

The Lofts at Randall

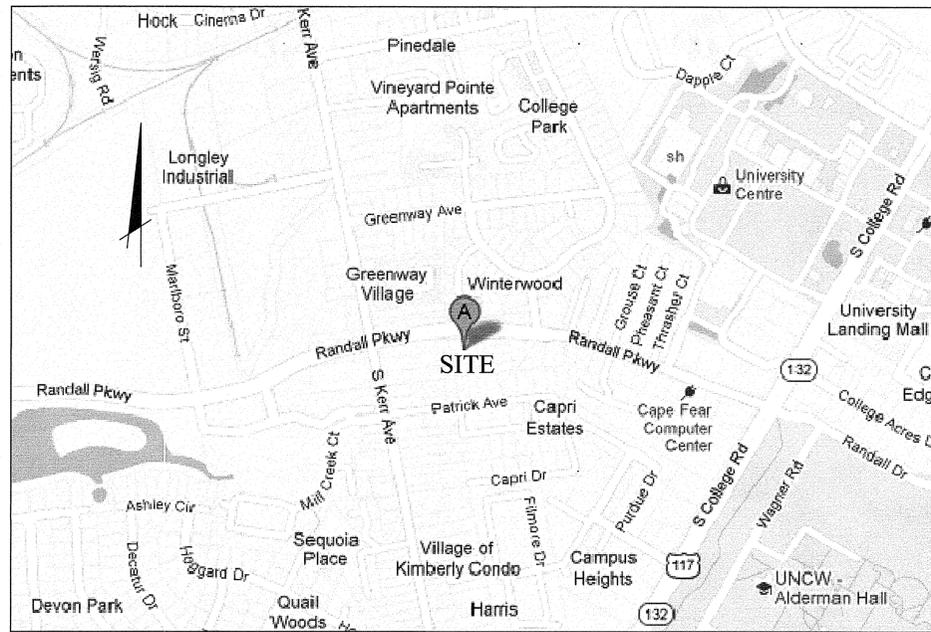
4810 Randall Parkway & 4629 Patrick Avenue

City of Wilmington, New Hanover County, North Carolina
Major Site Plan Submittal

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 City of Wilmington, New Hanover County, North Carolina
 Major Site Plan Submittal

DEVELOPMENT DATA

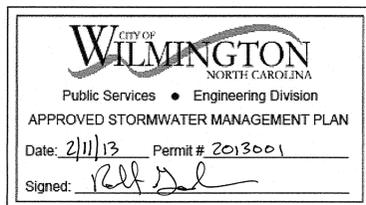
| | |
|----------------------|---|
| PROJECT: | THE LOFTS AT RANDALL |
| PLAN TYPE: | MAJOR SITE PLAN |
| ENGINEER: | CHANDLER ENGINEERING, PA JIM CHANDLER, PE 309 S. FUQUAY AVENUE FUQUAY-VARINA, NC 27526 PHONE: 919-552-4845 FAX: 919-552-6962 EMAIL: jim@chandlerengineeringpa.com |
| OWNER/DEVELOPER: | THE LOFTS AT RANDALL LLC CATHERINE CONNORS - MANAGER 106 MUIR WOODS DRIVE CARY, NC 27513 PHONE: 919-380-0446 EMAIL: cathy.connors@solsticepartners.net |
| ARCHITECT: | ANEGRAM STUDIOS, PA TAMMY KAHM, AIA PO BOX 10488 RALEIGH, NC 27605 PHONE: 919-377-2366 EMAIL: tammy@anegramstudio.com |
| PROPERTY ADDRESS: | 4810 RANDALL PARKWAY 4629 PATRICK AVENUE |
| PARCEL NUMBER: | 313711-67-9382.000 313711-77-1253.000 |
| REFERENCE: | DB 4073, PG 784 DB 5503, PG 1266 |
| ZONING: | MF-L (CD) |
| PROPOSED USE: | MULTI-FAMILY |
| EXISTING TRACT AREA: | 1.750 ACRES |



VICINITY MAP - 1"=1000'

SHEET INDEX

| | |
|---------|--|
| C1.01 - | SITE INVENTORY/TREE PRESERVATION/DEMOLITION PLAN |
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| C3.01 - | SITE GRADING PLAN |
| C4.01 - | SITE SEDIMENTATION AND EROSION CONTROL PLAN |
| C5.01 - | SITE UTILITY PLAN |
| C6.01 - | SITE PLANTING PLAN |
| C6.02 - | PLANTING DETAILS |
| C7.01 - | SITE DETAILS |
| C7.02 - | SITE DETAILS |
| SS-2 - | SANITARY SEWER STANDARD DETAILS |
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| AA201 - | NORTH AND EAST ELEVATIONS |
| AA202 - | SOUTH AND WEST ELEVATIONS |
| AA701 - | PICNIC SHELTER AND SITE SIGN |

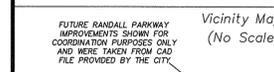
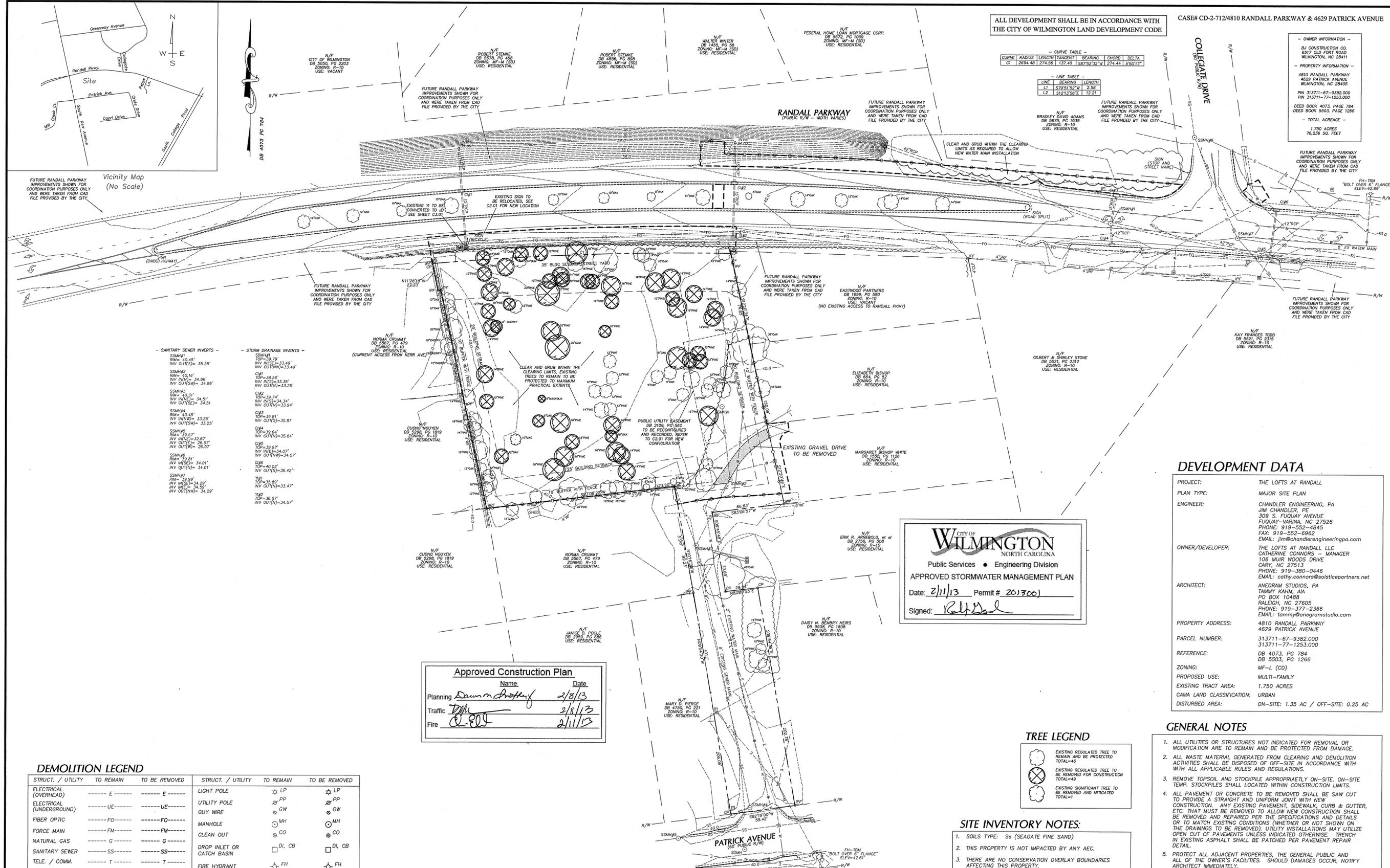


| Approved Construction Plan | |
|------------------------------|---------|
| Name | Date |
| Planning: <i>[Signature]</i> | 2/8/13 |
| Traffic: <i>[Signature]</i> | 2/8/13 |
| Fire: <i>[Signature]</i> | 2/11/13 |

chandler engineering pa
 309 S. Fuquay Avenue, Fuquay-Varina, NC 27526
 Phone: 919-552-4845 Fax: 919-552-6962



CALL 48 HOURS BEFORE YOU DIG
1-800-632-4949
 NORTH CAROLINA ONE-CALL CENTER



SANITARY SEWER INVERTS

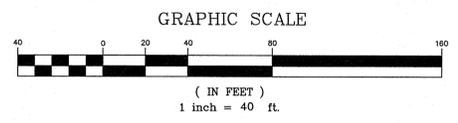
| | | |
|-------|-----------|-------------------|
| SSM#1 | RM=40.45' | INV OUT(S)=35.25' |
| SSM#2 | RM=40.10' | INV IN(S)=34.96' |
| SSM#3 | RM=40.31' | INV IN(S)=34.51' |
| SSM#4 | RM=40.45' | INV IN(S)=33.25' |
| SSM#5 | RM=39.57' | INV IN(S)=32.87' |
| SSM#6 | RM=39.81' | INV IN(S)=34.01' |
| SSM#7 | RM=39.90' | INV IN(S)=34.29' |

STORM DRAINAGE INVERTS

| | | |
|-------|------------|------------------|
| SDM#1 | TOP=39.79' | INV IN(S)=33.49' |
| SDM#2 | TOP=38.56' | INV IN(S)=33.36' |
| SDM#3 | TOP=39.74' | INV IN(S)=34.34' |
| SDM#4 | TOP=39.81' | INV IN(S)=35.81' |
| SDM#5 | TOP=39.64' | INV IN(S)=35.64' |
| SDM#6 | TOP=39.57' | INV IN(S)=34.07' |
| SDM#7 | TOP=40.02' | INV IN(S)=36.42' |
| SDM#8 | TOP=35.89' | INV IN(S)=33.47' |
| SDM#9 | TOP=36.57' | INV IN(S)=34.57' |

Approved Construction Plan

| Name | Date |
|------------------------------|---------|
| Planning <i>Dawn Anthony</i> | 2/8/13 |
| Traffic <i>DW</i> | 2/8/13 |
| Fire <i>CL-809</i> | 2/11/13 |



ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON LAND DEVELOPMENT CODE

CURVE TABLE

| CURVE | RADIUS | LENGTH | TANGENT | BEARING | CHORD | DELTA |
|-------|---------|--------|---------|-------------|--------|----------|
| C1 | 2694.48 | 274.56 | 137.40 | S87°52'32"W | 274.44 | 5.26°17' |

LINE TABLE

| LINE | BEARING | LENGTH |
|------|-------------|--------|
| L1 | S79°21'52"W | 2.58 |
| L2 | S12°13'56"E | 12.21 |

CASE# CD-2-712/4810 RANDALL PARKWAY & 4629 PATRICK AVENUE

OWNER INFORMATION
BY CONSTRUCTION CO.
6577 OLD FORT ROAD
WILMINGTON, NC 28411

PROPERTY INFORMATION
4810 RANDALL PARKWAY
4629 PATRICK AVENUE
WILMINGTON, NC 28405

TOTAL ACREAGE
1.750 ACRES
76,236 SQ. FEET

WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: 2/11/13 Permit # 2013001

Signed: *R. J. [Signature]*

DEVELOPMENT DATA

PROJECT: THE LOFTS AT RANDALL
PLAN TYPE: MAJOR SITE PLAN
ENGINEER: CHANDLER ENGINEERING, PA
JIM CHANDLER, PE
309 S. FUQUAY AVENUE
FUQUAY-VARINA, NC 27256
PHONE: 919-552-4945
FAX: 919-552-6962
EMAIL: jim@chandlerengineeringpa.com

OWNER/DEVELOPER: THE LOFTS AT RANDALL LLC
CATHERINE CONNORS - MANAGER
106 MUIR WOODS DRIVE
CARY, NC 27513
PHONE: 919-380-0446
EMAIL: cathy.connors@solsticepartners.net

ARCHITECT: ANEGRAM STUDIOS, PA
TAMMY KAHM, AIA
PO BOX 10488
RALEIGH, NC 27605
PHONE: 919-377-2366
EMAIL: tammy@anegramstudio.com

PROPERTY ADDRESS: 4810 RANDALL PARKWAY
4629 PATRICK AVENUE

PARCEL NUMBER: 313711-67-9382.000
313711-77-1253.000

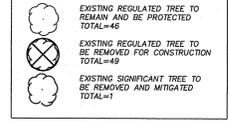
REFERENCE: DB 4073, PG 784
DB 5503, PG 1266

ZONING: MF-L (CD)
PROPOSED USE: MULTI-FAMILY
EXISTING TRACT AREA: 1.750 ACRES
CAMA LAND CLASSIFICATION: URBAN
DISTURBED AREA: ON-SITE: 1.35 AC / OFF-SITE: 0.25 AC

GENERAL NOTES

- ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
- ALL WASTE MATERIAL GENERATED FROM CLEARING AND DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
- REMOVE TOPSOIL AND STOCKPILE APPROPRIATELY ON-SITE. ON-SITE TEMP. STOCKPILES SHALL LOCATED WITHIN CONSTRUCTION LIMITS.
- ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT WITH NEW CONSTRUCTION. ANY EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED AND REPAIRED PER THE SPECIFICATIONS AND DETAILS OR TO MATCH EXISTING CONDITIONS (WHETHER OR NOT SHOWN ON THE DRAWINGS TO BE REMOVED). UTILITY INSTALLATIONS MAY UTILIZE OPEN CUT OF PAVEMENTS UNLESS INDICATED OTHERWISE. TRENCH IN EXISTING ASPHALT SHALL BE PATCHED PER PAVEMENT REPAIR DETAIL.
- PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGES OCCUR, NOTIFY ARCHITECT IMMEDIATELY.
- THE CONTRACTOR SHALL EMPLOY A QUALIFIED UTILITY LOCATOR SERVICE TO LOCATE ALL UNDERGROUND UTILITIES (INCLUDING BUT NOT LIMITED TO ELECTRICAL, TELEPHONE, GAS, CABLE, FIBER OPTIC) WITHIN THE LIMITS OF CONSTRUCTION.
- VERIFY ALL ILLUSTRATED KNOWN UNDERGROUND ELEMENTS. EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY THE ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
- EXISTING MANHOLES, VALVE BOXES, VAULTS, CLEANOUTS, UTILITY POLES ETC. TO REMAIN WITHIN THE GRADING LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERTY WITH THE PROPOSED FINISHED GRADES (WHETHER OR NOT INDICATED TO BE MODIFIED).
- GENERAL CONTRACTOR TO COORDINATE ALL PEDESTRIAN ACCESS PATHS, LOCATIONS, LIGHTING ETC. W/OWNER.

TREE LEGEND



SITE INVENTORY NOTES:

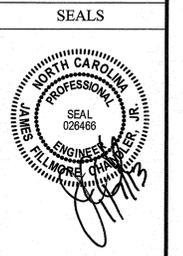
- SOILS TYPE: S_o (SEAGATE FINE SAND)
- THIS PROPERTY IS NOT IMPACTED BY ANY AEC.
- THERE ARE NO CONSERVATION OVERLAY BOUNDARIES AFFECTING THIS PROPERTY.
- THIS SITE IS NOT IMPACTED BY ANY RECOGNIZED HISTORIC OR ARCHEOLOGICAL SIGNIFICANCE.
- NO CEMETERIES WERE EVIDENCED ON THE SITE.
- EXISTING VEGETATION HAS BEEN LOCATED AND IS LABELED.
- THERE IS NO EVIDENCE OF JURISDICTIONAL WETLANDS OR SECTION 10 WATERS ON THE SITE.
- THERE IS NO EVIDENCE OF ENDANGERED SPECIES OR HABITAT ISSUES ON THE SITE.
- THE PROPERTY IS NOT WITHIN ANY FLOOD HAZARD AREA AS EVIDENCED ON NC FLOOD MAP 3720313700.
- THE SITE DRAINAGE FLOWS INTO THE SMITH CREEK DRAINAGE BASIN. CLASSIFICATION C_{sw}
- THERE ARE NO FORESTED AREAS ON THIS PROPERTY.

DEMOLITION LEGEND

| STRUCT. / UTILITY | TO REMAIN | TO BE REMOVED | STRUCT. / UTILITY | TO REMAIN | TO BE REMOVED |
|-----------------------------|-----------|---------------|--|-----------|---------------|
| ELECTRICAL (OVERHEAD) | --- | E--- | LIGHT POLE | ☆ LP | ☆ LP |
| ELECTRICAL (UNDERGROUND) | --- | UE--- | UTILITY POLE | ⊙ PP | ⊙ PP |
| FIBER OPTIC | --- | FO--- | GUY WIRE | ⊙ GW | ⊙ GW |
| FORCE MAIN | --- | FM--- | MANHOLE | ⊙ MH | ⊙ MH |
| NATURAL GAS | --- | G--- | CLEAN OUT | ⊙ CO | ⊙ CO |
| SANITARY SEWER | --- | SS--- | DROP INLET OR CATCH BASIN | □ DI, CB | □ DI, CB |
| TELE. / COMM. (UNDERGROUND) | --- | T--- | FIRE HYDRANT | ⊙ FH | ⊙ FH |
| WATER | --- | W--- | WATER VALVE | ⊙ WV | ⊙ WV |
| STORM DRAIN | --- | SD--- | EXISTING ASPHALT TO BE REMOVED AND PATCHED AS REQUIRED | ▨ | ▨ |
| TELEPHONE PEDISTAL | □ TP | □ TP | EXISTING GRAVEL DRIVE TO BE REMOVED | ▨ | ▨ |
| UTILITY POLE | ⊙ PP | ⊙ PP | | | |
| WOOD POLE | ⊙ WP | ⊙ WP | | | |
| WATER WELL | ⊙ WH | ⊙ WH | | | |
| DISTURBED/CLEARING LIMITS | --- | --- | | | |
| SILT/TREE PROTECTION FENCE | --- | --- | | | |

NOTE: DEMOLITION AND PATCHING OF PAVEMENT AND OTHER EXISTING IMPROVEMENTS IN ADDITION TO THAT INDICATED ON THIS PLAN SHALL BE PERFORMED AS NECESSARY TO CONSTRUCT AND/OR INSTALL THE NEW WORK. ALL SUCH DEMOLITION AND PATCHING SHALL BE INCLUDED IN THE BASE BID SCOPE OF WORK.

chandler engineering pa
309 S. Fuquay Avenue, Fuquay-Varina, NC 27526
Phone: 919-552-4845 Fax: 919-552-6962



REVISIONS

| DATE | COMMENTS |
|---------|-----------------------------|
| 12-1-13 | REVISED PER AGENCY COMMENTS |

MAJOR SITE PLAN

The Lofts at Randall
4810 Randall Parkway, 4629 Patrick Avenue
Wilmington, North Carolina

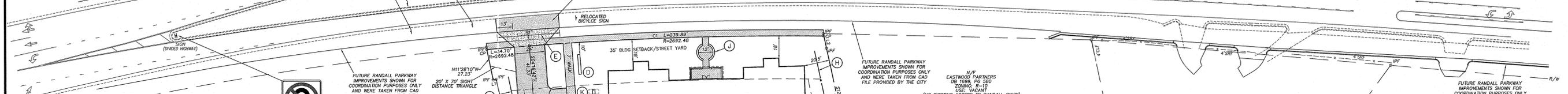
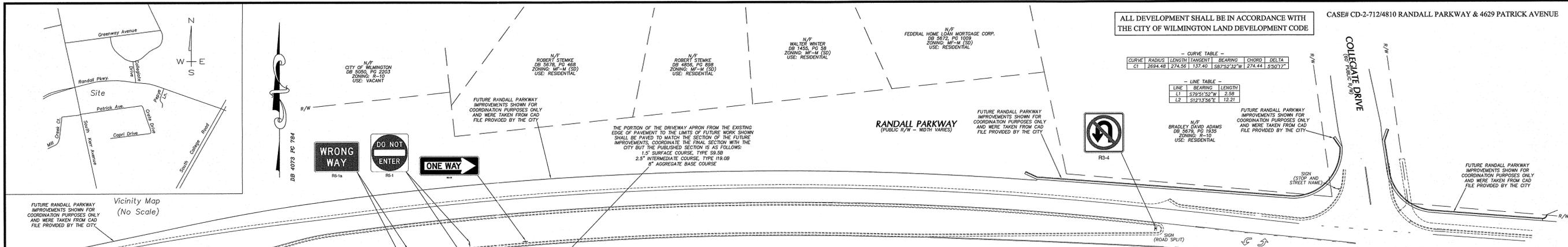
REVIEWED BY: JPC
DATE: 11-2-12
PROJECT NUMBER: 12-013
COUNTY: NEW HANOVER
PINS: 313711-67-9382.000
313711-77-1253.000
DEED: DB 4073, PG 784
DB 5503, PG 1266

ZONING: MF-L(CD)
TOWNSHIP: WILMINGTON

SITE INVENTORY/ TREE PRESERVATION/ DEMOLITION PLAN

C1.01

NOVEMBER 2012



DEVELOPMENT DATA

PROJECT: THE LOFTS AT RANDALL
 PLAN TYPE: MAJOR SITE PLAN
 ENGINEER: CHANDLER ENGINEERING, PA
 309 S. FLOUQUAY AVENUE
 FLOUQUAY-VARINA, NC 27526
 PHONE: 919-552-4845
 FAX: 919-552-6962
 EMAIL: jim@chandlerengineeringpa.com

OWNER/DEVELOPER: THE LOFTS AT RANDALL LLC
 CATHERINE CONNORS - MANAGER
 106 MUR WOODS DRIVE
 CARY, NC 27513
 PHONE: 919-380-0446
 EMAIL: cathy.connors@soliticepartners.net

ARCHITECT: ANEGRAM STUDIOS, PA
 TAMMY KAHM, AIA
 PO BOX 10488
 RALEIGH, NC 27605
 PHONE: 919-377-2366
 EMAIL: tammy@anegramstudio.com

PROPERTY ADDRESS: 4810 RANDALL PARKWAY
 4629 PATRICK AVENUE

PARCEL NUMBER: 313711-67-9382.000
 313711-77-1253.000

REFERENCE: DB 4073, PG 784
 DB 5503, PG 1266

ZONING: MF-L (CD)
 PROPOSED USE: MULTI-FAMILY
 EXISTING TRACT AREA: 1.750 ACRES
 PROPOSED # UNITS: 18 UNITS (ALL 3-BEDROOM)
 PROPOSED DENSITY: 18 UNITS PER ACRE
 PROPOSED # BEDROOMS: 54 TOTAL BEDROOMS
 HEATED GROSS FLOOR AREA: 31,632 SF (3 @ 10,544)
 BUILDING COVERAGE: BUILDING: 10,454 SF
 SHELTER: 630 SF
 TOTAL: 11,084 SF (14.5%)
 MIN. BUILDING SETBACKS: (FRONT) CODE: 35' ACTUAL: 18'
 (REAR) CODE: 25' ACTUAL: 116.5'
 (SIDE) CODE: 20' ACTUAL: 20.5'

MAX. BUILDING HEIGHT: 3-STORY / 33'-11 7/8" MEAN ROOF
 CAMA LAND CLASSIFICATION: URBAN
 DISTURBED AREA: ON-SITE: 1.35 AC / OFF-SITE: 0.25 AC

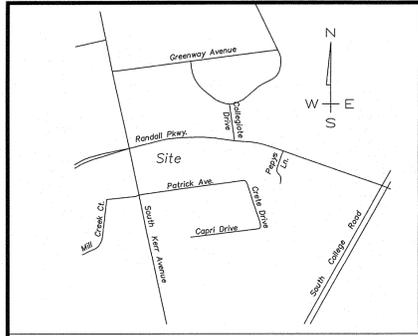
OPEN SPACE CALCULATIONS:
 MINIMUM OPEN SPACE REQUIRED (35%): 26,680 SF
 OPEN SPACE PROVIDED (35.2%): 26,682 SF
 [AREA PROVIDED IS TOTAL TRACT AREA MINUS COVERED SURFACES (37,053 SF), PLANTING ISLANDS (1,080 SF), STREET YARDS (4,500 SF), FOUNDATION PLANTING AREAS (955 SF), AND FENCED BUFFERS (5,960 SF)]

REC. AREA REQUIRED (50% OF OPEN SPACE REQUIRED): 13,340 SF
 ACTIVE REC. AREA REQUIRED (50% OF REC AREA): 6,670 SF
 PASSIVE REC. AREA REQUIRED (50% OF REC AREA): 6,670 SF
 ACTIVE REC. AREA PROVIDED: 4,914 SF
 PASSIVE REC. AREA PROVIDED: 4,688 SF
 TOTAL REC. AREA PROVIDED: 9,602 SF
 [ADDITIONAL 3,738 SF OF REQUIRED REC. AREA OFFSET BY PAYMENT-IN-LIEU]

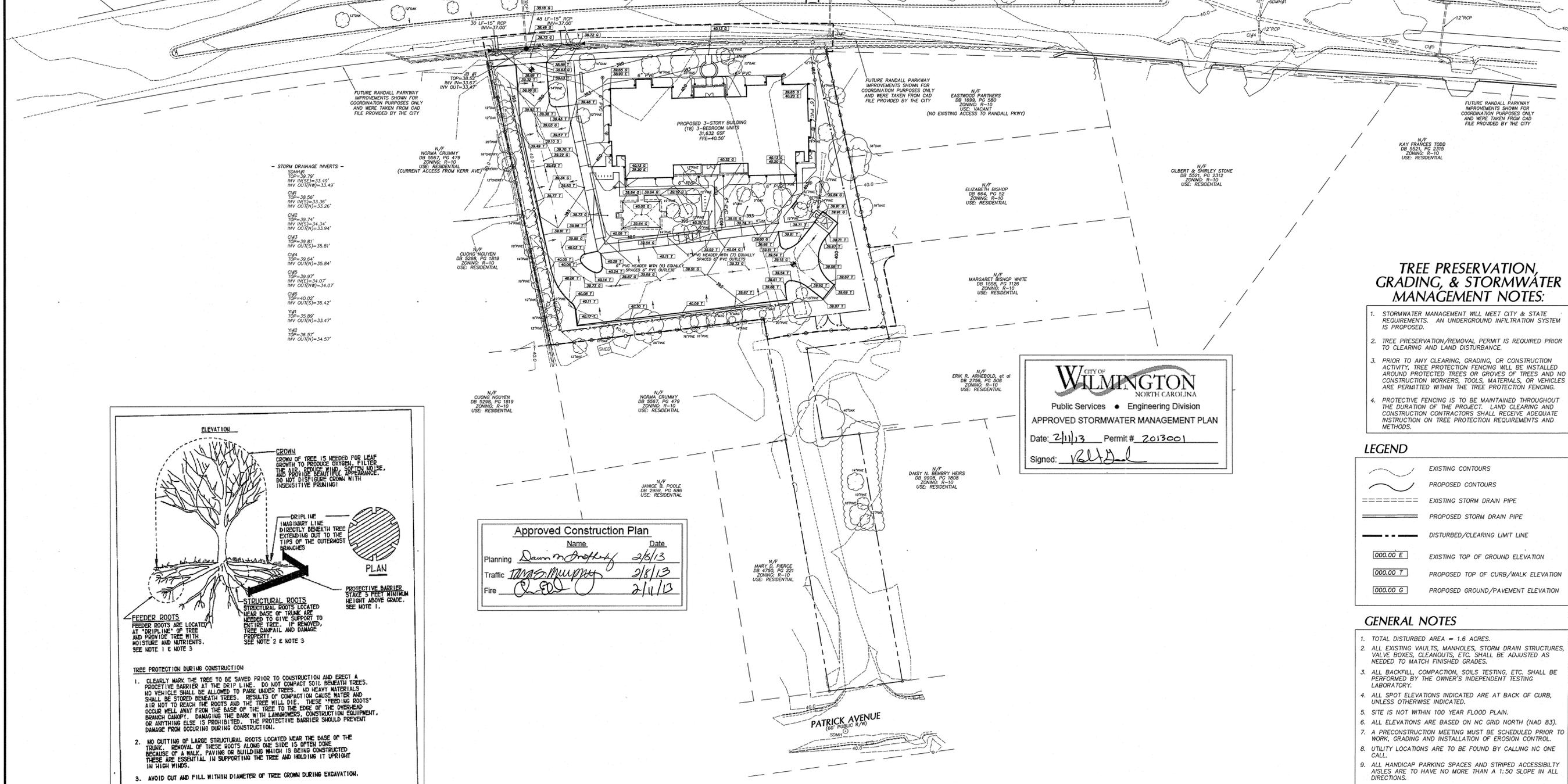
IMPERVIOUS SURFACE AREAS:
 ON-SITE OFF-SITE
 EXISTING GRAVEL DRIVE: 5,110 SF -
 GRAVEL DRIVE REMOVED: -575 SF -
 GRAVEL DRIVE ADDED: 245 SF 480 SF -
 ROOFTOP: 11,084 SF -
 WALKS: 4,418 SF 1,222 SF -
 NON-PERMEABLE PAVEMENT: 160 SF 1,081 SF -
 PERMEABLE PAVEMENT: 16,611 SF -
 (75% REDUCTION FOR TYPE A SOILS): -12,458 SF -
 TOTAL: 24,595 SF 2,783 SF

REQUIRED PARKING:
 18 UNITS @ 2.25 MINIMUM PER UNIT 41
 18 UNITS @ 2.50 MAXIMUM PER UNIT 45
 ALLOWED 25% INCREASE WITH PERMEABLE PARKING 56
 PROPOSED PARKING: 50
 ACCESSIBLE PARKING REQUIRED: 2
 ACCESSIBLE PARKING PROVIDED: 2
 BIKE PARKING REQUIRED: 20
 BIKE PARKING PROVIDED: 20





Vicinity Map
(No Scale)



STORM DRAINAGE INVERTS -

| | | |
|------|------------|-------------------|
| CI#1 | TOP=39.79' | INV. IN(S)=33.49' |
| CI#2 | TOP=38.56' | INV. IN(S)=33.36' |
| CI#3 | TOP=39.74' | INV. IN(S)=34.34' |
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| CI#5 | TOP=39.64' | INV. IN(S)=35.64' |
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| CI#7 | TOP=40.02' | INV. IN(S)=36.42' |
| CI#8 | TOP=35.89' | INV. IN(S)=33.47' |
| CI#9 | TOP=36.57' | INV. IN(S)=34.57' |

Approved Construction Plan

| Name | Date |
|------------------------------|---------|
| Planning <i>Dawn Drotter</i> | 2/8/13 |
| Traffic <i>Tina Murphy</i> | 2/8/13 |
| Fire <i>Q. Ed</i> | 2/11/13 |

CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 2/11/13 Permit # 2013001
Signed: *[Signature]*

TREE PRESERVATION, GRADING, & STORMWATER MANAGEMENT NOTES:

- STORMWATER MANAGEMENT WILL MEET CITY & STATE REQUIREMENTS. AN UNDERGROUND INFILTRATION SYSTEM IS PROPOSED.
- TREE PRESERVATION/REMOVAL PERMIT IS REQUIRED PRIOR TO CLEARING AND LAND DISTURBANCE.
- 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.
- PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS.

LEGEND

| | |
|--|-------------------------------------|
| | EXISTING CONTOURS |
| | PROPOSED CONTOURS |
| | EXISTING STORM DRAIN PIPE |
| | PROPOSED STORM DRAIN PIPE |
| | DISTURBED/CLEARING LIMIT LINE |
| | EXISTING TOP OF GROUND ELEVATION |
| | PROPOSED TOP OF CURB/WALK ELEVATION |
| | PROPOSED GROUND/PAVEMENT ELEVATION |

GENERAL NOTES

- TOTAL DISTURBED AREA = 1.6 ACRES.
- ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, VALVE BOXES, CLEANOUTS, ETC. SHALL BE ADJUSTED AS NEEDED TO MATCH FINISHED GRADES.
- ALL BACKFILL, COMPACTION, SOILS TESTING, ETC. SHALL BE PERFORMED BY THE OWNER'S INDEPENDENT TESTING LABORATORY.
- ALL SPOT ELEVATIONS INDICATED ARE AT BACK OF CURB, UNLESS OTHERWISE INDICATED.
- SITE IS NOT WITHIN 100 YEAR FLOOD PLAIN.
- ALL ELEVATIONS ARE BASED ON NC GRID NORTH (NAD 83).
- A PRECONSTRUCTION MEETING MUST BE SCHEDULED PRIOR TO WORK, GRADING AND INSTALLATION OF EROSION CONTROL.
- UTILITY LOCATIONS ARE TO BE FOUND BY CALLING NC ONE CALL.
- ALL HANDICAP PARKING SPACES AND STRIPED ACCESSIBILITY AISLES ARE TO HAVE NO MORE THAN A 1:50 SLOPE IN ALL DIRECTIONS.
- ALL SIDEWALKS ARE TO HAVE NO MORE THAN A 1:20 SLOPE FOR THE LENGTH OF THE SIDEWALK AND NO MORE THAN A 1:50 SLOPE FOR THE WIDTH OF THE SIDEWALK.
- IF CONTRACTOR NOTICES ANY DISCREPANCIES IN ANY OF THESE SLOPE REQUIREMENTS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNER PRIOR TO POURING ANY CONCRETE SO THAT A SOLUTION CAN BE FOUND.
- SPOT ELEVATIONS ARE GIVEN AT A MAJORITY OF THE MAJOR BREAK POINTS; BUT IT SHOULD NOT BE ASSUMED THAT ALL NECESSARY SPOT ELEVATIONS ARE SHOWN. DUE TO SPACE LIMITATIONS, THERE MAY BE OTHER CRITICAL SPOTS NOT LABELED THAT SHOULD BE TAKEN INTO CONSIDERATION. THE CONTRACTOR SHALL REVIEW THE GRADING PLAN IN DETAIL AND SHALL ENSURE THAT ALL CRITICAL GRADE POINTS ARE STAKED AND FOLLOWED TO PROVIDE POSITIVE DRAINAGE.

ELEVATION

PLAN

PROTECTIVE BARRIER
STAKE 3 FEET MINIMUM HEIGHT ABOVE GRADE. SEE NOTE 1.

FEEDER ROOTS
FEEDER ROOTS ARE LOCATED AT "DRIP LINE" OF TREE AND PROVIDE TREE WITH MOISTURE AND NUTRIENTS. SEE NOTE 1 & NOTE 3.

STRUCTURAL ROOTS
STRUCTURAL ROOTS LOCATED NEAR BASE OF TRUNK ARE NEEDED TO GIVE SUPPORT TO ENTIRE TREE. IF REMOVED, TREE CAN FALL AND DAMAGE PROPERTY. SEE NOTE 2 & NOTE 3.

TREE PROTECTION DURING CONSTRUCTION

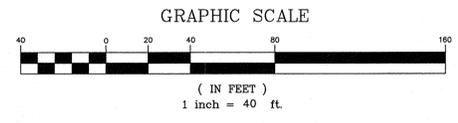
- CLEARLY MARK THE TREE TO BE SAVED PRIOR TO CONSTRUCTION AND ERECT A PROTECTIVE BARRIER AT THE DRIP LINE. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO HEAVY MATERIALS SHALL BE STORED BENEATH TREES. RESULTS OF COMPACTION CAUSE WATER AND AIR NOT TO REACH THE ROOTS 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 LANENMERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. THE PROTECTIVE BARRIER SHOULD PREVENT DAMAGE FROM OCCURRING DURING CONSTRUCTION.
- NO CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK. REMOVAL OF THESE ROOTS ALONG ONE SIDE IS OFTEN DONE BECAUSE OF A WALK, PAVING OR BUILDING WHICH IS BEING CONSTRUCTED. THESE ARE ESSENTIAL IN SUPPORTING THE TREE AND HOLDING IT UPRIGHT IN HIGH WINDS.
- AVOID CUT AND FILL WITHIN DIAMETER OF TREE CROWN DURING EXCAVATION.

DATE: 5-29-96
SCALE: MTS
DRAWN BY: GC
CHECKED BY: MAM
SD: 15-09

STANDARD DETAIL
METHOD OF TREE PROTECTION DURING CONSTRUCTION

CITY OF WILMINGTON
ENGINEERING DEPARTMENT
SD 15-09

6-20



chandler engineering pa
309 S. Finguy Avenue, Fuquay-Varina, NC 27792
Phone: 919-552-4845 Fax: 919-552-6962

SEALS



REVISIONS

| DATE | COMMENTS |
|----------|-----------------------------|
| 12-15-12 | REVISED PER AGENCY COMMENTS |
| 12-18-12 | REVISED PER AGENCY COMMENTS |
| 12-20-12 | REVISED PER AGENCY COMMENTS |
| 1-11-13 | REVISED PER AGENCY COMMENTS |

MAJOR SITE PLAN

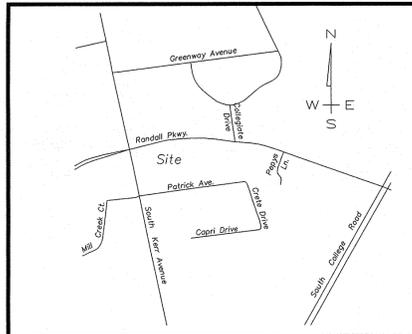
The Lofts at Randall
4810 Randall Parkway, 4629 Patrick Avenue
Wilmington, North Carolina

| | |
|-----------------|--|
| REVIEWED BY: | JFC |
| DATE: | 11-2-12 |
| PROJECT NUMBER: | 12-013 |
| COUNTY: | NEW HANOVER |
| PINS: | 313711-67-9382.000 313711-71-1253.000 |
| DEED: | DB 4073, PG 784 DB 5503, PG 1266 |
| ZONING: | MF-1 (C7) |
| TOWNSHIP: | WILMINGTON |

SITE GRADING PLAN

C3.01

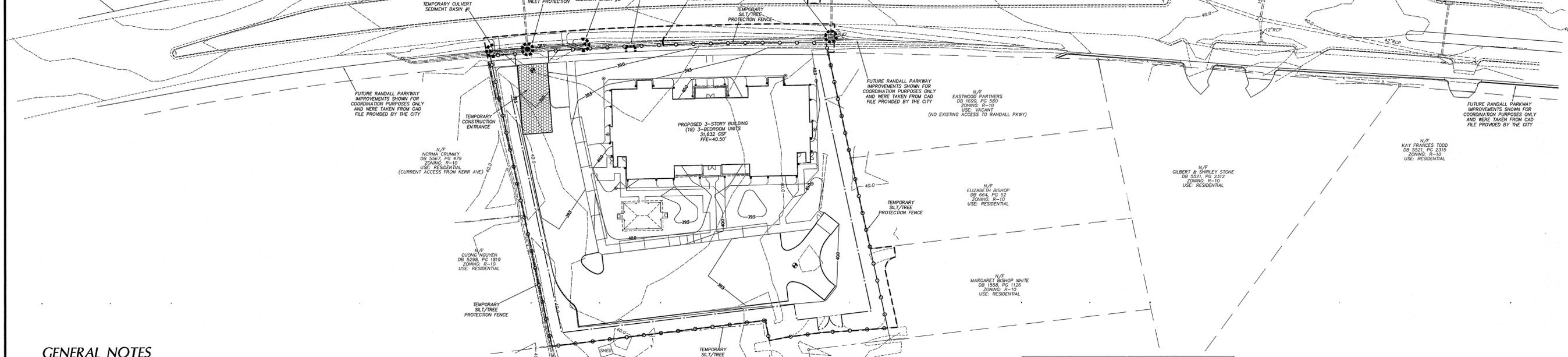
NOVEMBER 2012



ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON LAND DEVELOPMENT CODE

CASE# CD-2-712/4810 RANDALL PARKWAY & 4629 PATRICK AVENUE

FUTURE RANDALL PARKWAY IMPROVEMENTS SHOWN FOR COORDINATION PURPOSES ONLY AND WERE TAKEN FROM CAD FILE PROVIDED BY THE CITY



GENERAL NOTES

1. THE GRADING CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF-SITE.
2. THE GRADING CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AS DIRECTED BY LOCAL AUTHORITIES OR ENGINEER. REFER TO MAINTENANCE PLAN NOTES ON THIS SHEET.
3. THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE DISPOSAL OF ALL CLEARING AND GRADING WASTE MATERIALS GENERATED DURING HIS PHASE OF WORK AND FOR OBTAINING ALL APPLICABLE PERMITS FOR OFF-SITE STOCKPILES AND/OR WASTE AREAS.
4. DISTURBED AREA: 1.6 ACRES
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY TRACKED SOIL FROM ALL ADJACENT ROADWAYS THAT ARE IMPACTED BY CONSTRUCTION TRAFFIC. THE OWNER RESERVES THE RIGHT TO REQUIRE THAT A WASH STATION BE INSTALLED AT NO ADDITIONAL COST IF PAVEMENT AREAS ARE NOT KEPT CLEAN.
6. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS OF THE GENERAL PERMIT TO DISCHARGE STORMWATER UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT NO. NCC010000.
7. A PRECONSTRUCTION MEETING MUST BE SCHEDULED PRIOR TO WORK, GRADING PERMIT AND INSTALLATION OF EROSION CONTROL.
8. UTILITY LOCATIONS ARE TO BE FOUND BY CALLING NC ONE CALL.
9. ALL TEMPORARY MEASURES SHALL BE REMOVED AT THE END OF THE CONSTRUCTION OF THE PROJECT.
10. CUT AND FILL SLOPES SHALL BE STABILIZED AS REQUIRED BY THE GENERAL PERMIT STABILIZATION REQUIREMENTS FOUND ON THIS SHEET.
11. SILT FENCING SHALL BE INSTALLED AROUND THE PERIMETER SEPARATING EXISTING PEDESTRIAN TRAFFIC AREAS.
12. ALL CUT AND FILL SLOPES ARE TO BE AT A 3:1 MAXIMUM.

DWQ CONSTRUCTION GENERAL PERMIT STABILIZATION REQUIREMENTS

| 1) Ground Stabilization* | | |
|--|--------------------------|--|
| 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 perimeter 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.B.(3)(b))

Approved Construction Plan

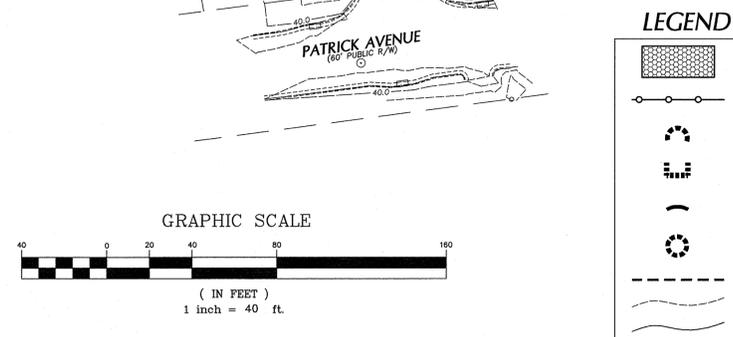
| Name | Date |
|------------------------------|---------|
| Planning <i>Sam McSherry</i> | 2/8/13 |
| Traffic <i>Tomas Murphy</i> | 2/8/13 |
| Fire <i>[Signature]</i> | 2/11/13 |

WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 2/11/13 Permit # 2013001
Signed: *[Signature]*

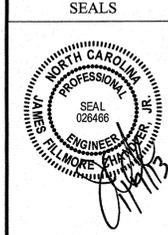
- Maintenance Plan**
1. All erosion and sediment control measures will be checked for stability and operation following every runoff-producing rainfall, but in no case, less than once every week and within 24 hours of every half inch rainfall.
 2. All points of egress will have construction entrances 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.
 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. 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.
 9. Flocculants will be used to address turbidity issues. The pumps, tanks, hoses and injection systems will be checked for problems or turbid discharges daily.

CONSTRUCTION SEQUENCE

1. OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS. KEEP A COPY OF THE APPROVED PLAN ON-SITE AND POST APPROVAL PLACARD.
2. NOTIFY NEW HANOVER COUNTY, ARCHITECT, ENGINEER AND OWNER REPRESENTATIVE AND CONDUCT PRE-CONSTRUCTION CONFERENCE AS REQUIRED PRIOR TO STARTING CLEARING OR ANY OTHER CONSTRUCTION.
3. INSTALL THE GRAVEL CONSTRUCTION ENTRANCE AND PERIMETER SILT FENCES. CLEAR ONLY AS REQUIRED TO INSTALL THESE DEVICES. ONCE THIS IS COMPLETE, INSTALL THE INLET PROTECTION, CHECK DAMS AND SILT FENCE OUTLET AS INDICATED.
4. BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED.
5. BEGIN ROUGH GRADING OF THE SITE. SEED AND STABILIZE SLOPES AS THEY ARE ESTABLISHED AND AS REQUIRED PER THE GENERAL PERMIT STABILIZATION REQUIREMENTS FOUND ON THIS SHEET.
6. INSPECT ALL MEASURES AND DEVICES WEEKLY AND AFTER ALL RAINFALL EVENTS. MAKE PROMPT REPAIRS AS NEEDED.
7. STABILIZE SITE IMMEDIATELY AS AREAS ARE BROUGHT UP TO FINISHED GRADE WITH VEGETATION, PAVING AND TEMPORARY DITCH AND SLOPE LINING AS REQUIRED BY THE GENERAL PERMIT STABILIZATION REQUIREMENTS FOUND ON THIS SHEET. STABILIZE ALL SLOPES 6:1 OR STEEPER WITH EROSION CONTROL MATTING.
8. ADDITIONAL EROSION MEASURES MAY BE NECESSARY DEPENDING ON THE PERFORMANCE OF THOSE SHOWN ON THE PLAN. THE CONTRACTOR WILL INSTALL ADDITIONAL MEASURES IF NECESSARY AS REQUIRED BY NEW HANOVER COUNTY, OWNER, ARCHITECT, OR ENGINEER.
9. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED; CALL FOR INSPECTION BY THE COUNTY.
11. UPON APPROVAL BY NEW HANOVER COUNTY INSPECTOR, REMOVE ALL REMAINING PERIMETER MEASURES AND STABILIZE THESE AREAS. CALL FOR A FINAL INSPECTION TO CLOSE OUT PERMIT AND OBTAIN FINAL APPROVAL.



chandler engineering pa
309 S. Tinkley Avenue, Fuquay-Varina, NC 27226
Phone: 919-552-4845 Fax: 919-552-6962



REVISIONS

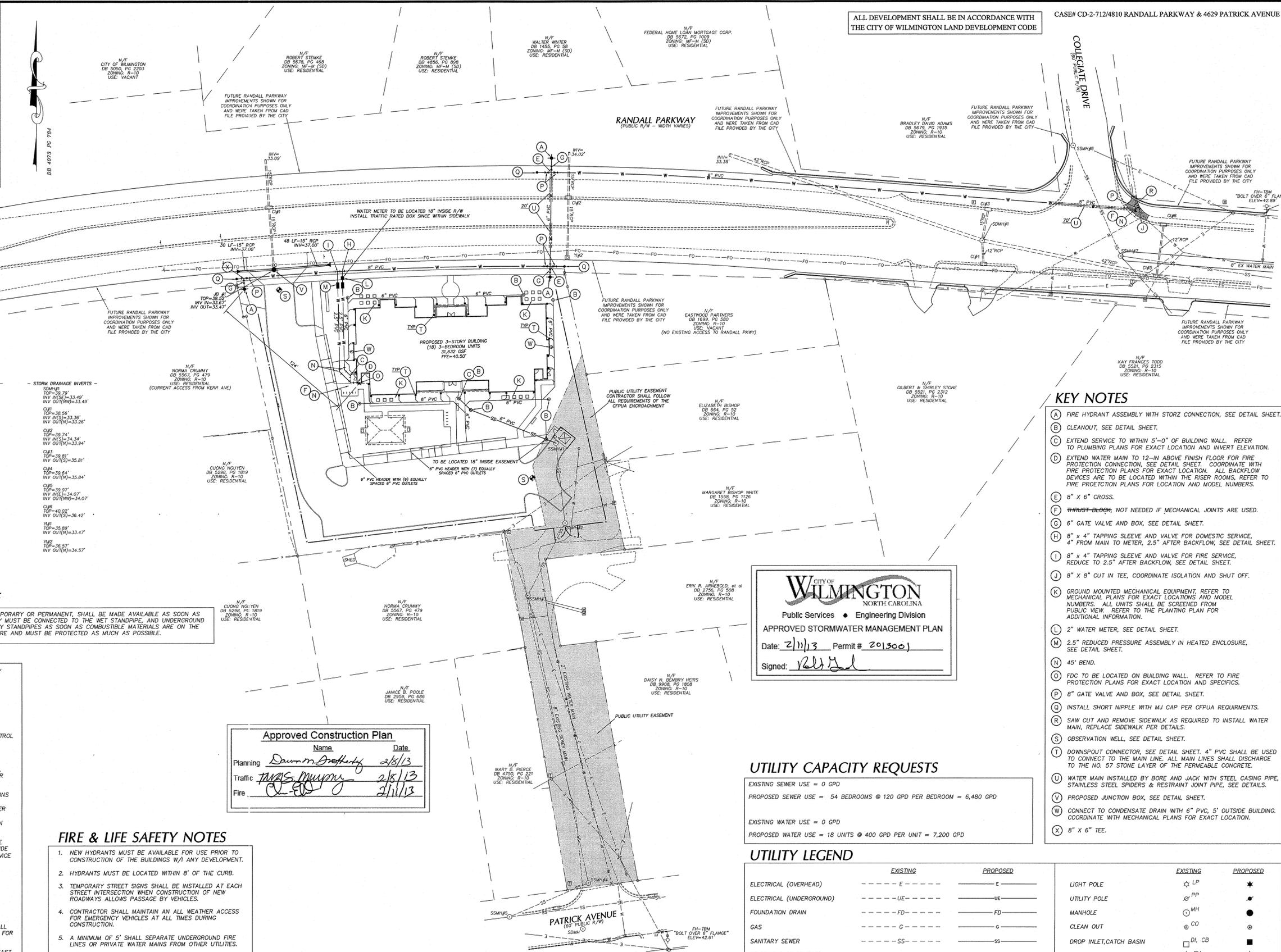
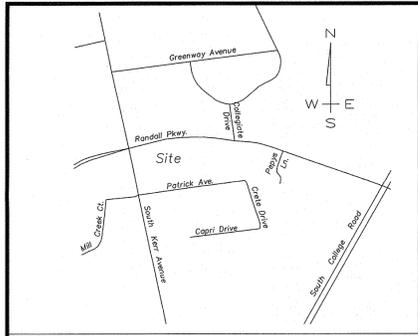
| DATE | COMMENTS |
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| 12-14-12 | REVISED PER AGENCY COMMENTS |
| 12-18-12 | REVISED PER AGENCY COMMENTS |
| 12-20-12 | REVISED PER AGENCY COMMENTS |
| 1-7-13 | REVISED PER AGENCY COMMENTS |

MAJOR SITE PLAN

The Lofts at Randall
4810 Randall Parkway, 4629 Patrick Avenue
Wilmington, North Carolina

REVIEWED BY: JFC
DATE: 11-2-12
PROJECT NUMBER: 12-013
COUNTY: NEW HANOVER
PINS: 31371-67-9382.000
31371-77-1253.000
DEED: DB 4073, PG 734
DB 5503, PG 1266
ZONING: MF-L (CD)
TOWNSHIP: WILMINGTON

SITE SEDIMENTATION AND EROSION CONTROL PLAN
C4.01
NOVEMBER 2012



ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON LAND DEVELOPMENT CODE

CASE# CD-2-712/4810 RANDALL PARKWAY & 4629 PATRICK AVENUE

COMBUSTIBLE MATERIAL NOTE

AN APPROVED WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ARRIVES ON THE SITE. A WATER SUPPLY MUST BE CONNECTED TO THE WET STANDPIPE, AND UNDERGROUND WATER SUPPLY AND HYDRANTS MUST BE AVAILABLE FOR THE DRY STANDPIPES AS SOON AS COMBUSTIBLE MATERIALS ARE ON THE JOB SITE. THE UNFINISHED BUILDING IS MOST VULNERABLE TO FIRE AND MUST BE PROTECTED AS MUCH AS POSSIBLE.

UTILITY NOTES

- EXISTING WATER & SANITARY SEWER SERVICES ARE CURRENTLY AVAILABLE TO THE SITE FROM CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) PUBLIC MAINS.
- ALL UTILITY SERVICES, SUCH AS ELECTRIC, CATV, GAS, & TELEPHONE SHALL BE INSTALLED UNDERGROUND.
- ALL WATER & SEWER UTILITIES TO BE INSTALLED PER CFPUA TECHNICAL SPECIFICATIONS & STANDARDS.
- PROJECT SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND NCDENR HAS ISSUED THEIR "FINAL APPROVAL". CALL 343-3910 FOR INFORMATION.
- ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USOCFCHR OR ASSE.
- WATER & SEWER SERVICES CANNOT BE ACTIVATED ON NEW MAINS UNTIL THE ENGINEER'S CERTIFICATION 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.
- IF 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.
- WHEN PVC WATER MAINS AND SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED SINGLE-STRAND COPPER WIRE INSTALLED & STRAPPED TO THE PIPES WITH DUCT TAPE. THIS IS TO BE ACCESSIBLE IN ALL VALVES AND METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. CALL U-LOCO AT 1-800-632-4949. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY UTILITIES, CURB & GUTTER, PAVEMENT, ETC. THAT MAY BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE REPAIRED TO AT LEAST THE QUALITY OR WORKMANSHIP FOUND IN THE ORIGINAL ITEM.
- THE BELLSOUTH CONTACT IS STEVE DAYVAULT, BUILDING INDUSTRY CONSULTANT, AT 910-392-8712. CONTACT HIM PRIOR TO STARTING THE PROJECT IN ORDER TO FACILITATE GOOD COMMUNICATION AND MAXIMUM FLEXIBILITY.
- THE PROCESS FOR TELEPHONE CABLE PLACEMENT:
 - FINAL GRADE WILL NEED TO BE ESTABLISHED
 - POWER WILL PLACE THEIR CABLE FIRST - APPROX. 3' DEEP
 - BELLSOUTH & CABLE TV WILL THEN PLACE THEIR CABLE AT APPROX. 2' DEEP
- SOLID WASTE DISPOSAL TO BE PROVIDED BY PRIVATE CONTRACT DUMPSTER "PICK-UP".
- ANY IRRIGATION SYSTEM SUPPLIED BY CITY WATER SHALL COMPLY WITH THE CITY'S CROSS CONNECTION CONTROL REGULATIONS. CALL 910-343-3910 FOR INFORMATION.

FIRE & LIFE SAFETY NOTES

- NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDINGS W/ ANY DEVELOPMENT.
- HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
- TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
- CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UTILITIES.
- UNDERGROUND FIRE LINE & PRIVATE WATER MAINS MUST BE PERMITTED & INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WFD - DIVISION OF FIRE & LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
- CONSTRUCTION TYPE - SB.
- BUILDING WILL BE SPRINKLED.
- THE FDC MUST BE WITHIN 150' OF A FIRE HYDRANT & WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- LANDSCAPING OR PARKING CAN NOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT (3') CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANTS AND FDC.
- NO GATES OR BARRIERS TO FIRE APPARATUS ACCESS ARE PROPOSED.

Approved Construction Plan

| Name | Date |
|----------------------------------|---------|
| Planning <i>Dawn M. Griffith</i> | 2/8/13 |
| Traffic <i>MAS Murphy</i> | 2/8/13 |
| Fire <i>[Signature]</i> | 2/11/13 |

CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: 2/11/13 Permit # 2013001

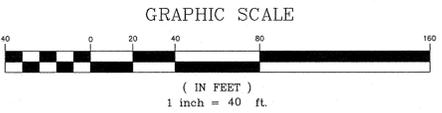
Signed: *[Signature]*

UTILITY CAPACITY REQUESTS

EXISTING SEWER USE = 0 GPD
 PROPOSED SEWER USE = 54 BEDROOMS @ 120 GPD PER BEDROOM = 6,480 GPD
 EXISTING WATER USE = 0 GPD
 PROPOSED WATER USE = 18 UNITS @ 400 GPD PER UNIT = 7,200 GPD

UTILITY LEGEND

| | EXISTING | PROPOSED | EXISTING | PROPOSED |
|--------------------------|----------|----------|----------|----------|
| ELECTRICAL (OVERHEAD) | --- | E | LP | * |
| ELECTRICAL (UNDERGROUND) | --- | UE | PP | * |
| FOUNDATION DRAIN | --- | FD | MH | * |
| GAS | --- | G | CO | * |
| SANITARY SEWER | --- | SS | DI, CB | * |
| TELEPHONE (OVERHEAD) | --- | T | FH | * |
| TELEPHONE (UNDERGROUND) | --- | UT | WV | * |
| WATER | --- | W | PI | * |
| ROOF DRAIN | --- | RD | TH | * |
| FORCE MAIN (SEWER) | --- | FM | DC | * |
| FIBER OPTIC | --- | FO | DC | * |
| PLANTER DRAIN | --- | PD | | |
| CHILLED WATER | --- | CW | | |
| STORM DRAIN | --- | SD | | |



KEY NOTES

- FIRE HYDRANT ASSEMBLY WITH STORZ CONNECTION, SEE DETAIL SHEET.
- CLEANOUT, SEE DETAIL SHEET.
- EXTEND SERVICE TO WITHIN 5'-0" OF BUILDING WALL. REFER TO PLUMBING PLANS FOR EXACT LOCATION AND INVERT ELEVATION.
- EXTEND WATER MAIN TO 12-IN ABOVE FINISH FLOOR FOR FIRE PROTECTION CONNECTION, SEE DETAIL SHEET. COORDINATE WITH FIRE PROTECTION PLANS FOR EXACT LOCATION. ALL BACKFLOW DEVICES ARE TO BE LOCATED WITHIN THE RISER ROOMS. REFER TO FIRE PROTECTION PLANS FOR LOCATION AND MODEL NUMBERS.
- 8" x 6" CROSS.
- THRUST BLOCK, NOT NEEDED IF MECHANICAL JOINTS ARE USED.
- 6" GATE VALVE AND BOX, SEE DETAIL SHEET.
- 8" x 4" TAPPING SLEEVE AND VALVE FOR DOMESTIC SERVICE, 4" FROM MAIN TO METER, 2.5" AFTER BACKFLOW, SEE DETAIL SHEET.
- 8" x 4" TAPPING SLEEVE AND VALVE FOR FIRE SERVICE, REDUCE TO 2.5" AFTER BACKFLOW, SEE DETAIL SHEET.
- 8" x 8" CUT IN TEE, COORDINATE ISOLATION AND SHUT OFF.
- GROUND MOUNTED MECHANICAL EQUIPMENT, REFER TO MECHANICAL PLANS FOR EXACT LOCATIONS AND MODEL NUMBERS. ALL UNITS SHALL BE SCREENED FROM PUBLIC VIEW. REFER TO THE PLANTING PLAN FOR ADDITIONAL INFORMATION.
- 2" WATER METER, SEE DETAIL SHEET.
- 2.5" REDUCED PRESSURE ASSEMBLY IN HEATED ENCLOSURE, SEE DETAIL SHEET.
- 45° BEND.
- FDC TO BE LOCATED ON BUILDING WALL. REFER TO FIRE PROTECTION PLANS FOR EXACT LOCATION AND SPECIFICS.
- 8" GATE VALVE AND BOX, SEE DETAIL SHEET.
- INSTALL SHORT NIPPLE WITH MJ CAP PER CFPUA REQUIREMENTS.
- SAW CUT AND REMOVE SIDEWALK AS REQUIRED TO INSTALL WATER MAIN, REPLACE SIDEWALK PER DETAILS.
- OBSERVATION WELL, SEE DETAIL SHEET.
- DOWNSPOUT CONNECTOR, SEE DETAIL SHEET. 4" PVC SHALL BE USED TO CONNECT TO THE MAIN LINE. ALL MAIN LINES SHALL DISCHARGE TO THE NO. 57 STONE LAYER OF THE PERMEABLE CONCRETE.
- WATER MAIN INSTALLED BY BORE AND JACK WITH STEEL CASING PIPE, STAINLESS STEEL SPIDERS & RESTRAINT JOINT PIPE, SEE DETAILS.
- PROPOSED JUNCTION BOX, SEE DETAIL SHEET.
- CONNECT TO CONDENSATE DRAIN WITH 6" PVC, 5' OUTSIDE BUILDING. COORDINATE WITH MECHANICAL PLANS FOR EXACT LOCATION.
- 8" x 6" TEE.

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Phone: 910-552-4845 Fax: 910-552-6982

SEALS



REVISIONS

| DATE | COMMENTS |
|----------|-----------------------------|
| 12-14-12 | REVISED PER AGENCY COMMENTS |
| 12-18-12 | REVISED PER AGENCY COMMENTS |
| 12-20-12 | REVISED PER AGENCY COMMENTS |
| 1-2-13 | REVISED PER AGENCY COMMENTS |

MAJOR SITE PLAN

The Lofts at Randall
4810 Randall Parkway, 4629 Patrick Avenue
Wilmington, North Carolina

REVIEWED BY: JFC
 DATE: 11-2-12
 PROJECT NUMBER: 12-013
 COUNTY: NEW HANOVER
 PINS: 31371-67-9382.000
 31371-77-1253.010
 DBBD: DB 4073, PG 784
 DB 5593, PG 1266
 ZONING: MF-L (CD)
 TOWNSHIP: WILMINGTON

SITE UTILITY PLAN

C5.01

NOVEMBER 2012



| DATE | COMMENTS |
|----------|-----------------------------|
| 12-5-13 | REVISED PER AGENCY COMMENTS |
| 12-18-13 | REVISED PER AGENCY COMMENTS |
| 12-20-13 | REVISED PER AGENCY COMMENTS |
| 1-7-13 | REVISED PER AGENCY COMMENTS |

The Lofts at Randall
 4810 Randall Parkway, 4629 Patrick Avenue
 Wilmington, North Carolina

| | |
|-----------------|--|
| REVIEWED BY: | JFC |
| DATE: | 11-2-12 |
| PROJECT NUMBER: | 12-013 |
| COUNTY: | WAKE |
| PINS: | 313711-67-9382.000 313711-77-1253.000 |
| DEED: | DB 4073, PG 794 DB 5503, PG 1266 |
| ZONING: | MF-L (CD) |
| TOWNSHIP: | WILMINGTON |

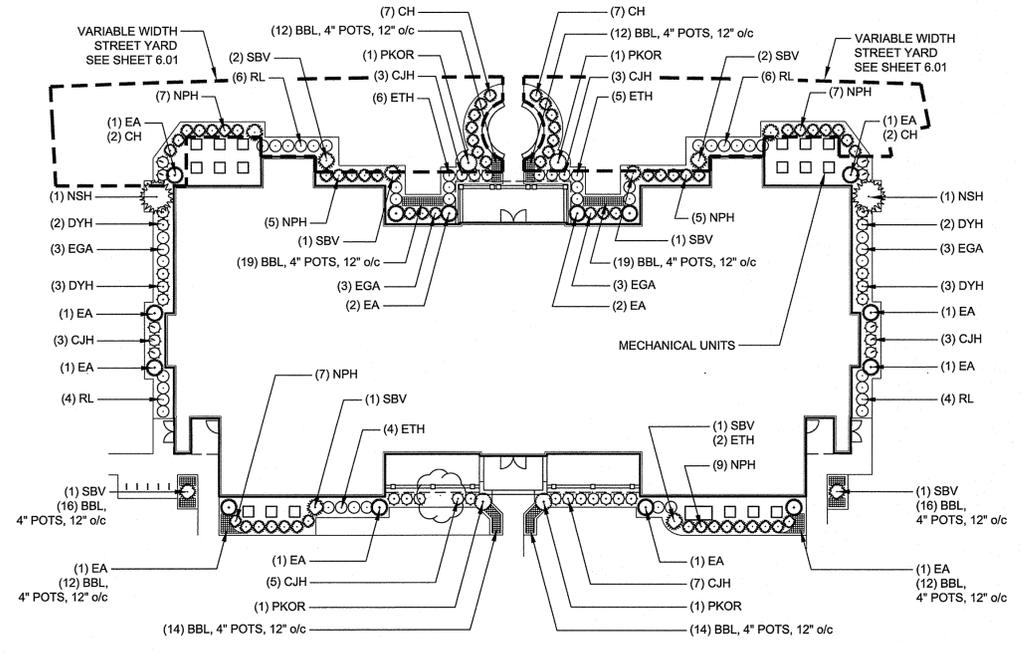
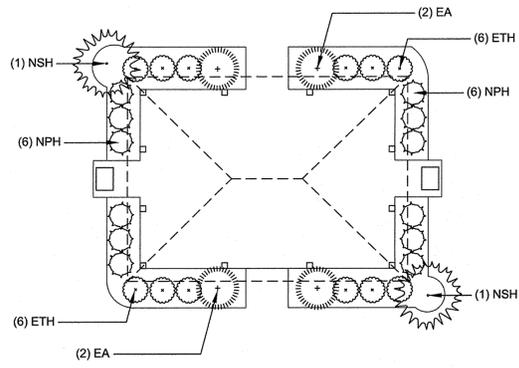
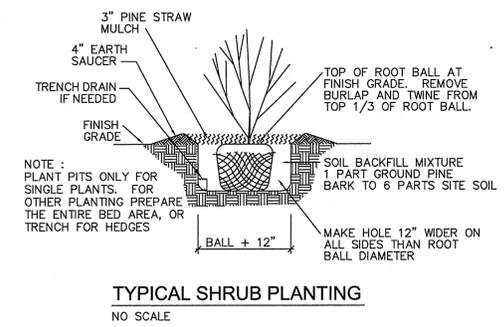
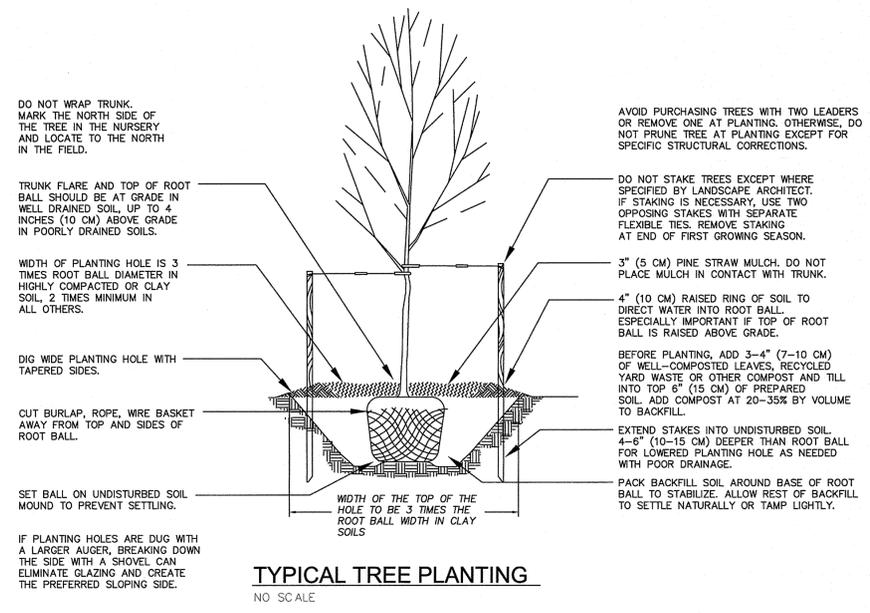
DETAILED PLANTING

C6.02

OCTOBER 2012

- GENERAL NOTES:**
- CONTACT ALL UTILITY COMPANIES TO LOCATE UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION IF LOCATION IS IN QUESTION.
 - COMPLY WITH SIZING AND GRADING STANDARDS OF THE LATEST EDITION OF "AMERICAN STANDARDS FOR NURSERY STOCK."
 - ROOT BALLS SHALL COMPLY WITH A.A.N. STANDARDS. ONLY NATURAL FIBER BURLAP WILL BE ACCEPTABLE FOR WRAPPING.
 - ROOTS OF CONTAINER-GROWN STOCK MUST BE SO ESTABLISHED AS TO HOLD SOIL FIRMLY, BUT NOT BE POT-BOUND.
 - PRUNE PLANTS IN ACCORDANCE WITH STANDARDS OF THE NATIONAL ARBORISTS ASSOCIATION.
 - ALL DISTURBED AREAS SHALL BE STABILIZED WITH MULCH OR VEGETATIVE COVER.
 - NO PLANTS MAY BE SUBSTITUTED WITHOUT WRITTEN CONSENT OF OWNER OR LANDSCAPE ARCHITECT.
 - POORLY DRAINED AREAS MUST BE REPORTED TO THE OWNER OR LANDSCAPE ARCHITECT. PLANTING IN SUCH AREAS MUST STOP UNTIL IMPROVEMENTS CAN BE DETERMINED AND MADE.
 - TREES WITH WEAK OR INAPPROPRIATE STRUCTURE, SUCH AS V-CROTCH INSTEAD OF A STRONG LEADER, ARE NOT ACCEPTABLE.
 - TYPICAL PLANTING BACKFILL MIX SHALL CONSIST OF 1 PART COMPOSTED PINE BARK TO 4 PARTS EXISTING SOIL. FERTILIZE WITH "AGRIFORM" 20-15-5 FORMULATION OR EQUAL, AT MANUFACTURER'S RATE.
 - PLANTING BACKFILL FOR ERICACEOUS PLANTS (AZALEAS ETC.) SHALL CONSIST OF 1 PART COMPOSTED PINE BARK AND 2 PARTS EXISTING SOIL WITH "AGRIFORM" 20-15-5 FORMULATION OR EQUAL, AT MANUFACTURER'S RATE.
 - STAKING AND GUYING, IF USED, SHALL REMAIN IN PLACE FOR ONE GROWING SEASON, AFTER WHICH THEY WILL BE REMOVED BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
 - ALL PLANTINGS SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE TIME OF FINAL ACCEPTANCE.
 - PLANTING PLANS SHALL GOVERN QUANTITIES. ANY DISCREPANCIES OR OMISSIONS IN THE PLANT LIST SHOULD BE REPORTED TO THE OWNER OR THE LANDSCAPE ARCHITECT.
 - PLANT BEDS FOR ANNUALS SHALL BE PREPARED TO A MINIMUM DEPTH OF 8" WITH THE SAME BACKFILL AS SPECIFIED FOR ERICACEOUS PLANTS. ANNUALS MAY BE PLANTED BY OTHERS AS AGREED.
 - ALL PLANTINGS SHALL MEET THE MINIMUM REQUIREMENTS OF THE CITY OF WILMINGTON LAND DEVELOPMENT CODE.

| PLANT LIST (THIS SHEET) | | | | | |
|-------------------------|---|--------------------|-----------|----------------|-------|
| KEY | PLANT NAME | SIZE | MAIN BLDG | PICNIC SHELTER | TOTAL |
| BBL | BIG BLUE LIRIOPE LIRIOPE MUSCARI 'BIG BLUE' | 4" POTS 12" o/c | 146 | 0 | 146 |
| CH | CARISSA HOLLY ILEX CORNUTA 'CARISSA' | 15-18" HT 7 GAL | 18 | 0 | 18 |
| CJH | COMPACT JAPANESE HOLLY ILEX GRENATA 'COMPACTA' | 24-30" HT 7 GAL | 24 | 0 | 24 |
| DYH | DWARF YAUPON HOLLY ILEX VOMITORIA 'SCHILLINGS' | 15-18" HT 7 GAL | 10 | 0 | 10 |
| EA | EMERALD ARBORVITAE THUJA OCCIDENTALIS 'EMERALD' | 6-8" HT 25 GAL | 14 | 4 | 18 |
| EGA | EDWARD GOUCHER ABELIA ABELIA x GRANDIFLORA 'EDWARD GOUCHER' | 15-18" HT 3 GAL | 12 | 0 | 12 |
| ETH | ELEANOR TABOR INDIAN HAWTHORNE RAPHIOLEPSIS INDICA 'ELEANOR TABOR' | 18-24" HT 7 GAL | 17 | 12 | 29 |
| NPH | NEEDLEPOINT HOLLY ILEX CORNUTA 'NEEDLEPOINT' | 24-30" HT 7 GAL | 40 | 12 | 52 |
| NSH | NELLIE STEVENS HOLLY ILEX x NELLIE R. STEVENS | 6-8" HT 25 GAL | 2 | 2 | 4 |
| PKOR | KNOCK OUT ROSE (DOUBLE PINK) ROSA x 'RADTKOPINK' | 18-24" HT 3 GAL | 4 | 0 | 4 |
| RL | RUBY LOROPETALUM LOROPETALUM CHINENSIS 'RUBY' | 24-30" HT 7 GAL | 20 | 0 | 20 |
| SBV | SPRING BOUQUET VIBURNUM VIBURNUM TINUS 'SPRING BOUQUET' | 24-30" HT 7 GAL | 10 | 0 | 10 |



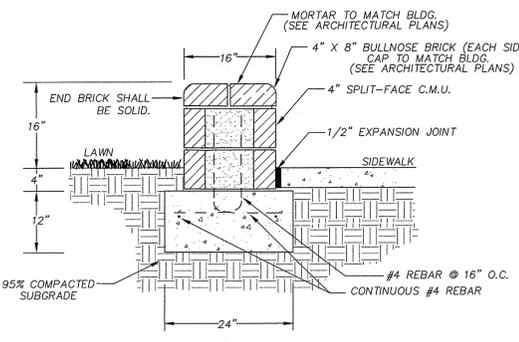
Approved Construction Plan

| | |
|---------------------------------|---------|
| Name | Date |
| Planning <i>Samuel D. Pease</i> | 2/8/13 |
| Traffic <i>John S. Murphy</i> | 2/8/13 |
| Fire <i>[Signature]</i> | 2/11/13 |

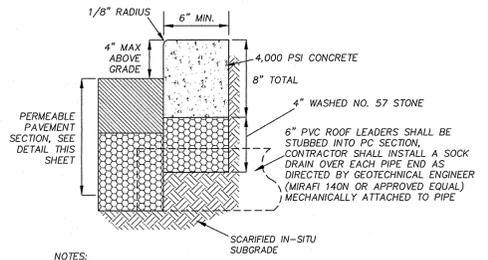
CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN

Date: 2/11/13 Permit # 2013001
 Signed: *[Signature]*

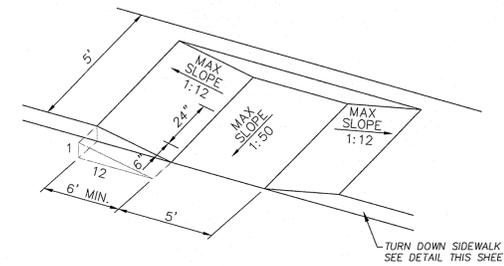
ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON LAND DEVELOPMENT CODE



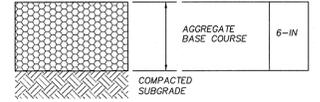
TYPICAL SEAT WALL
NOT TO SCALE



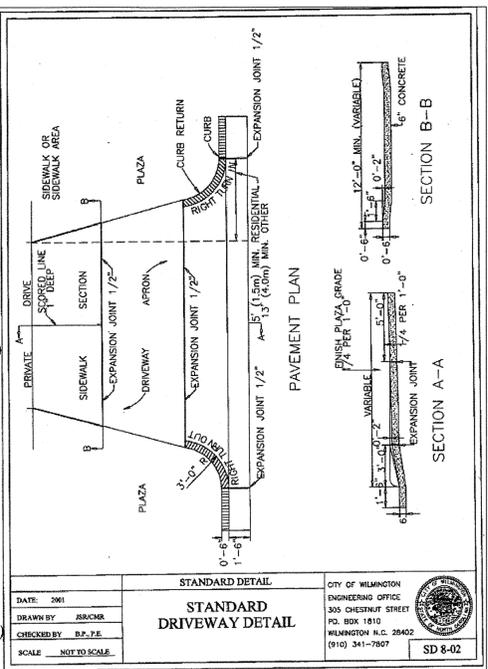
HEADER CURB DETAIL
NOT TO SCALE



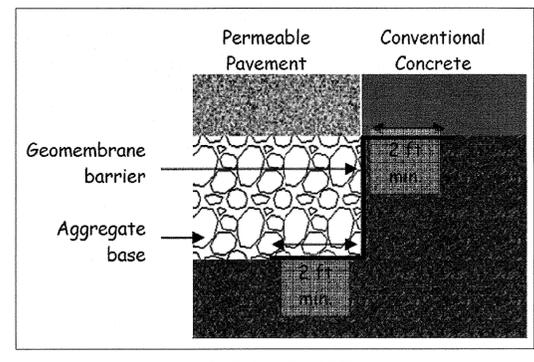
HANDICAP RAMP DETAIL
NOT TO SCALE



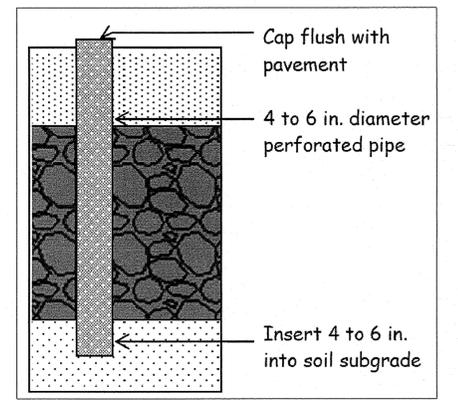
GRAVEL DRIVE SECTION
NOT TO SCALE



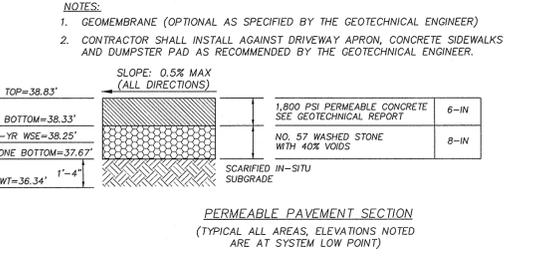
STANDARD DRIVEWAY DETAIL



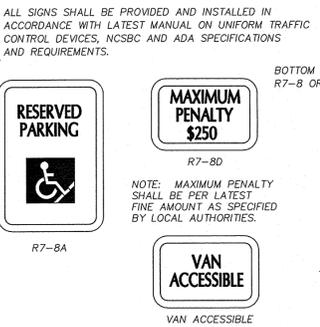
PERMEABLE PAVEMENT
NOT TO SCALE



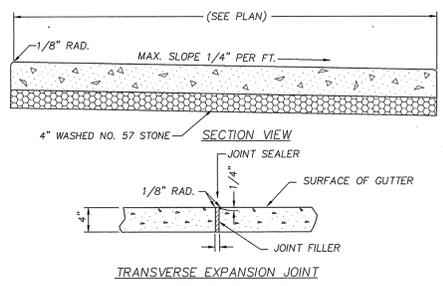
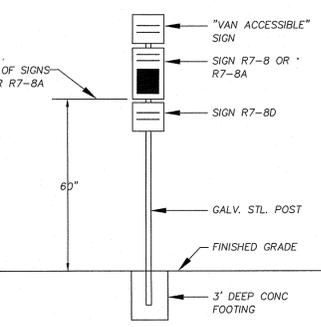
OBSERVATION WELL



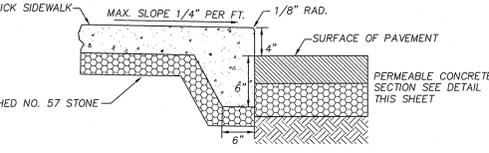
PERMEABLE PAVEMENT SECTION
(TYPICAL ALL AREAS, ELEVATIONS NOTED ARE AT SYSTEM LOW POINT)



ACCESSIBLE PARKING SIGNAGE
NOT TO SCALE

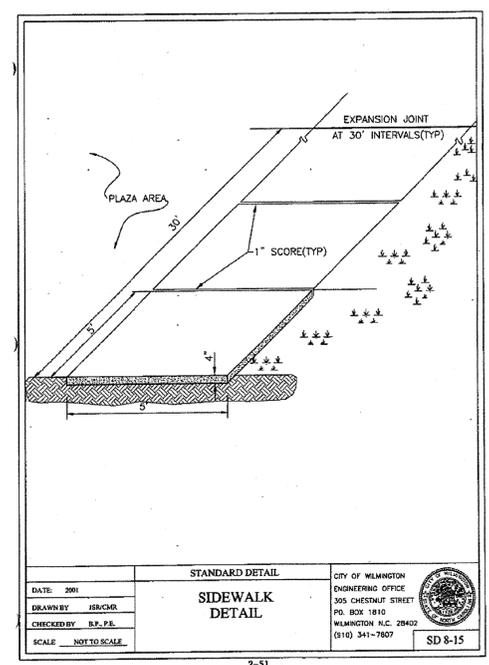


TRANSVERSE EXPANSION JOINT

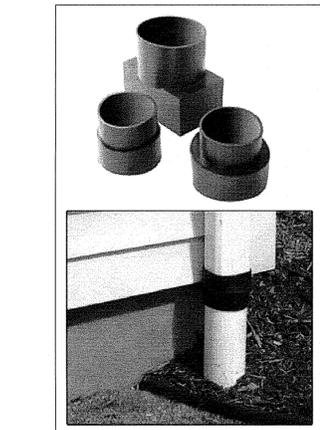


SECTION OF SIDEWALK ABUTTING PAVEMENT

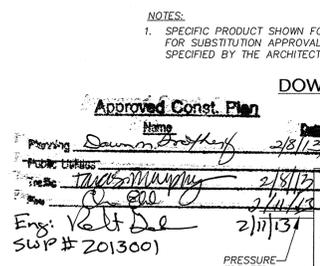
TYPICAL CONCRETE SIDEWALK (ON-SITE)
NOT TO SCALE



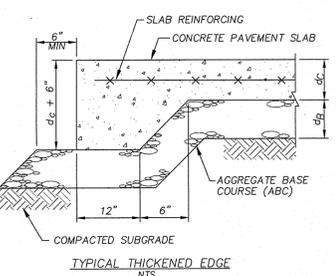
STANDARD DETAIL SIDEWALK DETAIL



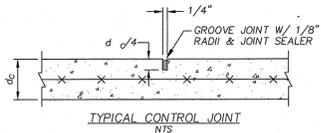
DOWNSPOUT CONNECTOR
NOT TO SCALE



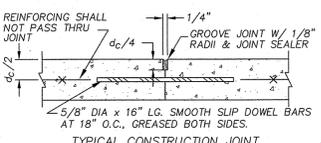
DOWNSPOUT CONNECTOR
NOT TO SCALE



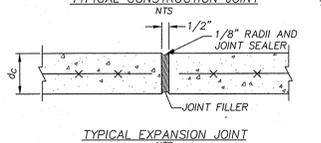
TYPICAL THICKENED EDGE
NTS



TYPICAL CONTROL JOINT
NTS



TYPICAL CONSTRUCTION JOINT
NTS



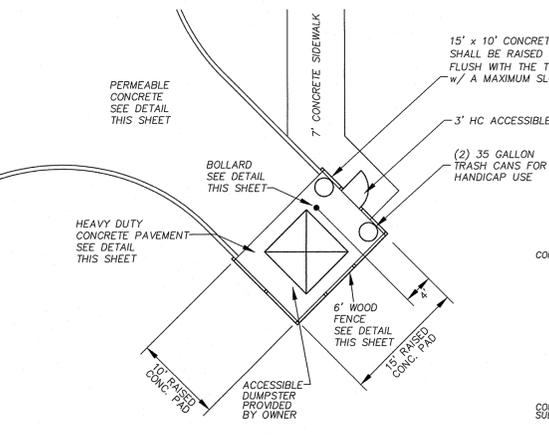
TYPICAL EXPANSION JOINT
NTS

| CONCRETE PAVEMENT DIMENSIONS | |
|--|---------------|
| CONCRETE SLAB THICKNESS, d_c = | 4" |
| WASHED NO. 57 STONE THICKNESS, d_g = | 4" |
| REINFORCEMENT = | 6x6-W2.9xW2.9 |

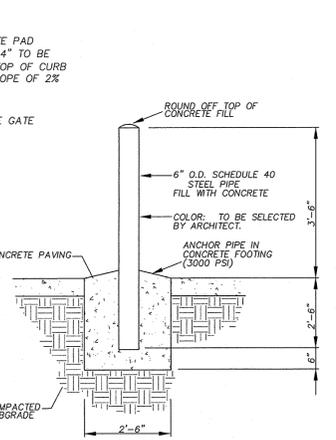
NOTES:

- ALL CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI (ASTM C39) WITH ENTRAINED AIR BETWEEN 4% AND 6%.
- CONTRACTION JOINTS SHALL BE SPACED AT 15 FT O.C.E.W. MAX. OR AS INDICATED ON THE PLAN.
- EXPANSION JOINTS SHALL BE SPACED AT 50 FT O.C.E.W. MAX. OR AS INDICATED ON THE PLAN AND WHERE CONCRETE PAVEMENT ABUTS ANY RIGID OBJECT.

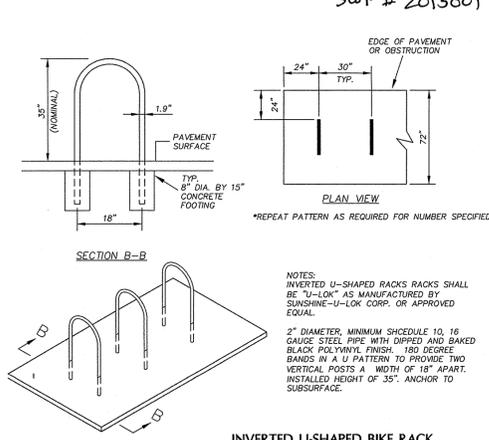
CONCRETE PAVEMENT
NOT TO SCALE



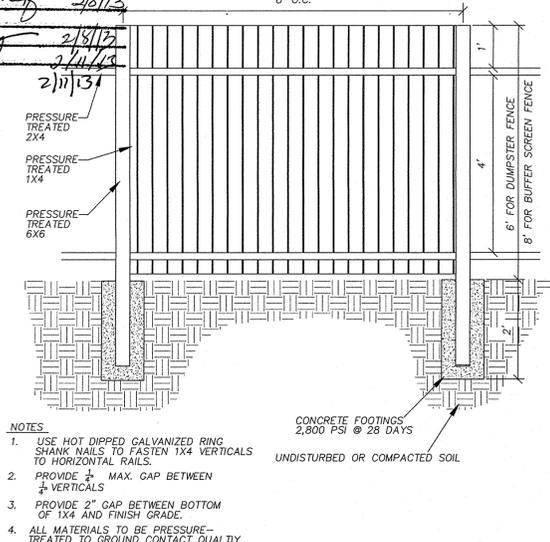
DUMPSTER PAD DETAIL
NOT TO SCALE



STEEL BOLLARD
NOT TO SCALE

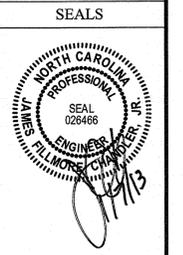


INVERTED U-SHAPED BIKE RACK
NOT TO SCALE



OPAQUE WOODEN FENCE
NOT TO SCALE

chandler engineering pa
309 S. Fungway Avenue, Fungway-Vainor, NC 27726
Phone: 919-552-4845 Fax: 919-552-6862



| REVISIONS | |
|-----------------|-----------------------------|
| 12-14-11 | REVISED PER AGENCY COMMENTS |
| 12-16-11 | REVISED PER AGENCY COMMENTS |
| 12-29-12 | REVISED PER AGENCY COMMENTS |
| 1-13-13 | REVISED PER AGENCY COMMENTS |
| MAJOR SITE PLAN | |

The Lofts at Randall
4810 Randall Parkway, 4629 Patrick Avenue
Wilmington, North Carolina

| | |
|-----------------|--|
| REVIEWED BY: | JFC |
| DATE: | 11-2-12 |
| PROJECT NUMBER: | 12-013 |
| COUNTY: | NEW HANOVER |
| FIGS: | 315711-47-9382.000 315711-47-1353.000 |
| DEED: | DB 4073, PG 784 DB 5503, PG 1266 |
| ZONING: | MF-L (CD) |
| TOWNSHIP: | WILMINGTON |

SITE DETAILS
C7.01
NOVEMBER 2012

Temporary Seeding Recommendations for Late Winter and Early Spring

| 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 feet: Feb. 15 - May 15
Below 2500 feet: 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
Re-fertilize if growth is not fully adequate. Re-seed, re-fertilize and mulch immediately following erosion or other damage.

Temporary Seeding Recommendations for Summer

| Seeding mixture Species | Rate (lb/acre) |
|-------------------------|----------------|
| German millet | 40 |

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding dates
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
Re-fertilize if growth is not fully adequate. Re-seed, re-fertilize and mulch immediately following erosion or other damage.

Temporary Seeding Recommendations for Fall

| Seeding mixture Species | Rate (lb/acre) |
|-------------------------|----------------|
| Rye (grain) | 120 |

Seeding dates
Mountains—Aug. 15 - Dec. 15
Coastal Plain and Piedmont—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 re-fertilize damaged areas immediately. 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.

Specifications

Complete grading before preparing seedbeds, and install all necessary erosion control practices such as, dikes, waterways, and basins. Minimize steep slopes because they make seedbed preparation difficult and increase the erosion hazard. If soils become compacted during grading, loosen them to a depth of 6-8 inches using a ripper, harrow, or chisel plow.

SEEDBED PREPARATION

Good seedbed preparation is essential to successful plant establishment. A good seedbed is well-pulverized, loose, and uniform. Where hydroseeding methods are used, the surface may be left with a more irregular surface of large clods and stones.

Liming—Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1 to 1 1/2 tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.

Fertilizer—Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700-1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.

Surface roughening—If recent tillage operations have resulted in a loose surface, additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by disking, raking, harrowing, or other suitable methods. Groove or furrow slopes steeper than 3:1 on the contour before seeding (Practice 6.03, Surface Roughening).

PLANT SELECTION

Select an appropriate species or species mixture for Table 6.10a for seeding in late winter and early spring, Table 6.10b for summer, and Table 6.10c for fall.

In the Mountains, December and January seedings have poor chances of success. When it is necessary to plant at these times, use recommendations for fall and a securely tacked mulch.

SEEDING

Evenly apply seed using a cyclone seeder (broadcast), drill, cultipacker seeder, or hydroseeder. Use seeding rates given in Tables 6.10a-6.10c. Broadcast seeding and hydroseeding are appropriate for steep slopes where equipment cannot be driven. Hand broadcasting is not recommended because of the difficulty in achieving a uniform distribution.

Small grains should be planted no more than 1 inch deep, and grasses and legumes no more than 1/2 inch. Broadcast seed must be covered by raking or chain dragging, and then lightly firmed with a roller or cultipacker. Hydroseeded mixtures should include a wood fiber (cellulose) mulch.

MULCHING

The use of an appropriate mulch will help ensure establishment under normal conditions, and is essential to seeding success under harsh site conditions (Practice 6.14, Mulching). Harsh site conditions include:

- seeding to fall for winter cover (wood fiber mulches are not considered adequate for this use);
- slopes steeper than 3:1;
- excessively hot or dry weather;
- adverse soils (shallow, rocky, or high in clay or sand), and
- areas receiving concentrated flow.

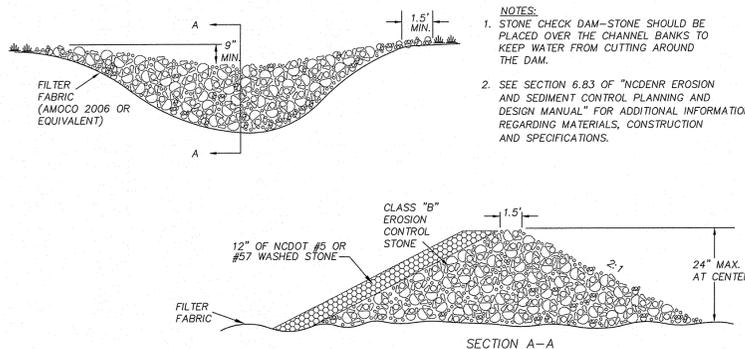
If the area to be mulched is subject to concentrated waterflow, as in channels, anchor mulch with netting (Practice 6.14, Mulching).

Maintenance

Re-seed and mulch areas where seedling emergence is poor, or where erosion occurs, as soon as possible. Do not mow. Protect from traffic as much as possible.

* TEMPORARY SEEDING SCHEDULE FROM NCDENR EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL. SEE MANUAL FOR ADDITIONAL INFORMATION.

TEMPORARY SEEDING SCHEDULE



TEMPORARY CHECK DAM
NOT TO SCALE

Well-Drained Sandy Loams to Dry Sands, Coastal Plain and Eastern Edge of Piedmont; Low- to Medium-Care Lawns

| Seeding mixture Species | Rate |
|-------------------------|---|
| Centipede grass | 10-20 lb/acre (seed) or 33 lb/acre (sprigs) |

Seeding dates
Mar. - June
(Sprigging can be done through July where water is available for irrigation.)

Soil amendments
Apply lime and fertilizer according to soil tests, or apply 300 lb/acre 10-10-10 fertilizer.

Sprigging
Plant sprigs in furrows with a tractor-drawn transplanter, or broadcast by hand.

Furrows should be 4-6 inches deep and 2 feet apart. Place sprigs about 2 feet apart in the row with one end at or above ground level (Figure 6.11d).

Broadcast at rates shown above, and press sprigs into the top 1/2-2 inches of soil with a disk set straight so that sprigs are not brought back toward the surface.

Mulch
Do not mulch.

Maintenance
Fertilize very sparingly—20 lb/acre nitrogen in spring with no phosphorus. Centipede grass cannot tolerate high pH or excess fertilizer.

* Refer to Appendix 6.02 for botanical names.

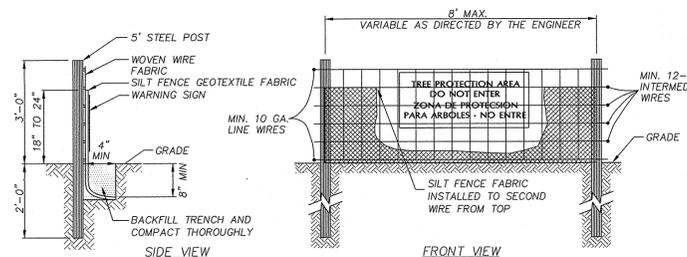
* PERMANENT SEEDING SCHEDULE FROM NCDENR EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL. SEE MANUAL FOR ADDITIONAL INFORMATION.

SEEDBED PREPARATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW).
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH IF SPECIFIED.
8. INSPECT ALL SEEDING AREAS AND MAKE NECESSARY REPAIRS OR RESEEDING WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT S&EC ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
10. SEE SECTION 6.11 OF "NCDENR EROSION CONTROL PLANNING AND DESIGN MANUAL" FOR ADDITIONAL INFORMATION REGARDING MATERIALS, CONSTRUCTION AND SPECIFICATIONS.

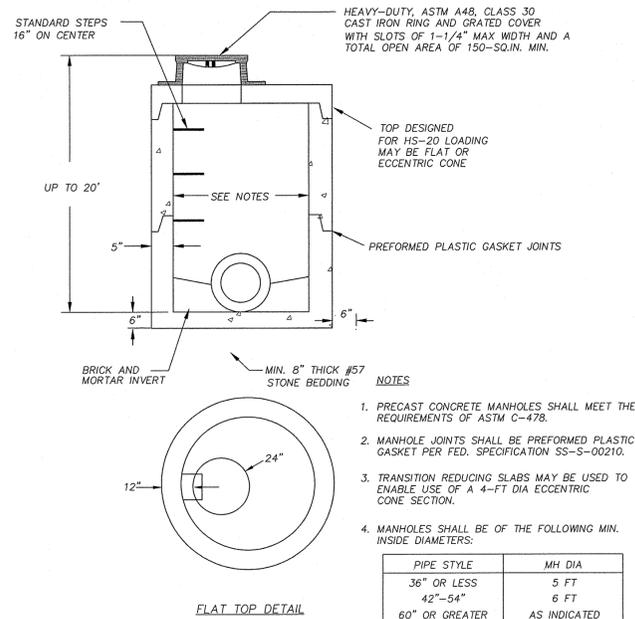
* APPLY: AGRICULTURAL LIMESTONE - 2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)
FERTILIZER - 1,000 LBS./ACRE - 10-10-10
SUPERPHOSPHATE - 500 LBS./ACRE - 20%
IF SPECIFIED
MULCH - 2 TONS/ACRE - SMALL GRASS STRAW
ANCHOR - ASPHALT EMULSION @ 300 GALS./ACRE

PERMANENT SEEDING SCHEDULE

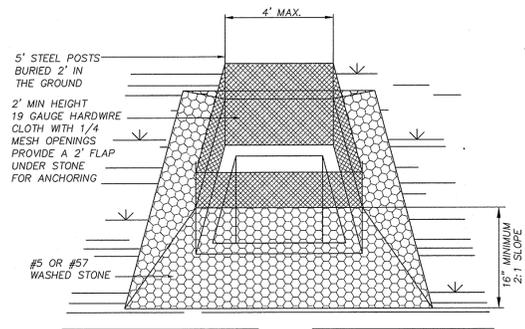


- NOTES:**
1. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.
 2. LETTERS TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
 3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS.
 4. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.
 5. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
 6. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
 7. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.
 8. ADDITIONAL SIGNS MAY BE REQUIRED BY THE CITY OF WILMINGTON INSPECTION DEPARTMENT BASED ON ACTUAL FIELD CONDITIONS.
 9. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.
 10. USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW.
 11. END OF SILT FENCE NEEDS TO BE TURNED UPHILL.

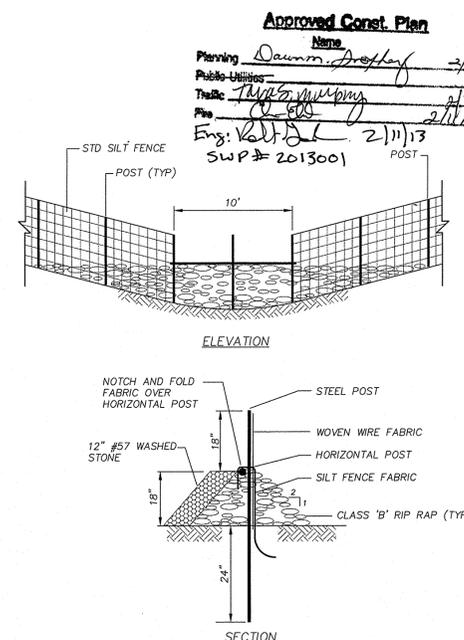
STANDARD TEMPORARY SILT / TREE PROTECTION FENCE
NOT TO SCALE



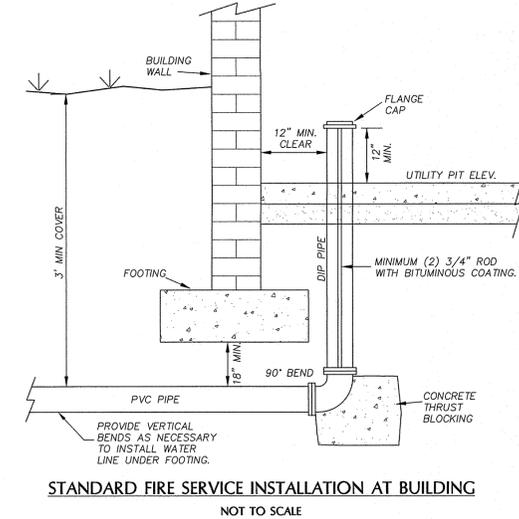
STANDARD STORM DRAINAGE JUNCTION BOX
NOT TO SCALE



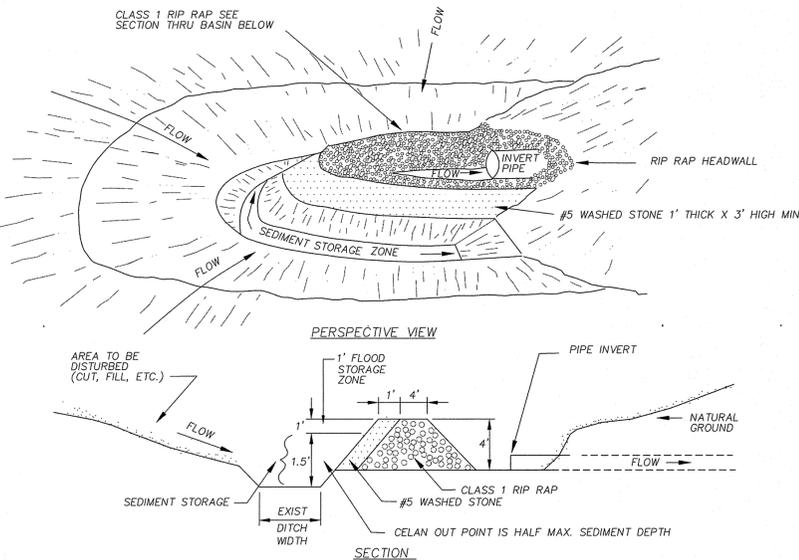
TEMPORARY INLET PROTECTION
NOT TO SCALE



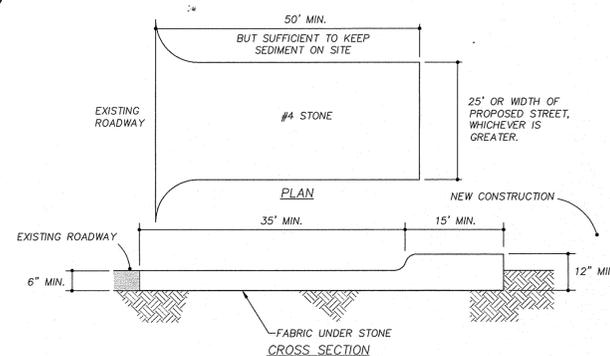
REINFORCED SILT FENCE OUTLET
NOT TO SCALE



STANDARD FIRE SERVICE INSTALLATION AT BUILDING
NOT TO SCALE



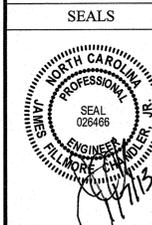
TEMPORARY CULVERT SEDIMENT BASIN
NOT TO SCALE



- NOTES:**
1. ENTRANCE(S) SHALL BE LOCATED TO PROVIDE MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.
 2. TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS IS TO BE PROVIDED.
 3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY. CONTRACTOR SHALL MAINTAIN AS NECESSARY.
 4. ANY MATERIAL WHICH STILL MAKES IT ONTO THE ROAD MUST BE CLEANED UP IMMEDIATELY.
 5. FREQUENT CHECKS OF THE ENTRANCE(S) AND TIMELY MAINTENANCE SHALL BE PROVIDED.
 6. NOTES ARE APPLICABLE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED.
 7. SEE SECTION 6.06 OF "NCDENR EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL" FOR ADDITIONAL INFORMATION REGARDING MATERIALS, CONSTRUCTION AND SPECIFICATIONS.

TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE

chandler engineering pa
309 S. Fingbery Avenue, Fingbery-Veneta, NC 27526
Phone: 919-552-4845 Fax: 919-552-6982



REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|----------|-----------------------------|
| 1 | 12-14-12 | REVISED PER AGENCY COMMENTS |
| 2 | 12-18-12 | REVISED PER AGENCY COMMENTS |
| 3 | 12-20-12 | REVISED PER AGENCY COMMENTS |
| 4 | 1-21-13 | REVISED PER AGENCY COMMENTS |

MAJOR SITE PLAN

The Lofts at Randall
4810 Randall Parkway, 4629 Patrick Avenue
Wilmington, North Carolina

REVIEWED BY: JFC
DATE: 11-2-12
PROJECT NUMBER: 12-013
COUNTY: NEW HANOVER
PINS: 313711-67-9382,000
313711-77-1251,000
DEED: DB 4073, PG 784
DB 5503, PG 12366
ZONING: MF-L (CD)
TOWNSHIP: WILMINGTON

SITE DETAILS

C7.02

NOVEMBER 2012