

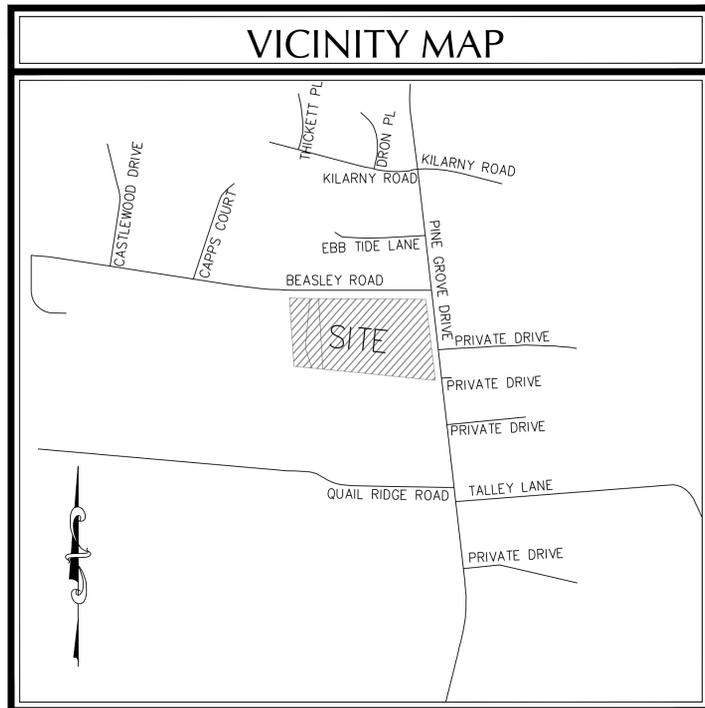
SITE DEVELOPMENT PLAN

FOR

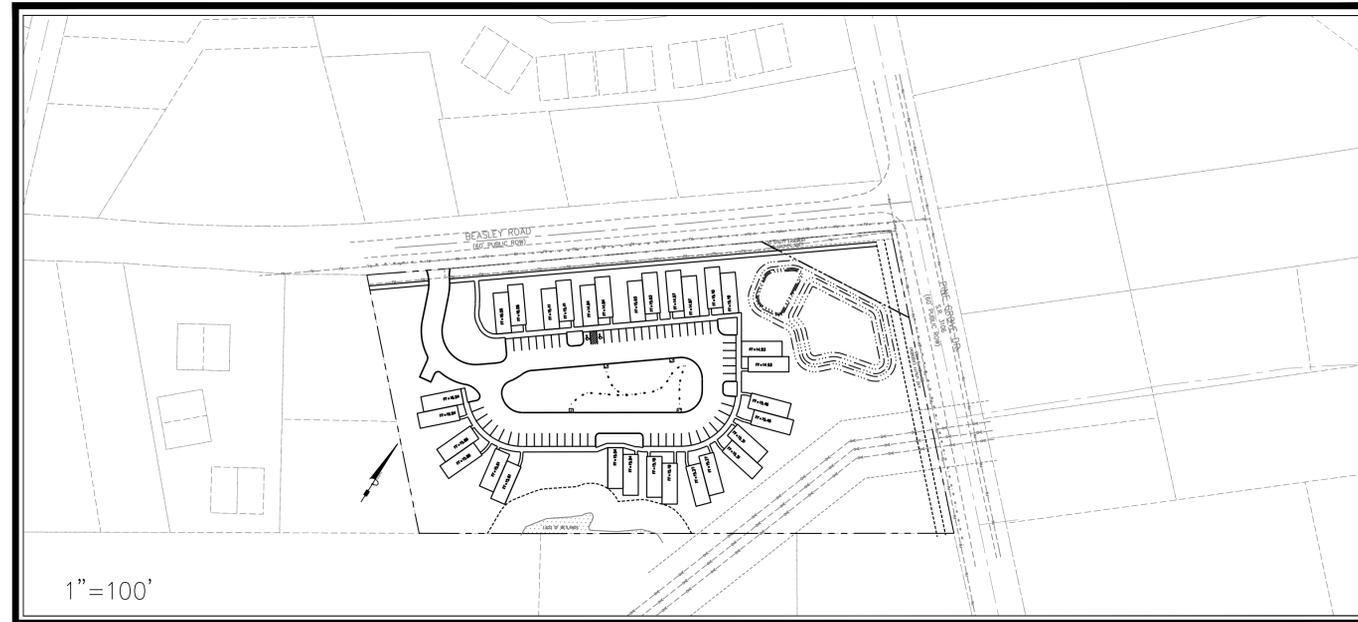
115 BEASLEY

WILMINGTON, NORTH CAROLINA

MAY 2014



VICINITY MAP
(NTS)



DESCRIPTION	EXISTING	PROPOSED
1' CONTOUR INTERVAL	---	---
5' CONTOUR INTERVAL	----	----
PROPERTY LINE	----	----
ROADWAY CENTERLINE	----	----
RIGHT OF WAY LIMITS	----	----
EASEMENT LINE	----	----
CURB & GUTTER	----	----
SANITARY SEWER FACILITIES	○	●
STORM SEWER FACILITIES	■	■
WATERLINE	---	---
FIRE HYDRANT ASSEMBLY	⊕	⊕
WATERWAYS	---	N/A
PROPOSED LOT AND S.F.		Ⓧ
OPEN SPACE LABEL		Ⓐ
OPEN SPACE		▨
BUILDING SET BACKS		---
PRIVATE SANITARY SET BACKS		----
		STREET SIGN
		404 WETLANDS
		FLOW DIRECTION

DEVELOPER/OWNER

115 Beasley, LLC.
6105 Oleander Drive, Suite 201
WILMINGTON, NC 28403
PHONE: (910) 452-1410

PREPARED BY:

GSP CONSULTING, PLLC
ENGINEERING

6626 Gordon Road, Unit C, Wilmington, North Carolina 28411 tel: 910-442-7870 fax: 910-799-6659 License # P-0718

INDEX OF SHEETS

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

APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

SITE DATA TABLE

GENERAL NOTES:

- NEW HANOVER COUNTY PARCEL NOS.:
PIN# R06217-006-010-000, R06120-010-003-000 & R06120-010-003-001
SITE ADDRESS: 115 BEASLEY ROAD
- TOTAL AREA: 207,377 SF± = 4.76 AC±
- EXISTING ZONING: R-7 CLUSTER
SETBACKS - 25' PERIMETER BUFFER
SIDE ZERO LOT LINE
10' BETWEEN STRUCTURES
- CAMA LAND CLASSIFICATION: WATER RESOURCE PROTECTION
- THIS PROPERTY IS WITHIN A SPECIAL FLOOD HAZARD ZONE PER FEMA FLOOD INSURANCE RATE MAP #3720314600J, EFFECTIVE DATE APRIL 3, 2006. ELEVATION 10.0.

DEVELOPMENT DATA:

TOTAL TRACT AREA = 207,377 SF± = 4.76 AC±

PERMITTED DENSITY (@ 6.2 UNITS/AC) = 30 UNITS

PROPOSED DENSITY 30 UNITS = 6.2 UNITS/AC

MAX. BLDG. HGTS. - 35' MEAN ROOF

BUILDING COVERAGE - 25,920 SF (12.5%)

TOTAL BEDROOMS - 15 1-BEDROOM DUPLEXES = 30

PARKING - 30 - 1 BR UNITS X 1.5 SP/UNIT = 45
59 TOTAL SPACES PROVIDED (2 H/C)

IMPERVIOUS SURFACES -

PROPOSED BUA -	
BUILDINGS -	25,920 S.F.
PAVEMENT -	29,589 S.F.
CONCRETE -	5,800 S.F.
TOTAL -	61,309 S.F. (29.6%)

OPEN SPACE - (MIN. 40% REQ'D.)
207,377 SF X 40%
= 82,951 SF REQ'D.
** 85,257 SF (41.1%) OPEN SPACE PROV'D. **

RECREATION AREA - (MAX. 25% OPEN SPACE)
20,738 SF REC. SPACE REQ'D.
ACTIVE REC REQ'D. = 10,369 SF
ACTIVE REC PROV'D. = 10,369 SF
PASSIVE REC AREA REQ'D. = 10,369 SF
PASSIVE AREA PROV'D. = 10,369 SF
** TOTAL REC AREA PROV'D. = 20,738 SF **

UTILITY CAPACITY REQUESTS:

PROPOSED SEWER CAPACITY -	
30-1 BR @ 240 GPD/BR = 7,200 GPD	
PROPOSED WATER CAPACITY -	
30 UNITS @ 400 GPD/UNIT = 12,000 GPD	

NOTE:
ALL DESIGN AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CITY OF WILMINGTON LAND DEVELOPMENT CODE, TECHNICAL STANDARDS MANUAL & THE STATE OF NORTH CAROLINA.

COORDINATION NOTES

1. THE CONTRACTOR IS REQUIRED TO OBTAIN ANY/ALL PERMITS REQUIRED FOR CONSTRUCTION OF THESE PLANS.
2. ALL WORK IS TO BE IN ACCORDANCE WITH CITY OF WILMINGTON, NEW HANOVER COUNTY, THE CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) AND THE STATE OF NORTH CAROLINA.
3. THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THE PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE SITE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS. CONTRACTOR SHALL EMPLOY A PROFESSIONAL SURVEYOR TO PERFORM SITE IMPROVEMENT STAKEOUT(S).
4. ANYTIME WORK IS PERFORMED OFF-SITE OR WITHIN AN EXISTING EASEMENT, THE CONTRACTOR IS TO NOTIFY THE HOLDER OF SAID EASEMENT AS TO THE NATURE OF PROPOSED WORK, AND TO FOLLOW ANY GUIDELINES OR STANDARDS WHICH ARE ASSOCIATED WITH OR REFERENCED IN THE RECORDED EASEMENT.

GENERAL NOTES:

1. EXISTING TOPOGRAPHY, BOUNDARY AND UTILITIES, HAVE BEEN PREPARED BY FIELD SURVEYS BY JOHNNY J. WILLIAMS LAND SURVEYING, P.C., PENTON DEVELOPMENT, INC. AND OTHER AVAILABLE INFORMATION.
2. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF ALL EXISTING UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF DITCHING OPERATIONS BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES. IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF TRENCHING OPERATIONS SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING LOSS OF UTILITY REVENUES. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC...
3. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
4. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAGMEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE DOT.
5. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
6. ALL WORK BY THE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE OWNER ACCEPTS THE WORK.
7. CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL CENTER AT 1 (800) 632-4949 AND ALLOW THE CENTER TO LOCATE EXISTING UTILITIES BEFORE DIGGING.
8. CONTRACTOR SHALL REMOVE ASPHALT, AGGREGATE BASE COURSE, AND CONCRETE CURB & GUTTER WITHIN LIMITS OF DEMOLITION AS SHOWN ON PLAN.

DEMOLITION NOTES

1. CONTRACTOR TO COORDINATE WITH THE OWNER TO PROPERLY MAINTAIN OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY.
2. CONTRACTOR IS TO WALK THE SITE AND BECOME FAMILIAR WITH THE SCOPE OF DEMOLITION REQUIRED. ALL DEMOLITION WORK REQUIRED TO CONSTRUCT NEW SITE IMPROVEMENTS WILL BE PERFORMED BY THE CONTRACTOR AND WILL BE UNCLASSIFIED EXCAVATION.
3. DEMOLITION SHALL INCLUDE BUT IS NOT LIMITED TO THE EXCAVATION, HAULING AND OFFSITE DISPOSAL OF CONCRETE PADS, CONCRETE DITCHES, FOUNDATIONS, SLABS, STEPS, AND STRUCTURES; ABANDONED UTILITIES, BUILDINGS, PAVEMENTS AND ALL MATERIALS CLEARED AND STRIPPED TO THE EXTENT NECESSARY AS DIRECTED BY THE SOILS ENGINEER FOR THE INSTALLATION OF THE NEW IMPROVEMENTS AND WITHIN THE LIMITS OF CLEARING AND GRADING AND AS SHOWN ON THESE PLANS.
4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES ON THE PROPERTY NOT TO BE DEMOLISHED. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO COST TO OWNER.
5. ELECTRIC, TELEPHONE, SANITARY SEWER, WATER AND STORM SEWER UTILITIES THAT SERVICE OFF-SITE PROPERTIES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR.
6. EXISTING UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED AND UNDISTURBED DURING DEMOLITION.
7. ALL EXISTING IMPROVEMENTS INDICATED OR REQUIRED TO BE DEMOLISHED SHALL INCLUDE REMOVAL FROM THE PROPERTY AND PROPER DISPOSAL.
8. CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING OVER HEAD AND UNDERGROUND UTILITIES INCLUDING CABLE, GAS, TELEPHONE AND ELECTRIC AND ANY OTHER UTILITIES THROUGH THE SITE WITH THE RESPECTIVE COMPANIES.
9. PROVIDE SMOOTH SAW CUT OF EXISTING PAVEMENTS, CURBS AND GUTTERS AND SIDEWALKS TO BE DEMOLISHED.
10. ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS OSHA REGULATIONS.
11. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS OF THE MAINS BY DIGGING TEST PITS BY HAND.

EROSION AND SEDIMENT CONTROL NOTES

GENERAL NOTES:

1. CLEAR AND REMOVE FROM SITE ALL TREES, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN DESIGNATED CLEARING LIMITS.
2. PLANT GRASS OVER ALL GRADED AREAS AS SHOWN IN THE TABLE ON THIS SHEET OF CEASE OF ANY GRADING ACTIVITY.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION MEASURES.
4. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETED, CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL INSPECTION AND APPROVAL BY NEW HANOVER COUNTY.
5. WATER, FERTILIZE, MOW AND MAINTAIN SPRIGGED, SODDED AND PLANTED AREAS UNTIL FINAL APPROVAL BY NEW HANOVER COUNTY.
6. ANY BORROW MATERIAL BROUGHT ONTO SITE MUST BE FROM A LEGALLY OPERATED MINE OR OTHER APPROVED SOURCE.
7. ANY EXCESS MATERIAL REMOVED FROM SITE MUST BE HAULED TO A LEGALLY OPERATED MINE OR OTHER APPROVED SOURCE.

MAINTENANCE PLAN

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL CONSTRUCTION ENTRANCES WILL BE PERIODICALLY SOD DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. ANY SEDIMENT THAT IS TRACKED INTO THE STREET WILL BE IMMEDIATELY REMOVED.
3. SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. SILT FENCE STAKES WILL BE SPACED 6 FEET APART UNLESS A WIRE BACKING IS USED WITH 8 FOOT STAKE SPACING.
4. INSPECT INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.
5. INSPECT SILT SACKS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE SILT SACK OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE THE SILT SACK DURING SEDIMENT REMOVAL. REPLACE AS NEEDED.
5. ALL SEEDED AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
6. INSPECT SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE POOL AREAS.
7. INSPECT EXCELSIOR MATTING AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT REPAIR IMMEDIATELY. GOOD CONTACT WITH THE GROUND MUST BE MAINTAINED, AND EROSION MUST NOT OCCUR BENEATH THE MATTING. ANY AREAS OF THE MATTING THAT ARE DAMAGED OR NOT IN CLOSE CONTACT WITH THE GROUND SHALL BE REPAIRED AND STAPLED. IF EROSION OCCURS DUE TO POORLY CONTROLLED DRAINAGE, THE PROBLEM SHALL BE FIXED AND THE ERODED AREA PROTECTED. MONITOR AND REPAIR THE MATTING AS NECESSARY UNTIL GROUND COVER IS ESTABLISHED.

STABILIZATION NOTES

1. ALL DISTURBED AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS OF CEASE OF ANY PHASE OF ACTIVITY AND SLOPES WITHIN 21 CALENDAR DAYS.

PERMANENT SEEDING SCHEDULE – MIXTURE 5CP

SPECIES	RATE (LB./ACRE)
CENTPEDE GRASS	10-20

Seeding Dates
MARCH – JUNE

Soil Amendments
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 300 LB/ACRE 10-10-10 FERTILIZER.

Mulch
DO NOT MULCH.

Maintenance
FERTILIZE VERY SPARINGLY LB/ACRE NITROGEN IN SPRING WITH NO PHOSPHORUS. CENTPEDE GRASS CANNOT TOLERATE HIGH PH OR EXCESS FERTILIZER.

TEMPORARY SEEDING-LATE WINTER/EARLY SPRING

WINTER AND EARLY SPRING

SPECIES	RATE (LB./ACRE)
Rye (GRAIN)	120
*ANNUAL LESPEDEZA (KOBÉ IN PIEDMONT AND COASTAL PLAIN, KOREAN IN MOUNTAINS)	50

*OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.

SUMMER

SPECIES	RATE (LB./ACRE)
GERMAN MILLET	40

FALL

SPECIES	RATE (LB./ACRE)
RYE (GRAIN)	120

Seeding dates

COASTAL PLAIN – DEC.1-APR. 15 – LATE WINTER AND EARLY SPRING
APRIL 15 – AUG. 15 – SUMMER
AUG. 15 – DEC. 30 – FALL

Soil omdments

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

Mulch

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

Maintenance

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

GENERAL GRADING NOTES

1. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF SUCH UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF THE DITCHING OPERATION BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF THE TRENCHING OPERATIONS SO AS TO AVOID AND PREVENT DAMAGE TO THE EXISTING UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING BUT NOT LIMITED TO REPAIRS AND LOSS SERVICE REVENUE. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC..
2. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
3. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAG MEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE NCDOT.
4. ALL MATERIAL CLEARED AND GRUBBED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK, SUCH AS TREES, VEGETATION, FENCING, ETC., SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE OR BURNED IF PROPER PERMITS ARE RECEIVED.

SITE NOTES

1. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO START OF CONSTRUCTION. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
2. THE GENERAL CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND R.O.W.'S PUBLIC OR PRIVATE, PRIOR TO WORKING IN THESE AREAS.
3. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
4. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE RESPECTIVE UTILITY.
5. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
6. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
7. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
8. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
9. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE GIVEN TO THE OWNER FOR REVIEW. NO DEPARTURES FROM THE CONTRACT DOCUMENT SHALL BE MADE WITHOUT THE PERMISSION OF THE OWNER.
10. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COST HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE, OTHER OBSTRUCTIONS OR FROM DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. CONTACT NORTH CAROLINA ONE CALL* TOLL FREE 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NONSUBSCRIBING UTILITIES.
11. ALL PERMITS RELATIVE TO PROJECT MUST BE OBTAINED, PRIOR TO CONSTRUCTION
12. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND APPLICABLE STATE, COUNTY, AND LOCAL CODES.
13. FOR BUILDING DIMENSIONS, SEE ARCHITECTURAL DRAWINGS.
14. ALL DIMENSIONS AND RADII ARE TO OUTSIDE FACE OF BUILDING OR TO FACE OF CURB UNLESS OTHERWISE NOTED.
15. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
16. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.

GENERAL STORM SEWER NOTES

1. ALL STORM SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF WILMINGTON AND THE STATE OF NORTH CAROLINA REQUIREMENTS AS SPECIFIED ON THE DRAWINGS AND IN THE PROJECT SPECIFICATIONS.
2. BEDDING FOR ALL STORM SEWER PIPE SHALL BE AS SPECIFIED ON THE DRAWINGS, PROJECT SPECIFICATIONS, AND MANUFACTURER SPECIFICATIONS.
3. ALL STORM SEWER PIPES TO BE HDPE ADS N-12 OR EQUIVALENT, UNLESS OTHERWISE SPECIFIED.
4. ALL STORM SEWER PIPES SHOWN AS RCP ON THE PLANS SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76, UNLESS INDICATED OTHERWISE ON PLANS.

SITE AREA DESCRIPTION	GROUND STABILIZATION	
	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES)

EXISTING UTILITY NOTES

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES IN THE FIELD PRIOR TO GROUND BREAKING.
2. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

UTILITY CONTACTS:

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

NOTICE REQUIRED

ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED BY CONTRACTOR PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF SAID UTILITIES.

CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO ANY EXCAVATION OR DEMOLITION.

CONTACT "CAROLINA ONE CALL" AT 1-800-632-4949
EMERGENCY DIAL 911 POLICE - FIRE - RESCUE

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.

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

Date: _____ Permit # _____

Signed: _____



No.	Revision	Date	By

Designer	GSP	Scale	
Drawn By	GSP	Date	MAY 2014
License #	P-0718	Job No.	2013-0011

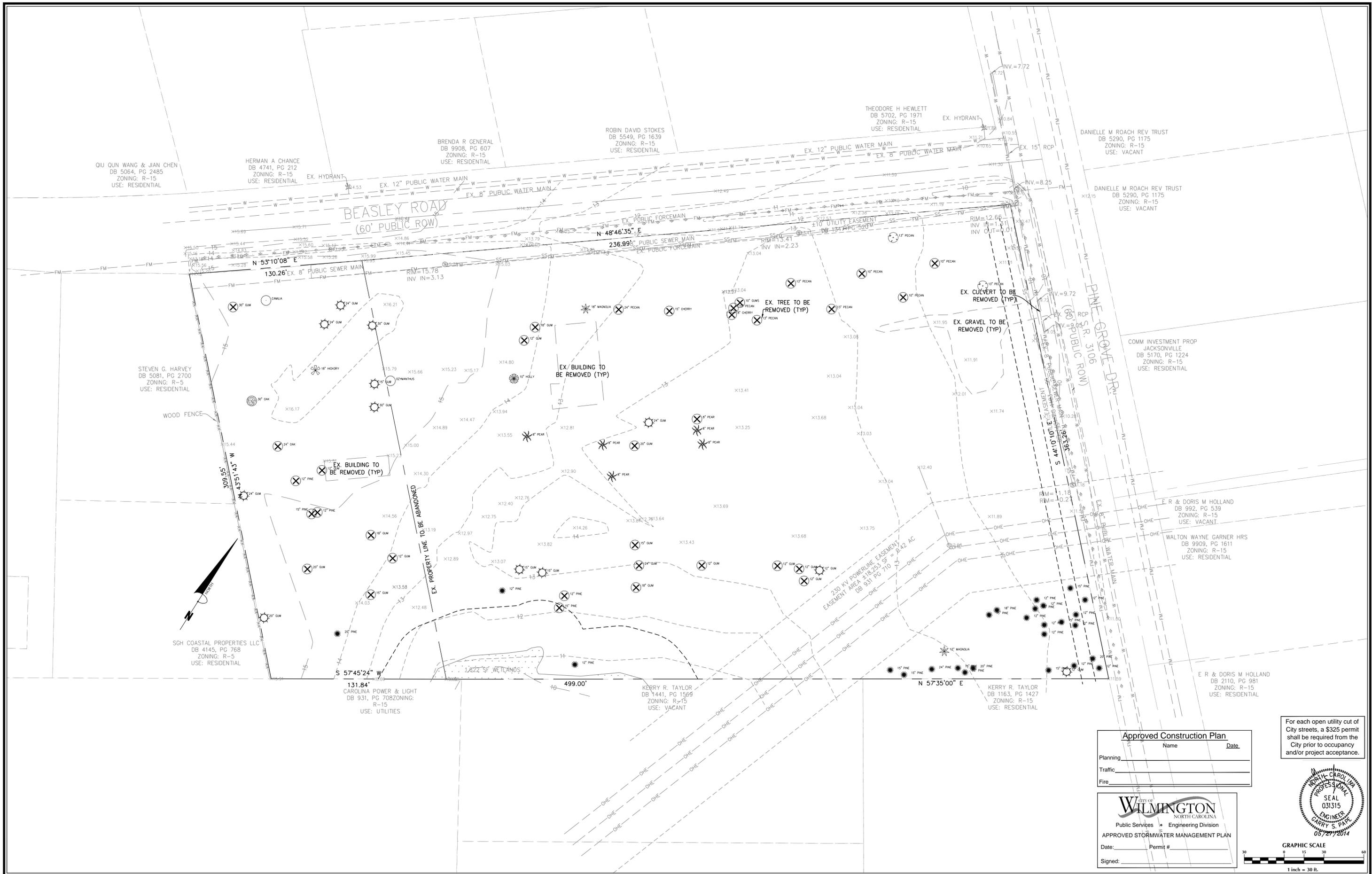
115 BEASLEY ROAD
Wilmington New Hanover County North Carolina

GENERAL NOTES

PREPARED FOR:
115 BEASLEY, LLC
6105 OLEANDER DRIVE
SUITE 201
WILMINGTON, NC 28403

GSP CONSULTING, PLLC
ENGINEERING
6626 Gordon Road Unit C Wilmington, North Carolina 28411 tel: 910-442-7870 fax: 910-799-6659

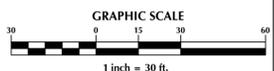
Sheet No.
C-1



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.

WILMINGTON NORTH CAROLINA
 Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____



No.	Revision	Date	By

Designer	GSP	Scale	1" = 30'
Drawn By	GSP	Date	MAY 2014
License #	P-0718	Job No.	2013-0011

115 BEASLEY ROAD
 North Carolina
 New Hanover County

EXISTING CONDITIONS

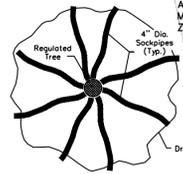
PREPARED FOR:
 115 BEASLEY, LLC
 6105 OLEANDER DRIVE
 SUITE 201
 WILMINGTON, NC 28403

GSP CONSULTING, PLLC
ENGINEERING
 6626 Gordon Road Unit C Wilmington, North Carolina 28411 tel: 910-442-7870 fax: 910-799-6659

Sheet No.
C-2

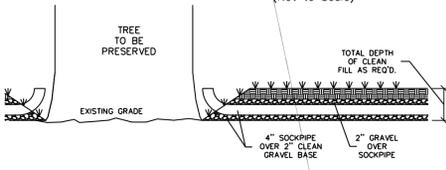
Site Inventory Notes:

1. Soils Type: JO (Johnston) & Cr (Craen)
2. This property is not impacted by any AEC.
3. There are no Conservation Overlay boundaries affecting this property.
4. This site is not impacted by any recognized historic or archeological significance.
5. No cemeteries were evidenced on the site.
6. Existing vegetation has been located and is labeled.
7. There is evidence of jurisdictional wetlands on the site.
8. There is no evidence of endangered species or habitat issues on the site.
9. This property is within a flood hazard area (Zone X) as evidenced on N.C. Flood Map 3720314600J, Effective Date April 3, 2006.
10. The site drainage flows into the Hewletts Creek drainage basin, into SA; HOW classified waters.



NOTE: ALL TREES ON ADJACENT PROPERTY, NO MORE THAN 40% OF ROOT ZONE TO BE ENCRoACHED

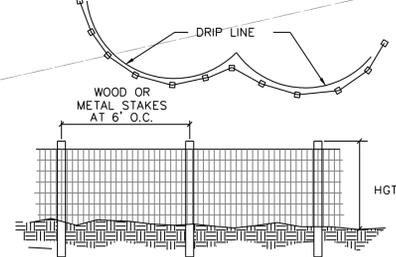
Filling Around Tree / Aeration Detail (Not to Scale)



Filling Around Tree / X-Section (Not to Scale)

TREES TO BE REMOVED

10" GUM	1
12" GUM	7
15" GUM	2
18" GUM	3
20" GUM	2
24" GUM	1
30" GUM	1
10" PECAN	4
13" PECAN	3
24" PECAN	1
8" PEAR	1
8" CHERRY	1
15" CHERRY	1
12" PINE	3
15" PINE	2
24" OAK	1



NOTES:
1. PRIOR TO ANY LAND DISTURBING ACTIVITIES, TREE PROTECTION FENCES SHALL BE INSTALLED ALONG THE DRIP LINES OF ALL EXISTING TREES LABELED AS TO BE RETAINED. NO STORAGE OF MATERIALS, FILL, ETC. AND NO PEDESTRIAN OR VEHICULAR TRAFFIC SHALL BE ALLOWED INSIDE OF THE FENCES DURING CONSTRUCTION.
2. TREE PROTECTION FENCING SHOULD BE LOCATED ONE FOOT OUT FROM THE TRUNK FOR EACH ONE INCH OF TRUNK DIAMETER.

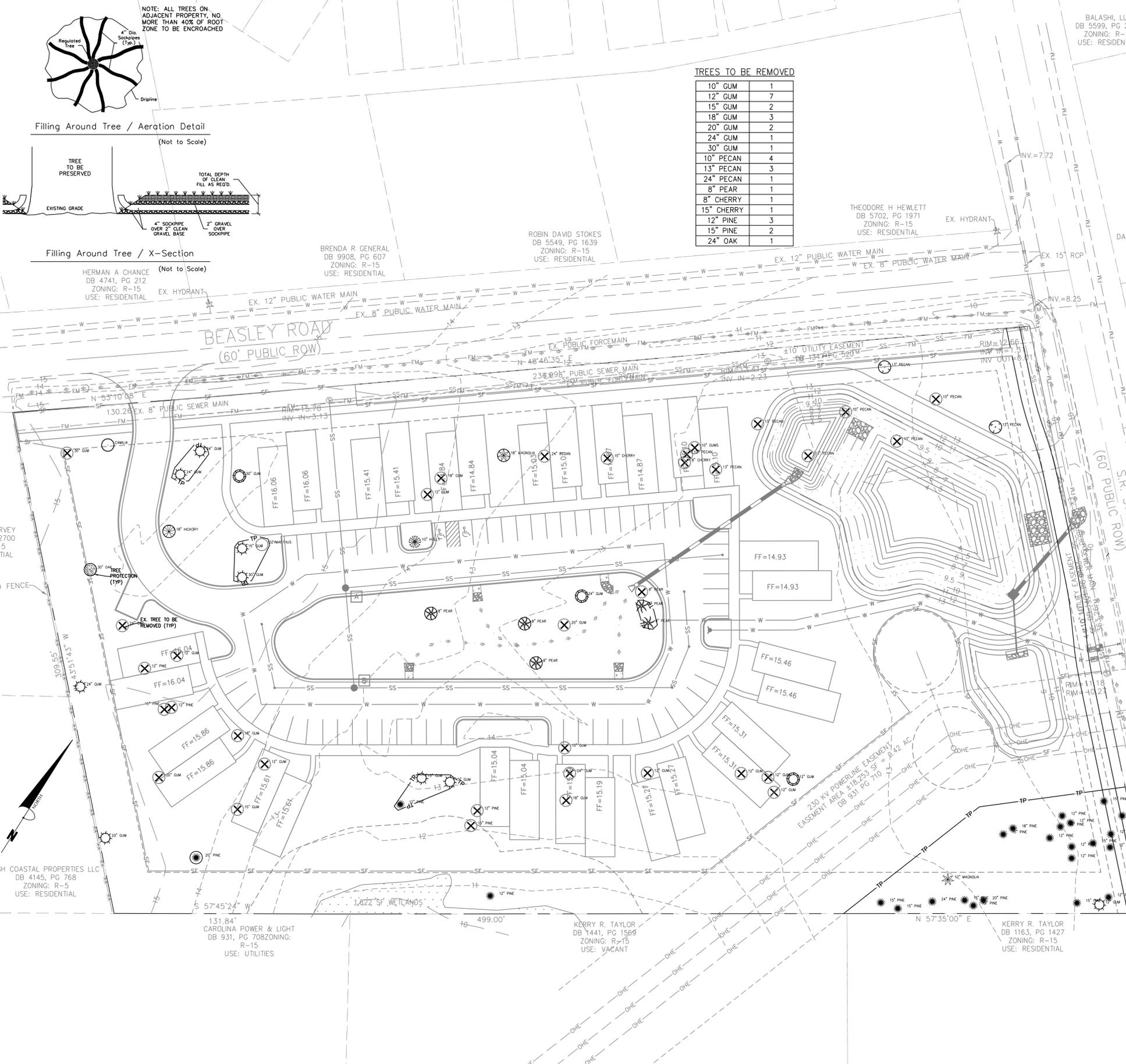
Tree Protection Fence Detail

TREES TO BE SAVED

10" HOLLY	1
12" GUM	2
12" MAGNOLIA	1
12" PINE	12
13" PECAN	2
15" GUM	3
15" PINE	9
18" HICKORY	1
18" MAGNOLIA	1
18" PINE	1
20" GUM	1
20" PINE	3
24" GUM	4
24" PINE	1
30" GUM	2
30" OAK	1
8" PEAR	5
CAMILLA	1
OZYMANTHUS	1

Tree Legend / Inventory

- GUM
- CAMILLA
- OZYMANTHUS
- MAGNOLIA
- OAK
- PINE
- CHERRY
- HICKORY
- PEAR
- PECAN
- HOLLY
- TREE TO BE REMOVED



Approved Construction Plan

Name: _____

City of Wilmington, North Carolina

Planning _____

Traffic _____

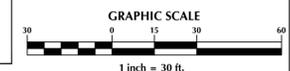
Fire _____

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City of WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
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115 BEASLEY ROAD
New Hanover County
North Carolina

SITE INVENTORY PLAN

PREPARED FOR:
115 BEASLEY, LLC
6105 OLEANDER DRIVE
SUITE 201
WILMINGTON, NC 28403

GSP CONSULTING, PLLC
ENGINEERING
6626 Gordon Road Unit C Wilmington, North Carolina 28411 tel: 910-442-7870 fax: 910-799-6659

Sheet No.
C-2.1

QIU QUN WANG & JIAN CHEN
DB 5064, PG 2485
ZONING: R-15
USE: RESIDENTIAL

HERMAN A CHANCE
DB 4741, PG 212
ZONING: R-15
USE: RESIDENTIAL

BRENDA R GENERAL
DB 9908, PG 607
ZONING: R-15
USE: RESIDENTIAL

ROBIN DAVID STOKES
DB 5549, PG 1639
ZONING: R-15
USE: RESIDENTIAL

THEODORE H HEWLETT
DB 5702, PG 1971
ZONING: R-15
USE: RESIDENTIAL

DANIELLE M ROACH REV TRUST
DB 5290, PG 1175
ZONING: R-15
USE: VACANT

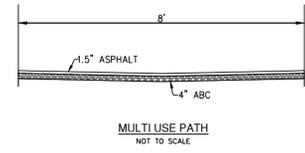
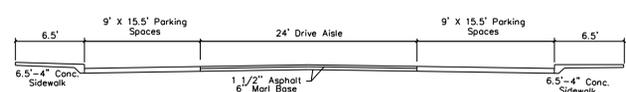
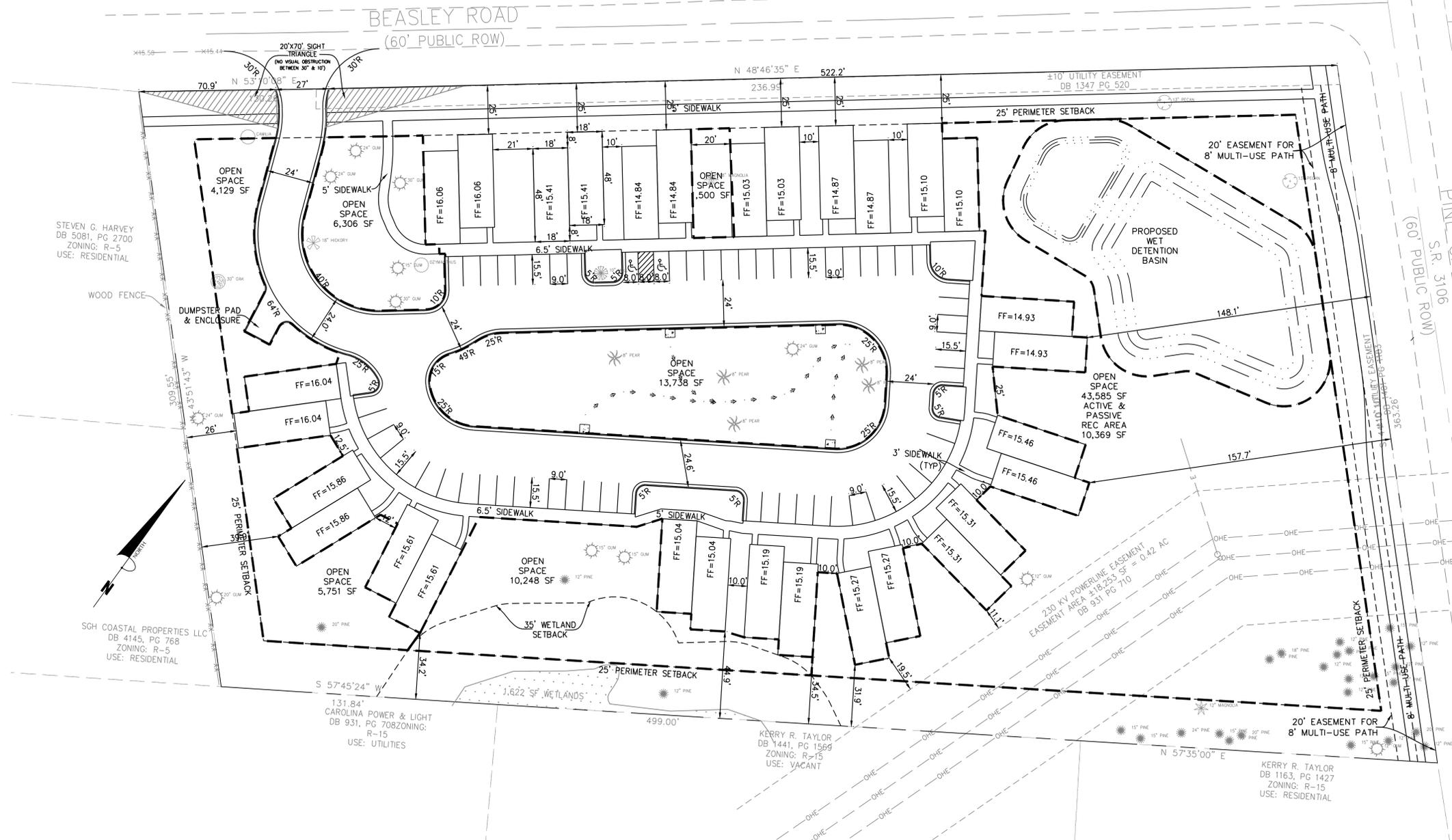
DANIELLE M ROACH REV TRUST
DB 5290, PG 1175
ZONING: R-15
USE: VACANT

COMM INVESTMENT PROP
JACKSONVILLE
DB 5170, PG 1224
ZONING: R-15
USE: RESIDENTIAL

E R & DORIS M HOLLAND
DB 992, PG 539
ZONING: R-15
USE: VACANT

WALTON WAYNE GARNER HRS
DB 9909, PG 1611
ZONING: R-15
USE: RESIDENTIAL

E R & DORIS M HOLLAND
DB 2110, PG 981
ZONING: R-15
USE: RESIDENTIAL



Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

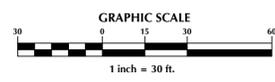
WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division

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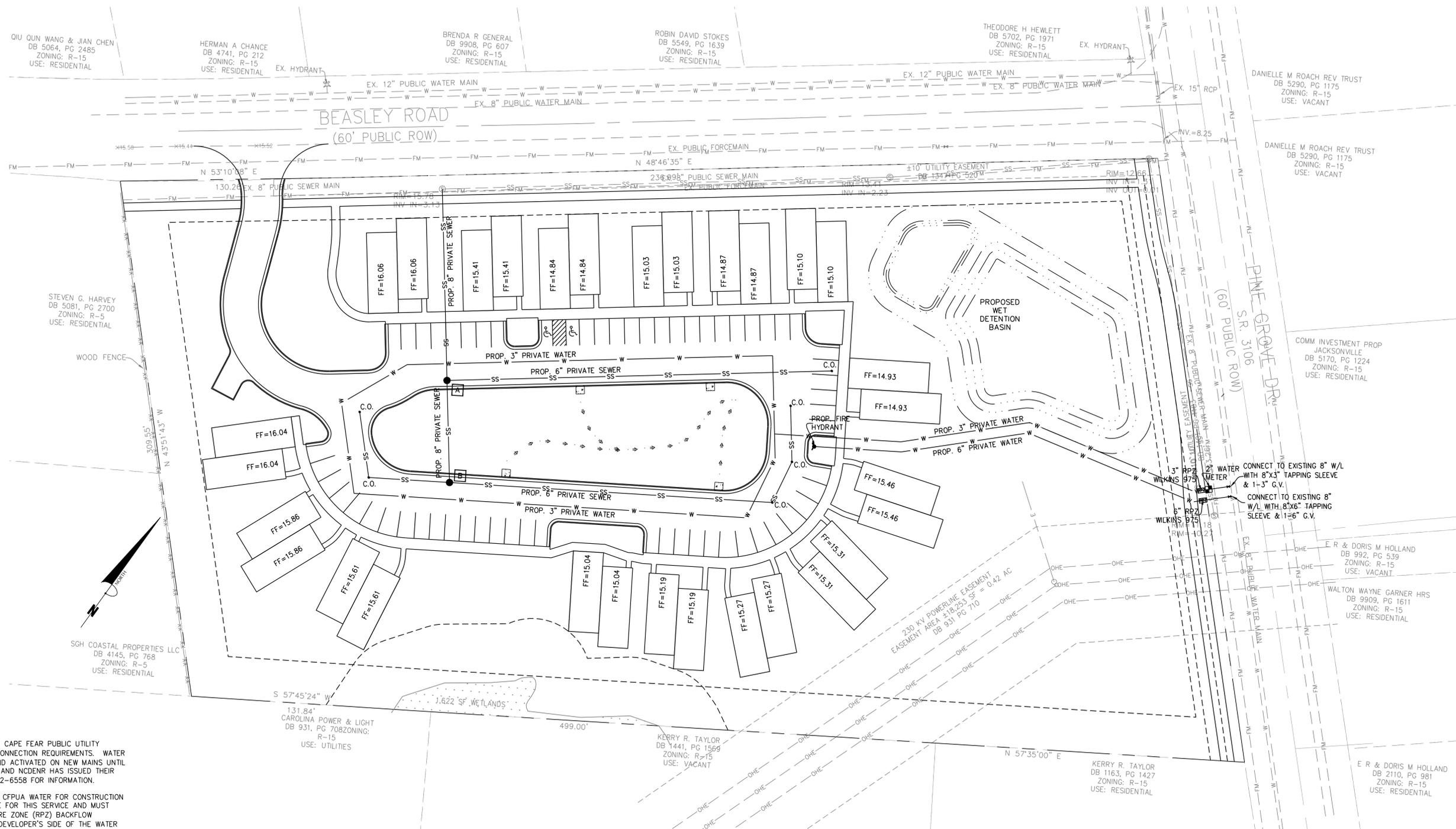
115 BEASLEY ROAD
New Hanover County
North Carolina

SITE PLAN

PREPARED FOR:
115 BEASLEY, LLC
6105 OLEANDER DRIVE
SUITE 201
WILMINGTON, NC 28403

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ENGINEERING
6626 Gordon Road Unit C Wilmington, North Carolina 28411 tel: 910-442-7870 fax: 910-799-6659

Sheet No.
C-3



GENERAL UTILITY NOTES:

- PROJECT SHALL COMPLY WITH CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) CROSS CONNECTION REQUIREMENTS. WATER METER(S) CANNOT BE SET AND ACTIVATED ON NEW MAINS UNTIL ALL REQUIREMENTS ARE MET AND NCDENR HAS ISSUED THEIR "FINAL APPROVAL". CALL 332-6558 FOR INFORMATION.
- 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.
- TO USE CFPUA WATER FOR IRRIGATION IT MUST BE METERED SEPARATELY.
- WHEN PVC WATER MAINS AND/OR POLYETHYLENE SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STRAPPED TO THE PIPES WITH DUCT TAPE. THE INSULATED WIRE IS TO BE STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES AND FITTINGS. THIS WIRE IS TO BE ACCESSIBLE AT ALL VALVES, FIRE HYDRANTS, AND WATER METER BOXES TO AID IN FUTURE LOCATIONS OF FACILITIES.
- TREES ARE NOT TO BE PLANTED OVER WATER MAINS OR WITHIN UTILITY EASEMENTS.
- STATE WATER AND SEWER PERMITS SHALL BE OBTAINED PRIOR TO RELEASE OF THE PROJECT FOR CONSTRUCTION.
- ALL WATERMAIN WITHIN PUBLIC RIGHT OF WAY TO BE PUBLIC. WATERMANS LOCATED ON PRIVATE PROPERTY TO BE PRIVATE.

NOTES:

- HYDRANT MUST BE WITHIN 150' OF THE FDC.
- THE FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC.
- HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
- NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING(S).
- CONTRACTOR SHALL MAINTAIN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PRIVATE RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.

CFPUA STANDARD SEWER NOTES

- SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
- SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT R/W LINE. SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
- ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
- 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN.
- NO FLEXIBLE COUPLINGS SHALL BE USED.
- ALL CLEANOUTS TO BE LOCATED IN THE CENTER OF THE LOT.

NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT CFPUA STANDARDS AND SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

SITE DATA:

30 TOTAL UNITS - 30 TOTAL BEDROOMS
 30 UNIT-1 BEDROOM UNITS
 PROPOSED - 30-1 BEDROOM * 240 GPD = 7,200 GPD

PUBLIC
 3" WATER = 15 LF
 6" WATER = 15 LF
 2" WATER METER

PRIVATE
 3" WATER = 921 LF
 6" WATER = 245 LF
 6" SEWER = 1,419 LF
 8" SEWER = 175 LF

Approved Construction Plan

Name _____ Date _____

Planning _____

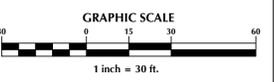
Traffic _____

Fire _____



Public Services • Engineering Division
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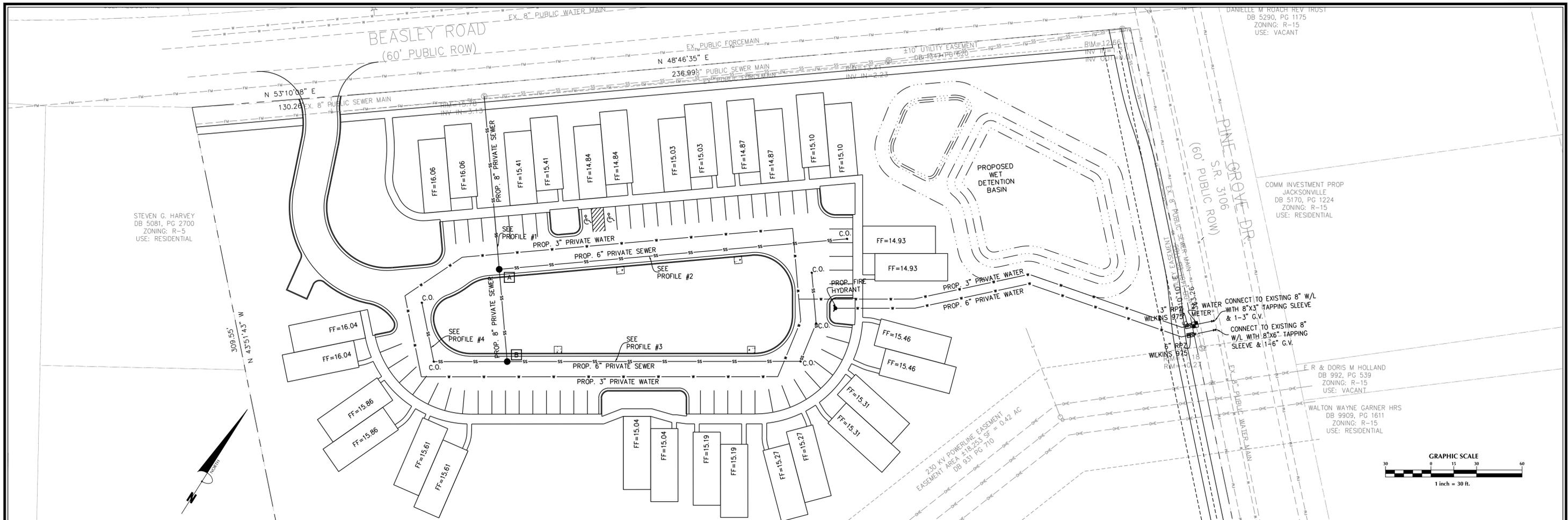
115 BEASLEY ROAD
 New Hanover County
 North Carolina

UTILITY PLAN

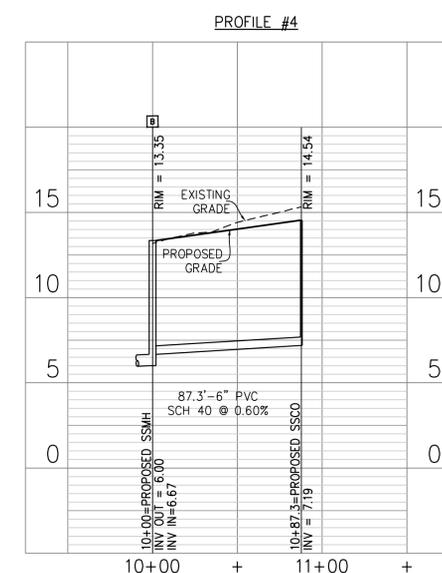
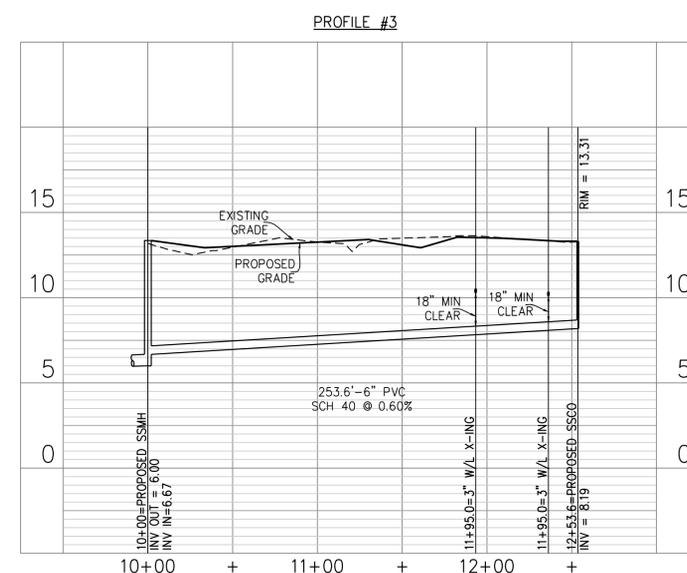
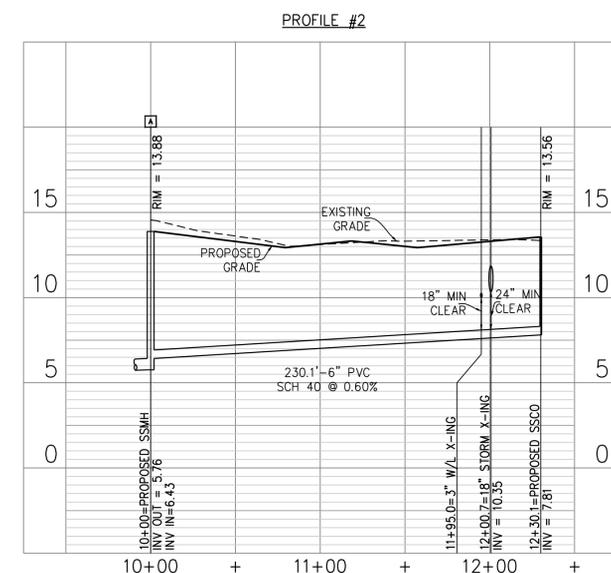
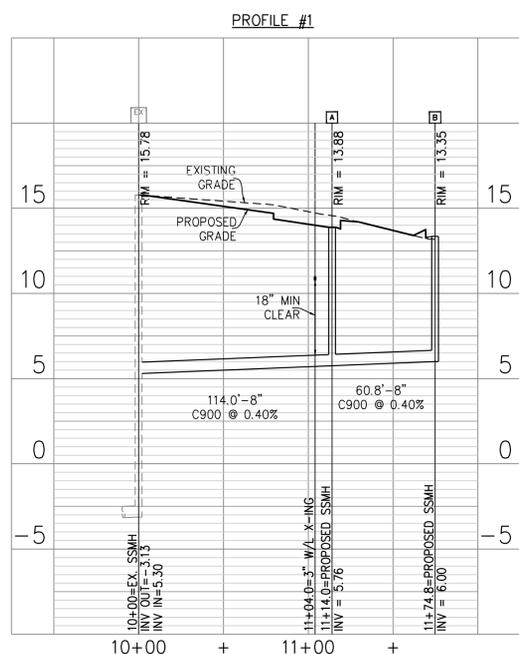
PREPARED FOR:
 115 BEASLEY, LLC
 6105 OLEANDER DRIVE
 SUITE 201
 WILMINGTON, NC 28403

GSP CONSULTING, PLLC
 ENGINEERING
 6626 Gordon Road Unit C Wilmington, North Carolina 28411 tel: 910-442-7870 fax: 910-799-6659

Sheet No.
C-4



PROFILES
 H: 1" = 50'
 V: 1" = 5'



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Planning _____

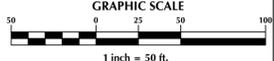
Traffic _____

Fire _____

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

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No.	Revision	Date	By

Designer	GSP	Scale	AS SHOWN
Drawn By	GSP	Date	MAY 2014
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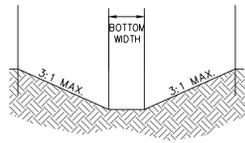
115 BEASLEY ROAD
 New Hanover County
 North Carolina

UTILITY PROFILES

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 SUITE 201
 WILMINGTON, NC 28403

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Sheet No.
C-4.1



SWALE COMPUTATIONS					
X-SEC	TYPE	AVERAGE SLOPE	SIDE SLOPE	BOTTOM WIDTH	DITCH TYPE
#1	GRASS	1.0%	3:1	2- FEET	TRAPEZOIDAL
#2	GRASS	1.0%	3:1	2- FEET	TRAPEZOIDAL

SWALE CROSS SECTION DETAIL

STORM TABLE

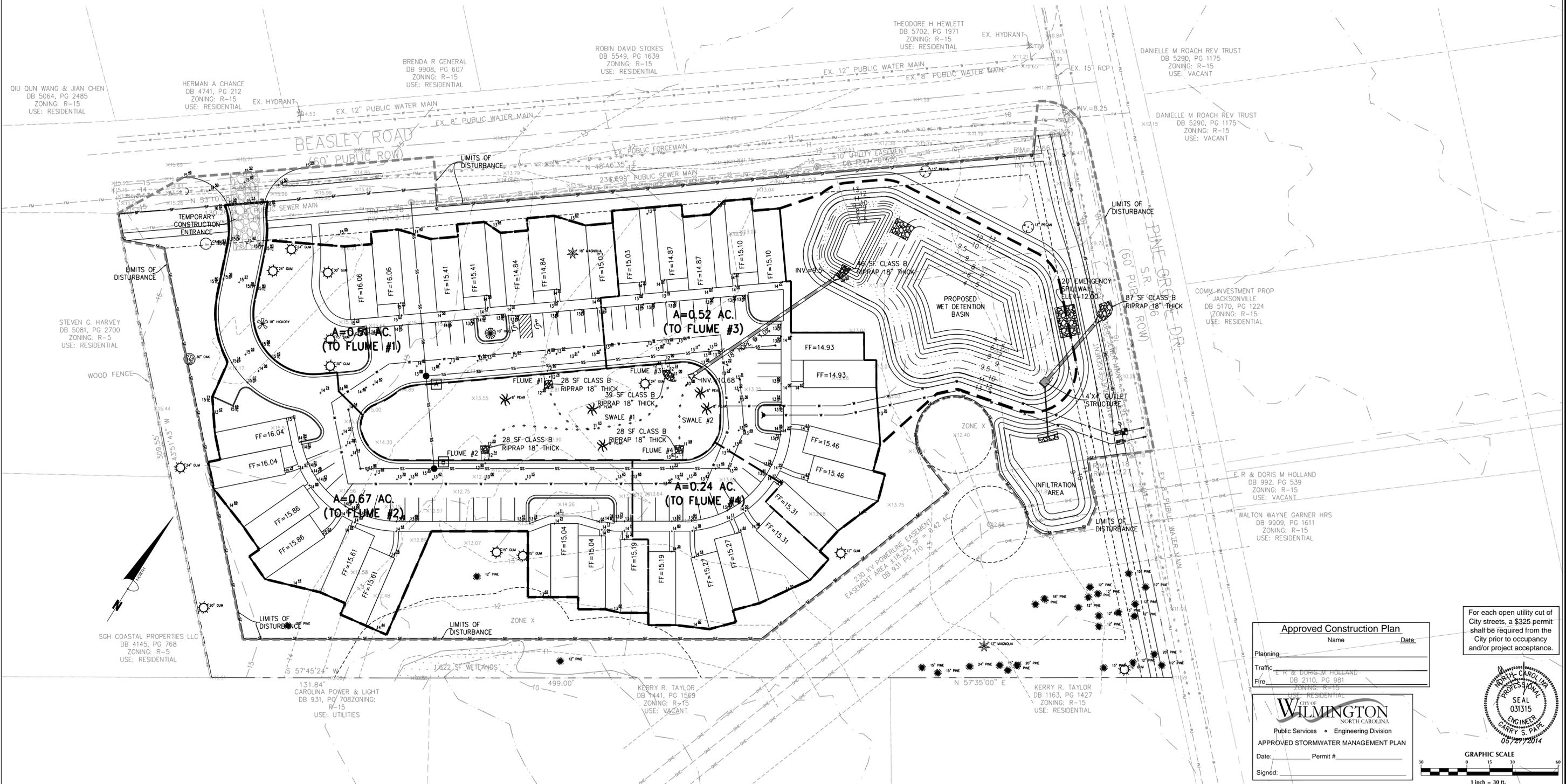
CULVERT	LENGTH (ft)	DIAMETER (in)	SLOPE (%)	INV. DN (ft)	INV. UP (ft)	MATERIAL
CULVERT #1	118	18	1.00%	9.50	10.68	HDPE

SEDIMENT BASIN CALCULATIONS

SEDIMENT TRAPPING DEVICE	DRAINAGE AREA (AC)	REQUIRED STORAGE (1,800CF/AC)	PROVIDED STORAGE (CF)	PEAK Q10 FLOW (CFS)	REQUIRED AREA (325 SF/CFS)	PROVIDED AREA (SF)	SKIMMER SIZE (in)
SEDIMENT BASIN #1	2.71	4,882	17,981	5.13	1,666	12,832	1.9

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.



Approved Construction Plan

Name: _____ Date: _____

Planning: _____

Traffic: _____

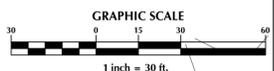
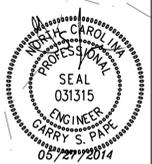
Fire: _____

WILMINGTON
NORTH CAROLINA
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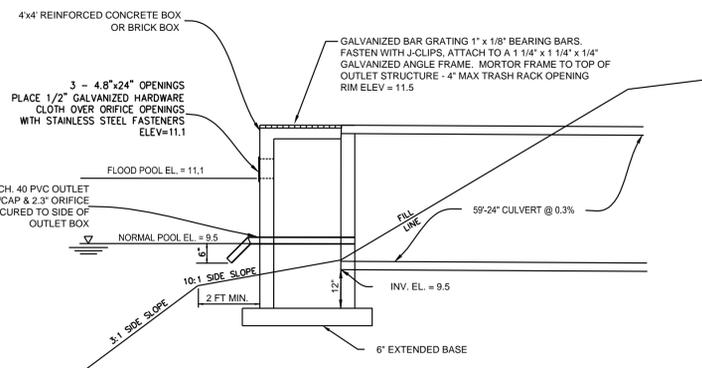
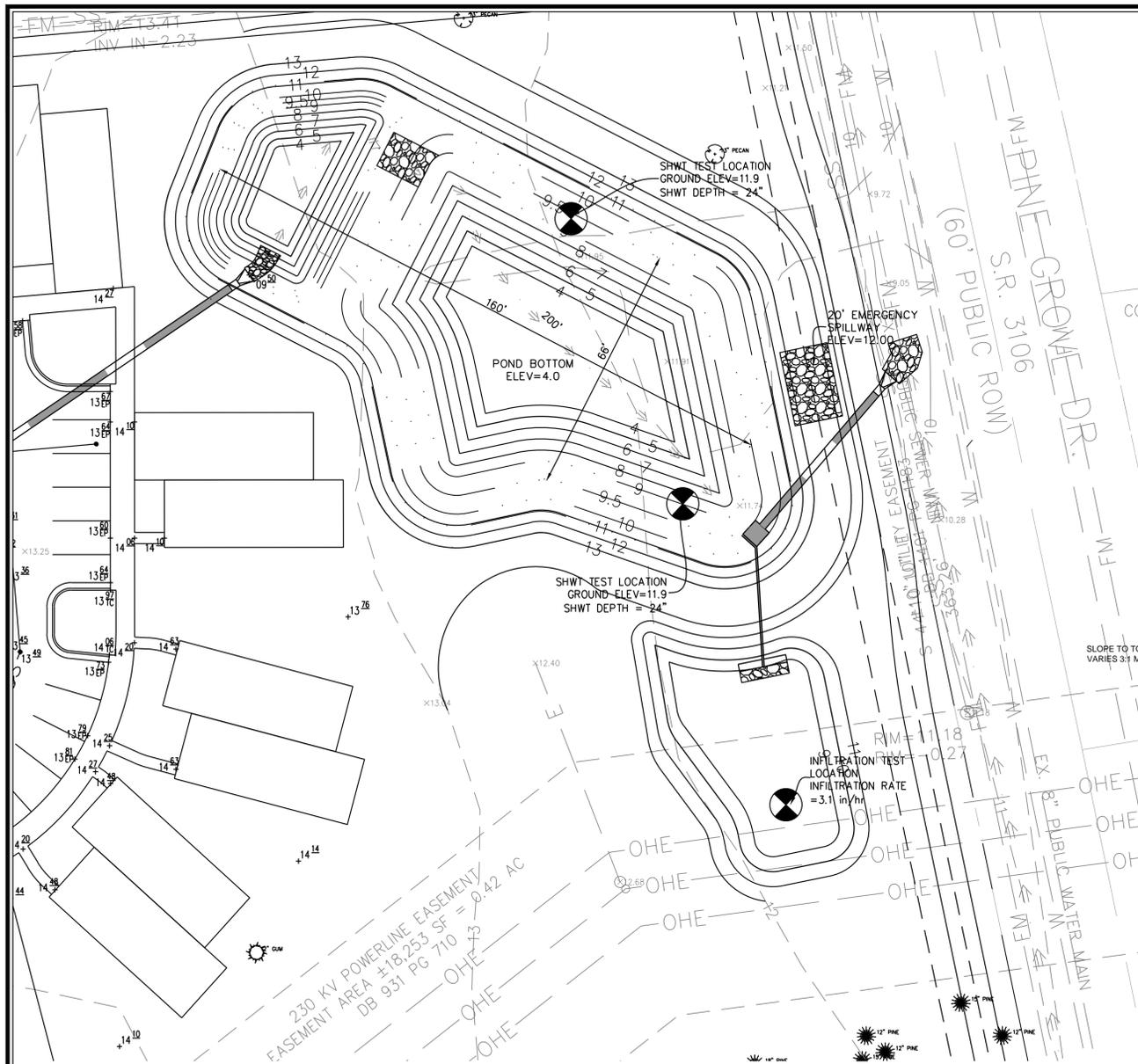
115 BEASLEY ROAD
New Hanover County
North Carolina

GRADING, DRAINAGE & EROSION & SEDIMENT CONTROL PLAN

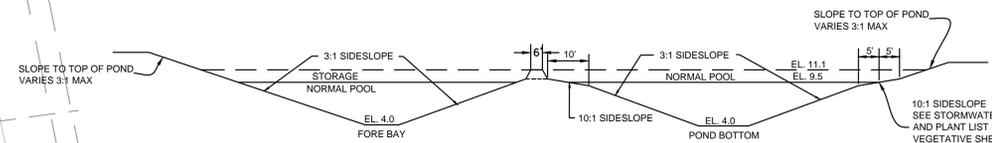
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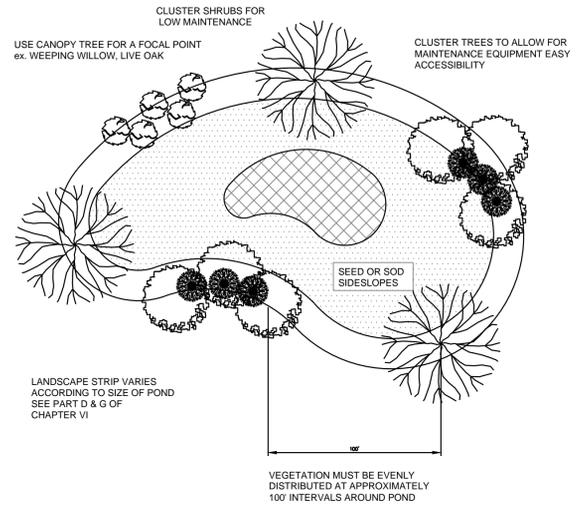
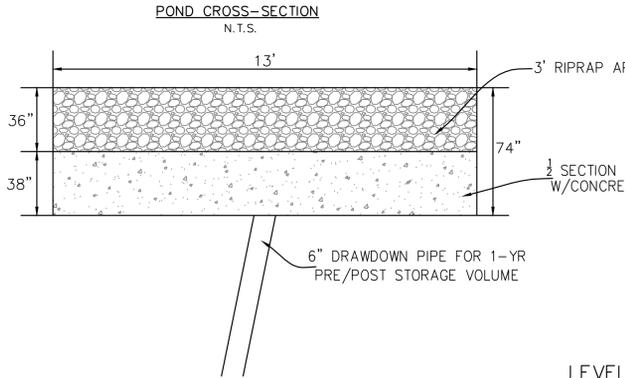
Sheet No.
C-5



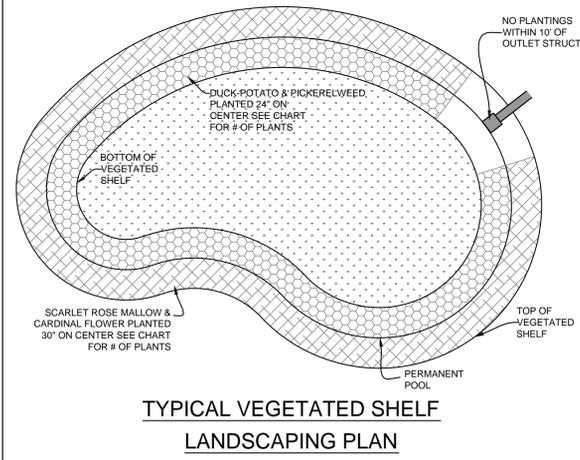
- NOTES:**
- DESIGN ELEVATIONS FOR WET DETENTION BASIN ARE TO AN ELEVATION OF 4.0 IN THE MAIN POND AND 4.0 IN THE FOREBAY WITH SEDIMENT STORAGE DOWN TO 3.0 IN THE MAIN POND AND 3.0 IN THE FOREBAY.
 - SEASON HIGH WATER TABLE WAS TAKEN AT A GROUND ELEVATION OF 11.9 AND ESTIMATED TO BE 24 INCHES FOR AN ELEVATION OF 9.9, WHICH IS WITHIN 6" OF THE PERMANENT POOL ELEVATION OF 9.5.
 - ALL IMPERVIOUS SITE AREA TO BE DRAINED TO PROPOSED STORM SEWER SYSTEM AND DISCHARGED TO THE WET DETENTION POND.
 - POND WILL BE PUMPED DOWN BY MECHANICAL MEANS IN CASE OF EMERGENCY.
 - PRIOR TO USE AS A WET DETENTION BASIN, SEDIMENT BASIN WILL BE MUCKED OUT.
 - POND SIDE SLOPES TO BE SODDED WITH CENTIPEDE GRASS OR EQUIVALENT.
 - ALL SLOPES ABOVE PERMANENT POOL TO BE 3:1 MAX.



NORMAL POOL ELEVATION	SHELF BOTTOM ELEVATION	POND DEPTH (FT)	SHELF BOTTOM AREA (SF)	POND BOTTOM AREA (SF)	SURFACE AREA PROVIDED (SF)	SURFACE AREA REQUIRED (SF)	AVERAGE POND DEPTH (FT)
9.5	9.0	5.0	7,021	2,087	8,867	6,131	3.5



- Notes:**
- If possible, locate pond where vegetation exists.
 - Suggest minimal clearing to conserve visual quality of site and minimize the additional of tree planting. An irregular shape provides a more natural appearance.
 - Landscape strip shall be a maximum slope of 7:1 in order to plant vegetation.
 - Provide a minimum of 3 inches of mulch around all vegetation.



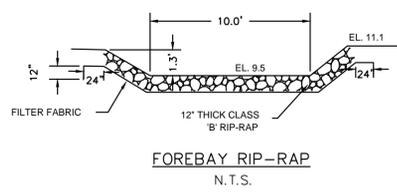
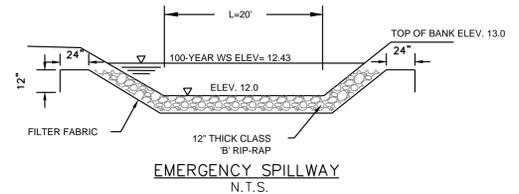
SHALLOW WATER COMMUNITY (NORMAL POOL TO SHELF BOTTOM) = 1,506 S.F.
@ 1 PLANT PER 4 SF (24" O.C.) = 376 PLANTS

PLANT TYPE	QTY	BOTANICAL NAME	COMMON NAME	ROOT	CALIPER	HEIGHT	NOTES
HERBACEOUS	188	Sagittaria latifolia	Duck Potato	CONT.	4" Pot		24" O.C.
HERBACEOUS	188	Pontederia cordata	Pickerelweed	CONT.	4" Pot		24" O.C.

SHALLOW LAND COMMUNITY (NORMAL POOL TO SHELF TOP) = 1,610 S.F.
@ 1 PLANT PER 6.25 SF (30" O.C.) = 258 PLANTS

PLANT TYPE	QTY	BOTANICAL NAME	COMMON NAME	ROOT	CALIPER	HEIGHT	NOTES
HERBACEOUS	129	Hibiscus coccineus	Scarlet Rose Mallow	CONT.	4" Pot		30" O.C.
HERBACEOUS	129	Lobelia cardinalis	Cardinal Flower	CONT.	4" Pot		30" O.C.

- NOTES:**
- NO PLANTINGS WITHIN 10' OF OUTLET STRUCTURE.
 - BECAUSE MOST STORMWATER BASINS ARE EXCAVATED TO DEEP SUB-SOILS, THEY OFTEN LACK THE NUTRIENTS AND ORGANIC MATTER NEEDED TO SUPPORT VIGOROUS GROWTH OF PLANTS. ALL LANDSCAPE MATERIAL, INCLUDING GRASS, SHOULD BE PLANTED IN GOOD TOPSOIL. NATIVE UNDERLYING SOILS MAY BE SUITABLE FOR PLANTING IF AMENDED WITH 4 INCHES OF WELL-AGED COMPOST TILLED INTO THE SUBGRADE. COMPOST SHOULD MEET SPECIFICATIONS FOR GRADE A COMPOST QUALITY.
 - A MINIMUM TWO-YEAR WARRANTY PERIOD STIPULATING REQUIREMENTS FOR PLANT SURVIVAL/REPLACEMENT.



Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

CITY OF WILMINGTON
NORTH CAROLINA

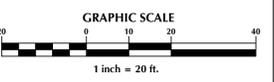
Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

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.



No.	Revision	Date	By

Designer	GSP	Scale	1" = 20'
Drawn By	GSP	Date	MAY 2014
License #	P-0718	Job No.	2013-0011

115 BEASLEY ROAD
Wilmington, New Hanover County, North Carolina

WET DETENTION DETAILS

PREPARED FOR:
115 BEASLEY, LLC
6105 OLEANDER DRIVE
SUITE 201
WILMINGTON, NC 28403

GSP CONSULTING, PLLC
ENGINEERING

6626 Gordon Road Unit C Wilmington, North Carolina 28411 tel: 910-442-7870 fax: 910-799-6659

Sheet No.
C-6

GENERAL NOTES

I. LOCATION OF WHEELCHAIR RAMPS:

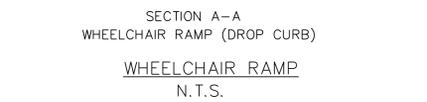
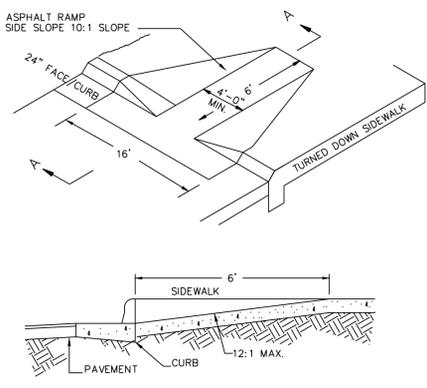
- IN ACCORDANCE WITH THE RATIFIED HOUSE BILL 1296, ALL STREET CURBS IN NORTH CAROLINA BEING CONSTRUCTED OR RECONSTRUCTED FOR MAINTENANCE PROCEDURES, TRAFFIC OPERATIONS, REPAIRS, CORRECTION OF UTILITIES OR ALTERED FOR ANY REASON AFTER SEPTEMBER 1, 1973 SHALL PROVIDE WHEELCHAIR RAMPS FOR THE PHYSICALLY HANDICAPPED AT ALL INTERSECTIONS WHERE BOTH CURB AND GUTTERS AND SIDEWALKS ARE PROVIDED AND AT OTHER MAJOR POINTS OF PEDESTRIAN FLOW.
- 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:

- NO SLOPE SHALL EXCEED 1"-1" (12:1) ON THE RAMP OR SIDEWALK.
- IN NO CASE SHALL THE WIDTH OF WHEELCHAIR RAMPS BE LESS THAN 40" (3'-4"). WIDTHS MAY EXCEED 40" IF NECESSARY.
- USE CLASS "A" CONCRETE WITH THE SURFACE HAVING A ROUGH, NON-SKID TYPE FINISH.
- 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE CONCRETE WHEELCHAIR RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE.
- CONSTRUCTION METHODS SHALL CONFORM WITH THOSE OF THE GOVERNING BODY WHICH HAS JURISDICTION OF THE PARTICULAR STREET.

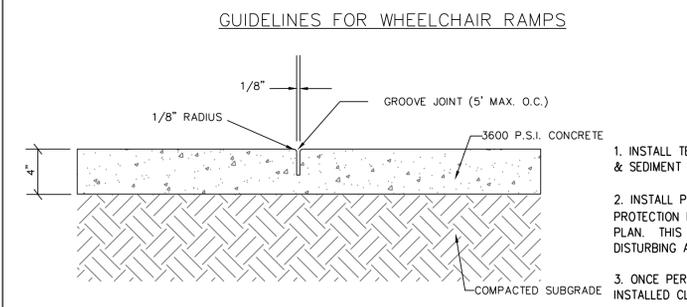
III. ADDITIONAL NOTES:

- THE INSIDE PEDESTRIAN CROSSWALK LINES SHALL BE ESTABLISHED BY BISECTING THE INTERSECTION RADII WHERE MARKED (SEE NOTE 6).
- 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.
- THE WIDTH OF THE PEDESTRIAN CROSSWALK SHALL BE 10 FEET UNLESS A GREATER WIDTH IS REQUIRED TO ACCOMMODATE THE PEDESTRIAN TRAFFIC.
- 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.
- PARKING SHALL BE ELIMINATED A MINIMUM OF 20 FEET BACK OF PEDESTRIAN CROSSWALK.
- 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 PRINTING OFFICE, WASHINGTON, D.C. 20402.

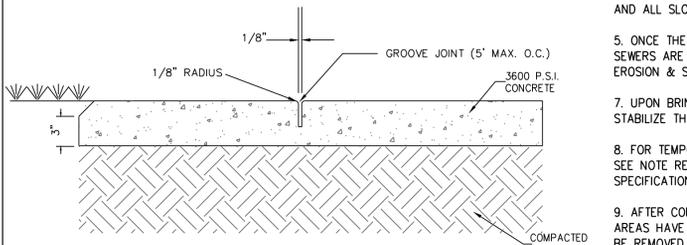


SEQUENCE OF CONSTRUCTION
LIMITS OF CONSTRUCTION = 0.87 ACRES

- INSTALL TEMPORARY CONSTRUCTION ENTRANCE AS SHOWN ON EROSION & SEDIMENT CONTROL PLAN.
- INSTALL PERIMETER CONTROLS (TEMPORARY SILT FENCE, TREE PROTECTION FENCING) AS SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN. THIS STEP NEEDS TO BE COMPLETED PRIOR TO UPSLOPE LAND DISTURBING ACTIVITIES.
- ONCE PERIMETER CONTROLS AND SEDIMENT TRAPPING MEASURES ARE INSTALLED CLEAR AND GRUB SITE WITHIN LIMITS OF DISTURBANCE.
- UPON BRINGING THE SITE TO ROUGH GRADE, STABILIZE ALL AREAS WITH TEMPORARY VEGETATION IF LEFT UNDISTURBED FOR 15 WORKING DAYS AND ALL SLOPES WITHIN 21 CALENDAR DAYS.
- ONCE THE PARKING AREAS, SANITARY SEWERS, WATERLINES AND STORM SEWERS ARE IN PLACE, INSTALL INLET PROTECTION AS INDICATED ON THE EROSION & SEDIMENT CONTROL PLAN.
- UPON BRINGING THE PARKING AREA TO SUBGRADE ELEVATIONS, STABILIZE THE AREAS BY PLACING STONE BASE AS EARLY AS POSSIBLE.
- FOR TEMPORARY VEGETATIVE STABILIZATION OF ALL DENUDED AREAS SEE NOTE REFERENCING THE EROSION CONTROL PROGRAM AND SPECIFICATIONS ON SHEET C-1.
- AFTER CONSTRUCTION OPERATIONS HAVE ENDED AND ALL DISTURBED AREAS HAVE BEEN STABILIZED, MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED. SEDIMENT FROM TEMPORARY SEDIMENT TRAPPING DEVICES SHALL BE DISPOSED OF BY SPREADING ON THE SITE OR HAULING AWAY IF NOT SUITABLE FOR FILL. ALL DENUDED AREAS ARE TO BE PERMANENTLY STABILIZED WITH PERMANENT VEGETATION.



CONCRETE SIDEWALK DETAIL

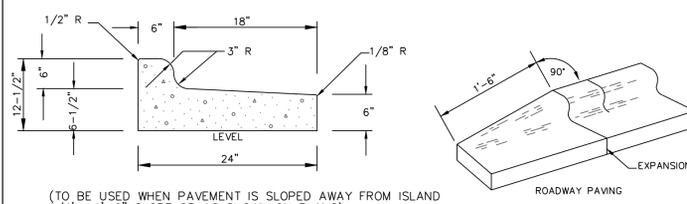


SIDEWALK ADJACENT TO GRASSED AREAS AND PLANTERS

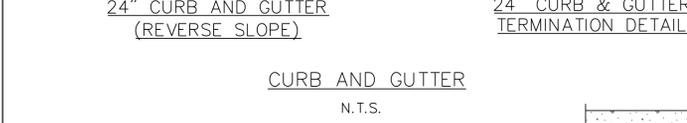


CONCRETE SIDEWALK

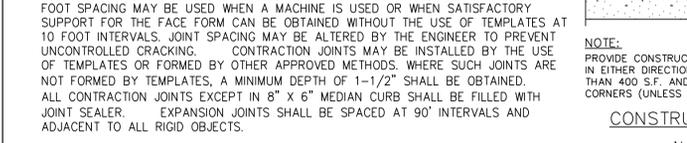
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24" CURB AND GUTTER (REVERSE SLOPE)



24" CURB & GUTTER TERMINATION DETAIL



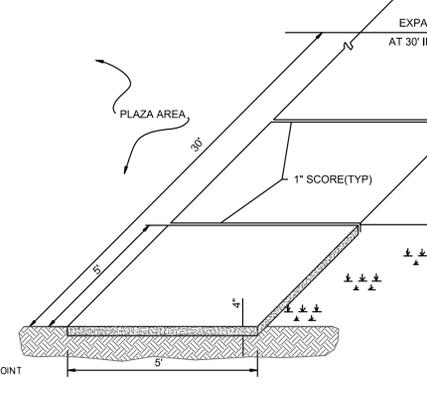
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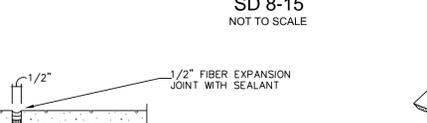
SECTION A-A
WHEELCHAIR RAMP (DROP CURB)
WHEELCHAIR RAMP
N.T.S.

SEQUENCE OF CONSTRUCTION
LIMITS OF CONSTRUCTION = 0.87 ACRES

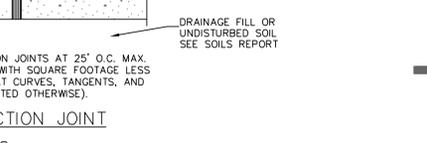
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STANDARD SIDEWALK DETAIL

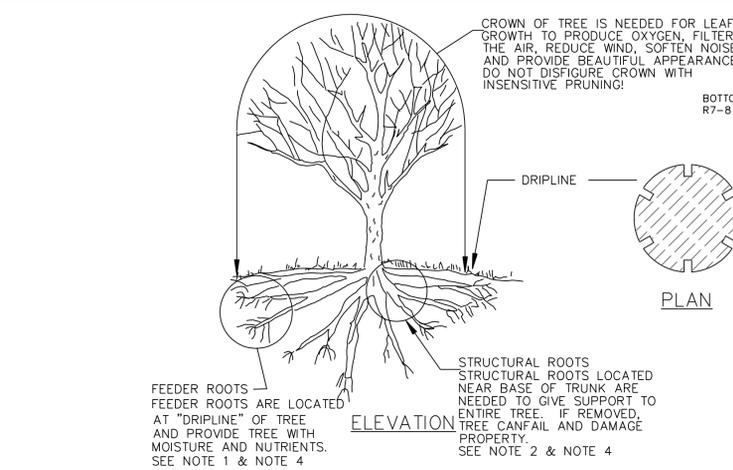


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ELEVATION

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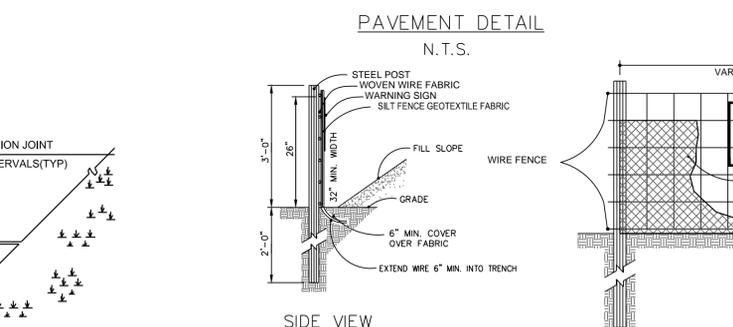
METHOD OF TREE PROTECTION DURING CONSTRUCTION



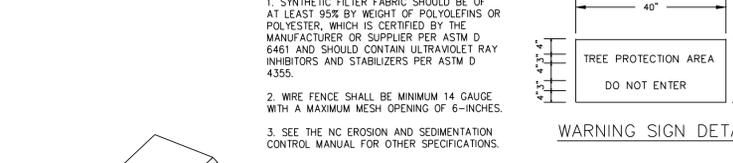
ASPHALT DETAIL FOR PARKING LOT



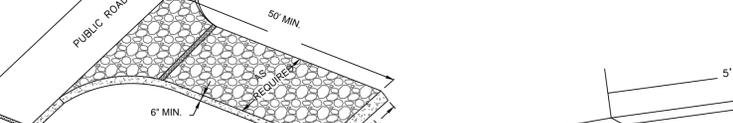
PAVEMENT DETAIL



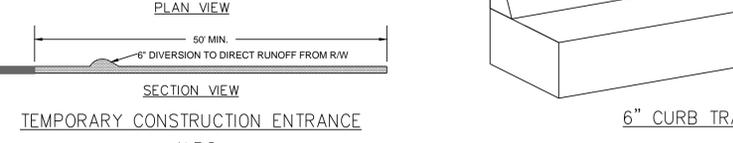
STANDARD TEMPORARY SILT / TREE PROTECTION FENCE



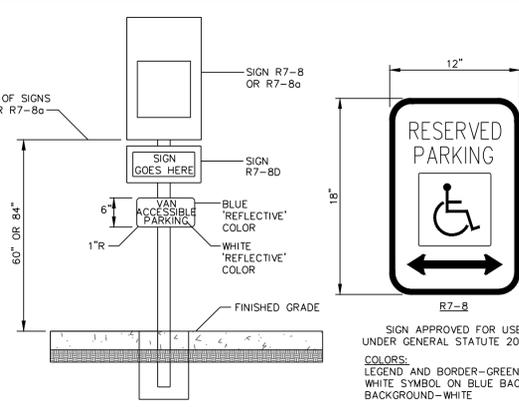
WARNING SIGN DETAIL



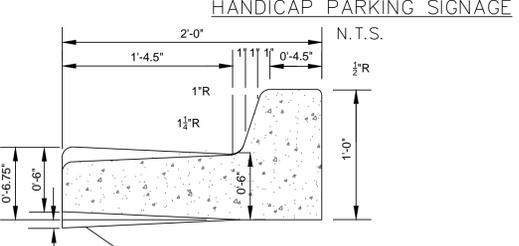
6" CURB TRANSITION TO 4" TURNDOWN SIDEWALK



TEMPORARY CONSTRUCTION ENTRANCE



HANDICAP PARKING SIGNAGE



STORM DRAINAGE FLUME



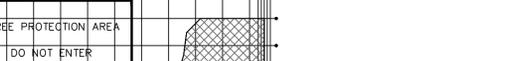
TURNDOWN SIDEWALK DETAIL



CONCRETE SIDEWALK DETAIL

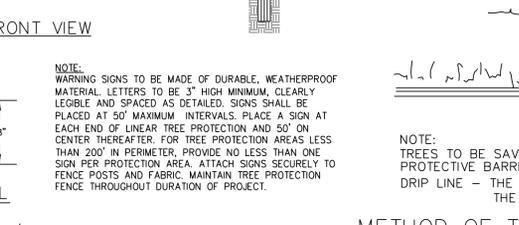


SIDEWALK ADJACENT TO GRASSED AREAS AND PLANTERS

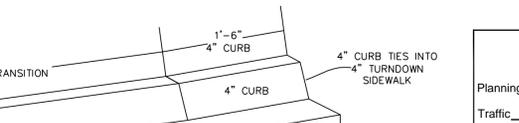


CONCRETE SIDEWALK

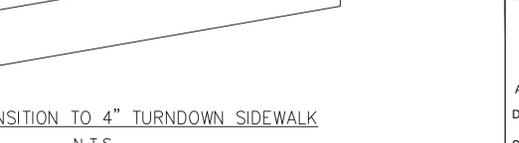
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24" CURB AND GUTTER (REVERSE SLOPE)

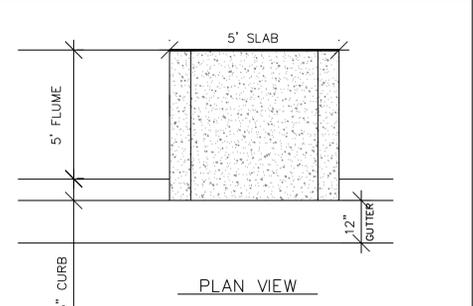


24" CURB & GUTTER TERMINATION DETAIL

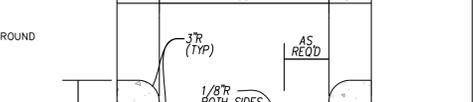


CURB AND GUTTER

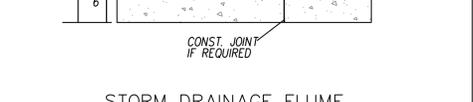
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STORM DRAINAGE FLUME



TURNDOWN SIDEWALK DETAIL



CONCRETE SIDEWALK DETAIL



SIDEWALK ADJACENT TO GRASSED AREAS AND PLANTERS



CONCRETE SIDEWALK

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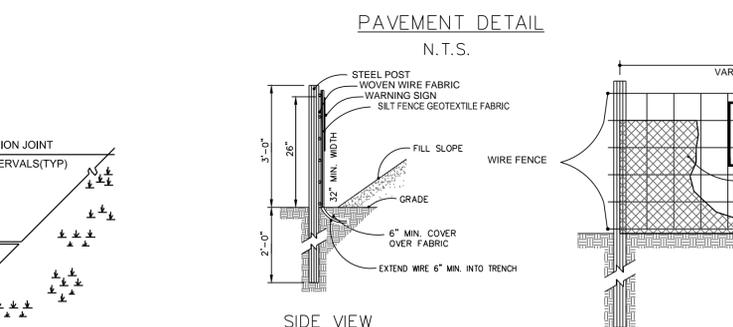
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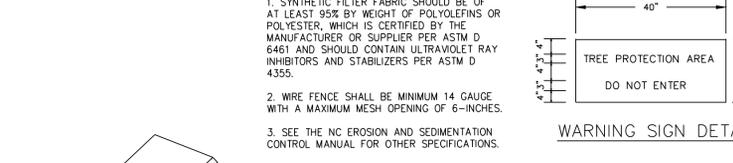
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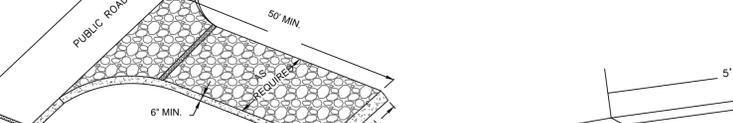
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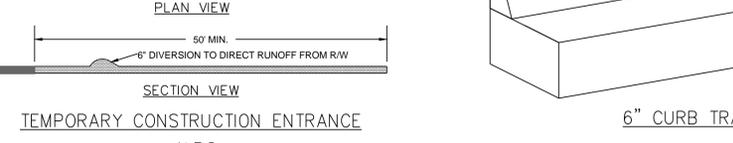
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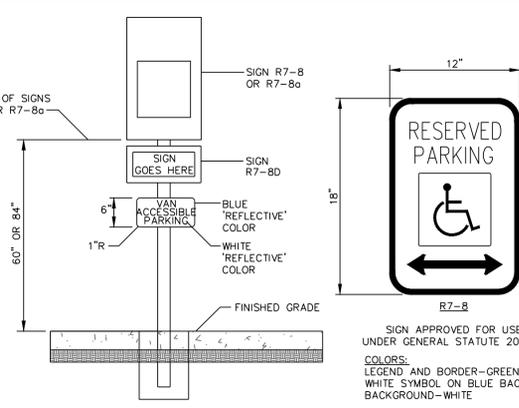
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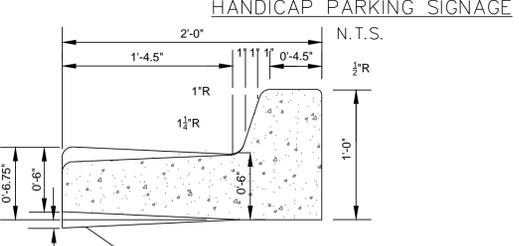
6" CURB TRANSITION TO 4" TURNDOWN SIDEWALK



TEMPORARY CONSTRUCTION ENTRANCE



HANDICAP PARKING SIGNAGE



STORM DRAINAGE FLUME



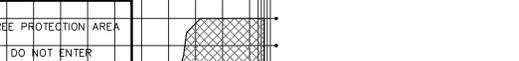
TURNDOWN SIDEWALK DETAIL



CONCRETE SIDEWALK DETAIL

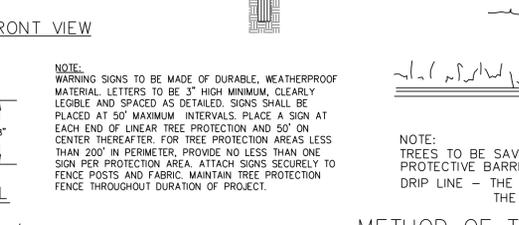


SIDEWALK ADJACENT TO GRASSED AREAS AND PLANTERS

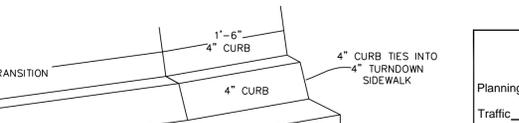


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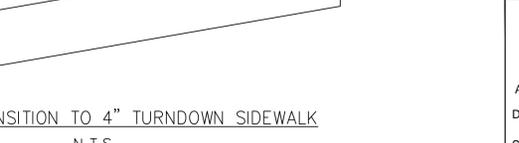
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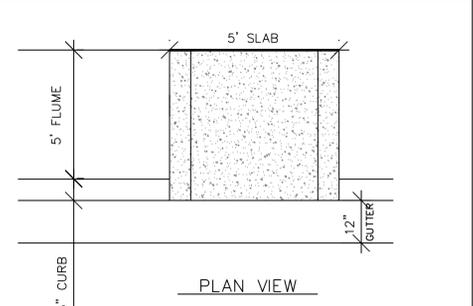


24" CURB & GUTTER TERMINATION DETAIL

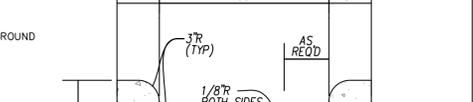


CURB AND GUTTER

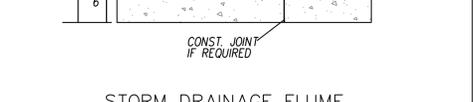
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TURNDOWN SIDEWALK DETAIL



CONCRETE SIDEWALK DETAIL



SIDEWALK ADJACENT TO GRASSED AREAS AND PLANTERS



CONCRETE SIDEWALK

GENERAL NOTES:
A GROOVE JOINT 1" DEEP WITH 1/8" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 45' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK ABUTS ANY CURB & GUTTER AND ANY RIGID STRUCTURES. IN SIDEWALKS & PLAZA AREAS EXPANSION JOINTS ARE REQUIRED AT NO GREATER THAN 30' INTERVALS. CONCRETE SHALL BE 3600 PSI. IN 28 DAYS.

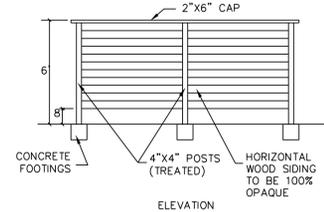
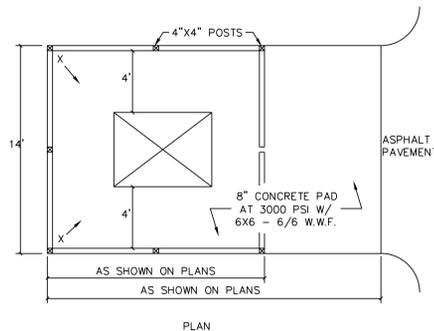


24" CURB AND GUTTER (REVERSE SLOPE)



24" CURB & GUTTER TERMINATION DETAIL





DUMPSTER PAD & ENCLOSURE DETAIL
N.T.S.

Landscape Calculations:

(Note: All regulated & significant trees have been field located and are labeled.)

	Req'd.	Prov'd.
Parking Area Interior (20% Shading)- 25,847 s.f. x 20%	5,169 s.f.	5,656 s.f.
7 PROPOSED LIVE OAKS AT FULL CREDIT (@707 SF)		
1 EXISTING HOLLY AT FULL CREDIT (@707 SF)		
Overall Development Area - 4.76 ac. ± development area x 15 trees/ac.	71	27 PROPOSED 52 EXISTING 79 TOTAL

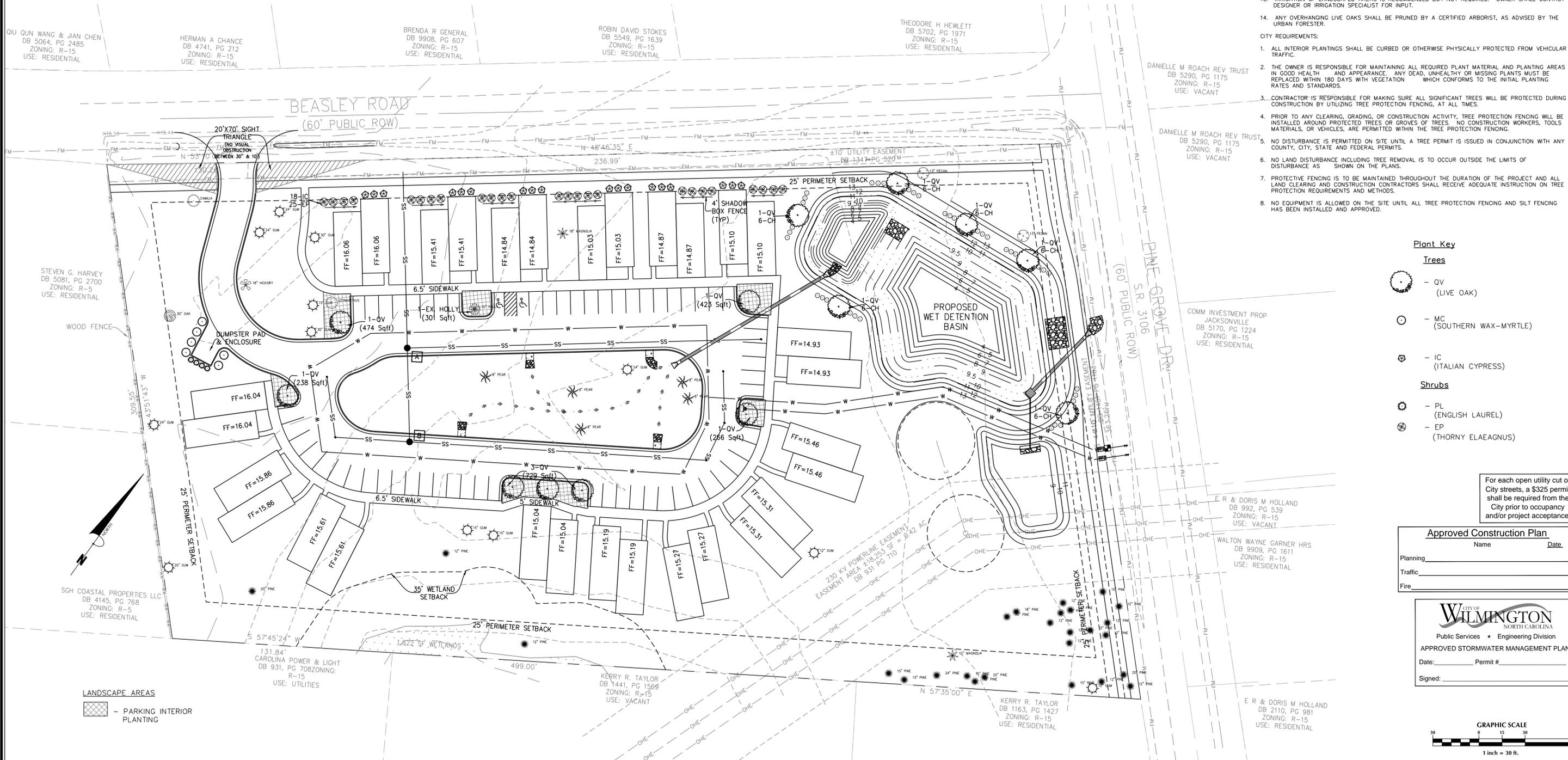
PLANT LIST—OR EQUIVALENTS

KEY	NO.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	TYPE (SHRUB, CANOPY TREE OR UNDERSTORY TREE)	SIZE (LARGE OR SMALL)	SHADING SF GIVEN (TREES ONLY)	PLANTING REMARKS
QV	13	QUERCUS VIRGINIANA	LIVE OAK	8'-10' Ht. 2.5" CAL.	CANOPY	LARGE	707	SPACING AS SHOWN
MC	6	MYRICA CERIFERA	SOUTHERN WAX-MYRTLE	5-6' HT				SPACING AS SHOWN
IC	18	CUPRESSUS SEMPERVIRENS	ITALIAN CYPRESS	20'-30' HGT.				
CH	36	ILEX CORNUTA 'CARISSA'	CARISSA HOLLY	3 GAL.	SHRUB			4' O.C.
EP	25	ELAEAGNUS PUNGENS	THORNY ELAEAGNUS	8'-12' HGT.	SHRUB			6'-8' O.C.
PL	4	PRUNUS LAUROCERASUS 'SCHIPKAENSIS'	ENGLISH LAUREL	36" HGT.	SHRUB			4' O.C.

O.C. - "ON CENTER" CAL. - "CALIPER AT 6" ABOVE GRADE" GAL. - "GALLON CONTAINER"
MIN. PLANTING SIZE: SHADE TREES=2-2.5" CAL. MULTI-STEM= 8-10" SHRUBS= 12"

LANDSCAPE NOTES:

- EXISTING REGULATED & SIGNIFICANT TREES HAVE BEEN LOCATED BY FIELD SURVEY.
 - KEY LETTERS REFER TO PLANT LIST.
 - ALL PLANTS SHALL MEET OR EXCEED THE MINIMUM STANDARDS SET FORTH IN "THE AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
 - ALL PLANTING BEDS SHALL RECEIVE A MIN. OF 4" MULCH.
 - ALL AREAS DISTURBED AND NOT SPECIFIED AS PLANTING BEDS WILL BE GRASSED.
 - DUMPSTER AREA WILL BE ENCLOSED ON AT LEAST THREE (3) SIDES WITH A FENCE.
 - ALL MECHANICAL EQUIPMENT, INCLUDING ANY ROOFTOP EQUIPMENT, SHALL BE SCREENED.
 - CONTRACTOR SHALL USE WHATEVER METHOD OF TREE STAKING HE DEEMS FIT. HOWEVER, HE WILL BE HELD LIABLE FOR ANY DAMAGES CAUSED TO TREES BY IMPROPER STAKING METHODS (OR ABSENCE OF STAKING) AND IS RESPONSIBLE FOR UPRIGHT AND REPLANTING TREES WHICH ARE BLOWN OVER.
 - CONTRACTOR SHALL WARRANTY ALL TREES AND SHRUBS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK OF THE LANDSCAPE PLAN.
 - IF DISCREPANCIES OR AVAILABILITIES ARE FOUND IN THE PLANT SPECIES AND/OR MIN. SIZES REQ'D., CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT. SUBSTITUTIONS MAY BE MADE WITH AUTHORIZATION AS LONG AS THE PLANTS FOLLOW THE INTENDED FORM AND FUNCTION.
 - THE USE OF FABRIC DURING INSTALLATION OF PLANTINGS IS RECOMMENDED FOR WEED CONTROL. CONTRACTOR SHALL MAKE EFFORTS TO INCLUDE AND DISCLOSE TO OWNER UPON INSTALLATION OF PLANTINGS IF LANDSCAPE FABRIC OR OTHER ALTERNATIVE IS TO BE USED.
 - CONTRACTOR WILL NOT USE PLASTIC AS COMPARED TO LANDSCAPE FABRIC DURING PLANT INSTALLATION FOR WEED CONTROL.
 - IRRIGATION OF LANDSCAPED AREAS IS RECOMMENDED BUT NOT REQUIRED. OWNER SHALL CONTACT DESIGNER OR IRRIGATION SPECIALIST FOR INPUT.
 - ANY OVERHANGING LIVE OAKS SHALL BE PRUNED BY A CERTIFIED ARBORIST, AS ADVISED BY THE URBAN FORESTER.
- CITY REQUIREMENTS:
- ALL INTERIOR PLANTINGS SHALL BE CURBED OR OTHERWISE PHYSICALLY PROTECTED FROM VEHICULAR TRAFFIC.
 - THE OWNER IS RESPONSIBLE FOR MAINTAINING ALL REQUIRED PLANT MATERIAL AND PLANTING AREAS IN GOOD HEALTH AND APPEARANCE. ANY DEAD, UNHEALTHY OR MISSING PLANTS MUST BE REPLACED WITHIN 180 DAYS WITH VEGETATION WHICH CONFORMS TO THE INITIAL PLANTING RATES AND STANDARDS.
 - CONTRACTOR IS RESPONSIBLE FOR MAKING SURE ALL SIGNIFICANT TREES WILL BE PROTECTED DURING CONSTRUCTION BY UTILIZING TREE PROTECTION FENCING, AT ALL TIMES.
 - PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS MATERIALS, OR VEHICLES, ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
 - NO DISTURBANCE IS PERMITTED ON SITE UNTIL A TREE PERMIT IS ISSUED IN CONJUNCTION WITH ANY COUNTY, CITY, STATE AND FEDERAL PERMITS.
 - NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS.
 - PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND ALL LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS.
 - NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.



- Plant Key
- Trees**
- QV (LIVE OAK)
 - MC (SOUTHERN WAX-MYRTLE)
 - IC (ITALIAN CYPRESS)
- Shrubs**
- PL (ENGLISH LAUREL)
 - EP (THORNY ELAEAGNUS)

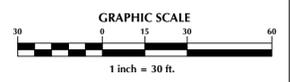
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

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

Date: _____ Permit # _____
Signed: _____



No.	Revision	Date	By

Designer	GSP	Scale	1" = 30'
Drawn By	GSP	Date	MAY 2014
License #	P-0718	Job No.	2013-0011

115 BEASLEY ROAD
New Hanover County
North Carolina

LANDSCAPE PLAN

PREPARED FOR:
115 BEASLEY, LLC
6105 OLEANDER DRIVE
SUITE 201
WILMINGTON, NC 28403

GSP CONSULTING, PLLC
ENGINEERING
6626 Gordon Road Unit C Wilmington, North Carolina 28411 tel: 910-442-7870 fax: 910-799-6659

Sheet No.
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