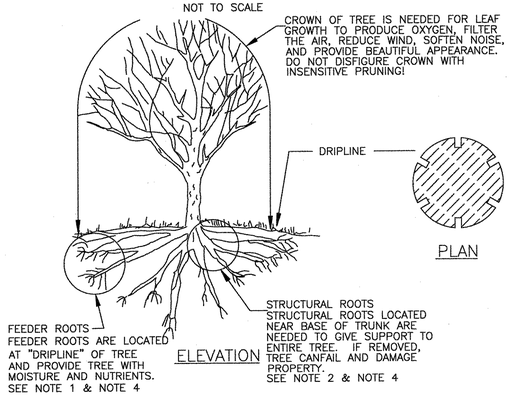




METHOD OF TREE PROTECTION NTS

CLEARLY mark the trees to be saved prior to construction and erect a protective barrier at the dripline.

Dripline-The area of soil directly beneath the tree extending out to the tips of the outermost branches.



TREE PROTECTION DURING CONSTRUCTION

1. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO HEAVY MATERIALS SHALL BE STORED BENEATH TREES. RESULTS OF COMPACTION CAUSE WATER AND AIR NOT TO REACH THE ROOTS AND THE TREE WILL DIE. THESE "FEEDING ROOTS" OCCUR WELL AWAY FROM THE BASE OF THE TREE TO THE EDGE OF THE OVERHEAD BRANCH CANOPY. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. APROTECTIVE BARRIER SHOULD PREVENT DAMAGE FROM OCCURING DURING CONSTRUCTION.
2. NO CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK. THESE ARE ESSENTIAL IN SUPPORTING THE TREE AND HOLDING IT UPRIGHT IN HIGH WINDS. REMOVAL OF THESE ROOTS ALONG ONE SIDE IS OFTEN DONE BECAUSE OF A WALK, PAVING OR BUILDING WHICH IS BEING CONSTRUCTED.
3. AVOID CUT AND FILL WITHIN DIAMETER OF TREE CROWN DURING EXCAVATION.

METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15-09
nts

TREE PROTECTION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING TREE PROTECTION FENCING AROUND THE EXISTING TREES BEING SAVED PRIOR TO BEGINNING ANY CONSTRUCTION WORK. THE CONTRACTOR SHALL SAWCUT ANY PERIMETER TREE ROOTS THAT CONFLICT WITH GRADING OPERATIONS. EXISTING TREES WILL BE REMOVED FROM THE SITE AS REQUIRED FOR CONSTRUCTION OF PONDS, ROADWAYS, ROAD IMPROVEMENTS, AND UTILITY INSTALLATION. ALL THE EXISTING VEGETATION AND TREES WILL REMAIN OUTSIDE THE DISTURBED AREA/CONSTRUCTION LIMITS.

2. PROTECTIVE FENCING IS TO BE PROPERLY MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

3. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS.

4. ANY TREES AND / OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING AND GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.

5. NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.

CITY OF WILMINGTON STANDARD NOTES

1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.

2. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING;

3. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.

4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.

5. INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.

6. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.

7. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.

8. THE SUBDIVIDER SHALL INSTALL TRAFFIC SIGNALS, TRAFFIC SIGNS, STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION, DEAD-END BARRICADES AND MARKINGS, AND OTHER REQUIRED TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CITY'S TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. POSTED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.

9. CONTACT TRAFFIC ENGINEERING AT 341-7888 FOURTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.

10. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.

11. ANY BROKEN OR MISSING SIDEWALK PANELS AND CURBING OR DAMAGE TO THE EXISTING MULTI-USE PATH WILL BE REPAIRED OR REPLACED.

12. CONTACT KAREN DIXON AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.

13. PROJECT SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 343-3910 FOR INFORMATION.

14. IF THE CONTRACTOR DESIRES CFPUA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.

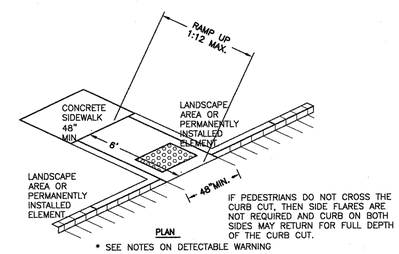
15. ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REGULATIONS. CALL 332-6558 FOR INFORMATION.

16. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCCCHR OR ASSE.

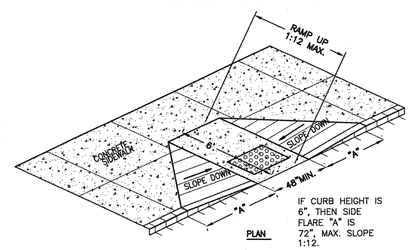
17. WHEN PVC WATER MAINS AND/OR POLYETHYLENE SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED SINGLE STRAND COPPER WIRE INSTALLED THE ENTIRE LENGTH AND SECURED TO ALL VALVES. THIS WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.

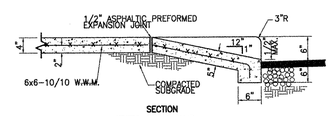
18. THE NUMBER AND SPACING OF DRIVEWAYS FOR ALL INTERCONNECTED SITES WILL BE DETERMINED BY THE COMBINED FRONTAGE OF THE INTERCONNECTED PROPERTIES.

19. UNDERGROUND FIRE LINE MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC ROW TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.



* SEE NOTES ON DETECTABLE WARNING





SECTION
WHEEL CHAIR RAMP

NOTE:
1. RAMP SHALL HAVE A DETECTABLE WARNING COMPLYING WITH ADA GUIDELINES:

2. THE DETECTABLE WARNINGS AT CURB RAMPS SHALL BE 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEN THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.

3. MARKED CROSSINGS THAT ARE RAISED TO THE SAME LEVEL AS THE ADJOINING SIDEWALK SHALL BE PRECEDED BY A 24 INCH DEEP DETECTABLE WARNING EXTENDING THE FULL WIDTH OF THE MARKED CROSSING.

4. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 IN (23 MM), A HEIGHT OF NOMINAL 0.2 IN (5 MM) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 IN (60 MM) AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHOULD CONTRAST BY AT LEAST 70% - REFER TO ADA GUIDELINES FOR DEFINITION OF "CONTRAST".

5. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.

TYPICAL SIDEWALK AND
WHEEL CHAIR RAMP DETAIL
NTS

SITE WORK NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH FIELD CONSTRUCTION CONDITIONS.

2. CONTRACTOR SHALL COORDINATE WORK WITHIN NCDOT AND LOCAL RIGHT OF WAYS WITH PROPER AUTHORITIES AND SHALL MEET ANY REQUIREMENTS AS TO TRAFFIC CONTROL AND CONNECTION TO EXISTING STREETS.

3. CLEARING AND GRUBBING: REMOVE ALL TREES AS REQUIRED UNLESS OTHERWISE NOTED TO REMAIN, STUMPS, ROOTS, SHRUBBERY, ASPHALT, CONCRETE, STRUCTURES, BURIED UTILITIES, STORAGE TANKS, ETC. WITHIN LIMITS OF CONSTRUCTION.

4. STRIPPING: BEFORE EXCAVATING OR FILLING, REMOVE ALL TOPSOIL, WOOD, LEAVES, AND ANY OTHER UNSUITABLE MATERIAL.

5. MUCKING: REMOVE ANY SOFT, ORGANIC SILT MATERIALS AND EXISTING BURIED CONSTRUCTION DEBRIS AS REQUIRED AND FILL TO SUBGRADE ELEVATIONS WITH A CLEAN SELECT-FILL COMPACTED AS SPECIFIED.

6. DISPOSAL: CLEARED, GRUBBED, STRIPPED OR EXCAVATED SPOIL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES.

7. BORROW MATERIAL: THE CONTRACTOR SHALL FURNISH BORROW MATERIAL REQUIRED FROM OFF SITE AND OBTAIN ALL REQUIRED PERMITS ASSOCIATED WITH BORROW OPERATIONS.

8. FILL AND COMPACTION: AFTER STRIPPING THOSE AREAS DESIGNATED TO RECEIVE FILL SHOULD BE PROOFROLLED. THE TOP 8" OF SUBGRADE SHALL BE COMPACTED TO AT LEAST 98% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT. ANY AREA WHICH PUMPS OR RUTS EXCESSIVELY SHOULD BE UNDERCUT AND REPLACED WITH A CLEAN, SILTY OR CLAYEY SAND HAVING A UNIFIED SOIL CLASSIFICATION OF SP, SM, OR SC. FILL MATERIAL 5" OUTSIDE OF BUILDING AREAS SHALL THEN BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED TO 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. FILL MATERIALS WITHIN BUILDING AREAS TO A LINE OUTSIDE THE BUILDING AREAS SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED IN 6 INCH LAYERS TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. IN AREAS WHERE NO STRUCTURAL FILL IS TO BE PLACED THE UPPER 12 INCHES OF IN-PLACE SUBGRADE SHOULD BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. IF THE MATERIAL IS TOO DRY TO COMPACT TO THE REQUIRED DENSITY EACH LAYER SHALL BE WETTED IN ACCORDANCE WITH COMPACTION REQUIREMENTS. IF THE MATERIAL IS TOO WET TO SECURE PROPER COMPACTION, IT SHALL BE HARROWED REPEATEDLY OR OTHERWISE AERATED WITH SUITABLE EQUIPMENT UNTIL OPTIMUM MOISTURE CONTENT IS OBTAINED. FILL SHALL BE PLACED IN SUCH A MANNER THAT THE SURFACE WILL DRAIN READILY AT ALL TIMES. SEE STRUCTURAL NOTES AND SOILS REPORT FOR ADDITIONAL REQUIREMENTS.

9. LAYOUT: THE CONTRACTOR SHALL PROVIDE ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK.

10. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION.

11. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION FROM SURVEY BY HANOVER DESIGN SERVICES, P.A. AND PROVIDED BY OWNER.

12. THE CONTRACTOR SHALL VERIFY DIMENSIONS AT JOBSITE.

13. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF RELOCATION OR DISCONNECTION OF ALL EXISTING UTILITIES WITH APPLICABLE AGENCIES AND AUTHORITIES.

14. ALL PAVEMENT AND BASE MATERIALS AND WORKMANSHIP SHALL CONFORM TO NCDOT STANDARDS.

15. WATER AND SEWER SERVICES SHALL BE INSTALLED TO MEET LOCAL AND STATE PLUMBING CODES. METER AND TAPS SHALL MEET ALL LOCAL REQUIREMENTS.

16. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE.

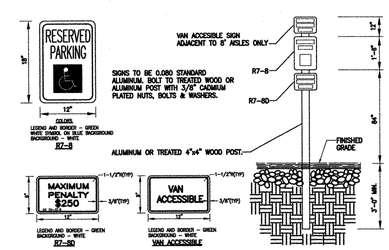
17. SEE SOILS REPORT FOR ADDITIONAL REQUIREMENTS.

18. CONTRACTOR SHALL NOTE THAT EARTHWORK QUANTITIES ARE HIS RESPONSIBILITY. PLANS DO NOT REPRESENT A BALANCED EARTHWORK CONDITION.

19. REINF. CONC. PIPE SHALL BE CLASS III W/RUBBER GASKETED JOINT OR "RAM NECK". INSTALL PER MANUFACTURER'S REQUIREMENTS.

20. USE WHITE LANE MARKING PAINT FOR ALL PAVEMENT MARKINGS. PAINT SHALL BE A CHLORINATED RUBBER ALKYD, FS TT-P-115, TYPE III, FACTORY MIXED, QUICK DRYING, NON-BLEEDING.

21. REFER TO THE PLUMBING DRAWINGS FOR LOCATION AND INVERTS OF NEW WASTE AND WATER LINES.



TYPICAL HANDICAPPED SIGN DETAIL
NTS

SYMBOL	DATE	DESCRIPTION	BY

REVISIONS

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NOTES AND DETAILS
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

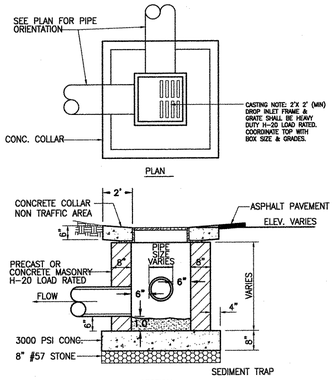
NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nteng.com
licence #C-3641

12073

DES. JST
CKD. JPN
DRWN. NKS
DATE 1/8/12

NORTH CAROLINA PROFESSIONAL SEAL 24801 ENGINEER JOHN P. TUNSTALL

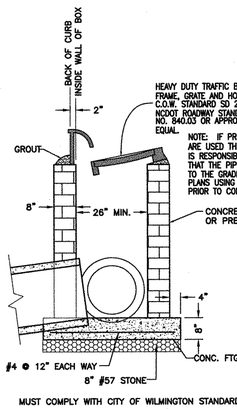
C7



MUST COMPLY WITH CITY OF WILMINGTON STANDARDS

DROP INLET DETAIL

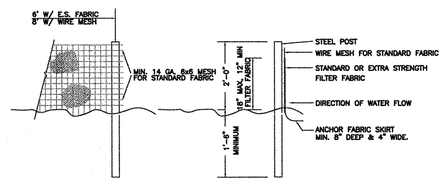
NTS



MUST COMPLY WITH CITY OF WILMINGTON STANDARDS

TYPICAL CATCH BASIN

NTS

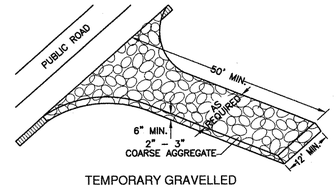


NOTES:

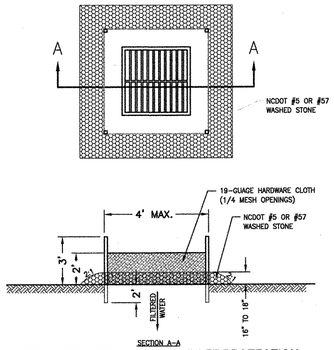
1. SYN. FENCE FABRIC SHALL BE MIN. OF 30" IN WIDTH WITH 30 LB/IN TENSILE STRENGTH FOR STANDARD FABRIC AND 50 LB/IN FOR EXTRA STRENGTH.
2. FABRIC SHALL BE CONTINUOUS LENGTH. IF JOINTS ARE NECESSARY, LAP FABRIC POST TO POST.
3. STEEL POST SHALL BE MIN 4' IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

TEMPORARY SILT FENCE

NTS



TEMPORARY GRAVELLED CONSTRUCTION ENTRANCE



HARDWARE CLOTH & GRAVEL INLET PROTECTION

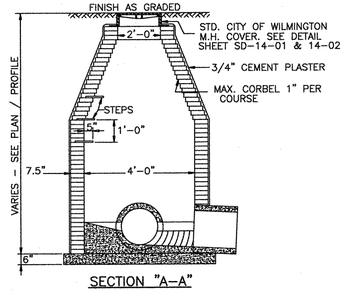
NTS

CONSTRUCTION SEQUENCE:

1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5' STEEL POST 2' INTO THE GROUND SURROUNDING THE INLET. SPACE POST EVENLY AROUND THE PERIMETER OF THE INLET. A MAXIMUM OF 4' APART.
3. SURROUND THE POST WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POST AT THE TOP, MIDDLE AND BOTTOM. PLACING A 2' FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NCDOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16" AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUNDCOVER.

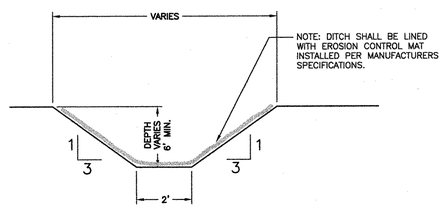
MAINTENANCE:

INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.



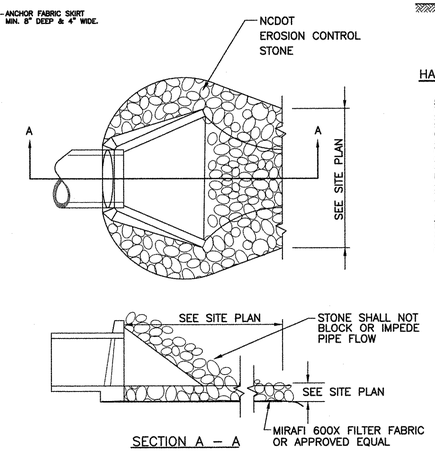
SECTION "A-A"

GUIDELINES FOR STORM DRAIN MANHOLE
SD 2 -03



TEMPORARY DITCH SECTION

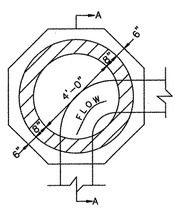
NTS



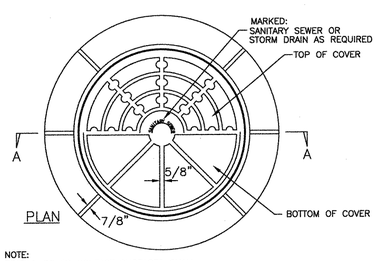
NOTE: FILTER FABRIC AND STONE SHALL BE TOED UNDER FLARED END SECTION

ENERGY DISSIPATOR

NTS



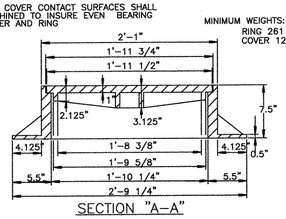
PLAN



PLAN

NOTE:
RING & COVER CONTACT SURFACES SHALL BE MACHINED TO INSURE EVEN BEARING OF COVER AND RING

MINIMUM WEIGHTS:
RING 261 LBS.
COVER 120 LBS.



SECTION "A-A"

STANDARD MANHOLE RING & COVER
SD 14-02

EROSION CONTROL NOTES AND MAINTENANCE PLAN

1. ALL EROSION AND SEDIMENT CONTROL MEASURES 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.

2. 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.

3. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, 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.

4. 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.

5. 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 SEDIMENT FENCE, THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF-FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.

6. SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED AND KEPT CLEAN WEEKLY.

7. SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM BAFFLES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.

8. LAND QUALITY REQUIRES:

ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED, ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN, TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.

WATER QUALITY REQUIRES:

ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND ALL HIGH QUALITY WATER (HQW) ZONES SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN SEVEN (7) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN FOURTEEN (14) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

9. FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECT SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.

10. BASIN OUTLET STRUCTURES AND SKIMMERS SHALL WITHDRAW WATER FROM THE SURFACE.

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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NOTES AND DETAILS

TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nktseng.com
licence #C-3641

12073

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	12/19/12

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

For Review

C8

TREE SURVEY

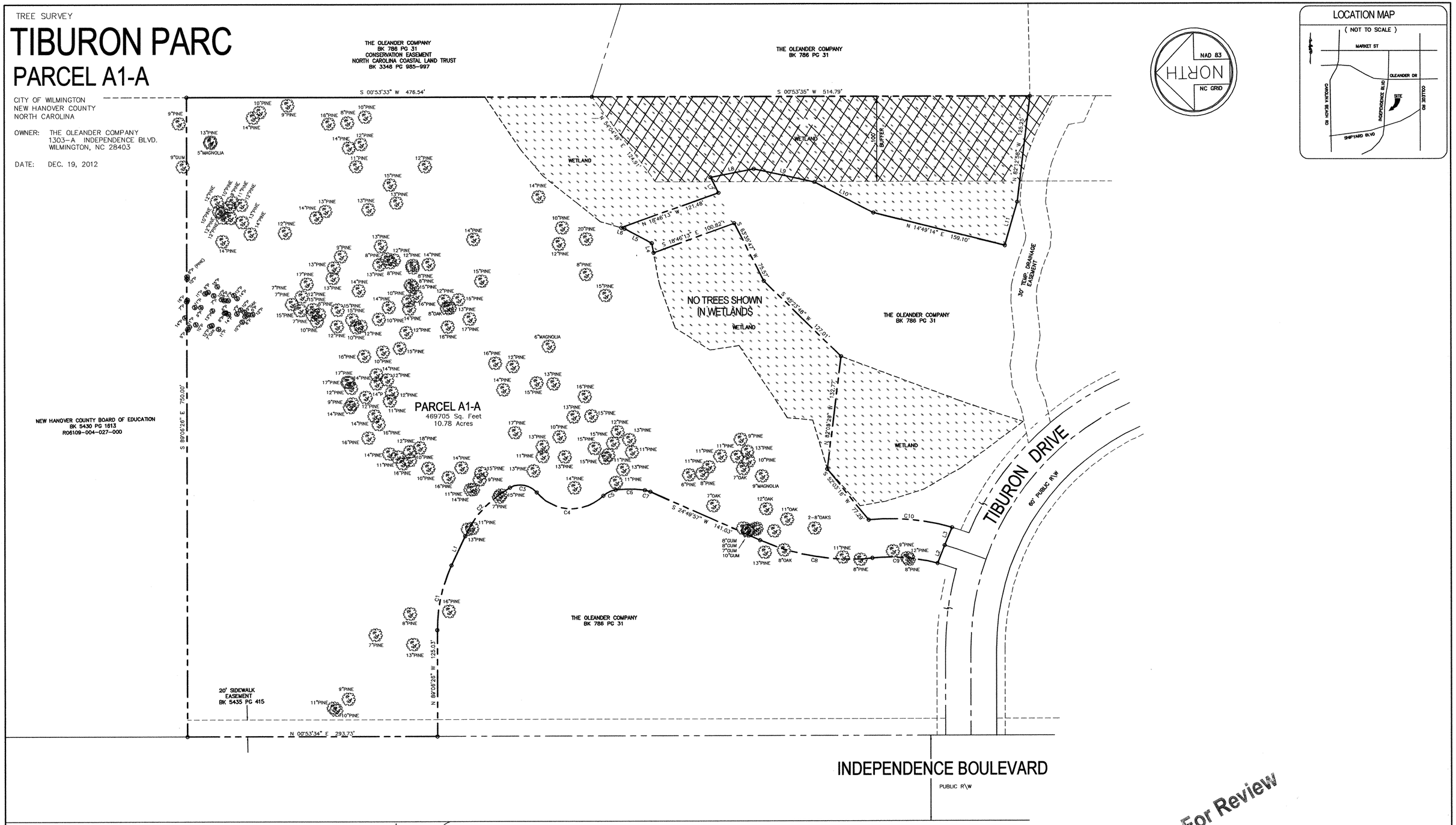
TIBURON PARC

PARCEL A1-A

CITY OF WILMINGTON
NEW HANOVER COUNTY
NORTH CAROLINA

OWNER: THE OLEANDER COMPANY
1303-A INDEPENDENCE BLVD.
WILMINGTON, NC 28403

DATE: DEC. 19, 2012



For Review

NOTES

1. AREA COMPUTED BY COORDINATE METHOD
2. ALL DISTANCES ARE HORIZONTAL
3. FOR REFERENCE SEE BOOK 786 PAGE 31
4. SURVEYED NOV. – DEC. 2012
5. 10.78 ACRES TOTAL AREA

LEGEND

E.I.P. = EXISTING IRON PIPE
E.I. = EXISTING IRON
E.C.M. = EXISTING CONCRETE MONUMENT
R\W = RIGHT OF WAY
C.P. = COMPUTED POINT

PROPERTY LINE
BUILDING SETBACK
CENTERLINE
EASEMENT
COMPUTED PROPERTY LINE

LINE	BEARING	DISTANCE
L1	S 83°57'06" E	38.02'
L2	N 66°56'43" W	22.67'
L3	N 66°56'43" W	22.64'
L4	S 80°30'14" W	11.20'
L5	S 28°30'14" W	36.25'
L6	S 16°58'05" W	3.98'
L7	S 63°35'47" W	20.63'
L8	N 10°11'17" W	51.90'
L9	N 13°26'32" E	73.06'
L10	N 28°33'05" E	78.07'
L11	N 72°56'07" W	52.99'
L12	N 00°53'34" E	55.00'
L13	S 89°06'26" E	25.00'
L14	N 00°53'34" E	30.00'
L15	N 89°06'26" W	25.00'
L16	S 00°53'34" W	30.00'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C1	177.50'	77.95'	77.32'	N 76°31'37" W	25°09'37"	39.61'
C2	127.50'	79.02'	77.76'	S 46°11'48" E	35°30'35"	40.83'
C3	25.00'	34.65'	31.94'	S 11°15'49" W	79°24'38"	20.76'
C4	53.50'	87.96'	78.38'	S 03°51'54" W	94°12'28"	57.58'
C5	25.00'	16.29'	16.00'	S 24°34'29" E	37°19'42"	8.44'
C6	131.50'	34.40'	34.31'	S 01°35'04" W	14°59'24"	17.30'
C7	25.00'	6.87'	6.85'	S 16°57'21" W	15°45'11"	3.46'
C8	262.48'	135.15'	133.66'	S 10°04'58" W	29°30'07"	69.11'
C9	217.50'	77.15'	76.74'	S 05°29'40" W	20°19'24"	38.98'
C10	262.50'	98.92'	98.34'	S 06°07'43" W	21°35'30"	50.05'

NORTH CAROLINA PROFESSIONAL SEAL L-3391 LAND SURVEYOR JONATHAN L. MALONE

0FT 50FT 100FT 150FT
SCALE 1"=50'

HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS ENGINEERS LAND PLANNERS
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002
FAX: (910) 343-9941
FIRM CERTIFICATE C-0597

F:\All\JON\download\DWG\8233 Tiburon Parc\Midtown Apartments\8233 Parcel A1-A Tree Survey.dwg

MAP OF

TIBURON PARC

CITY OF WILMINGTON
NEW HANOVER COUNTY
NORTH CAROLINA

OWNER: THE OLEANDER COMPANY
1303-A INDEPENDENCE BLVD.
WILMINGTON, NC 28403

DATE: DEC. 11, 2012

SHEET 1 OF 2

Preliminary

CERTIFICATE OF ACCURACY AND MAPPING

I, JONATHAN L. WAYNE, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED AS NOTED HEREON); THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FOUND AS NOTED HEREON; THAT THE RATIO OF PRECISION AS CALCULATED IS 1: 20,000+; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS _____DAY OF _____, 2011. A.D.

JONATHAN L. WAYNE PLS L-3391

THIS PLAT IS OF A SUBDIVISION THAT CREATES A SUBDIVISION OF LAND WITHIN THE SUBDIVISION JURISDICTION OF A COUNTY OR MUNICIPALITY THAT HAS AN ORDINANCE THAT REGULATES PARCELS OF LAND.

WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER AND SEAL THIS _____ DAY OF _____ A.D., _____.

JONATHAN L. WAYNE PLS L-3391

CERTIFICATE OF DISCLOSURE FOR PRIVATE DEVELOPMENTS

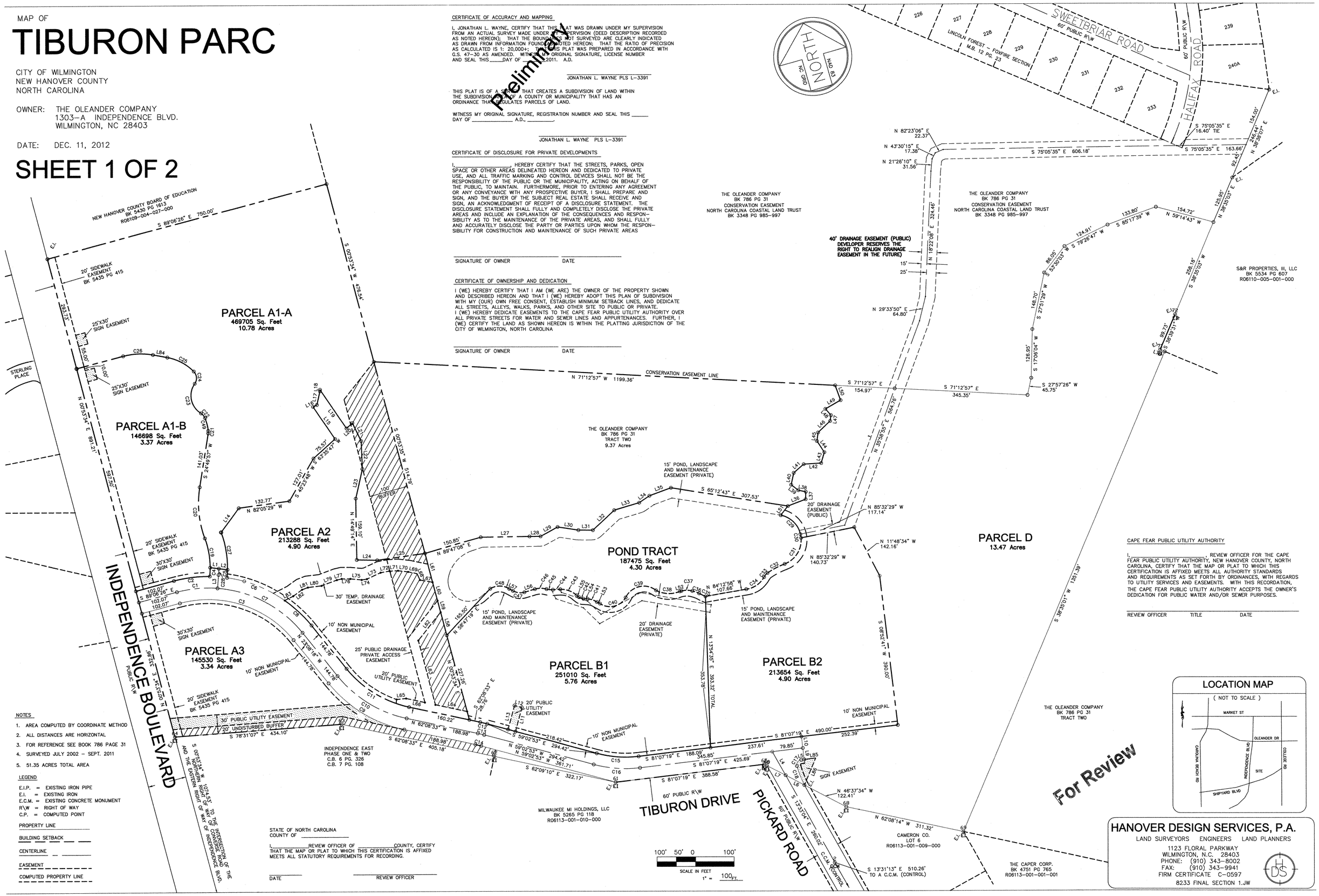
I,_____, HEREBY CERTIFY THAT THE STREETS, PARKS, OPEN SPACE OR OTHER AREAS DELINEATED HEREON AND DEDICATED TO PRIVATE USE, AND ALL TRAFFIC MARKING AND CONTROL DEVICES SHALL NOT BE THE RESPONSIBILITY OF THE PUBLIC OR THE MUNICIPALITY, ACTING ON BEHALF OF THE PUBLIC, TO MAINTAIN. FURTHERMORE, PRIOR TO ENTERING ANY AGREEMENT OR ANY CONVEYANCE WITH ANY PROSPECTIVE BUYER, I SHALL PREPARE AND SIGN, AND THE BUYER OF THE SUBJECT REAL ESTATE SHALL RECEIVE AND SIGN, AN ACKNOWLEDGMENT OF RECEIPT OF A DISCLOSURE STATEMENT. THE DISCLOSURE STATEMENT SHALL FULLY AND COMPLETELY DISCLOSE THE PRIVATE AREAS AND INCLUDE AN EXPLANATION OF THE CONSEQUENCES AND RESPONSIBILITY AS TO THE MAINTENANCE OF THE PRIVATE AREAS, AND SHALL FULLY AND ACCURATELY DISCLOSE THE PARTY OR PARTIES UPON WHOM THE RESPONSIBILITY FOR CONSTRUCTION AND MAINTENANCE OF SUCH PRIVATE AREAS

SIGNATURE OF OWNER _____ DATE _____

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I (WE) HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH MY (OUR) OWN FREE CONSENT, ESTABLISH MINIMUM SETBACK LINES, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS, AND OTHER SITE TO PUBLIC OR PRIVATE. I (WE) HEREBY DEDICATE EASEMENTS TO THE CAPE FEAR PUBLIC UTILITY AUTHORITY OVER ALL PRIVATE STREETS FOR WATER AND SEWER LINES AND APPURTENANCES. FURTHER, I (WE) CERTIFY THE LAND AS SHOWN HEREON IS WITHIN THE PLATTING JURISDICTION OF THE CITY OF WILMINGTON, NORTH CAROLINA

SIGNATURE OF OWNER _____ DATE _____



NOTES

1. AREA COMPUTED BY COORDINATE METHOD
2. ALL DISTANCES ARE HORIZONTAL
3. FOR REFERENCE SEE BOOK 786 PAGE 31
4. SURVEYED JULY 2002 - SEPT. 2011
5. 51.35 ACRES TOTAL AREA

LEGEND

E.I.P. = EXISTING IRON PIPE
E.I. = EXISTING IRON
E.C.M. = EXISTING CONCRETE MONUMENT
R\W = RIGHT OF WAY
C.P. = COMPUTED POINT

PROPERTY LINE
BUILDING SETBACK
CENTERLINE
EASEMENT
COMPUTED PROPERTY LINE

STATE OF NORTH CAROLINA
COUNTY OF _____

I,_____REVIEW OFFICER OF _____COUNTY, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.

DATE _____ REVIEW OFFICER _____

100' 50' 0 100'
SCALE IN FEET
1" = 100 FT.

CAPE FEAR PUBLIC UTILITY AUTHORITY

I,_____, REVIEW OFFICER FOR THE CAPE FEAR PUBLIC UTILITY AUTHORITY, NEW HANOVER COUNTY, NORTH CAROLINA, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL AUTHORITY STANDARDS AND REQUIREMENTS AS SET FORTH BY ORDINANCES, WITH REGARDS TO UTILITY SERVICES AND EASEMENTS. WITH THIS RECORDATION, THE CAPE FEAR PUBLIC UTILITY AUTHORITY ACCEPTS THE OWNER'S DEDICATION FOR PUBLIC WATER AND/OR SEWER PURPOSES.

REVIEW OFFICER _____ TITLE _____ DATE _____

LOCATION MAP
(NOT TO SCALE)
MARKET ST
OLEANDER DR
CAROLINA BEACH RD
INDEPENDENCE BLVD
COLLEGE RD
SITE
SHIPYARD BLVD

For Review

HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS ENGINEERS LAND PLANNERS
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002
FAX: (910) 343-9941
FIRM CERTIFICATE C-0597
8233 FINAL SECTION 1.JW

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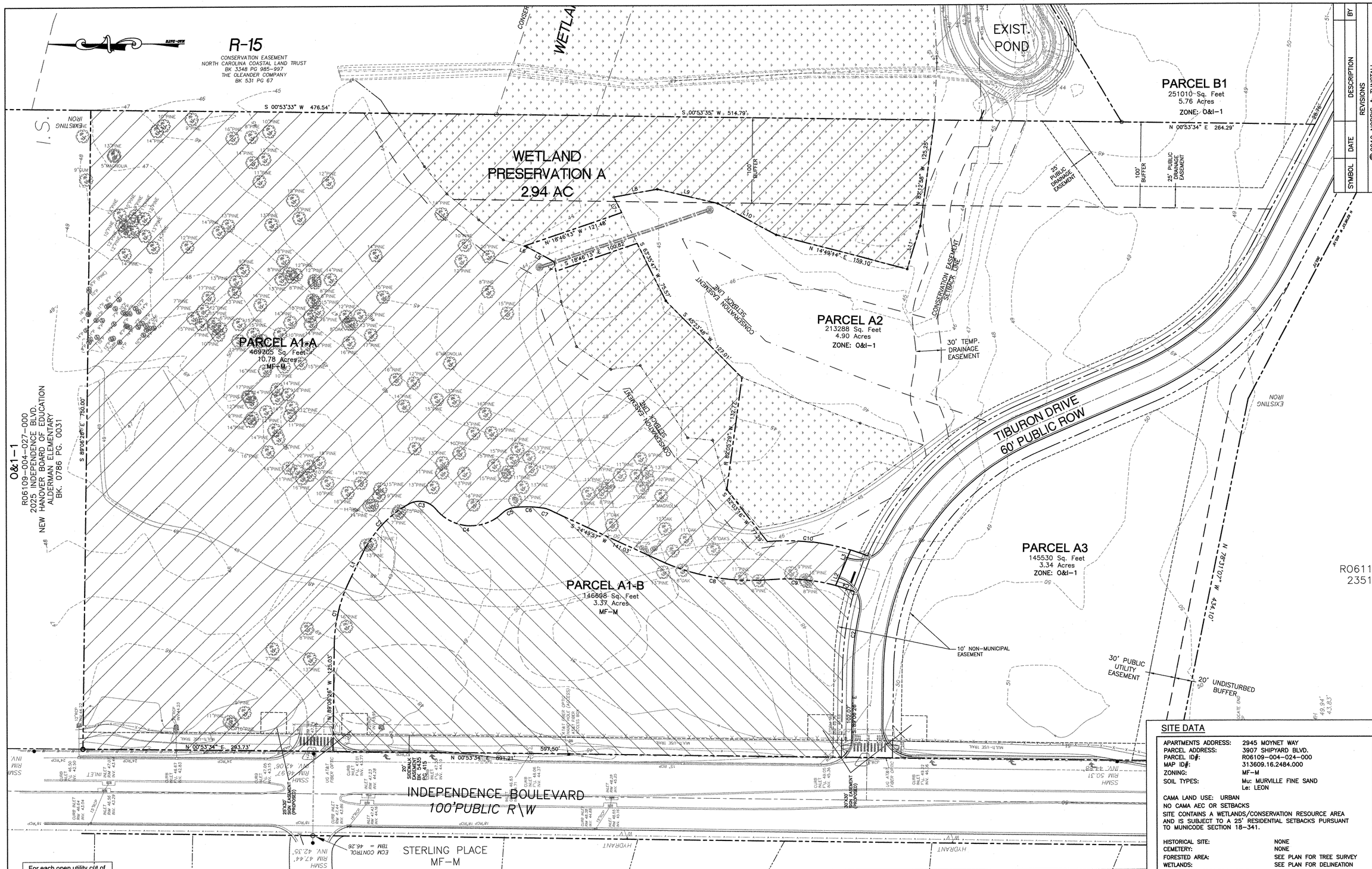

For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED DRAINAGE PLAN
Date:_____ Permit #_____
Signed: _____

Approved Construction Plan

	Name	Date
Planning		
Public Utilities		
Traffic		
Fire		

SURVEYOR:
TOPOGRAPHIC SURVEY & COMPOSIT MAP BY:
HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS ENGINEERS LAND PLANNERS
319 WALNUT STREET
WILMINGTON, N.C. 28401
PHONE: 910 343-8002
FAX: 910 343-9941

APPLICANT/PREPARER OF PLAN:
NORRIS & TUNSTALL CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 300/400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
(910) 343-9604 FAX
LICENCE #C-3641

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

SITE DATA

APARTMENTS ADDRESS:	2945 MOYNET WAY
PARCEL ADDRESS:	3907 SHIPYARD BLVD.
PARCEL ID#:	R06109-004-024-000
MAP ID#:	313609.16.2484.000
ZONING:	MF-M
SOIL TYPES:	Mu: MURVILLE FINE SAND Le: LEON

CAMA LAND USE: URBAN
NO CAMA AEC OR SETBACKS
SITE CONTAINS A WETLANDS/CONSERVATION RESOURCE AREA AND IS SUBJECT TO A 25' RESIDENTIAL SETBACKS PURSUANT TO MUNICODE SECTION 18-341.

HISTORICAL SITE:	NONE
CEMETERY:	NONE
FORESTED AREA:	SEE PLAN FOR TREE SURVEY
WETLANDS:	SEE PLAN FOR DELINEATION
ENDANGERED SPECIES/HABITAT:	NONE REPORTED

NOTES:
1. THE ALDERMAN PRESERVE SIGNIFICANT NATURAL HERITAGE AREA AND FEDERAL AND STATE LISTED SPECIES OF CONCERN ARE PRESENT TO THE EAST OF THIS PROJECT.
2. CONSTRUCTION AND GRADING FOR THE SITE WILL NOT DISTURB THE WETLAND RESOURCE.

SCALE: 1" = 50'
0 50 100 150

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			

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INVENTORY SITE PLAN

TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nktseng.com
licence #C-3641

12073

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	12/31/12

NORTH CAROLINA PROFESSIONAL SEAL C-3641 ENGINEER JOHN PAUL NEWTON TUNSTALL

I1

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