# ELEMENT BARCLAY WEST APARTMENTS
# at BARCLAY WEST

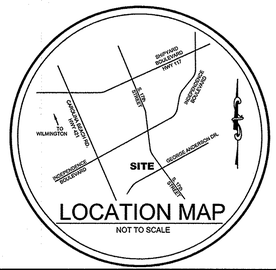
## Plans and Profiles

*LOCATED IN THE CITY OF WILMINGTON*
*NEW HANOVER COUNTY, NORTH CAROLINA*
*DATE: MARCH 22, 2016*
*SCALE: 1"= 100'*

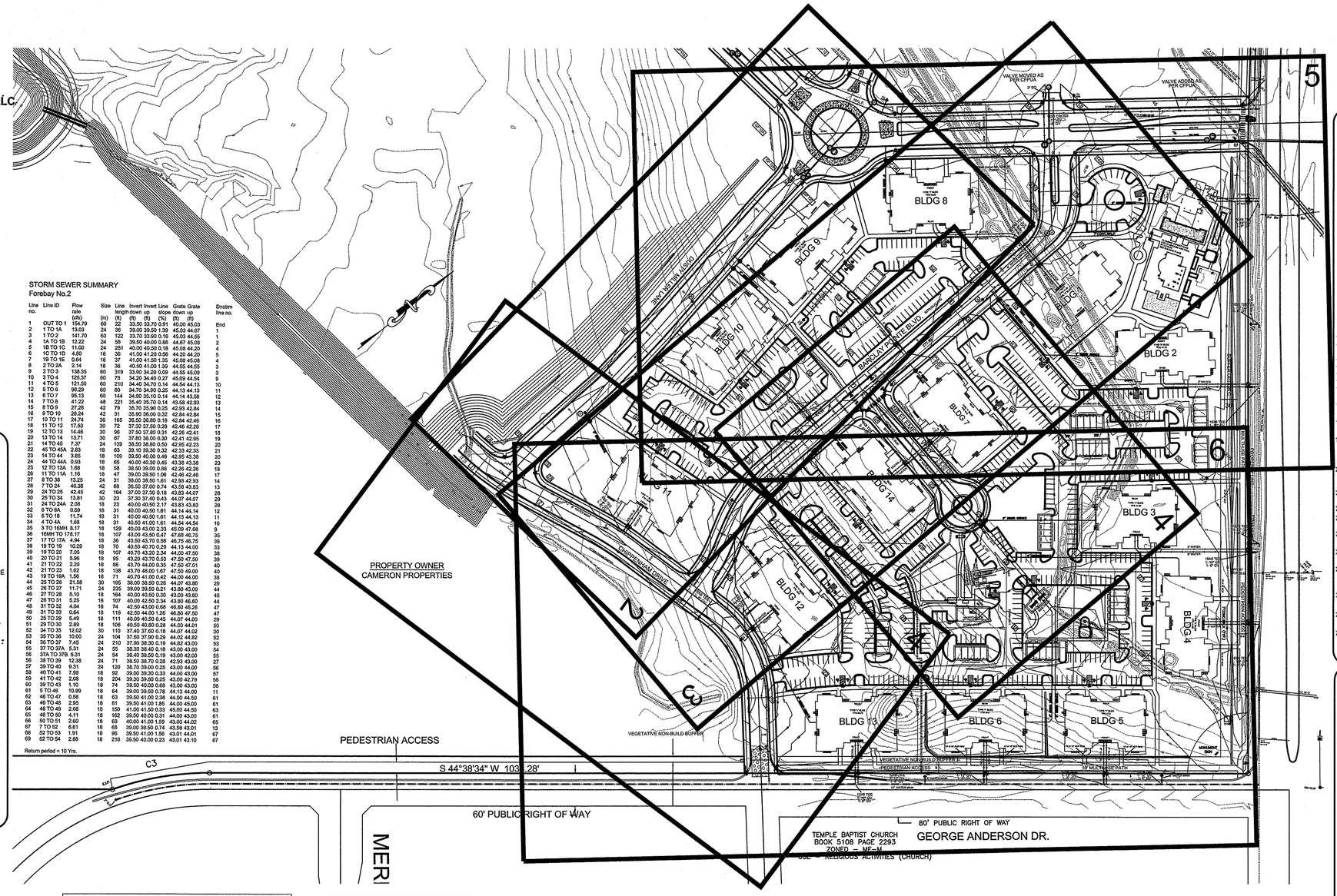
**OWNER:**
**CAMERON PROPERTIES LAND COMPANY, LLC.**
**1201 GLEN MEADE ROAD PO BOX 3649**
**WILMINGTON, NC 28406**
**910-762-2676**

**DEVELOPER:**
**CK GALLERY PARK WILMINGTON, LLC**
**301 SOUTH COLLEGE STREET**
**CHARLOTTE, NC 28202**
**704-342-9000**

NOTE:
404 WETLANDS DO NOT EXIST ON SITE PER U.S. CORPS OF ENGINEERS DETERMINATION. SEE ACTION SAW-2012-01938. DETERMINATION EXPIRATION DATE 01-18-2018.



LOCATION MAP
NOT TO SCALE




### STORM SEWER SUMMARY

Forebay No.2

| Line no. | Line ID | Flow rate (cfs) | Size (in) | Line length | Invert up (ft) | Invert down (ft) | Line slope (%) | Grate up (ft) | Grate down (ft) | Dnstrm line no. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | OUT TO 1 | 154.79 | 60 | 22 | 33.00 | 33.00 | 0.01 | 40.00 | 45.03 | End |
| 2 | 1 TO 1A | 13.63 | 24 | 36 | 39.00 | 39.50 | 1.39 | 45.03 | 44.67 | 1 |
| 3 | 1 TO 2 | 141.76 | 60 | 122 | 33.70 | 33.90 | 0.16 | 45.03 | 44.55 | 1 |
| 4 | 1A TO 1B | 12.22 | 24 | 59 | 39.50 | 40.00 | 0.86 | 44.67 | 45.08 | 2 |
| 5 | 1B TO 1C | 11.00 | 24 | 281 | 40.00 | 40.50 | 0.18 | 45.08 | 44.20 | 4 |
| 6 | 1C TO 1D | 4.80 | 18 | 36 | 41.00 | 41.20 | 0.56 | 44.20 | 44.20 | 5 |
| 7 | 1B TO 1E | 0.64 | 18 | 37 | 41.00 | 41.50 | 1.35 | 45.08 | 45.08 | 4 |
| 8 | 2 TO 2A | 2.14 | 18 | 36 | 40.50 | 41.00 | 1.39 | 44.55 | 44.55 | 3 |
| 9 | 2 TO 3 | 138.35 | 60 | 319 | 33.90 | 34.20 | 0.09 | 44.55 | 45.09 | 3 |
| 10 | 3 TO 4 | 125.37 | 60 | 75 | 34.20 | 34.40 | 0.27 | 45.09 | 44.54 | 9 |
| 11 | 4 TO 5 | 121.50 | 60 | 210 | 34.40 | 34.70 | 0.14 | 44.54 | 44.13 | 10 |
| 12 | 5 TO 6 | 96.29 | 60 | 80 | 34.70 | 34.90 | 0.25 | 44.13 | 44.13 | 11 |
| 13 | 6 TO 7 | 95.13 | 60 | 144 | 34.90 | 35.10 | 0.14 | 44.13 | 43.58 | 12 |
| 14 | 7 TO 8 | 41.22 | 48 | 221 | 35.40 | 35.70 | 0.14 | 43.58 | 42.93 | 13 |
| 15 | 8 TO 9 | 27.28 | 42 | 79 | 35.70 | 35.90 | 0.25 | 42.93 | 42.84 | 14 |
| 16 | 9 TO 10 | 26.24 | 42 | 31 | 35.90 | 36.00 | 0.32 | 42.84 | 42.84 | 15 |
| 17 | 10 TO 11 | 24.74 | 36 | 165 | 36.50 | 36.80 | 0.18 | 42.84 | 42.46 | 16 |
| 18 | 11 TO 12 | 17.53 | 30 | 72 | 37.30 | 37.50 | 0.28 | 42.46 | 42.26 | 17 |
| 19 | 12 TO 13 | 14.46 | 30 | 96 | 37.50 | 37.80 | 0.31 | 42.26 | 42.41 | 18 |
| 20 | 13 TO 14 | 13.71 | 30 | 67 | 37.80 | 38.00 | 0.30 | 42.41 | 42.95 | 19 |
| 21 | 14 TO 45 | 7.37 | 24 | 139 | 38.50 | 38.80 | 0.50 | 42.95 | 42.23 | 20 |
| 22 | 45 TO 45A | 2.83 | 18 | 63 | 39.10 | 39.30 | 0.32 | 42.33 | 42.33 | 21 |
| 23 | 14 TO 44 | 3.85 | 18 | 109 | 39.50 | 40.00 | 0.46 | 42.95 | 43.38 | 20 |
| 24 | 44 TO 44A | 0.93 | 18 | 66 | 40.00 | 40.30 | 0.45 | 43.38 | 43.38 | 23 |
| 25 | 12 TO 12A | 1.68 | 18 | 56 | 38.50 | 39.00 | 0.86 | 42.26 | 42.26 | 18 |
| 26 | 11 TO 11A | 1.16 | 18 | 47 | 38.00 | 38.50 | 1.06 | 42.46 | 42.46 | 17 |
| 27 | 8 TO 38 | 13.25 | 24 | 31 | 36.00 | 36.50 | 1.61 | 42.93 | 42.93 | 14 |
| 28 | 7 TO 24 | 46.38 | 42 | 69 | 36.00 | 37.00 | 0.74 | 43.58 | 43.83 | 13 |
| 29 | 24 TO 25 | 42.45 | 42 | 164 | 37.00 | 37.30 | 0.18 | 43.83 | 44.07 | 28 |
| 30 | 25 TO 34 | 13.81 | 30 | 23 | 37.30 | 37.40 | 0.43 | 44.07 | 44.07 | 29 |
| 31 | 24 TO 24A | 2.08 | 18 | 23 | 40.00 | 40.50 | 2.17 | 43.83 | 43.83 | 28 |
| 32 | 6 TO 6A | 0.69 | 18 | 31 | 40.00 | 40.50 | 1.61 | 44.14 | 44.14 | 12 |
| 33 | 5 TO 18 | 11.74 | 18 | 31 | 40.00 | 40.50 | 1.61 | 44.13 | 44.13 | 11 |
| 34 | 4 TO 4A | 1.68 | 18 | 31 | 40.60 | 41.00 | 1.61 | 44.54 | 44.54 | 10 |
| 35 | 3 TO 16MH | 8.17 | 18 | 129 | 40.00 | 43.00 | 2.33 | 45.09 | 47.66 | 9 |
| 36 | 16MH TO 17 | 8.17 | 18 | 107 | 43.00 | 43.50 | 0.47 | 47.66 | 46.75 | 35 |
| 37 | 17 TO 17A | 4.04 | 18 | 36 | 43.50 | 43.70 | 0.56 | 46.75 | 46.75 | 36 |
| 38 | 18 TO 19 | 10.29 | 18 | 70 | 40.50 | 40.70 | 0.29 | 44.13 | 44.00 | 33 |
| 39 | 19 TO 20 | 7.05 | 18 | 107 | 40.70 | 43.20 | 2.34 | 44.00 | 47.50 | 38 |
| 40 | 20 TO 21 | 5.86 | 18 | 95 | 43.20 | 43.70 | 0.53 | 47.50 | 47.50 | 39 |
| 41 | 21 TO 22 | 2.20 | 18 | 86 | 43.70 | 44.00 | 0.35 | 47.50 | 47.01 | 40 |
| 42 | 21 TO 23 | 1.62 | 18 | 138 | 43.70 | 48.00 | 3.67 | 47.50 | 49.00 | 40 |
| 43 | 19 TO 19A | 1.56 | 18 | 71 | 40.70 | 41.00 | 0.42 | 44.00 | 44.00 | 38 |
| 44 | 20 TO 20I | 21.58 | 30 | 195 | 38.00 | 38.50 | 0.26 | 44.07 | 43.80 | 29 |
| 45 | 26 TO 27 | 11.71 | 24 | 235 | 39.00 | 39.50 | 0.21 | 43.80 | 43.00 | 44 |
| 46 | 27 TO 28 | 5.10 | 18 | 164 | 40.00 | 40.50 | 0.30 | 43.00 | 43.60 | 45 |
| 47 | 28 TO 31 | 5.25 | 18 | 107 | 40.00 | 42.50 | 2.34 | 43.80 | 46.60 | 44 |
| 48 | 31 TO 32 | 4.04 | 18 | 74 | 42.50 | 43.00 | 0.68 | 46.60 | 46.26 | 47 |
| 49 | 31 TO 33 | 0.64 | 18 | 119 | 42.50 | 44.00 | 1.26 | 46.60 | 47.50 | 47 |
| 50 | 25 TO 29 | 5.49 | 18 | 111 | 40.00 | 40.50 | 0.45 | 44.07 | 44.00 | 29 |
| 51 | 29 TO 30 | 2.89 | 18 | 109 | 40.50 | 40.80 | 0.28 | 44.00 | 44.01 | 50 |
| 52 | 34 TO 35 | 12.02 | 30 | 110 | 37.40 | 37.60 | 0.18 | 44.07 | 44.02 | 30 |
| 53 | 35 TO 36 | 10.00 | 24 | 104 | 37.60 | 37.90 | 0.29 | 44.02 | 44.82 | 52 |
| 54 | 36 TO 37 | 7.45 | 24 | 210 | 37.90 | 38.30 | 0.19 | 44.82 | 43.00 | 53 |
| 55 | 37 TO 37A | 5.31 | 24 | 55 | 38.30 | 38.40 | 0.18 | 43.00 | 43.00 | 54 |
| 56 | 37A TO 37B | 5.31 | 24 | 54 | 38.40 | 38.50 | 0.19 | 43.00 | 42.00 | 55 |
| 57 | 38 TO 39 | 12.38 | 24 | 71 | 38.50 | 38.70 | 0.28 | 42.93 | 43.00 | 27 |
| 58 | 39 TO 40 | 8.31 | 24 | 120 | 38.70 | 39.00 | 0.25 | 43.00 | 44.00 | 56 |
| 59 | 40 TO 41 | 7.68 | 18 | 92 | 39.00 | 39.30 | 0.33 | 44.00 | 43.00 | 57 |
| 60 | 41 TO 42 | 2.08 | 18 | 204 | 39.30 | 39.80 | 0.25 | 43.00 | 42.79 | 58 |
| 61 | 39 TO 43 | 1.10 | 18 | 74 | 39.50 | 40.00 | 0.68 | 43.00 | 43.00 | 56 |
| 62 | 5 TO 48 | 10.09 | 18 | 64 | 39.00 | 39.50 | 0.78 | 44.13 | 44.00 | 11 |
| 63 | 46 TO 47 | 0.58 | 18 | 63 | 39.50 | 41.00 | 2.38 | 44.00 | 44.00 | 61 |
| 64 | 46 TO 48 | 2.95 | 18 | 81 | 39.50 | 41.00 | 1.85 | 44.00 | 45.00 | 61 |
| 65 | 48 TO 49 | 2.08 | 18 | 150 | 41.00 | 41.50 | 0.33 | 45.00 | 44.50 | 63 |
| 66 | 46 TO 50 | 4.11 | 18 | 162 | 39.50 | 40.00 | 0.31 | 44.00 | 43.00 | 61 |
| 67 | 50 TO 51 | 2.60 | 18 | 63 | 40.00 | 41.00 | 1.59 | 43.00 | 44.02 | 65 |
| 68 | 7 TO 52 | 6.61 | 18 | 68 | 39.00 | 39.50 | 0.74 | 43.58 | 43.01 | 13 |
| 69 | 52 TO 53 | 1.91 | 18 | 96 | 39.50 | 41.00 | 1.56 | 43.01 | 44.01 | 67 |
| 69 | 52 TO 54 | 2.88 | 18 | 216 | 39.50 | 40.00 | 0.23 | 43.01 | 43.10 | 67 |

Return period = 10 Yrs.

## GENERAL NOTES:

1. 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.
2. ANY TREES AND / OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.
3. NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT, AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION METHODS.
4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
5. 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.
6. 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.
7. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
8. CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
9. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
10. ALL PARKING STALL MARKINGS & LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
11. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE OWNER.
12. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
13. TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
14. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET.
15. ANY BROKEN OR MISSING SIDEWALK PANELS OR CURBING WILL BE REPLACED.
16. THE ROADWAY WILL HAVE TO MEET CITY STREET LIGHTING REQUIREMENTS, PLEASE CALL TRAFFIC ENGINEERING TO DISCUSS STREET LIGHTING OPTIONS.
17. WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY ( CFPUA ) DETAILS AND SPECIFICATIONS.
18. ALL UTILITIES WITHIN THE RIGHTS OF WAY ARE PUBLIC AND TREATED BY CAPE FEAR PUBLIC UTILITY AUTHORITY. ALL OTHERS OUTSIDE OF RIGHTS OF WAY ARE PRIVATE UTILITIES.
19. PROJECT SHALL COMPLY WITH CAPE FEAR PUBLIC UTILITY AUTHORITY CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 343-3910 FOR INFORMATION.
20. 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 DEVELOPED SIDE OF THE WATER METER BOX.
21. ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REGULATIONS. CALL 343-3910 FOR INFORMATION.
22. ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
23. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCCCHR OR ASSE.
24. CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
25. CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
26. UNDERGROUND FIRE LINES 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 910-341-0696.
27. NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
28. CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO ANY DIGGING, CLEARING OR GRADING.
29. ANY PVC MAINS ARE TO BE MARKED WITH NO.10 INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STAPPED TO THE PIPE WITH DUCT TAPE, AND STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES AND FITTINGS, ACCESSIBLE IN ALL VALVE AND METER BOXES. ALL WATER MAINS ARE TO HAVE A MINIMUM OF 3' COVER.

## MORE GENERAL NOTES:

1. CLEARING AND GRUBBING OF SITE TO INCLUDE REMOVAL OF EXISTING CURB, ASPHALT, INLETS, AND ANY OTHER STRUCTURES INCLUDING TREES, STUMPS AND DEBRIS EXISTING ON SITE. TREES NOT REQUIRED TO BE CLEARED FOR CONSTRUCTION SHALL REMAIN UNLESS OTHERWISE DIRECTED. ANY REGULATED TREES TO BE REMOVED ARE FOR ESSENTIAL SITE IMPROVEMENTS.
2. MINIMUM UTILITIES SEPARATION SHALL BE MAINTAINED AS FOLLOWS:
   a) HORIZONTAL CLEARANCE OF 10 FEET BETWEEN SANITARY SEWER OR STORM SEWERS AND WATER MAINS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10' LATERAL SEPARATION, IN WHICH CASE:
   1) THE WATER MAIN IS LAID IN A SEPARATE TRENCH WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR
   2) THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND WITH THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR
   b) WHERE VERTICAL CLEARANCE IS LESS THAN 18" BETWEEN SANITARY SEWER AND WATER OR WHERE SEWER LINE CROSSES ABOVE WATER MAIN, BOTH PIPES SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING.
   c) WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING.
   d) WHERE VERTICAL CLEARANCE IS LESS THAN 12" BETWEEN WATER MAIN AND STORM DRAIN, WATER MAIN SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING.
   3) WATER MAINS SHALL BE BURIED TO A DEPTH SUFFICIENT TO PROVIDE A MINIMUM OF 36 INCHES OF COVER FOR PVC PIPE AND 30 INCHES OF COVER FOR DIP TO MEET THE REQUIREMENTS OF RULE .0904 OF RULES GOVERNING PUBLIC WATER SYSTEMS.
3. SEE DETAIL SHEETS FOR TYPICAL UTILITIES HOOKUPS.
4. CONTRACTOR TO COORDINATE STAGING OF CONSTRUCTION ACTIVITIES WITH THE OWNER & ACHITECT TO FACILITATE ONGOING ADJOINING BUSINESS ACTIVITIES.
5. CONTRACTOR TO COORDINATE REMOVAL & RELOCATION OF LIGHTING & OTHER NON-MUNICIPAL UTILITIES SUCH AS ELECTRICAL & TELEPHONE CONNECTIONS WITH THE AFFECTED AGENCIES AND THE OWNER AND ARCHITECT.

## STANDARD NOTES:

1. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT ELEVATIONS AND LOCATIONS OF ALL EXISTING UTILITIES AT ALL CROSSINGS PRIOR TO COMMENCING TRENCH EXCAVATION. IF ACTUAL CLEARANCES ARE LESS THAN INDICATED ON PLAN, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. ANY CONDITION DISCOVERED OR EXISTING THAT WOULD NECESSITATE A MODIFICATION OF THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
2. NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NC ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.
3. ALL TREES WHICH ARE NOT REQUIRED TO BE CLEARED FOR CONSTUCTION SHALL BE PRESERVED WHEREVER POSSIBLE UNLESS OTHERWISE DIRECTED.
4. CONTRACTOR SHALL ADJUST ALL MANHOLES, VALVE AND CURB BOXES TO THE FINAL GRADE UPON COMPLETION OF ALL CONSTRUCTION. ANY BOXES DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST AND EROSION DURING CONSTRUCTION AT HIS EXPENSE. ROADS SHALL BE WATERED TO CONTROL DUST WHEN ORDERED BY THE ENGINEER.
6. NO GEOTECHNICAL TESTING HAS BEEN PERFORMED ON SITE. NO WARRANTY IS MADE FOR SUITABILITY OF SUBGRADE, AND UNDERCUT AND ANY REQUIRED REPLACEMENT WITH SUITABLE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. EXTREME CARE SHALL BE TAKEN TO ENSURE MINIMUM SEPARATIONS AT ALL UTILITY CROSSINGS.
8. CONTRACTOR TO ENSURE THAT PAVEMENT IS PLACED SO AS TO DRAIN POSITIVELY TO THE CURB OUTLETS AND DATCH BASINS. ALL ROOF DRAIN DOWNSPOUTS TO BE DIRECTED TO THE STORM SEWER SYSTEM.
9. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS.
10. THIS PLAN IS FOR SITE GRADING, ROADWORK & SEWER INSTALLATION ONLY.
11. NO ENCUMBERANCES IN R/W EXCEPT AS SHOWN.
12. AFFECTED NON-MUNICIPAL UTILITIES SHALL BE CONTACTED AND PROVIDED WITH PLANS AND OTHER PERTINENT INFORMATION, WHEN FEASIBLE, TO COORDINATE APPROPRIATE SCHEDULING AND PLACEMENT. AT THE MINIMUM THIS SHOULD INCLUDE BELLSOUTH AND DUKE ENERGY.
13. TEMPORARY PROJECT AREA LIMITS ARE AS SHOWN.
14. THIS PROPERTY IS ZONED:RB, MF-M & O&I-1.
15. SEWER AND WATER TO BE PROVIDED BY CFPUA.
16. SITE WILL MEET ALL ZONING REQUIREMENTS.
17. ANY REGULATED TREES ON SITE TO BE PRESERVED AS SHOWN.
18. STRIPING AND LANES TO CITY STANDARDS (THERMOPLASTIC).
19. NO VEHICULAR ACCESS TO SITE EXCEPT AS SHOWN.
20. ALL UTILITIES UNDERGROUND.
21. LANDSCAPING PLAN BY OTHERS.

***NOTE WELL:
1. EQUIPMENT CLEARANCE MINIMUM 16' FROM TRANSMISSION LINES TO BE MAINTAINED AT ALL TIMES. (REFERENCE: OSHA 1910.269)

NOTE WELL:
MAINTAIN TWO FEET OF COVER OR USE CLASS IV RCP FOR STORM SEWER PIPE.

### LEGEND

IRON IN EXIST. CONC. MON.
EXISTING SANITARY SEWER & MANHOLE
EXISTING WATERLINE
E.I.P. = EXISTING IRON PIPE
E.I.R. = EXISTING IRON REBAR
E.C.M. = EXISTING CONCRETE MONUMENT
I.S. = IRON SET
W/V = WATER VALVE
W/M = WATER METER
F/H = FIRE HYDRANT
P/P = POWER POLE
C.P. = COMPUTED POINT
X 49.0 INDICATES SPOT ELEVATION

### Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

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

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED_____

### SITE DATA TABLE:

PARCEL IDENTIFICATION:
R06500-003-004-000
DB 5427 PG 622

### SURVEY NOTES:

1. AREA COMPUTED BY COORDINATE METHOD.
2. ALL DISTANCES ARE HORIZONTAL GROUND.
3. PROPERTY SUBJECT TO ALL EASEMENTS OF RECORD.
4. THE UNDERGROUND UTILITIES SHOWN ON THIS SURVEY ARE LOCATED FROM FIELD SURVEY INFORMATION, AND EXISTING ASBUILT DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THE UTILITIES ARE LOCATED AS ACCURATELY AS POSSIBLE FORM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
5. THIS MAP IS NOT FOR CONVEYANCE, RECORDATION, OR SALES.
6. PORTIONS OF THIS PROPERTY ARE LOCATED WITHIN A 100 YEAR FLOOD HAZARD AREA ACCORDING TO FLOOD INSURANCE RATE MAP COMMUNITY ID#3720312500J, DATED APRIL 3, 2006, PANEL 3125J
7. THIS PROPERTY IS ZONED RB, MF-M & O&I-1.
8. SURVEYED IN 2013, and 2014.
9. COMBINED GRID FACTOR = 1.00000.

NOTE:
IF THE MULTI-USE PATH OR SIDEWALK EXTENDS TO AN INTERSECTION IT IS THE RESPONSIBILITY OF THE DEVELOPMENT TO IMPROVE THE ADA RAMP AND POTENTIALLY THE CROSSWALK.

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

### INDEX TO DRAWINGS

| SHEET No. | DESCRIPTION | |
|---|---|---|
| 1 OF 9 | COVER SHEET and GENERAL NOTES | 12498-EBW-1 |
| 2 OF 9 | PLANS and PROFILES (DUSTY MILLER LANE) | 12498-EBW-2 |
| 3 OF 9 | PLANS and PROFILES (BARCLAY POINTE BOULEVARD) | 12498-EBW-3 |
| 4 OF 9 | PLANS and PROFILES (CHIPPENHAM DRIVE) | 12498-EBW-4 |
| 4A OF 9 | PLANS and PROFILES (ELEMENT WAY) | 12498-EBW-4A |
| 5 OF 9 | PLANS and PROFILES (SITE PLAN) | 12498-EBW-5 |
| 6 OF 9 | PLANS and PROFILES (SITE PLAN) | 12498-EBW-6 |
| 7 OF 9 | PLANS and PROFILES (ADDITIONAL PROFILES) | 12498-EBW-7 |
| 8 OF 9 | PLANS and PROFILES (ADDITIONAL PROFILES) | 12498-EBW-8 |
| 9 OF 9 | PLANS and PROFILES (DETAIL SHEET) | 12498-EBW-9 |
| SSD-1 to SSD-4 | CFPUA SEWER CONSTRUCTION STANDARD DETAILS | CFPUA |
| WSD-1 to WSD-2 | CFPUA WATER CONSTRUCTION STANDARD DETAILS | CFPUA |
| SRB1 of SRB6 | SRB PLAN SHEET | 12498-SRB1 |
| SRB2 of SRB6 | SRB UTILITIES PLAN | 12948-SRB2 |
| SRB3 of SRB6 | SRB PLAN SHEET | 12948-SRB3 |
| SRB4 of SRB6 | SRB EXISTING CONDITIONS | 12498-SRB4 |
| SRB5 of SRB6 | SRB EXISTING CONDITIONS | 12498-SRB5 |
| SRB6 of SRB6 | SRB EXISTING CONDITIONS | 12498-SRB6 |
| ADA1 of ADA2 | ADA SLOPE PLAN | 12498-ADA1 |
| ADA2 of ADA2 | ADA SLOPE PLAN | 12498-ADA2 |

100' 0' 100' 200'
SCALE IN FEET: 1"= 100'

### BENCHMARK LOCATIONS AND ELEVATIONS

| | LOCATION: | ELEVATION |
|---|---|---|
| 1 | EX. CONCRETE MONUMENT AT INTERSECTION OF S. 17th STREET & MUSEUM DRIVE.. | 42.58 |

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |
| 2 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPER COMMENTS | 6–20–16 |
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPER COMMENTS | 5–11–16 |

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Cover Sheet and General Notes

ELEMENT BARCLAY WEST APARTMENTS
BARCLAY WEST
LOCATED IN THE CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID S. HOLLIS

dhollis @ hdsinm.com

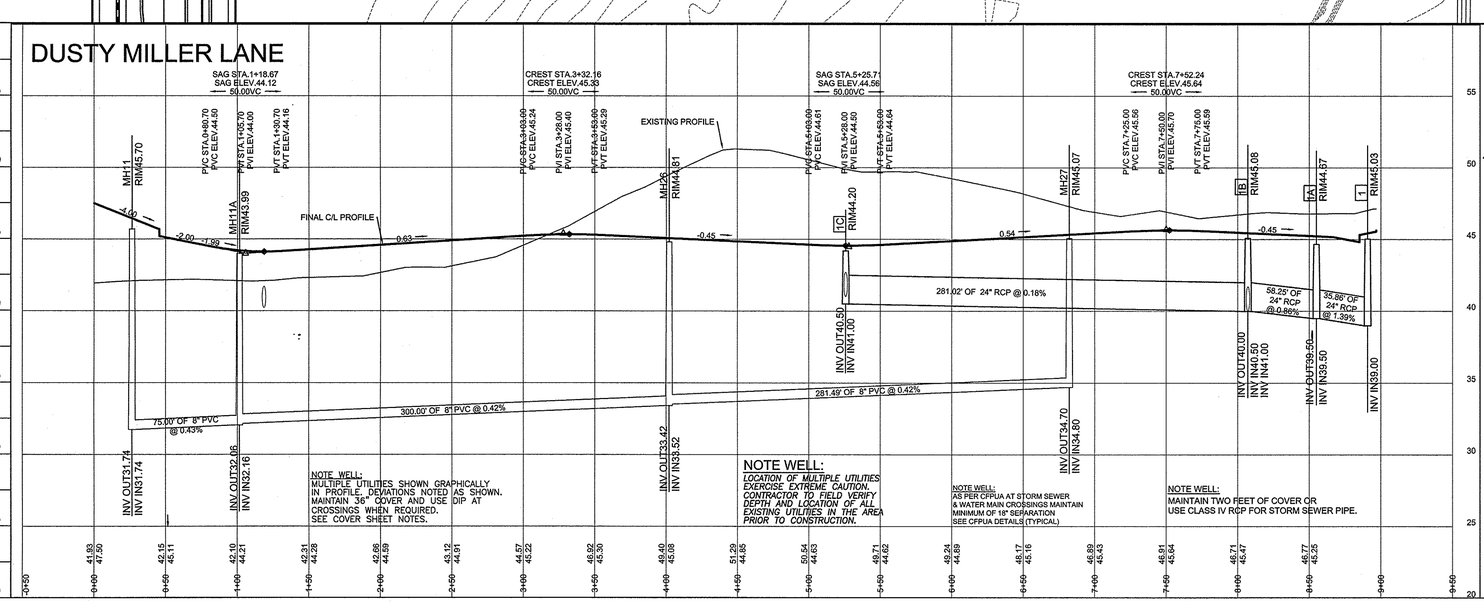
DEVELOPER: CK GALLERY PARK WILMINGTON, LLC
301 SOUTH COLLEGE ST.
CHARLOTTE, NC 28202
PH: 704–342–9000

HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS, ENGINEERS & LAND PLANNERS
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343–8002
License # C–0597

Date: 3-22-16
Scale: 1"=100'
Drawn: GW
Checked: DSH
Project No: 12498

Sheet No. 1 Of: 9

P:\All\Project Folders\12498–BARCLAY WEST\Engineering\Major Apartment Revision 2–15–16\New CK12498 BASE eng REVISED 3–16–16.dwg (Layout Cover–1)




NOTE:
404 WETLANDS DO NOT EXIST ON SITE PER U.S. CORPS OF ENGINEERS DETERMINATION. SEE ACTION SAW-2012-01938. DETERMINATION EXPIRATION DATE 01-18-2018.

*ADDITIONAL CFPUA NOTES:*

1. CFPUA STANDARD DETAIL SHEETS FOR SEWER AND WATER TAPS TO BE INCLUDED AS A PART OF THIS PLAN, ATTACHED.
2. 48-HOUR NOTICE AND 3 COMPLETE SETS OF PLANS REQUIRED FOR PRE-CONSTRUCTION MEETING BY CONTRACTOR.
3. NCDOT ENCROACHMENT REQUIRED FOR ANY WORK IN PUBLIC R/W.
4. ALL FEES TO BE PAID PRIOR TO PRE-CONSTRUCTION MEETING.
5. CFPUA PERMIT REQUIRED FOR ANY UTILITY SERVICES WORK.
6. CONTRACTOR RESPONSIBLE FOR PERMIT AND COORDINATION WITH CFPUA
7. ALL SERVICES TO BE INSTALLED IN ACCORDANCE WITH CITY AND CFPUA TECHNICAL STANDARDS.

***NOTE WELL:
1. EQUIPMENT CLEARANCE MINIMUM 16' FROM TRANSMISSION LINES TO BE MAINTAINED AT ALL TIMES. (REFERENCE: OSHA 1910.269)

**NOTE WELL:**
CONTRACTOR TO COORDINATE MATERIALS AND CONSTRUCTION METHODOLOGIES WITH THE CAPE FEAR PUBLIC UTILITY AUTHORITY PRIOR TO COMMENCING. PLEASE CONTACT C.F.P.U.A. AT (910) 332-6550
DEVELOPER'S INSPECTOR TO BE NOTIFIED PRIOR TO INSTALLATION AND TESTING.

NOTE WELL:
1) CONTRACTOR TO ENSURE THAT STREET PAVEMENT & CURBING IS PLACED SO AS TO DRAIN POSITIVELY TO CURB INLETS AND DRAINAGE STRUCTURES.

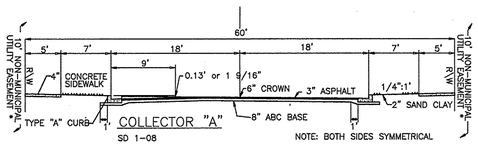
NOTE WELL:
1. All storm water runoff from built upon areas (i.e. impervious surfaces & roof drainage) to be directed to the storm sewer collection system (i.e. storm inlets or ponds) by swales, overland flow, additional grading, or landscaping inlets.

NOTE WELL:
AS PER CFPUA A DELINEATION VALVE IS REQUIRED ON ALL FIRE LINES AT THE RIGHT OF WAY.

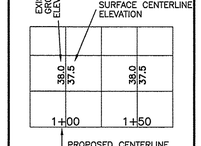
*CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:*

1. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
2. WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
3. ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
4. MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
5. NO FLEXIBLE COUPLINGS SHALL BE USED.
6. ALL STAINLESS STELL FASTENERS SHALL BE 316.
7. CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION




CHIPPENHAM DRIVE & DUSTY MILLER LANE TYPICAL SECTION
(60' R/W)




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

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED_____
_____

50' 0' 50' 100'
SCALE IN FEET: 1"= 50'

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

STATION 0+00 THROUGH 9+00
DUSTY MILLER LANE

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| 2 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 6-20-16 |
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 5-11-16 |

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*PLANS & PROFILES*

# ELEMENT BARCLAY WEST APARTMENTS
## Barclay West

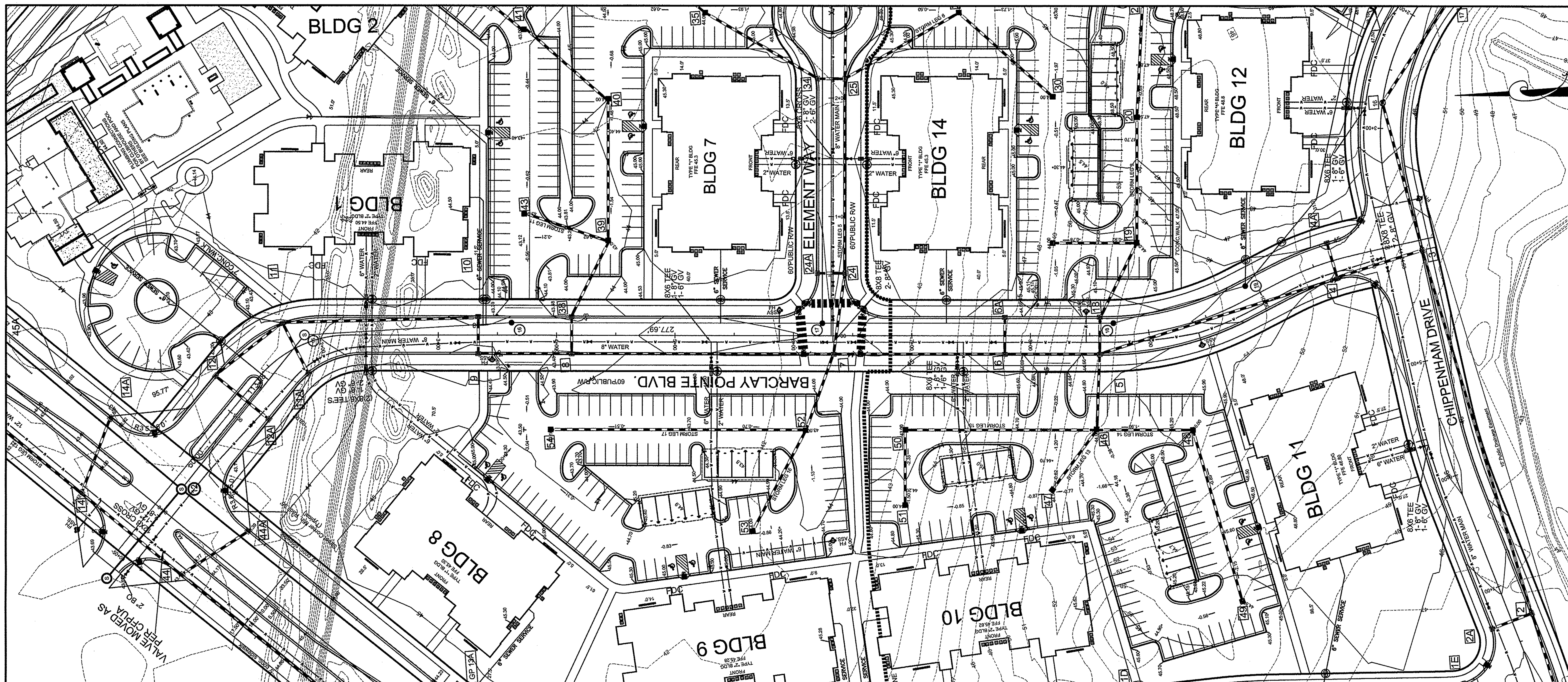
*LOCATED IN THE CITY OF WILMINGTON* — *NEW HANOVER COUNTY, NORTH CAROLINA*

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID B. HOLLIS
12-21-16
dhollis @ hdsilm.com

DEVELOPER: CK GALLERY PARK WILMINGTON, LLC
301 SOUTH COLLEGE ST.
CHARLOTTE, NC 28202
PH: 704-342-9000

HANOVER DESIGN SERVICES, P.A.
*LAND SURVEYORS, ENGINEERS & LAND PLANNERS*
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002
License # C-0597

Date: 3-22-16
Scale: HORZ.: 1"= 50' VERT.: 1"= 5'
Drawn: GW
Checked: DH
Project No: 12498
Sheet No: 2 9
Of: _____

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STORMWATER MANAGEMENT
PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE ________
PERMIT # ________
SIGNED________________________

**Approved Construction Plan**

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

### CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:

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2. WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
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4. MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
5. NO FLEXIBLE COUPLINGS SHALL BE USED.
6. ALL STAINLESS STELL FASTENERS SHALL BE 316.
7. CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.

### ADDITIONAL CFPUA NOTES:

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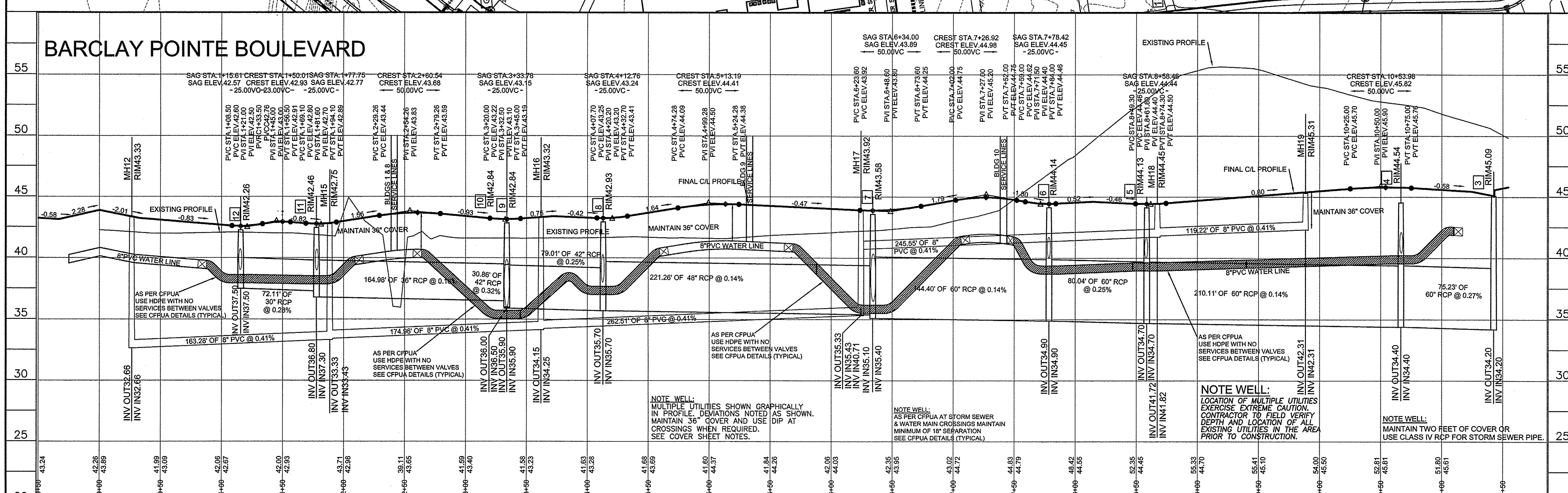
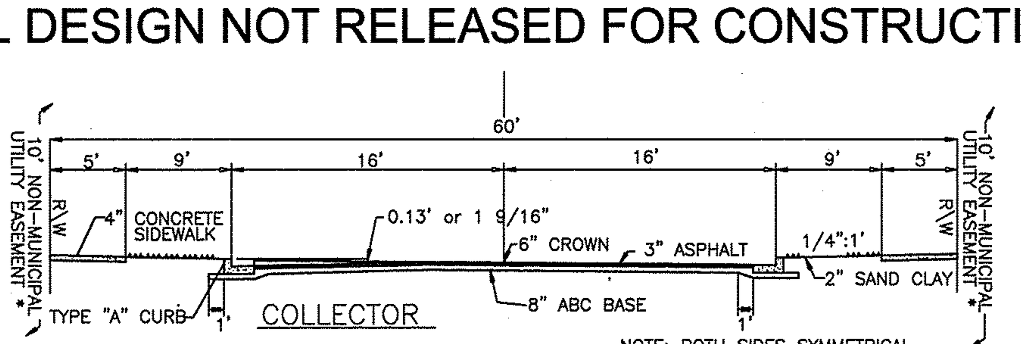
7. ALL SERVICES TO BE INSTALLED IN ACCORDANCE WITH CITY AND CFPUA TECHNICAL STANDARDS.

## BARCLAY POINTE BOULEVARD

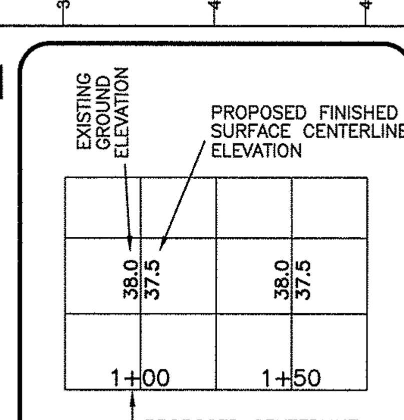



# FINAL DESIGN NOT RELEASED FOR CONSTRUCTION




BARCLAY POINTE BLVD. TYPICAL SECTION

(60' R/W)




PROFILE LEGEND

50' 0' 50' 100'

SCALE IN FEET: 1"= 50'

***NOTE WELL:

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**NOTE WELL:**

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PLEASE CONTACT C.F.P.U.A.
AT (910) 332-6550
DEVELOPER'S INSPECTOR TO BE NOTIFIED PRIOR TO INSTALLATION AND TESTING.

NOTE WELL:
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NOTE:
404 WETLANDS DO NOT EXIST ON SITE PER U.S. CORPS OF ENGINEERS DETERMINATION. SEE ACTION SAW-2012-01938. DETERMINATION EXPIRATION DATE 01-18-2018.

NOTE WELL:
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STATION 0+00 THROUGH 11+50
BARCLAY POINTE BOULEVARD

| | | |
|---|---|---|
| 2 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 6-20-16 |
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 5-11-16 |
| REV. NO. | REVISIONS | DATE |

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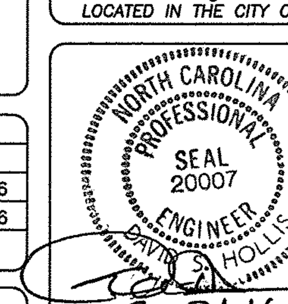
PLANS & PROFILES
**ELEMENT BARCLAY WEST APARTMENTS**
Barclay West
LOCATED IN THE CITY OF WILMINGTON — NEW HANOVER COUNTY, NORTH CAROLINA




dhollis @ hdsilm.com

DEVELOPER: CK GALLERY PARK WILMINGTON, LLC
301 SOUTH COLLEGE ST.
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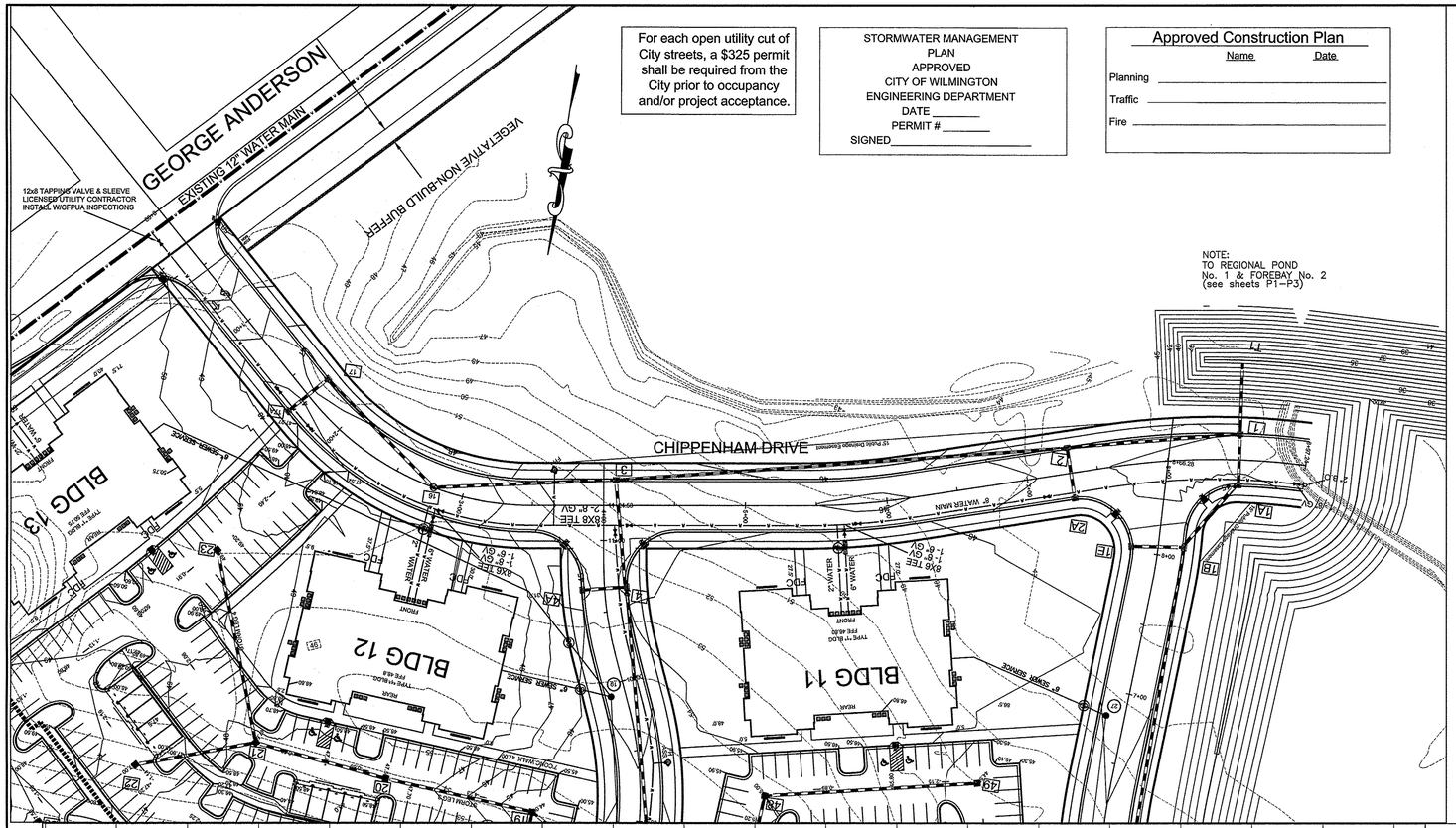
| | |
|---|---|
| Date: | 3-22-16 |
| Scale: | HORZ.: 1"= 50' VERT.: 1"= 5' |
| Drawn: | GW |
| Checked: | DH |
| Project No: | 12498 |
| Sheet No: | 3 |
| Of: | 9 |

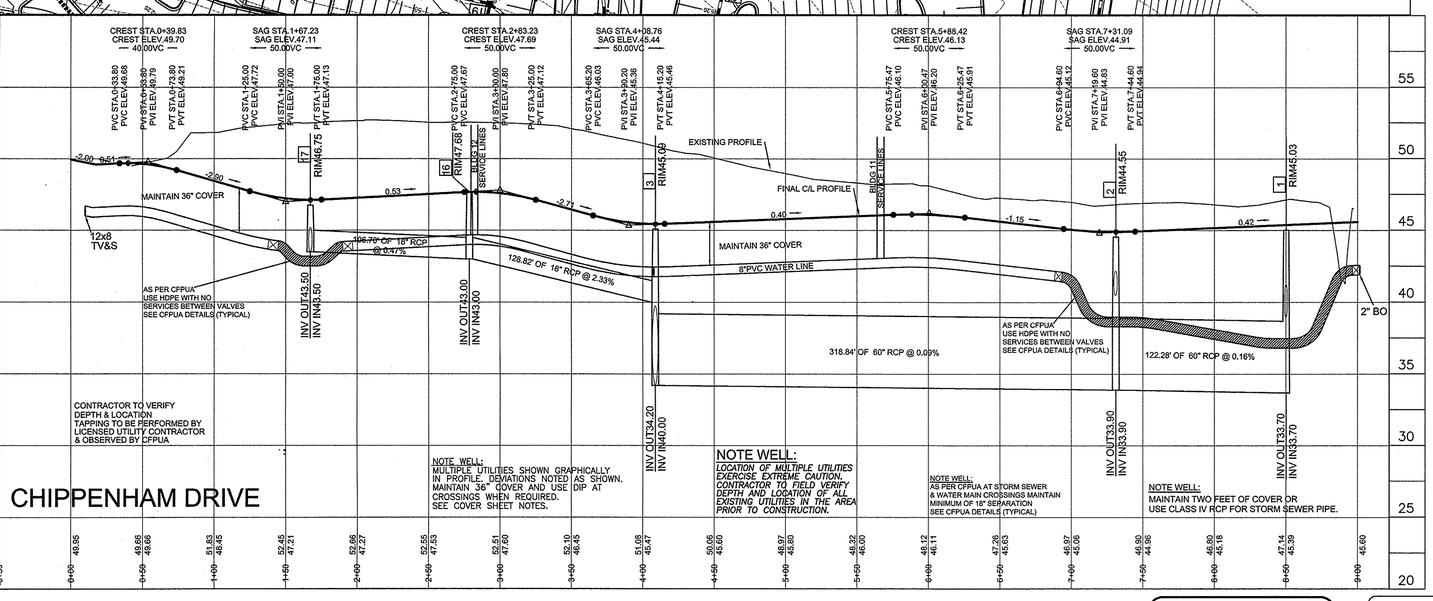
For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED_____

**Approved Construction Plan**

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

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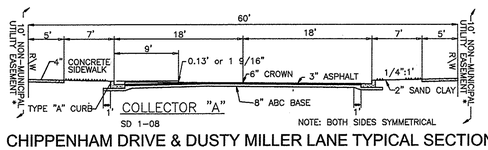
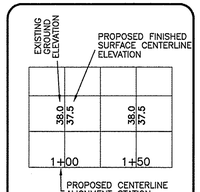



CHIPPENHAM DRIVE & DUSTY MILLER LANE TYPICAL SECTION
(60' R/W)

50' 0' 50' 100'
SCALE IN FEET: 1"= 50'




# CHIPPENHAM DRIVE
## STATION 0+00 THROUGH 9+00

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| 2 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 6-20-16 |
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 5-11-16 |

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*PLANS & PROFILES*

**ELEMENT BARCLAY WEST APARTMENTS**
**Barclay West**
*LOCATED IN THE CITY OF WILMINGTON* — *NEW HANOVER COUNTY, NORTH CAROLINA*

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID H. HOLLIS

dhollis @ hdsilm.com

*DEVELOPER: CK GALLERY PARK WILMINGTON, LLC*
*301 SOUTH COLLEGE ST.*
*CHARLOTTE, NC 28202*
*PH: 704-342-9000*

**HANOVER DESIGN SERVICES, P.A.**
*LAND SURVEYORS, ENGINEERS & LAND PLANNERS*
1123 FLORAL PARKWAY
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PHONE: (910) 343-8002
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Date: 3-22-16
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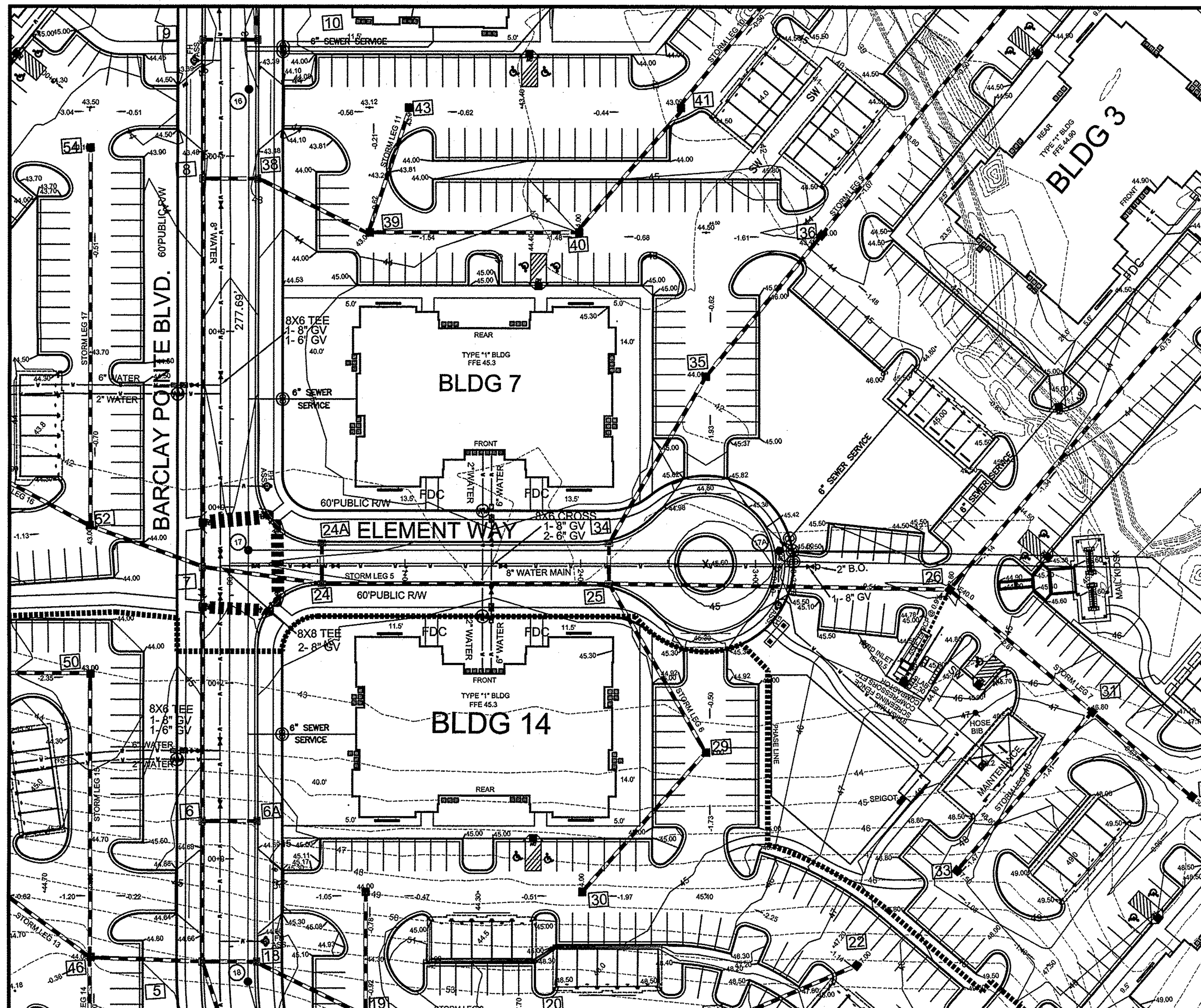


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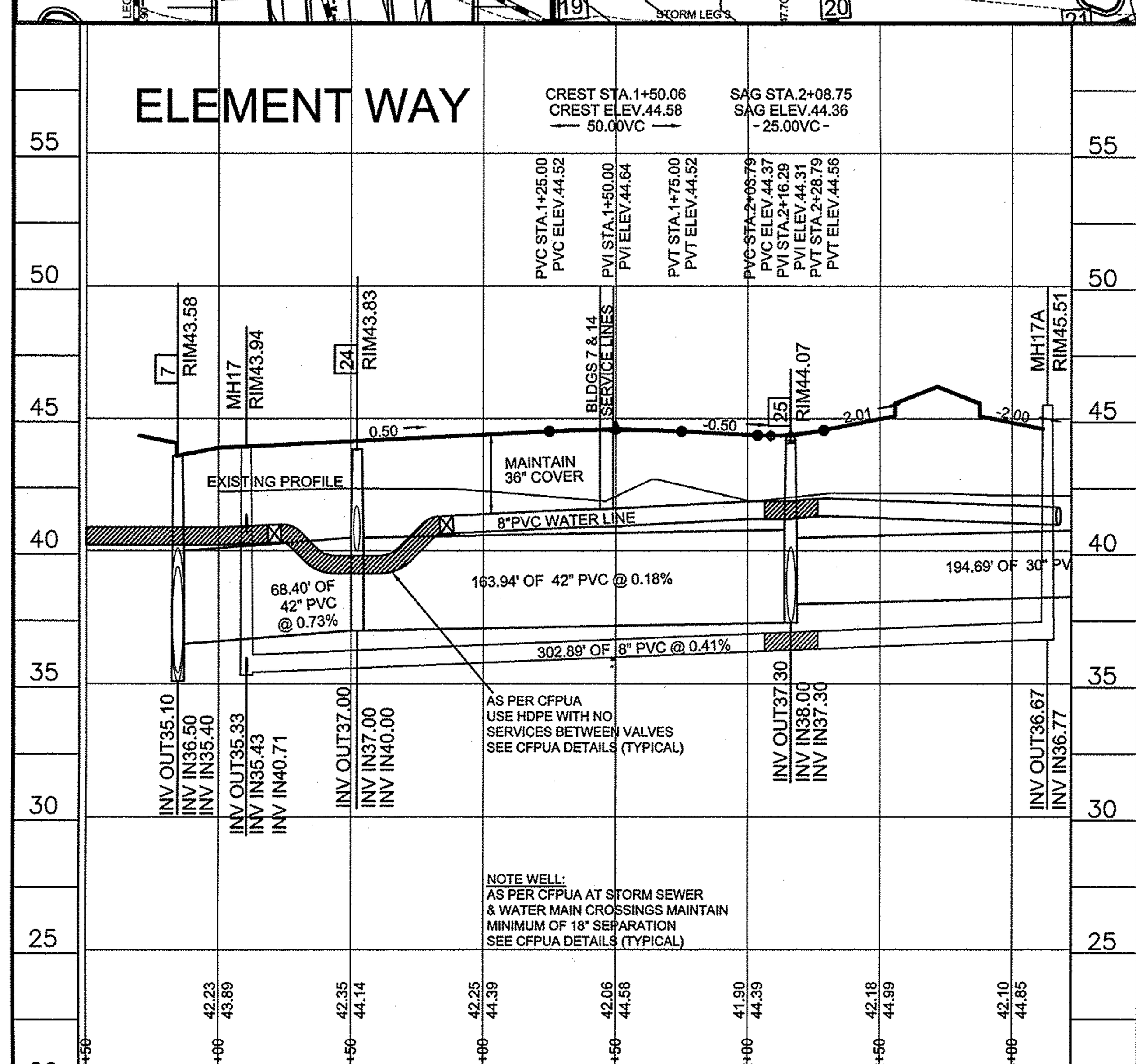
STORMWATER MANAGEMENT
PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE ________
PERMIT # ________
SIGNED________________________

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

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AT (910) 332-6550

DEVELOPER'S INSPECTOR TO BE NOTIFIED PRIOR TO INSTALLATION AND TESTING.

NOTE:
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NOTE WELL:
MULTIPLE UTILITIES SHOWN GRAPHICALLY IN PROFILE. DEVIATIONS NOTED AS SHOWN. MAINTAIN 36" COVER AND USE DIP AT CROSSINGS WHEN REQUIRED. SEE COVER SHEET NOTES.

## NOTE WELL:

*LOCATION OF MULTIPLE UTILITIES EXERCISE EXTREME CAUTION. CONTRACTOR TO FIELD VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES IN THE AREA PRIOR TO CONSTRUCTION.*

NOTE WELL:
AS PER CFPUA A DELINEATION VALVE IS REQUIRED ON ALL FIRE LINES AT THE RIGHT OF WAY.

NOTE WELL:
MAINTAIN TWO FEET OF COVER OR USE CLASS IV RCP FOR STORM SEWER PIPE.

*ADDITIONAL CFPUA NOTES:*

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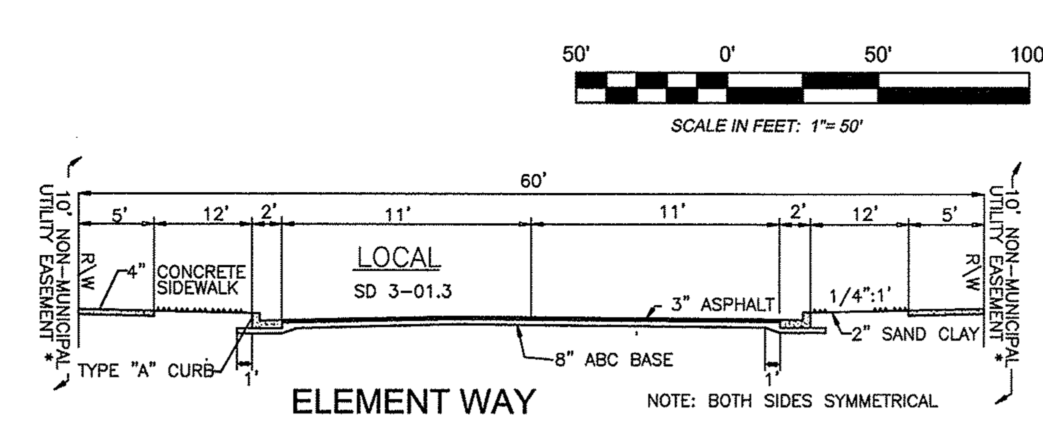
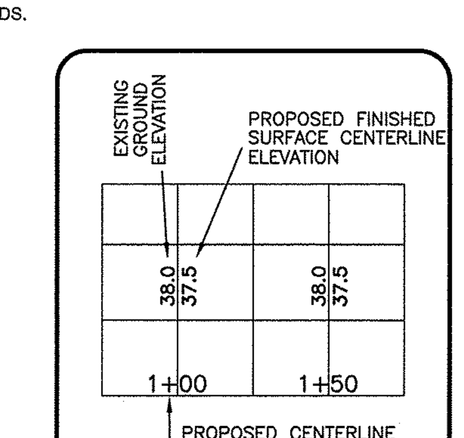
5. NO FLEXIBLE COUPLINGS SHALL BE USED.
6. ALL STAINLESS STELL FASTENERS SHALL BE 316.
7. CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.




ELEMENT WAY
(60' R/W)




PROFILE LEGEND

# ELEMENT WAY
STATION −0+50 THROUGH 3+00

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| 2 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 6-20-16 |
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 5-11-16 |

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*PLANS & PROFILES*

# ELEMENT BARCLAY WEST APARTMENTS
## Barclay West

*LOCATED IN THE CITY OF WILMINGTON* *NEW HANOVER COUNTY, NORTH CAROLINA*

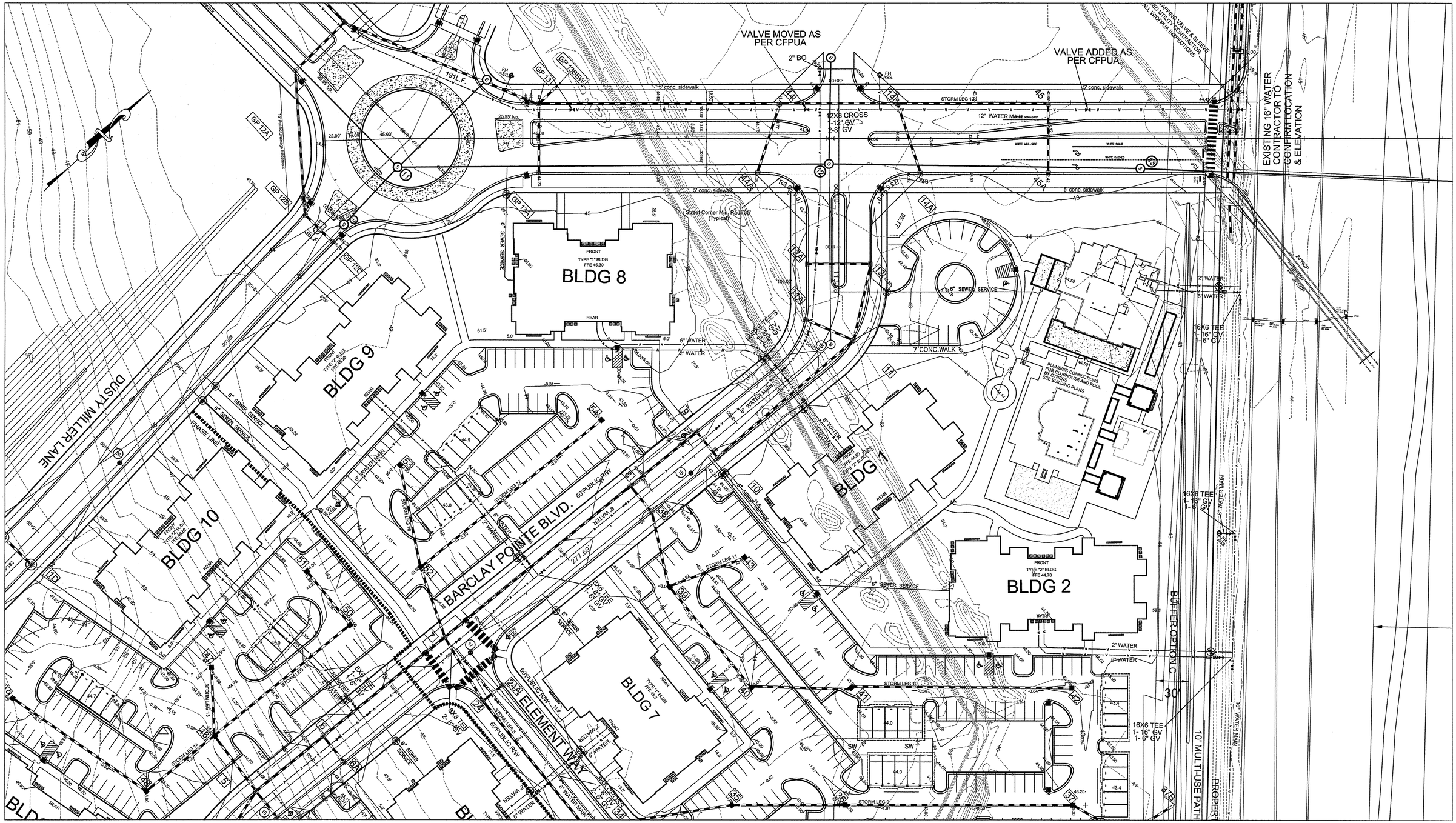
NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID S. HOLLIS
6.21.16
dhollis @ hdsilm.com

*DEVELOPER: CK GALLERY PARK WILMINGTON, LLC*
*301 SOUTH COLLEGE ST.*
*CHARLOTTE, NC 28202*
*PH: 704-342-9000*

HANOVER DESIGN SERVICES, P.A.
*LAND SURVEYORS, ENGINEERS & LAND PLANNERS*
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002
License # C-0597

Date: 3-22-16
Scale: HORZ.: 1"= 50' VERT.: 1"= 5'
Drawn: GW
Checked: DH
Project No: 12498

Sheet No: 4A
Of: 9




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

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED _____

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

40' 0' 40' 80'
SCALE IN FEET: 1"= 40'

SITE PLAN

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 5-11-16 |

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PLANS & PROFILES
ELEMENT BARCLAY WEST APARTMENTS
Barclay West
LOCATED IN THE CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID E. NICOLLS
6.21.16

DEVELOPER: CK GALLERY PARK WILMINGTON, LLC
301 SOUTH COLLEGE ST.
CHARLOTTE, NC 28202
PH: 704-342-9000

HANOVER DESIGN SERVICES, P.A.
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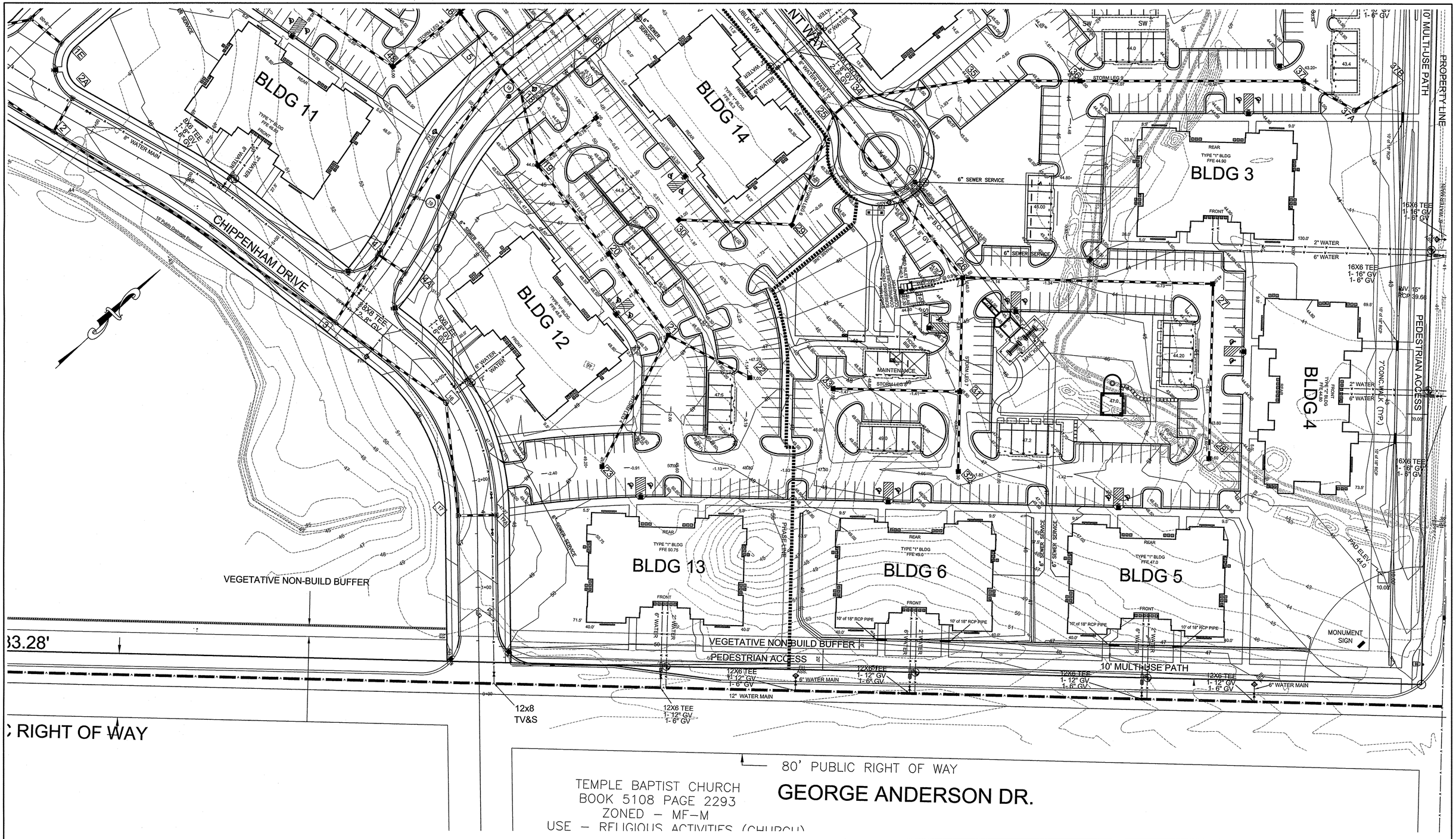
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002
License # C-0597

Date: 3-22-16
Scale: HORZ.: 1"= 40'
Drawn: GW
Checked: DH
Project No: 12498
Sheet No: 5
Of: 9

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STORMWATER MANAGEMENT
PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED _____

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

40' 0' 40' 80'
SCALE IN FEET: 1"= 40'

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

# SITE PLAN

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| 2 | SIDEWALK & MULTI-USE PATH ADJUSTMENTS DUE TO TREE SAVE AREAS | 6-21-16 |
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 5-11-16 |

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PLANS & PROFILES
ELEMENT BARCLAY WEST APARTMENTS
Barclay West
LOCATED IN THE CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID HOLLIS
6-21-16

DEVELOPER: CK GALLERY PARK WILMINGTON, LLC
301 SOUTH COLLEGE ST.
CHARLOTTE, NC 28202
PH: 704-342-9000

HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS, ENGINEERS & LAND PLANNERS
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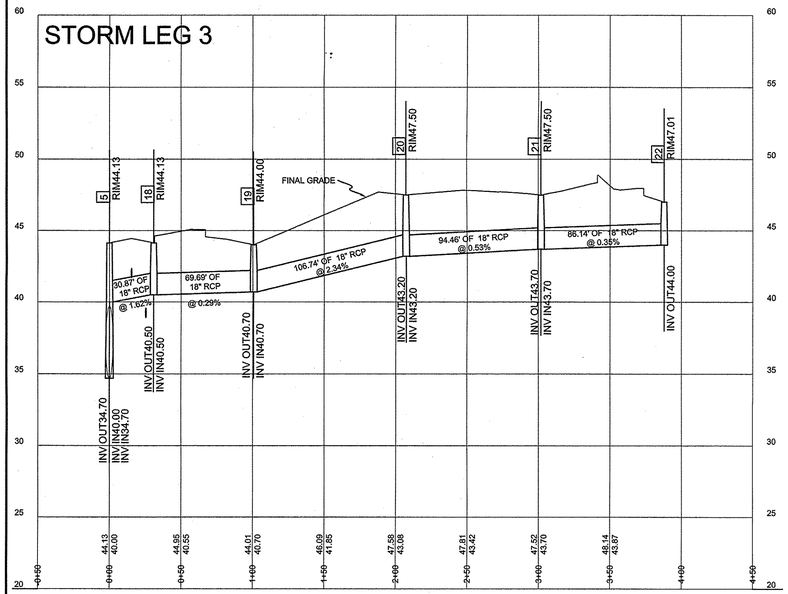
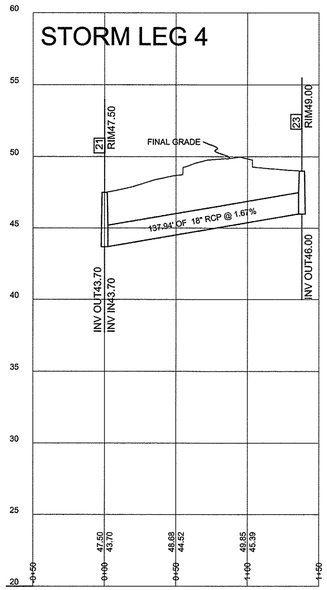
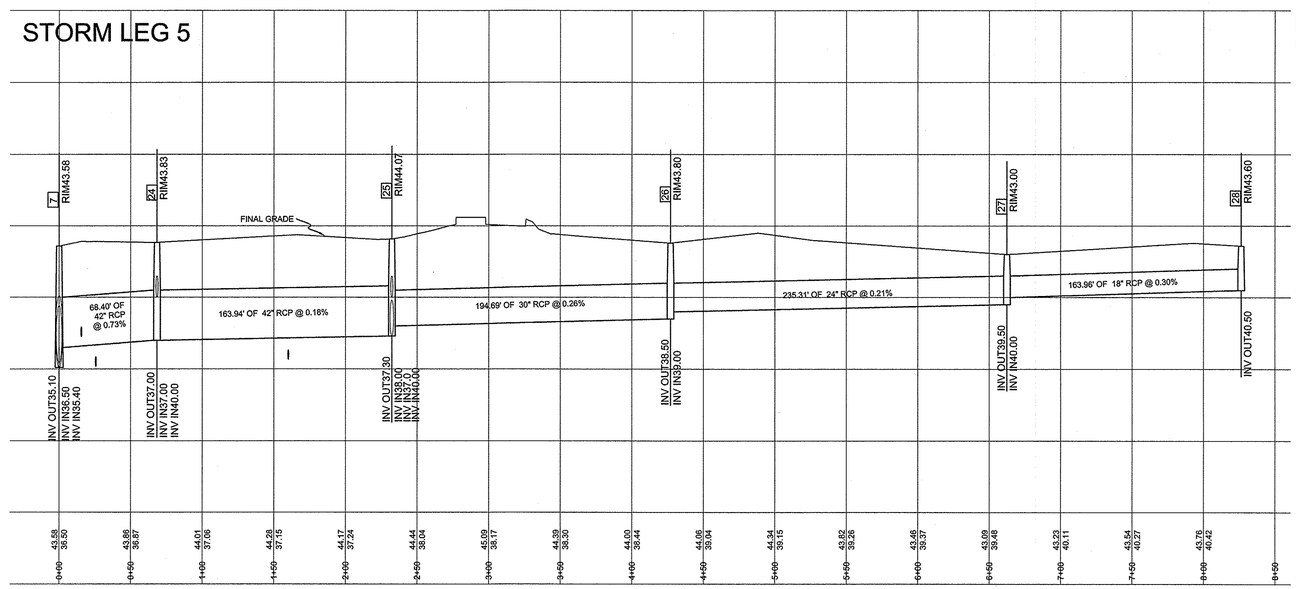
WILMINGTON, N.C. 28403
PHONE: (910) 343-6002
License # C-0597

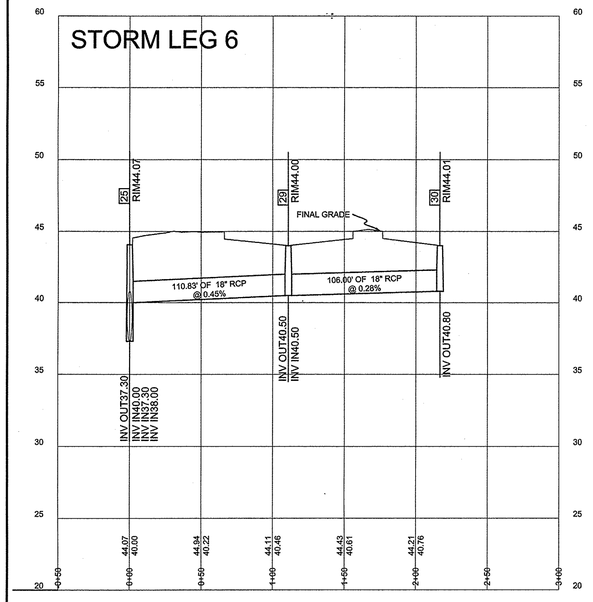
Date: 3-22-16
Scale: HORZ.: 1"= 40'
Drawn: GW
Checked: DH
Project No: 12498
Sheet No: 6 of 9

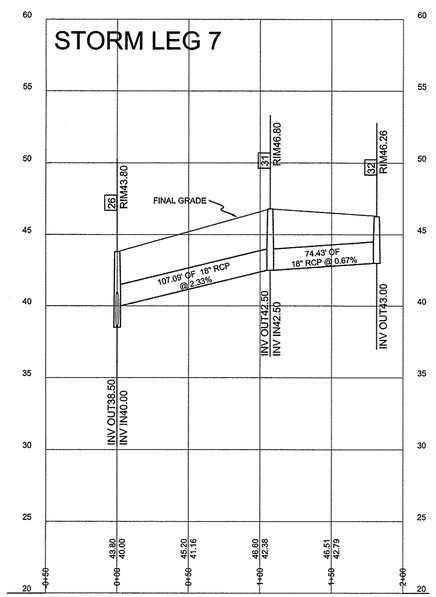
# ADDITIONAL STORM PROFILES

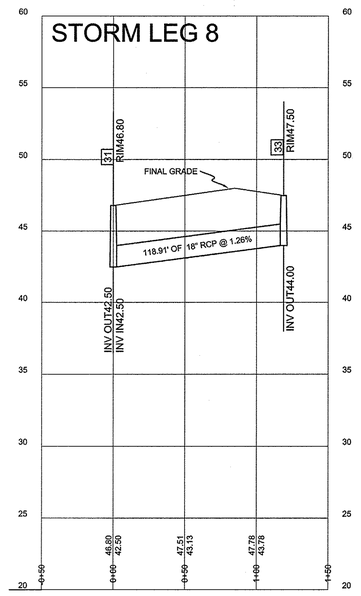


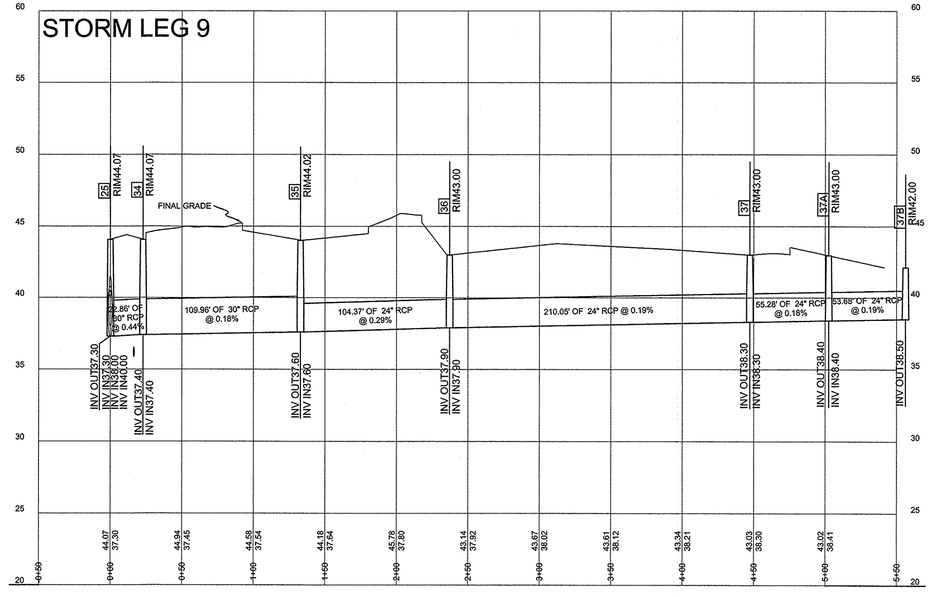

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STORMWATER MANAGEMENT
PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED _____

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

*ADDITIONAL CFPUA NOTES:*

1. CFPUA STANDARD DETAIL SHEETS FOR SEWER AND WATER TAPS TO BE INCLUDED AS A PART OF THIS PLAN, ATTACHED.
2. 48-HOUR NOTICE AND 3 COMPLETE SETS OF PLANS REQUIRED FOR PRE-CONSTRUCTION MEETING BY CONTRACTOR.
3. NCDOT ENCROACHMENT REQUIRED FOR ANY WORK IN PUBLIC R/W.
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5. CFPUA PERMIT REQUIRED FOR ANY UTILITY SERVICES WORK.
6. CONTRACTOR RESPONSIBLE FOR PERMIT AND COORDINATION WITH CFPUA
7. ALL SERVICES TO BE INSTALLED IN ACCORDANCE WITH CITY AND CFPUA TECHNICAL STANDARDS.

50' 0' 50' 100'

SCALE IN FEET: 1"= 50'

## ADDITIONAL PROFILES

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 5-11-16 |

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*PLANS & PROFILES*

**ELEMENT BARCLAY WEST APARTMENTS**
**Barclay West**
*LOCATED IN THE CITY OF WILMINGTON* — *NEW HANOVER COUNTY, NORTH CAROLINA*

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID S. HOLLIS
5-11-16
dhollis @ hdslm.com

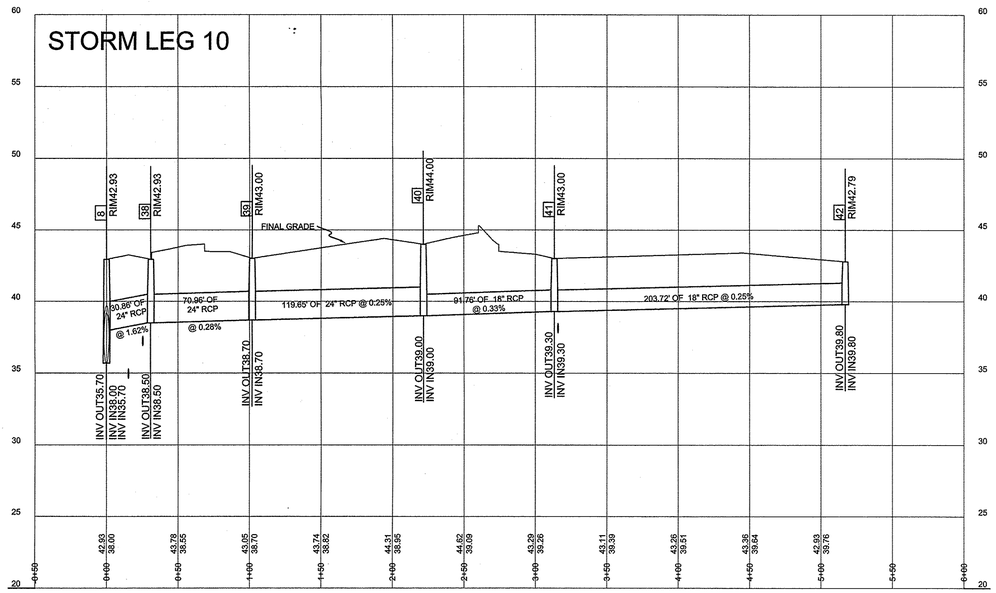
DEVELOPER: CK GALLERY PARK WILMINGTON, LLC
301 SOUTH COLLEGE ST.
CHARLOTTE, NC 28202
PH: 704-342-9000

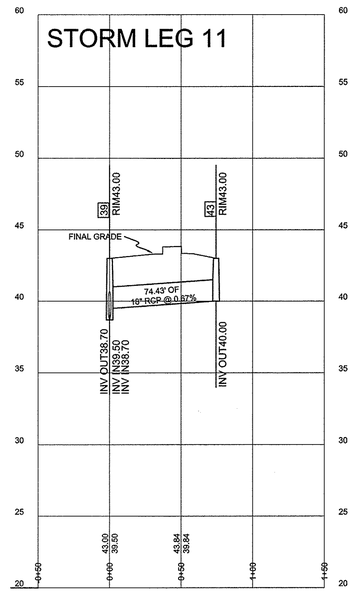
HANOVER DESIGN SERVICES, P.A.
*LAND SURVEYORS, ENGINEERS & LAND PLANNERS*
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002
License # C-0597

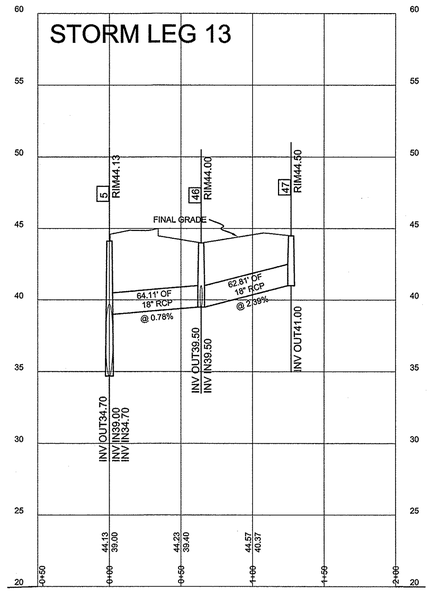
Date: 3-22-16
Scale: HORZ.: 1"= 50' VERT.: 1"= 5'
Drawn: GW
Checked: DH
Project No: 12498
Sheet No: 7 of 9

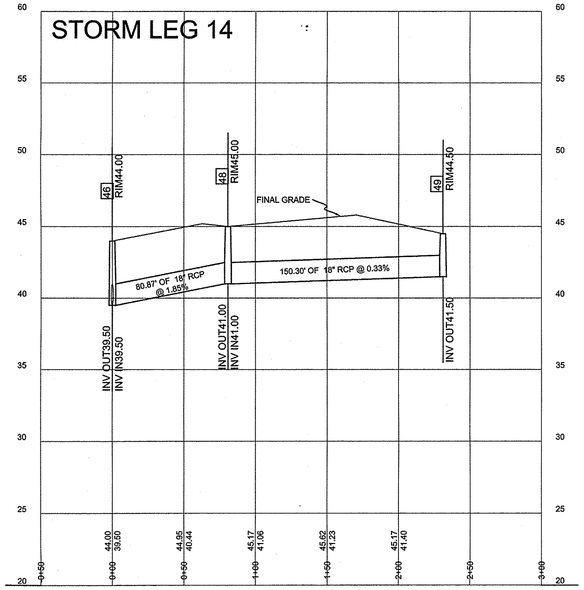
FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

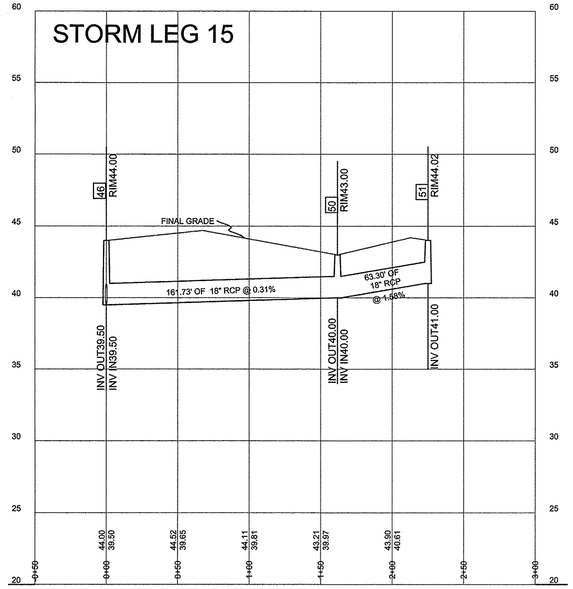
## ADDITIONAL STORM PROFILES

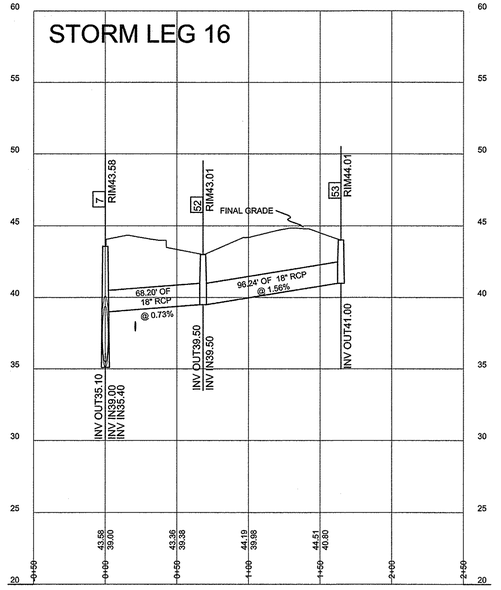


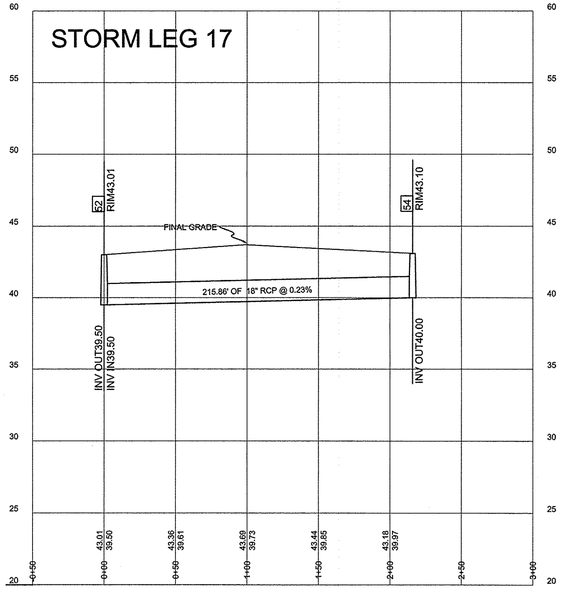

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STORMWATER MANAGEMENT
PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED_____

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

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50' 0' 50' 100'

*SCALE IN FEET: 1"= 50'*

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

# ADDITIONAL PROFILES

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |
| | | |
| | | |
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 5-11-16 |

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*PLANS & PROFILES*

## ELEMENT BARCLAY WEST APARTMENTS
Barclay West

*LOCATED IN THE CITY OF WILMINGTON* — *NEW HANOVER COUNTY, NORTH CAROLINA*

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID C. HOLLIS

dhollis @ hdsllm.com

*DEVELOPER: CK GALLERY PARK WILMINGTON, LLC*
*301 SOUTH COLLEGE ST.*
*CHARLOTTE, NC 28202*
*PH: 704-342-9000*

HANOVER DESIGN SERVICES, P.A.
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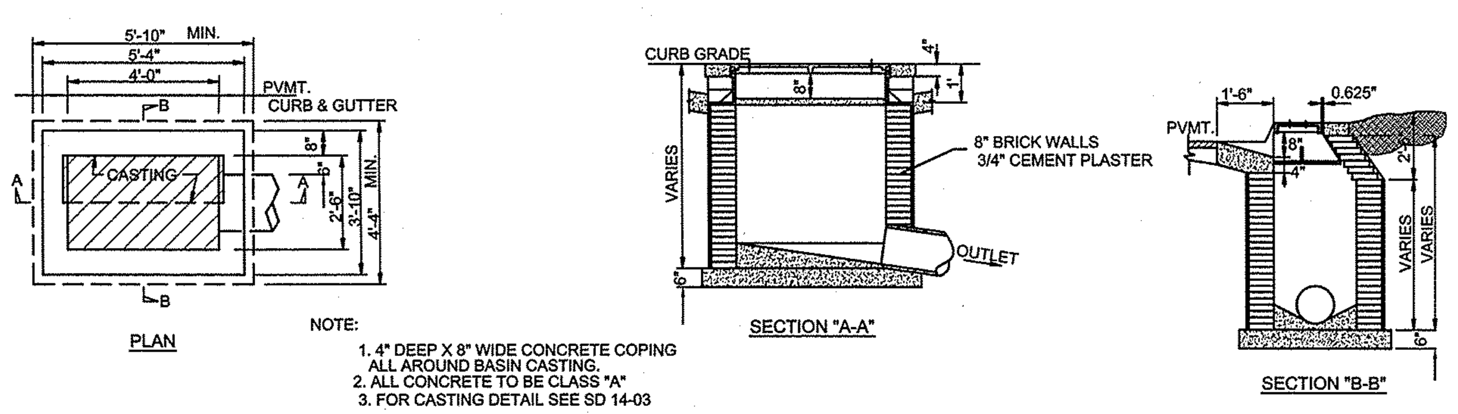
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002
License # C-0597

| | |
|---|---|
| Date: | 3-22-16 |
| Scale: | HORZ.: 1"= 50' VERT.: 1"= 5' |
| Drawn: | GW |
| Checked: | DH |
| Project No: | 12498 |
| Sheet No: | 8 |
| Of: | 9 |

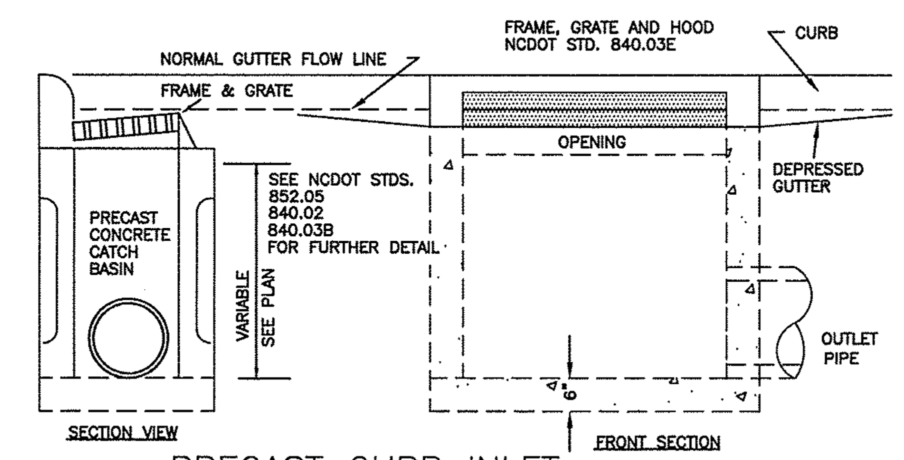



NOTE:

1. 4" DEEP X 8" WIDE CONCRETE COPING ALL AROUND BASIN CASTING.
2. ALL CONCRETE TO BE CLASS "A"
3. FOR CASTING DETAIL SEE SD 14-03

## CATCH BASIN

SD 2-01
NOT TO SCALE



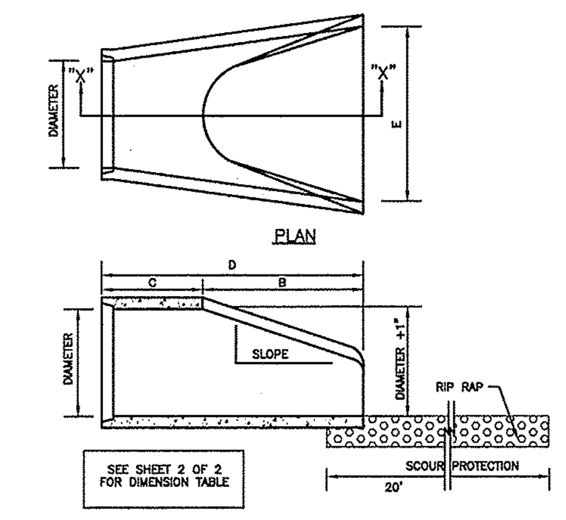

## PRECAST CURB INLET

N.T.S.

SEE SHEET P2 FOR OUTLET PROTECTION

NOTE:

1. STRUCTURAL DESIGN OF END SECTION SHALL CONFORM WITH THAT OF STANDARD REINFORCED CONCRETE.

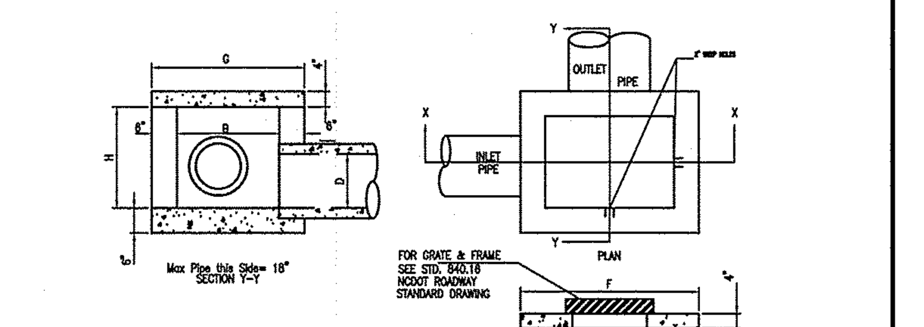



| PIPE DIAMETER | WALL THICKNESS | SLOPE | B | C | D | E | UNIT WEIGHT |
|---|---|---|---|---|---|---|---|
| 12 | 2 1/4 | 3:1 | 24 | 49 | 73 | 24 | 730 |
| 15 | 2 1/4 | 3:1 | 27 | 46 | 73 | 30 | 910 |
| 18 | 2 1/2 | 3:1 | 27 | 46 | 73 | 36 | 1190 |
| 21 | 2 3/4 | 3:1 | 36 | 37 | 73 | 42 | 1370 |
| 24 | 3 | 3:1 | 42 | 31 1/2 | 73 1/2 | 48 | 1770 |
| 27 | 3 1/4 | 3:1 | 48 | 25 1/2 | 73 1/2 | 54 | 2130 |
| 30 | 3 1/2 | 3:1 | 54 | 19 3/4 | 73 3/4 | 60 | 2380 |
| 33 | 3 3/4 | 3:1 | 60 | 36 | 96 | 66 | 3870 |
| 36 | 4 | 3:1 | 63 | 34 3/4 | 97 3/4 | 72 | 5320 |
| 42 | 4 1/2 | 3:1 | 63 | 35 | 98 | 78 | 5920 |
| 48 | 5 | 3:1 | 72 | 26 | 98 | 84 | 7470 |
| 54 | 5 1/2 | 2.4:1 | 66 | 34 | 100 | 90 | 8810 |
| 60 | 6 | 2:1 | 60 | 39 | 99 | 96 | 11180 |
| 72 | 7 | 2:1 | 78 | 21 | 99 | 108 | 13980 |

DIMENSIONS IN INCHES WEIGHTS IN POUNDS

FLARED END SECTION – OUTLET

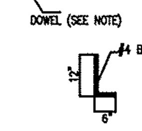
SD 1-17
NOT TO SCALE



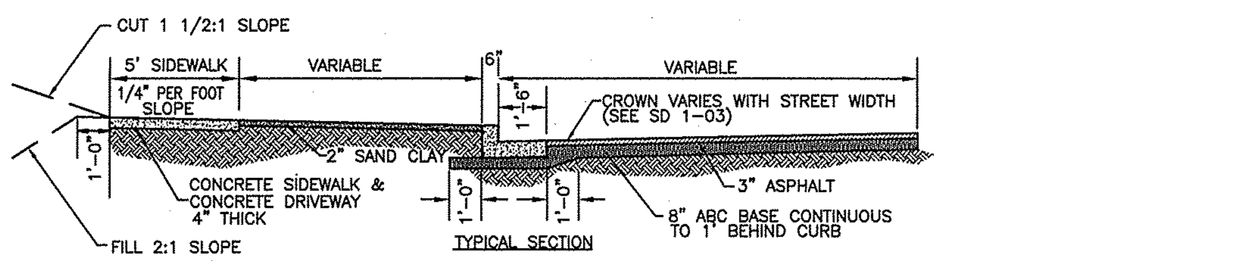

| DIMENSIONS AND QUANTITIES FOR DROP INLET (BASED ON MIN. HEIGHT, H) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DIM'S OF BOX & PIPE | | | | CUBIC YARDS CONC. IN BOX | | | DEDUCTIONS FOR ONE PIPE | |
| PIPE D | SPAN A | WIDTH B | HEIGHT H | BOTTOM SLAB | WALL PER FT. HT. | [illegible] | C.M. | R.C. |
| 12" | 3'-0" | 2'-0" | 2'-0" | 0.222 | 0.222 | 0.592 | 0.015 | 0.026 |
| 15" | 3'-0" | 2'-0" | 2'-3" | 0.222 | 0.222 | 0.648 | 0.023 | 0.036 |
| 18" | 3'-0" | 2'-0" | 2'-6" | 0.222 | 0.222 | 0.703 | 0.033 | 0.049 |
| 24" | 3'-0" | 2'-0" | 3'-0" | 0.222 | 0.222 | 0.814 | 0.059 | 0.085 |
| 30" | 3'-0" | 2'-0" | 3'-6" | 0.222 | 0.222 | 0.925 | 0.092 | 0.127 |

STANDARD DROP INLET DETAIL

STD 840.14




DOWEL

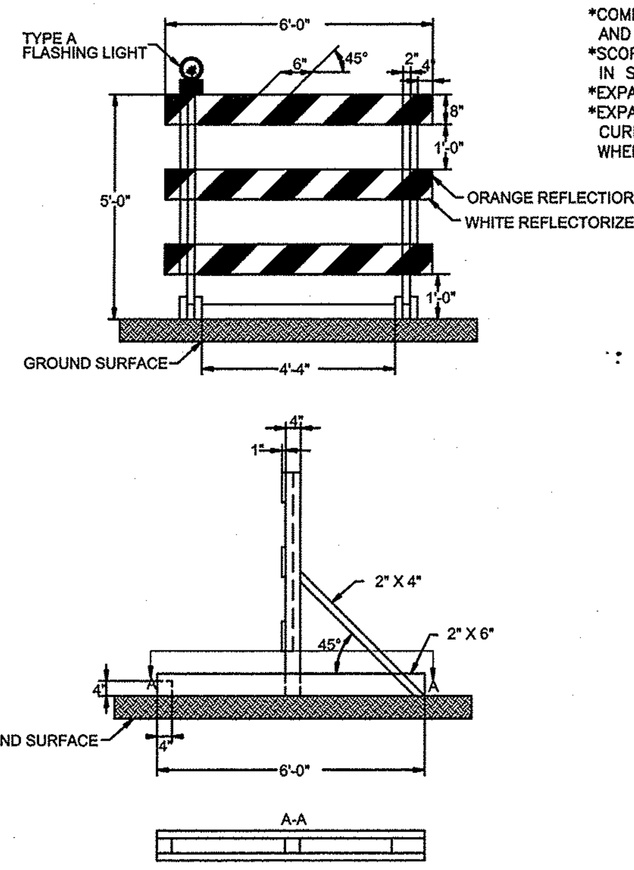



TYPICAL SECTION

CONCRETE CURB & GUTTER

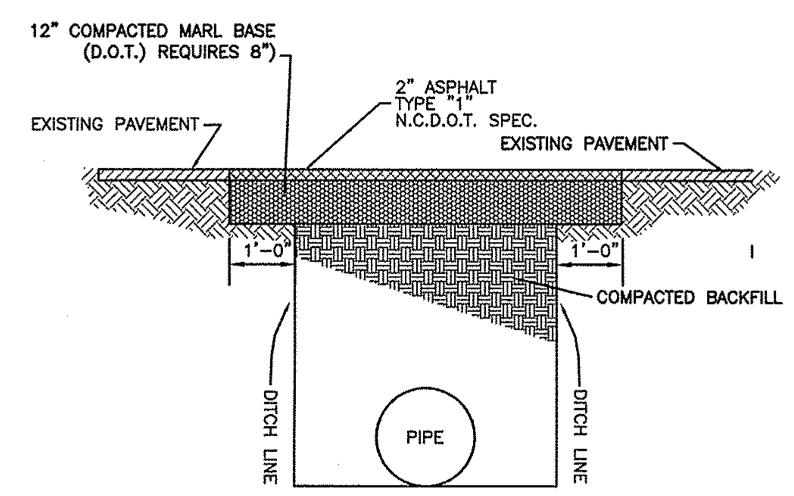
NOTES:

*COMBINED CONCRETE CURB & GUTTER, CONCRETE SIDEWALK AND DRIVEWAYS TO BE 3000 POUNDS STRENGTH CONCRETE.
*SCORE JOINTS TO BE PLACED EVERY 5' ACROSS SIDEWALK, IN SIDEWALK AREA OF DRIVEWAYS.
*EXPANSION JOINTS TO BE PLACED ACROSS SIDEWALK EVERY 30'.
*EXPANSION JOINTS TO BE PLACED BETWEEN: SIDEWALK AND CURB, SIDEWALK AND DRIVEWAY, AND DRIVEWAY AND CURB RETURN WHERE THEY ADJOIN.




## TYPE III BARRICADE

SD 15-07
NOT TO SCALE




NOTES:

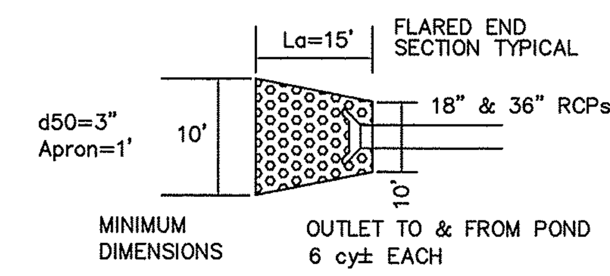
* BACKFILL TO BE INSTALLED IN 6" LIFTS (MAXIMUM) AND COMPACTED TO A MINIMUM DENSITY OF 95% AS DETERMINED BY THE MODIFIED A.A.S.H.T.O. STANDARD METHOD T–99
* CUT – BACK TO BE PREPARED AFTER TRENCH BACKFILLING AND COMPACTION

STANDARD SHOWING METHOD MAKING PAVEMENT REPAIRS WHERE PIPE IS INSTALLED

PAVEMENT REPAIRS

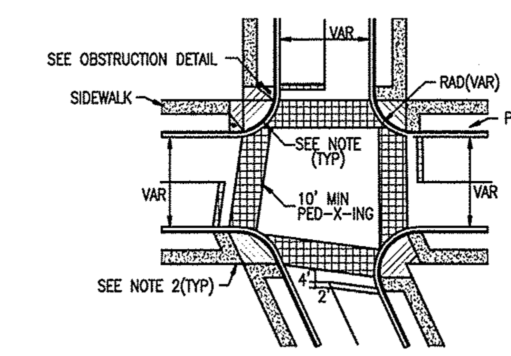
SD 1-05

*NOTE WELL:*
*1) OUTLET PROTECTION & ROCK STABILIZATION APRONS REQUIRED AS SHOWN ON PLAN.*
*2) SLOPE IS FLAT (0%) FOR A MINIMUM OF 2LF 2' MIN. BOTTOM WIDTH.*

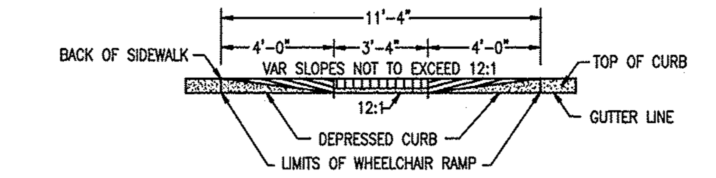



## OUTLET PROTECTION and ROCK STABILIZATION APRON

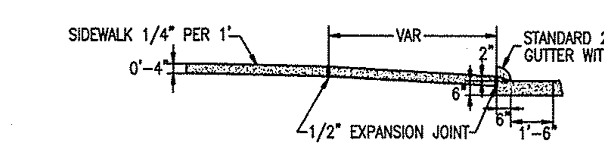
*NOT TO SCALE*




TYPICAL LOCATION OF WHEELCHAIR RAMPS, PEDESTRIAN CROSSWALKS & STOP BARS




SECTION B–B

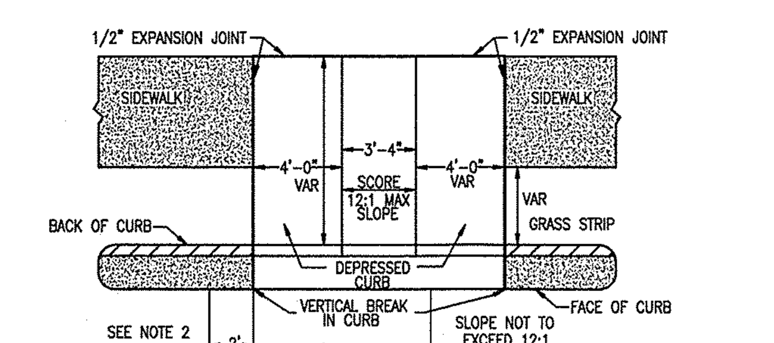



SECTION A–A

GENERAL NOTES

I. LOCATION OF WHEELCHAIR RAMPS:
   1. IN ACCORDANCE WITH THE RATIFIED HOUSE BILL 1296, ALL STREET CURBS IN NORTH CAROLINA BEING CONSTRUCTED OR RECONSTUCTED FOR MAINTENANCE PROCEDURES, TRAFFIC OPERATIONS, REPAIRS, CORRECTION OF UTILITIES OR ALTERED FOR ANY REASON AFTER SEPTEMBER 1973 SHALL PROVIDE WHEELCHIR RAMPS FOR THE PHYSICALLY HANDICAPPED AT ALL INTERSECTIONS WHERE BOTH CURB AND GUTTER AND SIDEWALKS ARE PROVIDED AND AT OTHER MAJOR POINTS OF PEDESTRIAN FLOW.
   2. WHEELCHAIR RAMPS SHOULD BE LOCATED AS INDICATED IN DETAIL DRAWINGS, HOWEVER EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. MAY AFFECT PLACEMENT.
II. CONSTRUCTION NOTES:
   1. NO SLOPE SHALL EXCEED 1"=1" (12:1) ON THE RAMP OR SIDEWALK.
   2. IN NO CASE SHALL THE WIDTH OF WHEELCHAIR RAMPS BE LESS THAN 40" (3'-4"). WIDTHS MAY EXCEED 40" IF NECESSARY.
   3. USE CLASS "A" CONCRETE WITH THE SURFACE HAVING A ROUGH, NON-SKID TYPE FINISH.
   4. 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE CONCRETE WHEELCHAIR RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE.
   5. CONSTRUCTION METHODS SHALL CONFORM WITH THOSE OF THE GOVERNING BODY WHICH HAS JURISDICTION OF THE PARTICULAL STREET.
III. ADDITIONAL NOTES:
   1. THE INSIDE PEDESTRIAN CROSSWALK LINES SHALL BE ESTABLISHED BY BISECTING THE INTERSECTION RADI WHERE MARKED (SEE NOTE 6).
   2. THE WHEELCHAIR RAMP SHALL BE LOCATED SO THAT THE BEGINNING OF THE WHEEL CHAIR RAMP WILL BE TWO FEET FROM THE INSIDE PEDESTRIAN CROSSWALK LINE.
   3. THE WIDTH OF THE PEDESTRIAN CROSWALK SHALL BE 10 FEET UNLESS A GREATER WIDTH IS REQUIRED TO ACCOMMODATE THE PEDESTRIAN TRAFFIC.
   4. STOP BARS SHALL BE USED WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL, STOP SIGN, OR OTHER LEGAL REQUIREMENTS.
   5. PARKING SHALL BE ELIMINATED A MINIMUM OF 20 FEET BACK OF PEDESTRIAN CROSSWALK.
   6. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION. THIS IS AVAILABLE FROM THE SUPERINTENDENT OF DOCUMENTS, U.S GOVERNMENT

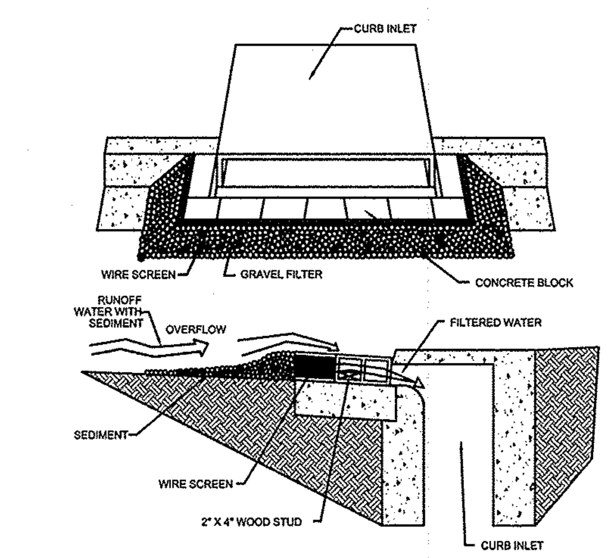
## GUIDELINES FOR WHEELCHAIR RAMPS




PLAN VIEW WHEELCHAIR RAMP

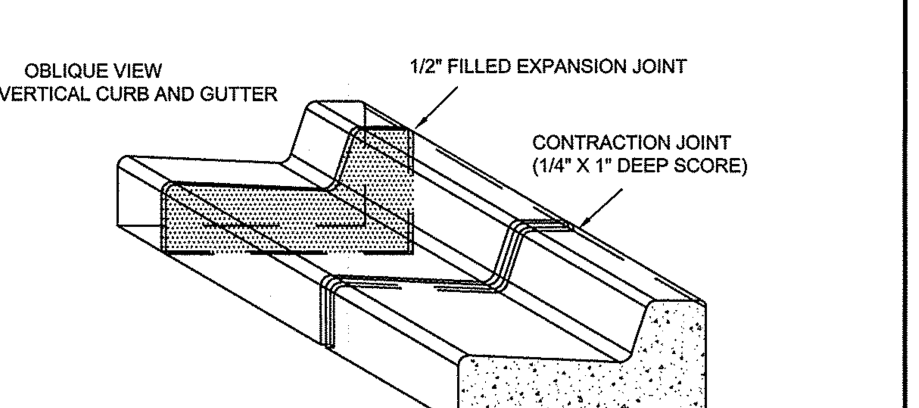
GUIDELINES FOR WHEELCHAIR RAMPS & DEPRESSED CURBS

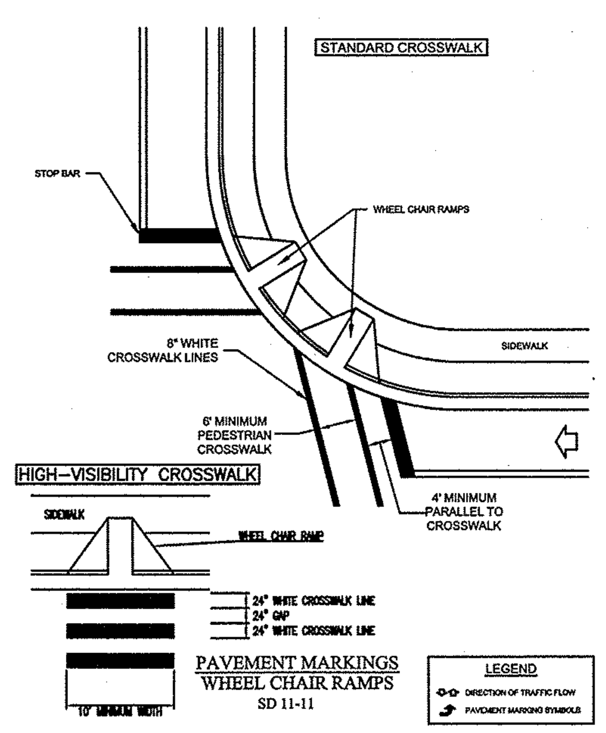
SD 8–10
NOT TO SCALE




CURB INLET PROTECTION

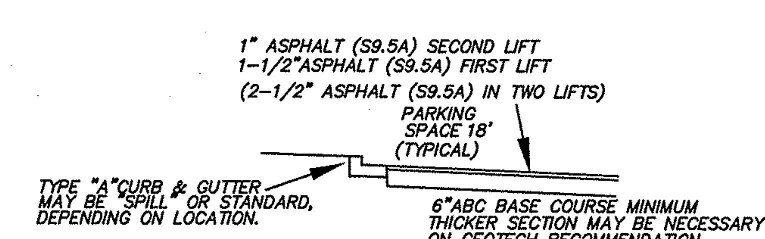
SD 13-02
NOT TO SCALE



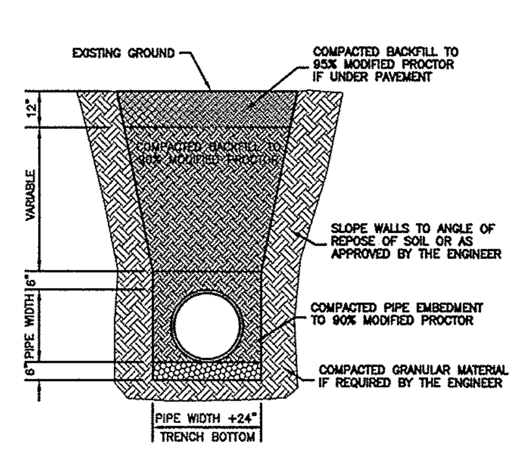

PAVEMENT MARKINGS
WHEEL CHAIR RAMPS

SD 11-11



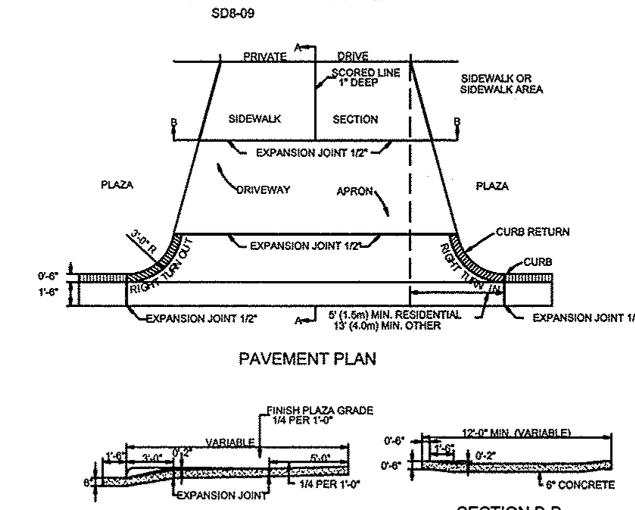

*MINIMUM PARKING BAY SECTION - NEW PAVING*

*NTS*



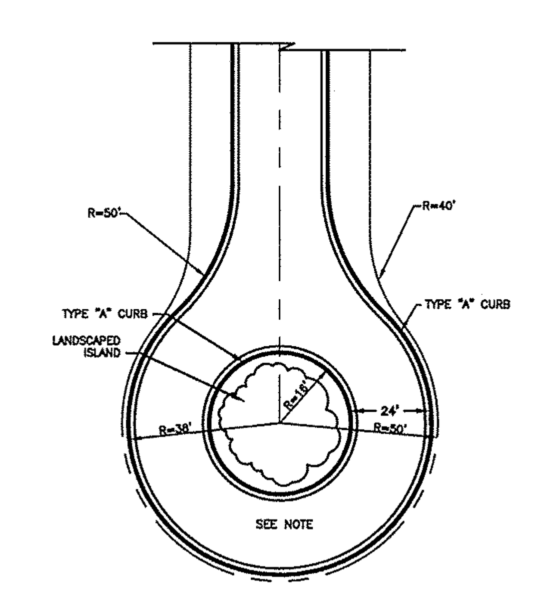

STANDARD PIPE TRENCH DETAIL

SD 1–07
NOT TO SCALE



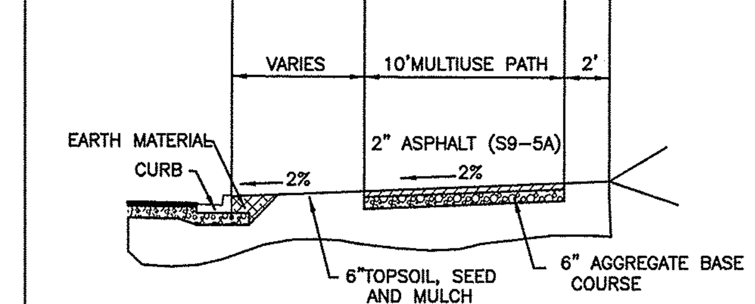

STANDARD DRIVEWAY DETAIL

SD 8-02
NOT TO SCALE



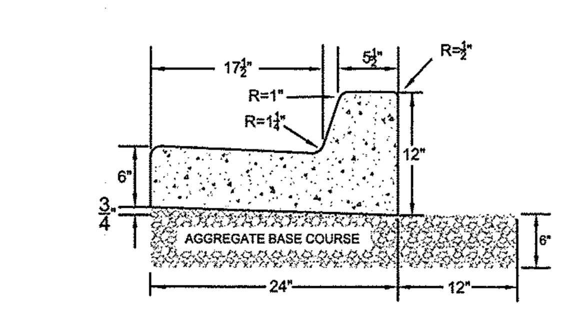

RESIDENTIAL
(38') CUL-DE-SAC
WITH LANDSCAPED ISLAND

SD 1-13a
NOT TO SCALE

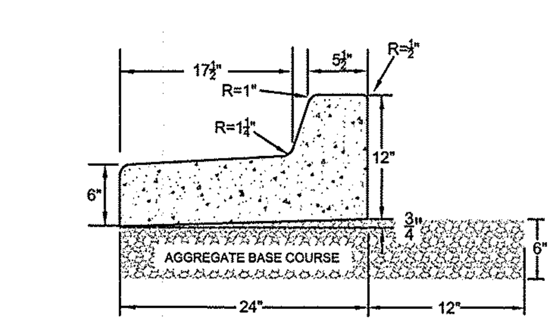



MULTIUSE PATH DETAIL

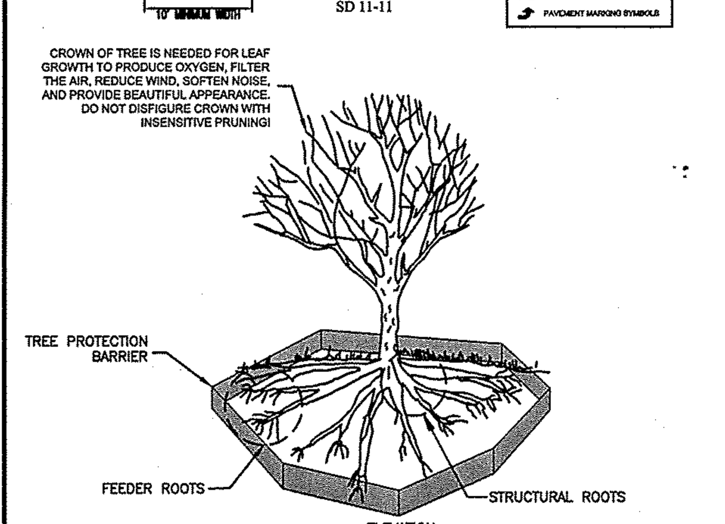
NOT TO SCALE




VERTICAL CURB AND GUTTER




MEDIAN VERTICAL CURB AND GUTTER



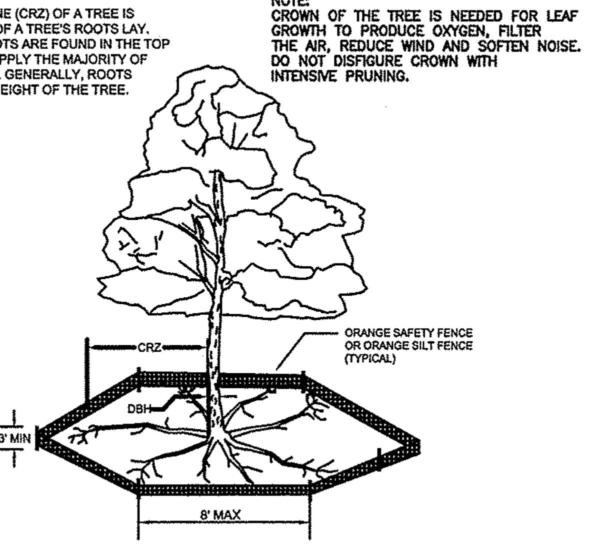

ELEVATION

TREE PROTECTION DURING CONSTRUCTION

1. CLEARLY MARK THE TREES TO BE SAVED PRIOR TO CONSTRUCTION AND ERECT A PROTECTIVE BARRIER AT THE CRZ. TREE PROTECTION BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
2. CRITICAL ROOT ZONE (CRZ) DISTANCE SHALL BE DETERMINED BY DIAMETER OF THE TREE AT BREAST HEIGHT.
3. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO HEAVY MATERIALS SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED.
4. CUT AND FILL WITHIN DIAMETER OF TREE CROWN.
5. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.

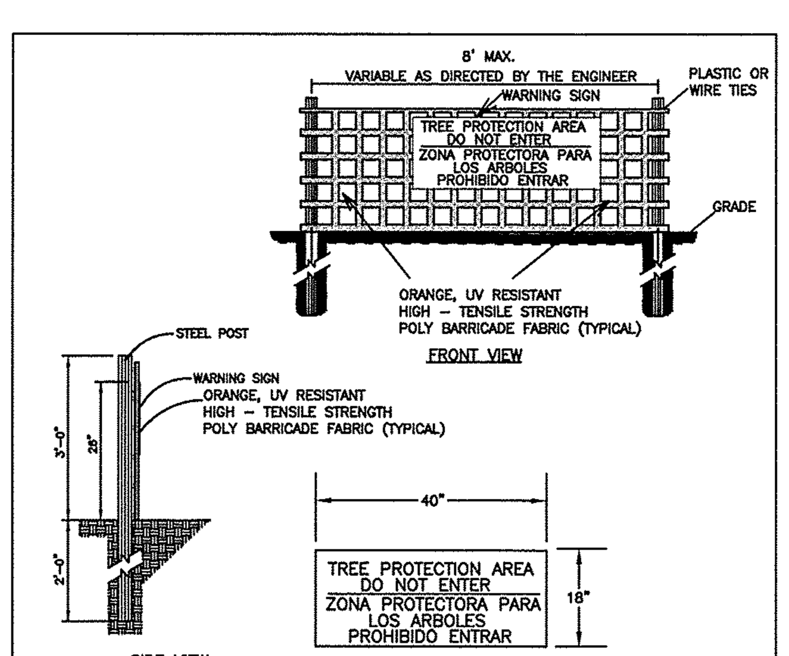
NOTE:
THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.

NOTE:
CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.




NOTES:

1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATTS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF $500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.




NOTES:

1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

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

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _______
PERMIT # _______
SIGNED_______________

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

# FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

## TYPICAL DETAILS

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| 2 | ENGINEERING APPROVAL STAMPS ADDED | 6-20-16 |
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPERS COMMENTS | 5-11-16 |

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PLANS & PROFILES

ELEMENT BARCLAY WEST APARTMENTS
Barclay West
LOCATED IN THE CITY OF WILMINGTON — NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID S. HOLLIS
6-21-16

DEVELOPER: CK GALLERY PARK WILMINGTON, LLC
301 SOUTH COLLEGE ST.
CHARLOTTE, NC 28202 PH 704–342–9000

HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS, ENGINEERS & LAND PLANNERS
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002
License # C-0597

Date: 3-22-16
Scale: N/A
Drawn:
Checked: DSH
Project No: 12498
Sheet No: 9 Of: 9

## CITY STANDARD NOTES:

1. 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.
2. ANY TREES AND / OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.
3. NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT, AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION METHODS.
4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
5. 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.
6. 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.
7. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
8. CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
9. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
10. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
11. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
12. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
13. TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
14. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. IN CERTAIN CASES EXTENT OF THE RESURFACING OF THE CUT AREA MAY BE REQUIRED.
15. ANY BROKEN OR MISSING SIDEWALK OR DRIVEWAY PANELS OR CURBING WILL BE REPLACED.
16. CONTACT THE CITY AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
17. WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY ( CFPUA ) DETAILS AND SPECIFICATIONS.
18. PROJECT SHALL COMPLY WITH CAPE FEAR PUBLIC UTILITY AUTHORITY CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 343-3910 FOR INFORMATION.
19. 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.
20. ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REGULATIONS. CALL 343-3910 FOR INFORMATION.
21. ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
22. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCCCHR OR ASSE.
23. CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
24. CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
25. UNDERGROUND FIRE LINES 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 910-341-0686.
26. NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
27. CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO ANY DIGGING, CLEARING OR GRADING.
28. ANY PVC MAINS ARE TO BE MARKED WITH NO.10 INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STAPED TO THE PIPE WITH DUCT TAPE, AND STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES AND FITTINGS, ACCESSIBLE IN ALL VALVE AND METER BOXES. ALL WATER MAINS ARE TO HAVE A MINIMUM OF 3' COVER.

**ADDRESS:** 3400 South 17th Street
**Developer:** *CK Gallery Park Wilmington, LLC*
*301 South College Street*
*Charlotte, NC 28202*
*704-342-9000*
**PARCEL ID:** TBD, RO6500-003-004-000
**OWNER:** Cameron Properties Land Company, LLC
1201 Glen Meade Road PO Box 3649
Wilmington, NC 28406
910-762-2676

**Parking: "Multi-Family"**
Parking requirements:
1.5 per 1-bdr
2.0 per 2-bdr
2.25 per 3-bdr
2 van accessible HC spaces provided per Bldg.
No loading space required - none provided
5 bicycle spaces required - 7 provided (5/bldg)
See parking mix schedule this page.

NOTE:
404 WETLANDS DO NOT EXIST ON SITE PER U.S. COMPS OF ENGINEERS DETERMINATION. SEE ACTION SAW-2012-01938. DETERMINATION EXPIRATION DATE 01-18-2018.

PARKING LOT PAVEMENT MARKINGS AND ARROWS MUST BE AT LEAST 1/2 SIZE STANDARD ROADWAY ARROWS AS PER CITY TECH.STDS.

TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS AS PER CITY and NCDOT STANDARDS.

NOTE WELL:
ALL DRIVEWAYS AND STREET INTERSECTIONS ARE SUBJECT TO CITY SIGHT TRIANGLES.

SIGHT TRIANGLE DIMENSIONS ARE 46'X 46' AT ALL INTERSECTIONS AND 20'X 70' AT ALL DRIVEWAYS. SEE CITY SEC.18-529(d)(3) LDC

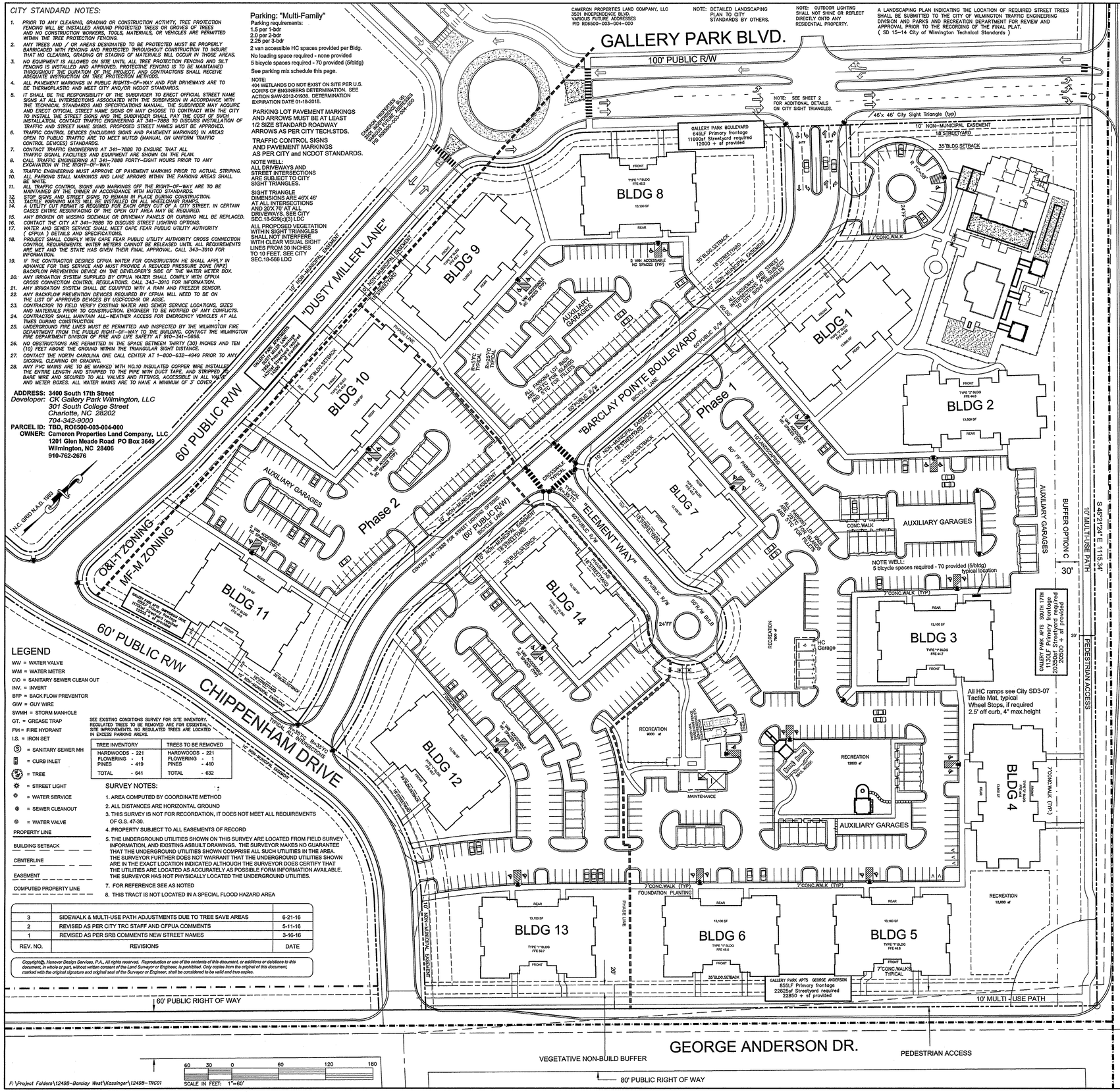
ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30 INCHES TO 10 FEET. SEE CITY SEC.18-566 LDC

CAMERON PROPERTIES LAND COMPANY, LLC
3501 INDEPENDENCE BLVD.
VARIOUS FUTURE ADDRESSES
PID R06500-003-004-000

NOTE: DETAILED LANDSCAPING PLAN TO CITY STANDARDS BY OTHERS.

NOTE: OUTDOOR LIGHTING SHALL NOT SHINE OR REFLECT DIRECTLY ONTO ANY RESIDENTIAL PROPERTY.

A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT. ( SD 15-14 City of Wilmington Technical Standards )




## LEGEND

WV = WATER VALVE
WM = WATER METER
CIO = SANITARY SEWER CLEAN OUT
INV. = INVERT
BFP = BACK FLOW PREVENTOR
GW = GUY WIRE
SWMH = STORM MANHOLE
GT. = GREASE TRAP
F/H = FIRE HYDRANT
I.S. = IRON SET
= SANITARY SEWER MH
= CURB INLET
= TREE
= STREET LIGHT
= WATER SERVICE
= SEWER CLEANOUT
= WATER VALVE
PROPERTY LINE
BUILDING SETBACK
CENTERLINE
EASEMENT
COMPUTED PROPERTY LINE

SEE EXISTING CONDITIONS SURVEY FOR SITE INVENTORY. REGULATED TREES TO BE REMOVED ARE FOR ESSENTIAL SITE IMPROVEMENTS. NO REGULATED TREES ARE LOCATED IN EXCESS PARKING AREAS.

| TREE INVENTORY | | TREES TO BE REMOVED | |
|---|---|---|---|
| HARDWOODS | - 221 | HARDWOODS | - 221 |
| FLOWERING | - 1 | FLOWERING | - 1 |
| PINES | - 419 | PINES | - 410 |
| TOTAL | - 641 | TOTAL | - 632 |

## SURVEY NOTES:

1. AREA COMPUTED BY COORDINATE METHOD
2. ALL DISTANCES ARE HORIZONTAL GROUND
3. THIS SURVEY IS NOT FOR RECORDATION, IT DOES NOT MEET ALL REQUIREMENTS OF G.S. 47-30.
4. PROPERTY SUBJECT TO ALL EASEMENTS OF RECORD
5. THE UNDERGROUND UTILITIES SHOWN ON THIS SURVEY ARE LOCATED FROM FIELD SURVEY INFORMATION, AND EXISTING ASBUILT DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THE UTILITIES ARE LOCATED AS ACCURATELY AS POSSIBLE FORM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
7. FOR REFERENCE SEE AS NOTED
8. THIS TRACT IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| 3 | SIDEWALK & MULTI-USE PATH ADJUSTMENTS DUE TO TREE SAVE AREAS | 6-21-16 |
| 2 | REVISED AS PER CITY TRC STAFF AND CFPUA COMMENTS | 5-11-16 |
| 1 | REVISED AS PER SRB COMMENTS NEW STREET NAMES | 3-16-16 |

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60 30 0 60 120 180
SCALE IN FEET: 1"=60'

F:\Project Folders\12498-Barclay West\Kassinger\12498-TRC01

## SITE DATA TABLE:

TAX PARCEL IDENTIFICATION NUMBERS:
R06500-003-004-000
DB 5427 PG 622

ZONING: MF-M

SETBACKS OF BUILDING:
MIN.REQUIRED: FRONT - 35' REAR - 25' SIDE - 20'
PROVIDED: FRONT & REAR & SIDE - AS SHOWN

ACREAGE = 25.52 ACRES

NEW LOT COVERAGE:
BUILDINGS & OVERHANGS ETC - 194,700 SF
GARAGES - 18,525 SF

PARKING & DRIVES - 271,700 SF
INTERIOR STREETS - 48,200 SF

SIDEWALKS ETC - 102,300 SF
"FUTURE or SAFETY" = 31,565 SF

TOTAL IMPERVIOUS = 666,990 SF = 60% OF 25.52 ACRES (UNCHANGED)
15 BUILDINGS PROPOSED FOR GALLERY PARK APARTMENTS
APARTMENT BUILDINGS THREE STORIES - ADDRESSES: TBD
BLDG EACH SIZE TYPE 1 = 13,100 SF, 9 BLDGS = 117,900 SF
BLDG EACH SIZE TYPE 2 = 13,800 SF, 5 BLDGS = 69,000 SF
BLDG TOTAL = 190,700 SF ; BLDG LOT COVERAGE = 17.2%

SITE ADDRESS: 3400 SOUTH 17TH STREET

## NEW PHASING:

PHASE 1 –
5 TYPE 1 BLDGS – 60 2-BDR, 90 1-BDR
4 TYPE 2 BLDGS – 24 3-BDR, 24 2-BDR, 24 1-BDR
TOTAL PHASE 1 – 24 3-BDR, 120 2-BDR, 114 1-BDR

PHASE 2 –
4 TYPE 1 BLDGS – 48 2-BDR, 66 1-BDR
1 TYPE 2 BLDGS – 6 3-BDR, 18 2-BDR, 6 1-BDR
TOTAL PHASE 2 – 6 3-BDR, 66 2-BDR, 72 1-BDR

TOTAL PROJECT –
9 TYPE 1 BLDGS –108 2-BDR, 156 1-BDR
5 TYPE 2 BLDGS – 30 3-BDR, 78 2-BDR, 30 1-BDR
TOTAL – 30 3-BDR, 186 2-BDR, 186 1-BDR

TOTAL DUs = 402 (UNCHANGED)

*VARIANCE REQUESTS :*

1. BUILDING 7 SETBACK AND STREETYARD ON STREET "D", FROM 35' AND 18' TO 13.5'.
2. BUILDING 14 SETBACK AND STREETYARD ON STREET "D". FROM 35' AND 18' TO 11.5'.
3. BUILDING 8 SETBACK ON GALLERY PARK BOULEVARD. FROM 35' TO 27.5'.
4. BUILDING 11 SETBACK ON CHIPPENHAM DRIVE. FROM 35' TO 22.0'.
5. BUILDING 12 SETBACKS ON CHIPPENHAM DRIVE & STREET "C". FROM 35' TO 30.0'.

NEW APARTMENT TRACT BUA TOTALS (for stormwater):
Total Parking Lots = 266,514 sf
Total Sidewalk = 97,197 sf
Total Buildings = 224,004 sf

Total Streets = 51,481 sf
Future or Safety = 27,703 sf
Total 666,990 sf (UNCHANGED)

Total Tract including Streets = 25.52 ACRES
BUA = 60% (UNCHANGED)
Pervious Surfaces = 40%

NOTE: ACTIVE OPEN SPACE TOTALS SEE SHEET 3 OF 5.

## Parking Mix

New Parking: "Multi-Family"

Parking requirements:
1.5 per 1-bdr = 279
2.0 per 2-bdr = 372
2.25 per 3-bdr = 68

TOTAL REQUIRED PARKING SPACES = 719

457 TOTAL RESIDENTIAL PARKS PHASE 1
20 ADDITIONAL CLUBHOUSE PARKS, PHASE 1
276 TOTAL RESIDENTIAL PARKS PHASE 2
753 TOTAL PARKS PROVIDED "ELEMENT BARCLAY WEST"

NOTE WELL: DEVELOPMENT OF THIS PROPERTY SHALL COMPLY WITH CITY OF WILMINGTON CODE 18-184.

PHASE 1 –
405 REGULAR PARKS – 22 HC SPACES
50 GARAGE UNITS
TOTAL PHASE 1 – 477 PARKS

PHASE 2 –
241 REULAR PARKS – 10 HC SPACES
25 GARAGE UNITS
TOTAL PHASE 2 – 276 PARKS

TOTAL PROJECT –
646 REGULAR PARKS – 32 HC SPACES
75 GARAGE UNITS
TOTAL – 753 PARKS

UTILITY: CFPUA

NEW ADDITIONAL SEWER & WATER DEMAND :
186 1-BDR X 240 = 44,640 GPD
186 2-BDR X 240 = 44,640 GPD
30 3-BDR X 360 = 10,800 GPD
CLUB 4 FIX. X 250 = 1,000 GPD
TOTAL = 101,080 GPD

*ADDITIONAL CFPUA NOTES:*

1. CFPUA STANDARD DETAIL SHEETS FOR SEWER AND WATER TAPS TO BE INCLUDED AS A PART OF THIS PLAN, ATTACHED.
2. 48-HOUR NOTICE AND 3 COMPLETE SETS OF PLANS ACCEQUIRED FOR PRE-CONSTRUCTION MEETING BY CONTRACTOR.
3. NCDOT ENCROACHMENT REQUIRED FOR ANY WORK IN PUBLIC RW.
4. ALL FEES TO BE PAID PRIOR TO PRE-CONSTRUCTION MEETING.

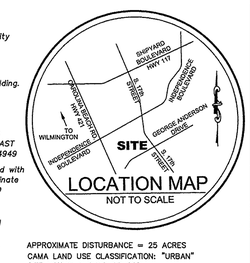
*GENERAL NOTES:*

1. *This map is not for conveyance, recordation, or sales.*
2. *This property is not located within a special flood hazard area according to Flood Insurance Rate Map Community Panel #370171-00106, effective date April 2, 1986.*
3. *TOTAL AREA INCLUDING R/WS = 27.69 acres*
4. *Building layout and dimensions by others.*
5. *Handicap Ramps provided at all intersections and one per building.*
6. *15 suitable trees per acre are to be preserved or planted in accordance with City of Wilmington standards.*
7. *Refuse collection by dumpster and private hauler.*
8. *NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NO ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION. 1-800-632-4949*
9. *Affected Non-Municipal Utilities shall be contacted and provided with plans and other pertinent information, when feasible, to coordinate scheduling and placement. At the minimum this should include BellSouth and CP&L.*
10. *Project shall comply with CFPUA Cross Connection Control requirements. Water meter(s) cannot be released until all requirements are met.*
11. *Reflectors shall be installed as per City and NCDOT standards.*

*OTHER NOTES:*

1. THIS PLAT IS PRELIMINARY, NOT INTENDED FOR RECORDATION, SALES, OR CONVEYANCE.
2. SURVEYED IN 2013, and 2014.
3. ALL DISTANCES AS SHOWN ARE HORIZONTAL.
4. SEWER PROVIDED BY CFPUA
5. WATER PROVIDED BY CFPUA
ANTICIPATED USE = 101,800 GPD TOTAL
6. SITE WILL MEET ALL ZONING REQUIREMENTS.
7. AREA COMPUTED BY COORDINATE METHOD.
8. REGULATED TREES ON SITE TO BE PRESERVED AS SHOWN.
9. STRIPING AND LANES TO CITY STANDARDS (THERMOPLASTIC).
10. NO VEHICULAR ACCESS TO SITE EXCEPT AS SHOWN.
11. ALL UTILITIES UNDERGROUND.
12. COMBINED GRID FACTOR = 1.00000.
13. FOR REFERENCE SEE
DB 5427 PG 622
14. NO SIGNIFICANT TREES ON SITE TO BE PRESERVED.
15. REGULATED TREES TO BE REMOVED ARE FOR ESSENTIAL SITE IMPROVEMENTS. NO REGULATED TREES ARE LOCATED IN EXCESS PARKING AREAS.
16. LANDSCAPING PLAN BY OTHERS.
17. CONTRACTOR TO COORDINATE STAGING OF CONSTRUCTION ACTIVITIES WITH THE OWNER AND ACHITECT TO FACILITATE ONGOING ADJOINING BUSINESS ACTIVITIES.
18. CONTRACTOR TO COORDINATE REMOVAL AND RELOCATION OF LIGHTING AND OTHER NON-MUNICIPAL UTILITIES SUCH AS ELECTRICAL AND TELEPHONE CONNECTIONS WITH THE AFFECTED AGENCIES AND THE OWNER AND ARCHITECT.
19. CONTRACTOR TO COORDINATE CONSTRUCTION OF PARKING LOT, ISLANDS, AND EXTERIOR FENCING AND SCREENING WITH THE OWNER AND ARCHITECT.
NCDOT PERMIT REQUIRED FOR ANY WORK IN OLEANDER R/W.
20. ALL SERVICES TO BE INSTALLED IN ACCORDANCE WITH CITY and CFPUA TECHNICAL STANDARDS.

APPROXIMATE DISTURBANCE = 25 ACRES
CAMA LAND USE CLASSIFICATION: "URBAN"
SITE NOT IN A SHOD OR COD.
APPROXIMATE TIME TO COMPLETION: MULTI-YEAR.




| STORMWATER MANAGEMENT PLAN APPROVED CITY OF WILMINGTON ENGINEERING DEPARTMENT |
|---|
| DATE _____ |
| PERMIT # _____ |
| SIGNED _____ |

| Approved Construction Plan | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

*ADDITIONAL NOTES:*

1. *AS PART OF SITE IMPROVEMENTS FOR A SUBDIVISION OR SITE PLAN, ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS, AND/OR CURBING ADJACENT TO THE PROJECT AREA SHALL BE REPLACED BY THE DEVELOPER. THIS SHALL BE REQUIRED WHETHER THE DAMAGE EXISTED PRIOR TO THE START OF CONSTRUCTION OR MAY HAVE BEEN CAUSED DURING CONSTRUCTION.*
2. *PER THE REQUIREMENTS OF THE STORMWATER PERMIT, THE FOLLOWING SHALL OCCUR PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY OR OPERATION OF THE PERMITTED FACILITY.*
   - *AS-BUILT DRAWINGS FOR ALL STORMWATER MANAGEMENT FACILITIES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON ENGINEERING DIVISION.*
   - *AN ENGINEER'S CERTIFICATION SHALL ALSO BE SUBMITTED, ALONG WITH ALL SUPPORTING DOCUMENTATION THAT SPECIFIES, UNDER SEAL, THAT THE AS-BUILT STORMWATER MEASURES, CONTROLS AND DEVICES ARE IN COMPLIANCE WITH THE APPROVED STORMWATER MANAGEMENT PLANS.*
   - *A FINAL INSPECTION BY CITY OF WILMINGTON ENGINEERING PERSONNEL.*
3. *ALL REQUIRED EASEMENT MAPS SHALL BE REVIEWED BY CITY STAFF AND RECORDED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.*

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

Plan of
# ELEMENT BARCLAY WEST APARTMENTS
LOCATED IN CITY OF WILMINGTON — NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID S. HOLLIS
6-21-16
dhollis@hdsilm.com

DEVELOPER: *CK Gallery Park Wilmington, LLC*
*301 South College Street*
*Charlotte, NC 28202*
*704-342-9000*

HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS, ENGINEERS & LAND PLANNERS
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8502
LICENSE # C-0597

| | |
|---|---|
| Date: | 2-24-16 |
| Scale: | 1"= 60' |
| Drawn: | Various |
| Checked: | DSH |
| Project No: | 12498 |
| Sheet No: | SRB1 |
| Of: | 5 |

# GALLERY PARK BLVD.

100' PUBLIC R/W

NOTE WELL:
SEE CONSTRUCTION DRAWINGS AND DETAILED PLANS & PROFILES FOR ADDITIONAL DETAILS AND ELEVATIONS FOR ALL UTILITIES AND SERVICES.

CROWN OF TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND, SOFTEN NOISE, AND PROVIDE BEAUTIFUL APPEARANCE. DO NOT DISFIGURE CROWN WITH INSENSITIVE PRUNING!

TREE PROTECTION BARRIER
FEEDER ROOTS
STRUCTURAL ROOTS
ELEVATION

NOTE:
ALL CITY STREET SECTIONS TO BE 8" BASE AND 3" PVMT.
ALL PRIVATE PARKING LOT SECTIONS TO BE 6" BASE AND 2-1/2" PVMT.

1" ASPHALT (S9.5A) SECOND LIFT
1-1/2"ASPHALT (S9.5A) FIRST LIFT
(2-1/2" ASPHALT (S9.5A) IN TWO LIFTES)
PARKING SPACE 18' (TYPICAL)

TYPE "A"CURB & GUTTER MAY BE "SPILL" OR STANDARD, DEPENDING ON LOCATION.

6"ABC BASE COURSE MINIMUM THICKER SECTION MAY BE NECESSARY ON GEOTECH RECOMMENDATION.

*MINIMUM PARKING BAY SECTION - NEW PAVING*
NTS

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED_____

TREE PROTECTION DURING CONSTRUCTION

1. CLEARLY MARK THE TREES TO BE SAVED PRIOR TO CONSTRUCTION AND ERECT A PROTECTIVE BARRIER AT THE CRZ. TREE PROTECTION BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
2. CRITICAL ROOT ZONE (CRZ) DISTANCE SHALL BE DETERMINED BY DIAMETER OF THE TREE AT BREAST HEIGHT.
3. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO HEAVY MATERIALS SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED.
4. CUT AND FILL WITHIN DIAMETER OF TREE CROWN.
5. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.

N.C. GRID N.A.D. 1983

60'
10' NON-MUNICIPAL EASEMENT
5' 9' 16' 16' 9' 5'
4" CONCRETE SIDEWALK
0.13' or 1 6/16" 6" CROWN
3" ASPHALT
1/4":1'
2" SAND CLAY
TYPE "A" CURB
8" ABC BASE
COLLECTOR
SD 1-01RESIDENTIAL
NOTE: BOTH SIDES SYMMETRICAL

BARCLAY POINTE BLVD. TYPICAL SECTION
(60' R/W)

NOTE WELL:
SIGHT TRIANGLE DIMENSIONS ARE 46'X 46' AT ALL INTERSECTIONS AND 20'X 70' AT ALL DRIVEWAYS. SEE CITY SEC.18-529(a)(3) LDC
ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30 INCHES TO 10 FEET. SEE CITY SEC.18-566 LDC

STORMWATER DISCHARGE TO BE DIRECTED TO SEMI-REGIONAL CITY STORMWATER RETENTION / DETENTION WET POND

NOTE WELL:
ALL DRIVEWAYS AND STREET INTERSECTIONS ARE SUBJECT TO CITY SIGHT TRIANGLES.

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ALL DRIVEWAYS AND STREET INTERSECTIONS ARE SUBJECT TO CITY SIGHT TRIANGLES.
SIGHT TRIANGLE DIMENSIONS ARE 46'X 46' AT ALL INTERSECTIONS AND 20'X 70' AT ALL DRIVEWAYS. SEE CITY SEC.18-529(a)(3) LDC
ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30 INCHES TO 10 FEET. SEE CITY SEC.18-566 LDC
SEE SHEET 1 OF 5 FOR GRAPHICAL REPRESENTATION.

NOTE: PRIVATE GRATE INLETS PAINTED BLACK.

BLDG 8
BLDG 9
BLDG 10
BLDG 11
BLDG 12
BLDG 14
BLDG 7
BLDG 1
BLDG 2
BLDG 3
BLDG 4
BLDG 5
BLDG 6
BLDG 13

"DUSTY MILLER LANE"
"BARCLAY POINTE BOULEVARD"
"ELEMENT WAY"
CHIPPENHAM DRIVE
60' PUBLIC R/W
10' NON-MUNICIPAL EASEMENT
15' NON-MUNICIPAL EASEMENT
20' SEMI-REGIONAL EASEMENT
8" WATER MAIN
2" WATER
6" WATER
6" SEWER SERVICE
TYPICAL 6" SEWER SERVICE
4" SEWER SERVICE TYPICAL
STORM
DI
CI
MH
HC Garage
MAINTENANCE
MAIL KIOSK
7' CONC. WALK
7' CONC. WALK (TYP.)
7'CONC.WALKS TYPICAL
10' MULTI-USE PATH
BUFFER OPTION C
30'
20'
PEDESTRIAN ACCESS
S 45°21'24" E 1115.34'
S 45°21'24" E 1138.90'
KELVIN JR STRAIGHT
SOUTH 17th STREET
150' PUBLIC RIGHT OF WAY
EXISTING 12" WATER MAIN
VEGETATIVE NON-BUILD BUFFER
PEDESTRIAN ACCESS
GEORGE ANDERSON DR.
80' PUBLIC RIGHT OF WAY
60' PUBLIC RIGHT OF WAY
10' MULTI - USE PATH
TO POND

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

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

60'
10' NON-MUNICIPAL EASEMENT
5' 7' 18' 9' 18' 7' 5'
4" CONCRETE SIDEWALK
0.13' or 1 6/16" 6" CROWN
3" ASPHALT
1/4":1'
2" SAND CLAY
TYPE "A" CURB
8" ABC BASE
COLLECTOR "A"
SD 1-08
NOTE: BOTH SIDES SYMMETRICAL

CHIPPENHAM DRIVE & DUSTY MILLER LANE TYPICAL SECTION
(60' R/W)

60'
10' NON-MUNICIPAL EASEMENT
5' 12' 2' 11' 11' 2' 12' 5'
4" CONCRETE SIDEWALK
LOCAL
SD 3-01.3
3" ASPHALT
1/4":1'
2" SAND CLAY
TYPE "A" CURB
8" ABC BASE
NOTE: BOTH SIDES SYMMETRICAL

ELEMENT WAY
(60' R/W)

SCALE IN FEET: 1"=60'
60 30 0 60 120 180

F:\Project Folders\12498-Barclay West\Kassinger\12498-TRC01

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| 3 | SIDEWALK & MULTI-USE PATH ADJUSTMENTS DUE TO TREE SAVE AREAS | 6-21-16 |
| 2 | REVISED AS PER CITY TRC STAFF AND CFPUA COMMENTS | 5-11-16 |
| 1 | REVISED AS PER SRB COMMENTS NEW STREET NAMES | 3-16-16 |

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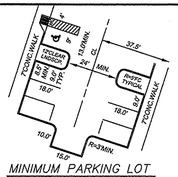
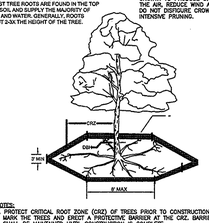
*MINIMUM PARKING LOT*
NOT TO SCALE

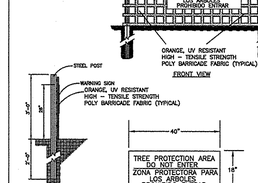



NOTE:
THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 95% OF WOOT TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.

NOTE:
CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.



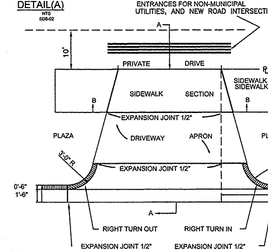

NOTES:
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
2. CRZ (RADIUS) = 1' PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
3. DO NOT COMPACT SOIL WITHIN THE CRZ. APPLY 3" OF MULCH AND/OR WOOD MATTE SHALL BE IMPLEMENTED AS NECESSARY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF $500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THIS APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.




NOTES:
1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM. CLEARLY LEGIBLE AND SPACED AS DETAILED.
3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND AT CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTED AREA.
4. ATTACH SIGNS DIRECTLY TO PROTECTION FENCE AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

PAVEMENT PLAN
STANDARD DRIVEWAY DETAIL(A)
NTS
SD5-02

4"– 30LF MINIMUM – 4" PVC SLEEVES TO BE INSTALLED AT DRIVEWAY & ALLEY ENTRANCES FOR MUNICIPAL UTILITIES, AND NEW ROAD INTERSECTIONS




HANDICAPPED PARKING SIGN DETAIL
NTS

1'-6"X 1'-0"X .080 STANDARD ALUMINUM HANDICAPPED PARKING SIGN TO READ: "RESERVED PARKING" WITH IDENTIFICATION SYMBOL, BOLT TO STEEL TUBE WITH 3/8" CADMIUM PLATED NUTS, BOLTS, AND WASHERS

PAINT PIPE BASE YELLOW

6"DIA.STEEL PIPE FILLED WITH CONCRETE

1'-6"DIA. CONCRETE BASE

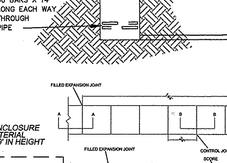
#6 BARS X 14" LONG EACH WAY THROUGH PIPE

MAXIMUM PENALTY $250

MAXIMUM PENALTY SIGN
2"X 2"X .188 STEEL TUBE EXTENDED INTO CONCRETE– FILLED PIPE 24". PROVIDE WELDED WATERTIGHT CAP, PAINT WITH PALE#118 "BLACK COFFEE"

NOTE: SIGNS MAY BE OBTAINED FROM:
CAID SAFETY
4TH AVENUE N.
NASHVILL, TN
615–255–2717

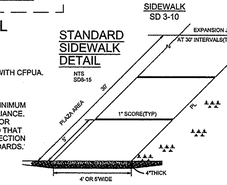
1'-6"
4'-6"
2'-6"
3'-6"
PAVEMENT
2"



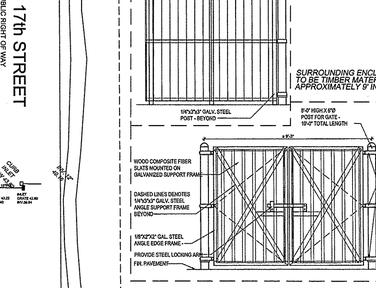

NOTES: 1. JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.
2. SANITARY SEWER CLEANOUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
3. MINIMUM SIDEWALK WIDTH TO BE 8' MINIMUM IF PLACED AT BACK OF CURB.
4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" – 3,000 PSI.
5. MINIMUM REPLACEMENT FOR REPAIRS IS 4' X 5' X PANEL
6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS
7. MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
9. MIN GRADE FOR PROPER DRAINAGE IS 1% & AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 8.3%, 10% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

SIDEWALK
SD 3-10

STANDARD SIDEWALK DETAIL
NTS
SD5-15




SURROUNDING ENCLOSURE TO BE TIMBER MATERIAL APPROXIMATELY 9' IN HEIGHT




COMPACTOR ENCLOSURE DETAIL
NOT TO SCALE

*ADDITIONAL NOTES:*
CFPUA PERMIT REQUIRED FOR ANY UTILITY SERVICES WORK. CONTRACTOR RESPONSIBLE FOR PERMIT AND COORDINATION WITH CFPUA. ALL SERVICES TO BE INSTALLED IN ACCORDANCE WITH CITY and CFPUA TECHNICAL STANDARDS.

PROPOSED GRADES AND SPOT ELEVATIONS SHOWN ARE THE MINIMUM NECESSARY TO ENSURE ADEQUATE DRAINAGE AND ADA COMPLIANCE. CONTRACTOR AND STAKE-OUT SURVEYOR ARE RESPONSIBLE FOR ENSURING THAT ALL BUILT UPON AREAS ARE CONSTRUCTED SO THAT RUNOFF FROM THEM IS DIRECTED TO THE STORM SEWER COLLECTION SYSTEM INLETS AND THAT PROJECT COMPLIES WITH ADA STANDARDS.

ADDITIONAL FIRE DEPARTMENT NOTES:
- HYDRANTS MUST BE WITHIN 150' OF THE FDC
- THE FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT
- LANDSCAPING MAY NOT BLOCK ANY FDC OR HYDRANT WITH A 3' CLEAR SPACE MAINTAINED
- CONTRACTOR TO MAINTAIN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES DURING CONSTRUCTION
- HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB
- NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO BUILDING CONSTRUCTION

*Utilities Plan of*
# ELEMENT BARCLAY WEST APARTMENTS

*LOCATED IN CITY OF WILMINGTON* — *NEW HANOVER COUNTY, NORTH CAROLINA*

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID S. HOLLIS
dhollis@hdslim.com

*DEVELOPER: CK Gallery Park Wilmington, LLC*
*301 South College Street*
*Charlotte, NC 28202*
*(704) 342-9000*

HANOVER DESIGN SERVICES, P.A.
*LAND SURVEYORS, ENGINEERS & LAND PLANNERS*
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002
LICENSE # C-0597

| | |
|---|---|
| Date: | 2-24-16 |
| Scale: | 1"= 60' |
| Drawn: | Various |
| Checked: | DSH |
| Project No: | 12498 |
| Sheet No: | SRB2 of 5 |

MAP OF

# ELEMENT BARCLAY WEST APARTMENTS

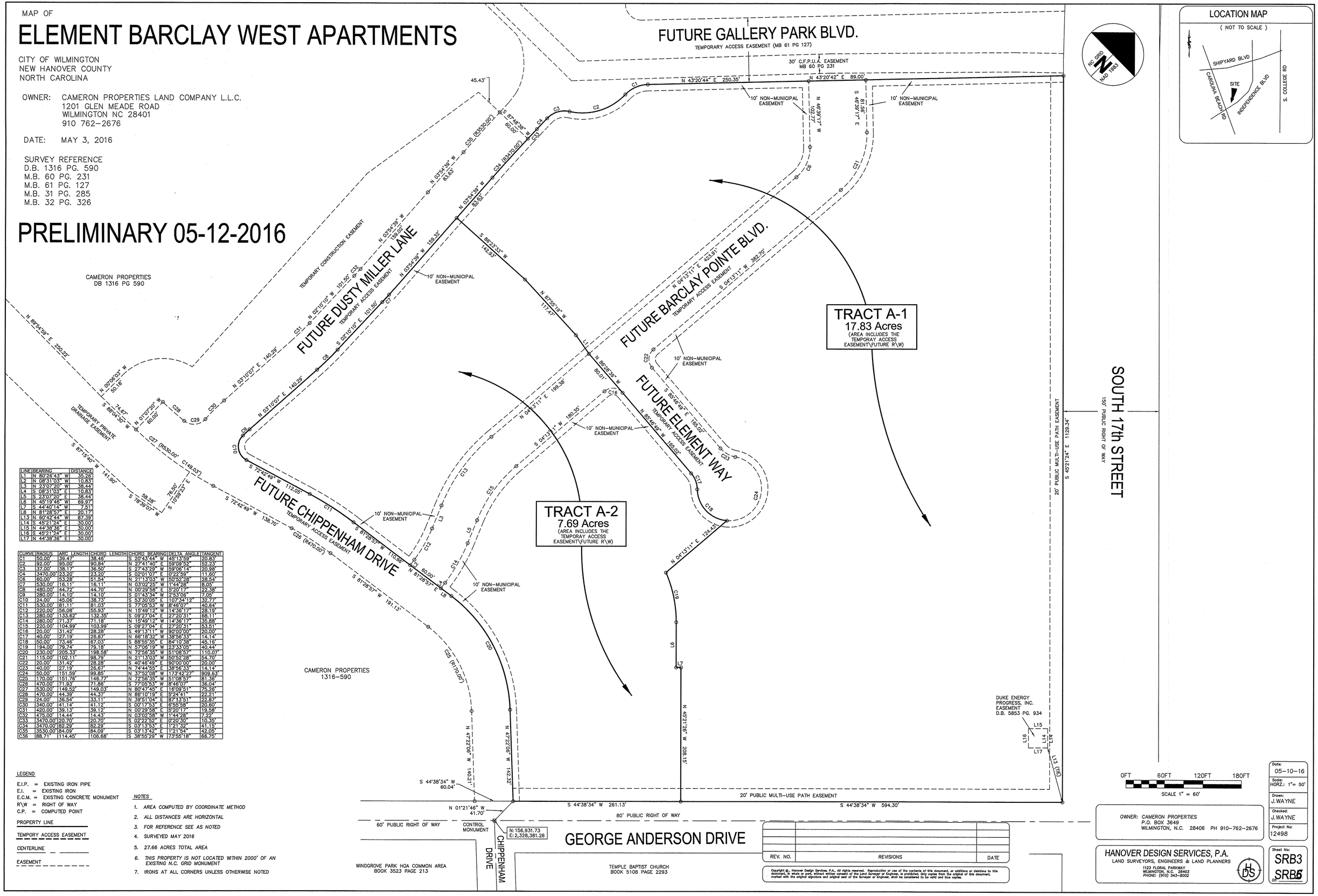
CITY OF WILMINGTON
NEW HANOVER COUNTY
NORTH CAROLINA

OWNER: CAMERON PROPERTIES LAND COMPANY L.L.C.
1201 GLEN MEADE ROAD
WILMINGTON NC 28401
910 762-2676

DATE: MAY 3, 2016

SURVEY REFERENCE
D.B. 1316 PG. 590
M.B. 60 PG. 231
M.B. 61 PG. 127
M.B. 31 PG. 285
M.B. 32 PG. 326

## PRELIMINARY 05-12-2016




| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | N 80°26'43" W | 35.26' |
| L2 | N 08°31'03" W | 10.83' |
| L3 | N 23°07'20" W | 38.44' |
| L4 | S 08°31'03" E | 10.83' |
| L5 | S 23°07'20" E | 38.44' |
| L6 | N 45°19'46" W | 69.97' |
| L7 | S 44°40'14" W | 7.51' |
| L8 | N 81°28'57" E | 20.17' |
| L13 | N 60°42'44" W | 87.39' |
| L14 | S 45°21'24" E | 30.00' |
| L15 | N 44°38'36" E | 30.00' |
| L16 | S 45°21'24" E | 30.00' |
| L17 | N 44°38'36" E | 30.00' |

| CURVE | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING | DELTA ANGLE | TANGENT |
|---|---|---|---|---|---|---|
| C1 | 50.00' | 39.47' | 38.46' | S 20°43'44" W | 45°13'59" | 20.83' |
| C2 | 92.00' | 90.00' | 90.84' | N 27°41'40" E | 59°09'52" | 52.23' |
| C3 | 37.00' | 38.17' | 36.50' | S 27°43'29" W | 59°06'14" | 20.98' |
| C4 | 3470.00' | 23.20' | 23.20' | S 02°01'07" E | 0°22'59" | 11.60' |
| C6 | 60.00' | 53.28' | 51.54' | N 21°13'03" W | 50°52'28" | 28.54' |
| C7 | 530.00' | 16.11' | 16.11' | N 03°02'25" W | 1°44'28" | 8.05' |
| C8 | 480.00' | 44.72' | 44.70' | N 00°29'58" E | 5°20'17" | 22.38' |
| C9 | 280.00' | 14.10' | 14.10' | S 01°43'34" W | 2°53'06" | 7.05' |
| C10 | 24.00' | 45.06' | 38.73' | S 53°30'05" E | 107°34'12" | 32.77' |
| C11 | 530.00' | 81.11' | 81.03' | S 77°05'53" W | 8°46'07" | 40.64' |
| C12 | 220.00' | 56.08' | 55.93' | N 15°49'12" W | 14°36'17" | 28.19' |
| C13 | 280.00' | 133.62' | 132.35' | S 09°27'04" E | 27°20'31" | 68.11' |
| C14 | 280.00' | 71.37' | 71.18' | N 15°49'12" W | 14°36'17" | 35.88' |
| C15 | 220.00' | 104.99' | 103.99' | S 09°27'04" E | 27°20'31" | 53.51' |
| C16 | 20.00' | 31.42' | 28.28' | S 49°13'11" W | 90°00'00" | 20.00' |
| C17 | 40.00' | 27.19' | 26.67' | N 66°18'32" W | 38°56'33" | 14.14' |
| C18 | 50.00' | 73.46' | 67.03' | S 88°55'35" E | 84°10'38" | 45.16' |
| C19 | 184.00' | 79.74' | 79.18' | N 57°06'19" W | 23°33'05" | 40.44' |
| C20 | 230.00' | 205.33' | 198.58' | N 72°56'35" W | 51°08'57" | 110.07' |
| C21 | 115.00' | 102.11' | 98.79' | N 21°13'03" W | 50°52'28" | 54.70' |
| C22 | 20.00' | 31.42' | 28.28' | S 40°46'49" E | 90°00'00" | 20.00' |
| C23 | 40.00' | 27.19' | 26.67' | N 74°44'55" E | 38°56'33" | 14.14' |
| C24 | 50.00' | 151.59' | 99.85' | N 37°52'08" W | 173°42'27" | 909.63' |
| C25 | 170.00' | 151.78' | 146.77' | N 72°56'35" W | 51°08'57" | 81.36' |
| C26 | 470.00' | 71.93' | 71.86' | S 77°05'53" W | 8°46'07" | 36.04' |
| C27 | 530.00' | 149.52' | 149.03' | N 80°47'45" E | 16°09'51" | 75.28' |
| C28 | 470.00' | 44.39' | 44.37' | N 86°10'19" E | 5°24'41" | 22.21' |
| C29 | 24.00' | 36.54' | 33.11' | N 39°51'04" E | 87°13'51" | 22.87' |
| C30 | 340.00' | 41.14' | 41.12' | S 00°17'53" E | 6°55'58" | 20.60' |
| C31 | 420.00' | 39.13' | 39.12' | N 00°29'58" E | 5°20'17" | 19.58' |
| C32 | 475.00' | 14.44' | 14.43' | N 03°02'58" W | 1°44'28" | 7.22' |
| C33 | 3470.00' | 20.70' | 20.70' | S 02°22'52" E | 0°20'30" | 10.35' |
| C34 | 3470.00' | 82.29' | 82.29' | S 03°13'53" E | 1°21'32" | 41.15' |
| C35 | 3530.00' | 84.09' | 84.09' | S 03°13'42" E | 1°21'54" | 42.05' |
| C36 | 88.71' | 114.45' | 106.68' | S 38°55'29" W | 73°55'18" | 66.75' |

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
TEMPORY ACCESS EASEMENT
CENTERLINE
EASEMENT

NOTES

1. AREA COMPUTED BY COORDINATE METHOD
2. ALL DISTANCES ARE HORIZONTAL
3. FOR REFERENCE SEE AS NOTED
4. SURVEYED MAY 2016
5. 27.66 ACRES TOTAL AREA
6. THIS PROPERTY IS NOT LOCATED WITHIN 2000' OF AN EXISTING N.C. GRID MONUMENT
7. IRONS AT ALL CORNERS UNLESS OTHERWISE NOTED

LOCATION MAP
( NOT TO SCALE )
SHIPYARD BLVD
CAROLINA BEACH RD
SITE
INDEPENDENCE BLVD
S. COLLEGE RD

0FT 60FT 120FT 180FT
SCALE 1" = 60'

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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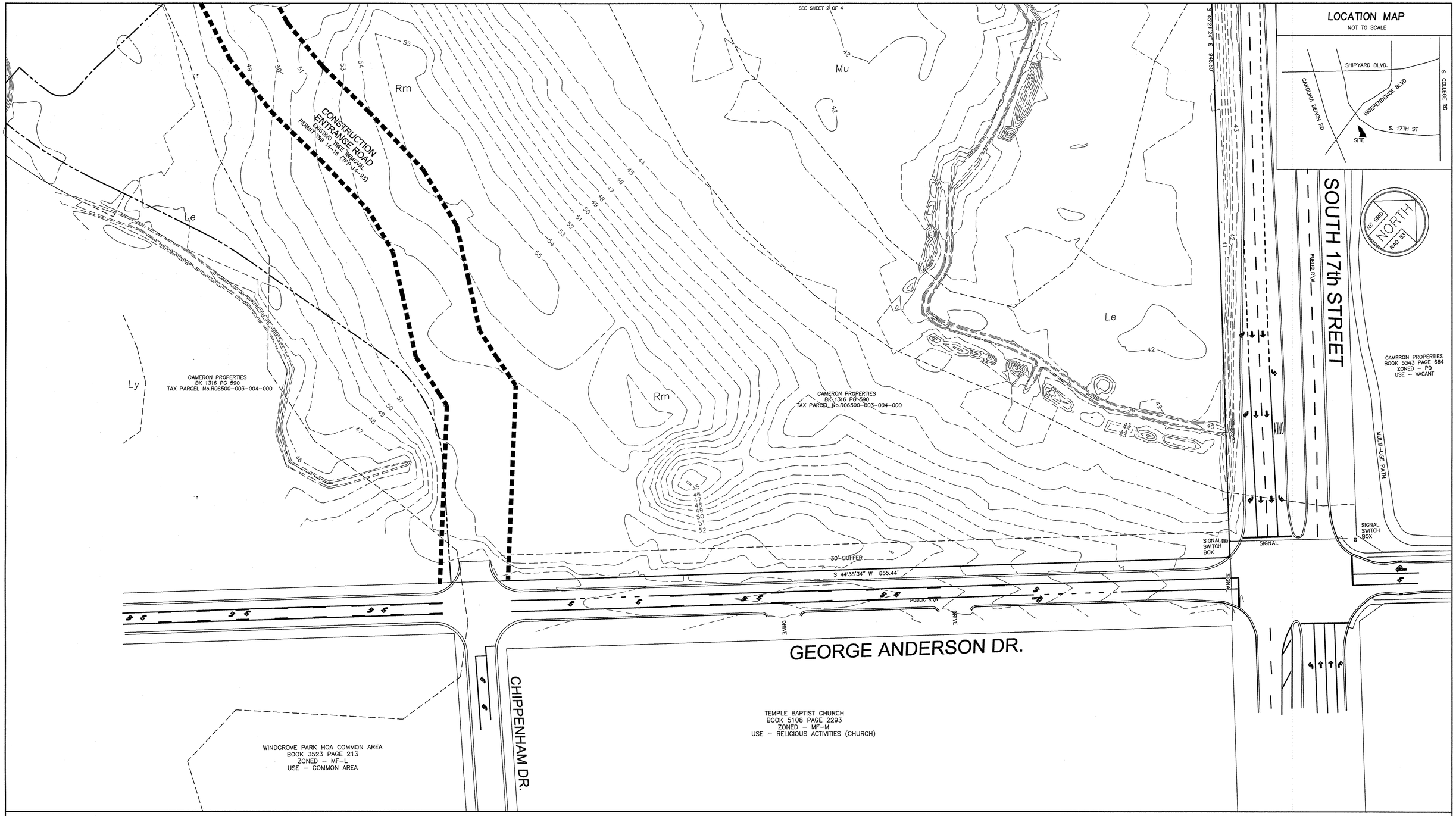
Date: 05-10-16
Scale: HORZ.: 1" = 50'
Drawn: J.WAYNE
Checked: J.WAYNE
Project No: 12498

OWNER: CAMERON PROPERTIES
P.O. BOX 3649
WILMINGTON, N.C. 28406 PH 910-762-2676

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

Sheet No: SRB3 OF SRB6




LEGEND

EXISTING PROPERTY LINE

PROPOSED PROPERTY LINE

SITE INVENTORY NOTES

1. SOILS TYPE – Mu, Le, Rm, Ly
   Mu – MURVILLE FINE SAND
   Le – LEON SAND
   Rm – RIMINI SAND
   Ly – LYNN HAVEN FINE SAND
2. THIS PROPERTY IS NOT IMPACTED BY ANY AEC.
3. NO CONSERVATION OVERLAY BOUNDARIES
4. SITE DOES NOT APPEAR TO BE IMPACTED BY ANY HISTORIC OR ARCHEOLOGICAL SIGNIFICANCE.
5. NO EVIDENCE OF CEMETERIES FOUND
6. NO JURISDICTIONAL WETLAND ON SITE
7. NO EVIDENCE OF ENDANGERED SPECIES FOUND ON SITE
8. THIS PROPERY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEMA FIRM 3720312500J DATE APRIL 3, 2006
9. CAMA LAND USE CLASSIFICATION – URBAN
10. SITE DRAINS INTO BARNARDS CREEK, INDEX No. 18-80 CLASSIFICATION C:Sw

GENERAL NOTES

1. TAX PARCEL No. R06500-003-004-000
2. AREA BY COORD. METHOD
3. SITE ADDRESS – 3501 INDEPENDENCE BLVD.
4. SURVEYED JUNE – NOV. 2013
5. ALL DISTANCES ARE HORIZONTAL
6. ALL ELEVATIONS ARE NGVD 1988
7. CAMA LAND USE CLASSIFICATION – URBAN

TREE PRESERVATION NOTES

1. TREE PRESERVATION / REMOVAL PERMIT IS REQUIRED PRIOR TO CLEARING AND LAND DISTURBANCE
2. ANY REGULATED OR SIGNIFICANT TREES WITHIN STREETYARDS, AND ALL TREES WITHIN BUFFER YARDS OR BEYOND LIMITS OF ESSENTIAL SITE IMPROVEMENTS ARE REQUIRED TO BE PROTECTED AND PRESERVED. EXISTING TREES WITHIN CONSTRUCTION LIMITS SHOULD BE SPADED AND REPLANTED ELSEWHERE ON SITE WHEN FEASIBLE.
3. NO EQUIPMENT IS ALLOWED ON THE SITE UNTILL ALL TREE PRETECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED. PROTECTION FENCING SHALL BE INSTALLED AROUND ALL INDIVIDUAL TREES OR GROVES OF TREES THAT HAVE BEEN DESIGNATED FOR PRESERVATION AND PORTECTION.
4. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
5. 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.

0FT 50FT 100FT

SCALE 1" = 50'

# EXISTING CONDTIONS

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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NORTH CAROLINA PROFESSIONAL SEAL L-3391 LAND SURVEYOR JONATHAN L. WAYNE 6/15/16

# ELEMENT BARCLAY WEST APARTMENTS

LOCATED IN THE CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA

DEVELOPER: CK Gallery Park Wilmington, LLC
301 South College Street
Charlotte, NC 28202
(704) 342-9000

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

| | |
|---|---|
| Date: | 05-10-16 |
| Scale: HORZ.: | 1"= 50' |
| Drawn: | J.WAYNE |
| Checked: | J.WAYNE |
| Project No: | 12498 |
| Sheet No: | SRB4 SRB5 |
| Of: | |

| CURVE | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING | DELTA ANGLE | TANGENT |
|---|---|---|---|---|---|---|
| C1 | 480.00' | 44.72' | 44.70' | N 00°29'58" E | 5°20'17" | 22.38' |
| C2 | 3470.00' | 47.26' | 47.26' | S 03°31'14" E | 0°46'49" | 23.63' |
| C3 | 3470.00' | 78.93' | 78.93' | N 02°28'44" W | 1°18'12" | 39.47' |
| C4 | 37.00' | 38.17' | 36.50' | S 27°43'29" W | 59°06'14" | 20.98' |
| C5 | 92.00' | 95.00' | 90.84' | N 27°41'40" E | 59°09'52" | 52.23' |
| C6 | 50.00' | 39.47' | 38.46' | S 20°43'44" W | 45°13'59" | 20.83' |
| C7 | 60.00' | 53.28' | 51.54' | N 21°13'03" W | 50°52'28" | 28.54' |
| C8 | 115.00' | 102.11' | 98.79' | N 21°13'03" W | 50°52'28" | 54.70' |
| C9 | 20.00' | 31.42' | 28.28' | S 40°46'49" E | 90°00'00" | 20.00' |

GALLERY PARK BLVD.
PROPOSED PUBLIC R/W

CAMERON PROPERTIES
BK 1316 PG 590
TAX PARCEL No.R06500-003-004-000

GALLERY PARK BLVD. UNDER CONSTRUCTION

NC GRID NORTH NAD 83

SOUTH 17th STREET
PUBLIC RIGHT OF WAY

MULTI-USE PATH

CAMERON PROPERTIES
BOOK 5343 PAGE 664
ZONED – PD
USE – VACANT

S 45°21'24" E 180.74'

CAMERON PROPERTIES
BK 1316 PG 590
TAX PARCEL No.R06500-003-004-000

Le
Rm
Mu
Ly

SEE SHEET 1 OF 4

EXISTING PROPERTY LINE
PROPOSED PROPERTY LINE

NOTES
1. ALL DISTANCES ARE HORIZONTAL

SITE INVENTORY NOTES
1. SOILS TYPE – Mu, Le, Rm, Ly
   Mu – MURVILLE FINE SAND
   Le – IEON SAND
   Rm – RIMINI SAND
   Ly – LYNN HAVEN FINE SAND
2. THIS PROPERTY IS NOT IMPACTED BY ANY AEC.
3. NO CONSERVATION OVERLAY BOUNDARIES
4. SITE DOES NOT APPEAR TO BE IMPACTED BY ANY HISTORIC OR ARCHEOLOGICAL SIGNIFICANCE.
5. NO EVIDENCE OF CEMETERIES FOUND
6. NO JURISDICTIONAL WETLAND ON SITE
7. NO EVIDENCE OF ENDANGERED SPECIES FOUND ON SITE
8. THIS PROPERY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEMA FIRM 3720312500J DATE APRIL 3, 2006
9. CAMA LAND USE CLASSIFICATION – URBAN
10. SITE DRAINS INTO BARNARDS CREEK, INDEX No. 18-80 CLASSIFICATION C:Sw

GENERAL NOTES
1. TAX PARCEL No. R06500-003-004-000
2. AREA BY COORD. METHOD
3. SITE ADDRESS – 3501 INDEPENDENCE BLVD.
4. SURVEYED JUNE – NOV. 2013
5. ALL DISTANCES ARE HORIZONTAL
6. ALL ELEVATIONS ARE NGVD 1988
7. CAMA LAND USE CLASSIFICATION – URBAN

TREE PRESERVATION NOTES
1. TREE PRESERVATION / REMOVAL PERMIT IS REQUIRED PRIOR TO CLEARING AND LAND DISTURBANCE
2. ANY REGULATED OR SIGNIFICANT TREES WITHIN STREETYARDS, AND ALL TREES WITHIN BUFFER YARDS OR BEYOND LIMITS OF ESSENTIAL SITE IMPROVEMENTS ARE REQUIRED TO BE PROTECTED AND PRESERVED. EXISTING TREES WITHIN CONSTRUCTION LIMITS SHOULD BE SPADED AND REPLANTED ELSEWHERE ON SITE WHEN FEASIBLE.
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5. 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.

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

# EXISTING CONDITIONS

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |
| | | |
| | | |
| 1 | CITY COMMENTS | 05-14-14 |

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# ELEMENT BARCLAY WEST APARTMENTS

LOCATED IN THE CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL L-3391 LAND SURVEYOR JONATHAN L. WAYNE
6/15/16

DEVELOPER: CK Gallery Park Wilmington, LLC
301 South College Street
Charlotte, NC 28202
(704) 342-9000

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

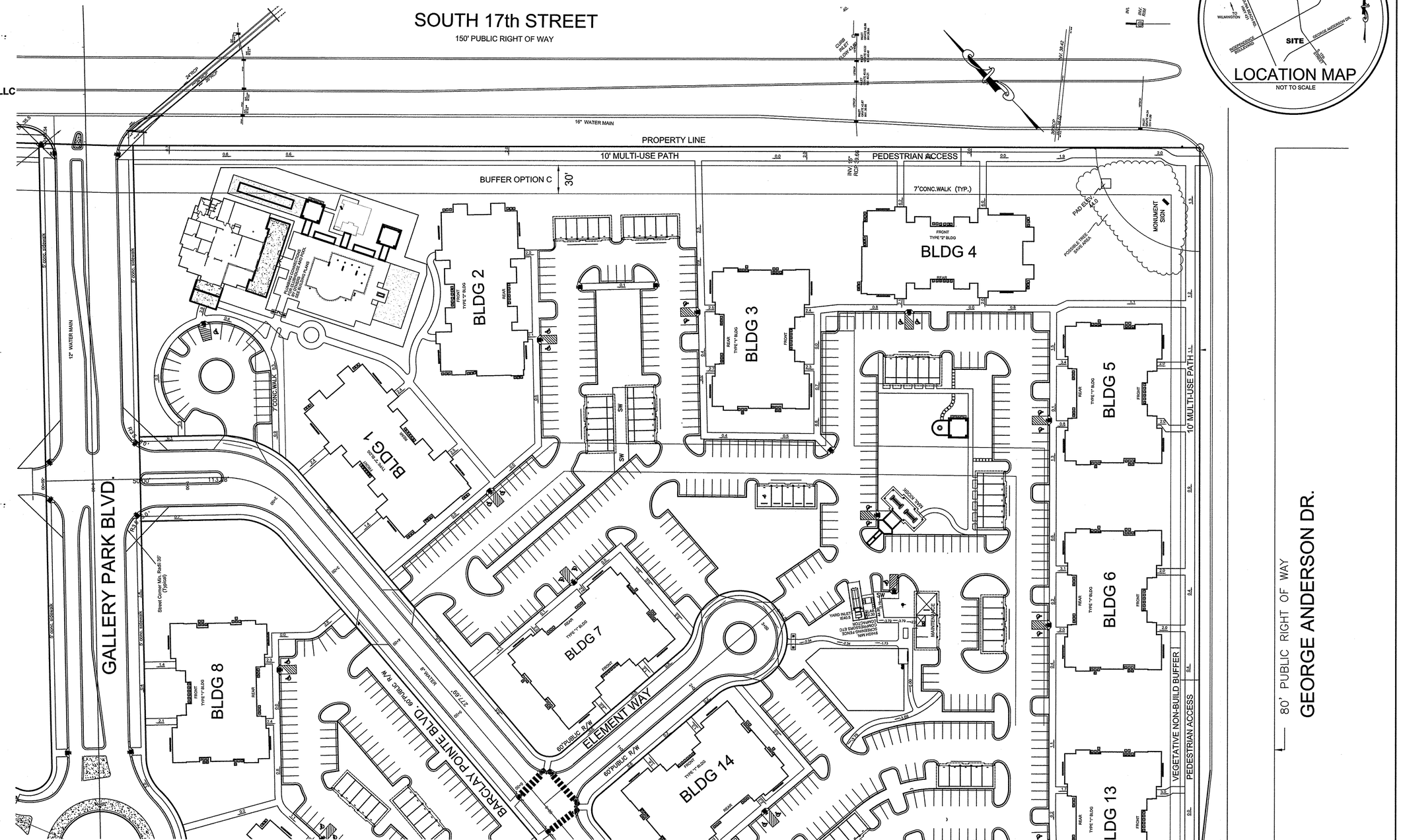
Date: 05-10-16
Scale: HORZ.: 1"= 50'
Drawn: J.WAYNE
Checked: J.WAYNE
Project No: 12498
Sheet No: SRB5
Of: SRB5

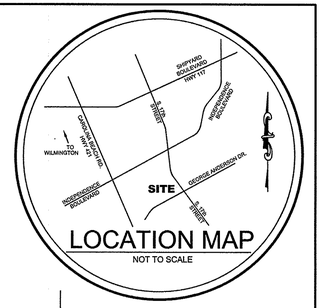
# ELEMENT BARCLAY WEST APARTMENTS
## at BARCLAY WEST

*LOCATED IN THE CITY OF WILMINGTON*
*NEW HANOVER COUNTY, NORTH CAROLINA*
*DATE: MAY 2016*
*SCALE: 1"= 50'*

**OWNER:**
**CAMERON PROPERTIES LAND COMPANY, LLC**
**1201 GLEN MEADE ROAD PO BOX 3649**
**WILMINGTON, NC 28406**
**910-762-2676**

**DEVELOPER:**
**CK GALLERY PARK WILMINGTON, LLC**
**301 SOUTH COLLEGE STREET**
**CHARLOTTE, NC 28202**
**704-342-9000**




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

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED _____

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

2.0 INDICATES LONGITUDINAL SLOPE GRADE FOR ACCESSIBILITY EVALUATION

NOTE: CROSS SLOPE ON SIDEWALKS NOT TO EXCEED 2.0%

50' 0' 50' 100'
SCALE IN FEET: 1"= 50'

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |
| | | |
| 2 | SIDEWALK & MULTI-USE PATH ADJUSTMENTS DUE TO TREE SAVE AREAS | 6-21-16 |
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPER COMMENTS | 5-11-16 |

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FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

ELEMENT BARCLAY WEST APARTMENTS
ADA SLOPE PLAN
*LOCATED IN THE CITY OF WILMINGTON* *NEW HANOVER COUNTY, NORTH CAROLINA*

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID S. HOLLIS
6-21-16
dhollis@hdsllm.com

*DEVELOPER: CK GALLERY PARK WILMINGTON, LLC*
*301 SOUTH COLLEGE ST.*
*CHARLOTTE, NC 28202*
*PH: 704-342-9000*

HANOVER DESIGN SERVICES, P.A.
*LAND SURVEYORS, ENGINEERS & LAND PLANNERS*
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002
License # C-0597

Date: 5-11-16
Scale: 1"=50'
Drawn: GW
Checked: DSH
Project No: 12498

Sheet No: ADA1 ADA2
Of _____

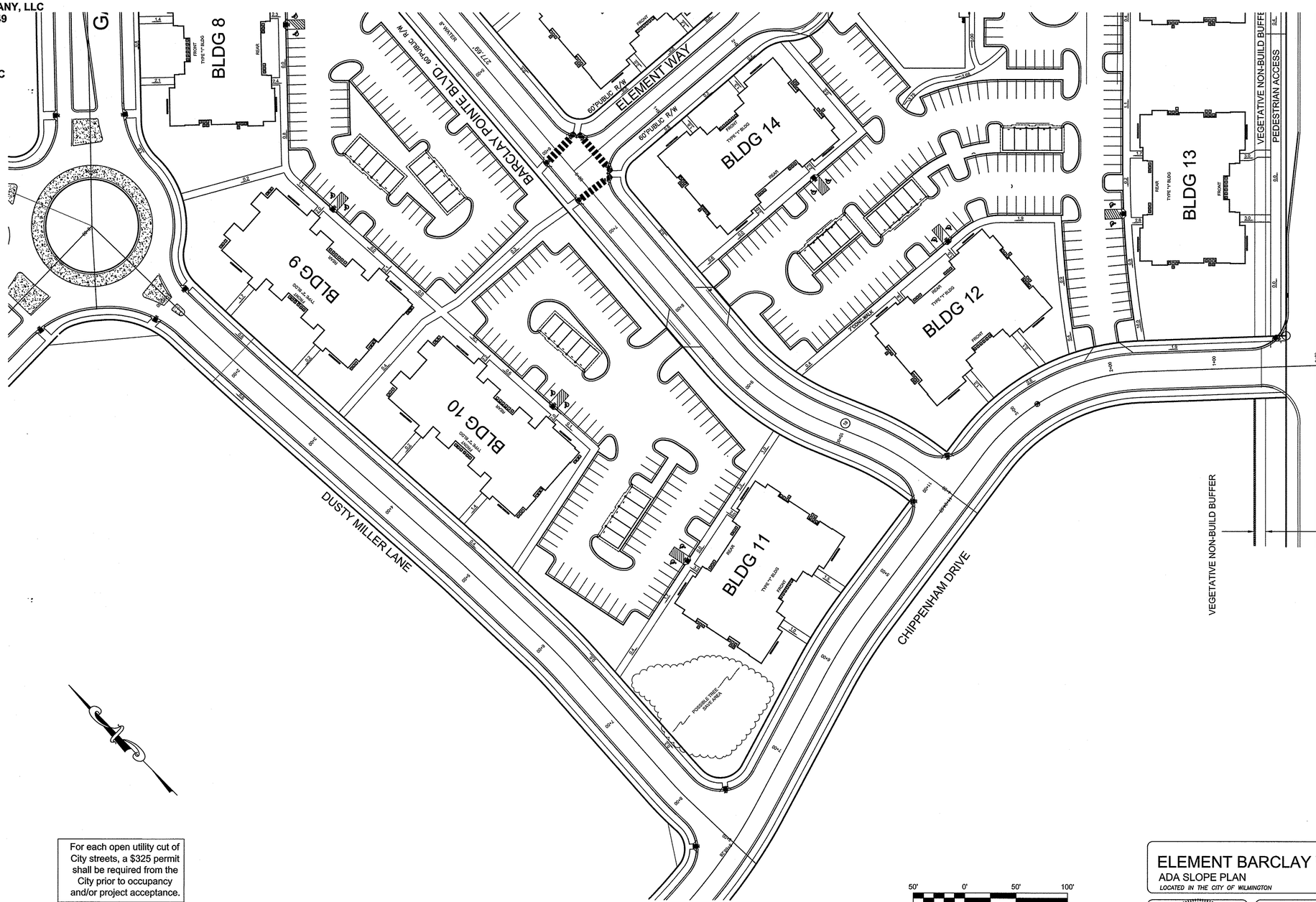
F:\All\Project Folders\12498-BARCLAY WEST\Kessinger Multi-Family\Engineering\ADA Slope Drawing 5-16-16.dwg

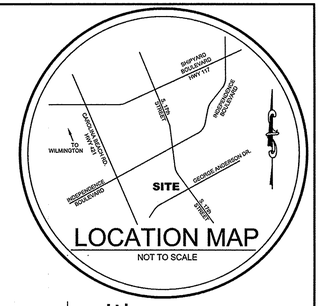
# ELEMENT BARCLAY WEST APARTMENTS
## at BARCLAY WEST

*LOCATED IN THE CITY OF WILMINGTON*
*NEW HANOVER COUNTY, NORTH CAROLINA*
*DATE: MAY 2016*
*SCALE: 1"= 50'*

**OWNER:**
**CAMERON PROPERTIES LAND COMPANY, LLC**
**1201 GLEN MEADE ROAD PO BOX 3649**
**WILMINGTON, NC 28406**
**910-762-2676**

**DEVELOPER:**
**CK GALLERY PARK WILMINGTON, LLC**
**301 SOUTH COLLEGE STREET**




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

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED _____

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

2.0 INDICATES LONGITUDINAL SLOPE
GRADE FOR ACCESSIBILITY EVALUATION

NOTE: CROSS SLOPE ON SIDEWALKS NOT TO EXCEED 2.0%

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

50' 0' 50' 100'
SCALE IN FEET: 1"= 50'

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |
| | | |
| 2 | SIDEWALK & MULTI-USE PATH ADJUSTMENTS DUE TO TREE SAVE AREAS | 6-21-16 |
| 1 | REVISED AS PER CFPUA, CITY OF WILMINGTON, & DEVELOPER COMMENTS | 5-11-16 |

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NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID S. HOLLIS
6-21-16
dhollis @ hdsilm.com

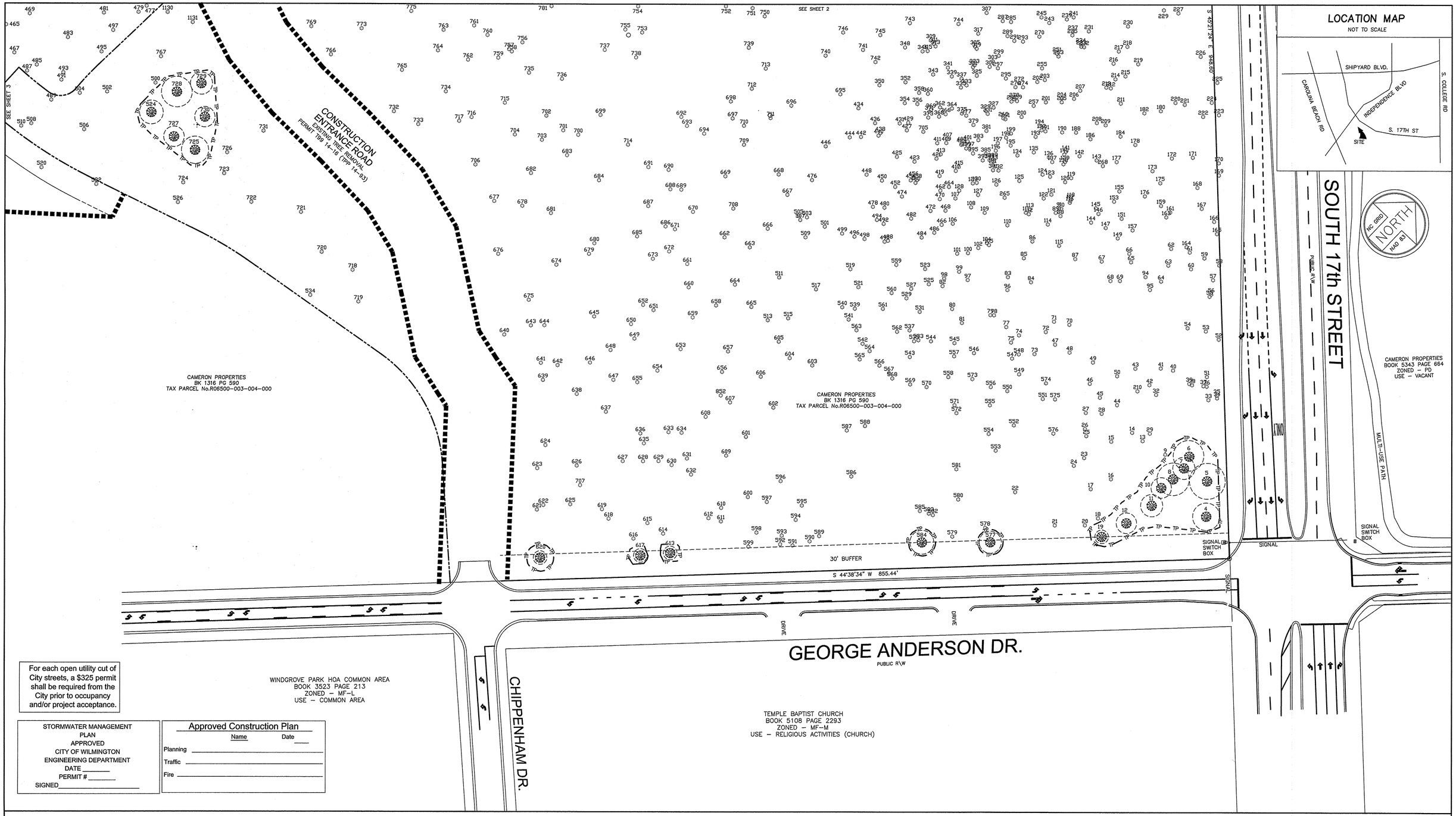
ELEMENT BARCLAY WEST APARTMENTS
ADA SLOPE PLAN
*LOCATED IN THE CITY OF WILMINGTON* *NEW HANOVER COUNTY, NORTH CAROLINA*

*DEVELOPER: CK GALLERY PARK WILMINGTON, LLC*
*301 SOUTH COLLEGE ST.*
*CHARLOTTE, NC 28202*
*PH: 704-342-9000*

HANOVER DESIGN SERVICES, P.A.
*LAND SURVEYORS, ENGINEERS & LAND PLANNERS*
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-6002
License # C-0597

Date: 5-11-16
Scale: 1"=50'
Drawn: GW
Checked: DSH
Project No: 12498
Sheet No: ADA2
Of: ADA2

F:\All\Project Folders\12498-BARCLAY WEST\Kessinger Multi-Family\Engineering\ADA Slope Drawing 5-16-16.dwg




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

STORMWATER MANAGEMENT PLAN APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED _____

**Approved Construction Plan**

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

LEGEND

- 618 — TREE ID NUMBER
- o — TREE TO BE REMOVED
- TREE TO BE SAVED
- CZR (CRITICAL ROOT ZONE RADIUS = 1 FT. FOR EVERY 1 INCH DBH OF TREE AT TRUNK)
- — TP — TP — TP — TREE PROTECTION FENCE
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE

SITE INVENTORY NOTES

1. SOILS TYPE – Mu, Le, Rm, Ly
   Mu – MURVILLE FINE SAND
   Le – LEON SAND
   Rm – RIMINI SAND
   Ly – LYNN HAVEN FINE SAND
2. THIS PROPERTY IS NOT IMPACTED BY ANY AEC.
3. NO CONSERVATION OVERLAY BOUNDARIES
4. SITE DOES NOT APPEAR TO BE IMPACTED BY ANY HISTORIC OR ARCHEOLOGICAL SIGNIFICANCE.
5. NO EVIDENCE OF CEMETERIES FOUND
6. NO JURISDICTIONAL WETLAND ON SITE
7. NO EVIDENCE OF ENDANGERED SPECIES FOUND ON SITE
8. THIS PROPERY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEMA FIRM 3720312500J DATE APRIL 3, 2006
9. CAMA LAND USE CLASSIFICATION – URBAN
10. SITE DRAINS INTO BARNARDS CREEK, INDEX No. 18-80 CLASSIFICATION C:Sw

GENERAL NOTES

1. TAX PARCEL No. R06500-003-004-000
2. AREA BY COORD. METHOD
3. SITE ADDRESS – 3501 INDEPENDENCE BLVD.
4. SURVEYED JUNE – DEC. 2014
5. ALL DISTANCES ARE HORIZONTAL
6. ALL ELEVATIONS ARE NGVD 1988
7. CAMA LAND USE CLASSIFICATION – URBAN

TREE PRESERVATION NOTES

1. TREE PRESERVATION / REMOVAL PERMIT IS REQUIRED PRIOR TO CLEARING AND LAND DISTURBANCE
2. ANY REGULATED OR SIGNIFICANT TREES WITHIN STREETYARDS, AND ALL TREES WITHIN BUFFER YARDS OR BEYOND LIMITS OF ESSENTIAL SITE IMPROVEMENTS ARE REQUIRED TO BE PROTECTED AND PRESERVED. EXISTING TREES WITHIN CONSTRUCTION LIMITS SHOULD BE SPADED AND REPLANTED ELSEWHERE ON SITE WHEN FEASIBLE.
3. NO EQUIPMENT IS ALLOWED ON THE SITE UNTILL ALL TREE PRETECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED. PROTECTION FENCING SHALL BE INSTALLED AROUND ALL INDIVIDUAL TREES OR GROVES OF TREES THAT HAVE BEEN DESIGNATED FOR PRESERVATION AND PORTECTION.
4. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
5. 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.

PRELIMINARY

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

# TREE SURVEY

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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## ELEMENT BARCLAY WEST APARTMENTS

LOCATED IN THE CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL L-3391 LAND SURVEYOR JONATHAN L. WAYNE
6/15/16

DEVELOPER: CK Gallery Park Wilmington, LLC
301 South College Street
Charlotte, NC 28202
(704) 342-9000

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

Date: 05/17/16
Scale: HORZ.: 1"= 50'
Drawn: J.WAYNE
Checked: J.WAYNE
Project No: 12498
Sheet No: T1 Of: T8

| CURVE | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING | DELTA ANGLE | TANGENT |
|---|---|---|---|---|---|---|
| C1 | 480.00' | 44.72' | 44.70' | N 00°29'58" E | 5°20'17" | 22.38' |
| C2 | 3470.00' | 47.26' | 47.26' | S 03°31'14" E | 0°46'49" | 23.63' |
| C3 | 3470.00' | 78.93' | 78.93' | N 02°28'44" W | 1°18'12" | 39.47' |
| C4 | 37.00' | 38.17' | 36.50' | S 27°43'29" W | 59°06'14" | 20.98' |
| C5 | 92.00' | 95.00' | 90.84' | N 27°41'40" E | 59°09'52" | 52.23' |
| C6 | 50.00' | 39.47' | 38.46' | S 20°43'44" W | 45°13'59" | 20.83' |
| C7 | 60.00' | 53.28' | 51.54' | N 21°13'03" W | 50°52'28" | 28.54' |
| C8 | 115.00' | 102.11' | 98.79' | N 21°13'03" W | 50°52'28" | 54.70' |
| C9 | 20.00' | 31.42' | 28.28' | S 40°46'49" E | 90°00'00" | 20.00' |

GALLERY PARK BLVD.
PROPOSED PUBLIC R/W
UNDER CONSTRUCTION

CAMERON PROPERTIES
BK 1316 PG 590
TAX PARCEL No.R06500-003-004-000

EXISTING TREE REMOVAL
PERMIT T99 14-16 (TPP 14-93)
LIMITS

EXISTING TREE REMOVAL
PERMIT T99 14-16 (TPP 14-93)
LIMITS

CONSTRUCTION
ENTRANCE ROAD
LIMITS

EXISTING TREE REMOVAL
PERMIT T99 14-16 (TPP 14-93)

S 45°21'24" E 180.74'

SOUTH 17th STREET
PUBLIC RIGHT OF WAY

MULTI-USE PATH

CAMERON PROPERTIES
BOOK 5343 PAGE 664
ZONED - PD
USE - VACANT

TRACT A-1

CAMERON PROPERTIES
BK 1316 PG 590
TAX PARCEL No.R06500-003-004-000

S 45°21'24" E 948.60'

NC GRID NORTH NAD 83

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

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED _____

SEE SHEET 1 OF 4

LEGEND

- 618 — TREE ID NUMBER
- o — TREE TO BE REMOVED
- TREE TO BE SAVED
- CZR (CRITICAL ROOT ZONE RADIUS = 1 FT. FOR EVERY 1 INCH DBH OF TREE AT TRUNK)
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10. SITE DRAINS INTO BARNARDS CREEK, INDEX No. 18-80 CLASSIFICATION C;Sw

GENERAL NOTES

1. TAX PARCEL No. R06500-003-004-000
2. AREA BY COORD. METHOD
3. SITE ADDRESS – 3501 INDEPENDENCE BLVD.
4. SURVEYED JUNE – NOV. 2013
5. ALL DISTANCES ARE HORIZONTAL
6. ALL ELEVATIONS ARE NGVD 1988
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PRELIMINARY

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

# TREE SURVEY

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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## ELEMENT BARCLAY WEST APARTMENTS

LOCATED IN THE CITY OF WILMINGTON — NEW HANOVER COUNTY, NORTH CAROLINA

DEVELOPER: CK Gallery Park Wilmington, LLC
301 South College Street
Charlotte, NC 28202
(704) 342-9000

NORTH CAROLINA PROFESSIONAL SEAL L-3391 SURVEYOR JONATHAN WAYNE

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

Date: 05/17/16
Scale: HORZ.: 1"= 50'
Drawn: J.WAYNE
Checked: J.WAYNE
Project No: 12498
Sheet No: T2 of T8

STORM WATER POND
EXISTING TREE REMOVAL PERMIT T99 14-16 (TPP 14-93)

CAMERON PROPERTIES
BK 1316 PG 590
TAX PARCEL No.R06500-003-004-000

CAMERON PROPERTIES
BK 1316 PG 590
TAX PARCEL No.R06500-003-004-000

EXISTING TREE REMOVAL PERMIT T99 14-16 (TPP 14-93)

CONSTRUCTION ENTRANCE ROAD
EXISTING TREE REMOVAL PERMIT T99 14-16 (TPP 14-93)

LIMITS

SEE SHEET 2

NC GRID NAD 83

| Approved Construction Plan | | |
|---|---|---|
| | Name | Date |
| Planning | | |
| Traffic | | |
| Fire | | |

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED_____

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PRELIMINARY

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

# TREE SURVEY

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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NORTH CAROLINA PROFESSIONAL SEAL L-3391 SURVEYOR JONATHAN L. WAYNE

DEVELOPER: CK Gallery Park Wilmington, LLC
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PHONE: (910) 343-8002

| | |
|---|---|
| Date: | 05/17/16 |
| Scale: HORZ.: | 1"= 50' |
| Drawn: | J.WAYNE |
| Checked: | J.WAYNE |
| Project No: | 12498 |
| Sheet No: | T3 |
| Of: | T8 |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 4 | 157598.80 | 2328927.96 | 16" | PINE | REGULATED | SAVE |
| 5 | 157629.33 | 2328900.24 | 21" | PINE | REGULATED | SAVE |
| 6 | 157635.98 | 2328865.09 | 18" | PINE | REGULATED | SAVE |
| 7 | 157621.66 | 2328869.91 | 13" | PINE | REGULATED | SAVE |
| 8 | 157603.72 | 2328869.85 | 19" | PINE | REGULATED | SAVE |
| 9 | 157618.09 | 2328843.12 | 18" | PINE | REGULATED | SITE GRADING |
| 10 | 157586.60 | 2328866.46 | 12" | PINE | REGULATED | SAVE |
| 11 | 157563.96 | 2328872.69 | 13" | PINE | REGULATED | SAVE |
| 12 | 157528.53 | 2328865.08 | 12" | PINE | REGULATED | SAVE |
| 13 | 157611.38 | 2328812.80 | 12" | PINE | REGULATED | SITE GRADING |
| 14 | 157609.97 | 2328797.13 | 13" | PINE | REGULATED | SITE GRADING |
| 15 | 157585.47 | 2328786.64 | 13.5" | PINE | REGULATED | SITE GRADING |
| 16 | 157553.26 | 2328816.77 | 15" | PINE | REGULATED | SITE GRADING |
| 17 | 157528.52 | 2328807.49 | 15.5" | PINE | REGULATED | SITE GRADING |
| 18 | 157509.66 | 2328837.10 | 15" | PINE | REGULATED | SITE GRADING |
| 19 | 157496.96 | 2328855.06 | 8" | OAK | REGULATED | SAVE |
| 20 | 157493.21 | 2328831.53 | 12" | PINE | REGULATED | SITE GRADING |
| 21 | 157468.68 | 2328806.05 | 8" | OAK | REGULATED | SITE GRADING |
| 22 | 157464.68 | 2328745.72 | 16" | PINE | REGULATED | SITE GRADING |
| 23 | 157549.55 | 2328776.77 | 13.5" | PINE | REGULATED | SITE GRADING |
| 24 | 157534.58 | 2328774.29 | 12" | PINE | REGULATED | SITE GRADING |
| 25 | 157570.04 | 2328760.84 | 12.5" | PINE | REGULATED | SITE GRADING |
| 26 | 157574.96 | 2328753.87 | 16" | PINE | REGULATED | SITE GRADING |
| 27 | 157589.38 | 2328741.55 | 14.5" | PINE | REGULATED | SITE GRADING |
| 28 | 157601.48 | 2328755.76 | 17" | PINE | REGULATED | SITE GRADING |
| 29 | 157623.49 | 2328812.90 | 12.5" | PINE | REGULATED | SITE GRADING |
| 32 | 157661.70 | 2328786.76 | 13.5" | PINE | REGULATED | SITE GRADING |
| 33 | 157699.62 | 2328835.63 | 12.5" | JUNIPER | REGULATED | SITE GRADING |
| 34 | 157708.13 | 2328841.58 | 18" | PINE | REGULATED | SITE GRADING |
| 35 | 157710.19 | 2328839.19 | 14.5" | PINE | REGULATED | SITE GRADING |
| 36 | 157709.63 | 2328823.28 | 13.5" | PINE | REGULATED | SITE GRADING |
| 37 | 157707.43 | 2328820.06 | 12" | PINE | REGULATED | SITE GRADING |
| 38 | 157699.01 | 2328809.58 | 12" | PINE | REGULATED | SITE GRADING |
| 39 | 157697.89 | 2328806.13 | 14" | PINE | REGULATED | SITE GRADING |
| 40 | 157696.10 | 2328781.62 | 12.5" | PINE | REGULATED | SITE GRADING |
| 41 | 157687.91 | 2328769.51 | 12" | PINE | REGULATED | SITE GRADING |
| 42 | 157664.65 | 2328773.22 | 12" | PINE | REGULATED | SITE GRADING |
| 43 | 157667.13 | 2328748.05 | 12" | PINE | REGULATED | SITE GRADING |
| 44 | 157621.31 | 2328761.88 | 12" | PINE | REGULATED | SITE GRADING |
| 45 | 157613.77 | 2328741.19 | 14" | PINE | REGULATED | SITE GRADING |
| 46 | 157617.38 | 2328721.36 | 10" | MAPLE | REGULATED | SITE GRADING |
| 47 | 157622.49 | 2328660.39 | 14" | PINE | REGULATED | SITE GRADING |
| 48 | 157627.53 | 2328679.07 | 16.5" | PINE | REGULATED | SITE GRADING |
| 49 | 157638.01 | 2328706.93 | 16" | PINE | REGULATED | SITE GRADING |
| 50 | 157646.02 | 2328738.55 | 12" | PINE | REGULATED | SITE GRADING |
| 51 | 157718.06 | 2328815.58 | 9" | MAPLE | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 52 | 157759.25 | 2328795.68 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 53 | 157755.72 | 2328778.18 | 14" | PINE | REGULATED | SITE GRADING |
| 54 | 157743.62 | 2328760.07 | 15" | PINE | REGULATED | SITE GRADING |
| 55 | 157788.21 | 2328753.29 | 12.5" | PINE | REGULATED | SITE GRADING |
| 56 | 157791.63 | 2328752.87 | 15" | PINE | REGULATED | SITE GRADING |
| 57 | 157805.21 | 2328742.81 | 9" | JUNIPER | REGULATED | SITE GRADING |
| 58 | 157822.92 | 2328736.03 | 15" | PINE | REGULATED | SITE GRADING |
| 59 | 157816.87 | 2328717.76 | 10.5" | JUNIPER | REGULATED | SITE GRADING |
| 60 | 157796.82 | 2328715.07 | 9.5" | JUNIPER | REGULATED | SITE GRADING |
| 61 | 157810.00 | 2328700.47 | 8.5" | OAK | REGULATED | SITE GRADING |
| 62 | 157798.13 | 2328681.59 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 63 | 157781.52 | 2328692.81 | 12" | PINE | REGULATED | SITE GRADING |
| 64 | 157761.99 | 2328699.69 | 13" | PINE | REGULATED | SITE GRADING |
| 65 | 157754.21 | 2328658.34 | 14.5" | PINE | REGULATED | SITE GRADING |
| 66 | 157760.03 | 2328649.93 | 12.5" | PINE | REGULATED | SITE GRADING |
| 67 | 157731.05 | 2328632.85 | 14" | PINE | REGULATED | SITE GRADING |
| 68 | 157721.47 | 2328656.03 | 13.5" | PINE | REGULATED | SITE GRADING |
| 69 | 157729.20 | 2328664.02 | 12" | PINE | REGULATED | SITE GRADING |
| 70 | 157650.82 | 2328656.58 | 14" | PINE | REGULATED | SITE GRADING |
| 71 | 157641.03 | 2328641.09 | 13" | PINE | REGULATED | SITE GRADING |
| 72 | 157625.57 | 2328642.39 | 15" | PINE | REGULATED | SITE GRADING |
| 73 | 157597.80 | 2328650.53 | 10" | MAPLE | REGULATED | SITE GRADING |
| 74 | 157601.06 | 2328622.30 | 12.5" | PINE | REGULATED | SITE GRADING |
| 75 | 157588.57 | 2328621.37 | 13" | PINE | REGULATED | SITE GRADING |
| 77 | 157597.76 | 2328604.82 | 13" | PINE | REGULATED | SITE GRADING |
| 78 | 157597.77 | 2328584.91 | 14" | PINE | REGULATED | SITE GRADING |
| 79 | 157595.06 | 2328581.78 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 80 | 157569.37 | 2328544.22 | 11" | OAK | REGULATED | SITE GRADING |
| 81 | 157565.35 | 2328563.74 | 11" | OAK | REGULATED | SITE GRADING |
| 82 | 157581.15 | 2328517.45 | 12" | PINE | REGULATED | SITE GRADING |
| 83 | 157641.63 | 2328565.84 | 13" | PINE | REGULATED | SITE GRADING |
| 84 | 157655.99 | 2328589.62 | 17" | PINE | REGULATED | SITE GRADING |
| 85 | 157670.75 | 2328563.93 | 17" | PINE | REGULATED | SITE GRADING |
| 86 | 157691.91 | 2328557.60 | 12" | PINE | REGULATED | SITE GRADING |
| 87 | 157711.65 | 2328608.26 | 14" | PINE | REGULATED | SITE GRADING |
| 88 | 157736.35 | 2328560.94 | 9" | HARDWOOD | REGULATED | SITE GRADING |
| 89 | 157735.25 | 2328554.21 | 9.5" | HARDWOOD | REGULATED | SITE GRADING |
| 90 | 157743.13 | 2328555.86 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 91 | 157741.64 | 2328553.85 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 94 | 157753.15 | 2328682.79 | 12" | PINE | REGULATED | SITE GRADING |
| 95 | 157745.85 | 2328696.98 | 12.5" | PINE | REGULATED | SITE GRADING |
| 96 | 157630.20 | 2328575.90 | 12.5" | PINE | REGULATED | SITE GRADING |
| 97 | 157606.64 | 2328533.89 | 12.5" | PINE | REGULATED | SITE GRADING |
| 98 | 157588.88 | 2328512.67 | 13" | PINE | REGULATED | SITE GRADING |
| 99 | 157606.83 | 2328519.88 | 13" | HARDWOOD | REGULATED | SITE GRADING |
| 100 | 157629.87 | 2328512.34 | 13" | PINE | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 101 | 157620.65 | 2328503.55 | 12.5" | HARDWOOD | REGULATED | SITE GRADING |
| 102 | 157642.56 | 2328516.95 | 10" | MAPLE | REGULATED | SITE GRADING |
| 104 | 157653.71 | 2328520.35 | 7" | MAPLE | REGULATED | SITE GRADING |
| 105 | 157653.70 | 2328523.66 | 8.5" | MAPLE | REGULATED | SITE GRADING |
| 106 | 157642.70 | 2328475.50 | 15" | PINE | REGULATED | SITE GRADING |
| 107 | 157666.36 | 2328457.36 | 15" | PINE | REGULATED | SITE GRADING |
| 108 | 157671.45 | 2328477.88 | 10" | MAPLE | REGULATED | SITE GRADING |
| 109 | 157677.72 | 2328493.91 | 16" | PINE | REGULATED | SITE GRADING |
| 110 | 157685.54 | 2328523.26 | 7.5" | MAPLE | REGULATED | SITE GRADING |
| 111 | 157711.20 | 2328528.73 | 11" | HARDWOOD | REGULATED | SITE GRADING |
| 112 | 157712.28 | 2328532.43 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 113 | 157717.39 | 2328529.45 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 114 | 157719.00 | 2328556.98 | 12.5" | PINE | REGULATED | SITE GRADING |
| 115 | 157709.88 | 2328583.84 | 13.5" | PINE | REGULATED | SITE GRADING |
| 116 | 157755.24 | 2328558.07 | 8.5" | HARDWOOD | REGULATED | SITE GRADING |
| 117 | 157757.44 | 2328556.95 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 118 | 157759.36 | 2328555.95 | 7" | HARDWOOD | REGULATED | SITE GRADING |
| 119 | 157777.24 | 2328539.47 | 9.5" | HARDWOOD | REGULATED | SITE GRADING |
| 120 | 157768.92 | 2328537.57 | 11" | HARDWOOD | REGULATED | SITE GRADING |
| 121 | 157747.20 | 2328535.86 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 122 | 157737.68 | 2328532.46 | 9" | HARDWOOD | REGULATED | SITE GRADING |
| 123 | 157761.20 | 2328520.46 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 124 | 157756.95 | 2328512.35 | 9.5" | HARDWOOD | REGULATED | SITE GRADING |
| 125 | 157732.77 | 2328497.60 | 23.5" | PINE | REGULATED | SITE GRADING |
| 126 | 157711.05 | 2328481.18 | 18" | JUNIPER | REGULATED | SITE GRADING |
| 127 | 157687.57 | 2328473.93 | 8.5" | MAPLE | REGULATED | SITE GRADING |
| 128 | 157676.10 | 2328454.22 | 10.5" | MAPLE | REGULATED | SITE GRADING |
| 129 | 157693.11 | 2328460.03 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 130 | 157696.68 | 2328462.88 | 9" | MAPLE | REGULATED | SITE GRADING |
| 131 | 157724.59 | 2328462.27 | 11" | JUNIPER | REGULATED | SITE GRADING |
| 132 | 157724.63 | 2328471.63 | 15" | HARDWOOD | REGULATED | SITE GRADING |
| 133 | 157728.21 | 2328460.03 | 7" | JUNIPER | REGULATED | SITE GRADING |
| 134 | 157752.83 | 2328475.54 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 135 | 157768.70 | 2328486.92 | 10" | OAK | REGULATED | SITE GRADING |
| 136 | 157776.71 | 2328503.76 | 10.5" | HARDWOOD | REGULATED | SITE GRADING |
| 137 | 157775.48 | 2328510.43 | 9.5" | HARDWOOD | REGULATED | SITE GRADING |
| 138 | 157782.71 | 2328521.74 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 139 | 157785.82 | 2328521.22 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 140 | 157791.50 | 2328514.63 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 141 | 157795.31 | 2328513.63 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 142 | 157802.52 | 2328528.89 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 143 | 157812.83 | 2328546.89 | 7.5" | OAK | REGULATED | SITE GRADING |
| 144 | 157755.71 | 2328592.08 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 145 | 157771.60 | 2328584.62 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 146 | 157769.00 | 2328591.43 | 9" | HARDWOOD | REGULATED | SITE GRADING |
| 147 | 157762.95 | 2328608.91 | 9.5" | HARDWOOD | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 149 | 157763.73 | 2328627.59 | 12.5" | PINE | REGULATED | SITE GRADING |
| 151 | 157783.59 | 2328615.02 | 7" | OAK | REGULATED | SITE GRADING |
| 153 | 157792.05 | 2328594.86 | 8" | OAK | REGULATED | SITE GRADING |
| 155 | 157805.02 | 2328591.05 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 157 | 157782.70 | 2328633.74 | 12" | HARDWOOD | REGULATED | SITE GRADING |
| 159 | 157826.42 | 2328638.27 | 13" | PINE | REGULATED | SITE GRADING |
| 161 | 157828.28 | 2328651.51 | 9" | OAK | REGULATED | SITE GRADING |
| 162 | 157251.42 | 2326943.55 | 12" | pine | REGULATED | SITE GRADING |
| 163 | 157821.01 | 2328651.93 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 164 | 157812.03 | 2328693.31 | 7.5" | MAPLE | REGULATED | SITE GRADING |
| 165 | 157847.87 | 2328708.61 | 16" | PINE | REGULATED | SITE GRADING |
| 166 | 157856.01 | 2328696.38 | 21.5" | PINE | REGULATED | SITE GRADING |
| 167 | 157856.96 | 2328675.30 | 11" | MAPLE | REGULATED | SITE GRADING |
| 168 | 157871.19 | 2328654.82 | 8" | MAPLE | REGULATED | SITE GRADING |
| 169 | 157899.10 | 2328663.16 | 14.5" | PINE | REGULATED | SITE GRADING |
| 170 | 157909.33 | 2328653.23 | 16" | PINE | REGULATED | SITE GRADING |
| 171 | 157892.92 | 2328626.61 | 7.5" | OAK | REGULATED | SITE GRADING |
| 172 | 157875.33 | 2328609.44 | 12" | PINE | REGULATED | SITE GRADING |
| 173 | 157848.98 | 2328603.05 | 19" | PINE | REGULATED | SITE GRADING |
| 175 | 157845.04 | 2328619.38 | 19" | PINE | REGULATED | SITE GRADING |
| 176 | 157821.47 | 2328616.84 | 9.5" | HARDWOOD | REGULATED | SITE GRADING |
| 177 | 157827.62 | 2328565.22 | 7.5" | OAK | REGULATED | SITE GRADING |
| 178 | 157857.27 | 2328567.31 | 18" | PINE | REGULATED | SITE GRADING |
| 180 | 157906.72 | 2328561.60 | 14" | PINE | REGULATED | SITE GRADING |
| 182 | 157891.61 | 2328549.34 | 20" | PINE | REGULATED | SITE GRADING |
| 184 | 157852.40 | 2328547.92 | 12" | PINE | REGULATED | SITE GRADING |
| 186 | 157825.84 | 2328524.43 | 14" | OAK | REGULATED | SITE GRADING |
| 188 | 157819.81 | 2328506.83 | 18.5" | PINE | REGULATED | SITE GRADING |
| 190 | 157808.71 | 2328494.81 | 12" | PINE | REGULATED | SITE GRADING |
| 191 | 157796.04 | 2328479.75 | 9" | HARDWOOD | REGULATED | SITE GRADING |
| 192 | 157793.76 | 2328475.58 | 8.5" | HARDWOOD | REGULATED | SITE GRADING |
| 193 | 157783.31 | 2328475.93 | 10" | MAPLE | REGULATED | SITE GRADING |
| 194 | 157796.18 | 2328470.33 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 195 | 157755.63 | 2328461.92 | 8.5" | HARDWOOD | REGULATED | SITE GRADING |
| 196 | 157739.30 | 2328453.33 | 12.5" | HARDWOOD | REGULATED | SITE GRADING |
| 197 | 157747.33 | 2328449.07 | 11.5" | HARDWOOD | REGULATED | SITE GRADING |
| 199 | 157766.23 | 2328452.21 | 13" | PINE | REGULATED | SITE GRADING |
| 200 | 157789.04 | 2328447.79 | 12" | HARDWOOD | REGULATED | SITE GRADING |
| 201 | 157821.13 | 2328456.58 | 19" | PINE | REGULATED | SITE GRADING |
| 202 | 157831.61 | 2328432.75 | 16" | PINE | REGULATED | SITE GRADING |
| 203 | 157839.36 | 2328437.56 | 12" | HARDWOOD | REGULATED | SITE GRADING |
| 204 | 157837.16 | 2328467.10 | 9.5" | HARDWOOD | REGULATED | SITE GRADING |
| 205 | 157834.02 | 2328469.98 | 9" | HARDWOOD | REGULATED | SITE GRADING |
| 206 | 157847.00 | 2328477.66 | 8.5" | HARDWOOD | REGULATED | SITE GRADING |
| 207 | 157858.98 | 2328476.35 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 208 | 157844.84 | 2328516.72 | 8.5" | HARDWOOD | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 209 | 157850.09 | 2328526.03 | 9" | HARDWOOD | REGULATED | SITE GRADING |
| 211 | 157880.82 | 2328521.33 | 13" | PINE | REGULATED | SITE GRADING |
| 212 | 157885.72 | 2328500.49 | 9.5" | HARDWOOD | REGULATED | SITE GRADING |
| 213 | 157882.73 | 2328496.04 | 8.5" | HARDWOOD | REGULATED | SITE GRADING |
| 214 | 157897.20 | 2328497.02 | 9" | HARDWOOD | REGULATED | SITE GRADING |
| 215 | 157907.73 | 2328503.21 | 18" | PINE | REGULATED | SITE GRADING |
| 216 | 157908.92 | 2328482.75 | 19.5" | PINE | REGULATED | SITE GRADING |
| 217 | 157923.52 | 2328477.46 | 8.5" | HARDWOOD | REGULATED | SITE GRADING |
| 218 | 157934.41 | 2328481.06 | 18" | PINE | REGULATED | SITE GRADING |
| 219 | 157928.35 | 2328504.32 | 16.5" | PINE | REGULATED | SITE GRADING |
| 220 | 157925.63 | 2328567.38 | 16" | PINE | REGULATED | SITE GRADING |
| 221 | 157931.54 | 2328576.80 | 13" | PINE | REGULATED | SITE GRADING |
| 222 | 157936.11 | 2328602.28 | 14" | PINE | REGULATED | SITE GRADING |
| 223 | 157950.36 | 2328614.33 | 12.5" | PINE | REGULATED | SITE GRADING |
| 224 | 157955.22 | 2328598.23 | 10.5" | HARDWOOD | REGULATED | SITE GRADING |
| 225 | 157976.74 | 2328586.71 | 16.5" | PINE | REGULATED | SITE GRADING |
| 226 | 157985.19 | 2328551.59 | 15" | PINE | REGULATED | SITE GRADING |
| 227 | 158003.93 | 2328497.67 | 10.5" | HARDWOOD | REGULATED | SITE GRADING |
| 228 | 158009.99 | 2328466.99 | 17" | PINE | REGULATED | SITE GRADING |
| 229 | 157994.79 | 2328482.90 | 14" | PINE | REGULATED | SITE GRADING |
| 230 | 157952.04 | 2328465.27 | 26.5" | MAPLE | REGULATED | SITE GRADING |
| 231 | 157916.27 | 2328435.88 | 8" | JUNIPER | REGULATED | SITE GRADING |
| 232 | 157899.02 | 2328444.42 | 11" | HARDWOOD | REGULATED | SITE GRADING |
| 233 | 157897.22 | 2328441.69 | 11.5" | HARDWOOD | REGULATED | SITE GRADING |
| 234 | 157898.81 | 2328439.56 | 8.5" | HARDWOOD | REGULATED | SITE GRADING |
| 235 | 157899.59 | 2328424.98 | 5.5" | JUNIPER | REGULATED | SITE GRADING |
| 237 | 157902.92 | 2328422.66 | 7.5" | MAPLE | REGULATED | SITE GRADING |
| 239 | 157908.54 | 2328407.56 | 16.5" | MAPLE | REGULATED | SITE GRADING |
| 241 | 157915.79 | 2328411.59 | 7" | JUNIPER | REGULATED | SITE GRADING |
| 243 | 157891.29 | 2328395.42 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 245 | 157889.69 | 2328384.35 | 11" | HARDWOOD | REGULATED | SITE GRADING |
| 247 | 157911.12 | 2328363.67 | 14.5" | PINE | REGULATED | SITE GRADING |
| 249 | 157898.60 | 2328351.83 | 17" | PINE | REGULATED | SITE GRADING |
| 251 | 157871.62 | 2328426.77 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 253 | 157870.44 | 2328430.18 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 255 | 157846.99 | 2328425.80 | 13.5" | OAK | REGULATED | SITE GRADING |
| 257 | 157808.20 | 2328449.09 | 12" | HARDWOOD | REGULATED | SITE GRADING |
| 259 | 157798.79 | 2328431.10 | 10.5" | HARDWOOD | REGULATED | SITE GRADING |
| 261 | 157773.90 | 2328435.92 | 8.5" | HARDWOOD | REGULATED | SITE GRADING |
| 263 | 157773.11 | 2328433.53 | 11" | HARDWOOD | REGULATED | SITE GRADING |
| 265 | 157706.73 | 2328498.65 | 13" | PINE | REGULATED | SITE GRADING |
| 270 | 157871.66 | 2328398.05 | 12" | HARDWOOD | REGULATED | SITE GRADING |
| 272 | 157815.98 | 2328418.04 | 11" | HARDWOOD | REGULATED | SITE GRADING |
| 274 | 157815.53 | 2328424.94 | 12" | HARDWOOD | REGULATED | SITE GRADING |
| 276 | 157809.50 | 2328418.43 | 11" | HARDWOOD | REGULATED | SITE GRADING |
| 278 | 157798.22 | 2328427.13 | 10" | HARDWOOD | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 280 | 157793.88 | 2328426.81 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 282 | 157878.36 | 2328343.17 | 20" | PINE | REGULATED | SITE GRADING |
| 284 | 157869.76 | 2328319.39 | 21.5" | PINE | REGULATED | SITE GRADING |
| 285 | 157861.17 | 2328362.16 | 21" | PINE | REGULATED | SITE GRADING |
| 287 | 157855.10 | 2328354.39 | 7" | OAK | REGULATED | SITE GRADING |
| 289 | 157846.34 | 2328370.51 | 11" | OAK | REGULATED | SITE GRADING |
| 291 | 157847.74 | 2328380.15 | 12" | PINE | REGULATED | SITE GRADING |
| 293 | 157854.21 | 2328388.11 | 12.5" | PINE | REGULATED | SITE GRADING |
| 295 | 157809.06 | 2328403.27 | 15" | PINE | REGULATED | SITE GRADING |
| 297 | 157811.22 | 2328388.21 | 15" | PINE | REGULATED | SITE GRADING |
| 299 | 157822.47 | 2328378.88 | 17" | PINE | REGULATED | SITE GRADING |
| 301 | 157805.78 | 2328380.09 | 14" | PINE | REGULATED | SITE GRADING |
| 303 | 157812.97 | 2328378.25 | 7" | HARDWOOD | REGULATED | SITE GRADING |
| 305 | 157811.11 | 2328351.37 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 306 | 156931.80 | 2326910.59 | 12" | pine | REGULATED | SITE GRADING |
| 307 | 157848.91 | 2328334.13 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 308 | 156937.49 | 2326953.63 | 16" | pine | REGULATED | SITE GRADING |
| 309 | 157780.54 | 2328308.69 | 17" | PINE | REGULATED | SITE GRADING |
| 311 | 157780.18 | 2328314.03 | 13" | PINE | REGULATED | SITE GRADING |
| 313 | 157779.47 | 2328317.50 | 12" | PINE | REGULATED | SITE GRADING |
| 315 | 157769.10 | 2328314.57 | 14" | HARDWOOD | REGULATED | SITE GRADING |
| 317 | 157824.58 | 2328343.76 | 7" | OAK | REGULATED | SITE GRADING |
| 318 | 156951.66 | 2327102.76 | 12" | pine | REGULATED | SITE GRADING |
| 319 | 157810.61 | 2328354.46 | 7" | OAK | REGULATED | SITE GRADING |
| 320 | 156918.45 | 2327020.41 | 19" | pine | REGULATED | SITE GRADING |
| 321 | 157792.13 | 2328366.09 | 7" | OAK | REGULATED | SITE GRADING |
| 322 | 156887.86 | 2327025.66 | 13" | pine | REGULATED | SITE GRADING |
| 323 | 157794.81 | 2328365.90 | 13" | PINE | REGULATED | SITE GRADING |
| 324 | 156888.96 | 2327041.08 | 12" | pine | REGULATED | SITE GRADING |
| 325 | 157787.83 | 2328376.28 | 10.5" | OAK | REGULATED | SITE GRADING |
| 326 | 156882.22 | 2327059.88 | 14" | pine | REGULATED | SITE GRADING |
| 327 | 157774.22 | 2328416.51 | 9.5" | HARDWOOD | REGULATED | SITE GRADING |
| 328 | 156864.37 | 2327077.12 | 12" | pine | REGULATED | SITE GRADING |
| 329 | 157765.02 | 2328412.20 | 11.5" | HARDWOOD | REGULATED | SITE GRADING |
| 331 | 157764.15 | 2328416.58 | 11.5" | HARDWOOD | REGULATED | SITE GRADING |
| 333 | 157771.45 | 2328375.24 | 15.5" | PINE | REGULATED | SITE GRADING |
| 335 | 157765.11 | 2328372.30 | 13" | PINE | REGULATED | SITE GRADING |
| 336 | 156876.51 | 2326941.08 | 12" | pine | REGULATED | SITE GRADING |
| 337 | 157773.00 | 2328365.71 | 17.5" | PINE | REGULATED | SITE GRADING |
| 338 | 156866.90 | 2326895.53 | 13" | pine | REGULATED | SITE GRADING |
| 339 | 157767.07 | 2328355.59 | 23" | OAK | REGULATED | SITE GRADING |
| 340 | 156880.08 | 2326881.45 | 12" | pine | REGULATED | SITE GRADING |
| 341 | 157771.32 | 2328345.19 | 9" | OAK | REGULATED | SITE GRADING |
| 342 | 156902.35 | 2326822.04 | 14" | pine | REGULATED | SITE GRADING |
| 343 | 157753.67 | 2328338.18 | 12" | OAK | REGULATED | SITE GRADING |
| 344 | 156932.29 | 2326827.58 | 14" | pine | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 346 | 157764.73 | 2328310.56 | 7" | HARDWOOD | REGULATED | SITE GRADING |
| 348 | 157753.84 | 2328292.55 | 7.5" | OAK | REGULATED | SITE GRADING |
| 350 | 157701.06 | 2328301.14 | 25.5" | PINE | REGULATED | SITE GRADING |
| 352 | 157724.65 | 2328320.92 | 15.5" | PINE | REGULATED | SITE GRADING |
| 354 | 157706.30 | 2328337.22 | 14.5" | OAK | REGULATED | SITE GRADING |
| 356 | 157715.71 | 2328348.67 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 358 | 157726.62 | 2328341.08 | 8.5" | HARDWOOD | REGULATED | SITE GRADING |
| 362 | 157731.16 | 2328370.70 | 8" | OAK | REGULATED | SITE GRADING |
| 364 | 157739.92 | 2328381.75 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 366 | 157729.87 | 2328380.99 | 7.5" | HARDWOOD | REGULATED | SITE GRADING |
| 368 | 157722.51 | 2328377.47 | 7.5" | GUM | REGULATED | SITE GRADING |
| 369 | 157721.78 | 2328365.05 | 13" | HARDWOOD | REGULATED | SITE GRADING |
| 371 | 157718.77 | 2328365.25 | 7.5" | HARDWOOD | REGULATED | SITE GRADING |
| 373 | 157712.96 | 2328369.01 | 10.5" | GUM | REGULATED | SITE GRADING |
| 375 | 157743.72 | 2328394.23 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 377 | 157745.38 | 2328399.67 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 379 | 157743.25 | 2328413.38 | 15" | PINE | REGULATED | SITE GRADING |
| 381 | 157748.61 | 2328429.29 | 12" | pine | REGULATED | SITE GRADING |
| 383 | 157734.20 | 2328429.95 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 385 | 157728.51 | 2328447.43 | 10.5" | MAPLE | REGULATED | SITE GRADING |
| 387 | 157726.30 | 2328455.64 | 11.5" | JUNIPER | REGULATED | SITE GRADING |
| 388 | 156958.80 | 2327201.51 | 14" | pine | REGULATED | SITE GRADING |
| 389 | 157729.73 | 2328457.63 | 13" | HARDWOOD | REGULATED | SITE GRADING |
| 391 | 157720.49 | 2328466.73 | 6.5" | MAPLE | REGULATED | SITE GRADING |
| 393 | 157720.48 | 2328450.06 | 7" | MAPLE | REGULATED | SITE GRADING |
| 395 | 157718.58 | 2328436.16 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 397 | 157720.23 | 2328428.76 | 11" | HARDWOOD | REGULATED | SITE GRADING |
| 399 | 157717.36 | 2328426.33 | 8.5" | MAPLE | REGULATED | SITE GRADING |
| 401 | 157724.49 | 2328421.74 | 11" | MAPLE | REGULATED | SITE GRADING |
| 403 | 157718.24 | 2328418.02 | 11.5" | HARDWOOD | REGULATED | SITE GRADING |
| 405 | 157716.61 | 2328419.02 | 7" | HARDWOOD | REGULATED | SITE GRADING |
| 407 | 157710.32 | 2328402.51 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 409 | 157705.89 | 2328404.94 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 411 | 157698.39 | 2328397.38 | 10" | HARDWOOD | REGULATED | SITE GRADING |
| 413 | 157691.71 | 2328409.30 | 20" | JUNIPER | REGULATED | SITE GRADING |
| 415 | 157695.65 | 2328434.77 | 9" | HARDWOOD | REGULATED | SITE GRADING |
| 417 | 157689.90 | 2328435.44 | 9" | HARDWOOD | REGULATED | SITE GRADING |
| 419 | 157672.46 | 2328425.83 | 20" | HARDWOOD | REGULATED | SITE GRADING |
| 421 | 157684.64 | 2328409.28 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 423 | 157664.29 | 2328393.00 | 8" | OAK | REGULATED | SITE GRADING |
| 424 | 156949.00 | 2327269.37 | 12" | pine | REGULATED | SITE GRADING |
| 425 | 157654.16 | 2328374.16 | 13" | OAK | REGULATED | SITE GRADING |
| 426 | 156894.62 | 2327233.13 | 14" | pine | REGULATED | SITE GRADING |
| 427 | 157684.77 | 2328361.11 | 16" | PINE | REGULATED | SITE GRADING |
| 428 | 156896.01 | 2327255.63 | 14" | pine | REGULATED | SITE GRADING |
| 429 | 157692.42 | 2328356.15 | 16" | HARDWOOD | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 430 | 156849.73 | 2327235.88 | 13" | pine | REGULATED | SITE GRADING |
| 431 | 157684.86 | 2328349.40 | 15.5" | PINE | REGULATED | SITE GRADING |
| 432 | 156832.32 | 2327224.67 | 12" | pine | REGULATED | SITE GRADING |
| 433 | 156865.20 | 2327181.52 | 14" | pine | REGULATED | SITE GRADING |
| 434 | 157664.43 | 2328302.09 | 9.5" | OAK | REGULATED | SITE GRADING |
| 435 | 156936.79 | 2327351.94 | 12.5" | pine | REGULATED | SITE GRADING |
| 436 | 157665.20 | 2328328.29 | 7" | OAK | REGULATED | SITE GRADING |
| 438 | 157660.94 | 2328340.81 | 7.5" | OAK | REGULATED | SITE GRADING |
| 440 | 157657.34 | 2328341.34 | 7" | OAK | REGULATED | SITE GRADING |
| 441 | 157041.62 | 2327420.98 | 15" | pine | REGULATED | SITE GRADING |
| 442 | 157642.06 | 2328327.57 | 7" | HARDWOOD | REGULATED | SITE GRADING |
| 444 | 157632.60 | 2328318.32 | 12" | PINE | REGULATED | SITE GRADING |
| 446 | 157605.52 | 2328305.19 | 17" | PINE | REGULATED | SITE GRADING |
| 448 | 157614.55 | 2328362.78 | 13" | PINE | REGULATED | SITE GRADING |
| 450 | 157622.01 | 2328380.53 | 16" | OAK | REGULATED | SITE GRADING |
| 452 | 157627.36 | 2328396.93 | 14.5" | OAK | REGULATED | SITE GRADING |
| 453 | 157173.57 | 2327532.43 | 13" | pine | REGULATED | SITE GRADING |
| 454 | 157645.46 | 2328404.81 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 455 | 157145.92 | 2327496.30 | 13" | pine | REGULATED | SITE GRADING |
| 456 | 157649.94 | 2328405.19 | 13" | JUNIPER | REGULATED | SITE GRADING |
| 457 | 157083.41 | 2327471.54 | 15" | pine | REGULATED | SITE GRADING |
| 458 | 157650.54 | 2328409.89 | 18" | PINE | REGULATED | SITE GRADING |
| 459 | 157073.64 | 2327473.34 | 15" | pine | REGULATED | SITE GRADING |
| 460 | 157647.17 | 2328410.93 | 7.5" | HARDWOOD | REGULATED | SITE GRADING |
| 461 | 157068.32 | 2327484.15 | 14" | pine | REGULATED | SITE GRADING |
| 462 | 157660.74 | 2328438.30 | 16.5" | MAPLE | REGULATED | SITE GRADING |
| 463 | 157049.33 | 2327490.19 | 15" | pine | REGULATED | SITE GRADING |
| 464 | 157670.79 | 2328442.59 | 14" | PINE | REGULATED | SITE GRADING |
| 465 | 157045.32 | 2327509.27 | 15" | pine | REGULATED | SITE GRADING |
| 466 | 157632.74 | 2328466.93 | 14" | PINE | REGULATED | SITE GRADING |
| 467 | 157028.25 | 2327538.90 | | | REGULATED | SITE GRADING |
| 468 | 157647.82 | 2328458.81 | 12" | PINE | REGULATED | SITE GRADING |
| 469 | 157073.76 | 2327520.51 | 12" | pine | REGULATED | SITE GRADING |
| 470 | 157653.10 | 2328444.56 | 9" | MAPLE | REGULATED | SITE GRADING |
| 471 | 157125.68 | 2327514.11 | 14" | pine | REGULATED | SITE GRADING |
| 472 | 157635.56 | 2328446.25 | 12" | PINE | REGULATED | SITE GRADING |
| 473 | 157128.19 | 2327548.86 | 17" | pine | REGULATED | SITE GRADING |
| 474 | 157624.69 | 2328410.41 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 475 | 157164.78 | 2327588.78 | 16" | pine | REGULATED | SITE GRADING |
| 476 | 157565.89 | 2328320.73 | 16.5" | PINE | REGULATED | SITE GRADING |
| 477 | 157174.78 | 2327613.73 | 15" | pine | REGULATED | SITE GRADING |
| 478 | 157592.43 | 2328394.03 | 8.5" | OAK | REGULATED | SITE GRADING |
| 479 | 157163.06 | 2327611.77 | 13" | pine | REGULATED | SITE GRADING |
| 480 | 157601.05 | 2328404.54 | 11.5" | OAK | REGULATED | SITE GRADING |
| 482 | 157613.38 | 2328436.01 | 9" | OAK | REGULATED | SITE GRADING |
| 483 | 157084.59 | 2327572.01 | 12" | pine | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 484 | 157605.78 | 2328460.26 | 14.5" | OAK | REGULATED | SITE GRADING |
| 485 | 157036.11 | 2327567.74 | 16" | pine | REGULATED | SITE GRADING |
| 486 | 157620.12 | 2328467.15 | 13" | PINE | REGULATED | SITE GRADING |
| 487 | 157023.14 | 2327564.37 | 15" | pine | REGULATED | SITE GRADING |
| 488 | 157575.73 | 2328434.26 | 14.5" | PINE | REGULATED | SITE GRADING |
| 489 | 157017.98 | 2327608.52 | 15" | pine | REGULATED | ROADWAY\GRADING |
| 490 | 157572.20 | 2328432.15 | 16.5" | PINE | REGULATED | SITE GRADING |
| 491 | 157043.26 | 2327600.86 | 12" | pine | REGULATED | SITE GRADING |
| 492 | 157586.65 | 2328416.87 | 15.5" | PINE | REGULATED | SITE GRADING |
| 493 | 157051.17 | 2327596.48 | 13" | pine | REGULATED | SITE GRADING |
| 494 | 157584.57 | 2328408.02 | 13.5" | PINE | REGULATED | SITE GRADING |
| 495 | 157099.60 | 2327612.11 | 12" | pine | REGULATED | SITE GRADING |
| 496 | 157552.13 | 2328402.53 | 15" | PINE | REGULATED | SITE GRADING |
| 497 | 157127.20 | 2327604.71 | 13" | pine | REGULATED | SITE GRADING |
| 498 | 157558.27 | 2328412.95 | 18" | PINE | REGULATED | SITE GRADING |
| 499 | 157544.78 | 2328389.50 | 9" | OAK | REGULATED | SITE GRADING |
| 500 | 157116.77 | 2327683.33 | 13" | pine | REGULATED | ROADWAY\GRADING |
| 501 | 157536.62 | 2328369.21 | 7.5" | OAK | REGULATED | SITE GRADING |
| 502 | 157070.17 | 2327649.43 | 13" | pine | REGULATED | ROADWAY\GRADING |
| 503 | 157530.27 | 2328346.39 | 15.5" | PINE | REGULATED | SITE GRADING |
| 504 | 157046.83 | 2327627.20 | 15" | pine | REGULATED | ROADWAY\GRADING |
| 505 | 157524.81 | 2328338.14 | 13" | PINE | REGULATED | SITE GRADING |
| 506 | 157019.12 | 2327660.28 | 16" | pine | REGULATED | ROADWAY\GRADING |
| 507 | 157522.61 | 2328342.89 | 15" | PINE | REGULATED | ROADWAY\GRADING |
| 508 | 156981.48 | 2327610.66 | 13" | pine | REGULATED | ROADWAY\GRADING |
| 509 | 157512.03 | 2328361.40 | 13.5" | PINE | REGULATED | SITE GRADING |
| 510 | 156971.23 | 2327604.06 | 14" | pine | REGULATED | ROADWAY\GRADING |
| 511 | 157456.38 | 2328371.62 | 16.5" | PINE | REGULATED | SITE GRADING |
| 512 | 156935.90 | 2327585.28 | 17" | pine | REGULATED | SITE GRADING |
| 513 | 157410.74 | 2328396.57 | 18" | PINE | REGULATED | SITE GRADING |
| 514 | 156911.08 | 2327608.23 | 13" | pine | REGULATED | SITE GRADING |
| 515 | 157428.77 | 2328412.38 | 15" | PINE | REGULATED | SITE GRADING |
| 516 | 156907.26 | 2327614.42 | 12" | pine | REGULATED | SITE GRADING |
| 517 | 157476.04 | 2328412.57 | 18" | PINE | REGULATED | SITE GRADING |
| 519 | 157521.05 | 2328425.49 | 13.5" | PINE | REGULATED | SITE GRADING |
| 520 | 156952.42 | 2327654.82 | 14" | pine | REGULATED | SITE GRADING |
| 521 | 157512.20 | 2328446.86 | 11" | OAK | REGULATED | SITE GRADING |
| 522 | 156982.58 | 2327714.73 | 16" | pine | REGULATED | SITE GRADING |
| 523 | 157581.66 | 2328488.79 | 15" | PINE | REGULATED | SITE GRADING |
| 524 | 157088.18 | 2327703.39 | 14" | pine | REGULATED | SAVE |
| 525 | 157571.66 | 2328504.29 | 16" | PINE | REGULATED | SITE GRADING |
| 527 | 157553.45 | 2328493.09 | 12" | PINE | REGULATED | SITE GRADING |
| 529 | 157541.51 | 2328496.73 | 13" | PINE | REGULATED | SITE GRADING |
| 531 | 157540.64 | 2328518.92 | 12" | PINE | REGULATED | SITE GRADING |
| 533 | 157515.55 | 2328540.70 | 15.5" | PINE | REGULATED | SITE GRADING |
| 534 | 157061.38 | 2327986.91 | 12" | pine | REGULATED | ROADWAY\GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 535 | 157511.24 | 2328537.86 | 14.5" | PINE | REGULATED | SITE GRADING |
| 537 | 157516.75 | 2328525.31 | 13.5" | PINE | REGULATED | SITE GRADING |
| 539 | 157490.88 | 2328461.39 | 9" | OAK | REGULATED | SITE GRADING |
| 540 | 157481.96 | 2328449.47 | 12" | PINE | REGULATED | SITE GRADING |
| 541 | 157476.70 | 2328464.84 | 14.5" | PINE | REGULATED | SITE GRADING |
| 542 | 157467.39 | 2328496.16 | 12" | PINE | REGULATED | SITE GRADING |
| 543 | 157494.40 | 2328546.91 | 15" | PINE | REGULATED | SITE GRADING |
| 544 | 157524.83 | 2328552.27 | 13" | PINE | REGULATED | SITE GRADING |
| 545 | 157542.27 | 2328573.65 | 13" | PINE | REGULATED | SITE GRADING |
| 546 | 157549.56 | 2328598.33 | 14" | PINE | REGULATED | SITE GRADING |
| 547 | 157575.80 | 2328635.04 | 13.5" | PINE | REGULATED | SITE GRADING |
| 548 | 157584.78 | 2328637.44 | 14" | PINE | REGULATED | SITE GRADING |
| 549 | 157568.21 | 2328653.69 | 12.5" | PINE | REGULATED | SITE GRADING |
| 550 | 157544.32 | 2328657.19 | 7.5" | OAK | REGULATED | SITE GRADING |
| 551 | 157566.35 | 2328693.68 | 7" | OAK | REGULATED | SITE GRADING |
| 552 | 157520.40 | 2328690.58 | 15.5" | PINE | REGULATED | SITE GRADING |
| 553 | 157484.12 | 2328695.67 | 18" | PINE | REGULATED | SITE GRADING |
| 554 | 157492.72 | 2328676.20 | 13" | PINE | REGULATED | SITE GRADING |
| 555 | 157518.12 | 2328653.97 | 15.5" | PINE | REGULATED | SITE GRADING |
| 556 | 157534.40 | 2328639.94 | 17.5" | PINE | REGULATED | SITE GRADING |
| 557 | 157530.82 | 2328583.94 | 10.5" | OAK | REGULATED | SITE GRADING |
| 558 | 157508.54 | 2328595.74 | 12" | PINE | REGULATED | SITE GRADING |
| 559 | 157561.90 | 2328460.98 | 12" | PINE | REGULATED | SITE GRADING |
| 560 | 157534.01 | 2328479.81 | 13" | OAK | REGULATED | SITE GRADING |
| 561 | 157513.45 | 2328485.21 | 8" | OAK | REGULATED | SITE GRADING |
| 562 | 157505.44 | 2328515.75 | 12" | OAK | REGULATED | SITE GRADING |
| 563 | 157473.96 | 2328480.09 | 13.5" | PINE | REGULATED | SITE GRADING |
| 564 | 157466.89 | 2328508.03 | 15.5" | PINE | REGULATED | SITE GRADING |
| 565 | 157451.86 | 2328506.23 | 13" | PINE | REGULATED | SITE GRADING |
| 566 | 157462.59 | 2328527.94 | 12" | PINE | REGULATED | SITE GRADING |
| 567 | 157463.97 | 2328542.12 | 13" | PINE | REGULATED | SITE GRADING |
| 568 | 157462.03 | 2328549.28 | 12" | PINE | REGULATED | SITE GRADING |
| 569 | 157471.44 | 2328569.28 | 14" | PINE | REGULATED | SITE GRADING |
| 570 | 157482.46 | 2328585.33 | 12.5" | PINE | REGULATED | SITE GRADING |
| 571 | 157489.64 | 2328623.74 | 16" | PINE | REGULATED | SITE GRADING |
| 572 | 157484.48 | 2328631.79 | 14" | PINE | REGULATED | SITE GRADING |
| 573 | 157526.29 | 2328617.91 | 21.5" | PINE | REGULATED | SITE GRADING |
| 574 | 157582.36 | 2328683.78 | 16" | PINE | REGULATED | SITE GRADING |
| 575 | 157575.98 | 2328704.49 | 12" | PINE | REGULATED | SITE GRADING |
| 576 | 157545.40 | 2328730.82 | 12.5" | PINE | REGULATED | SITE GRADING |
| 577 | 157402.16 | 2328765.05 | 13.5" | OAK | REGULATED | SAVE |
| 578 | 157410.23 | 2328748.94 | 8" | OAK | REGULATED | SITE GRADING |
| 579 | 157376.20 | 2328727.97 | 12" | PINE | REGULATED | SITE GRADING |
| 580 | 157412.46 | 2328703.13 | 19" | PINE | REGULATED | SITE GRADING |
| 581 | 157436.53 | 2328677.27 | 14" | PINE | REGULATED | SITE GRADING |
| 582 | 157378.76 | 2328694.15 | 15" | PINE | REGULATED | SITE GRADING |

STORMWATER MANAGEMENT PLAN APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE ________
PERMIT # ________
SIGNED ____________________

**Approved Construction Plan**

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

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

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

# TREE PERMIT DRAWING

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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# ELEMENT BARCLAY WEST APARTMENTS

LOCATED IN THE CITY OF WILMINGTON — NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL L-3391 LAND SURVEYOR JONATHAN L. WAYNE
06-03-16

DEVELOPER: CK Gallery Park Wilmington, LLC
301 South College Street
Charlotte, NC 28202
(704) 342-9000

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

Date: 05/17/16
Scale: HORZ.: 1"= 50'
Drawn: J.WAYNE
Checked: J.WAYNE
Project No: 12498
Sheet No: T4
Of: T8

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 583 | 157376.79 | 2328689.50 | 13.5" | PINE | REGULATED | SITE GRADING |
| 584 | 157346.75 | 2328706.81 | 13.5" | PINE | REGULATED | SAVE |
| 585 | 157371.72 | 2328679.85 | 14" | PINE | REGULATED | SITE GRADING |
| 586 | 157345.47 | 2328593.82 | 16" | PINE | REGULATED | SITE GRADING |
| 587 | 157380.93 | 2328552.73 | 14.5" | PINE | REGULATED | SITE GRADING |
| 588 | 157399.44 | 2328564.66 | 17" | PINE | REGULATED | SITE GRADING |
| 589 | 157269.00 | 2328614.49 | 12" | PINE | REGULATED | SITE GRADING |
| 590 | 157256.86 | 2328610.59 | 13" | PINE | REGULATED | SITE GRADING |
| 592 | 157230.57 | 2328587.96 | 8.5" | OAK | REGULATED | SITE GRADING |
| 593 | 157239.18 | 2328582.31 | 8" | OAK | REGULATED | SITE GRADING |
| 594 | 157263.79 | 2328581.51 | 12.5" | PINE | REGULATED | SITE GRADING |
| 595 | 157280.92 | 2328575.17 | 17.5" | PINE | REGULATED | SITE GRADING |
| 596 | 157284.47 | 2328537.48 | 19" | PINE | REGULATED | SITE GRADING |
| 597 | 157255.57 | 2328542.56 | 14" | PINE | REGULATED | SITE GRADING |
| 598 | 157221.32 | 2328558.35 | 15.5" | PINE | REGULATED | SITE GRADING |
| 599 | 157202.75 | 2328562.90 | 12.5" | PINE | REGULATED | SITE GRADING |
| 600 | 157244.47 | 2328522.43 | 15.5" | PINE | REGULATED | SITE GRADING |
| 601 | 157294.00 | 2328472.22 | 18" | PINE | REGULATED | SITE GRADING |
| 602 | 157341.11 | 2328471.76 | 14.5" | PINE | REGULATED | SITE GRADING |
| 603 | 157408.51 | 2328470.79 | 14.5" | PINE | REGULATED | SITE GRADING |
| 604 | 157396.40 | 2328445.75 | 12.5" | PINE | REGULATED | SITE GRADING |
| 605 | 157401.43 | 2328423.24 | 11" | OAK | REGULATED | SITE GRADING |
| 606 | 157357.19 | 2328436.11 | 15" | PINE | REGULATED | SITE GRADING |
| 607 | 157310.60 | 2328430.71 | 16.5" | PINE | REGULATED | SITE GRADING |
| 608 | 157278.47 | 2328421.65 | 12" | PINE | REGULATED | SITE GRADING |
| 609 | 157262.00 | 2328470.54 | 13.5" | PINE | REGULATED | SITE GRADING |
| 610 | 157213.74 | 2328508.43 | 14.5" | PINE | REGULATED | SITE GRADING |
| 611 | 157202.06 | 2328519.07 | 13.5" | PINE | REGULATED | SITE GRADING |
| 612 | 157194.78 | 2328505.87 | 15" | PINE | REGULATED | SITE GRADING |
| 613 | 157134.19 | 2328501.52 | 8" | OAK | REGULATED | SAVE |
| 614 | 157144.94 | 2328479.71 | 8.5" | OAK | REGULATED | SITE GRADING |
| 615 | 157141.19 | 2328457.88 | 13.5" | PINE | REGULATED | SITE GRADING |
| 616 | 157116.69 | 2328458.47 | 8" | OAK | REGULATED | SITE GRADING |
| 617 | 157107.94 | 2328478.13 | 8.5" | OAK | REGULATED | SAVE |
| 618 | 157113.50 | 2328421.24 | 15" | PINE | REGULATED | SITE GRADING |
| 619 | 157116.17 | 2328407.97 | 7" | OAK | REGULATED | SITE GRADING |
| 620 | 157024.82 | 2328394.44 | 7.5" | OAK | REGULATED | SAVE |
| 621 | 157063.00 | 2328352.95 | 16" | PINE | REGULATED | SITE GRADING |
| 622 | 157072.13 | 2328354.73 | 13" | PINE | REGULATED | SITE GRADING |
| 623 | 157098.37 | 2328319.92 | 15" | PINE | REGULATED | SITE GRADING |
| 624 | 157124.58 | 2328308.19 | 19" | PINE | REGULATED | SAVE |
| 625 | 157094.59 | 2328377.01 | 9" | OAK | REGULATED | SITE GRADING |
| 626 | 157132.55 | 2328351.45 | 13.5" | PINE | REGULATED | SITE GRADING |
| 627 | 157173.59 | 2328386.94 | 14.5" | PINE | REGULATED | SITE GRADING |
| 628 | 157190.05 | 2328404.32 | 14" | PINE | REGULATED | SITE GRADING |
| 629 | 157202.63 | 2328417.40 | 14" | PINE | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 630 | 157209.85 | 2328431.73 | 12.5" | PINE | REGULATED | SITE GRADING |
| 631 | 157227.79 | 2328439.50 | 15.5" | PINE | REGULATED | SITE GRADING |
| 632 | 157217.52 | 2328455.99 | 15" | PINE | REGULATED | SITE GRADING |
| 633 | 157235.40 | 2328402.44 | 12.5" | PINE | REGULATED | SITE GRADING |
| 634 | 157245.41 | 2328414.10 | 13" | PINE | REGULATED | SITE GRADING |
| 635 | 157205.93 | 2328390.55 | 13" | PINE | REGULATED | SITE GRADING |
| 636 | 157211.50 | 2328379.50 | 14" | PINE | REGULATED | SITE GRADING |
| 637 | 157202.07 | 2328332.60 | 14" | PINE | REGULATED | SITE GRADING |
| 639 | 157178.17 | 2328253.29 | 14" | PINE | REGULATED | SITE GRADING |
| 640 | 157185.19 | 2328183.79 | 12.5" | PINE | REGULATED | SITE GRADING |
| 641 | 157190.99 | 2328237.74 | 15" | PINE | REGULATED | SITE GRADING |
| 642 | 157202.58 | 2328253.80 | 14" | PINE | REGULATED | SITE GRADING |
| 643 | 157214.54 | 2328199.07 | 13.5" | PINE | REGULATED | SITE GRADING |
| 644 | 157225.65 | 2328210.49 | 13.5" | PINE | REGULATED | SITE GRADING |
| 645 | 157273.40 | 2328245.67 | 14" | PINE | REGULATED | SITE GRADING |
| 646 | 157231.07 | 2328279.27 | 17.5" | PINE | REGULATED | SITE GRADING |
| 647 | 157235.34 | 2328313.14 | 16" | PINE | REGULATED | SITE GRADING |
| 648 | 157258.31 | 2328286.71 | 12" | PINE | REGULATED | SITE GRADING |
| 649 | 157287.33 | 2328297.82 | 15" | PINE | REGULATED | SITE GRADING |
| 650 | 157296.87 | 2328283.27 | 9" | OAK | REGULATED | SITE GRADING |
| 651 | 157326.90 | 2328291.17 | 15" | PINE | REGULATED | SITE GRADING |
| 652 | 157322.94 | 2328278.09 | 12" | PINE | REGULATED | SITE GRADING |
| 653 | 157315.76 | 2328345.64 | 19" | PINE | REGULATED | SITE GRADING |
| 654 | 157278.81 | 2328343.24 | 15" | PINE | REGULATED | SITE GRADING |
| 655 | 157252.79 | 2328335.42 | 14.5" | PINE | REGULATED | SITE GRADING |
| 656 | 157330.06 | 2328399.22 | 17.5" | PINE | REGULATED | SITE GRADING |
| 657 | 157352.19 | 2328387.85 | 15" | PINE | REGULATED | SITE GRADING |
| 658 | 157381.54 | 2328340.62 | 18" | PINE | REGULATED | SITE GRADING |
| 659 | 157352.42 | 2328330.38 | 13.5" | PINE | REGULATED | SITE GRADING |
| 660 | 157374.81 | 2328302.68 | 15.5" | PINE | REGULATED | SITE GRADING |
| 661 | 157393.63 | 2328282.44 | 13.5" | PINE | REGULATED | SITE GRADING |
| 662 | 157446.52 | 2328292.56 | 18" | PINE | REGULATED | SITE GRADING |
| 663 | 157458.39 | 2328322.21 | 19" | PINE | REGULATED | SITE GRADING |
| 664 | 157414.53 | 2328339.79 | 14" | PINE | REGULATED | SITE GRADING |
| 665 | 157408.76 | 2328371.90 | 17" | PINE | REGULATED | SITE GRADING |
| 666 | 157488.81 | 2328322.31 | 13.5" | PINE | REGULATED | SITE GRADING |
| 667 | 157533.50 | 2328311.70 | 12.5" | PINE | REGULATED | ROADWAY\GRADING |
| 668 | 157543.72 | 2328287.93 | 15.5" | PINE | REGULATED | ROADWAY\GRADING |
| 669 | 157499.07 | 2328243.97 | 17.5" | PINE | REGULATED | SITE GRADING |
| 670 | 157442.73 | 2328245.07 | 20" | PINE | REGULATED | SITE GRADING |
| 671 | 157413.27 | 2328243.79 | 14" | PINE | REGULATED | SITE GRADING |
| 672 | 157389.66 | 2328256.87 | 12" | PINE | REGULATED | SITE GRADING |
| 673 | 157370.25 | 2328248.95 | 13" | PINE | REGULATED | SITE GRADING |
| 674 | 157286.91 | 2328171.71 | 15" | PINE | REGULATED | SITE GRADING |
| 675 | 157234.48 | 2328176.63 | 12" | PINE | REGULATED | SITE GRADING |
| 676 | 157248.97 | 2328113.43 | 14" | PINE | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 677 | 157290.81 | 2328067.19 | 15" | PINE | REGULATED | SITE GRADING |
| 678 | 157309.52 | 2328094.92 | 14" | PINE | REGULATED | SITE GRADING |
| 679 | 157322.65 | 2328190.55 | 12" | PINE | REGULATED | SITE GRADING |
| 680 | 157336.09 | 2328186.55 | 16" | PINE | REGULATED | SITE GRADING |
| 681 | 157326.59 | 2328125.16 | 19" | PINE | REGULATED | SITE GRADING |
| 682 | 157344.33 | 2328075.95 | 13.5" | PINE | REGULATED | SITE GRADING |
| 683 | 157388.63 | 2328092.30 | 15.5" | PINE | REGULATED | SITE GRADING |
| 684 | 157393.39 | 2328139.55 | 8.5" | OAK | REGULATED | SITE GRADING |
| 685 | 157376.57 | 2328217.38 | 13" | PINE | REGULATED | SITE GRADING |
| 686 | 157408.09 | 2328233.55 | 12.5" | PINE | REGULATED | SITE GRADING |
| 687 | 157411.44 | 2328202.25 | 16.5" | PINE | REGULATED | SITE GRADING |
| 688 | 157443.50 | 2328207.56 | 16.5" | PINE | REGULATED | SITE GRADING |
| 689 | 157452.05 | 2328217.31 | 14" | PINE | REGULATED | SITE GRADING |
| 690 | 157458.47 | 2328190.49 | 8" | OAK | REGULATED | SITE GRADING |
| 691 | 157444.47 | 2328171.06 | 15.5" | PINE | REGULATED | SITE GRADING |
| 692 | 157513.81 | 2328158.60 | 12" | PINE | REGULATED | SITE GRADING |
| 693 | 157510.72 | 2328170.62 | 12" | PINE | REGULATED | SITE GRADING |
| 694 | 157518.04 | 2328191.47 | 15" | PINE | REGULATED | SITE GRADING |
| 695 | 157661.73 | 2328275.37 | 8" | OAK | REGULATED | SITE GRADING |
| 696 | 157612.37 | 2328243.05 | 13.5" | PINE | REGULATED | SITE GRADING |
| 697 | 157554.10 | 2328203.43 | 8" | OAK | REGULATED | ROADWAY\GRADING |
| 698 | 157567.09 | 2328188.12 | 12.5" | PINE | REGULATED | ROADWAY\GRADING |
| 699 | 157450.00 | 2328088.09 | 12" | OAK | REGULATED | SITE GRADING |
| 700 | 157415.05 | 2328085.22 | 15" | PINE | REGULATED | SITE GRADING |
| 701 | 157406.76 | 2328068.84 | 14.5" | PINE | REGULATED | SITE GRADING |
| 702 | 157405.47 | 2328042.66 | 15.5" | PINE | REGULATED | SITE GRADING |
| 703 | 157381.38 | 2328058.40 | 12.5" | PINE | REGULATED | SITE GRADING |
| 704 | 157363.92 | 2328031.06 | 17" | PINE | REGULATED | SITE GRADING |
| 706 | 157306.47 | 2328021.81 | 13" | PINE | REGULATED | SITE GRADING |
| 707 | 157118.73 | 2328370.01 | 12.5" | PINE | REGULATED | SITE GRADING |
| 708 | 157478.12 | 2328276.78 | 14.5" | PINE | REGULATED | SITE GRADING |
| 709 | 157540.89 | 2328234.34 | 12" | PINE | REGULATED | ROADWAY\GRADING |
| 710 | 157556.97 | 2328218.98 | 13" | PINE | REGULATED | ROADWAY\GRADING |
| 711 | 157585.06 | 2328235.36 | 22.5" | PINE | REGULATED | ROADWAY\GRADING |
| 712 | 157594.88 | 2328195.61 | 15" | PINE | REGULATED | SITE GRADING |
| 713 | 157623.26 | 2328191.18 | 7.5" | OAK | REGULATED | SITE GRADING |
| 714 | 157446.94 | 2328135.57 | 16.5" | PINE | REGULATED | SITE GRADING |
| 715 | 157382.92 | 2327996.84 | 16" | PINE | REGULATED | ROADWAY\GRADING |
| 716 | 157343.58 | 2327980.11 | 13" | PINE | REGULATED | ROADWAY\GRADING |
| 718 | 157117.11 | 2328002.31 | 15.5" | PINE | REGULATED | ROADWAY\GRADING |
| 719 | 157094.68 | 2328032.89 | 14.5" | PINE | REGULATED | ROADWAY\GRADING |
| 720 | 157107.58 | 2327961.53 | 16.5" | PINE | REGULATED | SITE GRADING |
| 721 | 157124.83 | 2327911.67 | 13.5" | PINE | REGULATED | SITE GRADING |
| 722 | 157092.82 | 2327860.88 | 16.5" | PINE | REGULATED | SITE GRADING |
| 723 | 157095.03 | 2327814.70 | 16" | PINE | REGULATED | SITE GRADING |
| 724 | 157054.26 | 2327787.28 | 16" | PINE | REGULATED | ROADWAY\GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 725 | 157091.10 | 2327771.27 | 16.5" | PINE | REGULATED | SAVE |
| 726 | 157115.15 | 2327800.42 | 15" | PINE | REGULATED | SITE GRADING |
| 727 | 157085.25 | 2327742.57 | 12.5" | PINE | REGULATED | SAVE |
| 728 | 157126.33 | 2327708.77 | 17.5" | PINE | REGULATED | SAVE |
| 729 | 157153.55 | 2327722.94 | 12.5" | PINE | REGULATED | SAVE |
| 730 | 157127.34 | 2327752.92 | 13.5" | PINE | REGULATED | SAVE |
| 731 | 157163.12 | 2327814.10 | 13" | PINE | REGULATED | SITE GRADING |
| 732 | 157185.54 | 2327909.22 | 13" | PINE | REGULATED | SITE GRADING |
| 733 | 157294.29 | 2327940.47 | 13" | PINE | REGULATED | SITE GRADING |
| 734 | 157344.71 | 2327937.37 | 15.5" | PINE | REGULATED | SITE GRADING |
| 735 | 157428.01 | 2327993.07 | 15" | PINE | REGULATED | ROADWAY\GRADING |
| 736 | 157449.66 | 2328026.01 | 15" | PINE | REGULATED | SITE GRADING |
| 737 | 157508.84 | 2328039.02 | 16.5" | PINE | REGULATED | SITE GRADING |
| 738 | 157527.83 | 2328071.78 | 16" | PINE | REGULATED | SITE GRADING |
| 739 | 157627.23 | 2328159.89 | 17" | PINE | REGULATED | SITE GRADING |
| 740 | 157682.61 | 2328231.61 | 19.5" | PINE | REGULATED | SITE GRADING |
| 741 | 157717.71 | 2328258.79 | 13" | PINE | REGULATED | SITE GRADING |
| 742 | 157717.49 | 2328279.16 | 12.5" | PINE | REGULATED | SITE GRADING |
| 743 | 157778.29 | 2328277.01 | 8" | MAPLE | REGULATED | SITE GRADING |
| 744 | 157816.91 | 2328319.05 | 8" | HARDWOOD | REGULATED | SITE GRADING |
| 745 | 157744.24 | 2328261.53 | 13" | PINE | REGULATED | SITE GRADING |
| 746 | 157716.37 | 2328227.93 | 8" | OAK | REGULATED | SITE GRADING |
| 747 | 157757.03 | 2328205.36 | 15" | PINE | REGULATED | SITE GRADING |
| 748 | 157755.12 | 2328199.09 | 14.5" | PINE | REGULATED | SITE GRADING |
| 749 | 157704.91 | 2328154.57 | 15" | PINE | REGULATED | SITE GRADING |
| 750 | 157666.63 | 2328148.23 | 13" | PINE | REGULATED | SITE GRADING |
| 751 | 157663.76 | 2328131.36 | 17" | PINE | REGULATED | SITE GRADING |
| 752 | 157643.83 | 2328107.13 | 16" | PINE | REGULATED | SITE GRADING |
| 753 | 157553.78 | 2328056.93 | 14.5" | PINE | REGULATED | ROADWAY\GRADING |
| 754 | 157572.71 | 2328032.44 | 20" | PINE | REGULATED | ROADWAY\GRADING |
| 755 | 157542.67 | 2328040.24 | 13" | PINE | REGULATED | ROADWAY\GRADING |
| 756 | 157448.46 | 2327962.95 | 14" | PINE | REGULATED | SITE GRADING |
| 757 | 157431.85 | 2327957.17 | 13" | PINE | REGULATED | SITE GRADING |
| 758 | 157432.18 | 2327961.32 | 12" | PINE | REGULATED | SITE GRADING |
| 759 | 157415.85 | 2327954.85 | 12" | PINE | REGULATED | SITE GRADING |
| 760 | 157426.38 | 2327927.43 | 16" | PINE | REGULATED | SITE GRADING |
| 761 | 157423.60 | 2327908.34 | 14" | PINE | REGULATED | SITE GRADING |
| 762 | 157389.66 | 2327930.68 | 14" | PINE | REGULATED | SITE GRADING |
| 763 | 157394.98 | 2327885.68 | 12.5" | PINE | REGULATED | SITE GRADING |
| 764 | 157373.01 | 2327897.48 | 13.5" | PINE | REGULATED | SITE GRADING |
| 765 | 157327.35 | 2327882.58 | 13." | PINE | REGULATED | SITE GRADING |
| 767 | 157143.64 | 2327666.63 | 13" | PINE | REGULATED | ROADWAY\GRADING |
| 768 | 157312.63 | 2327747.07 | 13" | PINE | REGULATED | SITE GRADING |
| 769 | 157290.95 | 2327770.47 | 13" | PINE | REGULATED | SITE GRADING |
| 770 | 157345.56 | 2327745.35 | 13" | PINE | REGULATED | SITE GRADING |
| 771 | 157344.03 | 2327767.63 | 12" | PINE | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 772 | 157349.78 | 2327787.92 | 15" | PINE | REGULATED | SITE GRADING |
| 774 | 157378.71 | 2327805.31 | 15" | PINE | REGULATED | SITE GRADING |
| 775 | 157384.78 | 2327843.18 | 17" | PINE | REGULATED | SITE GRADING |
| 776 | 157430.99 | 2327825.78 | 16.5" | PINE | REGULATED | SITE GRADING |
| 777 | 157481.03 | 2327857.94 | 15" | PINE | REGULATED | SITE GRADING |
| 778 | 157480.68 | 2327874.98 | 16" | PINE | REGULATED | SITE GRADING |
| 779 | 157478.49 | 2327909.21 | 13.5" | PINE | REGULATED | SITE GRADING |
| 780 | 157501.14 | 2327927.35 | 12.5" | PINE | REGULATED | SITE GRADING |
| 781 | 157502.78 | 2327958.70 | 15" | PINE | REGULATED | SITE GRADING |
| 782 | 157528.76 | 2327967.00 | 13" | PINE | REGULATED | SITE GRADING |
| 783 | 157542.16 | 2327954.63 | 14" | PINE | REGULATED | SITE GRADING |
| 784 | 157540.43 | 2327937.74 | 12.5" | PINE | REGULATED | SITE GRADING |
| 785 | 157539.20 | 2327897.24 | 15" | PINE | REGULATED | SITE GRADING |
| 786 | 157564.04 | 2327916.37 | 13" | PINE | REGULATED | SITE GRADING |
| 787 | 157599.49 | 2327934.40 | 17.5" | PINE | REGULATED | SITE GRADING |
| 788 | 157559.89 | 2327981.41 | 13" | PINE | REGULATED | ROADWAY\GRADING |
| 789 | 157575.22 | 2328009.58 | 17" | PINE | REGULATED | ROADWAY\GRADING |
| 790 | 157627.15 | 2327980.01 | 19" | PINE | REGULATED | SITE GRADING |
| 791 | 157687.61 | 2327976.72 | 20.5" | PINE | REGULATED | ROADWAY\GRADING |
| 792 | 157697.23 | 2327984.66 | 9.5" | JUNIPER | REGULATED | ROADWAY\GRADING |
| 793 | 157682.32 | 2327996.62 | 16.5" | PINE | REGULATED | ROADWAY\GRADING |
| 794 | 157668.81 | 2328008.64 | 14" | PINE | REGULATED | ROADWAY\GRADING |
| 795 | 157671.40 | 2328016.23 | 18" | PINE | REGULATED | ROADWAY\GRADING |
| 796 | 157635.47 | 2328022.60 | 12" | PINE | REGULATED | ROADWAY\GRADING |
| 797 | 157666.52 | 2328061.88 | 19" | PINE | REGULATED | SITE GRADING |
| 798 | 157702.02 | 2328038.19 | 20" | PINE | REGULATED | ROADWAY\GRADING |
| 799 | 157711.78 | 2328029.01 | 9" | JUNIPER | REGULATED | ROADWAY\GRADING |
| 800 | 157729.88 | 2328023.12 | 14" | PINE | REGULATED | ROADWAY\GRADING |
| 801 | 157722.01 | 2328007.47 | 10" | OAK | REGULATED | ROADWAY\GRADING |
| 802 | 157762.57 | 2327995.32 | 15" | PINE | REGULATED | ROADWAY\GRADING |
| 803 | 157787.27 | 2328007.96 | 8" | OAK | REGULATED | ROADWAY\GRADING |
| 804 | 157800.33 | 2328043.82 | 14" | PINE | REGULATED | ROADWAY\GRADING |
| 805 | 157737.84 | 2328053.09 | 15" | PINE | REGULATED | SITE GRADING |
| 806 | 157741.23 | 2328069.56 | 12.5" | PINE | REGULATED | SITE GRADING |
| 807 | 157732.02 | 2328100.03 | 12.5" | PINE | REGULATED | SITE GRADING |
| 808 | 157705.68 | 2328000.33 | 9" | OAK | REGULATED | SITE GRADING |
| 810 | 157697.83 | 2328097.36 | 12.5" | PINE | REGULATED | SITE GRADING |
| 811 | 157716.27 | 2328110.63 | 12" | PINE | REGULATED | SITE GRADING |
| 812 | 157746.50 | 2328117.52 | 13.5" | PINE | REGULATED | SITE GRADING |
| 813 | 157768.73 | 2328126.69 | 14.5" | PINE | REGULATED | SITE GRADING |
| 814 | 157766.48 | 2328134.45 | 16" | PINE | REGULATED | SITE GRADING |
| 815 | 157785.19 | 2328137.26 | 9" | JUNIPER | REGULATED | SITE GRADING |
| 816 | 157791.94 | 2328100.92 | 13.5" | PINE | REGULATED | SITE GRADING |
| 817 | 157833.30 | 2328089.31 | 14" | PINE | REGULATED | SITE GRADING |
| 818 | 157861.12 | 2328106.65 | 9" | OAK | REGULATED | SITE GRADING |
| 819 | 157855.46 | 2328077.61 | 12.5" | PINE | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 820 | 157856.60 | 2328067.72 | 8.5" | OAK | REGULATED | SITE GRADING |
| 821 | 157857.18 | 2328048.88 | 16" | PINE | REGULATED | ROADWAY\GRADING |
| 822 | 157833.15 | 2328045.01 | 8.5" | OAK | REGULATED | ROADWAY\GRADING |
| 823 | 157859.56 | 2327965.34 | 13.5" | PINE | REGULATED | SITE GRADING |
| 824 | 157832.05 | 2327956.78 | 8" | OAK | REGULATED | SITE GRADING |
| 825 | 157812.92 | 2327925.00 | 14.5" | PINE | REGULATED | SITE GRADING |
| 826 | 157793.03 | 2327945.01 | 17" | PINE | REGULATED | SITE GRADING |
| 827 | 157744.84 | 2327890.72 | 8" | OAK | REGULATED | SITE GRADING |
| 828 | 157732.33 | 2327936.06 | 22" | PINE | REGULATED | SITE GRADING |
| 829 | 157709.61 | 2327890.47 | 19" | PINE | REGULATED | SITE GRADING |
| 830 | 157704.87 | 2327873.71 | 11" | JUNIPER | REGULATED | SITE GRADING |
| 831 | 157685.70 | 2327890.84 | 15" | PINE | REGULATED | SITE GRADING |
| 832 | 157689.48 | 2327896.13 | 12.5" | PINE | REGULATED | SITE GRADING |
| 833 | 157682.34 | 2327921.99 | 14" | PINE | REGULATED | SITE GRADING |
| 834 | 157706.74 | 2327952.72 | 8" | OAK | REGULATED | SITE GRADING |
| 835 | 157654.93 | 2327934.46 | 13" | PINE | REGULATED | SITE GRADING |
| 836 | 157682.54 | 2327952.95 | 8" | OAK | REGULATED | SITE GRADING |
| 837 | 157656.85 | 2327913.96 | 18" | PINE | REGULATED | SITE GRADING |
| 838 | 157663.90 | 2327888.06 | 13" | PINE | REGULATED | SITE GRADING |
| 839 | 157667.94 | 2327882.03 | 12.5" | PINE | REGULATED | SITE GRADING |
| 840 | 157677.10 | 2327848.55 | 15.5" | PINE | REGULATED | SITE GRADING |
| 841 | 157637.13 | 2327850.66 | 14.5" | PINE | REGULATED | SITE GRADING |
| 842 | 157617.92 | 2327801.43 | 8" | OAK | REGULATED | SITE GRADING |
| 843 | 157619.68 | 2327841.64 | 14" | PINE | REGULATED | SITE GRADING |
| 844 | 157622.57 | 2327799.23 | 13" | PINE | REGULATED | SITE GRADING |
| 845 | 157605.18 | 2327824.92 | 13.5" | PINE | REGULATED | SITE GRADING |
| 846 | 157590.99 | 2327841.66 | 13" | PINE | REGULATED | SITE GRADING |
| 847 | 157560.65 | 2327852.85 | 18" | PINE | REGULATED | SITE GRADING |
| 848 | 157527.71 | 2327859.78 | 15" | PINE | REGULATED | SITE GRADING |
| 849 | 157552.78 | 2327818.47 | 18" | PINE | REGULATED | SITE GRADING |
| 850 | 157582.23 | 2327809.39 | 15" | PINE | REGULATED | SITE GRADING |
| 851 | 157573.79 | 2327788.91 | 12" | PINE | REGULATED | SITE GRADING |
| 853 | 157409.47 | 2327794.06 | 17" | PINE | REGULATED | SITE GRADING |
| 854 | 158140.92 | 2328119.11 | 14" | PINE | REGULATED | SITE GRADING |
| 855 | 158109.58 | 2328175.60 | 12" | PINE | REGULATED | SITE GRADING |
| 856 | 158119.21 | 2328190.43 | 14" | PINE | REGULATED | SITE GRADING |
| 857 | 158264.11 | 2328241.14 | 16" | PINE | REGULATED | SITE GRADING |
| 858 | 158221.65 | 2328266.49 | 12" | PINE | REGULATED | SITE GRADING |
| 859 | 158035.09 | 2328411.67 | 18" | PINE | REGULATED | SITE GRADING |
| 860 | 158057.24 | 2328459.59 | 17" | PINE | REGULATED | SITE GRADING |
| 861 | 158050.33 | 2328489.00 | 12" | PINE | REGULATED | SITE GRADING |
| 862 | 157983.07 | 2328426.42 | 9" | OAK | REGULATED | SITE GRADING |
| 863 | 157964.60 | 2328425.94 | 14" | HARDWOOD | REGULATED | SITE GRADING |
| 864 | 157956.79 | 2328398.16 | 16" | SPLIT | REGULATED | SITE GRADING |
| 865 | 157995.32 | 2328396.16 | 13" | PINE | REGULATED | SITE GRADING |
| 866 | 157974.88 | 2328379.40 | 13.5" | PINE | REGULATED | SITE GRADING |

## ELEMENT BARCLAY WEST APARTMENTS
### TREE REMOVAL DATA

| TREE ID | NORTHING | EASTING | SIZE | TYPE | DESIGNATION | SAVE\REASON FOR REMOVAL |
|---|---|---|---|---|---|---|
| 867 | 157978.90 | 2328334.78 | 16" | PINE | REGULATED | SITE GRADING |
| 868 | 157954.55 | 2328375.23 | 9" | HARDWOOD | REGULATED | SITE GRADING |
| 869 | 157934.13 | 2328371.35 | 10.5" | HARDWOOD | REGULATED | SITE GRADING |
| 870 | 157923.61 | 2328398.07 | 18" | MAPLE | REGULATED | SITE GRADING |
| 871 | 157923.61 | 2328398.07 | 18" | MAPLE | REGULATED | SITE GRADING |
| 872 | 157932.27 | 2328335.54 | 14" | PINE | REGULATED | SITE GRADING |
| 873 | 157930.61 | 2328323.02 | 16.5" | PINE | REGULATED | SITE GRADING |
| 874 | 157940.72 | 2328311.05 | 13.5" | PINE | REGULATED | SITE GRADING |
| 875 | 157941.41 | 2328256.88 | 14" | PINE | REGULATED | SITE GRADING |
| 876 | 157987.55 | 2328299.20 | 12.5" | PINE | REGULATED | SITE GRADING |
| 877 | 158009.93 | 2328242.04 | 15.5" | PINE | REGULATED | SITE GRADING |
| 878 | 157840.02 | 2327989.06 | 14" | PINE | REGULATED | SITE GRADING |
| 879 | 157782.06 | 2327975.34 | 23" | PINE | REGULATED | SITE GRADING |
| 880 | 157752.39 | 2327979.76 | 15" | PINE | REGULATED | SITE GRADING |
| 881 | 157743.18 | 2327972.86 | 9.5" | OAK | REGULATED | SITE GRADING |
| 882 | 157730.68 | 2327964.86 | 11.5" | OAK | REGULATED | SITE GRADING |
| 883 | 157857.55 | 2327887.57 | 14.5" | PINE | REGULATED | SITE GRADING |
| 884 | 157881.84 | 2327886.71 | 25" | PINE | REGULATED | SITE GRADING |
| 885 | 157719.01 | 2327759.28 | 14.5" | PINE | REGULATED | SITE GRADING |
| 886 | 157777.93 | 2327827.72 | 13" | JUNIPER | REGULATED | SITE GRADING |
| 887 | 157797.11 | 2327849.74 | 10" | JUNIPER | REGULATED | SITE GRADING |
| 888 | 157782.16 | 2327880.78 | 9" | JUNIPER | REGULATED | SITE GRADING |
| 1130 | 157186.47 | 2327636.65 | 15.5" | pine | REGULATED | ROADWAY\GRADING |
| 1131 | 157198.23 | 2327666.05 | 12" | pine | REGULATED | ROADWAY\GRADING |
| 1448 | 156900.56 | 2326685.50 | 13.5" | pine | REGULATED | SITE GRADING |
| 889 | 156841.81 | 2327103.22 | 19" | PINE | REGULATED | SITE GRADING |
| 890 | 156849.69 | 2327235.89 | 12" | PINE | REGULATED | SITE GRADING |

763 TOTAL REGULATED TREES
20 SAVED

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

# TREE PERMIT DRAWING

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |
| | | |
| | | |

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## ELEMENT BARCLAY WEST APARTMENTS

LOCATED IN THE CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA

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

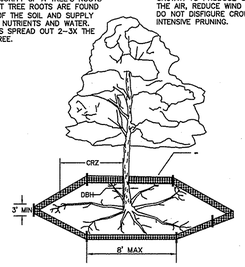
DEVELOPER: CK Gallery Park Wilmington, LLC
301 South College Street
Charlotte, NC 28202
(704) 342-9000

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

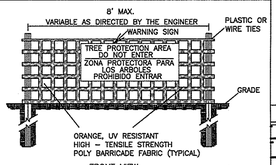
Date: 05/17/16
Scale: HORZ.: 1"= 50'
Drawn: J.WAYNE
Checked: J.WAYNE
Project No: 12498
Sheet No: T5
Of: T5

NOTE:
THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2–3X THE HEIGHT OF THE TREE.

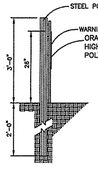
NOTE:
CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.



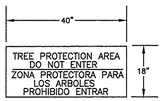

NOTES:
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATTS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF $500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.



FRONT VIEW



SIDE VIEW



WARNING SIGN DETAIL

NOTES:
1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

CONSTRUCTION ENTRANCE ROAD
EXISTING TREE REMOVAL
PERMIT 1998-4-16 (7/14-8/31)

CAMERON PROPERTIES
BK 1316 PG 590
TAX PARCEL No.R06500-003-004-000

S 45°21'24" E 948.60'

S 44°38'34" W 855.44'

PUBLIC R/W

DRIVE

DRIVE

GEORGE ANDERSON DR.

CHIPPENHAM DR.

WINDGROVE PARK HOA COMMON AREA
BOOK 3523 PAGE 213
ZONED – MF–L
USE – COMMON AREA

TEMPLE BAPTIST CHURCH
BOOK 5108 PAGE 2293
ZONED – MF–M
USE – RELIGIOUS ACTIVITIES (CHURCH)

CAMERON PROPERTIES
BOOK 5343 PAGE 664
ZONED – PD
USE – VACANT

SOUTH 17th STREET

PUBLIC R/W

MULTI-USE PATH

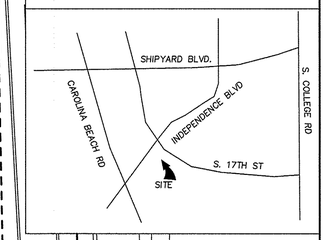
SIGNAL SWITCH BOX

SIGNAL

SIGNAL SWITCH BOX

SIGNAL

LOCATION MAP
NOT TO SCALE




NC GRID NORTH NAD 83

STORMWATER MANAGEMENT PLAN APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED_____

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

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

LEGEND

- 618 — TREE ID NUMBER
- o — TREE TO BE REMOVED
- TREE TO BE SAVED
- CZR (CRITICAL ROOT ZONE RADIUS = 1 FT. FOR EVERY 1 INCH DBH OF TREE AT TRUNK)
- — TP — TP — TP — TREE PROTECTION FENCE
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE

SITE INVENTORY NOTES
1. SOILS TYPE – Mu, Le, Rm, Ly
   Mu – MURVILLE FINE SAND
   Le – IEON SAND
   Rm – RIMINI SAND
   Ly – LYNN HAVEN FINE SAND
2. THIS PROPERTY IS NOT IMPACTED BY ANY AEC.
3. NO CONSERVATION OVERLAY BOUNDARIES
4. SITE DOES NOT APPEAR TO BE IMPACTED BY ANY HISTORIC OR ARCHEOLOGICAL SIGNIFICANCE.
5. NO EVIDENCE OF CEMETERIES FOUND
6. NO JURISDICTIONAL WETLAND ON SITE
7. NO EVIDENCE OF ENDANGERED SPECIES FOUND ON SITE
8. THIS PROPERY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEMA FIRM 3720312500J DATE APRIL 3, 2006
9. CAMA LAND USE CLASSIFICATION – URBAN
10. SITE DRAINS INTO BARNARDS CREEK, INDEX No. 18–80 CLASSIFICATION C:Sw

GENERAL NOTES
1. TAX PARCEL No. R06500–003–004–000
2. AREA BY COORD. METHOD
3. SITE ADDRESS – 3501 INDEPENDENCE BLVD.
4. SURVEYED JUNE – DEC. 2014
5. ALL DISTANCES ARE HORIZONTAL
6. ALL ELEVATIONS ARE NGVD 1988
7. CAMA LAND USE CLASSIFICATION – URBAN

TREE PRESERVATION NOTES
1. TREE PRESERVATION / REMOVAL PERMIT IS REQUIRED PRIOR TO CLEARING AND LAND DISTURBANCE
2. ANY REGULATED OR SIGNIFICANT TREES WITHIN STREETYARDS, AND ALL TREES WITHIN BUFFER YARDS OR BEYOND LIMITS OF ESSENTIAL SITE IMPROVEMENTS ARE REQUIRED TO BE PROTECTED AND PRESERVED. EXISTING TREES WITHIN CONSTRUCTION LIMITS SHOULD BE SPADED AND REPLANTED ELSEWHERE ON SITE WHEN FEASIBLE.
3. NO EQUIPMENT IS ALLOWED ON THE SITE UNTILL ALL TREE PRETECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED. PROTECTION FENCING SHALL BE INSTALLED AROUND ALL INDIVIDUAL TREES OR GROVES OF TREES THAT HAVE BEEN DESIGNATED FOR PRESERVATION AND PORTECTION.
4. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
5. 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.

PRELIMINARY

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

# TREE PERMIT DRAWING

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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## ELEMENT BARCLAY WEST APARTMENTS

LOCATED IN THE CITY OF WILMINGTON — NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL L-3391 SURVEYOR JONATHAN L. WAYNE 6/15/16

DEVELOPER: CK Gallery Park Wilmington, LLC
301 South College Street
Charlotte, NC 28202
(704) 342–9000

HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS, ENGINEERS & LAND PLANNERS
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343–8002

| | |
|---|---|
| Date: | 05/17/16 |
| Scale: HORZ.: | 1"= 50' |
| Drawn: | J.WAYNE |
| Checked: | J.WAYNE |
| Project No: | 12498 |
| Sheet No: | T6 |
| Of: | T8 |

| CURVE | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING | DELTA ANGLE | TANGENT |
|---|---|---|---|---|---|---|
| C1 | 480.00' | 44.72' | 44.70' | N 00°29'58" E | 5°20'17" | 22.38' |
| C2 | 3470.00' | 47.26' | 47.26' | S 03°31'14" E | 0°46'49" | 23.63' |
| C3 | 3470.00' | 78.93' | 78.93' | N 02°28'44" W | 1°18'12" | 39.47' |
| C4 | 37.00' | 38.17' | 36.50' | S 27°43'29" W | 59°06'14" | 20.98' |
| C5 | 92.00' | 95.00' | 90.84' | N 27°41'40" E | 59°09'52" | 52.23' |
| C6 | 50.00' | 39.47' | 38.46' | S 20°43'44" W | 45°13'59" | 20.83' |
| C7 | 60.00' | 53.28' | 51.54' | N 21°13'03" W | 50°52'28" | 28.54' |
| C8 | 115.00' | 102.11' | 98.79' | N 21°13'03" W | 50°52'28" | 54.70' |
| C9 | 20.00' | 31.42' | 28.28' | S 40°46'49" E | 90°00'00" | 20.00' |

GALLERY PARK BLVD.
PROPOSED PUBLIC R/W
UNDER CONSTRUCTION

CAMERON PROPERTIES
BK 1316 PG 590
TAX PARCEL No.R06500-003-004-000

EXISTING TREE REMOVAL
PERMIT T99 14-16 (TPP 14-93)
LIMITS

EXISTING TREE REMOVAL
PERMIT T99 14-16 (TPP 14-93)

EXISTING TREE REMOVAL
PERMIT T99 14-16 (TPP 14-93)
LIMITS

CONSTRUCTION
ENTRANCE ROAD
LIMITS

LIMITS

S 45°21'24" E 180.74'

BK 1316 PG 590

S 45°21'24" E 948.60'

SOUTH 17th STREET
PUBLIC RIGHT OF WAY

MULTI-USE PATH

CAMERON PROPERTIES
BOOK 5343 PAGE 664
ZONED - PD
USE - VACANT

NC GRID NORTH NAD 83

STORMWATER MANAGEMENT
PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED _____

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

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

LEGEND

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- TREE TO BE SAVED
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- — TP — TP — TP — TREE PROTECTION FENCE
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE

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1. SOILS TYPE - Mu, Le, Rm, Ly
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   Le - IEON SAND
   Rm - RIMINI SAND
   Ly - LYNN HAVEN FINE SAND
2. THIS PROPERTY IS NOT IMPACTED BY ANY AEC.
3. NO CONSERVATION OVERLAY BOUNDARIES
4. SITE DOES NOT APPEAR TO BE IMPACTED BY ANY HISTORIC OR ARCHEOLOGICAL SIGNIFICANCE.
5. NO EVIDENCE OF CEMETERIES FOUND
6. NO JURISDICTIONAL WETLAND ON SITE
7. NO EVIDENCE OF ENDANGERED SPECIES FOUND ON SITE
8. THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEMA FIRM 3720312500J DATE APRIL 3, 2006
9. CAMA LAND USE CLASSIFICATION - URBAN
10. SITE DRAINS INTO BARNARDS CREEK, INDEX No. 18-80 CLASSIFICATION C:Sw

GENERAL NOTES

1. TAX PARCEL No. R06500-003-004-000
2. AREA BY COORD. METHOD
3. SITE ADDRESS - 3501 INDEPENDENCE BLVD.
4. SURVEYED JUNE - NOV. 2013
5. ALL DISTANCES ARE HORIZONTAL
6. ALL ELEVATIONS ARE NGVD 1988
7. CAMA LAND USE CLASSIFICATION - URBAN

TREE PRESERVATION NOTES

1. TREE PRESERVATION / REMOVAL PERMIT IS REQUIRED PRIOR TO CLEARING AND LAND DISTURBANCE
2. ANY REGULATED OR SIGNIFICANT TREES WITHIN STREETYARDS, AND ALL TREES WITHIN BUFFER YARDS OR BEYOND LIMITS OF ESSENTIAL SITE IMPROVEMENTS ARE REQUIRED TO BE PROTECTED AND PRESERVED. EXISTING TREES WITHIN CONSTRUCTION LIMITS SHOULD BE SPADED AND REPLANTED ELSEWHERE ON SITE WHEN FEASIBLE.
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PRELIMINARY

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

# TREE PERMIT DRAWING

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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# ELEMENT BARCLAY WEST APARTMENTS

LOCATED IN THE CITY OF WILMINGTON — NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL L-3391 ENGINEER JONATHAN C. WAYNE 6/13/16

DEVELOPER: CK Gallery Park Wilmington, LLC
301 South College Street
Charlotte, NC 28202
(704) 342-9000

HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS, ENGINEERS & LAND PLANNERS
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PHONE: (910) 343-8002

Date: 05/17/16
Scale: HORZ.: 1"= 50'
Drawn: J.WAYNE
Checked: J.WAYNE
Project No: 12498
Sheet No: T7 T8
Of: _____

STORMWATER MANAGEMENT
PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED_____

**Approved Construction Plan**

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

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

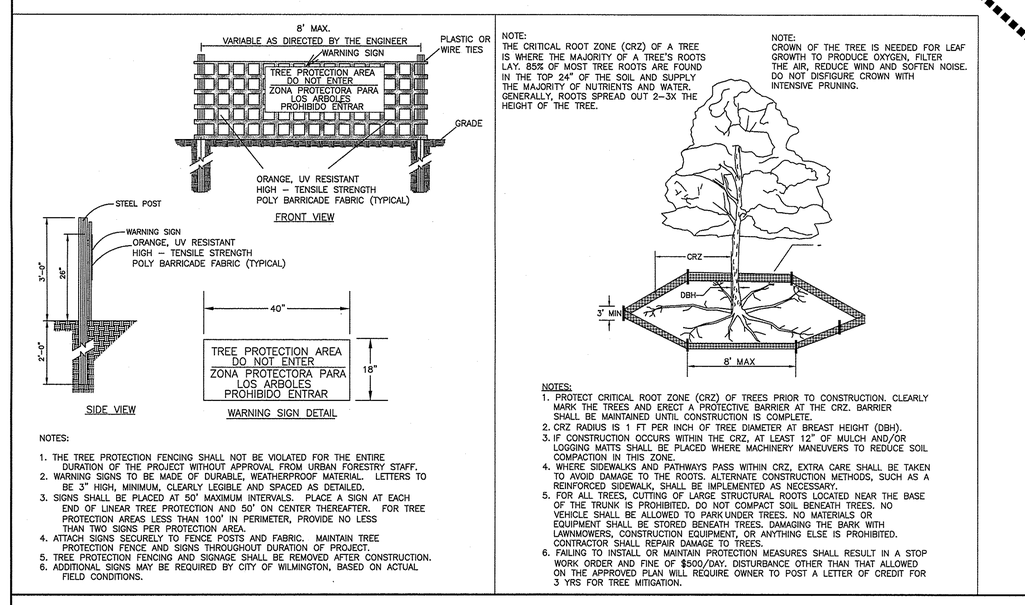
STORM WATER POND
EXISTING TREE REMOVAL
PERMIT 199 14-16 (TPP 14-93)

CAMERON PROPERTIES
BK 1316 PG 590
TAX PARCEL No.R06500-003-004-000

CONSTRUCTION ENTRANCE ROAD
EXISTING TREE REMOVAL
PERMIT 199 14-16 (TPP 14-93)

LIMITS

NC GRID NAD 83




NOTES:

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LEGEND

- 618 — TREE ID NUMBER
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- TREE TO BE SAVED
- CZR (CRITICAL ROOT ZONE RADIUS = 1 FT. FOR EVERY 1 INCH DBH OF TREE AT TRUNK)
- — TP — TP — TP — TREE PROTECTION FENCE
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE

SITE INVENTORY NOTES

1. SOILS TYPE - Mu, Le, Rm, Ly
   Mu - MURVILLE FINE SAND
   Le - LEON SAND
   Rm - RIMINI SAND
   Ly - LYNN HAVEN FINE SAND
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9. CAMA LAND USE CLASSIFICATION - URBAN
10. SITE DRAINS INTO BARNARDS CREEK, INDEX No. 18-80 CLASSIFICATION C; Sw

GENERAL NOTES

1. TAX PARCEL No. R06500-003-004-000
2. AREA BY COORD. METHOD
3. SITE ADDRESS - 3501 INDEPENDENCE BLVD.
4. SURVEYED JUNE - DEC. 2014
5. ALL DISTANCES ARE HORIZONTAL
6. ALL ELEVATIONS ARE NGVD 1988
7. CAMA LAND USE CLASSIFICATION - URBAN

TREE PRESERVATION NOTES

1. TREE PRESERVATION / REMOVAL PERMIT IS REQUIRED PRIOR TO CLEARING AND LAND DISTURBANCE
2. ANY REGULATED OR SIGNIFICANT TREES WITHIN STREETYARDS, AND ALL TREES WITHIN BUFFER YARDS OR BEYOND LIMITS OF ESSENTIAL SITE IMPROVEMENTS ARE REQUIRED TO BE PROTECTED AND PRESERVED. EXISTING TREES WITHIN CONSTRUCTION LIMITS SHOULD BE SPADED AND REPLANTED ELSEWHERE ON SITE WHEN FEASIBLE.
3. NO EQUIPMENT IS ALLOWED ON THE SITE UNTILL ALL TREE PRETECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED. PROTECTION FENCING SHALL BE INSTALLED AROUND ALL INDIVIDUAL TREES OR GROVES OF TREES THAT HAVE BEEN DESIGNATED FOR PRESERVATION AND PORTECTION.
4. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
5. 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.

PRELIMINARY

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

# TREE PERMIT DRAWING

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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## ELEMENT BARCLAY WEST APARTMENTS

LOCATED IN THE CITY OF WILMINGTON — NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL L-3391 LAND SURVEYOR JONATHAN L. WAYNE
6/24/16

DEVELOPER: CK Gallery Park Wilmington, LLC
301 South College Street
Charlotte, NC 28202
(704) 342-9000

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

| | |
|---|---|
| Date: | 05/17/16 |
| Scale: HORZ.: | 1"= 50' |
| Drawn: | J.WAYNE |
| Checked: | J.WAYNE |
| Project No: | 12498 |
| Sheet No: | T8 |
| Of: | T8 |

| Approved Construction Plan | |
|---|---|
| Name | Date |
| Planning | |
| Traffic | |
| Fire | |

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED _____

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

NORTH
NC GRID
NAD 83

# SOUTH 17th STREET

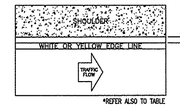
150' PUBLIC RIGHT OF WAY

WHITE MINI-SKIP
WHITE SOLID
NEW TURN LANE
12'
EXISTING CURB TO BE REMOVED MATCH EXISTING PAVEMENT
R35.00'
MULTI USE PATH
100' TAPER
100' STORAGE
HC
STOP BARS
STOP SIGN
MULTI USE PATH

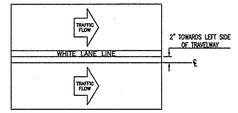
GALLERY PARK BLVD.

5' WALK
WHITE MINI-SKIP
WHITE SOLID
WHITE DASHED
WHITE MINI-SKIP
5' WALK

## EDGE LINE OFFSET DETAIL




## LANE LINE OFFSET DETAIL




## CENTER LINE OFFSET DETAIL

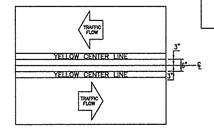



**TABLE 1**
EDGE LINE OFFSETS FOR 2-LANE, 2-WAY ROADWAYS WITH UN-PAVED SHOULDERS

| WIDTH OF TRAVEL PAVEMENT | MAX. EDGE LINE OFFSET FROM E. O. P. | MINIMUM LANE WIDTH |
|---|---|---|
| 16' – 20' | 2" | 8' – 10' |
| 22' | 2" | 11' |
| 24' | 1' | 11' |
| 26' | 2' | 11' |
| 28' | 2' | 12' |
| 30' | 3' | 12' |
| 32' | 4' | 12' |

| | | |
|---|---|---|
| DATE: 3-20-98 | STANDARD DETAIL | CITY OF WILMINGTON TRAFFIC ENGINEERING |
| SCALE: NONE | PAVEMENT MARKINGS *Offsets* | |
| DRAWN BY: RLB | | |
| REVIEWED BY: DRB/JRF | | SD 16-02 |
| SD 16-02 | | |

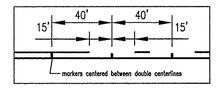
**PAVEMENT MARKER SPACING CHART**

| TYPE OF PAVEMENT MARKING | TYPICAL SPACING in FT (speed limit <= 45mph) |
|---|---|
| Centerlines--along through lanes | 40 |
| Centerlines--along horizontal curves | per Traffic Engineering |
| Skip Lines--along through lanes | 40 |
| Turn Lanes--Skip Lines | 40 |
| Turn Lanes--Solid Lane Lines | 20 |
| Turn Lanes--Centerlines | 40 |
| Painted Islands--White | 20 |
| Painted Islands--Yellow | 40 |
| Raised Median Islands | 40 |
| Other Markings | per Traffic Engineering |

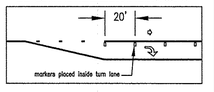
## GENERAL NOTES

- CRYSTAL/RED MARKERS SHALL BE USED ALONG WHITE PAVEMENT MARKINGS UNLESS OTHERWISE DIRECTED BY TRAFFIC ENGINEERING. RED SIDE OF MARKER TO FACE "WRONG-WAY" TRAFFIC.
- PAVEMENT MARKERS SHOULD NOT BE PLACED CLOSER THAN 2 INCHES TO A PAVEMENT CONSTRUCTION JOINT, EXCEPT WHEN PLACED BETWEEN DOUBLE YELLOW CENTERLINES.
- PAVEMENT MARKERS SHALL NOT BE PLACED DIRECTLY ON PAVEMENT MARKINGS.
- PAVEMENT MARKERS USED IN CONJUNCTION WITH DOUBLE YELLOW CENTERLINES SHALL BE PLACED MID-WAY BETWEEN THE LINES, WITH A GAP BETWEEN MARKER AND MARKINGS.

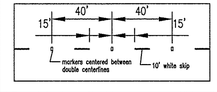
PLACEMENT ALONG YELLOW CENTERLINES




PLACEMENT ALONG TURN LANE LINES




PLACEMENT ALONG WHITE SKIP LINES




LEGEND
- DIRECTION OF TRAFFIC FLOW
- AMBER / AMBER MARKER
- CRYSTAL / RED MARKER

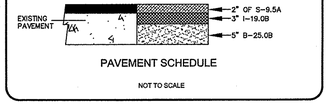
| | | |
|---|---|---|
| DATE: 3-11-2002 | STANDARD DETAIL | CITY OF WILMINGTON TRAFFIC ENGINEERING |
| SCALE: NONE | PAVEMENT MARKINGS *Raised Pavement Markers* | |
| DRAWN BY: RLB | | |
| REVIEWED BY: DRB/JRF | | SD 16-10 |
| SD 16-10 | | |

OTHER DETAILS SHOWN ARE TYPICAL OF INSTALLATIONS REQUIRED BY THE CITY OF WILMINGTON. THIS SHEET DOES NOT PURPORT TO SHOW ALL REQUIRED CONSTRUCTION DETAILS, BUT RATHER SERVES AS A GUIDE. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL CITY AND STATE CODES AND CONSTRUCTION STANDARDS.

CONTRACTOR RESPONSIBLE FOR COORDINATING ALL TRAFFIC CONTROL WITH CITY OF WILMINGTON.

ALL STRIPING TO BE THERMOPLASTIC.
ALL EXISTING PAVEMENT MARKINGS REQUIRING REMOVAL TO BE REMOVED BY GRINDING.

ADDITIONAL PAVEMENT




PAVEMENT SCHEDULE

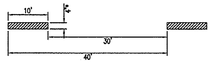
NOT TO SCALE

*STANDARD NOTES:*

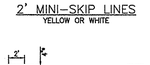
1. *Information concerning underground utilities was obtained from available records. It shall be the responsibility of the Contractor to determine the exact elevations and locations of all existing utilities at all crossings prior to commencing trench excavation. If actual clearances are less than indicated on Plan, the Contractor shall contact the Design Engineer before proceeding with construction. Any condition discovered or existing that would necessitate a modification of these plans shall be brought to the attention of the Design Engineer before proceeding with construction.*
2. *NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NC ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.*
3. *Contractor shall adjust all manholes, valve and curb boxes to the final grade upon completion of all construction. Any boxes damaged or otherwise disturbed by the Contractor shall be repaired at the expense of the Contractor.*
4. *No geotechnical testing has been performed on site. No warranty is made for suitability of subgrade, and undercut and any required replacement with suitable material shall be the responsibility of the contractor.*
5. *Extreme care shall be taken to ensure minimum separations at all utility crossings.*
6. *Contractor is responsible for obtaining all required permits.*

EDGE LINE — 4"/8" — YELLOW OR WHITE
TURN LANE LINE — 4"/8" — WHITE
CENTER LINE — 4"/8" — YELLOW
GORE LINE — 8"/12" — WHITE
DIAGONAL LINE — 8" — YELLOW OR WHITE
CROSSWALK LINE — 12"/24" — WHITE
STOP OR TRANSVERSE BAR — 24" — WHITE

10' SKIP LINES — YELLOW OR WHITE



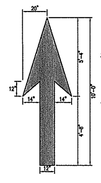

2' MINI-SKIP LINES — YELLOW OR WHITE



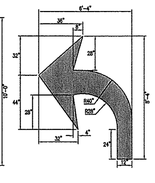

*NOTE: WHERE TWO WIDTHS ARE INDICATED, THE FIRST WIDTH APPLIES FOR A "NORMAL" WIDTH LINE. THE SECOND WIDTH APPLIES FOR A "WIDE" LINE. "WIDE" LINES ARE REQUIRED WHEN DESIGNATED IN THE PLANS, OR WHEN DIRECTED BY THE ENGINEER.

| | | |
|---|---|---|
| DATE: 3-20-98 | STANDARD DETAIL | CITY OF WILMINGTON TRAFFIC ENGINEERING |
| SCALE: NONE | PAVEMENT MARKINGS *Line Types* | |
| DRAWN BY: RLB | | |
| REVIEWED BY: DRB/JRF | | SD 16-01 |
| SD 16-01 | | |

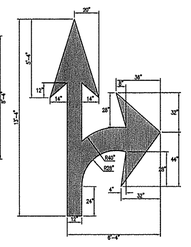
STRAIGHT ARROW



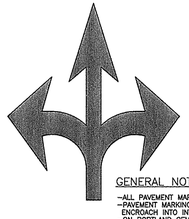

RIGHT OR LEFT TURN ARROW



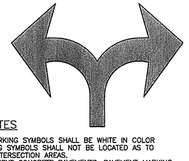

COMBINATION STRAIGHT AND LEFT OR RIGHT TURN ARROW




COMBINATION LEFT AND STRAIGHT AND RIGHT TURN ARROW



COMBINATION LEFT AND RIGHT TURN ARROW



GENERAL NOTES

- ALL PAVEMENT MARKING SYMBOLS SHALL BE WHITE IN COLOR
- PAVEMENT MARKING SYMBOLS SHALL NOT BE LOCATED AS TO ENCROACH INTO INTERSECTION AREAS.
- ON PORTLAND CEMENT CONCRETE PAVEMENTS, PAVEMENT MARKING SYMBOLS SHALL NOT BE PLACED ACROSS TRANSVERSE EXPANSION JOINTS UNLESS APPROVED BY THE ENGINEER.

| | | |
|---|---|---|
| DATE: 3-20-98 | STANDARD DETAIL | CITY OF WILMINGTON TRAFFIC ENGINEERING |
| SCALE: NONE | PAVEMENT MARKINGS *Arrow Symbols* | |
| DRAWN BY: RLB | | |
| REVIEWED BY: DRB/JRF | | SD 16-03 |
| SD 16-03 | | |

0FT 20FT 40FT 60FT

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

PHASE 1
TIA REQUIRED IMPROVEMENTS

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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# BARCLAY WEST SITE DRIVE 2

LOCATED IN THE CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA

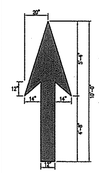
NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID S. HOLLIS
6-21-16

OWNER: CAMERON PROPERTIES
P.O. BOX 3649
WILMINGTON, N.C. 28406 PH 910-762-2676

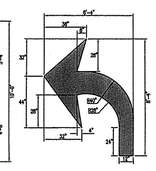
HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS, ENGINEERS & LAND PLANNERS
1123 FLORAL PARKWAY
WILMINGTON, N.C. 28403
PHONE: (910) 343-8002

Date: 06/22/16
Scale: HORZ.: 1"= 20'
Drawn: JLW
Checked: DSH
Project No: 12498
Sheet No: TIA1 TIA2
Of: _____

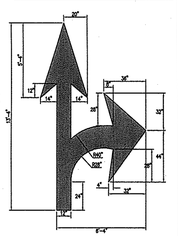
STRAIGHT ARROW



RIGHT OR LEFT TURN ARROW

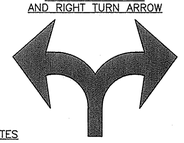


COMBINATION STRAIGHT AND LEFT OR RIGHT TURN ARROW



COMBINATION LEFT AND STRAIGHT AND RIGHT TURN ARROW

COMBINATION LEFT AND RIGHT TURN ARROW



GENERAL NOTES

- ALL PAVEMENT MARKING SYMBOLS SHALL BE WHITE IN COLOR
- PAVEMENT MARKING SYMBOLS SHALL NOT BE LOCATED AS TO ENCROACH INTO INTERSECTION AREAS.
- ON PORTLAND CEMENT CONCRETE PAVEMENTS, PAVEMENT MARKING SYMBOLS SHALL NOT BE PLACED ACROSS TRANSVERSE EXPANSION JOINTS UNLESS APPROVED BY THE ENGINEER.

| | | | |
|---|---|---|---|
| DATE: | 3-20-98 | STANDARD DETAIL | CITY OF WILMINGTON TRAFFIC ENGINEERING |
| SCALE: | NONE | PAVEMENT MARKINGS | |
| DRAWN BY: | RLB | *Arrow Symbols* | |
| REVIEWED BY: | DRB/JRF | | |
| SD 16-03 | | SD 16-03 | |

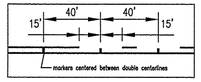
## PAVEMENT MARKER SPACING CHART

| TYPE OF PAVEMENT MARKING | TYPICAL SPACING in FT (speed limit <= 45mph) |
|---|---|
| Centerlines---along through lanes | 40 |
| Centerlines---along horizontal curves | per Traffic Engineering |
| Skip Lines---along through lanes | 40 |
| Turn Lanes---Skip Lines | 40 |
| Turn Lanes---Solid Lane Lines | 20 |
| Turn Lanes---Centerlines | 40 |
| Painted Islands--White | 20 |
| Painted Islands--Yellow | 40 |
| Raised Median Islands | 40 |
| Other Markings | per Traffic Engineering |

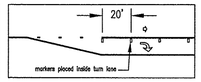
GENERAL NOTES

- CRYSTAL/RED MARKERS SHALL BE USED ALONG WHITE PAVEMENT MARKINGS UNLESS OTHERWISE DIRECTED BY TRAFFIC ENGINEERING. RED SIDE OF MARKER TO FACE "WRONG-WAY" TRAFFIC.
- PAVEMENT MARKERS SHOULD NOT BE PLACED CLOSER THAN 2 INCHES TO A PAVEMENT CONSTRUCTION JOINT, EXCEPT WHEN PLACED BETWEEN DOUBLE YELLOW CENTERLINES.
- PAVEMENT MARKERS SHALL NOT BE PLACED DIRECTLY ON PAVEMENT MARKINGS.
- PAVEMENT MARKERS USED IN CONJUNCTION WITH DOUBLE YELLOW CENTERLINES SHALL BE PLACED MID-WAY BETWEEN THE LINES, WITH A GAP BETWEEN MARKER AND MARKINGS.

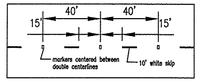
PLACEMENT ALONG YELLOW CENTERLINES




PLACEMENT ALONG TURN LANE LINES



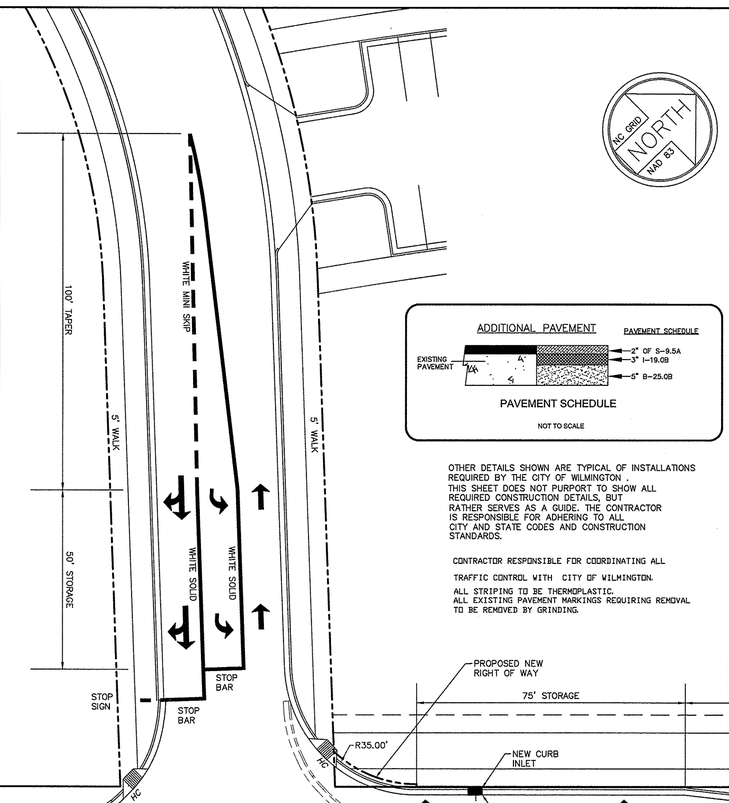

PLACEMENT ALONG WHITE SKIP LINES




LEGEND

O-O DIRECTION OF TRAFFIC FLOW
B AMBER / AMBER MARKER
C CRYSTAL / RED MARKER

| | | | |
|---|---|---|---|
| DATE: | 3-11-2002 | STANDARD DETAIL | CITY OF WILMINGTON TRAFFIC ENGINEERING |
| SCALE: | NONE | PAVEMENT MARKINGS | |
| DRAWN BY: | RLB | *Raised Pavement Markers* | |
| REVIEWED BY: | DRB/JRF | | |
| SD 16-10 | | SD 16-10 | |







ADDITIONAL PAVEMENT




PAVEMENT SCHEDULE

- 4" OF S-9.5A
- 3" I-19.0B
- 5" B-25.0B

PAVEMENT SCHEDULE

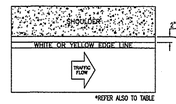
NOT TO SCALE

OTHER DETAILS SHOWN ARE TYPICAL OF INSTALLATIONS REQUIRED BY THE CITY OF WILMINGTON . THIS SHEET DOES NOT PURPORT TO SHOW ALL REQUIRED CONSTRUCTION DETAILS, BUT RATHER SERVES AS A GUIDE. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL CITY AND STATE CODES AND CONSTRUCTION STANDARDS.

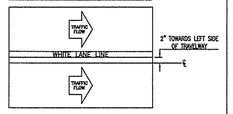
CONTRACTOR RESPONSIBLE FOR COORDINATING ALL TRAFFIC CONTROL WITH CITY OF WILMINGTON.

ALL STRIPING TO BE THERMOPLASTIC.
ALL EXISTING PAVEMENT MARKINGS REQUIRING REMOVAL TO BE REMOVED BY GRINDING.

EDGE LINE OFFSET DETAIL




LANE LINE OFFSET DETAIL




CENTER LINE OFFSET DETAIL

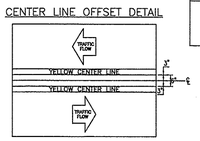



TABLE 1
EDGE LINE OFFSETS FOR 2-LANE, 2-WAY ROADWAYS WITH UN-PAVED SHOULDERS

| WIDTH OF TRAVEL PAVEMENT | MAX. EDGE LINE OFFSET FROM E. O. P. | MINIMUM LANE WIDTH |
|---|---|---|
| 16' - 20' | 2" | 8' - 10' |
| 22' | 2" | 11' |
| 24' | 1' | 11' |
| 26' | 2' | 11' |
| 28' | 2' | 12' |
| 30' | 3' | 12' |
| 32' | 4' | 12' |

| | | | |
|---|---|---|---|
| DATE: | 3-20-98 | STANDARD DETAIL | CITY OF WILMINGTON TRAFFIC ENGINEERING |
| SCALE: | NONE | PAVEMENT MARKINGS | |
| DRAWN BY: | RLB | *Offsets* | |
| REVIEWED BY: | DRB/JRF | | |
| SD 16-02 | | SD 16-02 | |

EDGE LINE — 6"/4" — YELLOW OR WHITE

TURN LANE LINE — 6"/4" — WHITE

CENTER LINE — 6"/4" — YELLOW

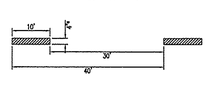
GORE LINE — 12"/4" — WHITE

DIAGONAL LINE — 6" — YELLOW OR WHITE

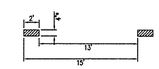
CROSSWALK LINE — 24"/12" — WHITE

STOP OR TRANSVERSE BAR — 24" — WHITE

10' SKIP LINES — YELLOW OR WHITE

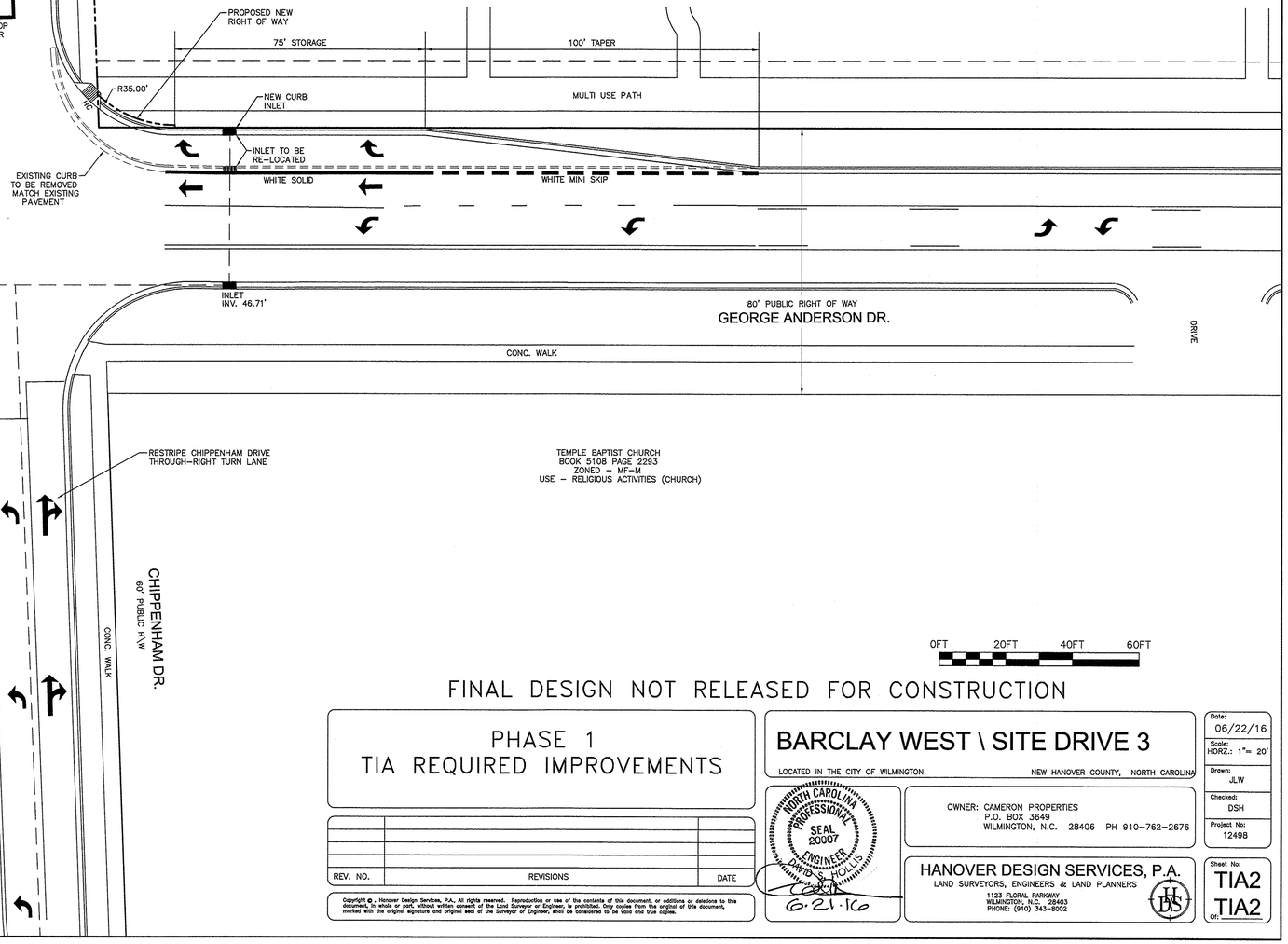



2' MINI-SKIP LINES — YELLOW OR WHITE




*NOTE: WHERE TWO WIDTHS ARE INDICATED, THE FIRST WIDTH APPLIES FOR A "NORMAL" WIDTH LINE. THE SECOND WIDTH APPLIES FOR A "WIDE" LINE. "WIDE" LINES ARE REQUIRED WHEN DESIGNATED IN THE PLANS, OR WHEN DIRECTED BY THE ENGINEER.

| | | | |
|---|---|---|---|
| DATE: | 3-20-98 | STANDARD DETAIL | CITY OF WILMINGTON TRAFFIC ENGINEERING |
| SCALE: | NONE | PAVEMENT MARKINGS | |
| DRAWN BY: | RLB | *Line Types* | |
| REVIEWED BY: | DRB/JRF | | |
| SD 16-01 | | SD 16-01 | |




0FT 20FT 40FT 60FT

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

*STANDARD NOTES:*

1. *Information concerning underground utilities was obtained from available records. It shall be the responsibility of the Contractor to determine the exact elevations and locations of all existing utilities at all crossings prior to commencing trench excavation. If actual clearances are less than indicated on Plan, the Contractor shall contact the Design Engineer before proceeding with construction. Any condition discovered or existing that would necessitate a modification of these plans shall be brought to the attention of the Design Engineer before proceeding with construction.*
2. *NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NC ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.*
3. *Contractor shall adjust all manholes, valve and curb boxes to the final grade upon completion of all construction. Any boxes damaged or otherwise disturbed by the Contractor shall be repaired at the expense of the Contractor.*
4. *No geotechnical testing has been performed on site. No warranty is made for suitability of subgrade, and undercut and any required replacement with suitable material shall be the responsibility of the contractor.*
5. *Extreme care shall be taken to ensure minimum separations at all utility crossings.*
6. *Contractor is responsible for obtaining all required permits.*

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

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____
PERMIT # _____
SIGNED _____

Approved Construction Plan

| | Name | Date |
|---|---|---|
| Planning | | |
| Traffic | | |
| Fire | | |

PHASE 1
TIA REQUIRED IMPROVEMENTS

| REV. NO. | REVISIONS | DATE |
|---|---|---|
| | | |

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# BARCLAY WEST \ SITE DRIVE 3

LOCATED IN THE CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER DAVID S. HOLLIS
6.21.16

OWNER: CAMERON PROPERTIES
P.O. BOX 3649
WILMINGTON, N.C. 28406 PH 910-762-2676

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

Date: 06/22/16
Scale: HORZ.: 1"= 20'
Drawn: JLW
Checked: DSH
Project No: 12498
Sheet No: TIA2 TIA2
Of: _____