

**SITE DATA**  
 PROPERTY OWNER: CAMERON PROPERTIES  
 PROJECT ADDRESS: 1751 MUSEUM DR.  
 PIN NUMBER: PART OF R06500-003-004-000 & PART OF R06508-009-001-000  
 FLOOD AREA: THIS SITE IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS, MAP NUMBER 3720312500J (DATED: 4-3-06) & MAP NUMBER 3720312600J (DATED: 4-3-06)  
 ZONING DISTRICT: R-15; THIS PROJECT WILL BE A PUD-R  
 MAXIMUM HEIGHT (R-15): 35'  
 REQUIRED & PROVIDED BUILDING SETBACKS (R-15) FOR YARDS ABUTTING ADJACENT PROPERTIES AT THE PROJECT'S PERIPHERY: FRONT-30', REAR-25', INTERIOR SIDE-10', CORNER LOT SIDE-15'  
 REQUIRED & PROVIDED BUILDING SETBACKS FOR INTERNAL DESIGN OF THE PROJECT: PER NC STATE BUILDING CODE  
 SITE AREA: 2,030,386 SF = 46.61 ACRES ±  
 NUMBER OF PROPOSED LOTS: 124 (72 SINGLE FAMILY & 52 TOWNHOME UNITS)  
 TOTAL AMOUNT & PERCENT OF IMPERVIOUS SURFACE AREAS ON-SITE:

BEFORE DEVELOPMENT			AFTER DEVELOPMENT				
CROSS CITY TRAIL	AREA (SF)	% OF SITE	LOTS (SINGLE FAMILY & TOWNHOME)	EX. (SF)	PROPOSED (SF)	TOTAL (SF)	% OF SITE
MUSEUM DR	14,851	0.73		0	502,296	502,296	24.74
CHARLES PAINE DR	3,762	0.19	ROADS	18,455	226,661	245,116	12.07
SIDEWALK	1,000	0.05	SIDEWALKS	1,000	56,524	57,524	2.83
TOTAL	55,306	2.73	OTHER	0	6,000	6,000	0.30
			CROSS CITY TRAIL	32,177	2,607	34,784	1.72
			FUTURE	0	5,934	5,934	0.29
			TOTAL	51,632	800,022	851,654	41.95

THIS SITE IS NOT WITHIN A SPECIAL HIGHWAY OVERLAY DISTRICT OR ANY OTHER ZONING OVERLAY DISTRICT PER THE CITY OF WILMINGTON ZONING MAP (MAP 3125-2, DATED: MAY 25, 2012).  
 CAMA LAND USE CLASSIFICATION PER THE 2006 CAMA PLAN UPDATE LAND CLASSIFICATION MAP IS URBAN.

**CITY OF WILMINGTON STANDARD NOTES**

- 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.
- NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS. NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.
- PROTECTIVE TREE 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.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- 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. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- 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.
- CALL TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN. CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
- ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY APRON PANELS, OR CURB AND GUTTER SECTIONS SHALL BE REPLACED.
- CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- PROJECT SHALL COMPLY WITH CFPWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 332-6558 FOR INFORMATION.
- IF THE CONTRACTOR DESIRES CFPWA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE & MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
- ANY IRRIGATION SYSTEM SUPPLIED BY CFPWA WATER SHALL COMPLY WITH THE CFPWA CROSS CONNECTION CONTROL REGULATIONS. CALL 332-6558 FOR INFORMATION.
- ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCOCHR OR ASSE.
- ALL TRAFFIC CONTROL SIGNS & MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- ALL PAVEMENT MARKINGS REGULATING TRAFFIC FLOW MUST BE THERMOPLASTIC.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET (CONTACT 341-5888 FOR MORE DETAILS). IN CERTAIN CASES, AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
- TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.
- 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 PLAN.
- CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING. 1-800-632-4949.
- INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS.
- IF THESE UNITS ARE SOLD AT ANY POINT, THE BUYER MUST RECEIVE A SUBDIVISION STREET DISCLOSURE STATEMENT.
- WATER, SEWER, & STORMWATER INFRASTRUCTURE TO BE CONSTRUCTED BY APPLICANT.
- UNLESS NOTED OTHERWISE, ALL WATER AND SEWER TO BE PUBLIC.
- DRIVEWAYS SHALL INTERSECT THE STREET AT A 90 DEGREE ANGLE.

**GENERAL NOTES**

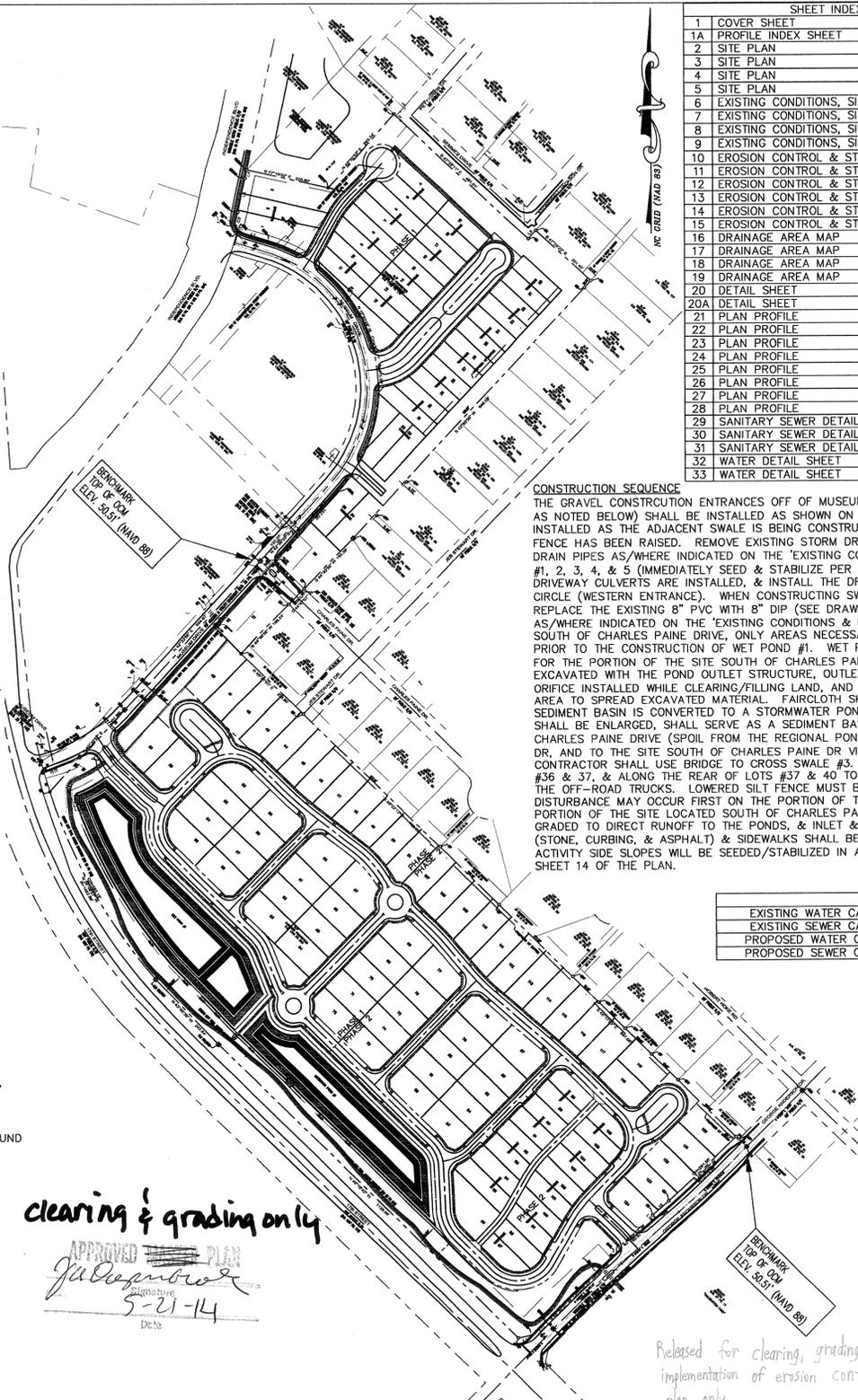
- ROLL CART FOR TRASH REMOVAL.
- SANITARY SEWER SIZE 8". ALL PROPOSED SANITARY SEWER TO BE PUBLIC.
- WATER SIZE 8"-2". ALL PROPOSED WATER TO BE PUBLIC.
- ALL PROPOSED STREET RIGHTS-OF-WAY TO BE PUBLIC.
- ANTICIPATED COMPLETION OF PHASE 1: NOVEMBER 2014 & ANTICIPATED COMPLETION OF PHASE 2: MAY 2015.
- NO 10' NON-MUNICIPAL UTILITY EASEMENTS ALONG WESTERN & EASTERN ENTRANCE STREETS.
- THE PROPOSED DRAINAGE EASEMENT WIDTHS & LOCATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE (I.E.-REDUCTION IN WIDTH, ETC.) DURING THE DESIGN PROCESS.

**FIRE AND LIFE SAFETY NOTES**

- LANDSCAPING OR PARKING CAN NOT BLOCK OR IMPEDE THE FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT.
- FIRE HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
- NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING(S).
- THE FIRE DEPARTMENT ACCESS ROAD SHALL BE NO LESS THAN 20' UNLESS APPROVED BY THE FIRE OFFICIAL.
- CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.

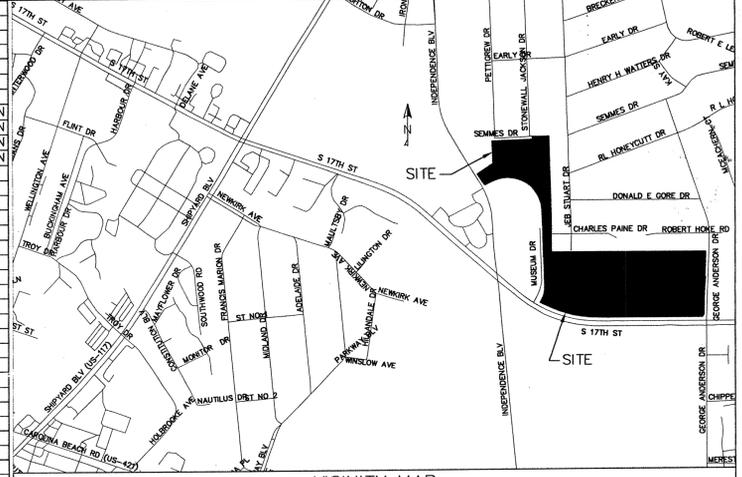
**NOTES**

- BOUNDARY, TOPOGRAPHICAL, & TREE SURVEY PROVIDED BY SHERWIN D. CRIBB, PLS.
- LIMITS OF DISTURBANCE = 1,928,626 SF = 44.28 ACRES.
- DISTURBED AREAS WITHIN RIGHTS-OF-WAY OF MUSEUM DRIVE & GEORGE ANDERSON DRIVE SHALL BE IMMEDIATELY SEEDED & STABILIZED WITH EXCELISOR MAT OR MULCH PRIOR TO ANY RAINFALL EVENT & IN ACCORDANCE WITH GROUND STABILIZATION CHART.
- UPON COMPLETION OF ANY PHASE OF ACTIVITY SIDE SLOPES WILL BE SEEDED/STABILIZED IN ACCORDANCE WITH GROUND STABILIZATION CHART (SEE SHEET 14).
- ALL ELEVATIONS ARE IN FEET UNLESS OTHERWISE INDICATED.
- ALL CITY, STATE, & FEDERAL REGULATIONS SHALL BE FOLLOWED.
- MANHOLES, CATCH BASINS, & DROP INLETS SHALL BE SIZED APPROPRIATELY TO ACCOMMODATE OVERSIZED PIPES.
- ALL DROP INLETS TO BE TRAFFIC BEARING WITH HEAVY DUTY 2'x3' FRAME & GRATE (GENERAL FOUNDRIES INC., ITEM #24364 OR EQUIVALENT).
- NO PIPE JOINTS SHALL BE INSIDE ANY INTERFERENCE MANHOLE.
- A RECORDED DRAINAGE EASEMENT SHALL BE PROVIDED FOR WET POND #1 & DETENTION POND #1 INCLUDING ACCESS TO THE NEAREST RIGHT-OF-WAY.
- ALL ROOF DRAINS SHALL BE DIRECTED TOWARDS THE ROAD IN FRONT OF THE RESPECTIVE LOT, AND TO THE DRAINAGE SYSTEM & PONDS (SEE DRAINAGE AREA MAPS). ROOF DRAINS SHALL NOT BE DIRECTED TO ROADS/ALLEYS ALONG THE SIDE OR REAR OF THE RESPECTIVE LOT.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO RAISE & SLOPE LOTS ADEQUATELY TO ENSURE POSITIVE DRAINAGE TOWARD STREET.
- THE MINIMUM BUILDING PAD ELEVATION FOR LOTS #4-9, 12-29, & 36-37 SHALL BE 1.5 FEET ABOVE THE HIGHEST BACK OF CURB ELEVATION IN FRONT OF THE RESPECTIVE LOT. THE MINIMUM BUILDING PAD ELEVATION FOR LOTS #38-98, 107-117, 119, & 121-124 SHALL BE 1.5 FEET ABOVE THE HIGHEST BACK OF CURB ELEVATION IN FRONT OF THE RESPECTIVE LOT OR ELEVATION=45.00', WHICHEVER IS GREATER. THE MINIMUM BUILDING PAD ELEVATIONS FOR THE REMAINING LOTS ARE AS FOLLOWS: LOTS 1-2 IS 50.75', LOT 3 IS 48.76', LOTS 10-11 IS 50.75', LOTS 30-31 IS 52.15', LOTS 32-33 IS 52.29', LOTS 34-35 IS 53.30', LOTS 99-100 IS 47.56', LOTS 101-104 IS 48.75', LOTS 105-106 IS 48.85', LOT 118 IS 51.05', AND LOT 120 IS 53.85'.
- DURING CONSTRUCTION WET POND #1 WILL SERVE AS A SKIMMER SEDIMENT BASIN. TEMPORARY POROUS BAFFLES (SEE DETAIL) SHALL BE INSTALLED. A FAIRCLOTH SKIMMER SHALL BE INSTALLED & CONNECTED TO THE OUTLET STRUCTURE (SEE SKIMMER DETAIL & CHART FOR SKIMMER & ORIFICE SIZE). THE FAIRCLOTH SKIMMER IS TEMPORARY. ONCE THE ENTIRE AREA DRAINING TO THE POND HAS BEEN STABILIZED THE POROUS BAFFLES & SKIMMER SHALL BE REMOVED, & THE ORIFICE PIPE (SEE POND DETAIL & CHART FOR SIZE) SHALL BE INSTALLED.
- PRIOR TO THE INSTALLATION OF WATER OR SANITARY SEWER MAINS CONTRACTOR SHALL NOTIFY THE ENGINEER WITH MALPASS ENGINEERING & SURVEYING, P.C. AT 910-392-5243.
- ALL TREES ON SITE, EXCEPT WITHIN CROSS CITY TRAIL EASEMENT ALONG GEORGE ANDERSON DRIVE & SOUTH 17TH STREET, TO BE REMOVED (SEE MAP TITLED 'TREE SURVEY FOR FORKS DEVELOPMENT' BY SHERWIN D. CRIBB, PLS FOR TREE INFORMATION). TREE PROTECTION FENCING SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL SD 15-08.



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9	EXISTING CONDITIONS, SITE INVENTORY, & DEMOLITION PLAN
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**CONSTRUCTION SEQUENCE**

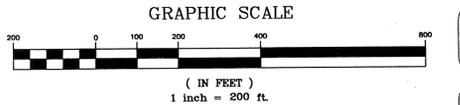
THE GRAVEL CONSTRUCTION ENTRANCES OFF OF MUSEUM DRIVE & GEORGE ANDERSON DRIVE, & SILT FENCE (EXCEPT AS NOTED BELOW) SHALL BE INSTALLED AS SHOWN ON THE PLAN. SILT FENCE ALONG SWALES #1-3 SHALL BE INSTALLED AS THE ADJACENT SWALE IS BEING CONSTRUCTED AND AFTER THE GROUND AT THE LOCATION OF THE SILT FENCE HAS BEEN RAISED. REMOVE EXISTING STORM DRAIN PIPE(S) & BLOCK OFF UPSTREAM END OF EXISTING STORM DRAIN PIPES AS/WHERE INDICATED ON THE 'EXISTING CONDITIONS & DEMOLITION PLAN'. THEN CONSTRUCT SWALES #1, 2, 3, 4, & 5 (IMMEDIATELY SEED & STABILIZE PER SWALE DETAILS). INSTALL ANY UTILITIES NECESSARY BEFORE DRIVEWAY CULVERTS ARE INSTALLED, & INSTALL THE DRIVEWAY CULVERTS WITH OUTLET PROTECTION AT LEADER CIRCLE (WESTERN ENTRANCE). WHEN CONSTRUCTING SWALE #4 OVER EXISTING SANITARY SEWER GRAVITY MAIN, REPLACE THE EXISTING 8" PVC WITH 8" DIP (SEE DRAWING COURT PROFILE). THEN BLOCK OFF THE EXISTING DITCHES AS/WHERE INDICATED ON THE 'EXISTING CONDITIONS & DEMOLITION PLAN'. FOR THE PORTION OF THE SITE LOCATED SOUTH OF CHARLES PAINE DRIVE, ONLY AREAS NECESSARY TO PERFORM THE ABOVE ACTIONS SHALL BE DISTURBED PRIOR TO THE CONSTRUCTION OF WET POND #1. WET POND #1, WHICH SHALL SERVE AS A SKIMMER SEDIMENT BASIN FOR THE PORTION OF THE SITE SOUTH OF CHARLES PAINE DRIVE (WITH THE EXCEPTION OF LOT #37), SHALL THEN BE EXCAVATED WITH THE POND OUTLET STRUCTURE, OUTLET PROTECTION, & THE TEMPORARY FAIRCLOTH SKIMMER BE ORIFICE INSTALLED WHILE CLEARING/FILLING LAND, AND INSTALLING STORM PIPING AND UTILITIES. SO AS TO HAVE AREA TO SPREAD EXCAVATED MATERIAL. FAIRCLOTH SKIMMER SHALL BE REMOVED ONCE SITE IS STABILIZED & SEDIMENT BASIN IS CONVERTED TO A STORMWATER POND. THE EXISTING INDEPENDENCE REGIONAL POND, WHICH SHALL BE ENLARGED, SHALL SERVE AS A SEDIMENT BASIN FOR THE PORTION OF THE SITE LOCATED NORTH OF CHARLES PAINE DRIVE (SPOIL FROM THE REGIONAL POND SHALL BE TAKEN TO THE SITE NORTH OF CHARLES PAINE DR, AND TO THE SITE SOUTH OF CHARLES PAINE DR VIA OFF-ROAD TRUCKS CROSSING CHARLES PAINE DR). CONTRACTOR SHALL USE BRIDGE TO CROSS SWALE #3. SILT FENCE MAY BE LOWERED ALONG THE FRONT OF LOTS #36 & 37, & ALONG THE REAR OF LOTS #37 & 40 TO PROVIDE ACCESS TO THE SOUTHERN PART OF THE SITE FOR THE OFF-ROAD TRUCKS. LOWERED SILT FENCE MUST BE RAISED AT THE CONCLUSION OF EACH WORK DAY. LAND DISTURBANCE MAY OCCUR FIRST ON THE PORTION OF THE SITE LOCATED NORTH OF CHARLES PAINE DRIVE OR THE PORTION OF THE SITE LOCATED SOUTH OF CHARLES PAINE DRIVE, OR SIMULTANEOUSLY. THEN THE SITE SHALL BE GRADED TO DIRECT RUNOFF TO THE PONDS, & INLET & OUTLET PROTECTION SHALL BE INSTALLED. THEN STREETS (STONE, CURBING, & ASPHALT) & SIDEWALKS SHALL BE CONSTRUCTED. UPON COMPLETION OF ANY PHASE OF ACTIVITY SIDE SLOPES WILL BE SEEDED/STABILIZED IN ACCORDANCE WITH THE GROUND STABILIZATION CHART ON SHEET 14 OF THE PLAN.

**WATER & SEWER CAPACITY**

EXISTING WATER CAPACITY:	0 GPD
EXISTING SEWER CAPACITY:	0 GPD
PROPOSED WATER CAPACITY:	124 LOTS x 400 GPD/LOT = 49,600 GPD
PROPOSED SEWER CAPACITY:	124 LOTS x 360 GPD/LOT = 44,640 GPD

CURVE	RADIUS	CHORD BEARING	CHORD LENGTH
C1	1015.93'	N 15°37'36" E	3.57'
C2	1004.93'	N 13°36'26" E	37.52'
C3	1452.89'	N 16°52'24" W	38.22'
C4	1452.89'	N 15°31'41" W	30.00'
C5	1452.89'	N 14°35'05" W	17.91'
C6	1452.89'	N 13°59'30" W	12.09'
C7	275.00'	N 59°25'27" E	149.14'
C8	3849.54'	S 48°20'17" W	10.69'
C9	3849.54'	S 46°25'51" W	245.55'

LINE	BEARING	DISTANCE
L1	N 73°15'17" W	87.89'
L2	N 31°06'48" W	15.29'
L3	N 12°32'23" E	92.21'
L4	N 11°23'05" E	23.52'
L5	N 42°37'24" E	30.04'
L6	N 75°09'28" E	28.75'
L7	S 45°20'37" E	29.84'
L8	S 45°21'19" E	106.81'
L9	N 42°32'08" E	29.92'
L10	N 42°32'08" E	30.10'
L11	S 44°47'07" W	29.43'
L12	S 44°47'07" W	29.89'
L13	N 45°26'46" W	29.83'
L14	N 45°39'09" W	10.24'
L15	S 48°22'56" W	58.07'
L16	S 41°37'27" E	9.93'
L17	S 44°38'30" W	52.95'
L18	S 78°22'41" W	36.00'
L19	N 45°47'27" W	29.98'
L20	N 42°39'57" E	202.33'
L21	N 42°39'57" E	99.26'



**LEGEND**

- EXISTING CONTOUR
- EXISTING EASEMENT
- EXISTING ROAD CENTERLINE
- EXISTING R/W
- EXISTING ADJACENT PROPERTY LINES
- EXISTING STORM DRAIN PIPE
- EXISTING STORM DRAIN MANHOLE
- EXISTING STORM DRAIN CURB INLET
- EXISTING STORM DRAIN DROP INLET
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER LINES
- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BOX
- EXISTING FIBER OPTIC MARKER
- EXISTING TRANSFORMER
- EXISTING POWER POLE
- EXISTING GUY WIRE
- EXISTING ASPHALT ROAD
- EXISTING CROSS CITY TRAIL (TO REMAIN)
- EXISTING TRAIL OR SIDEWALK (TO BE REMOVED)
- EXISTING SIDEWALK
- PROPERTY LINE
- OLD IRON PIPE
- OLD IRON PIPE (PINCHED)
- OLD IRON ROD
- OLD NAIL
- OLD REBAR
- OLD CONCRETE MONUMENT
- OLD RIGHT OF WAY MONUMENT
- PROPOSED SETBACK (ALONG PROJECT PERIPHERY)
- PROPOSED ROAD CENTERLINE
- PROPOSED R/W
- PROPOSED SANITARY SEWER
- PROPOSED WATER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED BLOWOFF
- PROPOSED GATE VALVE
- PROPOSED CATCH BASIN
- PROPOSED STORM DRAIN PIPE
- PROPOSED INLET PROTECTION
- PROPOSED PHASE LINE
- PROPOSED SWALE
- PROPOSED EASEMENT
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED SILT FENCE
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED BUFFER
- PROPOSED SIDEWALK OR CROSS CITY TRAIL
- PROPOSED TREE PROTECTION FENCE

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: \_\_\_\_\_  
 Public Utilities: \_\_\_\_\_  
 Traffic: \_\_\_\_\_  
 Fire: \_\_\_\_\_

**COVER SHEET**  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON NEW HANOVER COUNTY NORTH CAROLINA

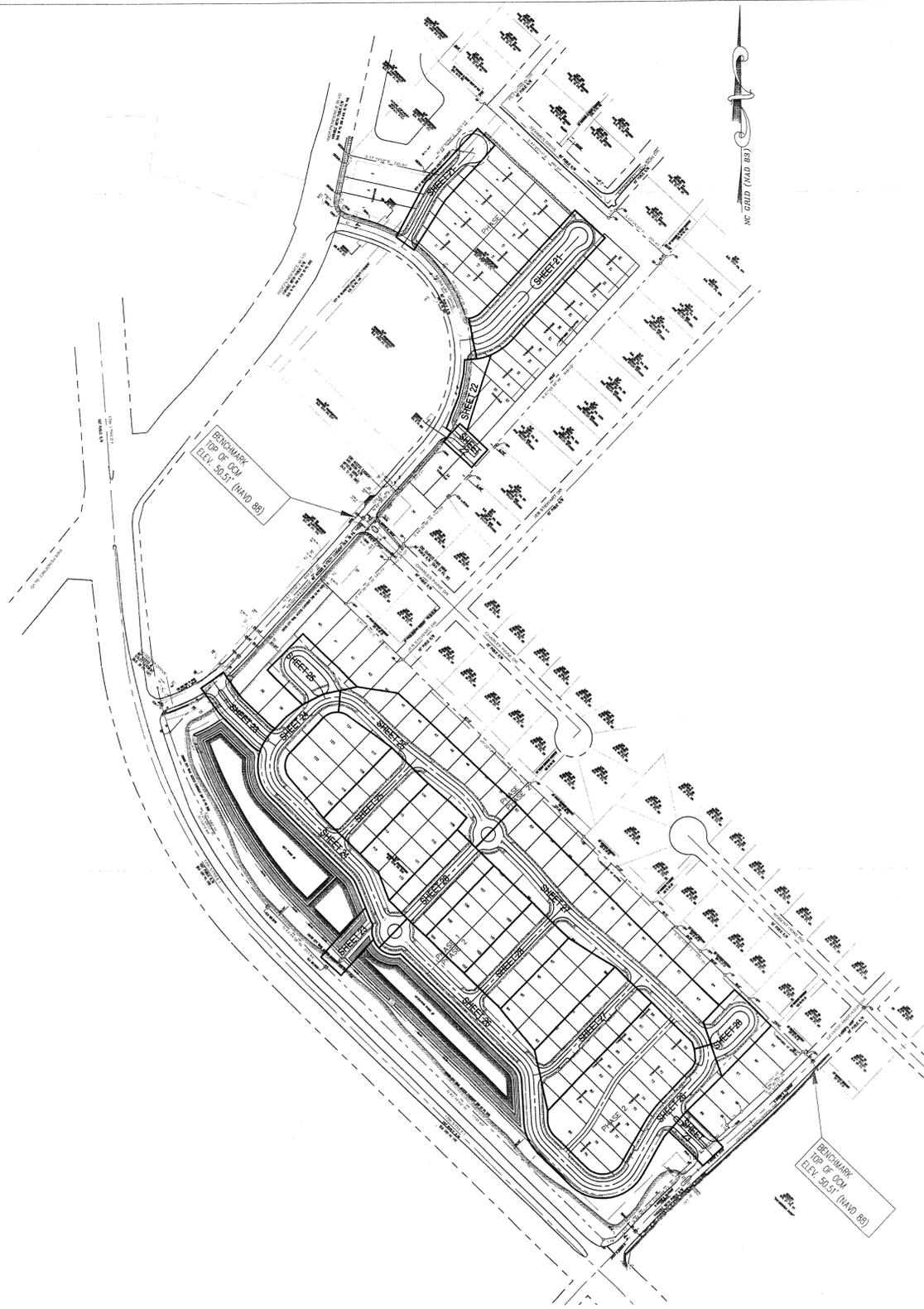
**MALPASS ENGINEERING & SURVEYING, P.C.**  
 1194 SHIPLEARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-392-5243 Fax 910-392-5233 License No. C-2320

**Owner: FORKS DEVELOPMENT, LLC**  
 P.O. BOX 3649  
 WILMINGTON, NORTH CAROLINA 28408  
 Phone: 910-251-2324 FAX: 910-762-2880

**PROJECT NO: 243**  
**SHEET NO: 1**  
**OF: 33**

PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.

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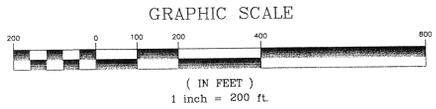


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SITE PLANNER  
 DEMAREST COMPANY  
 LANDSCAPE ARCHITECTS, LAND PLANNERS ASLA  
 6933 RUNNING BROOK TERRACE 28411  
 WILMINGTON, NORTH CAROLINA 910-231-2426  
 SCOTT D. STEWART RLA ASLA  
 NC LICENSE # 1128

STORMWATER MANAGEMENT PLAN  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

Approved Construction Plan  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Public Utilities \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_



REV. NO.	DESCRIPTION	DATE

PRELIMINARY PLAT  
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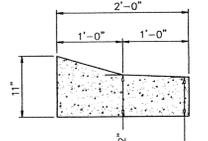
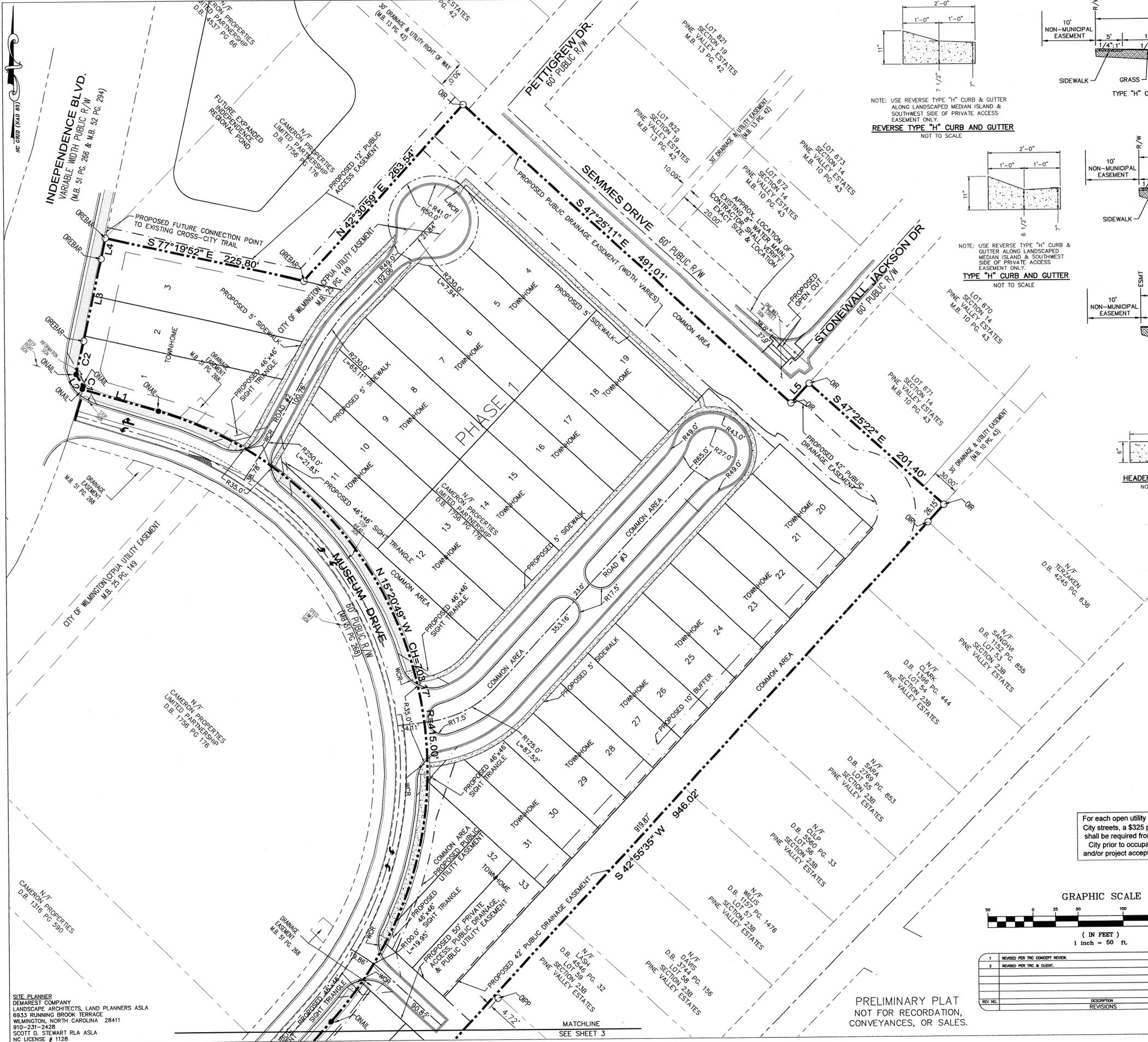
PROFILE INDEX SHEET  
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 CITY OF WILMINGTON NEW HANOVER COUNTY NORTH CAROLINA



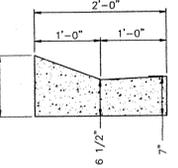
MALPASS ENGINEERING & SURVEYING, P.C.  
 1134 SHIPYARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-392-6543 License No. C-2320  
 Fax 910-392-6203

Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3649  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2324  
 FAX: 910-762-2680

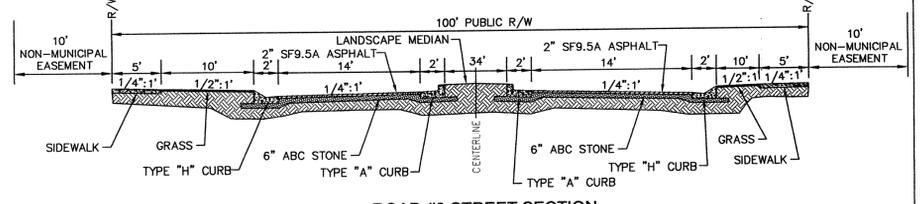
DATE: 4-15-14  
 SCALE: 1"=200'  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO: 243  
 SHEET NO: 1A  
 OF: 33



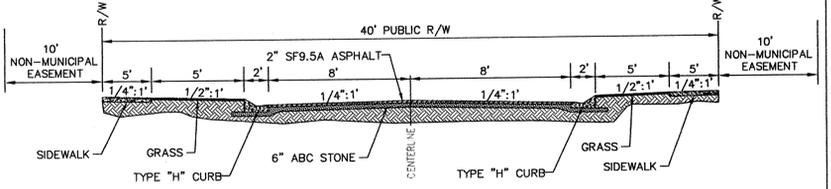
NOTE: USE REVERSE TYPE "H" CURB & GUTTER ALONG LANDSCAPED MEDIAN ISLAND & SOUTHWEST SIDE OF PRIVATE ACCESS EASEMENT ONLY.  
**REVERSE TYPE "H" CURB AND GUTTER**  
 NOT TO SCALE



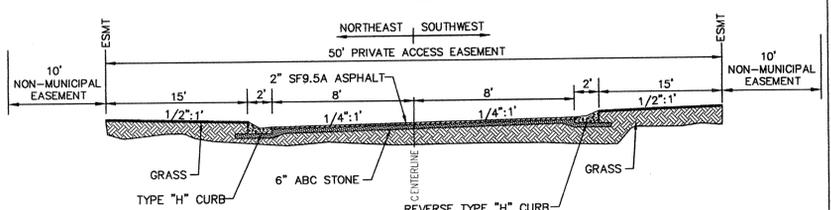
NOTE: USE REVERSE TYPE "H" CURB & GUTTER ALONG LANDSCAPED MEDIAN ISLAND & SOUTHWEST SIDE OF PRIVATE ACCESS EASEMENT ONLY.  
**TYPE "H" CURB AND GUTTER**  
 NOT TO SCALE



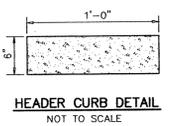
**ROAD #3 STREET SECTION**  
 NOT TO SCALE



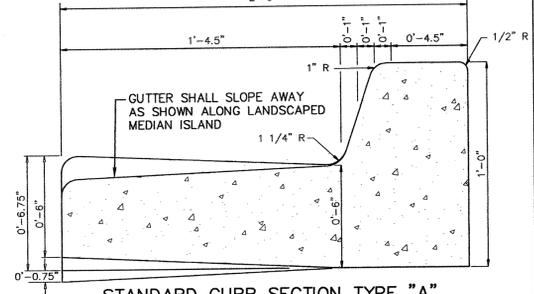
**ROAD #2 STREET SECTION**  
 NOT TO SCALE



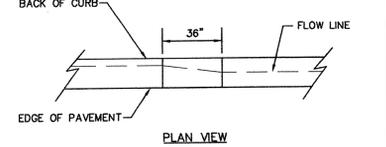
**PRIVATE ACCESS EASEMENT CROSS SECTION**  
 NOT TO SCALE



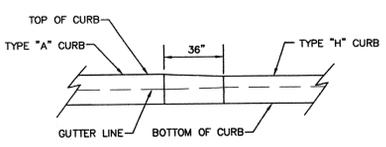
**HEADER CURB DETAIL**  
 NOT TO SCALE



**STANDARD CURB SECTION TYPE "A"**  
 NOT TO SCALE



**PLAN VIEW**

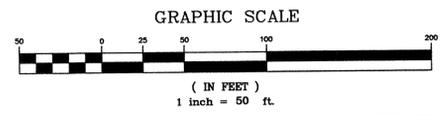


**TYPE "A" TO TYPE "H" CURB TRANSITION DETAIL**  
 NOT TO SCALE

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 \_\_\_\_\_  
 Public Utilities \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_



REV. NO.	REVISIONS	DATE
1	REVISED PER THE CONCEPT REVIEW.	12-18-13
2	REVISED PER TRC & CLIENT.	6-14-14

**SITE PLAN**  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON  
 NEW HANOVER COUNTY  
 NORTH CAROLINA

DATE: 12-4-13  
 SCALE: 1"=50'  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO: 243

**MALPASS ENGINEERING & SURVEYING, P.C.**  
 1134 SHIPYARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone: 910-382-5248  
 Fax: 910-382-5203  
 License No. C-2320

Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3649  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2324  
 FAX: 910-762-2880

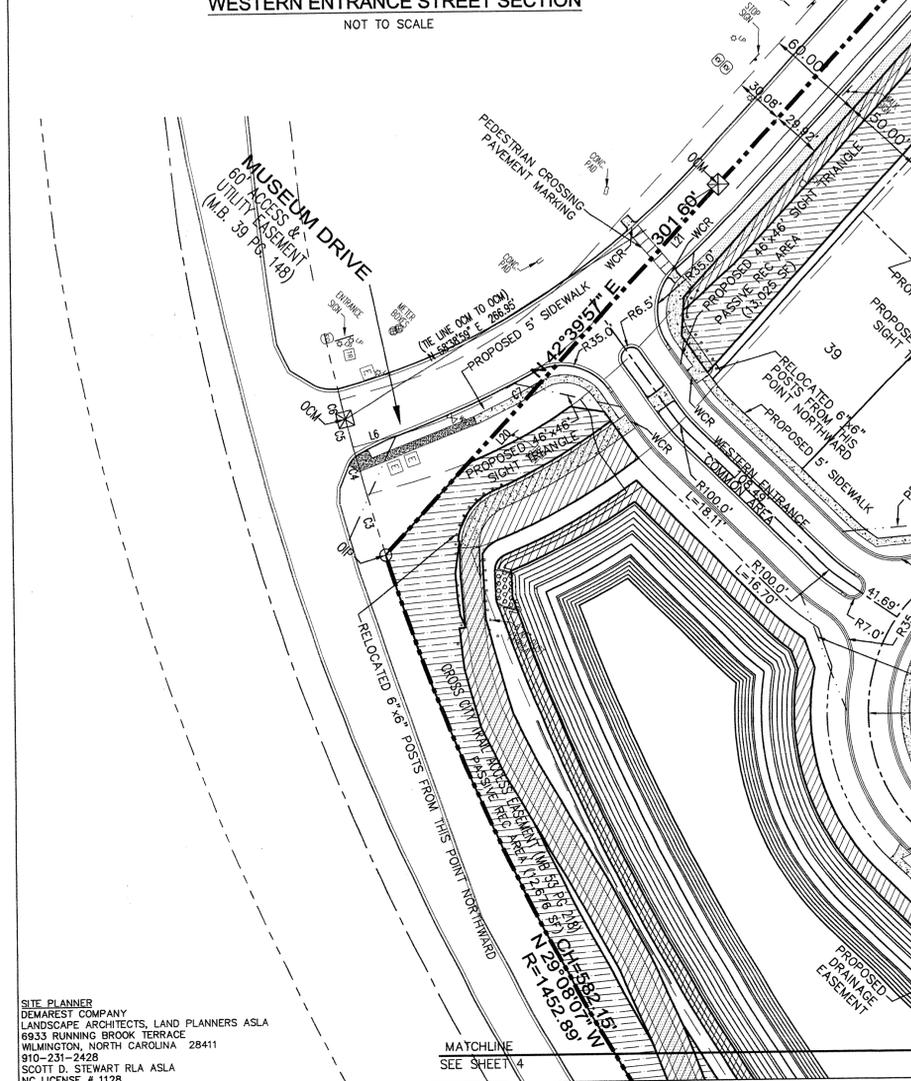
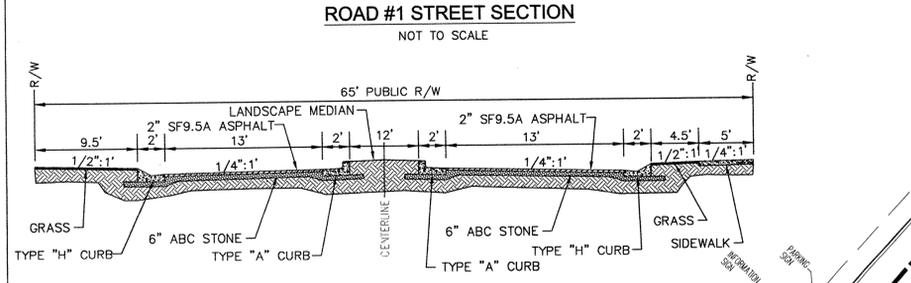
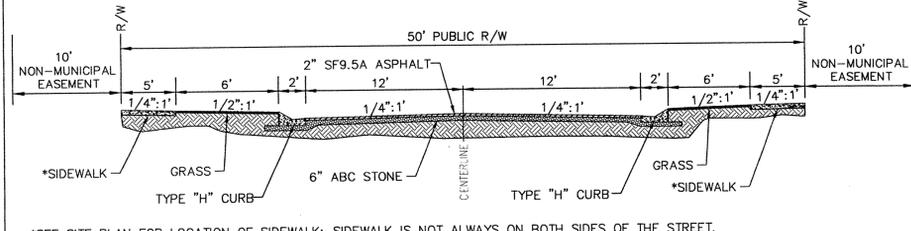
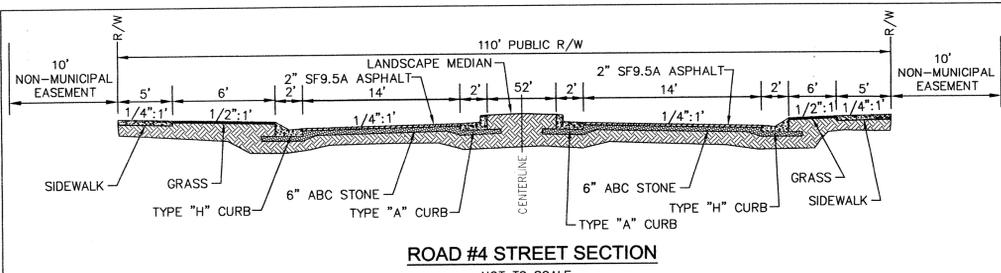
**SEAL**  
 JEM  
 JOURNAL OF PROFESSIONAL ENGINEERS  
 STATE OF NORTH CAROLINA  
 038234  
 12/18/13

**SHEET NO. 2**  
 OF 33

PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.

**SITE PLANNER**  
 DEMAREST COMPANY  
 LANDSCAPE ARCHITECTS, LAND PLANNERS ASLA  
 6933 RUNNING BROOK TERRACE  
 WILMINGTON, NORTH CAROLINA 28411  
 910-231-2429  
 SCOTT D. STEWART RLA ASLA  
 NC LICENSE # 1128

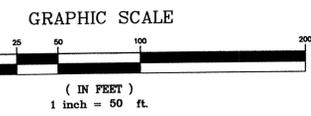
**RECREATION SPACE CALCULATION**  
 REQUIRED RECREATION SPACE = 0.03 ACRES/LOT \* 133 LOTS = 3.99 ACRES  
 REQUIRED ACTIVE RECREATION AREA = 0.5 \* 3.99 = 1.995 ACRES  
 PROVIDED ACTIVE RECREATION AREA = 98,626 SF = 2.26 ACRES  
 REQUIRED PASSIVE RECREATION AREA = 0.5 \* 3.99 = 1.995 ACRES  
 PROVIDED PASSIVE RECREATION AREA = 92,609 SF = 2.12 ACRES  
 PROVIDED TOTAL RECREATION AREA = 4.38 ACRES



**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Public Utilities \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_

PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.



REV. NO.	DESCRIPTION	DATE
1	REVISED PER THE CONCEPT REVIEW	12-18-13
2	REVISED PER THE CLIENT	4-14-14

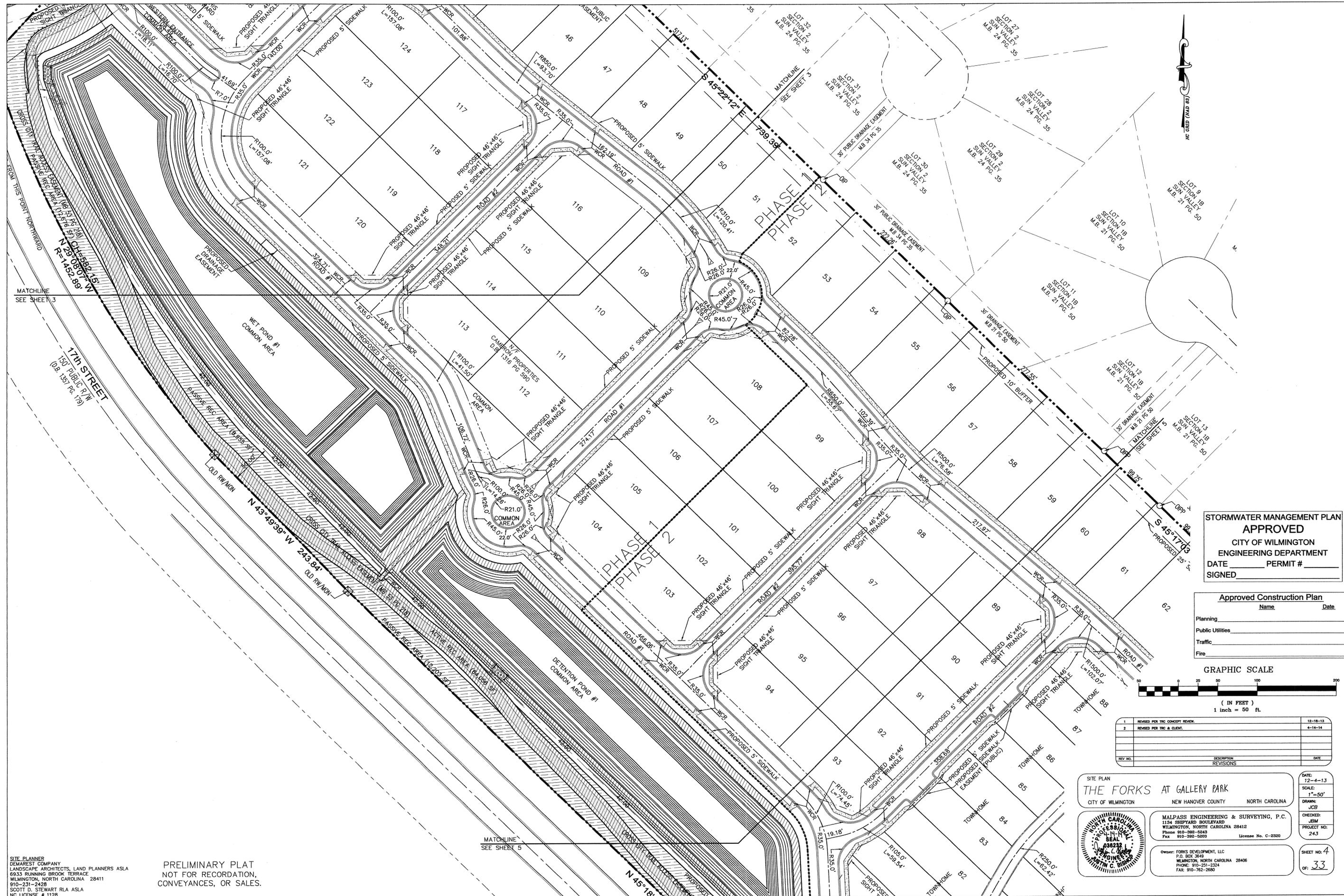
**SITE PLAN**  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON NEW HANOVER COUNTY NORTH CAROLINA

**MALPASS ENGINEERING & SURVEYING, P.C.**  
 1154 SHIPPARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-392-5243 Fax 910-392-5203 License No. C-2320

**Owner: FORKS DEVELOPMENT, LLC**  
 P.O. BOX 3549  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2324 FAX: 910-762-2690

DATE: 12-4-13  
 SCALE: 1"=50'  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO: 243  
 SHEET NO: 3  
 OF: 33

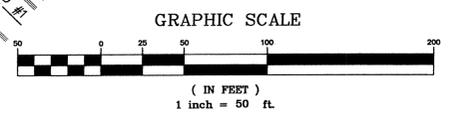
**SITE PLANNER**  
 DEMAREST COMPANY  
 LANDSCAPE ARCHITECTS, LAND PLANNERS ASLA  
 6933 RUNNING BROOK TERRACE  
 WILMINGTON, NORTH CAROLINA 28411  
 910-231-2428  
 SCOTT D. STEWART RLA ASLA  
 NC LICENSE # 1128



**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Public Utilities	
Traffic	
Fire	



REV. NO.	DESCRIPTION	DATE
1	REVISED PER THE CONCEPT REVIEW	12-18-13
2	REVISED PER THE CLIENT	4-14-14

**SITE PLAN**  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON    NEW HANOVER COUNTY    NORTH CAROLINA

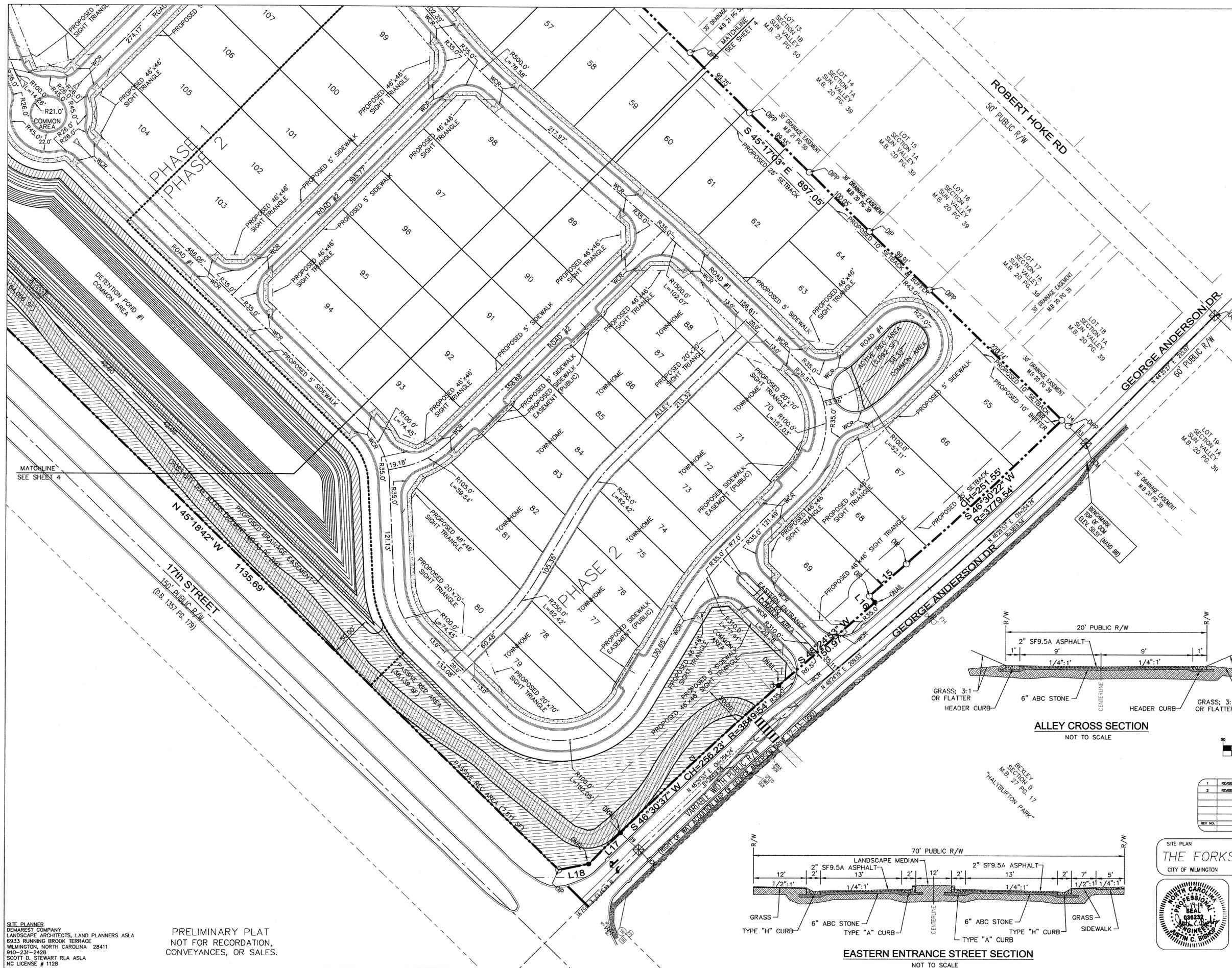
**SEAL**  
 MALPASS ENGINEERING & SURVEYING, P.C.  
 1154 SHEPPARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-582-5843  
 Fax 910-582-5820    License No. C-2280

Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3648  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2524  
 FAX: 910-762-2680

DATE: 12-18-13  
 SCALE: 1"=50'  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO: 243  
 SHEET NO. 4  
 OF 33

SITE PLANNER  
 DEMAREST COMPANY  
 LANDSCAPE ARCHITECTS, LAND PLANNERS ASLA  
 6933 RUNNING BROOK TERRACE  
 WILMINGTON, NORTH CAROLINA 28411  
 910-231-2428  
 SCOTT D. STEWART RLA ASLA  
 NC LICENSE # 1128

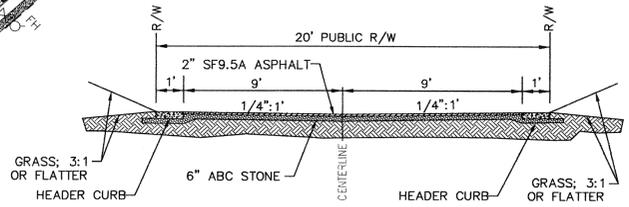
**PRELIMINARY PLAT**  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.



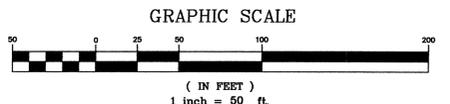
**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**

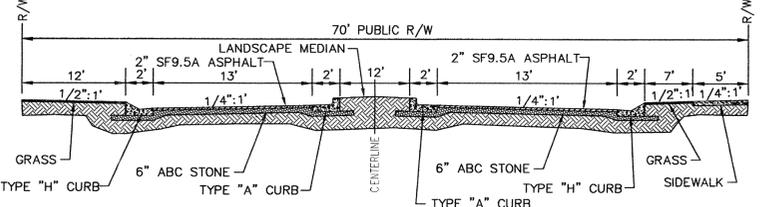
Name	Date
Planning	
Public Utilities	
Traffic	
Fire	



**ALLEY CROSS SECTION**  
 NOT TO SCALE



REV. NO.	DESCRIPTION	DATE
1	REVISED PER TRC CONCEPT REVIEW	12-18-13
2	REVISED PER TRC & CLIENT	4-14-14



**EASTERN ENTRANCE STREET SECTION**  
 NOT TO SCALE

SITE PLANNER  
 DEMAREST COMPANY  
 LANDSCAPE ARCHITECTS, LAND PLANNERS ASLA  
 6933 RUNNING BROOK TERRACE  
 WILMINGTON, NORTH CAROLINA 28411  
 910-231-2428  
 SCOTT D. STEWART RLA ASLA  
 NC LICENSE # 1128

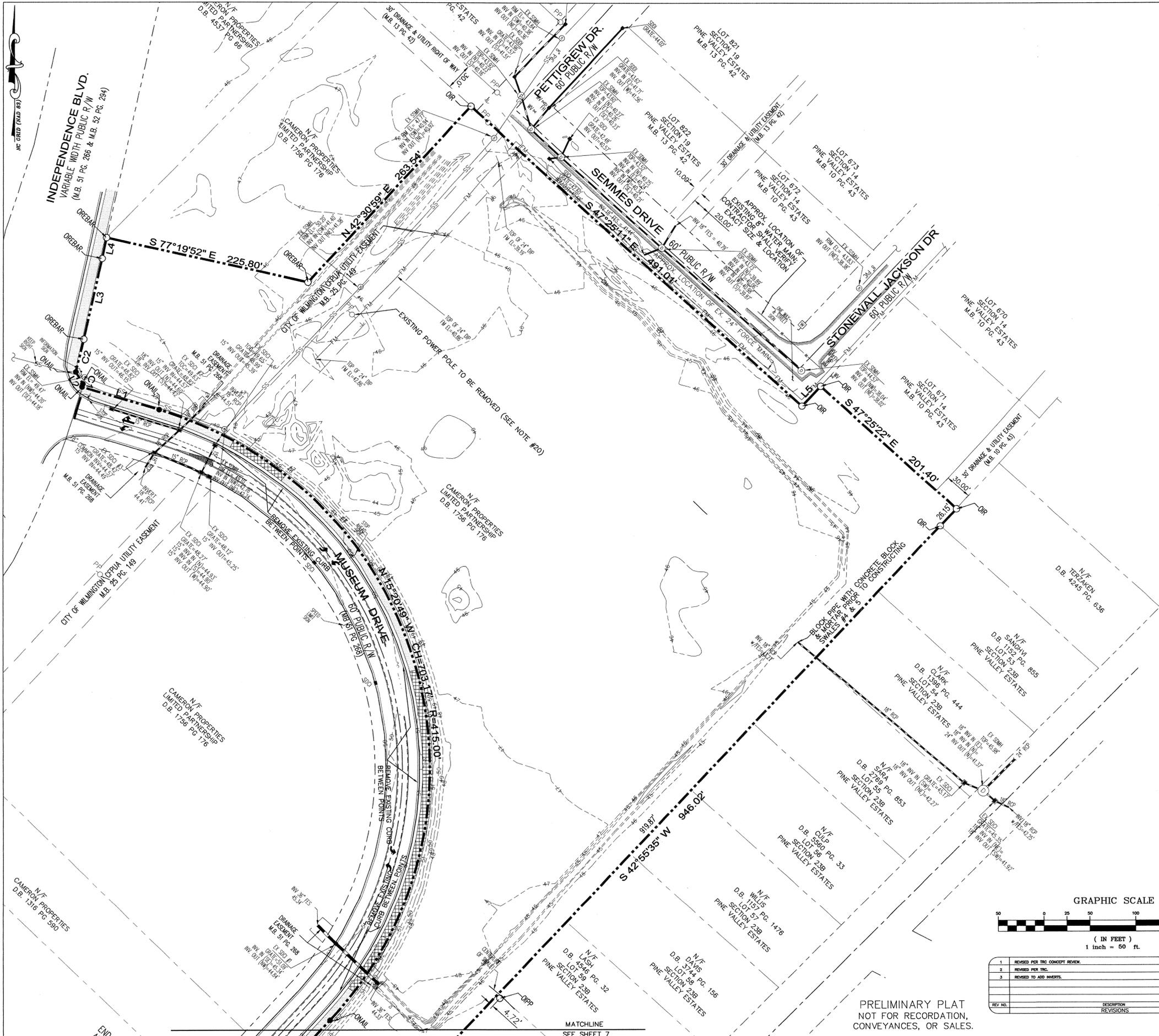
**PRELIMINARY PLAT**  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.

**SITE PLAN**  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON  
 NEW HANOVER COUNTY NORTH CAROLINA

DATE: 12-4-13  
 SCALE: 1"=50'  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO: 243  
 SHEET NO: 5  
 OF: 33

MALPASS ENGINEERING & SURVEYING, P.C.  
 1194 SHIPYARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone: 910-392-5548  
 Fax: 910-392-5203  
 License No. C-2320

Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3649  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2324  
 FAX: 910-762-2690

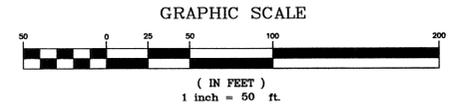


- SITE INVENTORY NOTES**
- SOILS ON SITE PER THE NEW HANOVER COUNTY SOIL SURVEY ARE B<sub>e</sub> (BAYMEADE), K<sub>r</sub> (KUREB), L<sub>e</sub> (LEON), L<sub>y</sub> (LYNN HAVEN), M<sub>u</sub> (MURVILLE), & R<sub>m</sub> (RIMIN).
  - THERE ARE NO 404 OR SECTION 10 JURISDICTIONAL WETLANDS WITHIN THE PROPERTY BOUNDARIES PER USACE.
  - THIS SITE IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS, MAP NUMBER 3720312500J (DATED: 4-3-06) & MAP NUMBER 3720312600J (DATED: 4-3-06).
  - RESEARCH ON THE CITY OF WILMINGTON'S TRANSPORTATION PLANNING WEBSITE ON NOVEMBER 20, 2013 RESULTED IN NO FINDINGS OF PROPOSED THOROUGHFARES, BIKE ROUTES, PEDESTRIAN SIDEWALKS OR TRAILS, OR TRANSIT FACILITIES AFFECTING THIS PROJECT.
  - THE TRACT IS WITHIN THE CAPE FEAR RIVER BASIN. THE NORTHERN PART OF THE SITE DRAINS TO HEWLETT'S CREEK (SA) & THE SOUTHERN PART OF THE SITE DRAINS TO BARNARD'S CREEK (C.S.W).
  - CAMA LAND USE CLASSIFICATION PER THE 2006 CAMA PLAN UPDATE LAND CLASSIFICATION MAP IS URBAN.

**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Public Utilities	
Traffic	
Fire	



REV NO.	DESCRIPTION	DATE
1	REVISED PER TRC CONCEPT REVIEW	12-16-13
2	REVISED PER TRC	2-28-14
3	REVISED TO ADD INVERTS	4-14-14

EXISTING CONDITIONS & DEMOLITION PLAN  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON  
 NEW HANOVER COUNTY  
 NORTH CAROLINA



**MALPASS ENGINEERING & SURVEYING, P.C.**  
 1134 SHIPYARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-392-5245  
 Fax 910-392-5203 License No. C-2380

Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3949  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2324  
 FAX: 910-762-2900

DATE: 12-4-13  
 SCALE: 1"=50'  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO: 243  
 SHEET NO: 6  
 OF: 33

PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.

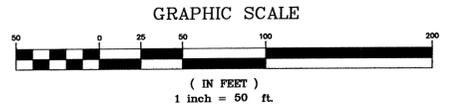


**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Public Utilities	
Traffic	
Fire	

PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.



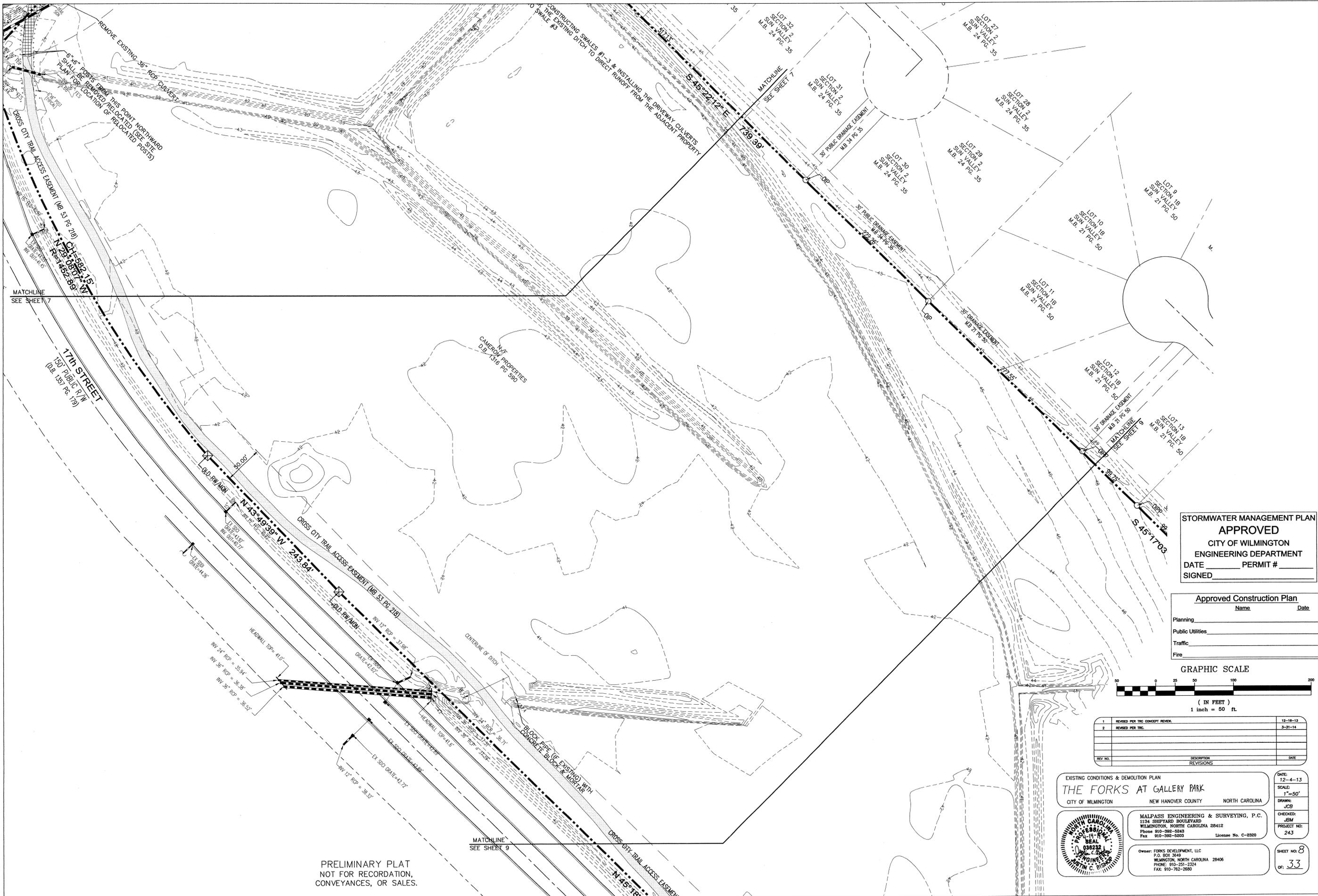
REV. NO.	DESCRIPTION	DATE
1	REVISED PER TRC CONCEPT REVIEW	12-18-13
2	REVISED PER TRC	3-21-14

**EXISTING CONDITIONS & DEMOLITION PLAN**  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON      NEW HANOVER COUNTY      NORTH CAROLINA

**MALPASS ENGINEERING & SURVEYING, P.C.**  
 1154 SHIPYARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-392-5243      Fax 910-392-5253      License No. C-2320

Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3549  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2324      FAX: 910-762-2680

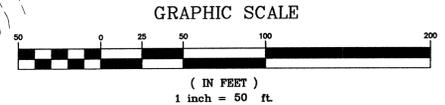
DATE: 12-4-13  
 SCALE: 1"=50'  
 DRAWN: JCE  
 CHECKED: JEM  
 PROJECT NO: 243  
 SHEET NO: 33 OF 33



**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Public Utilities	
Traffic	
Fire	



REV. NO.	DESCRIPTION	DATE
1	REVISED PER TRC CONCEPT REVIEW	12-18-13
2	REVISED PER TRC	3-31-14

EXISTING CONDITIONS & DEMOLITION PLAN  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON      NEW HANOVER COUNTY      NORTH CAROLINA



**MALPASS ENGINEERING & SURVEYING, P.C.**  
 1134 SHIPYARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-392-0343  
 Fax 910-392-0203      License No. C-8320

Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3649  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-3224  
 FAX: 910-762-2680

DATE: 12-4-13  
 SCALE: 1"=50'  
 DRAWN: JCB  
 CHECKED: JSM  
 PROJECT NO: 243  
 SHEET NO: 8  
 OF: 33

PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.





TOTAL AMOUNT & PERCENT OF IMPERVIOUS SURFACE AREAS ON SOUTHERN PORTION OF SITE (1,577,782 SF) INCLUDING ACCESS EASEMENT FOR MUSEUM DR & CHARLES PAINE DR:

	BEFORE DEVELOPMENT		AFTER DEVELOPMENT	
	AREA (SF)	% OF SITE	EX. (SF)	PROPOSED (SF)
CROSS CITY TRAIL	32,957	2.09	0	369,889
MUSEUM DR	14,851	0.94	18,455	192,952
CHARLES PAINE DR	3,762	0.24	1,000	46,573
SIDEWALKS	1,000	0.06	0	5,000
SIDEWALK	1,000	0.06	30,642	1,784
TOTAL	52,570	3.33	50,097	622,132

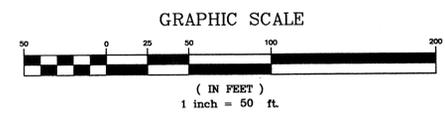
TOTAL AMOUNT & PERCENT OF IMPERVIOUS SURFACE AREAS ON NORTHERN PORTION OF SITE (452,604 SF):

	BEFORE DEVELOPMENT		AFTER DEVELOPMENT	
	AREA (SF)	% OF SITE	EX. (SF)	PROPOSED (SF)
CROSS CITY TRAIL	2,736	0.61	0	132,407
TOTAL	2,736	0.61	0	132,407

STORMWATER MANAGEMENT PLAN  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

Approved Construction Plan  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Public Utilities \_\_\_\_\_  
 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.



REV NO.	DESCRIPTION	DATE
1	REVISED PER CLIENT	4-14-14
2	REVISED PER CITY OF WILMINGTON	5-21-14

EROSION CONTROL & STORMWATER PLAN  
**THE FORKS**  
 CITY OF WILMINGTON  
 NEW HANOVER COUNTY NORTH CAROLINA  
 MALPASS ENGINEERING & SURVEYING, P.C.  
 1134 SHEPPARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-382-6843 Fax 910-382-6203 License No. C-2320  
 Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 2649  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2324 FAX: 910-782-2680  
 SHEET NO. 10 OF 33

SITE PLANNER  
 DEMAREST COMPANY  
 LANDSCAPE ARCHITECTS, LAND PLANNERS ASLA  
 6933 RUNNING BROOK TERRACE  
 WILMINGTON, NORTH CAROLINA 28411  
 910-231-2428  
 SCOTT D. STEWART RLA ASLA  
 NC LICENSE # 1128

PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.

MATCHLINE  
 SEE SHEET 11

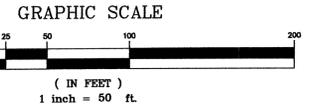


**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Public Utilities	
Traffic	
Fire	

PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.



REV. NO.	DESCRIPTION	DATE
1	REVISED PER CLIENT	4-18-14
2	REVISED PER CLIENT TO ADJUST SEWER INVERTS	4-28-14
3	REVISED PER CITY OF WILMINGTON	5-21-14

EROSION CONTROL & STORMWATER

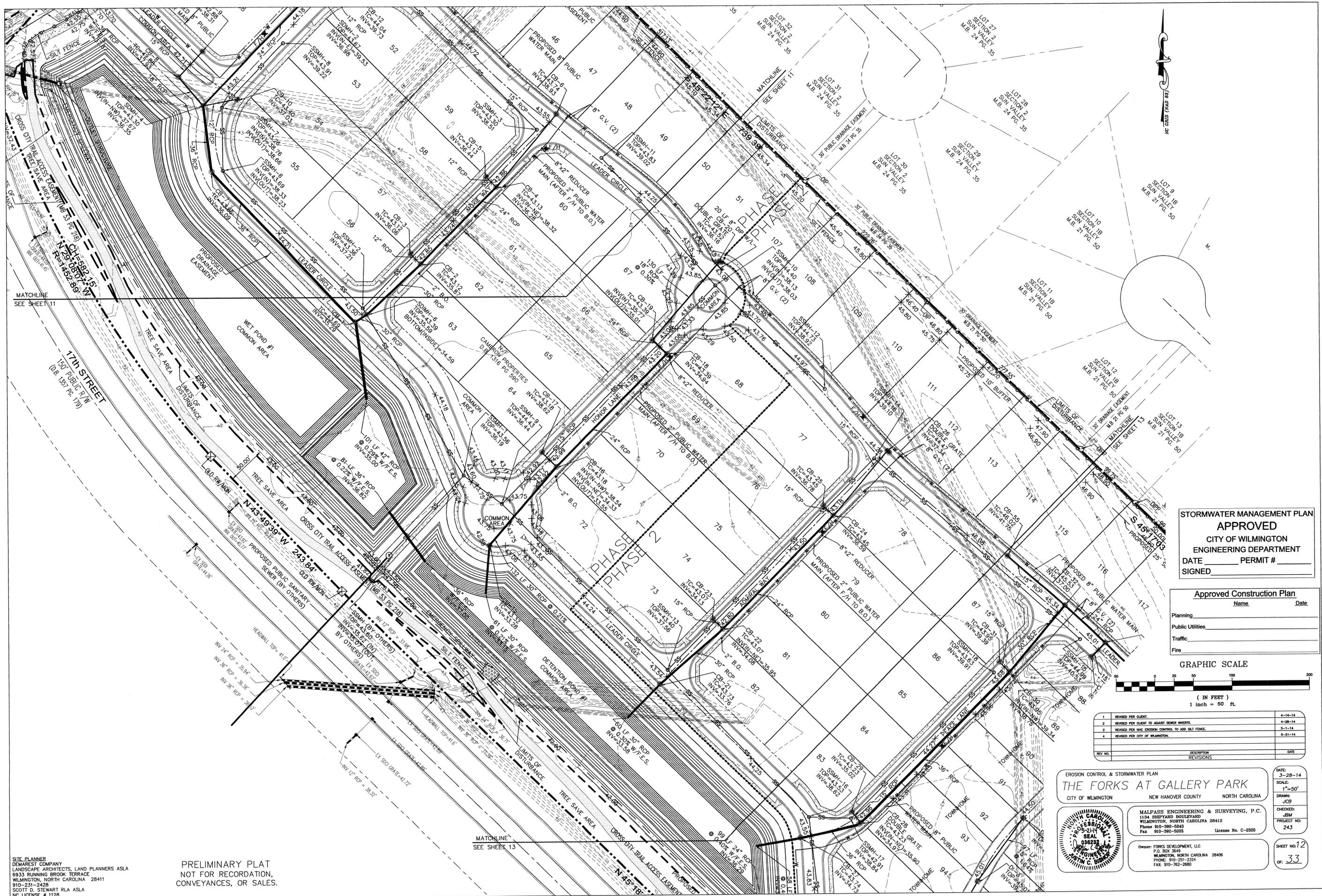
**THE FORKS**  
 CITY OF WILMINGTON      NEW HANOVER COUNTY      NORTH CAROLINA

DATE: 3-31-14  
 SCALE: 1"=50'  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO: 243  
 SHEET NO: 11  
 OF: 33

MALPASS ENGINEERING & SURVEYING, P.C.  
 1134 SHEPARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-392-0243  
 Fax 910-392-0203      License No. C-2550

Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3048  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2524  
 FAX: 910-762-2690

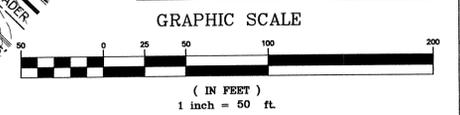
SITE PLANNER  
 DEMAREST COMPANY  
 LANDSCAPE ARCHITECTS, LAND PLANNERS ASLA  
 6933 RUNNING BROOK TERRACE  
 WILMINGTON, NORTH CAROLINA 28411  
 910-231-2428  
 SCOTT D. STEWART RLA ASLA  
 NC LICENSE # 1128



**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Public Utilities	
Traffic	
Fire	



REV. NO.	DESCRIPTION	DATE
1	REVISED PER CLIENT	4-14-14
2	REVISED PER CLIENT TO ADJUST SEWER INVERTS	4-28-14
3	REVISED PER NHC EROSION CONTROL TO ADD SILT FENCE	5-1-14
4	REVISED PER CITY OF WILMINGTON	5-21-14

**EROSION CONTROL & STORMWATER PLAN**  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON    NEW HANOVER COUNTY    NORTH CAROLINA

DATE: 3-28-14  
 SCALE: 1"=50'  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO: 243  
 SHEET NO: 12  
 OF: 33

**MALPASS ENGINEERING & SURVEYING, P.C.**  
 1194 SHEPPARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-392-8243  
 Fax 910-392-8203    License No. C-2320

Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3649  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2324  
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SITE PLANNER  
 DEMAREST COMPANY  
 LANDSCAPE ARCHITECTS, LAND PLANNERS & ASLA  
 6933 RUNNING BROOK TERRACE  
 WILMINGTON, NORTH CAROLINA 28411  
 910-231-2428  
 SCOTT D. STEWART RLA ASLA  
 NC LICENSE # 1128

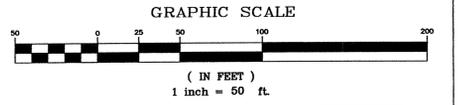
PRELIMINARY PLAN  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.



**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Public Utilities	
Traffic	
Fire	



REV. NO.	DESCRIPTION	DATE
1	REVISED PER CLIENT.	4-15-14
2	REVISED PER CLIENT TO ADJUST SEWER INVERTS.	4-28-14
3	REVISED PER NHC EROSION CONTROL TO ADD SILT FENCE.	5-1-14
4	REVISED PER CITY OF WILMINGTON.	5-21-14

EROSION CONTROL & STORMWATER PLAN

**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON      NEW HANOVER COUNTY      NORTH CAROLINA

DATE: 3-28-14  
 SCALE: 1"=50'  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO: 243  
 SHEET NO: 13  
 OF: 33

**MALPASS ENGINEERING & SURVEYING, P.C.**  
 1134 SHEPPARD BOULEVARD  
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Owner: FORKS DEVELOPMENT, LLC  
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SITE PLANNER  
 DEMAREST COMPANY  
 LANDSCAPE ARCHITECTS, LAND PLANNERS ASLA  
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 WILMINGTON, NORTH CAROLINA 28411  
 910-231-2429  
 SCOTT D. STEWART RLA ASLA  
 NC LICENSE # 1128

PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.

**Permanent Seeding**  
 Specifications #6.11 - Specifications  
 (Specifications are as per the "Erosion and Sediment Control Planning and Design Manual" of the state of North Carolina)  
 Table 6.11a - Seeding No. 1CP for: Well-to Poorly Drained soils with Good Moisture Retention; Low Maintenance  
 Seeding mixture  
 Species Rate (lb/acre)  
 Tall fescue 80  
 Pensacola Bahiagrass 50  
 Sericea lespedeza 30  
 Kobe lespedeza 10

**Seeding Notes**  
 1. From Sept. 1 - Mar. 1, use unscarified sericea seed  
 2. On poorly drained sites omit sericea and increase Kobe to 30 lb/acre.  
 3. Where a neat appearance is desired, omit sericea and increase Kobe to 40 lb/acre.

**Nurse plants**  
 Between Apr. 15 & Aug. 15, add 10 lb/acre German millet or 15 lb/acre Sudangrass. Prior to May 1 or after Aug. 15, add 25 lb/acre rye (grain).

**Seeding dates**  
 Best Possible  
 Early spring: Feb. 15 - Mar. 20 Feb. 15 - Apr. 30  
 Fall: Sept. 1 - Sept. 30 Sept. 1 - Oct. 31

**Soil amendments** - Apply lime and fertilizer according to soil tests, or apply 3,000-5,000 lb/acre ground agricultural limestone (use the lower rate on sandy soils) and 1,000 lb/acre 10-10-10 fertilizer.  
 Mulch - Apply 4,000 lb/acre grain straw or equivalent cover of another suitable mulch. Anchor straw by tacking with asphalt, netting, or riving or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.  
 Maintenance - If growth is less than fully adequate, reseed, fertilize in the second year, according to soil tests or topdress with 500 lb/acre 10-10-10 fertilizer. Mow as needed when sericea is omitted from the mixture. Reseed, fertilize, and mulch damaged areas immediately.

**Table 6.11a - Seeding No. 2CP for: Well-to Poorly Drained soils with Good Moisture Retention; High Maintenance**  
 Seeding mixture  
 Species Rate (lb/acre)  
 Tall fescue (blend of two or three improved varieties) 200  
 Rye (grain) 25

**Seeding dates**  
 Best: Sept. 15 - Oct. 15  
 Possible: Sept. 1 - Oct. 31 or Feb. 15 - Apr. 30

**Soil amendments** - Apply lime and fertilizer according to soil tests, or apply 3,000-5,000 lb/acre ground agricultural limestone (use the lower rate on sandy soils) and 1,000 lb/acre 10-10-10 fertilizer.  
 Mulch - Apply 4,000 lb/acre grain straw or equivalent cover of another suitable mulch. Anchor straw by tacking with asphalt, netting, or riving or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.  
 Maintenance - Fertilize according to soil tests or apply 40 lb/acre nitrogen in Jan. or Feb., 40 lb in Sept., and 40 lb in Nov., from a 12-4-8, 16-4-8, or similar turf fertilizer. Avoid fertilizer applications during warm weather, as this increases stand losses to disease. Reseed, fertilize, and mulch damaged areas immediately. Mow to a height of 2.5-3.5 inches as needed.

**Table 6.11a - Seeding No. 3CP for: Dry Sands to Sandy Loams; High Maintenance, Fire Turf**  
 Seeding mixture  
 Species Rate (lb/1,000 ft<sup>2</sup>)  
 Timothy or Tifway II hybrid Bermudagrass 10  
 Rapid cover: 12

**Seeding Notes**  
 1. Sprig or sod (Practice 6.12, Sodding). Moisture is essential during initial establishment. Sod must be kept well watered for 2-3 weeks, but can be planted earlier or later than sprigs.  
 2. Common Bermuda can be seeded or sprigged but does not produce a high-quality turf. It is also less cold tolerant than the hybrids, more weed prone, and a pest in flower beds and specimen plantings.

**Planting dates**  
 Apr. - July

**Soil amendments** - Apply lime and fertilizer according to soil tests, or apply 3,000 lb/acre ground agricultural limestone and 500 lb/acre 10-10-10 fertilizer, or 50 lb/acre nitrogen from turf-type slow-release fertilizer. Add 25-50 lb/acre nitrogen at 2- to 3-week intervals through midsummer.  
 Sprigging - Plant sprigs in furrows with a tractor-drawn transplanter, or broadcast by hand.  
 Furrows should be 4-6 inches deep and 2 ft apart. Place sprigs about 2 ft apart in the row with one end at or above ground level (Figure 6.11a).  
 Broadcast at rates shown above, and press sprigs into the top 1/2-2 inches of soil with a disk set straight so that sprigs are not brought back toward the surface.

**Mulch** - Do not mulch.  
**Maintenance** - Water as needed and mow to 3/4- to 1-inch height. Topdress with 40 lb/acre nitrogen in Apr., 50 lb in May, 50 lb in June, 30 lb in July, and 25-50 lb in Aug.

**Table 6.11a - Seeding No. 4CP for: Well-Drained Sandy Loams to Dry Sands, Coastal Plain and Eastern Edge of Piedmont; Low to Medium-Care Lawns**  
 Seeding mixture  
 Species Rate  
 Centipedegrass 10-20 lb/acre (seed) or 33 bu/acre (sprigs)

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

**Soil amendments** - Apply lime and fertilizer according to soil tests, or apply 300 lb/acre 10-10-10. Sprigging - Plant sprigs in furrows with a tractor-drawn transplanter, or broadcast by hand.  
 Furrows should be 4-6 inches deep and 2 ft apart. Place sprigs about 2 ft apart in the row with one end at or above ground level (Figure 6.11a).  
 Broadcast at rates shown above, and press sprigs into the top 1/2-2 inches of soil with a disk set straight so that sprigs are not brought back toward the surface.

**Mulch** - Do not mulch.  
**Maintenance** - Fertilize very sparingly - 20 lb/acre nitrogen in spring with no phosphorus. Centipedegrass cannot tolerate high pH or excess fertilizer.

**Table 6.11a - Seeding No. 5CP for: Well-Drained Sandy Loams to Dry Sands; Low Maintenance**  
 Seeding mixture  
 Species Rate (lb/acre)  
 Pensacola Bahiagrass 50  
 Sericea lespedeza 30  
 Common Bermudagrass 10  
 German millet 10

**Seeding Notes**  
 1. Where a neat appearance is desired, omit sericea.  
 2. Use common Bermuda only on isolated sites where it cannot become a pest. Bermudagrass may be replaced with 5 lb/acre centipedegrass.

**Seeding dates**  
 Apr. 1 - July 15

**Soil amendments** - Apply lime and fertilizer according to soil tests, or apply 3,000 lb/acre ground agricultural limestone and 500 lb/acre 10-10-10 fertilizer.  
 Mulch - Apply 4,000 lb/acre grain straw or equivalent cover of another suitable mulch. Anchor by tacking with asphalt, netting, or riving or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.  
 Maintenance - Refertilize the following Apr. with 50 lb/acre nitrogen. Repeat as growth requires. May be mowed only once a year. Where a neat appearance is desired, omit sericea and mow as often as needed.

**Table 6.11v - Seeding No. 7CP for: Cross-lined Channels; Coastal Plain, Lower Piedmont, and Dry Soils in the Central Piedmont**  
 Seeding mixture  
 Species Rate (lb/acre)  
 Common Bermudagrass 40-80 (1-2 lb/1,000 ft<sup>2</sup>)

**Seeding dates**  
 Coastal Plain: Apr. - July  
 Piedmont: Apr. 15 - June 30

**Soil amendments** - Apply lime and fertilizer according to soil tests, or apply 3,000 lb/acre ground agricultural limestone and 500 lb/acre 10-10-10 fertilizer.  
 Mulch - Use jute, excelsior matting, or other effective channel lining material to cover the bottom of channels and ditches. The lining should extend above the highest calculated depth of flow. On channel side slopes above this height, and in drainages not requiring temporary linings, apply 4,000 lb/acre grain straw and anchor straw by stapling netting over the top.  
 Mulch and anchoring materials must not be allowed to wash down slopes where they can clog drainage devices.  
 Maintenance - A minimum of 3 weeks is required for establishment. Inspect and repair mulch frequently. Refertilize the following Apr. with 50 lb/acre nitrogen.

Refer to Appendix 8.02 for botanical names.

**Temporary Seeding**  
 Specifications #6.10 - Specifications  
 (Specifications are as per the "Erosion and Sediment Control Planning and Design Manual" of the state of North Carolina)  
 Table 6.10a - Temporary Seeding Recommendations for Late Winter and Early Spring  
 Seeding Mixture  
 Species Rate (lb/acre)  
 Rye (grain) 120  
 Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains) 50

Omit annual lespedeza when duration of temporary cover is not to extend beyond June.  
**Seeding dates**  
 Mountains - Above 2500 ft: Feb. 15-May 15  
 Below 2500 ft: Feb. 1-May 1  
 Piedmont - Jan. 1-May 1  
 Coastal Plain - Dec. 1-Apr. 15

**Soil amendments** - Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.  
 Mulch - Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.  
 Maintenance - Refertilize if growth is not fully adequate. Reseed, fertilize and mulch immediately following erosion or other damage.

**Table 6.10b Temporary Seeding Recommendations for Summer**  
 Seeding mixture  
 Species Rate (lb/acre)  
 German millet 40  
 In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

**Seeding dates**  
 Mountains - May 15-Aug. 15  
 Piedmont - May 1-Aug. 15  
 Coastal Plain - Apr. 15-Aug. 15

**Soil amendments** - Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.  
 Mulch - Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.  
 Maintenance - Refertilize if growth is not fully adequate. Reseed, fertilize and mulch immediately following erosion or other damage.

**Table 6.10c Temporary Seeding Recommendations for Fall**  
 Seeding mixture  
 Species Rate (lb/acre)  
 Rye (grain) 120

**Seeding dates**  
 Mountains - Aug. 15-Dec. 30  
 Coastal Plain and Piedmont - Aug. 15-Dec. 30

**Soil amendments** - Follow soil tests or apply 2,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.  
 Mulch - Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.  
 Maintenance - Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

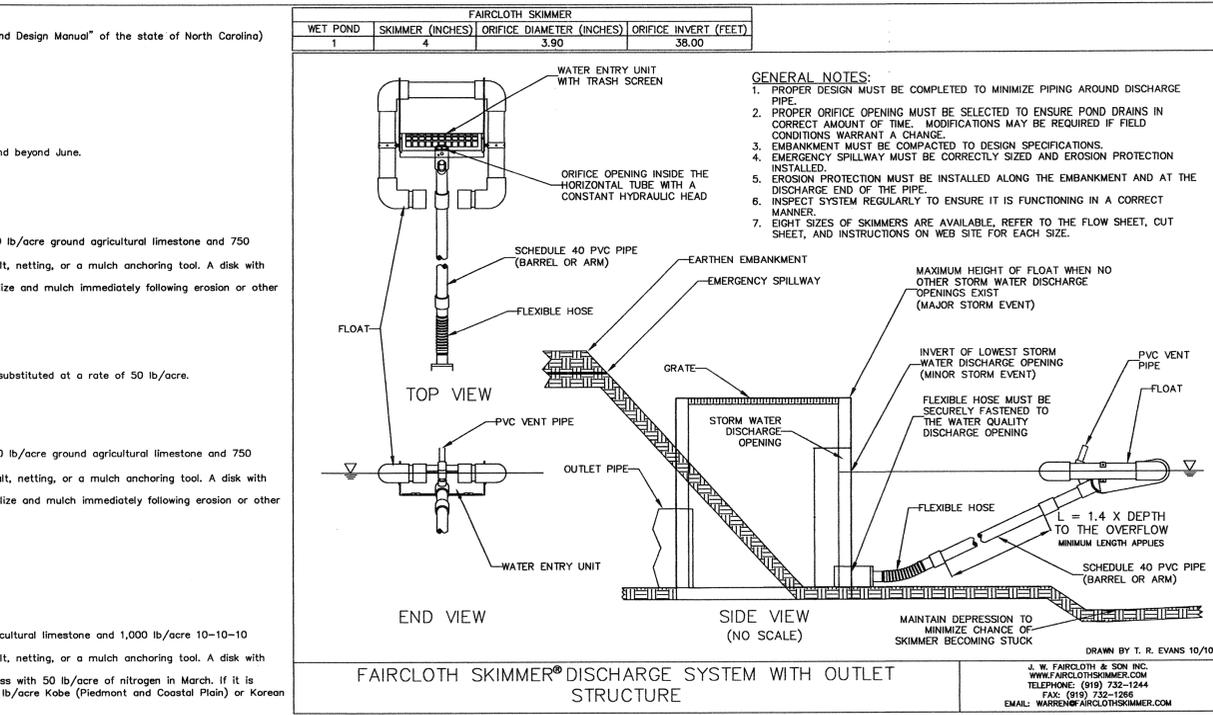
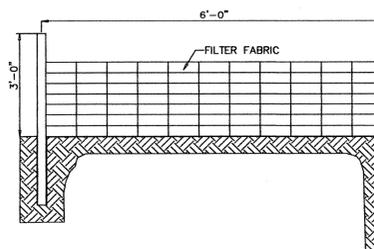
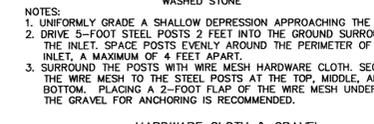
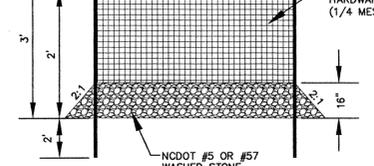
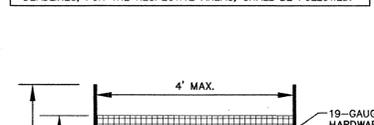
**Table 6.10c Temporary Seeding Recommendations for Fall**  
 Seeding mixture  
 Species Rate (lb/acre)  
 Rye (grain) 120

**Seeding dates**  
 Mountains - Aug. 15-Dec. 30  
 Coastal Plain and Piedmont - Aug. 15-Dec. 30

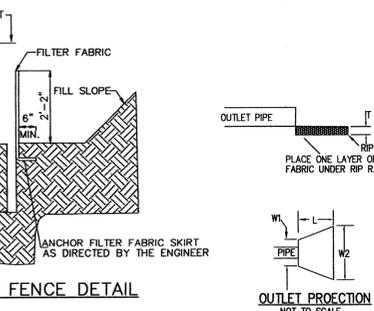
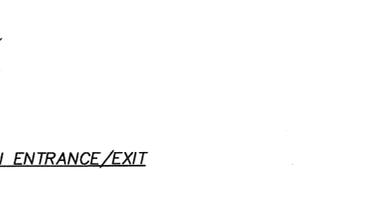
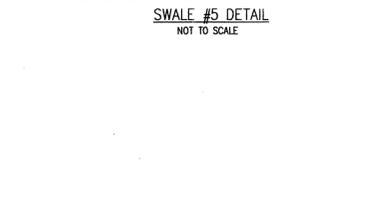
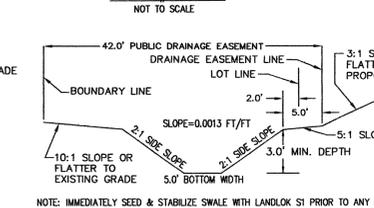
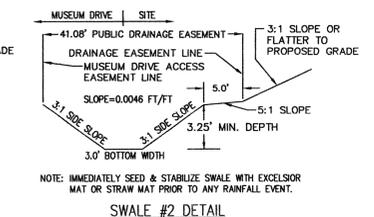
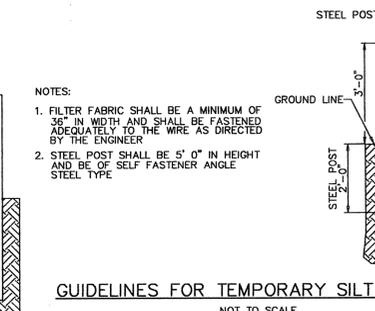
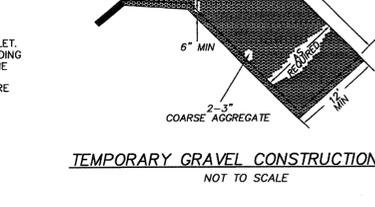
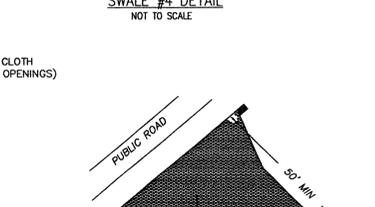
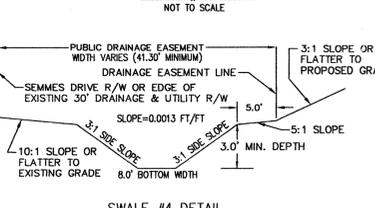
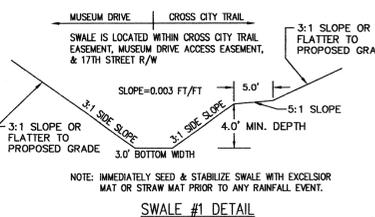
**Soil amendments** - Follow soil tests or apply 2,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.  
 Mulch - Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.  
 Maintenance - Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

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 FEET 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)

\*NEW HANOVER COUNTY LAND QUALITY SEEDING DEADLINES: 21 CALENDAR DAYS FOR ALL SLOPES & 15 WORKING DAYS FOR ALL OTHER AREAS.  
 \*\*THE SHORTER STABILIZATION TIME FRAME BETWEEN THE ABOVE CHART AND THE NEW HANOVER COUNTY LAND QUALITY SEEDING DEADLINES, FOR THE RESPECTIVE AREAS, SHALL BE FOLLOWED.



**GENERAL NOTES:**  
 1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.  
 2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POOL DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.  
 3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.  
 4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.  
 5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.  
 6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.  
 7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.



**MAINTENANCE PLAN**  
 1. ALL EROSION CONTROL MEASURES WILL BE CHECKED EVERY 7 DAYS OR AFTER EACH RAIN PROLONGING 1/2 INCHES OR MORE WHICH EVER COMES FIRST.  
 2. SEDIMENT WILL BE REMOVED FROM BEHIND SILT FENCES WHERE SEDIMENT IS 0.5 FEET DEEP AND REPAIR FABRIC IF TORN, LEAKING OR FAILING.  
 3. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED, OR TRACKED ONTO CONSTRUCTION ENTRANCE OR ROADWAYS.  
 4. CHECK SEDIMENT BASINS AFTER PERIODS OF SIGNIFICANT RUNOFF. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. 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 RISER AND POOL AREA. GRAVEL WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY OR IF THE ROCK IS DISLOADED.  
 5. INSPECT TEMPORARY SEDIMENT TRAPS AFTER EACH SIGNIFICANT RAINFALL. REMOVE SEDIMENT AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING. CHECK THE STRUCTURE FOR DAMAGE FROM EROSION OR PIPING. PERIODICALLY CHECK THE DEPTH OF THE SPILLWAY TO ENSURE IT IS A MINIMUM OF 1.5 FT BELOW THE LOW POINT OF THE EMBANKMENT. IMMEDIATELY FILL ANY SETTLEMENT OF THE EMBANKMENT TO SLIGHTLY ABOVE GRADE. ANY RIPRAP DISPLACED FROM THE SPILLWAY MUST BE REPLACED IMMEDIATELY. AFTER ALL SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ADJOINING AREAS AND STABILIZE PROPERLY.  
 6. INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAIN TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLOADED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.  
 7. RIP RAP SHOULD BE INSPECTED PERIODICALLY FOR SCOUR OR DISLOADED STONES. CONTROL OF WEED AND BRUSH GROWTH MAY BE NEEDED IN SOME LOCATIONS.  
 8. ROCK DAM: CHECK SEDIMENT AFTER EACH RAINFALL. REMOVE SEDIMENT AND RESTORE ORIGINAL VOLUME WHEN SEDIMENT ACCUMULATES TO ABOUT ONE-HALF THE DESIGN VOLUME.  
 9. CHECK THE STRUCTURE FOR EROSION, PIPING, AND ROCK DISPLACEMENT AFTER EACH SIGNIFICANT RAINFALL AND REPAIR IMMEDIATELY. INSPECT ALL MULCHES PERIODICALLY AFTER RAINFALLS TO CHECK FOR RILL EROSION, DISLOCATION, OR FAILURE. WHERE EROSION IS OBSERVED, APPLY ADDITIONAL MULCH. IF WASHOUT OCCURS, REPAIR THE SLOPE GRADE, RESEED, AND REINSTALL MULCH. CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.  
 10. INSPECT CHECK DAMS AND CHANNELS FOR DAMAGE AFTER EACH RUNOFF EVENT. ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM AND EROSION FROM HIGH FLOWS AROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS DURING DAMS, INSTALL A PROTECTIVE RIPRAP LINER IN THAT PORTION OF THE CHANNEL. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION, ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM AND STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.  
 11. INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE SEDIMENT DEPOSITS WHEN REACHES FULL TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEANOUT. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.  
 12. INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION, AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. SILT SACKS WILL BE EMPLOYED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.  
 13. INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.  
 14. INSPECT SKIMMER 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 HEIGHT OF THE FIRST BAFFLE. FULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER. REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS. IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER. 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 SKIMMER AND POOL AREAS. FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.  
 15. ALL SEEDING AREAS WILL BE FERTILIZED, RESEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATION PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. SEE GROUND STABILIZATION CHART FOR STABILIZATION TIME FRAME.

**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Public Utilities \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_

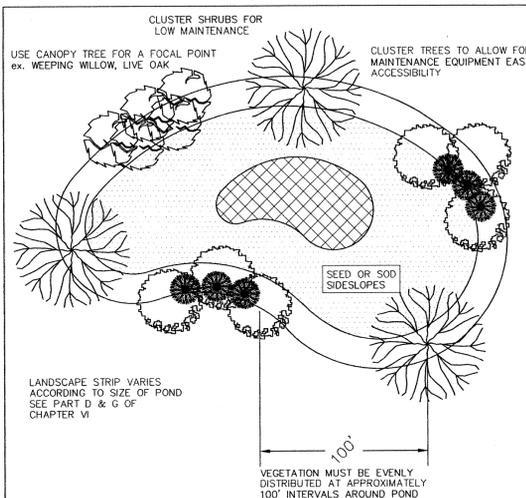
**EROSION CONTROL & STORMWATER DETAIL SHEET**  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON NEW HANOVER COUNTY NORTH CAROLINA

DATE: 3-28-14  
 SCALE: N.T.S.  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO.: 243  
 SHEET NO.: 14  
 OF: 33

MALPASS ENGINEERING & SURVEYING, P.C.  
 1134 SHEPPARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-362-6243  
 Fax 910-362-6203 License No. C-2320

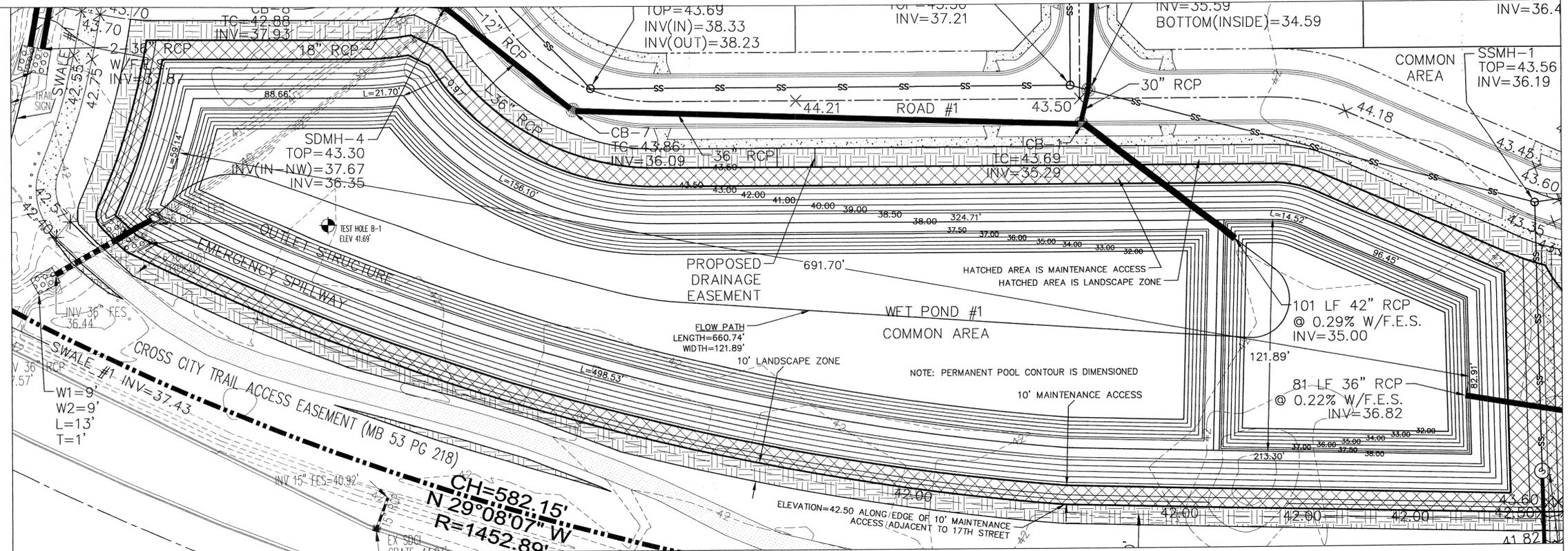
Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 2848  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE 910-231-2324  
 FAX 910-762-2680

REV. NO. DESCRIPTION REVISIONS DATE  
 1 REVISED TO ADJUST SWALE #1 & 2 DETAILS. 4-11-14  
 2 REVISED TO REMOVE BAFFLE DETAIL. 4-15-14  
 3 REVISED FOR THE DESIGN CHANGE TO ALLOW FAIRCLOTH SKIMMER & ORIFICE SIZES. DETAILS FOR SWALES #1, 2, 3, 4, 5, AND THE GROUND STABILIZATION CHART. 5-1-14

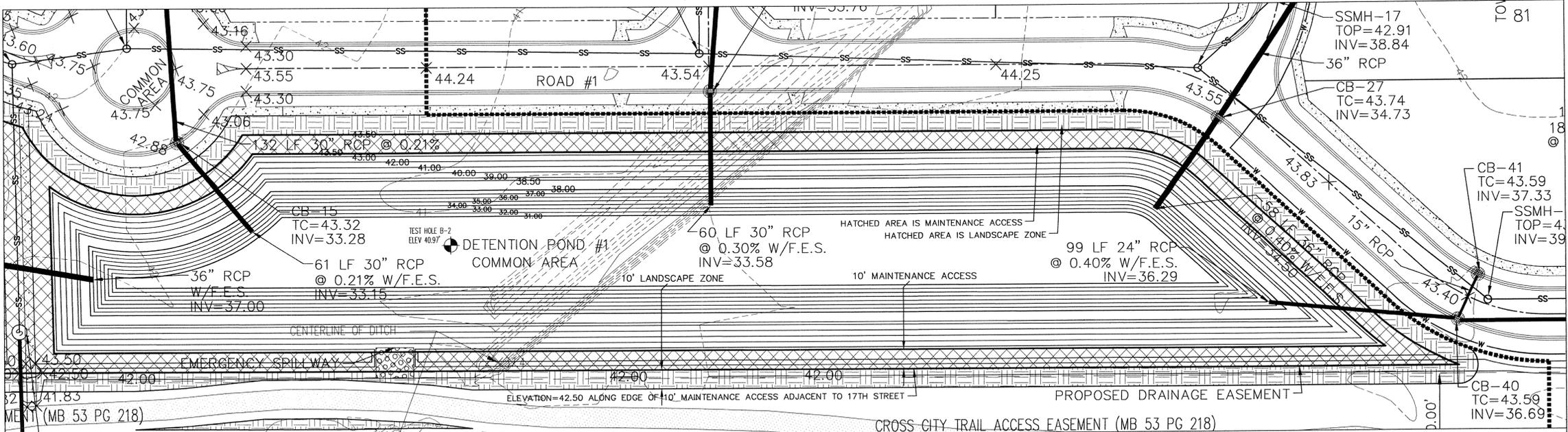


- Notes:
- If possible, locate pond where vegetation exists.
  - Suggest minimal clearing to conserve visual quality of site and minimize the additional of tree planting. An irregular shape provides a more natural appearance.
  - Landscaping strip shall be a maximum slope of 7:1 in order to plant vegetation.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

**TYPICAL STORM WATER FACILITY LANDSCAPING PLAN**  
SD 15-16



WET POND #1 DETAIL  
SCALE: 1"=30'



DETENTION POND #1 DETAIL  
SCALE: 1"=30'

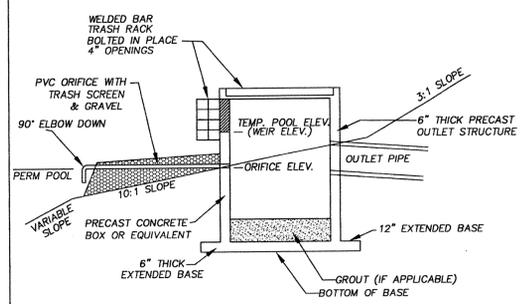
SEASONAL HIGH WATER TABLE RESULTS

TEST LOCATION ID	EXISTING GROUND ELEVATION (FEET)**	SHWT (INCHES BELOW GROUND SURFACE)**	SHWT ELEVATION (FEET)***	GROUNDWATER ELEVATION (FEET)**	GROUNDWATER ELEVATION (FEET)***
B-1	41.69	24	39.69	48	37.69
B-2	40.97	30	38.47	50	36.81

\* INFORMATION PROVIDED BY SHERWIN D. CRIBB, PLS.  
\*\* INFORMATION PROVIDED BY ECS CAROLINAS, LLP  
\*\*\* CALCULATED BASED ON INFORMATION PROVIDED BY OTHERS

OUTLET STRUCTURE DETAILS (FEET)

BOX POND/INSIDE	SLAB	GROUT INSIDE THICKNESS	BOTTOM OF BASE ELEVATION
1	4x4	7x7x0.5	N/A
			35.80



NOTE: ALL OUTLETS SHALL BE PROTECTED BY TRASH SCREENS/RACKS. THE TOP OF THE RISER SHALL HAVE A TRASH RACK MADE OF NUMBER 5 REBARS WELDED TO ANGLE FRAME. FRAME SHALL BE ATTACHED TO RISER SO AS TO BE REMOVABLE FOR MAINTENANCE.

OUTLET STRUCTURE DETAIL  
NOT TO SCALE

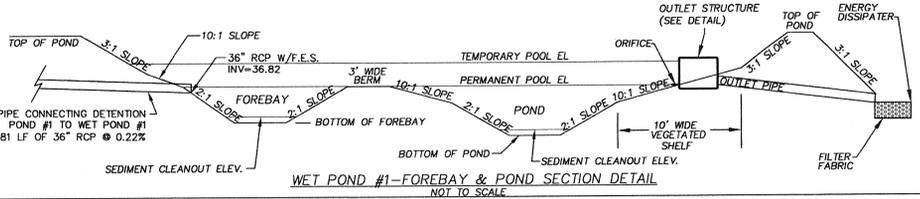
WET POND #1

ELEV. (FT)	AREA (SQ. FT.)	INCREMENTAL VOLUME (CU. FT.)	CUMULATIVE VOLUME (CU. FT.)
38.00	68,053	0	0
38.50	75,931	35,996	35,996
39.00	78,330	38,585	74,581
40.00	83,178	80,754	155,335
41.00	88,093	85,636	240,971
42.00	93,074	90,584	331,555
43.00	98,122	95,598	427,153
43.75	100,671	49,698	476,851

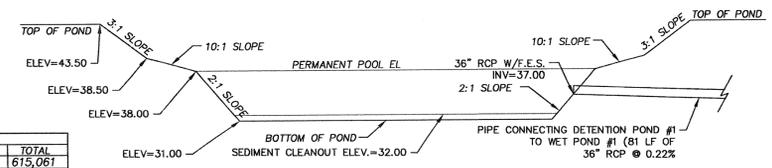
DETENTION POND #1

ELEV. (FT)	AREA (SQ. FT.)	INCREMENTAL VOLUME (CU. FT.)	CUMULATIVE VOLUME (CU. FT.)
38.00	37,101	0	0
38.50	43,937	20,280	20,280
39.00	48,039	22,494	42,774
40.00	50,313	48,176	90,950
41.00	54,683	52,498	143,428
42.00	59,149	56,916	200,344
43.00	63,715	61,432	261,776
43.75	66,038	32,438	294,214

- POND NOTES:
- MUHLENBERGIA CAPILLARIS (PINK MUHLY) & SPARTINA BAKERI (CORDGRASS) OR CENTIPEDE SOD TO BE PLANTED ON SLOPES ABOVE THE PERMANENT POOL & EITHER PICKEREL WEED, BLUE FLAG IRIS, OR DUCK POTATO TO BE PLANTED ON THE VEGETATED SHELVE.
  - THE WET POND #1 & DETENTION BASIN #1 ARE TO BE USED FOR SEDIMENT & EROSION CONTROL DURING CONSTRUCTION, THEREFORE THEY SHALL BE CLEANED OUT PRIOR TO USE AS A WET DETENTION BASIN.
  - ALL WATER THAT DRAINS OFF IMPERVIOUS SURFACES WILL BE DIRECTED INTO THE STORMWATER SYSTEM, BY EITHER RAISING AND SLOPING SITE TOWARDS THE STREET, PIPING TOWARDS THE STREET OR GUTTERING AND SPILLING WATER INTO FRONT YARDS THAT DRAIN TOWARDS THE STREET (ALL ROOF DRAINS MUST BE DIRECTED TO THE PONDS).
  - ENERGY DISSIPATORS TO HAVE FILTER FABRIC UNDERLAYMENT.
  - IF THE PONDS NEED TO BE DRAINED FOR MAINTENANCE OR AN EMERGENCY A PUMP IS TO BE USED TO DRAIN THE PONDS.



WET POND #1-FOREBAY & POND SECTION DETAIL  
NOT TO SCALE



PRELIMINARY PLAT  
NOT FOR RECORDATION,  
CONVEYANCES, OR SALES.

STORMWATER MANAGEMENT PLAN  
**APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

Approved Construction Plan  
Name \_\_\_\_\_ Date \_\_\_\_\_  
Planning \_\_\_\_\_  
Public Utilities \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_

EROSION CONTROL & STORMWATER DETAIL SHEET  
**THE FORKS AT GALLERY PARK**  
CITY OF WILMINGTON NEW HANOVER COUNTY NORTH CAROLINA

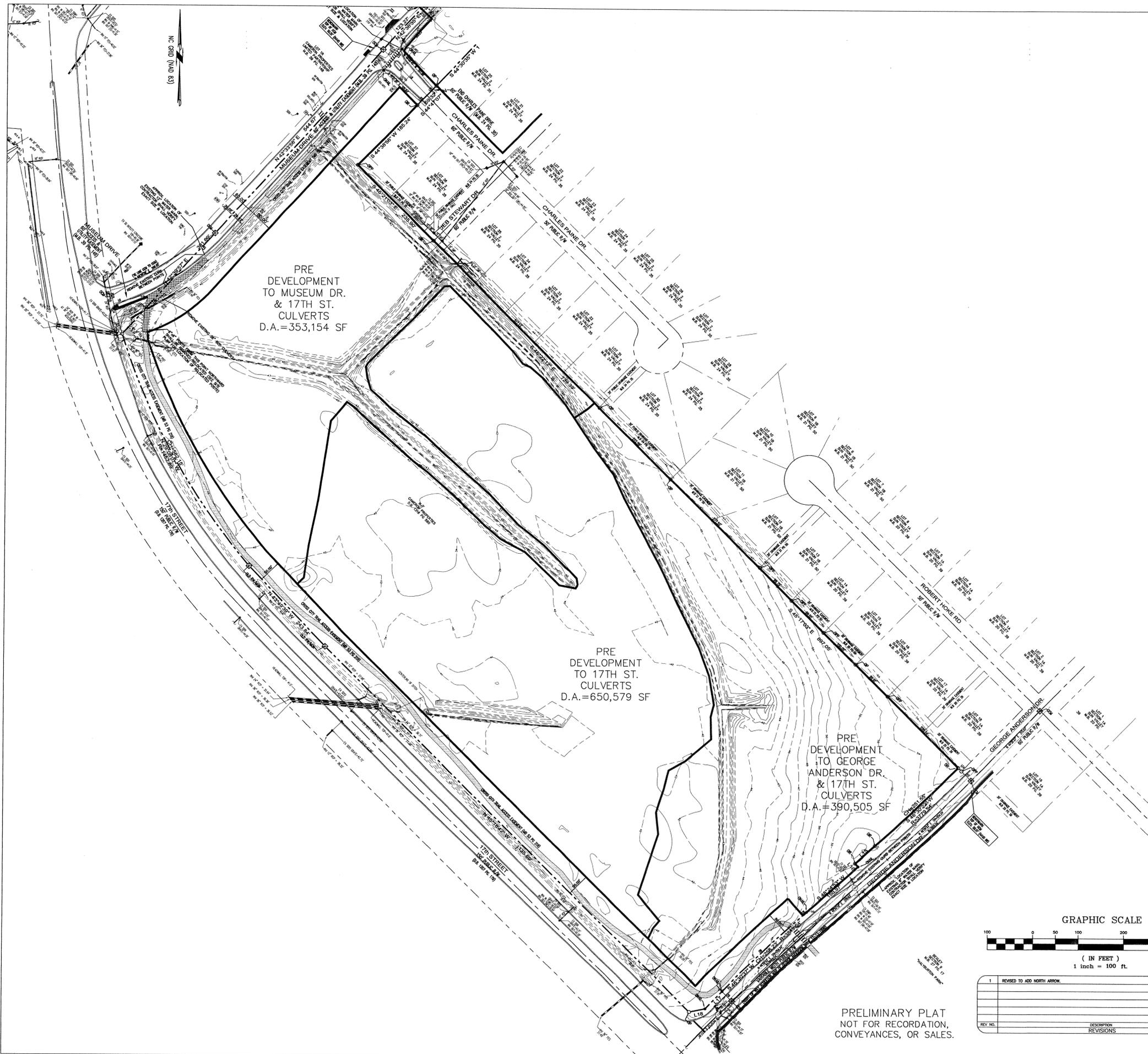
DATE: 3-28-14  
SCALE: N.T.S.  
DRAWN: JCB  
CHECKED: JEM  
PROJECT NO: 243  
SHEET NO: 15  
OF: 33

OWNER: FORKS DEVELOPMENT, LLC  
P.O. BOX 3649  
WILMINGTON, NORTH CAROLINA 28408  
PHONE: 910-251-2254  
FAX: 910-762-2680

MALPASS ENGINEERING & SURVEYING, P.C.  
1134 SHUPARD BOULEVARD  
WILMINGTON, NORTH CAROLINA 28412  
Phone 910-382-8243  
Fax 910-382-8283 License No. C-2320

REVISIONS

NO.	DESCRIPTION	DATE
1	REVISED TO ADJUST IMPERVIOUS AREAS IN POND CHART.	4-16-14
2	REVISED TO REMOVE BUFFLES.	4-19-14
3	REVISED PER CLIENT TO ADJUST SEWER INVERTS.	4-28-14



NC 080 (NAD 83)

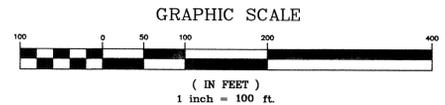
PRE DEVELOPMENT TO MUSEUM DR. & 17TH ST. CULVERTS  
D.A.=353,154 SF

PRE DEVELOPMENT TO 17TH ST. CULVERTS  
D.A.=650,579 SF

PRE DEVELOPMENT TO GEORGE ANDERSON DR. & 17TH ST. CULVERTS  
D.A.=390,505 SF

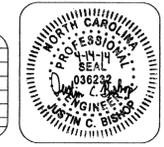
STORMWATER MANAGEMENT PLAN  
**APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

Approved Construction Plan  
Name \_\_\_\_\_ Date \_\_\_\_\_  
Planning \_\_\_\_\_  
Public Utilities \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_



REV. NO.	DESCRIPTION	DATE
1	REVISED TO ADD NORTH ARROW	4-14-14

DRAINAGE AREA MAP  
**THE FORKS AT GALLERY PARK**  
CITY OF WILMINGTON NEW HANOVER COUNTY NORTH CAROLINA

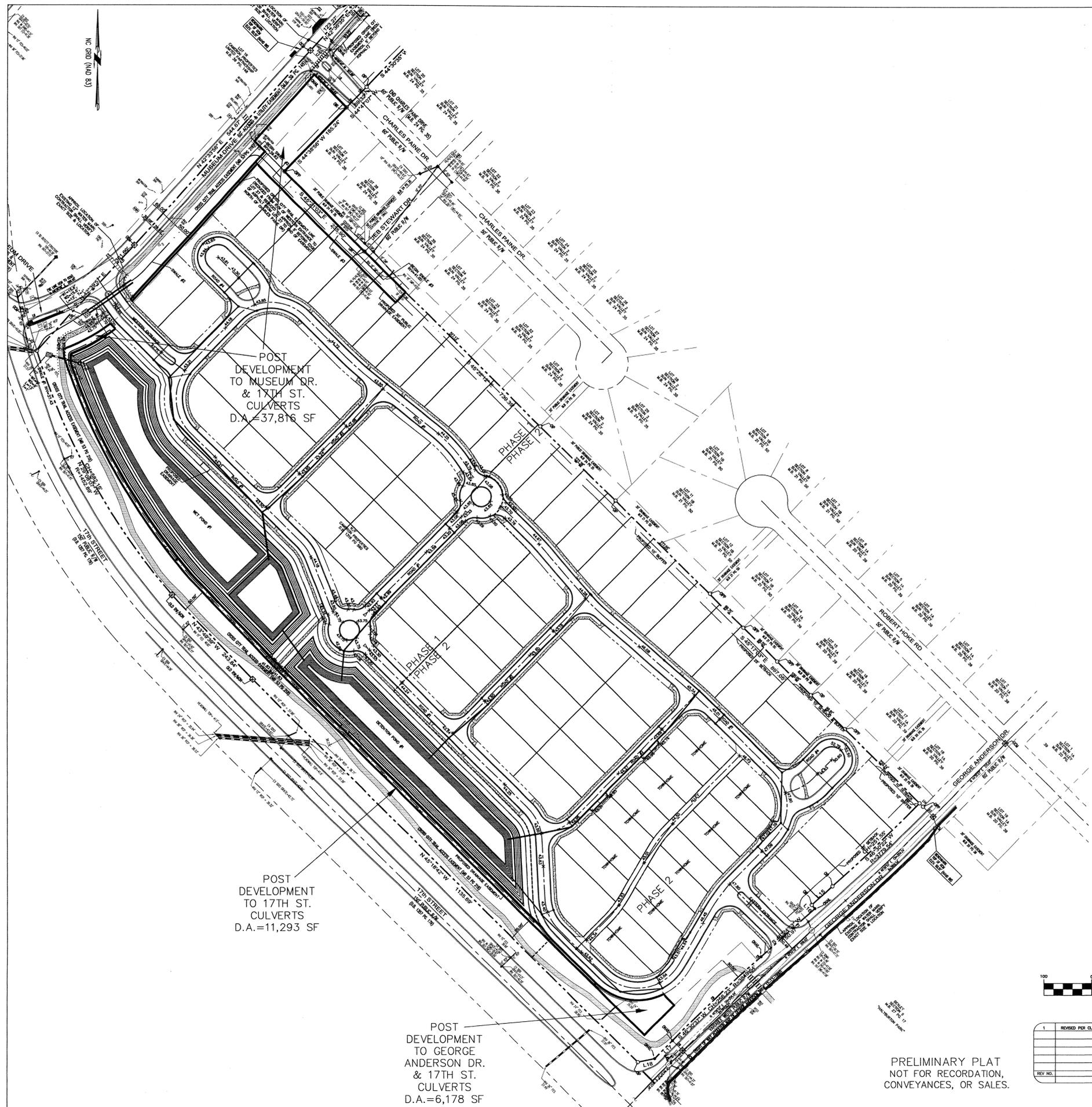


MALPASS ENGINEERING & SURVEYING, P.C.  
1134 SHIPYARD BOULEVARD  
WILMINGTON, NORTH CAROLINA 28412  
Phone 910-392-5245 Fax 910-392-5203 License No. C-2320

Owner: FORKS DEVELOPMENT, LLC  
P.O. BOX 3649  
WILMINGTON, NORTH CAROLINA 28406  
PHONE: 910-251-2324  
FAX: 910-752-2680

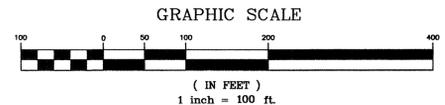
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SCALE: 1"=100'  
DRAWN: JCB  
CHECKED: JEM  
PROJECT NO: 243  
SHEET NO: 16  
OF: 33

PRELIMINARY PLAT  
NOT FOR RECORDATION,  
CONVEYANCES, OR SALES.



STORMWATER MANAGEMENT PLAN  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

Approved Construction Plan  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Public Utilities \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_



REV. NO.	DESCRIPTION	DATE
1	REVISED PER CLIENT.	4-14-14

DRAINAGE AREA MAP  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON NEW HANOVER COUNTY NORTH CAROLINA

DATE: 3-31-14  
 SCALE: 1"=100'  
 DRAWN: JCB  
 CHECKED: JEM  
 PROJECT NO: 243

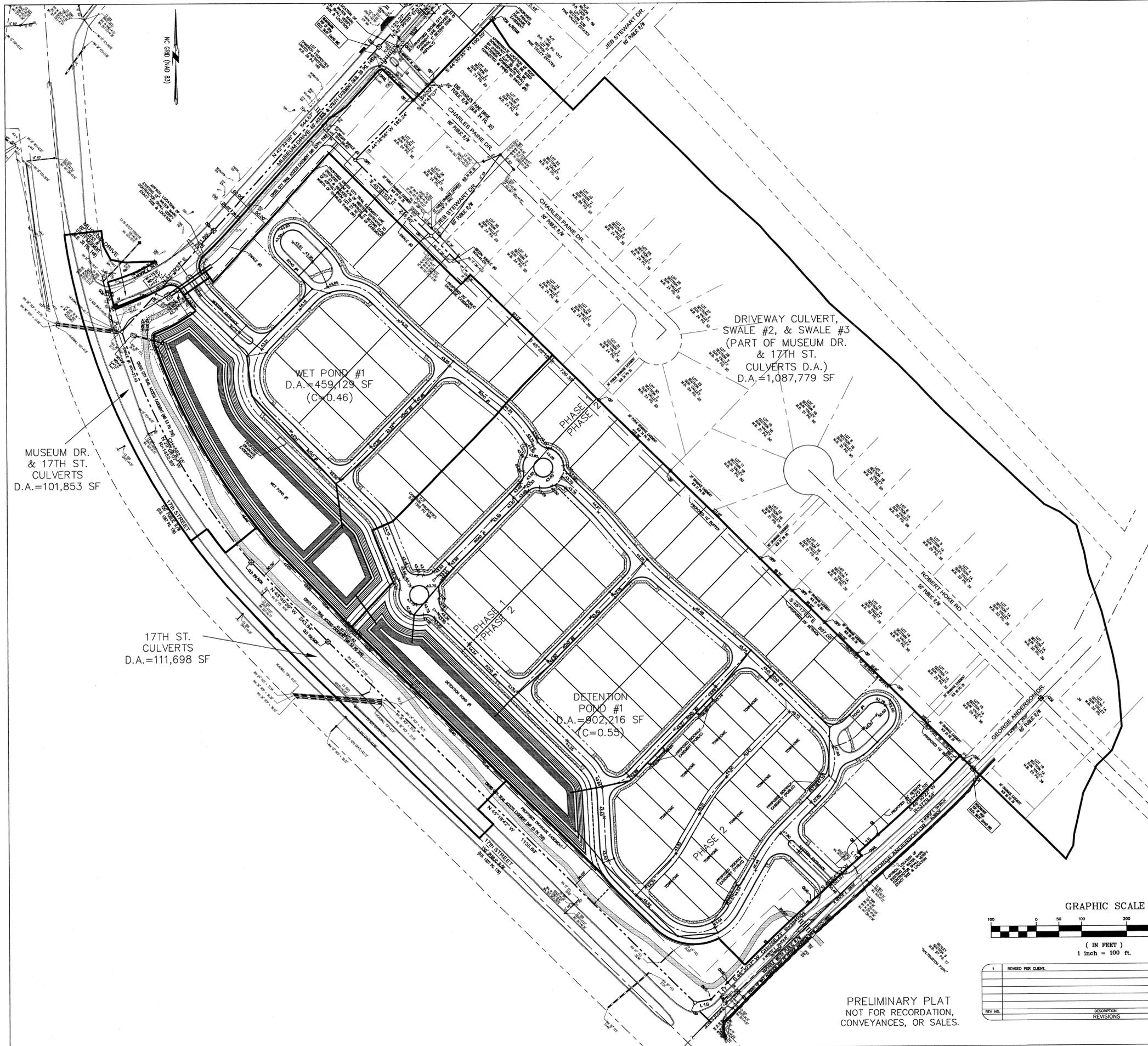
MALPASS ENGINEERING & SURVEYING, P.C.  
 1134 SHIPYARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-392-5243 Fax 910-392-5203 License No. C-2320

OWNER: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3549  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2324  
 FAX: 910-762-0680

Professional Engineer Seal: JUSTIN C. BISHOP, License No. 036232

SHEET NO: 17  
 OF: 33

PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.



MUSEUM DR.  
& 17TH ST.  
CULVERTS  
D.A.=101,853 SF

17TH ST.  
CULVERTS  
D.A.=111,698 SF

WET POND #1  
D.A.=459,129 SF  
(C=0.46)

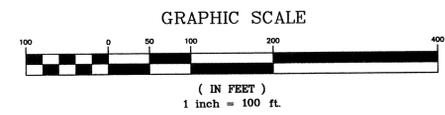
DRIVEWAY CULVERT,  
SWALE #2, & SWALE #3  
(PART OF MUSEUM DR.  
& 17TH ST.  
CULVERTS D.A.)  
D.A.=1,087,779 SF

DETENTION  
POND #1  
D.A.=802,216 SF  
(C=0.55)

PRELIMINARY PLAT  
NOT FOR RECORDATION,  
CONVEYANCES, OR SALES.

STORMWATER MANAGEMENT PLAN  
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CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

Approved Construction Plan  
Name \_\_\_\_\_ Date \_\_\_\_\_  
Planning \_\_\_\_\_  
Public Utilities \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_



REV. NO.	DESCRIPTION	DATE
1	REVISED PER CLIENT	4-18-14

DRAINAGE AREA MAP  
**THE FORKS AT GALLERY PARK**  
CITY OF WILMINGTON NEW HANOVER COUNTY NORTH CAROLINA

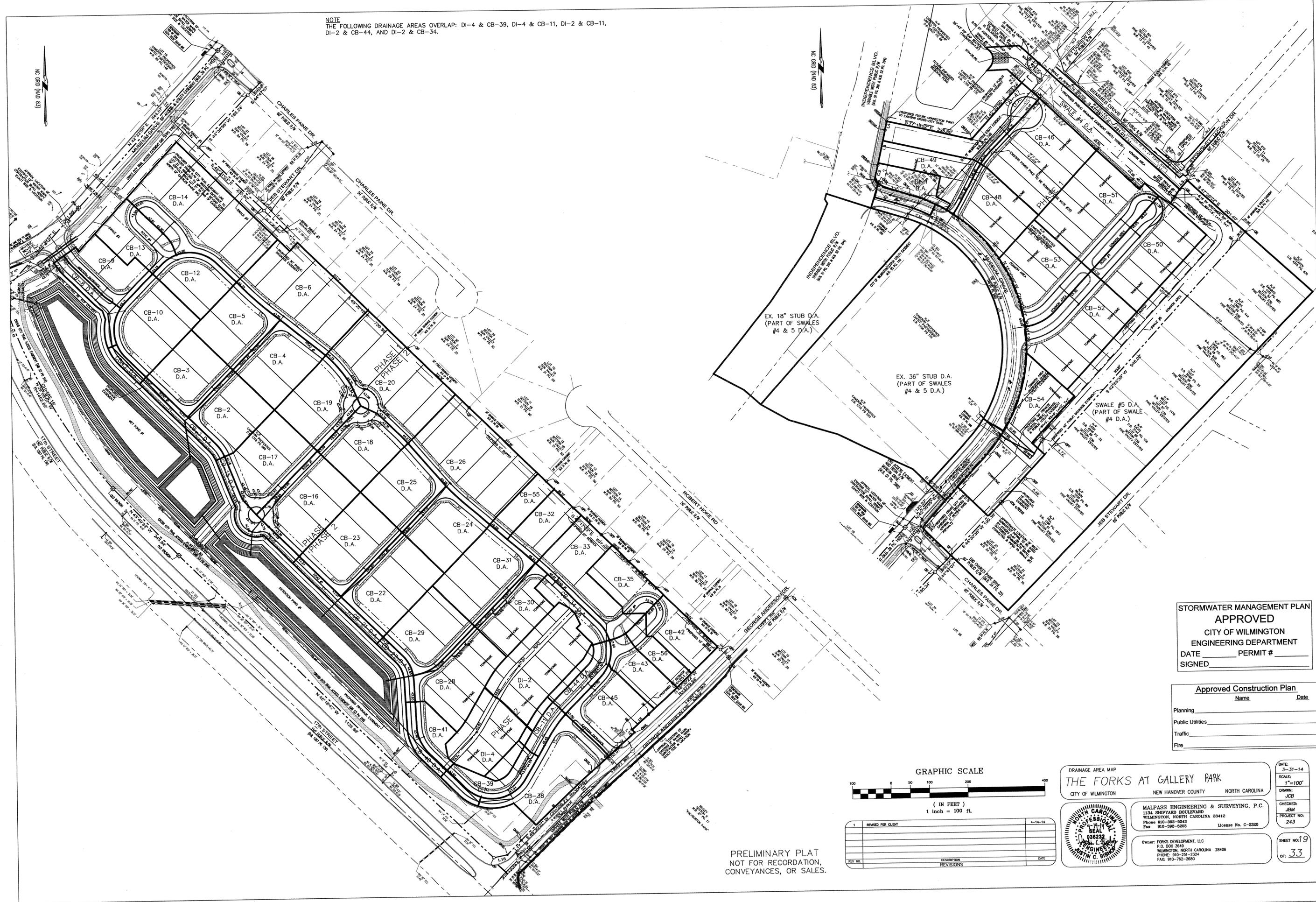


MALPASS ENGINEERING & SURVEYING, P.C.  
1154 SHIPYARD BOULEVARD  
WILMINGTON, NORTH CAROLINA 28412  
Phone 910-398-8843  
Fax 910-392-9293 License No. C-2320

Owner: FORKS DEVELOPMENT, LLC  
P.O. BOX 3648  
WILMINGTON, NORTH CAROLINA 28406  
PHONE: 910-251-2324  
FAX: 910-782-2880

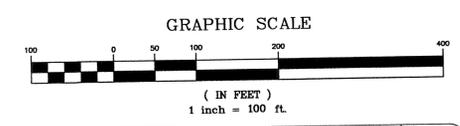
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SCALE: 1"=100'  
DRAWN: JCB  
CHECKED: JEM  
PROJECT NO: 243  
SHEET NO: 18  
OF: 33

NOTE  
 THE FOLLOWING DRAINAGE AREAS OVERLAP: DI-4 & CB-39, DI-4 & CB-11, DI-2 & CB-11,  
 DI-2 & CB-44, AND DI-2 & CB-34.



**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Public Utilities \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_



REV. NO.	DESCRIPTION	DATE
1	REVISED PER CLIENT	4-14-14

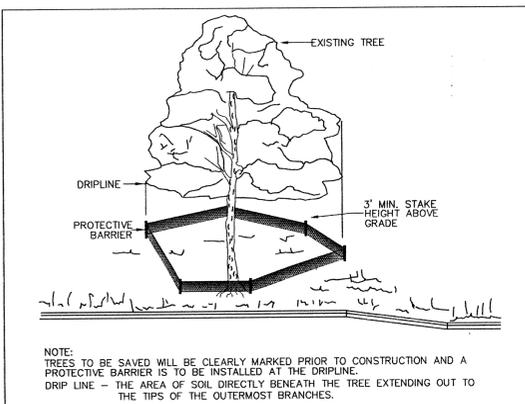
PRELIMINARY PLAT  
 NOT FOR RECORDATION,  
 CONVEYANCES, OR SALES.

DRAINAGE AREA MAP  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON      NEW HANOVER COUNTY      NORTH CAROLINA

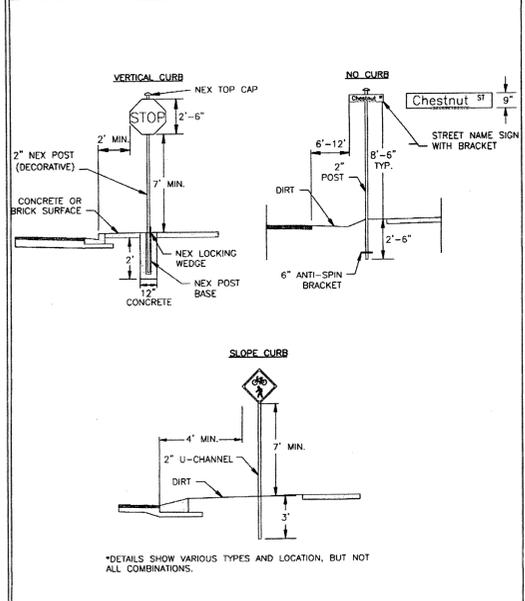
**MALPASS ENGINEERING & SURVEYING, P.C.**  
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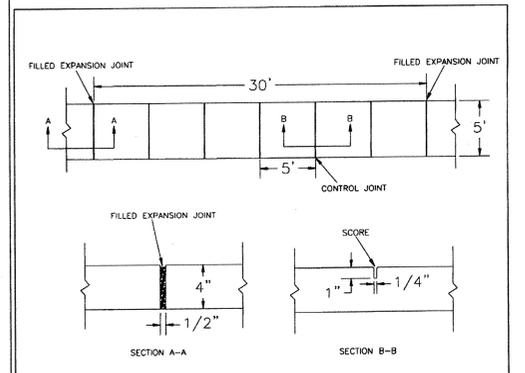
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 SCALE: 1"=100'  
 DRAWN: JCB  
 CHECKED: JBM  
 PROJECT NO: 243  
 SHEET NO: 19  
 OF: 33



**METHOD OF TREE PROTECTION DURING CONSTRUCTION**  
SD 15-08  
NOT TO SCALE

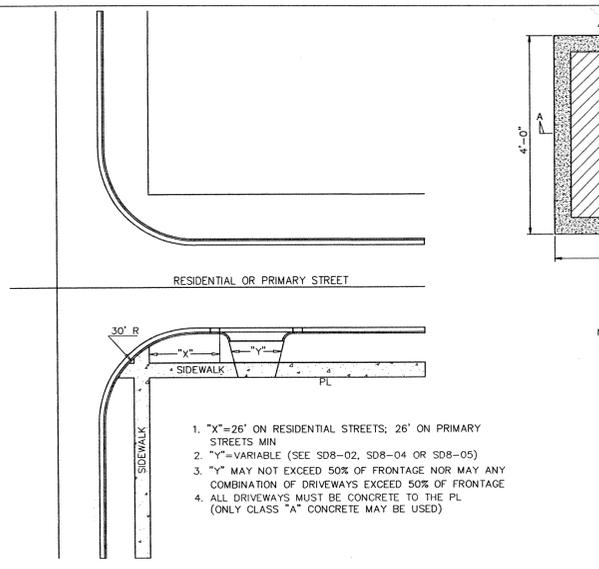


**STANDARD DETAIL**  
**STREET SIGNS AND LOCATION**  
DATE: NOVEMBER, 2011  
DRAWN BY: JSR  
CHECKED BY: BDR, P.E.  
SCALE: NOT TO SCALE  
SHEET 1 of 2  
SD 15-03

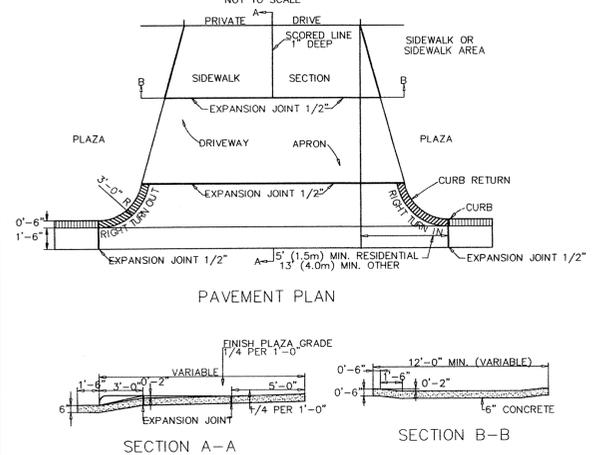


- NOTES:**
- JOINT MATERIAL TO COMPLY WITH CURRENT NC DOT STANDARDS.
  - SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
  - MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
  - CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" - 3,000 PSI. MINIMUM REPLACEMENT FOR REPAIRS IS A 5' X 5' PANEL.
  - 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS.
  - MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
  - MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
  - MIN GRADE FOR PROPER DRAINAGE IS 1% IN 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.

**STANDARD DETAIL**  
**SIDEWALK**  
DATE: OCTOBER, 2010  
DRAWN BY: PBR  
CHECKED BY: DEC  
SCALE: NOT TO SCALE  
SD 3-10



- "X"=26' ON RESIDENTIAL STREETS; 26' ON PRIMARY STREETS MIN
- "Y"=VARIABLE (SEE SDB-02, SDB-04 OR SDB-05)
- "Z" MAY NOT EXCEED 50% OF FRONTAGE NOR ANY COMBINATION OF DRIVEWAYS EXCEED 50% OF FRONTAGE
- ALL DRIVEWAYS MUST BE CONCRETE TO THE PL (ONLY CLASS "A" CONCRETE MAY BE USED)



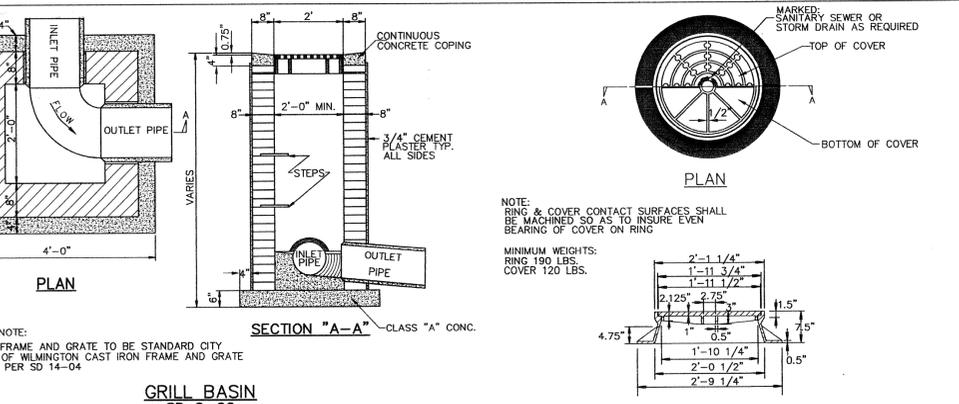
**GENERAL DRIVEWAY NOTES**  
SD 8-07  
NOT TO SCALE

**TABLE 4**  
**DRIVEWAY TAPER WIDTHS AND MINIMUM SIDE PROPERTY LINE OFFSETS**

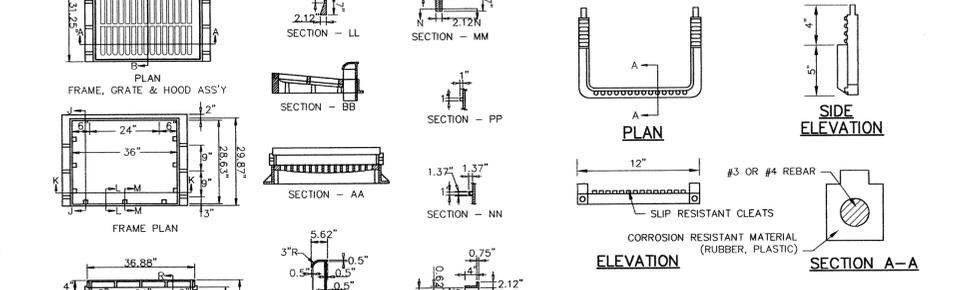
Type of Use	Right Turn Into Driveway			Right Turn Out of Driveway		
	TAPER WIDTH (feet) (a)	Property Line Offset (ft) (b)	Property Line Offset (ft) (b)	TAPER WIDTH (feet) (a)	Property Line Offset (ft) (b)	Property Line Offset (ft) (b)
1 or 2 Family Residential	3	13	0	3	13	2
Other						
Two-way Street	13	c	6.5	13	c	6.5
Two-way Driveway	13	c	6.5	13	c	6.5
One-way Driveway	13	c	6.5	13	c	6.5
Entrance	3	13	16.5	3	13	16.5
Exit	3	13	16.5	3	13	16.5
One-way Street-Right Side	13	c	6.5	13	c	6.5
Two-way Driveway	13	c	6.5	13	c	6.5
One-way Driveway	13	c	6.5	13	c	6.5
Entrance	3	13	16.5	3	13	16.5
Exit	3	13	16.5	3	13	16.5
One-way Street-Left Side	3	13	16.5	3	13	16.5
Two-way Driveway	3	13	16.5	3	13	16.5
One-way Driveway	3	13	16.5	3	13	16.5
Entrance	3	13	16.5	3	13	16.5
Exit	3	13	16.5	3	13	16.5

- a. See SD-8-02 for location of measurements.  
b. Measured at the curb line or edge of roadway, parallel to the edge of pavement.  
c. This distance may equal the perpendicular distance between the back of the curb (or edge of pavement) and the edge of sidewalk (or sidewalk area) nearest the roadway, provided that this distance is greater than thirteen (13) feet.
- NOTES:**
- The maximum width of the driveway at the gutter flow line measured between the points where the curb returns or driveway apron meets the curb line or edge of roadway is sixty-two (62) feet.
  - If a single driveway is allowed to serve two adjacent residences, the property line offsets may be waived by the City Engineer and the construction, maintenance and closure costs shall be a joint responsibility of each adjacent property owner.
  - If special conditions warrant, the City Engineer may modify widths and geometric requirements on a case by case basis.

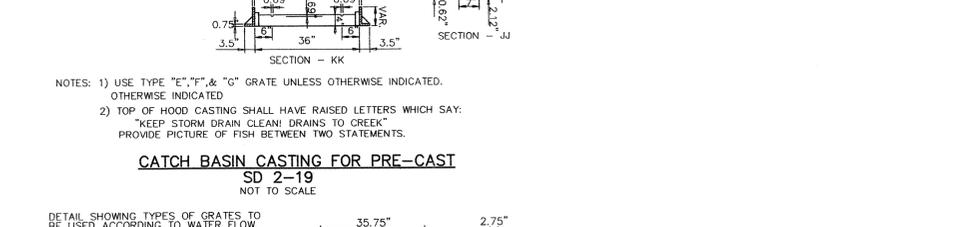
**STANDARD DETAIL**  
**SIDEWALK**  
DATE: OCTOBER, 2010  
DRAWN BY: PBR  
CHECKED BY: DEC  
SCALE: NOT TO SCALE  
SD 3-10



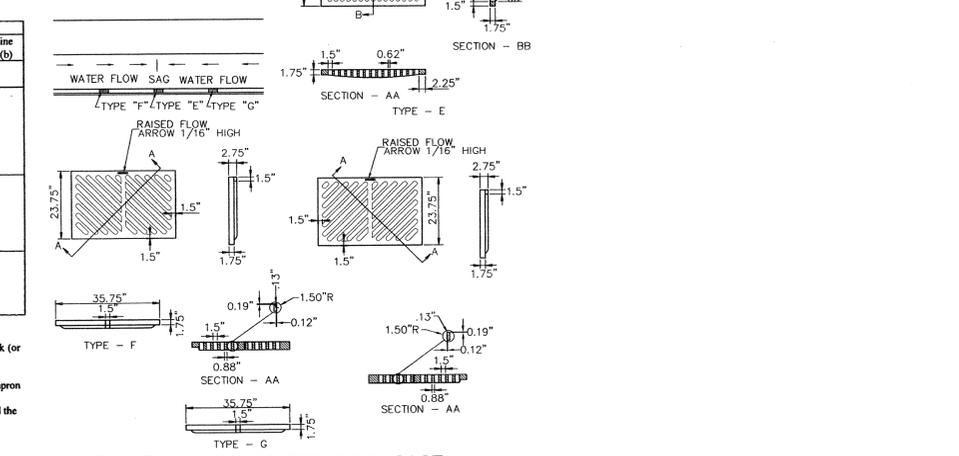
**GRILL BASIN**  
SD 2-02  
NOT TO SCALE



**STANDARD SLIP RESISTANT MANHOLE STEP**  
SD 14-10  
NOT TO SCALE



**CATCH BASIN CASTING FOR PRE-CAST**  
SD 2-19  
NOT TO SCALE

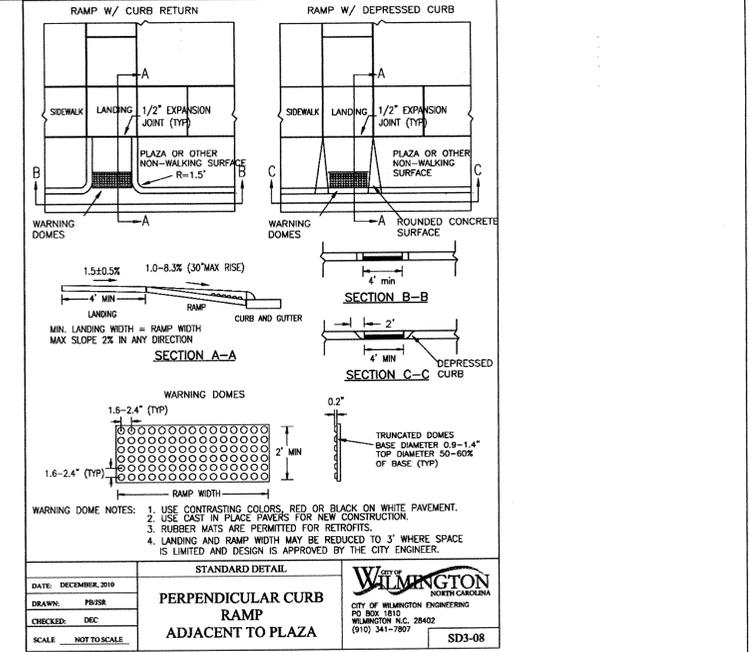


**CATCH BASIN GRATE FOR PRE-CAST**  
SD 2-20  
NOT TO SCALE

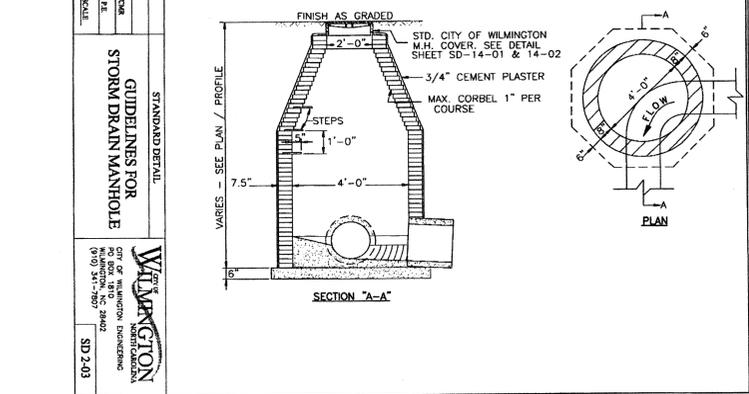
**STORMWATER MANAGEMENT PLAN APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

**Approved Construction Plan**  
Name \_\_\_\_\_ Date \_\_\_\_\_

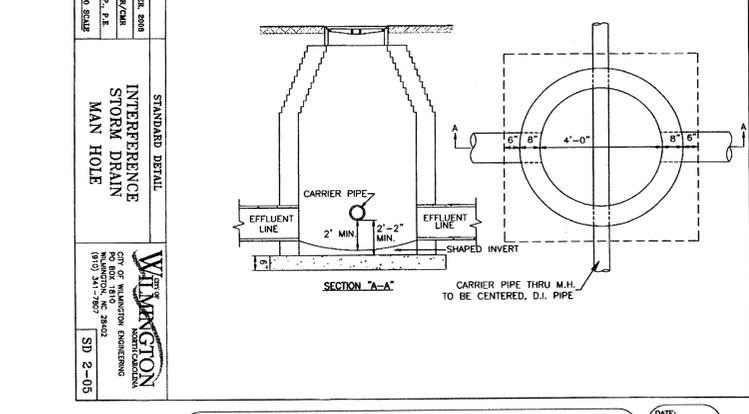
Planning \_\_\_\_\_  
Public Utilities \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_



**PERPENDICULAR CURB RAMP ADJACENT TO PLAZA**  
DATE: DECEMBER, 2010  
DRAWN BY: PBR  
CHECKED BY: DEC  
SCALE: NOT TO SCALE  
SD 3-08



**GUIDELINES FOR STORM DRAIN MANHOLE**  
DATE: JANUARY, 2008  
DRAWN BY: PBR  
CHECKED BY: BDR, P.E.  
SCALE: NOT TO SCALE  
SD 2-03



**INTERFERENCE STORM DRAIN MAN HOLE**  
DATE: NOVEMBER, 2008  
DRAWN BY: PBR  
CHECKED BY: BDR, P.E.  
SCALE: NOT TO SCALE  
SD 2-05

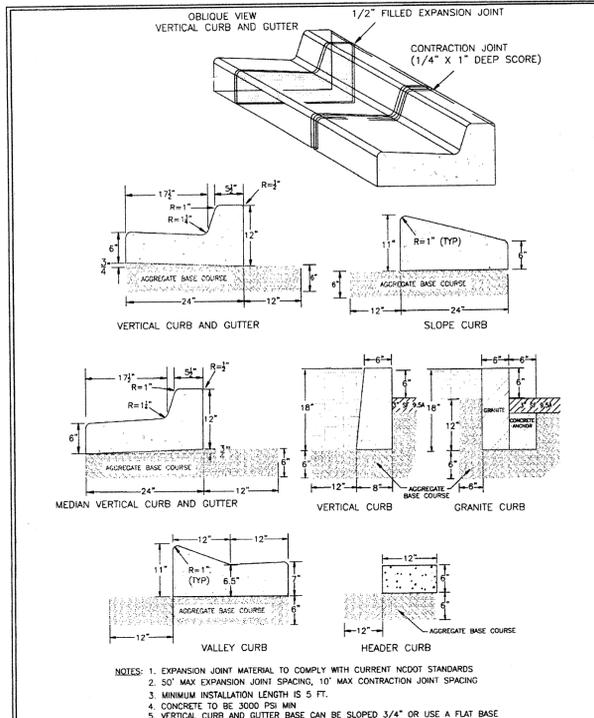
**PRELIMINARY PLAT NOT FOR RECORDATION, CONVEYANCES, OR SALES.**

**THE FORKS AT GALLERY PARK**  
CITY OF WILMINGTON NEW HANOVER COUNTY NORTH CAROLINA

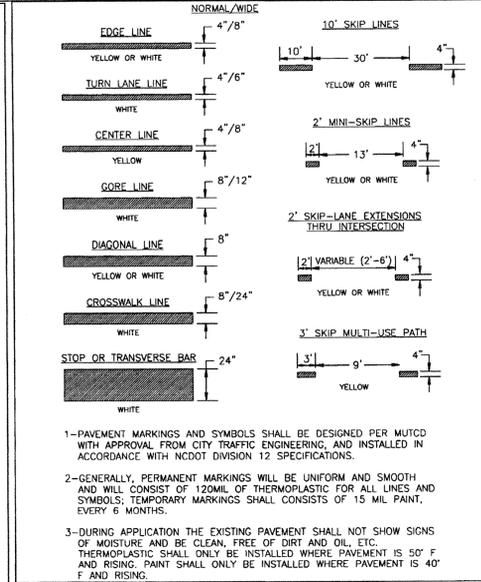
**MALPASS ENGINEERING & SURVEYING, P.C.**  
1134 SHUTLAND BOULEVARD  
WILMINGTON, NORTH CAROLINA 28412  
Phone 910-392-5243  
Fax 910-392-5250 License No. C-2320

**Owner: FORKS DEVELOPMENT, LLC**  
P.O. BOX 3649  
WILMINGTON, NORTH CAROLINA 28406  
PHONE: 910-251-2224  
FAX: 910-762-2680

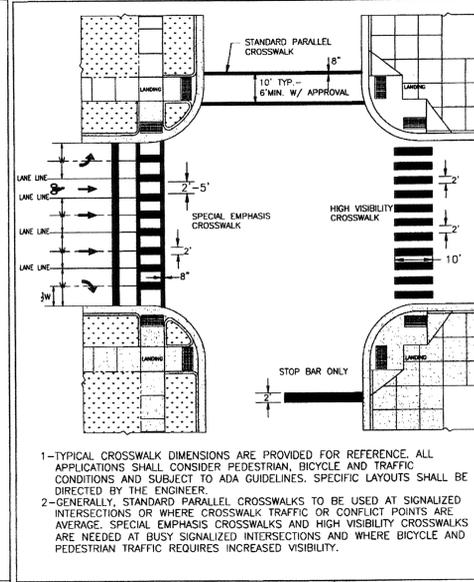
DATE: 3-31-14  
SCALE: N.T.S.  
DRAWN: JCB  
CHECKED: JEM  
PROJECT NO: 243  
SHEET NO: 20  
OF: 33



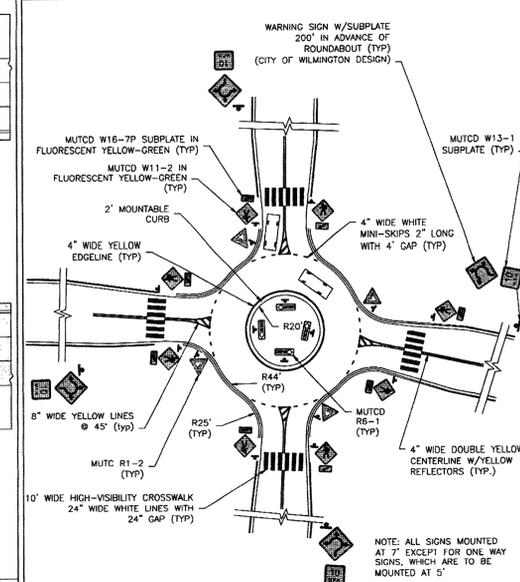
STANDARD DETAIL		 CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807
DATE: AUGUST, 2011	SD 3-11	
DRAWN BY: PB/JSR		
CHECKED BY: DEC		
SCALE: NOT TO SCALE		



STANDARD DETAIL		 CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807
DATE: DECEMBER, 2011	SD 11-01	
DRAWN BY: JSR		
CHECKED BY: BDR, P.E.		
SCALE: NOT TO SCALE		



STANDARD DETAIL		 CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807
DATE: FEBRUARY, 2012	SD 11-11	
DRAWN BY: JSR		
CHECKED BY: BDR, P.E.		
SCALE: NOT TO SCALE		



STANDARD DETAIL		 CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807
DATE: 2009	SD 11-14	
DRAWN BY: RLB		
CHECKED BY: JSR		
SCALE: NOT TO SCALE		

STORMWATER MANAGEMENT PLAN  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

**Approved Construction Plan**  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Public Utilities \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_

DETAIL SHEET  
**THE FORKS AT GALLERY PARK**  
 CITY OF WILMINGTON NEW HANOVER COUNTY NORTH CAROLINA

MALPASS ENGINEERING & SURVEYING, P.C.  
 1194 SHIPPYARD BOULEVARD  
 WILMINGTON, NORTH CAROLINA 28412  
 Phone 910-392-6243 License No. C-2320  
 Fax 910-392-6203

Owner: FORKS DEVELOPMENT, LLC  
 P.O. BOX 3649  
 WILMINGTON, NORTH CAROLINA 28406  
 PHONE: 910-251-2324  
 FAX: 910-762-2680

DATE: 3-31-14  
 SCALE: N.T.S.  
 DRAWN: JCB  
 CHECKED: JGM  
 PROJECT NO: 243  
 SHEET NO. 20A  
 OF: 33

REV. NO.	DESCRIPTION	DATE