

WETLAND PRESERVATION PERMIT
 MAINTAIN THE SWAMP FOREST PORTION OF
 THE PROPERTY AND PRESERVE THE
 CONSERVATION RESERVE SPACES
 AND THE WETLANDS AS SHOWN ON
 THE WETLANDS MAP DATED 11-27-15.



APPROVED CONSTRUCTION PLAN

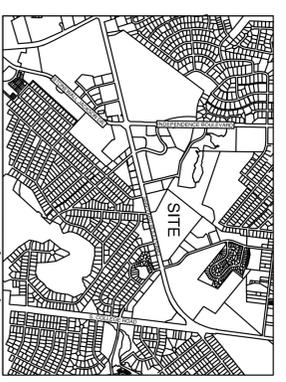
NAME _____ DATE _____

PLANNING _____

TRAFFIC _____

FIRE _____

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



SITE DATA

PROJECT: HOGGARD HIGH SCHOOL
 OWNER: NEW HANOVER COUNTY SCHOOLS
 OWNER CONTACT: NEW HANOVER COUNTY BOARD OF EDUCATION
 400 RENOXY FOREST DR., STE. 120
 WILMINGTON, NC 28412
 910-254-4325
 DESIGNER: CLH DESIGN, PA
 DESIGNER CONTACT: GLEN J. HEMINGWAY
 400 RENOXY FOREST DR., STE. 120
 CARY, NC 27518
 PHONE: 919-319-8718
 FAX: 919-319-7918
 PROJECT ADDRESS: 4305 SHIPYARD BOULEVARD
 WILMINGTON, NC 28403
 P.N.: ROB114-001-001-000
 ZONING: O&I
 EXISTING USE: INSTITUTIONAL/EDUCATIONAL
 PROPOSED USE: INSTITUTIONAL/EDUCATIONAL
 TRACT AREA: 62.74 ACRES
 FLOODPLAIN: (SEE: FRM 3720313600L, APRIL 3, 2006)
 A PORTION OF THE PROPERTY IS ENGINEERED BY WETLANDS CONSERVATION
 RESERVE FOR ADDITIONAL INFORMATION.
 THERE ARE NO ENDANGERED SPECIES OR HABITATS ON THIS SITE.
 BUILDING SETBACK: 20'
 TYPE OF CONSTRUCTION: 1-B

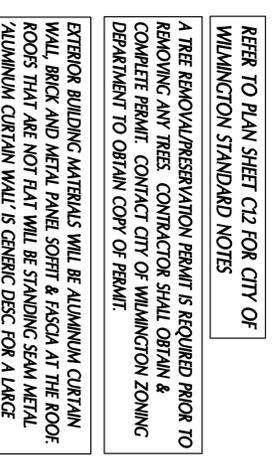
PARKING REQUIREMENTS:
 PARKING CODE: 1 SPACE PER 5 STUDENTS
 (OR 1 SPACE PER 3 STADIUM SEATS)
 NO. OF STUDENTS: 1900
 TOTAL SPACES REQ'D: 380 (500)
 EXISTING SPACES: 207
 EXISTING SPACES REMOVED: 17
 NEW SPACES ADDED: 81
 TOTAL SPACES PROVIDED: 691
 TOTAL H/C SPACES REQ'D: 14
 EXISTING H/C SPACES: 22
 NEW H/C SPACES REMOVED: 8
 NEW H/C SPACES ADDED: 4 (W/ 1 VAN ACCESSIBLE)
 TOTAL H/C SPACES PROVIDED: 20
 NO. BIKE SPACES PROVIDED: 20
 GROSS FLOOR AREA:
 EXISTING: 115,188 SQ. FT.
 MOBILE UNITS: 2,200 SQ. FT.
 TOTAL: 151,849 SQ. FT.
 PERCENT INCREASE: 22.71%
 PROPOSED GYM ADDN FOOTPRINT: 30,599 SQ. FT.
 PROPOSED CAFETERIA ADDN FOOTPRINT: 3,888 SQ. FT.
 BUILDING LOT COVERAGE-EXISTING: 4.3%
 MAX. BUILDING HEIGHT PROPOSED: 45'
 EXISTING IMPERVIOUS (WITHIN PROJECT LIMITS): 8.88--AC (386,812.80--57)
 PROPOSED IMPERVIOUS (WITHIN PROJECT LIMITS): 8.72--AC (379,843.20--57)
GENERAL LAND USE CLASSIFICATION:
 O&I (OFFICE, BUSINESS, PROFESSIONAL, COMMERCIAL, SERVICE, INDUSTRIAL)
GENERAL USES OF CONCEPT:
 C, SW (SWAMP WATERS), PERENNIAL
GENERAL GREEK CLASSIFICATION:
 INDEX # 18-87-26

THE SITE HAS NO LOCAL, STATE OR FEDERALLY RECOGNIZED HISTORIC STRUCTURES OR ARCHAEOLOGICAL RESOURCES.
 THE SITE HAS NO CEMETARIES, BURIAL SITES OR BURIAL GROUNDS.

REFER TO PLAN SHEET C12 FOR CITY OF WILMINGTON STANDARD NOTES

A TREE REMOVAL/PRESERVATION PERMIT IS REQUIRED PRIOR TO REMOVING ANY TREES. CONTRACTOR SHALL OBTAIN & COMPLETE PERMIT. CONTACT CITY OF WILMINGTON ZONING DEPARTMENT TO OBTAIN COPY OF PERMIT.

EXTERIOR BUILDING MATERIALS WILL BE ALUMINUM CURTAIN WALL, BRICK AND METAL PANEL SORT & FASCIA AT THE ROOF. ROOFS THAT ARE NOT FLAT WILL BE STANDING SEAM METAL. ALUMINUM CURTAIN WALL IS GENERIC DISC FOR A LARGE SPAN GLASS & GLASS FRAMING SYSTEM, WHICH ARE APPROVED MAT. IN O&I DISTRICT.



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



hmm
BOWMAN MURRAY HEMINGWAY
 ARCHITECTS
 514 Market Street
 Wilmington, NC 28401
 Tel - (910) 762-2821
 Fax - (910) 762-5506
 Project ID # 900-9005

CLH DESIGN, PA
 400 RENOXY FOREST DR.
 CARY, NC 27518
 PHONE: 919-319-8718
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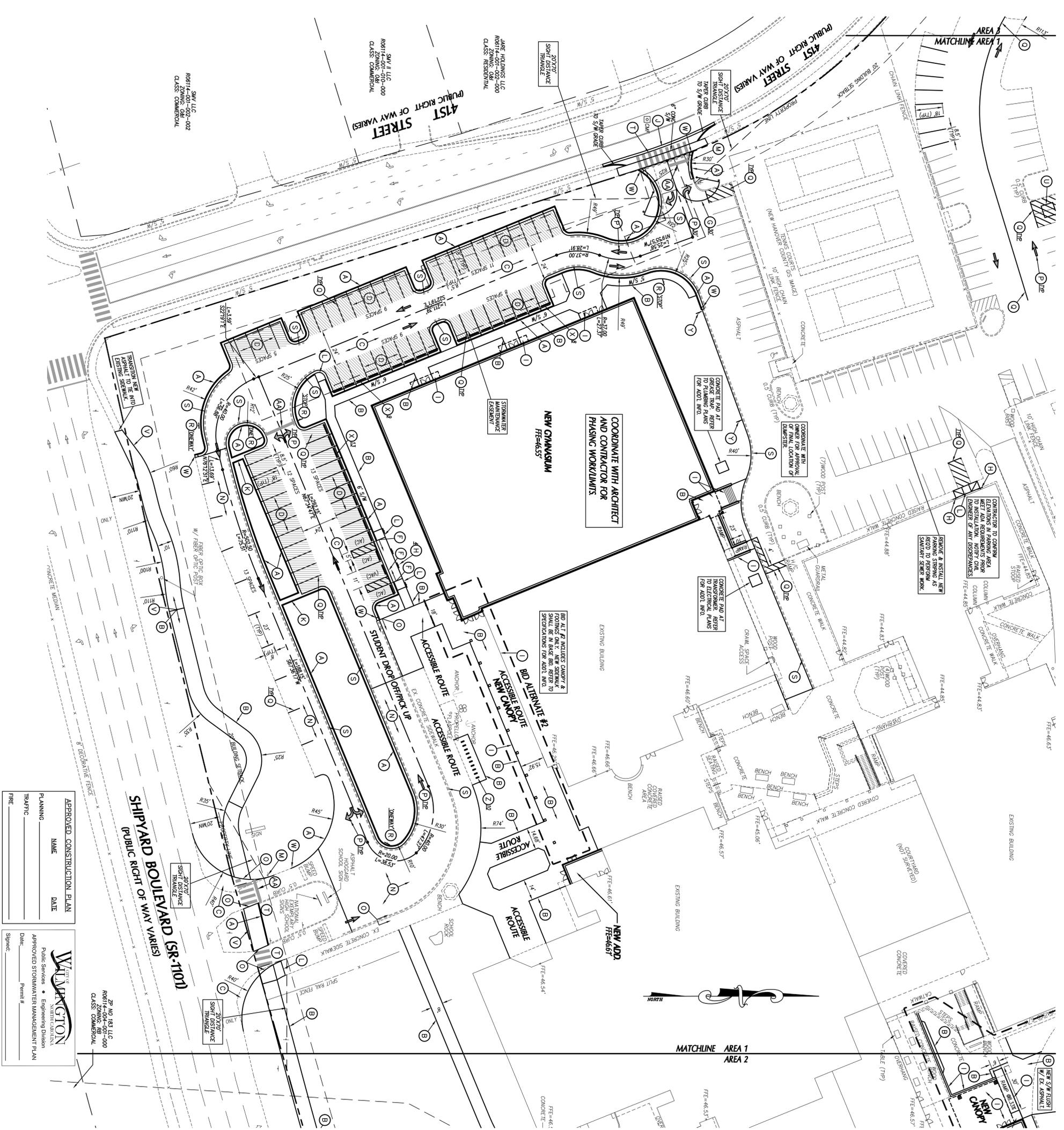
PROFESSIONAL SEAL
 GLEN J. HEMINGWAY
 ARCHITECT
 STATE OF NORTH CAROLINA
 23853
 4-12-16

Phase One: Renovations and Additions to John T. Hoggard High School
 4305 Shipyard Blvd.
 Wilmington, North Carolina 28403

JOB NUMBER: 15-120
 DRAWN BY: JGM
 CHECKED BY: JGM
 DATE: APRIL 12, 2016
 REVISIONS:

OVERALL SITE PLAN

SHEET NUMBER: **C-0.1**



APPROVED CONSTRUCTION PLAN

NAME _____ DATE _____

PLANNING _____

TRAFFIC _____

FIRE _____

WILMINGTON
PUBLIC SERVICES • ENGINEERING DIVISION
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signature: _____

GRAPHIC SCALE

1 inch = 30 ft

CONTRACTOR SHALL INCLUDE PRICE FOR 1500LFT OF TEMPORARY CONSTRUCTION FENCE & GATES IN BASE BID (SEE DETAIL SHEET C21) LOCATIONS TO BE DETERMINED IN FIELD WITH OWNER AND ENGINEER PRIOR TO INSTALLATION. REFER TO SITE LOGISTICS PLAN BY CONTRACTOR FOR ADDITIONAL INFORMATION.

TRAFFIC CONTROL NOTES

- ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND AASHTO STANDARDS.
- ALL SIGNS SHALL BE MAINTAINED WITH 7-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 2-1/2" GALV. STEEL U-CHEANNEL POST SET IN 3-FT DEEP x 12-IN DIA. CONCRETE FOOTING.
- ALL PAVENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD AND AASHTO STANDARDS AND THE PROJECT SPECIFICATIONS.

MARKING	NO.001 STD.	SIZE	COLOR
PARKING SPACE	57IN	57IN	WHIT
NO PARKING	4-1/2IN	4-1/2IN	WHIT
SOLID WALK	24-IN	24-IN	WHIT
STOP BAR	120x 07-1/2 (H-S)	24-IN	WHIT

* NO PARKING - FIRE LANE MARKING SHALL CONSIST OF 4" x 4" SOLID WHITE STRIPE AND 8" HIGH WHITE TEXT "NO PARKING FIRE LANE" AT 50' INTERVALS PROVIDE IN ALL PAVED AREAS AS DESIGNATED BY FIRE MARSHALL.

ALL PAVENT MARKINGS ON SITE MAY BE EITHER THERMOPLASTIC OR ALYO-RESIN TYPE PAINT.

ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY CH DESIGN PRIOR TO SIGN INSTALLATION.

CENTER ALL DIRECTIONAL ARROWS WITHIN TRAVEL LANE.

- GENERAL NOTES**
- ALL DIMENSIONS SHOWN ARE FACE OF CURB AND FACE OF BUILDING WALL, UNLESS OTHERWISE SHOWN.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS SHOWN AND CONTACT THE ARCHITECT IF ANY DISCREPANCIES OCCUR.
 - CONSTRUCTION STAKE OUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
 - ALL SIGNS AND PAVENT MARKINGS ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
 - PAVENT MARKINGS IN PUBLIC RIGHT-OF-WAYS AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY OF WILMINGTON AND/OR AASHTO STANDARDS.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
 - REPAIRMENT OF ANY BROKEN OR DAMAGED CONCRETE SIDEWALK PRIOR TO ANY CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
 - ALL PARKING STALL RADII SHALL BE 4' UNLESS OTHERWISE NOTED.
 - PIPE GATE AT THE BUS DROP-OFF/FIRE LANE SHALL MEET THE CITY OF WILMINGTON FIRE SERVICES GATE REQUIREMENTS FOR LOCKING ARRANGEMENTS.
 - A PORTION OF THIS PROPERTY IS LOCATED IN THE 100-YEAR FLOOD ZONE AS SHOWN IN THE COMMONITY PANEL 57017(00)S & DATED NOV. 4, 1997.

- KEY NOTES**
- 24" CONCRETE CURB & GUTTER. SEE DETAIL SHEET C7.2.
 - CONCRETE SIDEWALK. SEE DETAIL SHEET C7.2.
 - HEAVY DUTY ASPHALT PAVEMENT. SEE DETAIL SHEET C7.2.
 - LIGHT DUTY ASPHALT PAVEMENT. SEE DETAIL SHEET C7.2.
 - CONCRETE PAVEMENT. SEE DETAIL SHEET C7.2.
 - SIDEWALK FLUSH W/ PAVEMENT. SEE ACCESS. PARKING CURB RAMP DETAIL SHIT C7.2.
 - PIPE GATE. SEE DETAIL SHEET C7.2.
 - ACCESSIBLE PARKING SIGNAGE. SEE DETAIL SHEET C7.3.
 - SEE ARCHITECTURAL PLANS FOR SCREEN WALLS, RAMP, CANOPY, STEPS, ETC.
 - CONCRETE DRAINWAY ARRON. SEE DETAIL SHEET C7.2.
 - CONCRETE CURB FLUME. SEE DETAIL SHEET C7.3.
 - ACCESSIBLE CURB RAMP. SEE DETAIL SHEET C7.3.
 - ASPHALT PAVEMENT FLUSH WITH SIDEWALK.
 - RELOCATE EXISTING STOP SIGN PER CITY OF WILMINGTON AND MUTCD STANDARDS. ASPHALT OVERLAY. SEE DETAIL SHEET C7.2.
 - DIRECTIONAL ARROW. SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - SOLID WHITE MARKING. SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - TRAFFIC CONTROL SIGNAGE. SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - FIRE LANE STRIPING. SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - H-I-S CROSSWALK. SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - DIMENSION PROVIDED BY OWNER. RELOCATED BY CONTRACTOR. COORDINATE WITH OWNER FOR FINAL LOCATION AFTER CONSTRUCTION. REFER TO STAKING PLANS FOR FINAL LOCATION.
 - WIDE MULTI-USE PATH PER CITY OF WILMINGTON STANDARDS. SEE DETAIL SHEET C7.3.
 - PRE-CAST CONCRETE WHEEL STOP. SEE DETAIL SHEET C7.2.
 - NO PARKING - FIRE LANE SIGNAGE. SEE DETAIL SHEET C7.2.
 - BIKE RACKS. SEE DETAIL SHEET C7.2.
 - STOP BAR. SEE TRAFFIC CONTROL NOTES THIS SHEET.

PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

SITE STAKING PLAN

SHEET NUMBER

C-1.1

JOB NUMBER: 15-120

DRAWN BY: JGM

CHECKED BY: JGM

DATE: APRIL 12, 2016

REVISIONS:

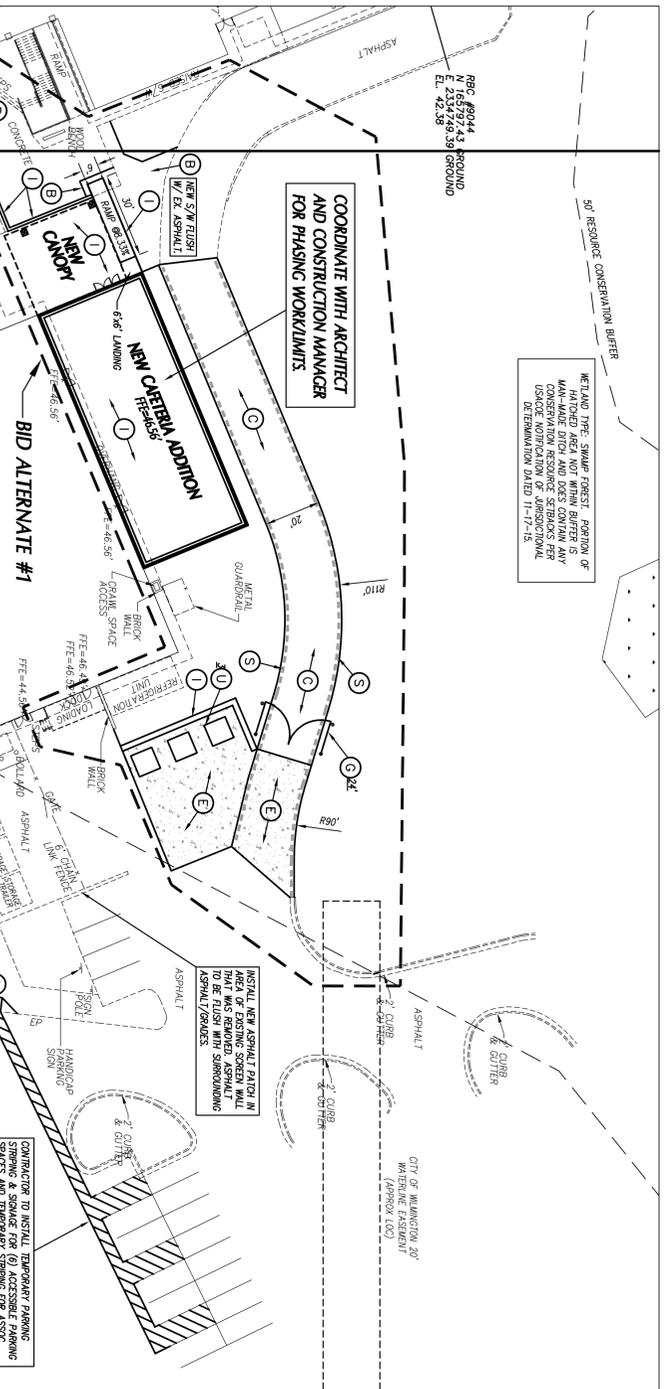
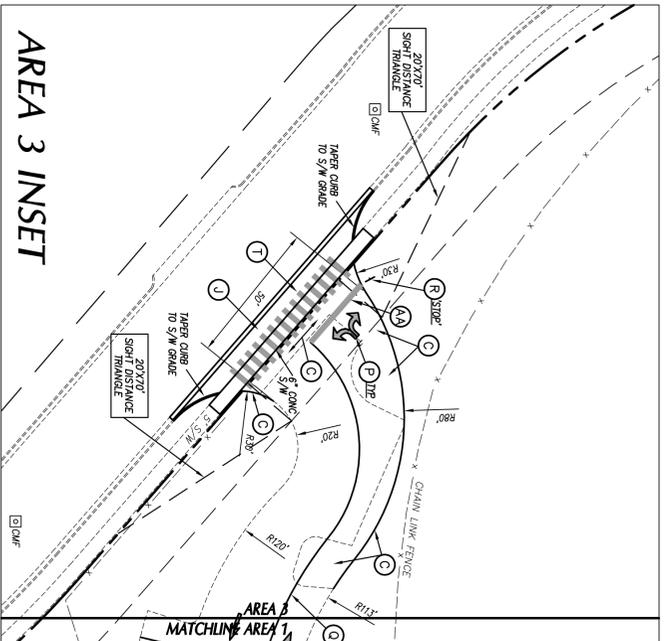
Phase One: Renovations and Additions to:
John T. Hoggard High School
 4305 Shipyard Blvd.
 Wilmington, North Carolina 28403

WILMINGTON, NORTH CAROLINA
 REGISTERED PROFESSIONAL ENGINEER
 1861
 4-12-16

CLH DESIGN/PA
 CONSULTING ENGINEERS AND ARCHITECTS
 514 MARKET STREET
 WILMINGTON, NC 28401
 TEL: (910) 762-2821
 FAX: (910) 762-5366

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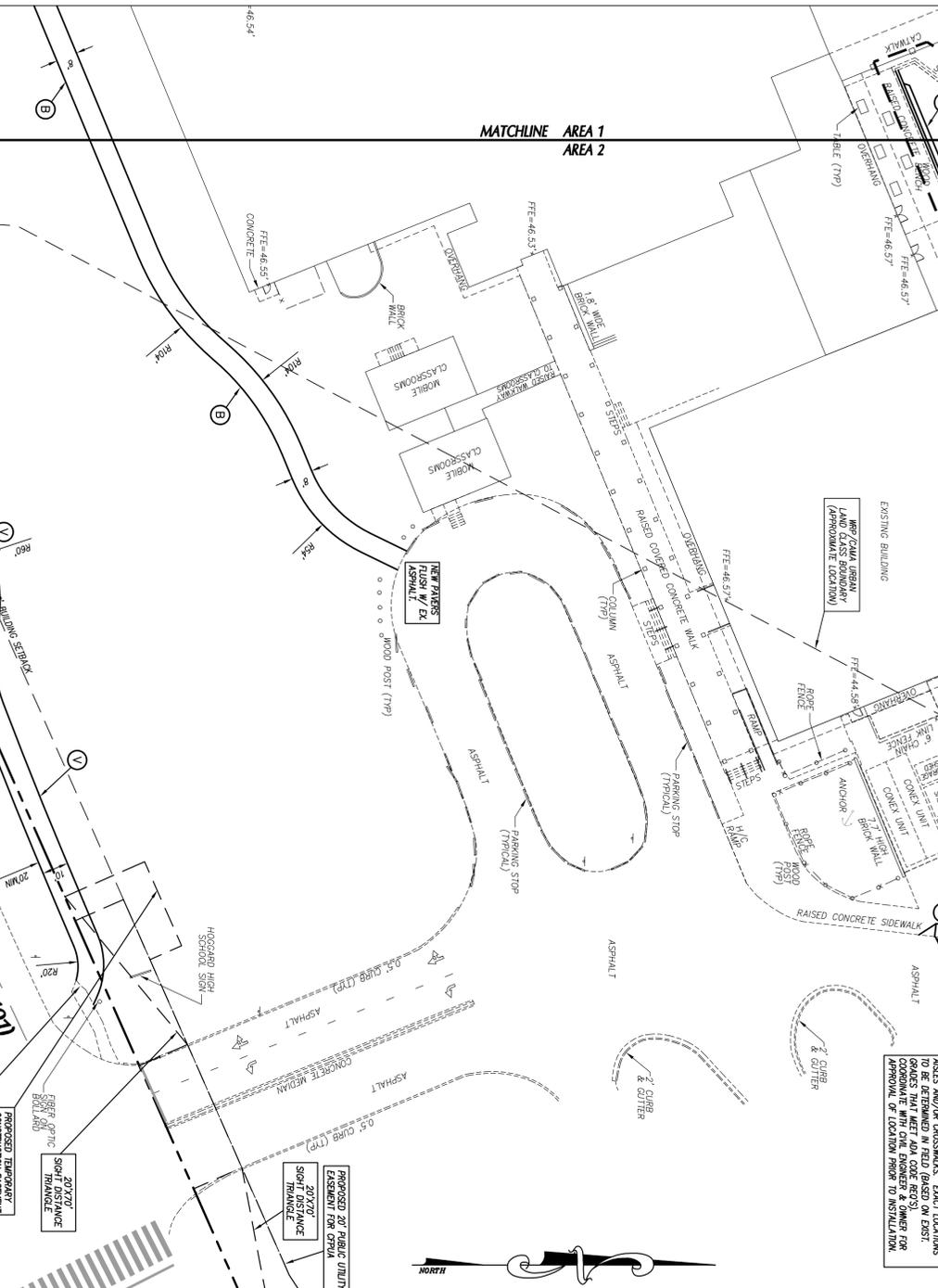
Project ID # 900-9005



- ### KEY NOTES
- A 24" CONCRETE CURB & GUTTER, SEE DETAIL SHEET C7.2.
 - B CONCRETE SIDEWALK, SEE DETAIL SHEET C7.2.
 - C HEAVY DUTY ASPHALT PAVEMENT, SEE DETAIL SHEET C7.2.
 - D LIGHT DUTY ASPHALT PAVEMENT, SEE DETAIL SHEET C7.2.
 - E CONCRETE PAVEMENT, SEE DETAIL SHEET C7.2.
 - F SIDEWALK FLUSH W/ PAVEMENT, SEE ACCESS, PARKING CURB RAMP DETAIL SH7 C7.2.
 - G PIPE GATE, SEE DETAIL SHEET C7.9.
 - H ACCESSIBLE PARKING SIGNAGE, SEE DETAIL SHEET C7.3.
 - I SEE ARCHITECTURAL PLANS FOR SCREEN WALLS, RAMP, CANOPY, STEPS, ETC.
 - J CONCRETE DRIVEWAY APPROX, SEE DETAIL SHEET C7.2.
 - K CONCRETE CURB FLUME, SEE DETAIL SHEET C7.3.
 - L ACCESSIBLE CURB RAMP, SEE DETAIL SHEET C7.3.
 - M RELOCATE EXISTING STOP SIGN PER CITY OF WILMINGTON AND MUTCD STANDARDS.
 - N ASPHALT OVERLAY, SEE DETAIL SHEET C7.2.
 - O ASPHALT PAVEMENT FLUSH WITH SIDEWALK.
 - P DIRECTIONAL ARROW, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - Q SOLID WHITE MARKING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - R TRAFFIC CONTROL SIGNAGE, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - S FIRE LANE STRIPING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - T H-1MS CROSSWALK, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - U DIMENSIONERS PROVIDED BY OWNER, RELOCATED BY CONTRACTOR, COORDINATE WITH ARCHITECT FOR FINAL LOCATION AFTER CONSTRUCTION. REFER TO STAKING PLANS FOR FINAL LOCATION.
 - V 10' WIDE MULTI-USE PATH PER CITY OF WILMINGTON STANDARDS. SEE DETAIL SHEET C7.3.
 - X STANDARD METHOD OF ENDING CURB, SEE DETAIL SHEET C7.2.
 - Y PRE-CAST CONCRETE WHEEL STOP, SEE DETAIL SHEET C7.2.
 - Z NO PARKING - FIRE LANE SIGNAGE, SEE DETAIL SHEET C7.2.
 - AA BUMP RACKS, SEE DETAIL SHEET C7.2.
 - AB STOP BAR, SEE TRAFFIC CONTROL NOTES THIS SHEET.

CITY OF WILMINGTON NOTES

1. REFER TO ANY ORDINANCES, SIGNAGE OR REGULATORY AGENCY. THESE PROTECTION METHODS SHALL BE INSTALLED AROUND PROTECTED TREES OR GROUPS OF TREES, AND CONSTRUCTION MATERIALS, METHODS OR METHODS ARE PERMITTED WITHIN THE PROTECTION FENCING.
2. ANY TREES AND/OR AREAS DETERMINED TO BE PROTECTED MUST BE PROPERLY MARKED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAKING OF MATERIALS WILL OCCUR IN THESE AREAS.
3. NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SIGN FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION METHODS.
4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR MUTCD STANDARDS.
5. ONCE STREETS ARE OPEN TO TRAFFIC CONTACT TRAFFIC ENGINEERING REGARDING THE INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
6. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
7. CONTACT TRAFFIC ENGINEERING AT 910.341.7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
8. CALL TRAFFIC ENGINEERING AT 910.341.7888 PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
9. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STAKING.
10. ALL PAVEMENT STILL MARKINGS AND LANE ARROWS WITH THE PARKING AREAS SHALL BE WHITE.
11. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER.
12. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
13. TRAFFIC MARKING MATS WILL BE INSTALLED ON ALL WHEELCHAIR PATHS.
14. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET.
15. ANY BROKEN OR MISSING SIGNAGE PANELS, DRIVEWAY PANELS & COBBING WILL BE REPLACED.
16. CONTACT TRAFFIC ENGINEERING AT 910.341.7888 TO DISCUSS STREET LIGHT OPTIONS.
17. WATER AND SEWER SERVICE SHALL NOT BE OPEN TO PUBLIC UTILITY AUTHORITY (CPUVA) DETAILS AND SPECIFICATIONS.
18. PROJECT SHALL COMPLY WITH CPUVA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS (S) SHALL BE INSTALLED WITH ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEM FINAL APPROVAL. CALL 910.341.5810 FOR INFORMATION.
19. IF THE CONTRACTOR ASSESS CPUVA WATER FOR CONSTRUCTION, HE SHALL APPLY IN ADVANCE FOR HIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
20. ANY PROTECTION SYSTEM SUPPLIED BY CPUVA WATER SHALL COMPLY WITH THE CPUVA CROSS CONNECTION CONTROL REGULATIONS. CALL 910.341.5810 FOR INFORMATION.
21. ANY PROTECTION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
22. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CPUVA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USDOCCOR OR ASSE.
23. CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONTACTS.
24. CONSTRUCTION SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
25. UNDERGROUND PIPE LINES MUST BE IDENTIFIED AND ASSIGNED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910.341.0966.
26. NO DISTURBANCES ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
27. CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1.800.623.4949 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING.



- ### GENERAL NOTES
1. ALL DIMENSIONS SHOWN ARE FACE OF CURB AND FACE OF BUILDING WALL, UNLESS OTHERWISE SHOWN.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS SHOWN AND CONTACT THE ARCHITECT IF ANY DISCREPANCIES OCCUR.
 3. CONSTRUCTION STAKE OUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
 4. ALL SIGNS AND PAVEMENT MARKINGS ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
 5. PAVEMENT MARKINGS IN PUBLIC RIGHT-OF-WAYS AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY OF WILMINGTON AND/OR MUTCD STANDARDS.
 6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
 7. REPLACEMENT OF ANY BROKEN OR DAMAGED CONCRETE SIGNAGE IS THE RESPONSIBILITY OF THE CONTRACTOR.
 8. ALL PARKING STILL RAILS SHALL BE 4" UNLESS OTHERWISE NOTED.
 9. PIPE GATE AT THE BUS PROP-OFF/FIRE LANE SHALL MEET THE CITY OF WILMINGTON FIRE SERVICES GATE REQUIREMENTS.
 10. A PORTION OF THIS PROPERTY IS LOCATED IN THE 100 YEAR FLOOD ZONE AS SHOWN IN THE COMMUNITY PANEL 3707710003 C BAYED NOV. 4, 1997.
- ### TRAFFIC CONTROL NOTES
1. ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STD.

SIGN	MUTCD STD.	SIZE	COLOR
STOP	R8-2.02	30"x30"	WHIT
ONE WAY	R8-1	36"x12"	WHIT
DO NOT ENTER (ONE)	R8-1	30"x30"	WHIT
 2. ALL SIGNS SHALL BE MOUNTED WITH 7'-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 2-1/2" GALV. STEEL U-C CHANNEL POST SET IN 3'-FT DEEP x 12"-IN DIA. CONCRETE FOOTING.
 3. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD AND MUTCD STANDARDS AND THE PROJECT SPECIFICATIONS.

MARKING	MUTCD STD.	SIZE	COLOR
PARKING SPACE		4"-IN	WHIT
NO PARKING		4"-IN	WHIT
SOLID		4"-IN	WHIT
STOP BAR		24"-IN	WHIT
 4. ALL PAVEMENT MARKINGS ON SITE MAY BE EITHER THERMOPLASTIC OR ALYO-BESIN TYPE PAINT.
 5. ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY CDH DESIGN PRIOR TO SIGN INSTALLATION.
 6. CENTER ALL DIRECTIONAL ARROWS WITHIN TRAVEL LANE.
- CONTRACTOR SHALL INCLUDE PRICE FOR 1500LF OF TEMPORARY CONSTRUCTION FENCE & GATES IN BASE BID (SEE DETAIL SHEET C7.3) LOCATIONS TO BE DETERMINED IN FIELD WITH OWNER AND ENGINEER PRIOR TO INSTALLATION. REFER TO SITE LOGISTICS PLAN BY CONTRACTOR FOR ADDITIONAL INFORMATION.

APPROVED CONSTRUCTION PLAN

NAME _____ DATE _____

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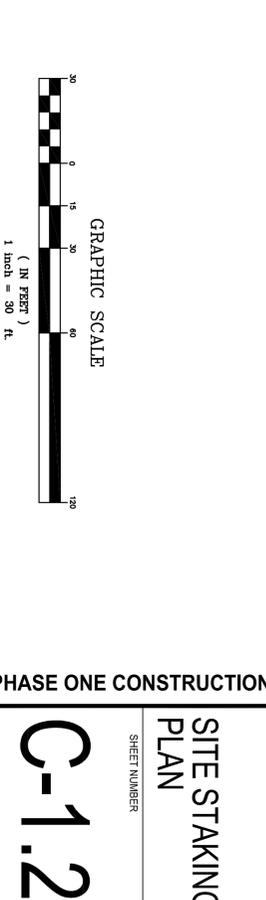
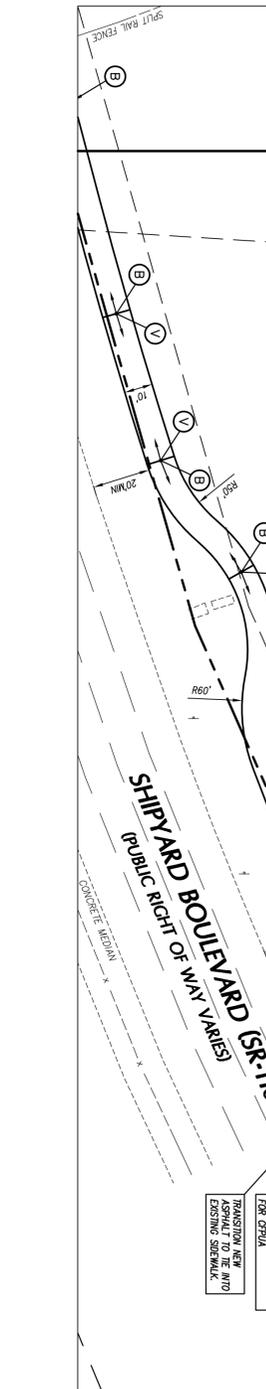
DATE _____

APPROVED STORMWATER MANAGEMENT PLAN

DATE _____

Permit # _____

Signer: _____



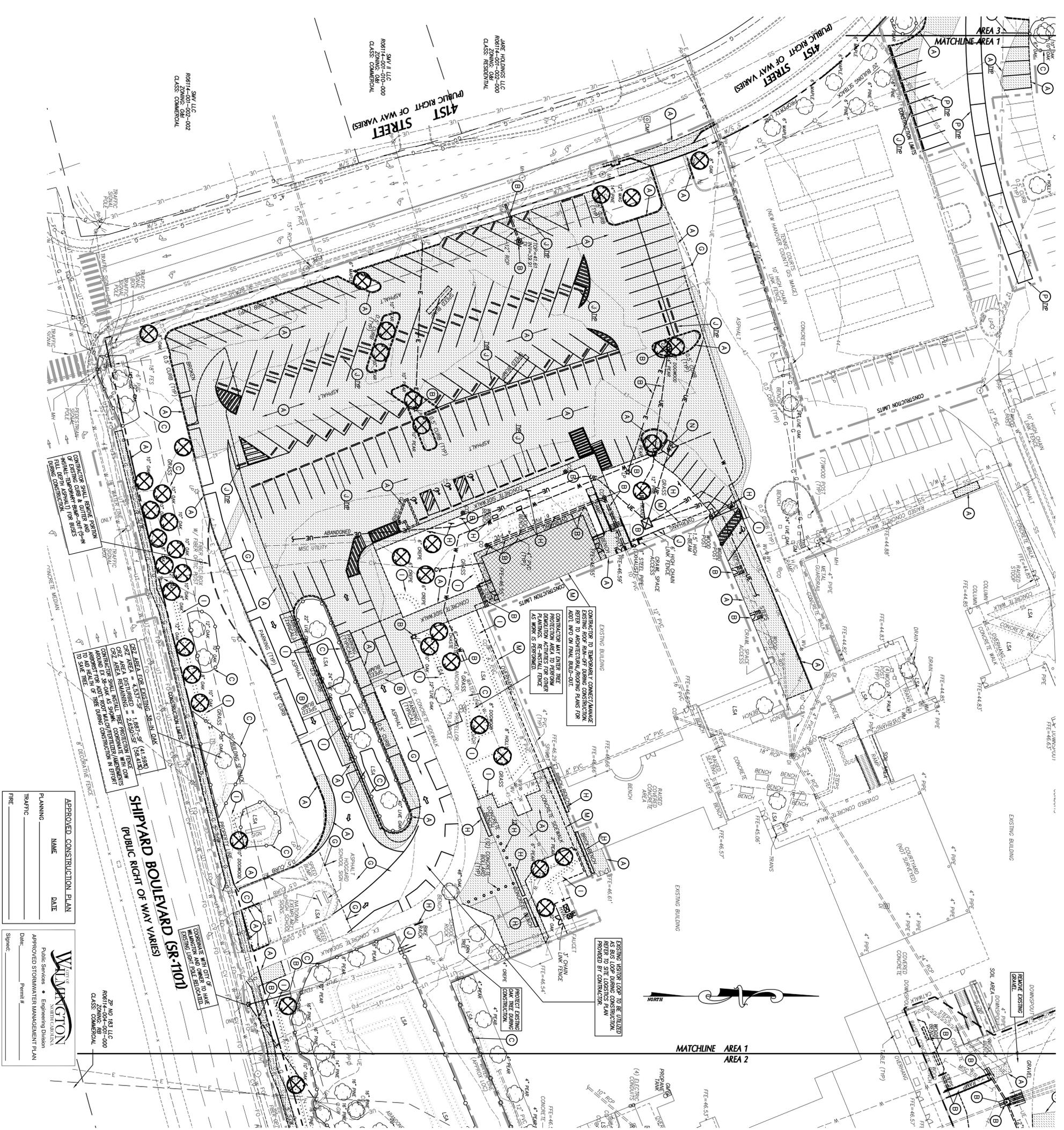
BOWMAN MURRAY HEMINGWAY ARCHITECTS

514 Market Street
Wilmington, NC 28401
Tel: (910) 762-2821
Fax: (910) 762-5366

Project ID # 900-9005

CLTH DESIGN, PA
3000 W. 10th Street
Wilmington, NC 28403
Tel: (910) 762-2821
Fax: (910) 762-5366

WILMINGTON
1861
4-12-16



APPROVED CONSTRUCTION PLAN

NAME _____ DATE _____

PLANNING _____

TRAFFIC _____

FIRE _____

WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signature: _____

LEGEND-STRUCTURES/UTILITIES TO REMAIN

OVERHEAD ELECTRICAL	---	E
UNDERGROUND ELECTRICAL	---	UE
FIRE PROTECTION	---	FP
GAS	---	G
SANITARY SEWER	---	SS
TELEPHONE	---	T
UNDERGROUND TELEPHONE	---	UT
FIBER OPTIC	---	FO
WATER	---	W
FORCE MAIN	---	FM
STORM DRAIN	---	SD
INDIVIDUAL TREE TO REMAIN	---	ITR

LEGEND-STRUCTURES/UTILITIES TO BE REMOVED

OVERHEAD ELECTRICAL	---	E
UNDERGROUND ELECTRICAL	---	UE
FIRE PROTECTION	---	FP
GAS	---	G
SANITARY SEWER	---	SS
TELEPHONE	---	T
UNDERGROUND TELEPHONE	---	UT
FIBER OPTIC	---	FO
WATER	---	W
FORCE MAIN	---	FM
STORM DRAIN	---	SD
INDIVIDUAL TREE TO BE REMOVED	---	ITR

KEY NOTES

- REMOVE AND RELOCATE CURB & GUTTER, AND SIDEWALK.
- STRUCTURES/UTILITIES TO BE REMOVED, COORDINATE W/ LOCAL UTILITY AGENCIES, AS REQUIRED. REFER TO REMOVAL DRAWING/ELECTRICAL NOTES FOR PROTECTION DETAILS. SEE DETAIL SHEET C-2.1.
- CLEAR & GRUB WITHIN CONSTRUCTION LIMITS. SEE SPECIFICATIONS.
- EXISTING UTILITY TO BE RELOCATED/REMOVED/ADJUSTED BY UTILITY COMPANY. COORDINATE/SCHEDULE WORK WITH UTILITY COMPANY. SEE UTILITY PLAN FOR APPROXIMATE NEW LOCATIONS.
- EXISTING CONCRETE/STORAGE SHED TO BE RELOCATED BY OWNER. MILL AREA AS REQUIRED TO RECEIVE ASPHALT OVERLAY. REFER TO STAKING PLANS FOR ADDITIONAL INFORMATION.
- SITE ELEMENTS (TRASH CANS, BOLLARDS, BENCHES, SIGNS, ETC.) TO BE REMOVED.
- SHRUBS/LANDSCAPING TO BE REMOVED.
- CHAIN LINK FENCE TO BE REMOVED.
- CONCRETE WHEEL STOP TO BE REMOVED.
- PIPE GATE TO BE REMOVED.
- REFER TO ARCHITECTURAL PLANS FOR REMOVAL/DEMOLITION OF ITEMS.
- DUMPSTERS TO BE RELOCATED BY CONTRACTOR. COORDINATE W/ OWNER FOR TEMPORARY LOCATION DURING CONSTRUCTION. REFER TO STAKING PLAN FOR FINAL LOCATION.
- SCREEN WALL TO BE REMOVED.
- PARKING STRIPING TO BE REMOVED.

GENERAL NOTES

- ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
- ALL WASTE MATERIAL GENERATED FROM CLEANING AND DEMOLITION ACTIVITIES SHALL BE REMOVED AND PROTECTED FROM DAMAGE.
- INSTALL TREE PROTECTION FENCING TO BE REMOVED AFTER DEMOLITION. CLEAR AND GRUB AS NEEDED WITHIN CONSTRUCTION LIMITS PER SPECIFICATIONS AND DRAWINGS. EXISTING TREES, SHRUBS OR OTHER LANDSCAPE MATERIAL WHICH WILL CONTACT WITH NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS) THAT THE SITE HAS BEEN INVESTIGATED TO DETERMINE TREE SIZE AND QUALITY OF CLEANING REQUIRED FOR CONSTRUCTION.
- LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL REMOVE ADEQUATE RESTORATION ON TREE PROTECTION REQUIREMENTS AND METHODS (PER CODE SECT. 18-457(d)).
- NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SIGN FENCING HAS BEEN INSTALLED AND APPROVED (PER CODE SECT. 18-458).
- NO LAND DISTURBANCE, INCLUDING TREE REMOVAL, IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN (PER CODE SECT. 18-457 (b)).
- ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT WITH NEW CONSTRUCTION. ANY EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS) TO BE REMOVED. UTILITY INSTALLATIONS MAY UTILIZE OPEN CUT OR PAVEMENT UNLESS INDICATED OTHERWISE. TRENCH IN EXISTING ASPHALT SHALL BE PATCHED PER PAVEMENT REPAIR ON DETAIL SHEET.
- PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNERS FACILITIES. SHOULD DAMAGES OCCUR, NOTIFY ARCHITECT IMMEDIATELY.
- THE CONTRACTOR SHALL EMPLOY A QUALIFIED UTILITY LOCATOR SERVICE TO LOCATE ALL UNDERGROUND UTILITIES (INCLUDING BUT NOT LIMITED TO ELECTRICAL, TELEPHONE, GAS, CABLE, FIBER OPTIC) WITHIN THE LIMITS OF CONSTRUCTION.
- VERIFY ALL ILLUSTRATED KNOWN UNDERGROUND ELEMENTS EXPOSED RESEMBLE EXISTING UTILITIES. IF UNUSUAL UNDERGROUND ELEMENTS, NOTIFY THE ARCHITECT IMMEDIATELY TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY THE ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
- EXISTING MANHOLES, VAULTS, CLEANSERS, UTILITY PILES ETC. TO REMAIN WITHIN THE EXISTING LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERLY WITH THE PROPOSED FINISHED GRADES (WHETHER OR NOT INDICATED TO BE MOVED).
- GENERAL CONTRACTOR TO COORDINATE ALL PEDESTRIAN ACCESS PATHS, LOCATIONS, LIGHTING, HANDICAP PARKING, ETC. DURING CONSTRUCTION WITH OWNER.
- EXISTING SURVEY INFORMATION HAS BEEN TAKEN FROM A BOUNDARY AND TOPOGRAPHIC SURVEY BY MCKIN & CREED DATED 10-30-15. SURVEY PROVIDED BY OWNER.
- ANY AND ALL LANDSCAPING AND EXISTING TREES & SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL PROVIDE POSITIVE SIGNAGE WITHIN THE CONSTRUCTION AREA AFTER FIELD WITH STRUCTURAL MATERIAL AS DIRECTED BY THE OWNER'S TESTING AGENCY AND COMPLETED PER SPECIFICATIONS.
- NO ALL WEATHER ACCESS ROAD MUST BE MAINTAINED AROUND CONSTRUCTION AT ALL TIMES.

GRAPHIC SCALE

1 inch = 30 ft

PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	APRIL 12, 2016
REVISIONS	

SITE EXISTING CONDITIONS & DEMO PLAN

SHEET NUMBER

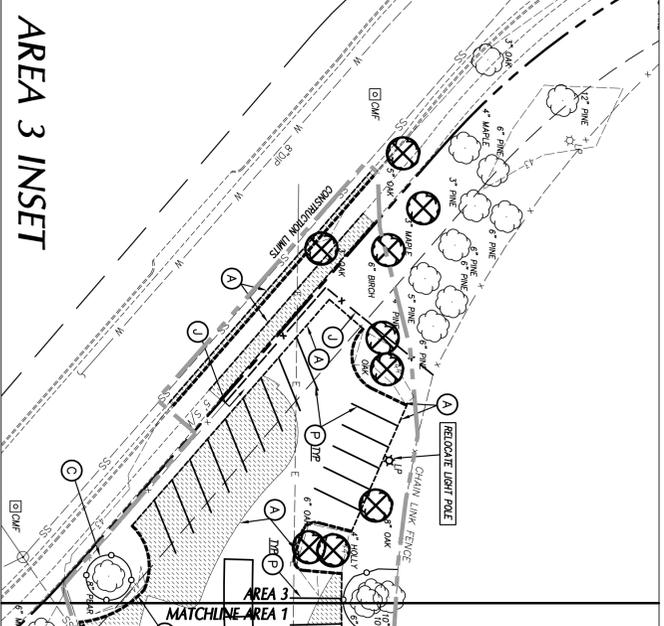
C-2.1

Phase One: Renovations and Additions to:
John T. Hoggard High School
 4305 Shipyard Blvd.
 Wilmington, North Carolina 28403

ARCHITECTS
BOWMAN MURRAY HEMINGWAY
 514 Market Street
 Wilmington, NC 28401
 Tel: (910) 762-2821
 Fax: (910) 762-5306
 Project ID #: 900-9005

CLTH DESIGN/PA
 1000 S. WILMINGTON BLVD.
 WILMINGTON, NC 28401
 TEL: (910) 762-5306
 FAX: (910) 762-5306

PROFESSIONAL ENGINEER
 SEAL 29833
 JOHN T. HOGGARD
 APRIL 12, 2016

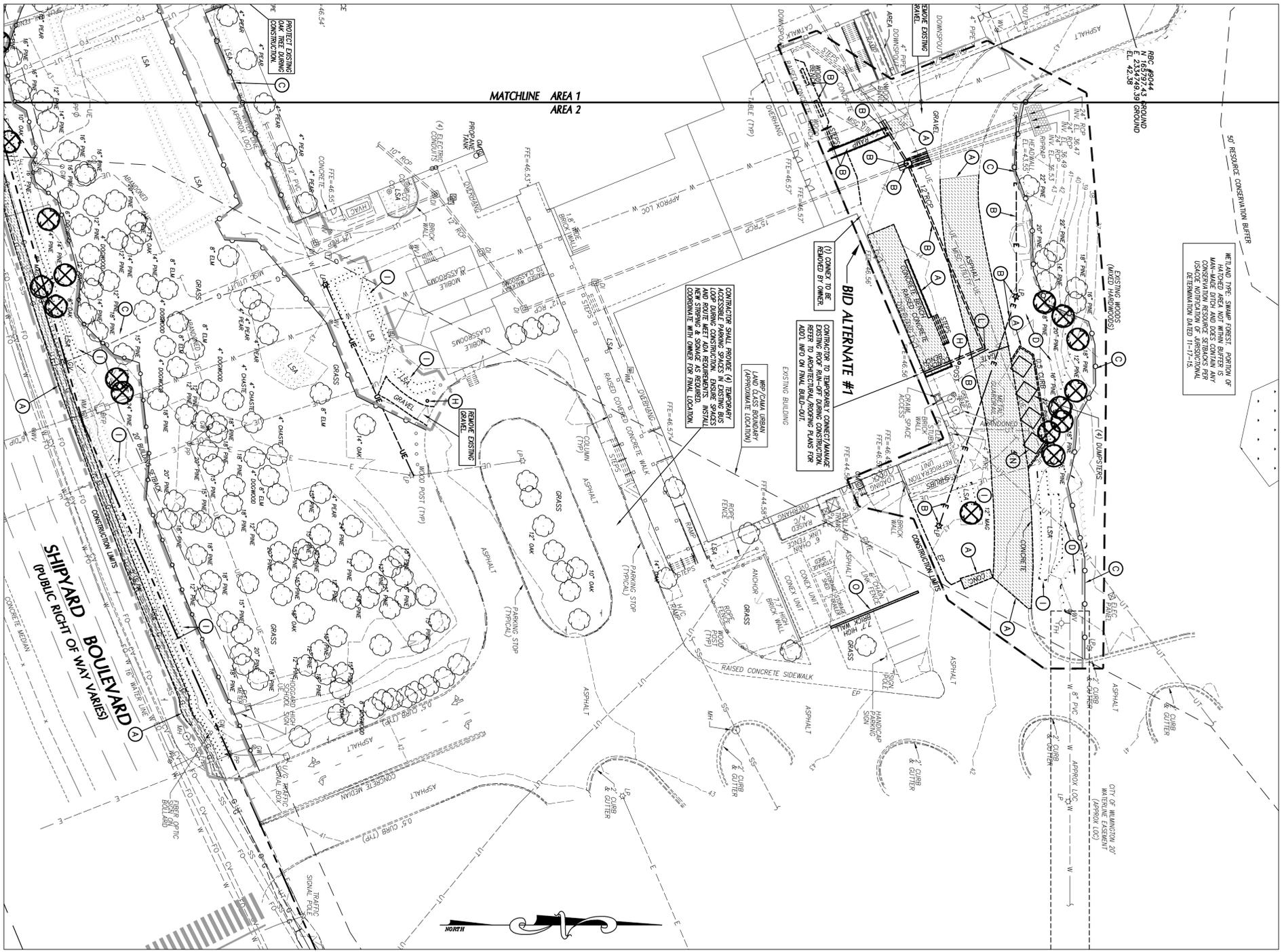


AREA 3 INSET

A TREE REMOVAL/PRESERVATION PERMIT IS REQUIRED PRIOR TO REMOVING ANY TREES. CONTRACTOR SHALL OBTAIN A COMPLETE PERMIT. CONTACT CITY OF WILMINGTON ZONING DEPARTMENT TO OBTAIN COPY OF PERMIT.

TEMPORARY CONSTRUCTION FENCING IS RESPONSIBILITY OF CONTRACTOR. COORDINATE WITH OWNER FOR EXACT LOCATION BASED ON SITE CONSTRUCTION LOGISTICS PLAN (TO BE DEVELOPED BY THE CONTRACTOR).

APPROVED CONSTRUCTION PLAN
 NAME _____ DATE _____
 PLANNING _____
 TRAFFIC _____
 DATE _____
 PERMIT # _____



WETLAND TREE SWAMP FOREST: PORTION OF MAIN-WATER DITCH AND DEEP CONTAIN ANY CONSERVATION RESOURCE STRIBES PER USFS DETERMINATION DATED 11-17-15.

BID ALTERNATE #1
 CONTRACTOR TO TEMPORARILY CONNECT/REMOVE REEBS TO ARCHITECTURAL/WORKING PLANS FOR ADDL INFO ON FINAL BUILD-OUT.

CONTRACTOR SHALL PROVIDE (A) TEMPORARY LOOP DRIVING CONSTRUCTION, ESPECIALLY NEW STRIPES & SIGNAGE AS REQUIRED. INSTALL CONSPICUOUS SIGN OWNERS ON FINAL LOCATION.

SHIPYARD BOULEVARD
 PUBLIC RIGHT OF WAY VARIET

LEGEND-STRUCTURES/UTILITIES TO REMAIN

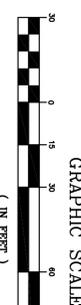
OVERHEAD ELECTRICAL	---E---	LIGHT POLE	⊙LP
UNDERGROUND ELECTRICAL	---UE---	UTILITY POLE	⊙UP
FIRE PROTECTION	---FP---	MANHOLE	⊙MH
GAS	---G---	CLEAN OUT	⊙CO
SANITARY SEWER	---SS---	DROP INLET/CATCH BASIN	⊙O, ⓄB
TELEPHONE	---T---	FIRE HYDRANT	⊙FH
UNDERGROUND FIBER OPTIC	---FO---	WATER VALVE	⊙WV
WATER	---W---		
FORCE MAIN	---FM---		
STORM DRAIN	---SD---		
INDIVIDUAL TREE TO REMAIN	⊙		

LEGEND-STRUCTURES/UTILITIES TO BE REMOVED

OVERHEAD ELECTRICAL	---E---	LIGHT POLE	⊙LP
UNDERGROUND ELECTRICAL	---UE---	UTILITY POLE	⊙UP
FIRE PROTECTION	---FP---	MANHOLE	⊙MH
GAS	---G---	CLEAN OUT	⊙CO
SANITARY SEWER	---SS---	DROP INLET/CATCH BASIN	⊙O, ⓄB
TELEPHONE	---T---	FIRE HYDRANT	⊙FH
UNDERGROUND FIBER OPTIC	---FO---	WATER VALVE	⊙WV
WATER	---W---		
FORCE MAIN	---FM---		
STORM DRAIN	---SD---		
INDIVIDUAL TREE TO BE REMOVED	⊗		

- KEY NOTES**
- SAWCUT AND REMOVE PAVEMENT, CURB & GUTTER, AND SIDEWALK.
 - STRUCTURES/UTILITIES TO BE REMOVED, COORDINATE W/ LOCAL UTILITY PROVIDERS, AS REQUIRED, PRIOR TO REMOVING CURB/ELECTRICAL POLES.
 - CLEAR & GRUB WITHIN CONSTRUCTION LIMITS. SEE SPECIFICATIONS.
 - EXISTING UTILITY TO BE RELOCATED/REMOVED/ADJUSTED BY UTILITY COMPANY. COORDINATE/SCHEDULE WORK WITH UTILITY COMPANY. SEE UTILITY PLAN FOR APPROXIMATE NEW LOCATIONS.
 - EXISTING CONCREX UNIT/STORAGE SHED TO BE RELOCATED BY OWNER. WILL AREA AS REQUIRED TO RECEIVE ASPHALT OVERLAY. REFER TO STAKING PLANS FOR ADDITIONAL INFORMATION.
 - SITE ELEMENTS (TRASH CANS, BOLLARDS, BENCHES, SIGNS, ETC.) TO BE REMOVED.
 - SHRUBS/LANDSCAPING TO BE REMOVED.
 - CHAIN LINK FENCE TO BE REMOVED.
 - CONCRETE WHEEL STOP TO BE REMOVED.
 - PRE GATE TO BE REMOVED.
 - REFER TO ARCHITECTURAL PLANS FOR REMOVAL/DEMOLITION OF ITEMS.
 - DUMPSTERS TO BE RELOCATED BY CONTRACTOR. COORDINATE W/ OWNER FOR TEMPORARY LOCATION DURING CONSTRUCTION. REFER TO STAKING PLAN FOR FINAL LOCATION.
 - SCREEN WALL TO BE REMOVED.
 - PARKING STRIPING TO BE REMOVED.

- GENERAL NOTES**
- ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
 - ALL WASTE MATERIAL GENERATED FROM CLEANING AND DEMOLITION ACTIVITIES SHALL BE RECYCLED OR RE-USE AT-SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
 - INSTALL TREE PROTECTION FENCING PRIOR TO BEGINNING CLEANING OPERATIONS. STAKE AND GRUB AS NEEDED WITHIN CONSTRUCTION LIMITS PER SPECIFICATIONS AND DRAWINGS. EXISTING TREES, SHRUBS OR OTHER LANDSCAPE MATERIAL WHICH WILL CONFLICT WITH NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS). LANDSCAPES THAT THE SITE HAS BEEN INVESTIGATED TO DETERMINE TYPE, SIZE AND QUANTITY OF CLEANING REQUIRED FOR CONSTRUCTION.
 - LAND CLEANING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ASPECTIVE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS (PER CODE SECT. 18-47(10)).
 - NO EQUIPMENT IS ALLOWED ON SITE WITH ALL TREE PROTECTION FENCING AND SITE FENCING HAS BEEN INSTALLED AND APPROVED (PER CODE SECT. 18-48(1)).
 - NO LAND DISTURBANCE INCLUDING TREE REMOVAL, IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN (PER CODE SECT. 18-45(7)(b)).
 - ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT WITH NEW CONSTRUCTION. ANY EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS). TO BE REMOVED. UTILITY INSTALLATIONS MAY UTILIZE OPEN CUT OR PAVEMENTS UNLESS INDICATED OTHERWISE. TRENCH IN EXISTING ASPHALT SHALL BE PATCHED PER PAVEMENT REPAIR ON DETAIL SHEET.
 - PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNERS FACILITIES. SHOULD DAMAGES OCCUR, NOTIFY ARCHITECT IMMEDIATELY.
 - THE CONTRACTOR SHALL EMPLOY A QUALIFIED UTILITY LOCATOR SERVICE TO LOCATE ALL UNDERGROUND UTILITIES (INCLUDING BUT NOT LIMITED TO ELECTRICAL, TELEPHONE, GAS, CABLE, FIBER OPTIC) WITHIN THE LIMITS OF CONSTRUCTION.
 - VERIFY ALL UTILITIES FROM UNDERGROUND ELEMENTS. EXPOSE RESOURCE ELEMENTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY THE ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND OSHA REGULATIONS.
 - EXISTING MANHOLES, VAULTS, CELESTIALS, UTILITY POLES ETC. TO REMAIN WITHIN THE CONSTRUCTION LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERLY WITH THE PROPOSED FINISHED GRADES (WHETHER OR NOT INDICATED TO BE MODIFIED).
 - GENERAL CONTRACTOR TO COORDINATE ALL PEDESTRIAN ACCESS PATHS, LOCATIONS, LIGHTING, HANDICAP PARKING, ETC. DURING CONSTRUCTION WITH OWNER.
 - EXISTING SURVEY INFORMATION WAS TAKEN FROM A BOUNDARY BY OWNER.
 - ANY AND ALL LANDSCAPING AND EXISTING TREES & SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
 - CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE WITHIN THE CONSTRUCTION AREA AFTER ALL CONSTRUCTION IS COMPLETE. ALL EXCESS WATER SHALL BE COLLECTED AND REMOVED AND COMPACTED PER SPECIFICATIONS.
 - AV ALL WEATHER ACCESS ROAD MUST BE MAINTAINED AROUND CONSTRUCTION AT ALL TIMES.



C-2.2

SITE EXISTING CONDITIONS & DEMO PLAN

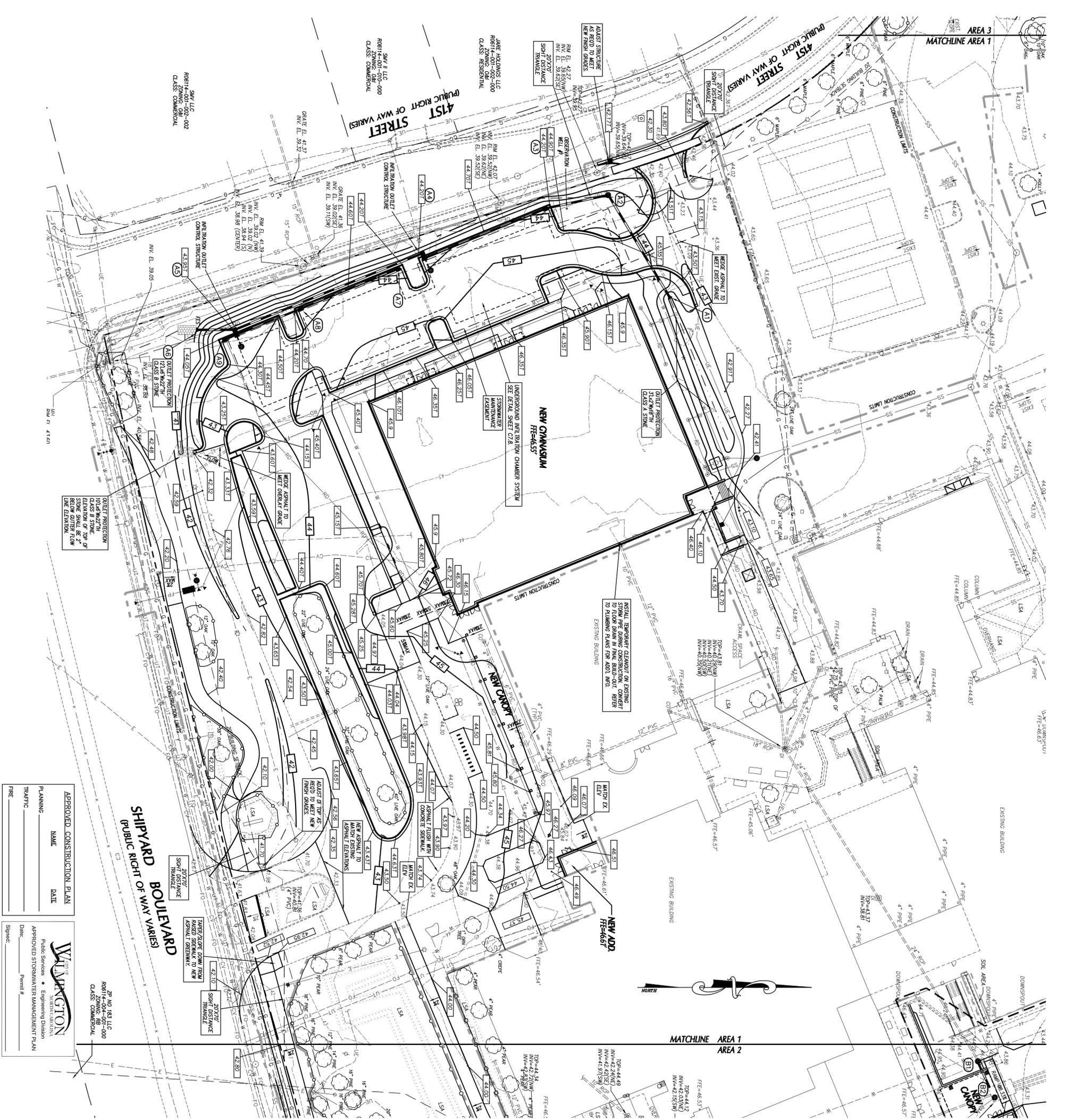
SHEET NUMBER

Phase One: Renovations and Additions to:
John T. Hoggard High School
 4305 Shipyard Blvd.
 Wilmington, North Carolina 28403

BOWMAN MURRAY HEMINGWAY ARCHITECTS
 514 Market Street
 Wilmington, NC 28401
 Tel - (910) 762-2821
 Fax - (910) 762-2806
 Project ID # 900-9005

CLTH DESIGN, PA
 1000 N. WILMINGTON BLVD.
 WILMINGTON, NC 28402
 TEL: (910) 762-2100
 FAX: (910) 762-2100

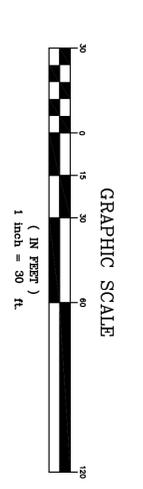
PROFESSIONAL SEAL
 STATE OF NORTH CAROLINA
 23853
 4-12-16



APPROVED CONSTRUCTION PLAN
 NAME _____ DATE _____
 PLANNING _____
 TRAFFIC _____
 FIRE _____

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

APPROVED CONSTRUCTION PLAN
 NAME _____ DATE _____
 PLANNING _____
 TRAFFIC _____
 FIRE _____

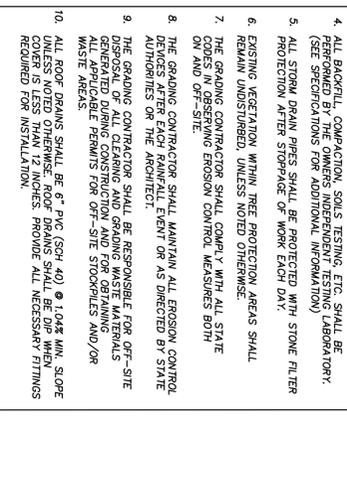


DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NO.	PIPE SIZE (IN)	PIPE SLOPE (%)	LENGTH (FT)	INVERT ELEV.	CONCRETE	TOP ELEV.	DEPTH (FT)	INTERNAL STRUCTURE DATA	NOTES
A1	42	0.7%	10	42.00	CONC	42.00	3.00	75S	
A2	42	0.6%	24	42.00	CONC	42.00	3.00	75S	
A3	42	0.1%	24	42.00	CONC	42.00	3.00	75S	
A4	42	0.1%	24	42.00	CONC	42.00	3.00	75S	
A5	42	0.9%	12	42.00	CONC	42.00	3.00	75S	
A6	42	0.9%	12	42.00	CONC	42.00	3.00	75S	
A7	42	0.9%	12	42.00	CONC	42.00	3.00	75S	
A8	42	1.2%	12	42.00	CONC	42.00	3.00	75S	
A9	42	1.2%	12	42.00	CONC	42.00	3.00	75S	
B1	42	1.4%	24	42.00	CONC	42.00	3.00	75S	

NOTES:
 1. TOP ELEVATION IS TOP OF CURB FOR CATCH BASINS. TOP OF FINISH GRADE FOR MANHOLETS, TOP OF FINISH GRADE FOR BOX WALKWAYS, TOP OF FINISH GRADE FOR JUNCTION BOX WALKWAYS. SEE DETAIL SHEET C7.4.
 2. ALL FTS METS & OUTLETS SHALL BE ROP.

- GRADING NOTES**
1. ALL SPOT ELEVATIONS INDICATED AT CURB AND CUTTER ARE TO TOP OF CURB, UNLESS OTHERWISE SHOWN.
 2. TOTAL DENuded AREA = 5 AC.
 3. CONTRACTOR SHALL ADJUST ALL EXISTING VALUETS, MANHOLES, MATCH FINISH GRADE, DEMANDS, ETC. AS NEEDED TO PERFORMED BY THE OWNERS INDEPENDENT TESTING LABORATORY. (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION)
 4. ALL BAYOPEL, COMPARATION, SOILS TESTING ETC. SHALL BE PERFORMED BY THE OWNERS INDEPENDENT TESTING LABORATORY. (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION)
 5. ALL STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY.
 6. EXISTING VEGETATION WITHIN TREE PROTECTION AREAS SHALL REMAIN UNDISTURBED, UNLESS NOTED OTHERWISE.
 7. THE GRADING CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL REGULATIONS CONCERNING EROSION CONTROL MEASURES BOTH ON AND OFF SITE.
 8. THE GRADING CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES FOR EACH ARCHITECTURAL EVENT OR AS DIRECTED BY STATE REGULATIONS OR THE ARCHITECT.
 9. THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE EROSION CONTROL MEASURES AND FOR OBTAINING ALL APPLICABLE PERMITS FOR OFF-SITE STOCKPILES AND/OR WASTE AREAS.
 10. ALL ROOF DRAINS SHALL BE 6" PVC (SCH 40) @ 1.0% MIN. SLOPE UNLESS NOTED OTHERWISE. ROOF DRAINS SHALL BE COP WHEN PROTECTION AFTER STOPPAGE OF WORK PROVIDE ALL NECESSARY FITTINGS REQUIRED FOR INSTALLATION.



PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

Phase One: Renovations and Additions to: John T. Hoggard High School
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 Wilmington, North Carolina 28403

ARCHITECTS
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 514 Market Street
 Wilmington, NC 28401
 Tel: (910) 762-2821
 Fax: (910) 762-5506
 Project ID # 900-9005

CLTH DESIGN/PA
 1000 S. UNIVERSITY BLVD.
 WILMINGTON, NC 28402
 TEL: (910) 762-7333
 FAX: (910) 762-7334

REGISTERED PROFESSIONAL ENGINEER
 STATE OF NORTH CAROLINA
 EXPIRES 12/31/2016
 4-12-16

SHEET NUMBER
C-3.1

JOB NUMBER
 15-120

DRAWN BY
 JGM

CHECKED BY
 JGM

DATE
 APRIL 12, 2016

REVISIONS

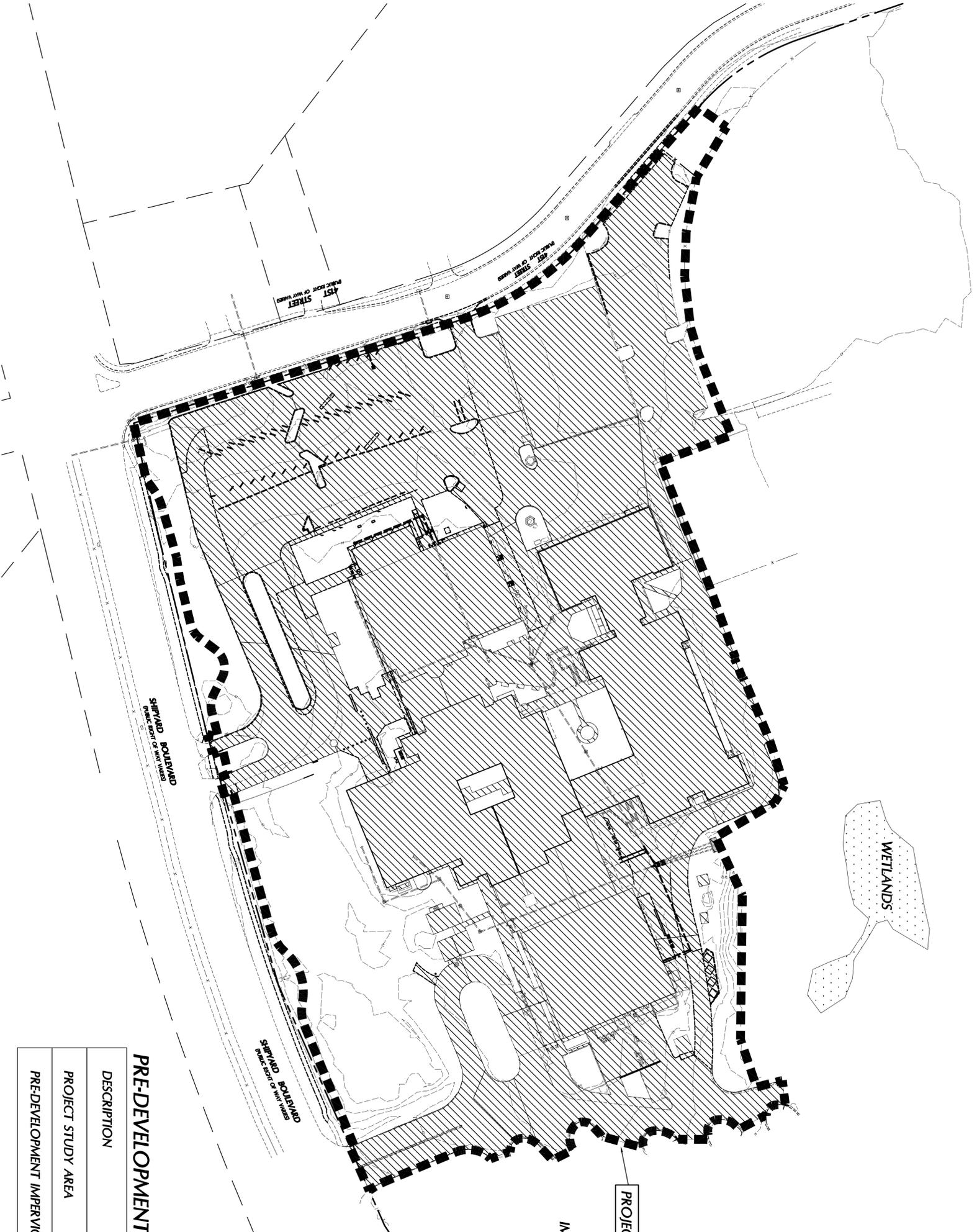
Phase One: Renovations and Additions to: John T. Hoggard High School

4305 Shipyard Blvd.
Wilmington, North Carolina 28403

JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	APRIL 12, 2016
REVISIONS	

**PRE-DEV
IMPERVIOUS
AREAS PLAN**

SHEET NUMBER
C-3.3

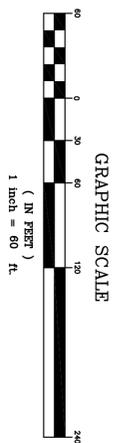


LEGEND
IMPERVIOUS AREAS

PROJECT STUDY AREA

PRE-DEVELOPMENT AREAS

DESCRIPTION	AREA (SF)	AREA (AC)
PROJECT STUDY AREA	545,770	12.53
PRE-DEVELOPMENT IMPERVIOUS AREA	389,550	8.92

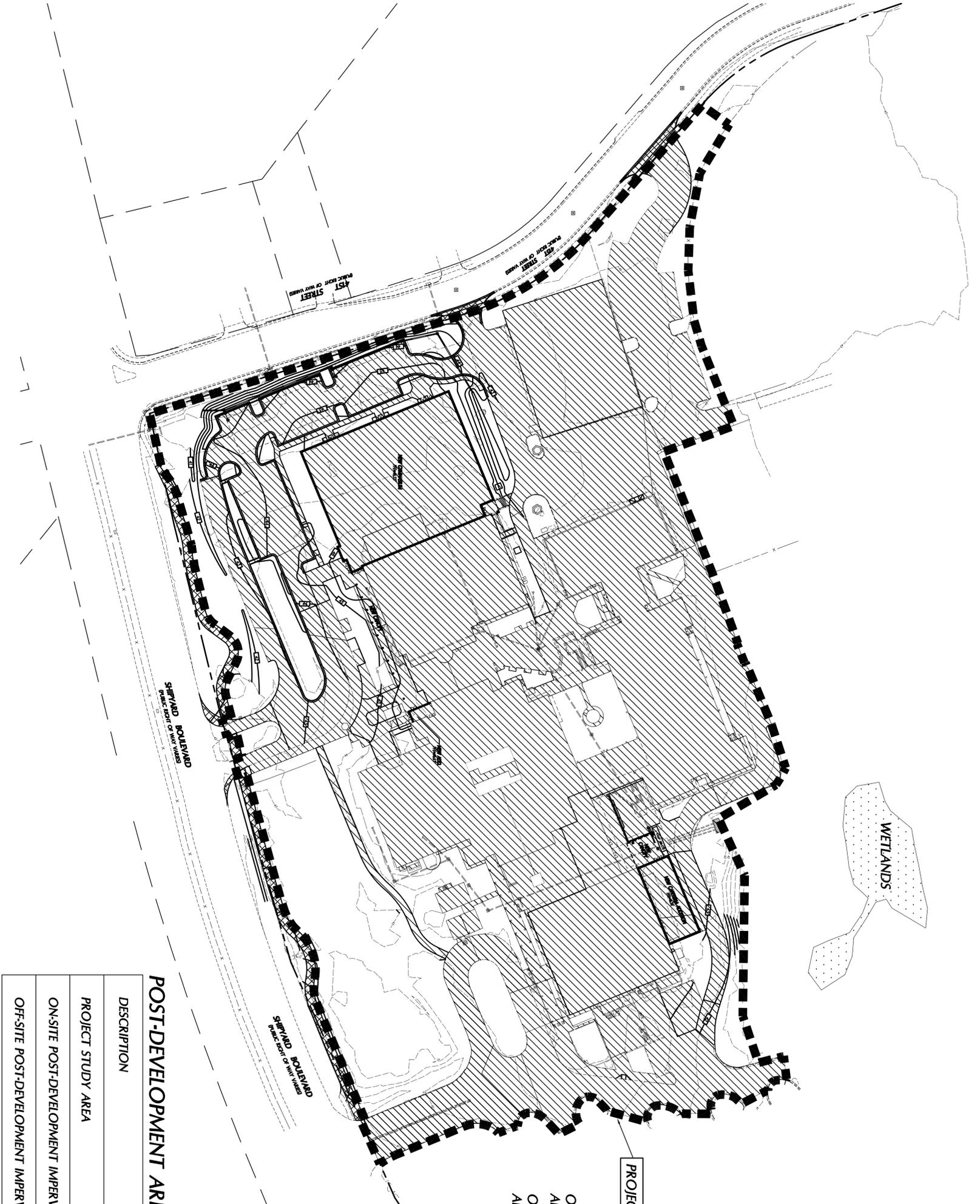


APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

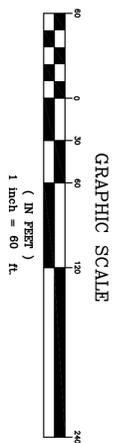
Date: _____ Permit #: _____
Signed: _____



LEGEND
ON-SITE IMPERVIOUS AREAS
OFF-SITE IMPERVIOUS AREAS

POST-DEVELOPMENT AREAS

DESCRIPTION	AREA (SF)	AREA (AC)
PROJECT STUDY AREA	545,770	12.53
ON-SITE POST-DEVELOPMENT IMPERVIOUS AREA	379,350	8.71
OFF-SITE POST-DEVELOPMENT IMPERVIOUS AREA	9,890	0.23



APPROVED CONSTRUCTION PLAN

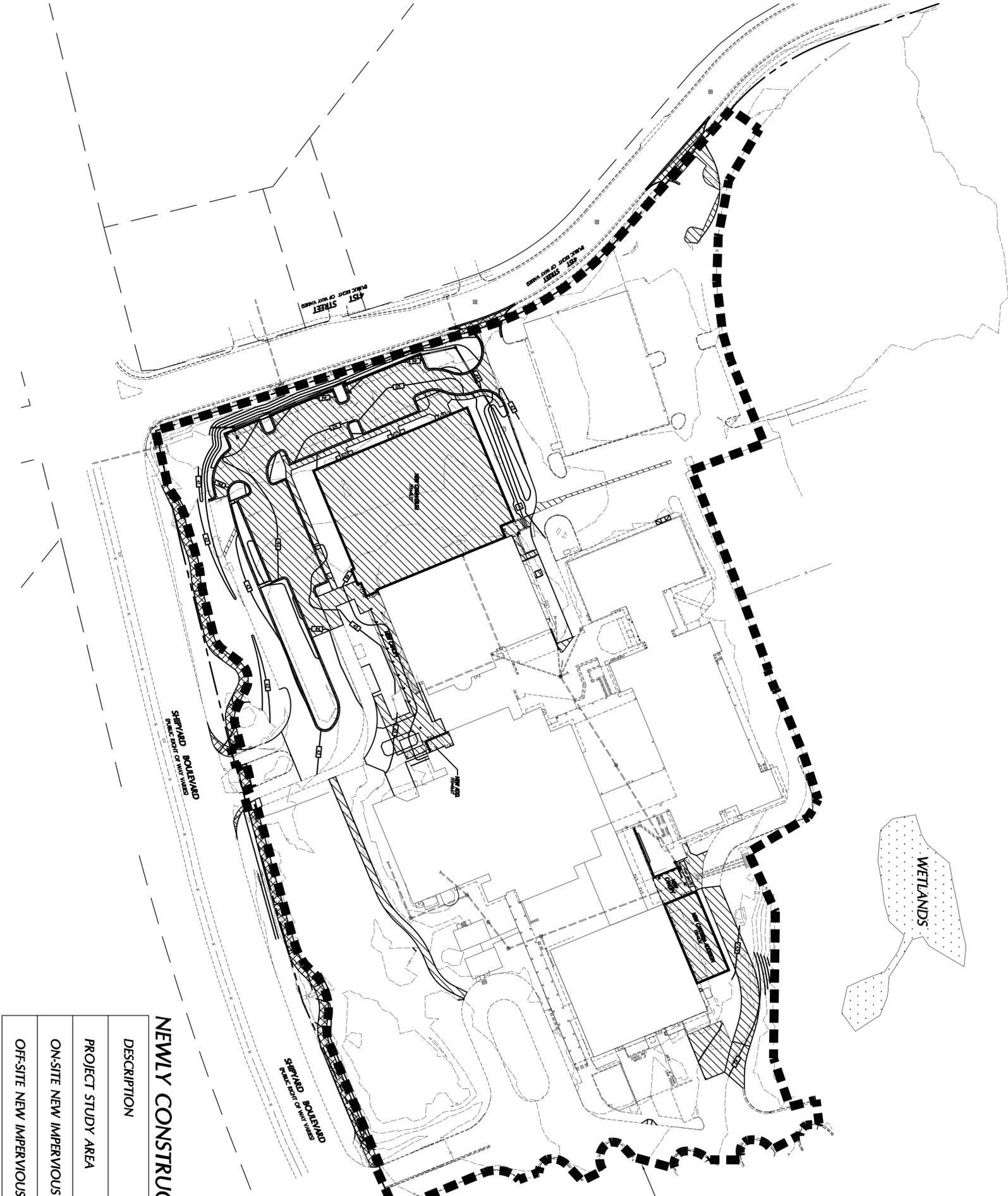
NAME _____ DATE _____

PLANNING _____

TRAFFIC _____

FIRE _____

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



PROJECT STUDY AREA

LEGEND
 ON-SITE NEW IMPERVIOUS AREAS
 OFF-SITE NEW IMPERVIOUS AREAS

NEWLY CONSTRUCTED IMPERVIOUS AREAS

DESCRIPTION	AREA (SF)	AREA (AC)
PROJECT STUDY AREA	545,770	12.53
ON-SITE NEW IMPERVIOUS AREA	83,002	1.91
OFF-SITE NEW IMPERVIOUS AREA	9,890	0.23



APPROVED CONSTRUCTION PLAN
 NAME _____ DATE _____
 PLANNING _____
 TRAFFIC _____
 FIRE _____

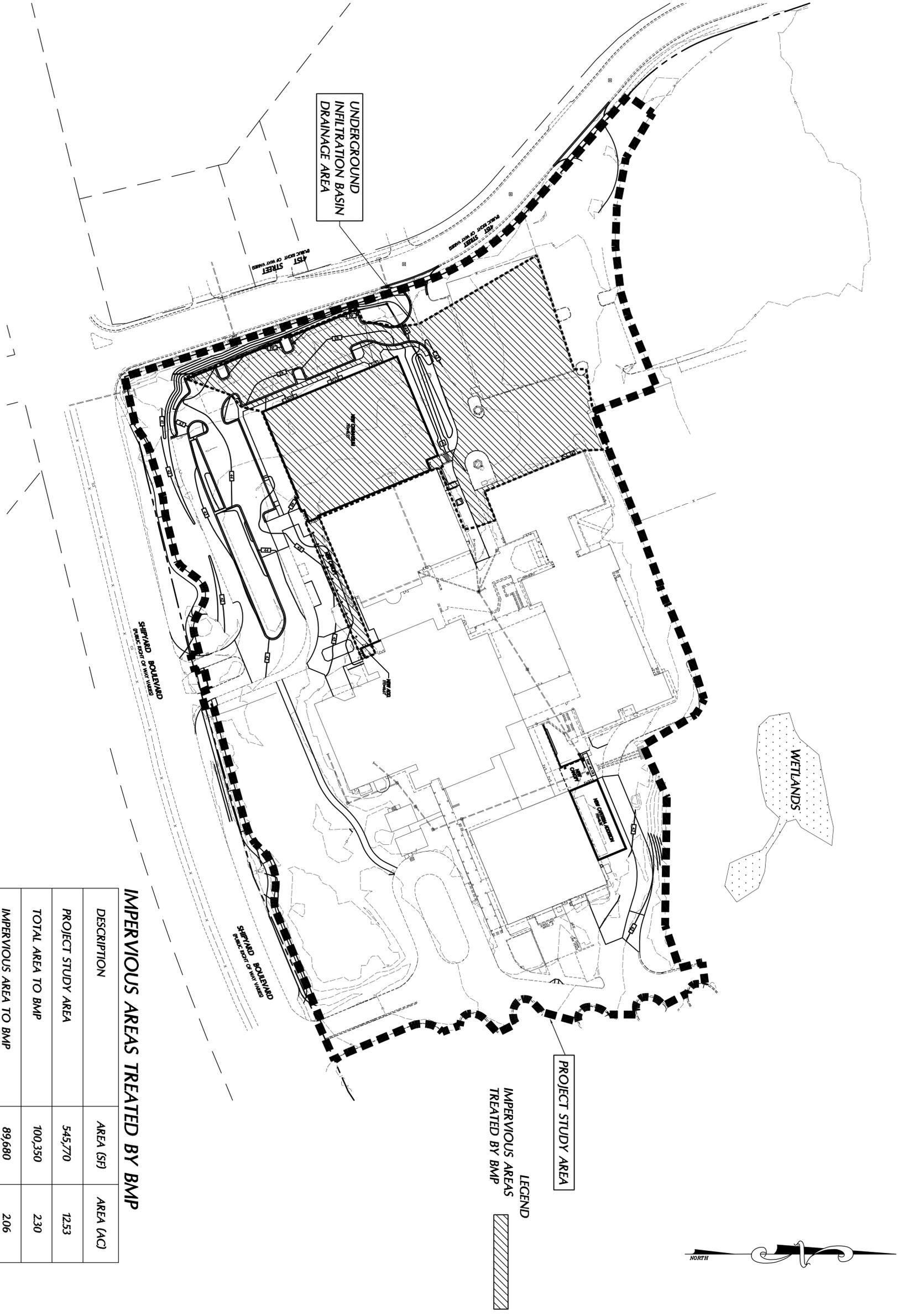
WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
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 Date: _____ Permit #: _____
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Phase One: Renovations and Additions to:
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4305 Shipyard Blvd.
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REVISIONS	

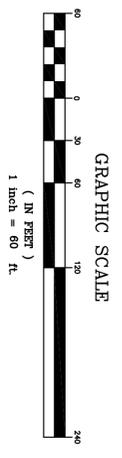
**BMP
DRAINAGE
AREAS PLAN**
SHEET NUMBER

C-3.6



IMPERVIOUS AREAS TREATED BY BMP

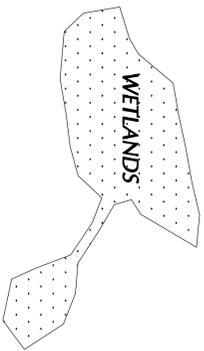
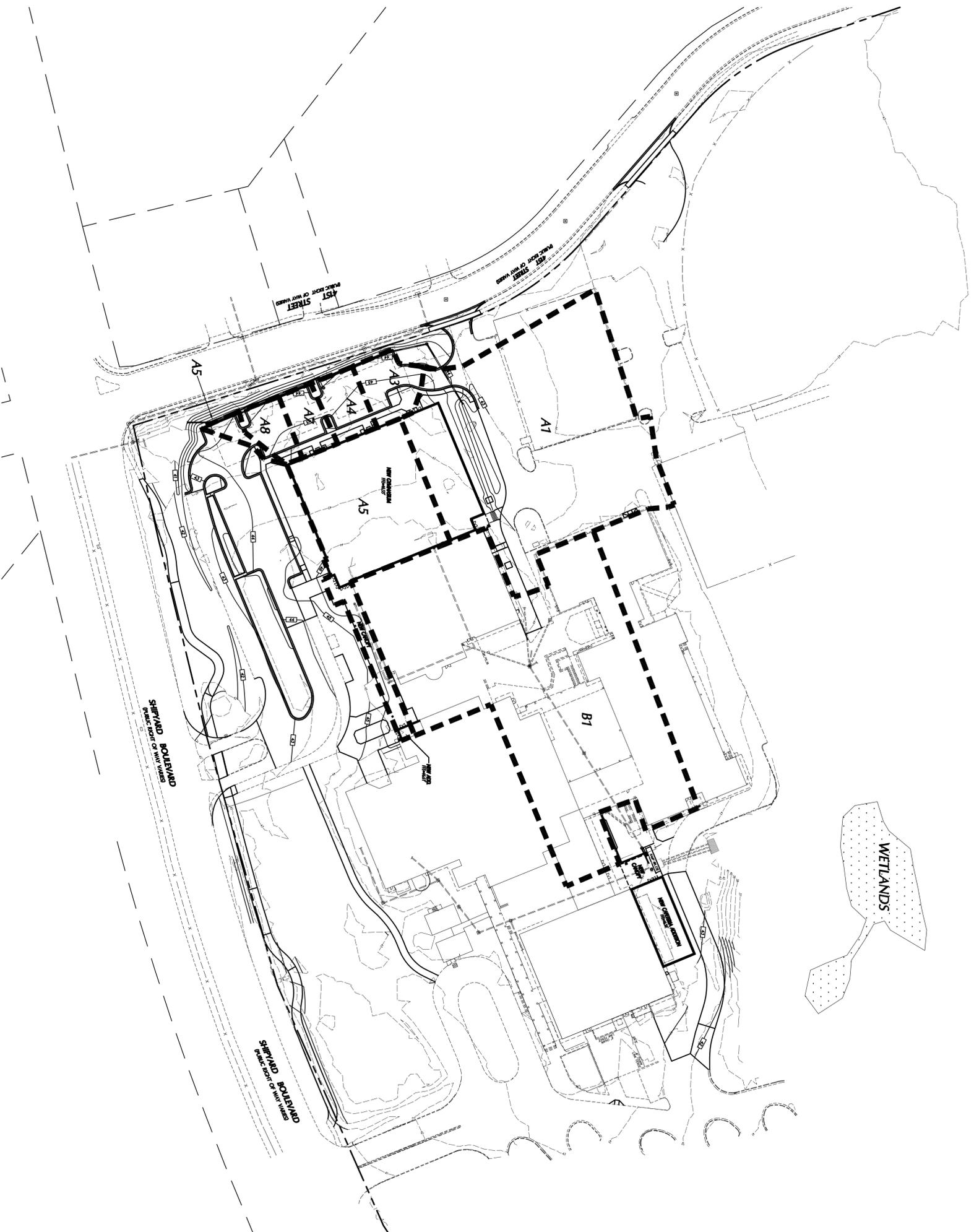
DESCRIPTION	AREA (SF)	AREA (AC)
PROJECT STUDY AREA	545,770	12.53
TOTAL AREA TO BMP	100,350	2.30
IMPERVIOUS AREA TO BMP	89,680	2.06



APPROVED CONSTRUCTION PLAN

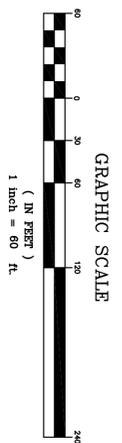
NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

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



DRAINAGE AREAS TO INLETS

INLET NO.	AREA (SF)	AREA (AC)
A1	59,930	1.38
A3	4,480	0.10
A4	3,790	0.09
A7	3,100	0.07
A8	3,030	0.07
A5	25,960	0.60
B1	80,050	1.84



APPROVED CONSTRUCTION PLAN

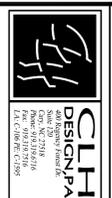
NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

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

PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

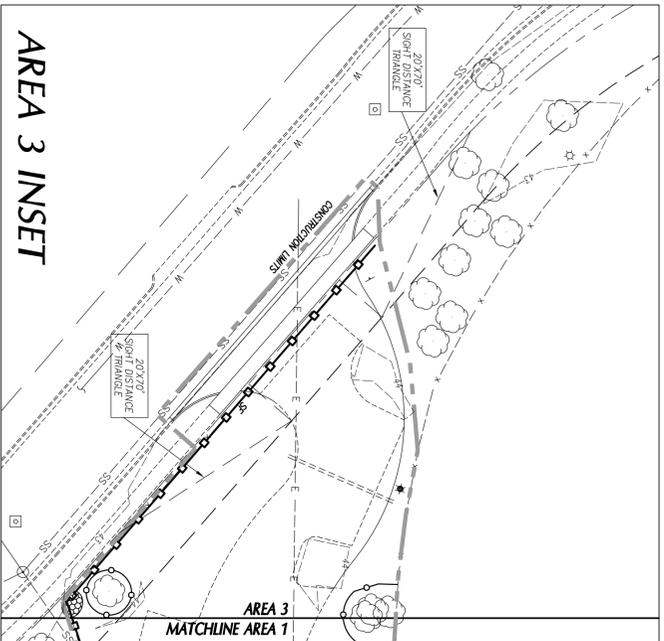
JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	APRIL 12, 2016
REVISIONS	

**Phase One: Renovations and Additions to:
John T. Hoggard High School**
4305 Shipyard Blvd.
Wilmington, North Carolina 28403



hmm
BOWMAN MURRAY HEMINGWAY
ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel: (910) 762-2821
Fax: (910) 762-2806
Project ID # 900-9005

STORM DRAINAGE AREAS PLAN
SHEET NUMBER
C-3.7



AREA 3 INSET

CONSTRUCTION SEQUENCE

1. INSTALL TREE PROTECTION BEFORE CONTRACT CITY OF WILMINGTON-REQ FOR INSPECTION PRIOR TO STARTING ANY OTHER WORK.
 2. OBTAIN APPROVED PLAN AND APPROVAL PLACARD. A COPY OF THE APPROVED PLAN MUST BE KEPT ON SITE AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN RECORDS OF PROPOSED STARTING DATE OF LAND DISTURBING ACTIVITIES.
 3. CONDUCT PRE-CONSTRUCTION CONFERENCE.
 4. INSTALL PERIMETER SILT FENCES, TEMPORARY SUMMER SEDIMENT BASIN, CONSTRUCTION ENTRANCES AND INLET PROTECTION DEVICES ON EXISTING INLETS.
 5. INSTALL STORM DRAIN MANHOLE AT NEW CRITERIA LOCATION. SEE GRADING PLAN. INSTALL ASSOCIATED INLET PROTECTION AND RP-RAP OUTLET PROTECTION.
 6. CALL FOR INSPECTION OF INSTALLED DEVICES.
 7. PERFORM CLEANING OPERATIONS.
 8. STRIP TOPSOIL, STOCKPILE TOPSOIL WITHIN CONSTRUCTION LIMITS.
 9. MAINTAIN ALL INSTALLED MEASURES.
 10. BEGIN ROUGH GRADING OPERATIONS.
 11. INSTALL STORM DRAINAGE SYSTEM AS GRADING OPERATIONS PROGRESS. INSTALL INLET AND OUTLET PROTECTION DEVICES AT NEW STRUCTURES AS THEY ARE CONSTRUCTED.
 12. STOPPAGE OF WORK EACH DAY AT THE END OF EACH DAY. INSTALL AND ADJUST SILT FENCE AND INLET AND OUTLET PROTECTION DEVICES.
 13. RESPOUSE TOPSOIL, INSTALL SLOPE PROTECTION BLANKETS AND VEGETATE STEEP SLOPES AS THEY ARE ESTABLISHED.
 14. GRADE, VEGETATE AND INSTALL TEMPORARY BARRIERS OF CHANGES AFTER STABILIZATION. THE CONTRACTOR SHALL MAINTAIN RECORDS OF CHANGES TO THE PLAN AND SHALL IMMEDIATELY NOTIFY THE CITY OF WILMINGTON OF ANY CHANGES TO THE PLAN AND SHALL MAINTAIN ALL DISTURBED AREAS WHERE GRADING ACTIVITIES HAVE STOPPED AND WILL NOT CONTINUE FOR MORE THAN 14-DAYS.
 15. MAINTAIN ALL EROSION & SEDIMENT CONTROL MEASURES THROUGHOUT CONSTRUCTION.
 16. INSTALL UNDERGROUND INFILTRATION BASIN, TEMPORARY ROCK/RUO PILES THAT INTER UNDERGROUND INFILTRATION BASIN UNTIL SITE IS STABILIZED.
 17. PUMP WATER FROM TEMPORARY SUMMER SEDIMENT BASIN THROUGH SILT BAG, REMOVE SUMMER BARREL AND OTHER BASIN APPURTENANCES AND GRADE TO FINISH CONDITIONS.
 18. COMPLETE REMAINING CURB & GUTTER AND PAVEMENT INSTALLATION.
 19. REPEL TO TOPSOIL, INSTALL SLOPE PROTECTION BLANKETS AND VEGETATE REMAINING DISTURBED AREAS.
 20. REMOVE TEMPORARY ROCK/RUO PILE FROM UNDERGROUND INFILTRATION BASIN.
 21. REMOVE ROCK INLET PROTECTION AND REMAINING TEMPORARY EROSION CONTROL MEASURES.
- ** ENSURE PERMEABLE PAVERS ARE INSTALLED DURING FINAL STAGES OF CONSTRUCTION AND THAT ALL AREAS UPSTREAM ARE STABILIZED PRIOR TO INSTALLATION OF PERMEABLE PAVERS. INSTALL ADDITIONAL SILT FENCE AROUND PERMEABLE PAVERS AS REQUIRED TO PREVENT SEDIMENT-RUN-OFF.**

APPROVED CONSTRUCTION PLAN

NAME _____ DATE _____

PLANNING _____

TRAFFIC _____

DATE: _____

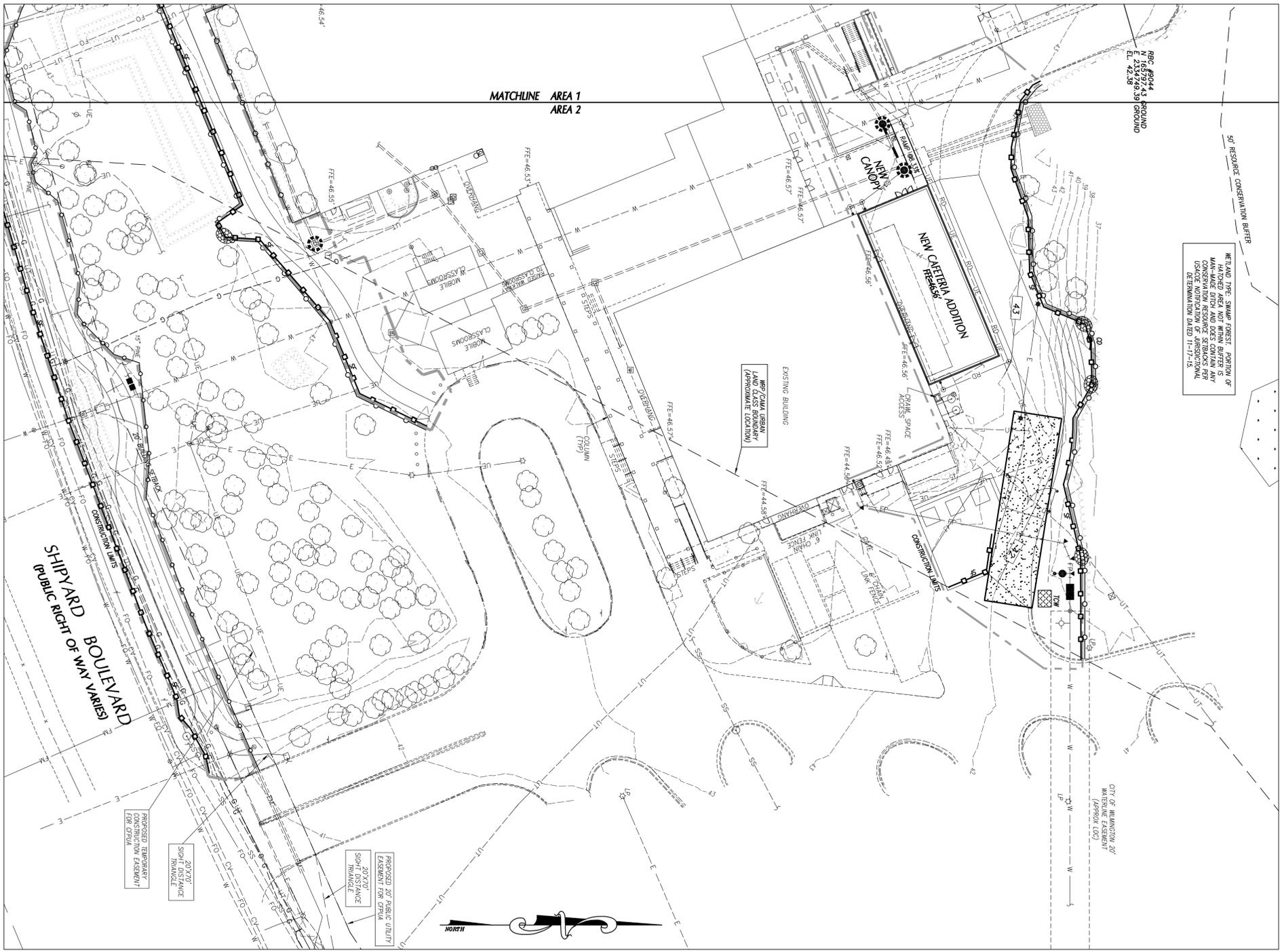
APPROVED STORMWATER MANAGEMENT PLAN

Public Services • Engineering Division

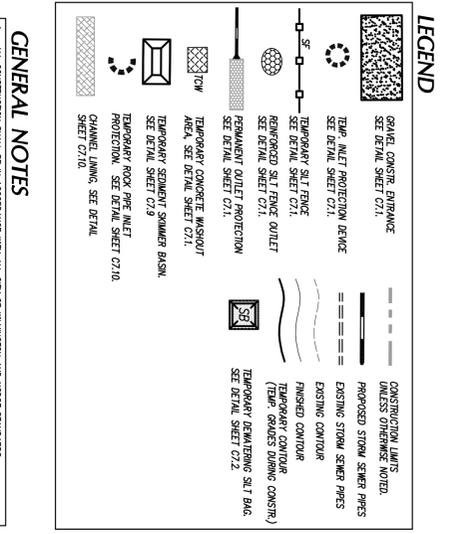
WILMINGTON

Permit # _____

Signer: _____



WETLAND TREE SWAMP FOREST: A PORTION OF MAINTAINED DITCH AND DOES CONTAIN ANY CONSERVATION RESOURCE STRIBACKS PER USFWS REGULATIONS. FOR MORE INFORMATION, CONTACT USFWS (APPROX DATE: 11-17-15).



- GENERAL NOTES**
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND LOCAL STANDARDS.
 2. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES.
 3. ALL CONSTRUCTION SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES.
 4. ALL CONSTRUCTION SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES.
 5. ALL CONSTRUCTION SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES.
 6. ALL CONSTRUCTION SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES.
 7. THE INDICATED STAGING AREA IS INTENDED FOR VEHICLES AND NON-HAZARDOUS MATERIALS ONLY. NO SOIL, SAND OR OTHER MATERIAL SHALL BE STORED OUTSIDE OF THE LIMITS OF THE SITE PROTECTED BY THE EROSION CONTROL MEASURES.
 8. SOIL AND OTHER MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED WITHIN THE CONSTRUCTION LIMITS PROTECTED AS DESCRIBED IN THE PLAN.
 9. THESE PROTECTION DEVICES MUST BE SUBMITTED TO THE CITY OF WILMINGTON PLANNING DEPARTMENT AND TREE PROTECTION INSPECTION PRIOR TO CONSTRUCTION.
 10. ALL OTHER SEEDING AREAS SHALL BE MOWED WITH STAIN AND TAGGED WITH ASPHALT.

SLOPE & SURFACE STABILIZATION

GROUND STABILIZATION SHALL BE PERFORMED ON ALL DISTURBED AREAS ACCORDING TO FOLLOWING SCHEDULE:

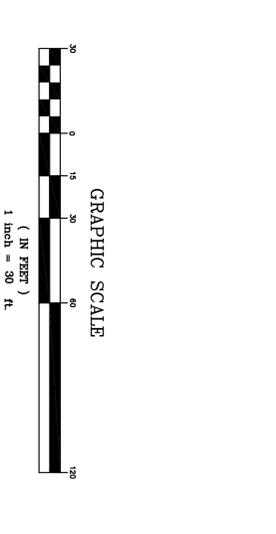
SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	THE FRAME EXCEPTIONS
PREPARER AREAS, SWALES, DITCHES AND SOLES	7 DAYS	NONE
HIGH QUALITY WATER (HAW) ZONES	7 DAYS	NONE
CLAYS STREETS THIN 3"	7 DAYS	7-DAY PER SLOPE GRATER FLATNESS THAN 2:1, 14 DAYS ARE ALLOWED.
GRADES 3:1 OR FLATTER	14 DAYS	7-DAY PER SLOPE GRATER FLATNESS THAN 2:1, 14 DAYS ARE ALLOWED.
ALL OTHER AREAS	14 DAYS	NONE (EXCEPT FOR ROWLETTERS FLATTER THAN 4:1 AND NEW DROPS)

CONDITIONS OF THE DATE BE APPROVED BY THE ENGINEERING DEPARTMENT BASED ON WEATHER OR OTHER SITE-SPECIFIC INFORMATION. THE CONTRACTOR SHALL MAINTAIN RECORDS (SEE DETAIL C-42) OF ALL STABILIZATION OPERATIONS. THE CONTRACT DOCUMENTS INCLUDE WEATHER RECORDS AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.

INSTALL TEMPORARY SLOPE EROSION CONTROL EXCESSIVE WAITING FOR STABILIZATION DURING THE ESTABLISHMENT OF PLANTING COVER ON ALL STEEP SLOPES FOR UP TO SEVEN (7) DAYS. TEMPORARY COVER SHALL BE MAINTAINED FOR A PERIOD OF 10 DAYS. STABILIZATION SHALL BE MAINTAINED FOR A PERIOD OF 10 DAYS.

- MAINTENANCE PLAN**
1. DURING ALL PHASES OF CONSTRUCTION, GROUNDWORK ON EXPOSED SLOPES SHALL BE PROVIDED ACCORDING TO THE FOLLOWING SCHEDULE:
 2. FINAL STABILIZATION (PERM) FOLLOWING COMPLETION OF ANY PHASE OF GROUNDWORK.
 3. THE ABOVE REQUIREMENTS ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACTOR SHALL MAINTAIN RECORDS OF ALL ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.
 4. THE STABILIZATION SHALL BE INSTALLED FOR TEMPORARY STABILIZATION DURING THE ESTABLISHMENT OF PERMANENT VEGETATION. THE CONTRACTOR SHALL MAINTAIN RECORDS OF ALL STABILIZATION OPERATIONS.
 5. ALL OTHER SEEDING AREAS SHALL BE MOWED WITH STAIN AND TAGGED WITH ASPHALT.

- SELF-INSPECTION RULES**
1. SELF-INSPECTION SHALL BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND COMPLETED UNTIL PERMANENT GROUND COVER IS INSTALLED.
 2. THE CONTRACTOR SHALL MAINTAIN RECORDS OF ALL SELF-INSPECTION REPORTS (INSPECTION) AND THE ALL BE KEPT ON SITE.
 3. THE CONTRACTOR SHALL MAINTAIN RECORDS OF ALL SELF-INSPECTION REPORTS (INSPECTION) AND THE ALL BE KEPT ON SITE.
 4. THE CONTRACTOR SHALL MAINTAIN RECORDS OF ALL SELF-INSPECTION REPORTS (INSPECTION) AND THE ALL BE KEPT ON SITE.
 5. THE CONTRACTOR SHALL MAINTAIN RECORDS OF ALL SELF-INSPECTION REPORTS (INSPECTION) AND THE ALL BE KEPT ON SITE.
- NOTE: EROSION CONTROL PLANS WILL BE REVISED, PERMITTED & INSPECTED BY NCDEMR, NOT CITY OF WILMINGTON**
- REFER TO PLAN SHEET C-42 FOR CONSTRUCTION SEQUENCE**



ARCHITECTS

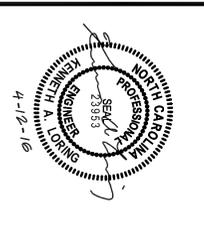
BOWMAN MURRAY HEMMINGWAY

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Fax: (910) 762-2836

Project ID #: 900-9005

CLTH DESIGN, PA

1000 S. WILMINGTON BLVD.
WILMINGTON, NC 28401
TEL: (910) 762-2836



Phase One: Renovations and Additions to:

John T. Hoggard High School

4305 Shipyard Blvd.
Wilmington, North Carolina 28403

PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

SITE EROSION CONTROL PLAN

SHEET NUMBER

C-4.2

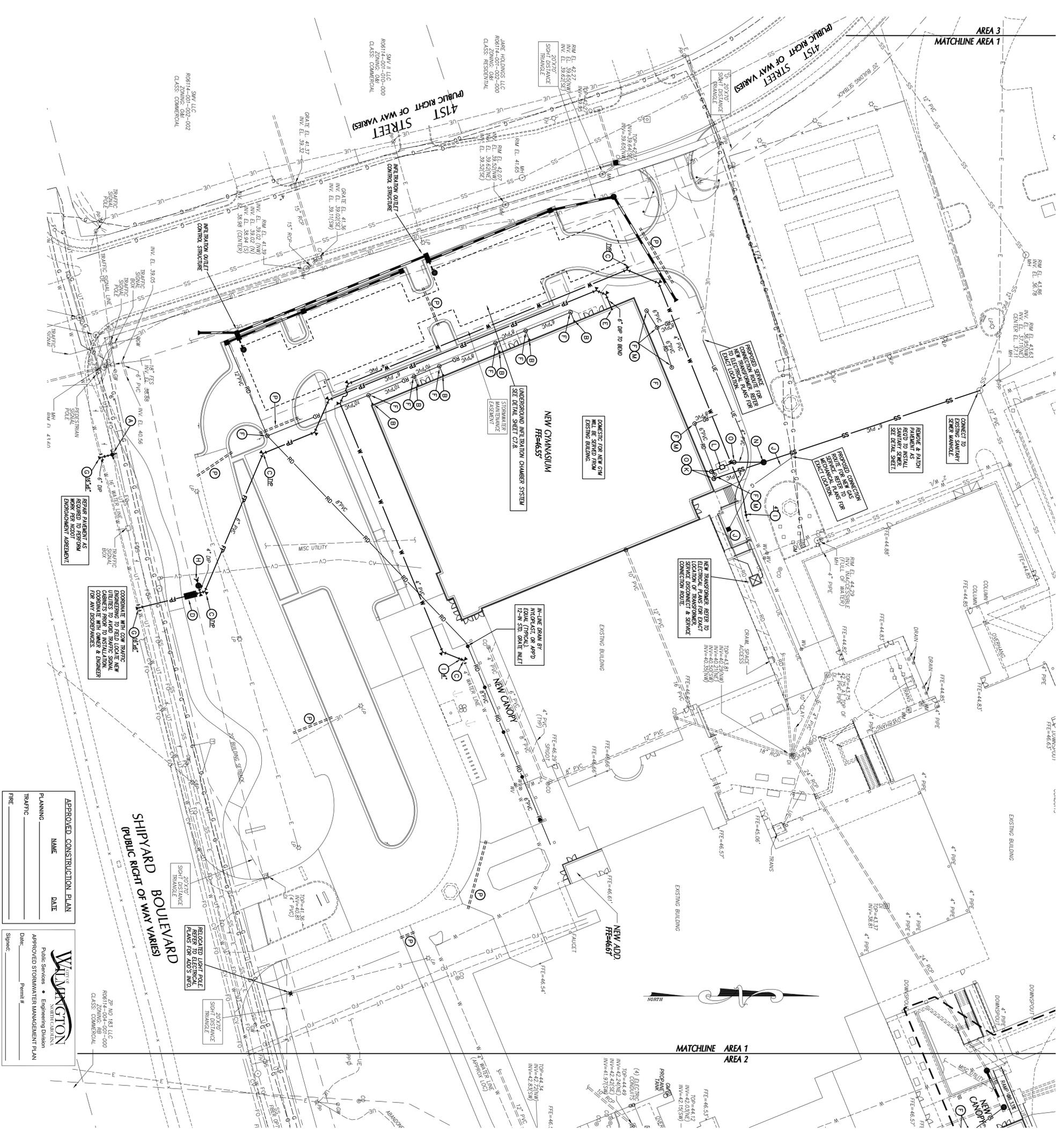
DATE: APRIL 12, 2016

REVISIONS

CHECKED BY: JGM

DRAWN BY: JGM

JOB NUMBER: 15-120



APPROVED CONSTRUCTION PLAN

NAME _____ DATE _____

PLANNING _____

TRAFFIC _____

FIRE _____

WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____

GRAPHIC SCALE

(IN FEET)

1 inch = 30 ft

0 15 30 45 60 75 90 105 120

- ### KEY NOTES
- FIRE HYDRANT ASSEMBLY, SEE DETAIL SHEET C72.
 - DOWNSPOUT CONNECTION, SEE DETAIL SHEET C73.
 - THURST BLOTTING, TYP. SEE DETAIL SHEET C73.
 - DOUBLE CHECK VALVE ASSEMBLY (DCVA) IN ABOVE GROUND HEATED ENCLOSURE, SEE DETAIL SHEET C73. SEE DETL. PLANS FOR ADJ. INT. TO EXTEND WATER MAIN TO 12" IN ABOVE FINISH FLOOR FOR FIRE PROTECTION CONNECTION, SEE DETAIL SHEET.
 - ROOF DRAIN CLEANOUT, SEE DETAIL SHEET C73.
 - HAPPING SLEEVE AND VALVE ASSEMBLY AND BLOTTING, SEE DETAIL SHEET C73.
 - FIRE DEPARTMENT CONNECTION, SEE DETAIL SHEET C73.
 - GATE VALVE AND VALVE BOX, SEE DETAIL SHEET C73.
 - GAS METERS & GAS SERVICE LINES, SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
 - EXTEND UTILITY TO WITHIN 5'-0" OF BUILDING WALL OR AS INDICATED ON PLUMBING PLANS. REFER TO PLUMBING PLANS FOR LOCATION & INVERT.
 - NEW GROUND TRAP, REFER TO PLUMBING PLANS FOR LOCATION & INVERT.
 - MANHOLE, SEE DETAIL SHEET C74.
 - SANITARY SEWER CLEAN OUT, SEE DETAIL SHEET C74.
 - SEE CONTRACTOR'S SUPPLY IN PRESSURE-TIGHT, DRAINING ONLY, PROGRAMME SITE WATER & LOCATION WITH SITE ELEC. PLANS & LOCAL UTILITY PROVIDER.

UTILITY LEGEND

EXISTING	PROPOSED
OVERHEAD ELECTRICAL	UNDERGROUND ELECTRICAL
GAS	SANITARY SEWER
TELEPHONE	UNDERGROUND TELEPHONE
WATER	FIRE PROTECTION
FOURGE MAIN	CHILLED WATER
FOUNDATION DRAIN	FOUNDATION DRAIN
FIBER OPTIC	ROOF DRAIN
ROOF DRAIN	STORM DRAIN
UTILITY POLE	UTILITY POLE
MANHOLE	CLEAN OUT
DROP MULTI-CATCH BASIN	FIRE HYDRANT
WATER VALVE	TELEPHONE REGISTRY
COMMUNICATION BOX	SANITARY SEWER STRUCTURE 10'
STORM SEWER STRUCTURE 10'	

UTILITY NOTES

- INSTALL WATERMANS WITH A COVER OF NO LESS THAN 4'-FT. INSTALL WATER SERVICES WITH NO LESS THAN 18"-IN OF COVER TO SUBGRADE.
- INSTALL SEWER MAINS WITH A COVER OF NO LESS THAN 3'-FT TO SERVICES WITH NO LESS THAN 18"-IN OF COVER TO SUBGRADE. INDICATED IN THE SPECIFICATIONS.
- INSTALL ALL UTILITIES TO PROVIDE REQUIRED CLEARANCES AS INDICATED IN THE SPECIFICATIONS.
- WATERMANS AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL CLEARANCE OF 10'-FT.
- WATER AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE OF 12"-IN TO STORM DRAINAGE PRESS.
- COORDINATE AND SCHEDULE INSTALLATION OF ALL UTILITIES WITH OTHER FRAME CONTRACTORS, UTILITY COMPANIES AND OTHER TRADES TELEPHONE AND CABLE.
- VERIFY EXISTING CONDITIONS AND CONNECTIONS TO EXISTING UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IF ANY DISCREPANCIES ARE DISCOVERED.
- CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES DURING CONSTRUCTION AND SHALL MAKE REPAIRS AT NO EXPENSE TO THE OWNER.
- ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE NCSBC AND OSHA REQUIREMENTS.
- THE CONTRACTOR SHALL PROVIDE AN AS-BUILT SURVEY OF ALL UTILITY AND STORM DRAINAGE IMPROVEMENTS FOLLOWING CONSTRUCTION.
- CONTRACTOR SHALL PHASE DEVIATION AND NEW CONSTRUCTION TO FACILITIES. COORDINATE SHORT-TERM, 24-HOUR, TEMPORARY SHUT-DOWNS WITH THE OWNER.
- SEE GENERAL NOTES ON EXISTING CONDITIONS AND DEVIATION PLAN FOR REQUIREMENTS FOR REMOVAL AND PATCHING OF PARALLEL FOR UTILITY DEVIATIONS.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
- ALL ROOF DRAINS SHALL BE 6" PVC @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24"-IN.
- ALL SANITARY SEWER SERVICES SHALL BE 4" PVC (SCH 40) @ 1.04% COVER IS LESS THAN 24"-IN.
- THE FOLLOWING "PERMITS" ARE REQUIRED TO BE OBTAINED FROM THE CITY OF WILMINGTON FIRE SERVICES ADMINISTRATION BY EACH RESPONSIBLE CONTRACTOR PRIOR TO THE START OF WORK: THE "PERMITS" CONTRACTOR THIS PROCEDURE. THE PERMITS REQUIRED ARE AS FOLLOWS:
 - SPRINKLER PERMIT
 - SPRINKLER PERMIT (FIRE LINE (SL))
 - FIRE ALARM PERMIT
 - THE GENERAL CONTRACTOR SHALL ALSO MAKE SURE THAT ALL HIS SIPS PROPERLY COORDINATE THE INSPECTION PROCESS WITH THE WILMINGTON FIRE DEPARTMENT ADMINISTRATION OFFICE.
- PROJECT SHALL COMPLY WITH CITY OF WILMINGTON CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL APPROVED BY THE CITY OF WILMINGTON. SEE DETAIL SHEET C74 FOR INFORMATION.
- ANY RAINFALL PERCENTAGE DEVICES REQUIRED BY THE CITY WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USPOCOH/AR ASSE.

PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

SHEET NUMBER 15-120

DRAWN BY JGM

CHECKED BY JGM

DATE APRIL 12, 2016

REVISIONS

SITE UTILITY PLAN

SHEET NUMBER

C-5.1

Phase One: Renovations and Additions to:
John T. Hoggard High School
 4305 Shipyard Blvd.
 Wilmington, North Carolina 28403

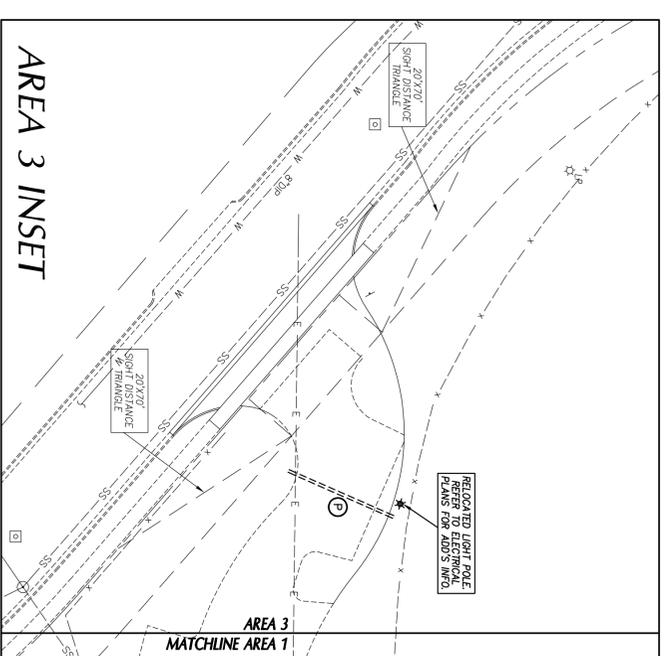
BOWMAN MURRAY HEMINGWAY ARCHITECTS

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 Tel: (910) 762-2821
 Fax: (910) 762-5586

Project ID # 900-9005

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 1000 S. UNIVERSITY BLVD.
 WILMINGTON, NC 28402
 TEL: 910-733-7222
 FAX: 910-733-7223

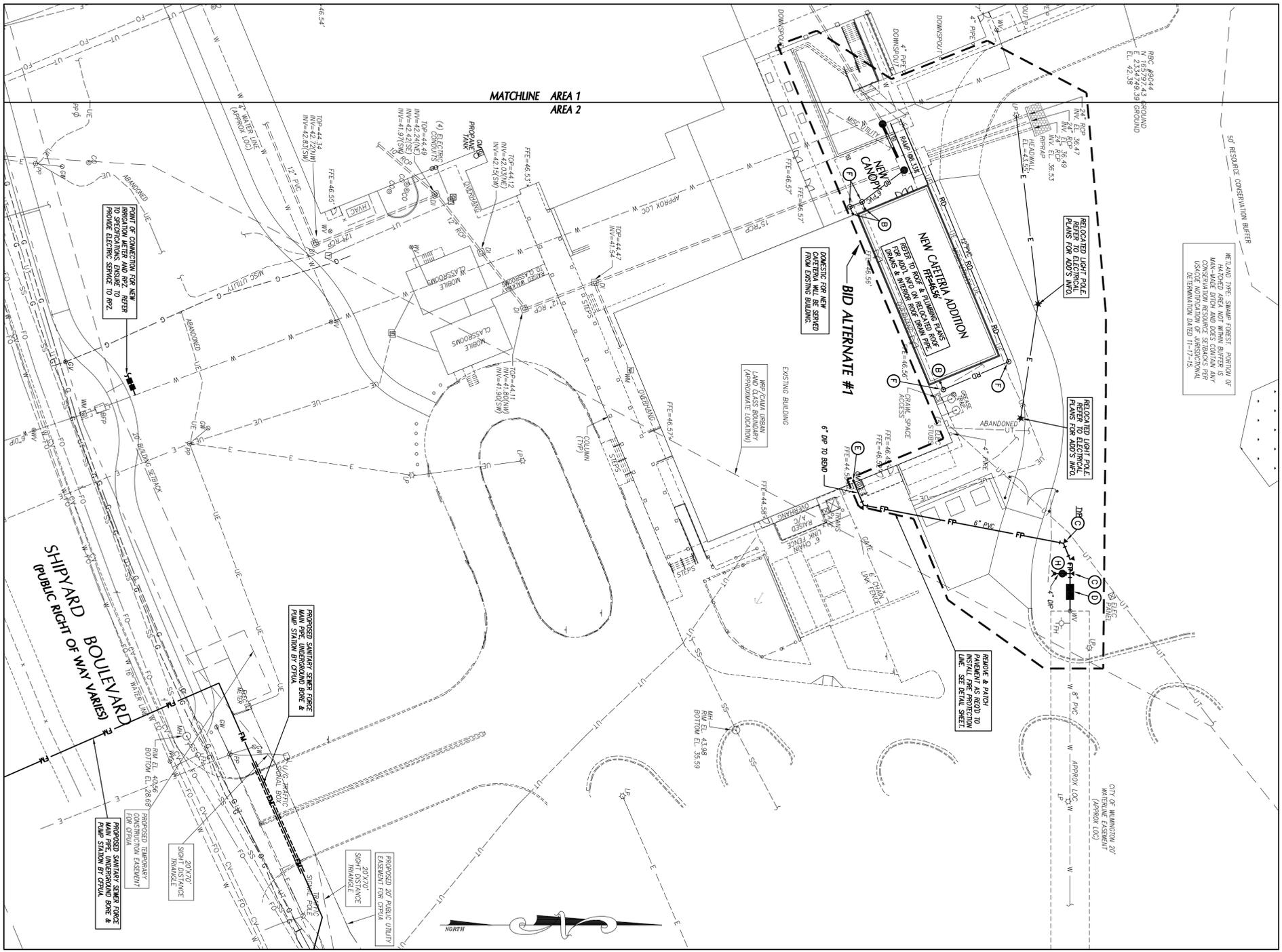
NOTARY PUBLIC
 STATE OF NORTH CAROLINA
 COMM. EXPIRES 12/31/16
 4-12-16



NEW FIRE HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE COORDINATE WITH COM FIRE DEPARTMENT.

CONTRACTOR SHALL OBTAIN PRIVATE UNDERGROUND FIRE LINE PERMIT PRIOR TO INSTALLING THE FIRE PROTECTION LINE COORDINATE WITH COM FIRE & LIFE SAFETY DIVISION.

APPROVED CONSTRUCTION PLAN
NAME _____ DATE _____
PLANNING _____
TRAFFIC _____
DATE _____
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____

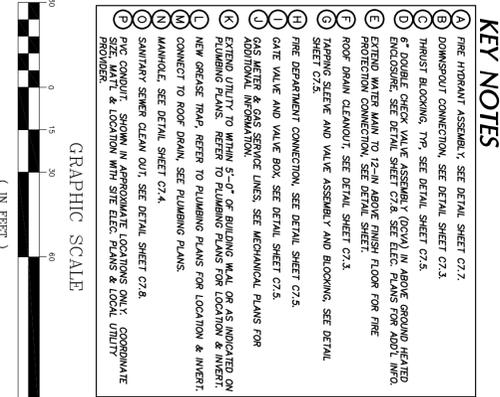


UTILITY LEGEND

EXISTING	PROPOSED	
OVERHEAD ELECTRICAL	—E—	—E—
UNDERGROUND ELECTRICAL	—UE—	—UE—
GAS	—G—	—G—
SANITARY SEWER	—SS—	—SS—
TELEPHONE	—T—	—T—
UNDERGROUND TELEPHONE	—UT—	—UT—
WATER	—W—	—W—
FIRE PROTECTION	—FP—	—FP—
FORCE MAIN	—FM—	—FM—
CHILLED WATER	—CW—	—CW—
FOUNDATION DRAIN	—FD—	—FD—
FIBER OPTIC	—FO—	—FO—
ROOF DRAIN	—RD—	—RD—
STORM DRAIN	—SD—	—SD—
LIGHT POLE	⊙	⊙
UTILITY POLE	⊙	⊙
MANHOLE	⊙	⊙
CLEAN OUT	⊙	⊙
DEEP METEORIC BASIN	⊙	⊙
WATER VALVE	⊙	⊙
FIRE HYDRANT	⊙	⊙
TELEPHONE PRESTAL COMMUNICATION BOX	⊙	⊙
SANITARY SEWER STRUCTURE I.D.	⊙	⊙
STORM SEWER STRUCTURE I.D.	⊙	⊙

- ### UTILITY NOTES
- INSTALL WATERMANS WITH A COVER OF NO LESS THAN 4'-FT. INSTALL WATER SERVICES WITH NO LESS THAN 18-IN. OF COVER TO SUBGRADE.
 - INSTALL SEWER MAINS WITH A COVER OF NO LESS THAN 3'-FT TO SERVICES WITH NO LESS THAN 18-IN. OF COVER TO SUBGRADE. INDICATED IN THE SPECIFICATIONS.
 - INSTALL ALL UTILITIES TO PROVIDE REQUIRED CLEARANCES AS INDICATED IN THE SPECIFICATIONS.
 - WATERMANS AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL CLEARANCE OF 10'-FT.
 - WATER AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE OF 12-IN. TO STORM DRAINAGE PRES.
 - COORDINATE AND SCHEDULE INSTALLATION OF ALL UTILITIES WITH OTHER TRADE CONTRACTORS, UTILITY COMPANIES AND OTHER TRADERS TELEPHONE AND CITY.
 - VERIFY EXISTING CONDITIONS AND CONNECTIONS TO EXISTING UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IF ANY DISCREPANCIES ARE DISCOVERED.
 - CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES DURING CONSTRUCTION AND SHALL MAKE REPAIRS AT NO EXPENSE TO THE OWNER.
 - ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE MISC AND OSHA REQUIREMENTS.
 - THE CONTRACTOR SHALL PROVIDE AN AS-BUILT SURVEY OF ALL UTILITY AND STORM DRAINAGE IMPROVEMENTS FOLLOWING CONSTRUCTION.
 - CONTRACTOR SHALL PHASE DEMOLITION AND NEW CONSTRUCTION TO FACILITIES TO BE DEMOLISHED AND NEW CONSTRUCTION TO REMAIN. COORDINATE SHORT-TERM, OFF-HOUR, TEMPORARY SHUT-DOWNS WITH THE OWNER.
 - SEE GENERAL NOTES ON EXISTING CONDITIONS AND DEMOLITION PLAN FOR UTILITY RESTRICTIONS FOR REMOVAL AND PAVING OF PAVEMENT FOR NEW CONSTRUCTION.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
 - ALL ROOF PAVES SHALL BE 4" PVC (SMA 40) @ 1.048 COVER IS LESS THAN 24-IN. UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN LESS THAN 24-IN.
 - ALL SANITARY SEWER SERVICES SHALL BE 4" PVC (SMA 40) @ 1.048 COVER IS LESS THAN 24-IN. UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN LESS THAN 24-IN.
 - THE FOLLOWING "REPAIRS" ARE REQUIRED TO BE OBTAINED FROM THE CITY OF WILMINGTON FIRE SERVICES ADMINISTRATION BY EACH RESPONSIBLE CONTRACTOR PRIOR TO THE START WORK OF THE GENERAL CONTRACTOR. THIS PROCEDURE, THE PERMITS REQUIRED ARE AS FOLLOWS:
 - FIRE ALARM PERMIT
 - FIRE LINE PROTECTION PERMIT
 - FIRE LINE PROTECTION PERMIT
 - THE "GENERAL CONTRACTOR" SHALL ALSO MAKE SURE THAT ALL HIS SUBS PROPERLY COORDINATE THE INSPECTION PROCESS WITH THE WILMINGTON FIRE DEPARTMENT ADMINISTRATION OFFICE.
 - 1-800-652-9446 ONE DAY CENTER PRIOR TO ANY DEMO.
 - PROJECT SHALL COMPLY WITH CITY OF WILMINGTON CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL APPROVAL FROM THE CITY OF WILMINGTON. APPROVAL SHALL BE OBTAINED FROM THE CITY OF WILMINGTON. APPROVAL SHALL BE OBTAINED FROM THE CITY OF WILMINGTON. APPROVAL SHALL BE OBTAINED FROM THE CITY OF WILMINGTON.
 - ANY BACKFLOW PREVENTION DEVICES REQUIRED BY USFPCOROR OR ASSE.

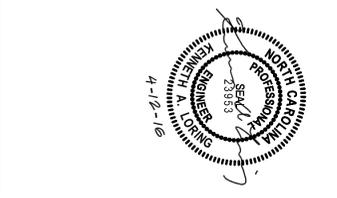
- ### KEY NOTES
- FIRE HYDRANT ASSEMBLY, SEE DETAIL SHEET C7.2.
 - DOWNSPOUT CONNECTION, SEE DETAIL SHEET C7.3.
 - THRUST BLOCKING, TYP. SEE DETAIL SHEET C7.5.
 - DOUBLE CHECK VALVE ASSEMBLY (DCVA) IN ABOVE GROUND HEATED ENCLOSURE, SEE DETAIL SHEET C7.8. SEE ELEC. PLANS FOR ADJLT. INFO.
 - EXTEND WATER MAIN TO 12-IN. ABOVE FINISH FLOOR FOR FIRE PROTECTION CONNECTION, SEE DETAIL SHEET.
 - ROOF DRAIN CLEANOUT, SEE DETAIL SHEET C7.3.
 - TAPPING SELECT AND VALVE ASSEMBLY AND BLOCKING, SEE DETAIL SHEET C7.5.
 - FIRE DEPARTMENT CONNECTION, SEE DETAIL SHEET C7.5.
 - GATE VALVE AND VALVE BOX, SEE DETAIL SHEET C7.5.
 - GAS METER & GAS SERVICE LINES, SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
 - EXTEND UTILITY TO WITHIN 5'-0" OF BUILDING WALL OR AS INDICATED ON PLUMBING PLANS. REFER TO PLUMBING PLANS FOR LOCATION & INVERT.
 - NEW GREASE TRAP, REFER TO PLUMBING PLANS FOR LOCATION & INVERT.
 - CONNECT TO ROOF DRAIN, SEE PLUMBING PLANS.
 - MANHOLE, SEE DETAIL SHEET C7.4.
 - SANITARY SEWER CLEAN OUT, SEE DETAIL SHEET C7.8.
 - PIPE CONNECT SIGN IN W/ PRESSURE-TIGHT LOCKING RING. COORDINATE SIZE, MATERIAL & LOCATION WITH SITE ELEC. PLANS & LOCAL UTILITY PROVIDER.



PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

JOB NUMBER	15-120
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DATE	APRIL 12, 2016
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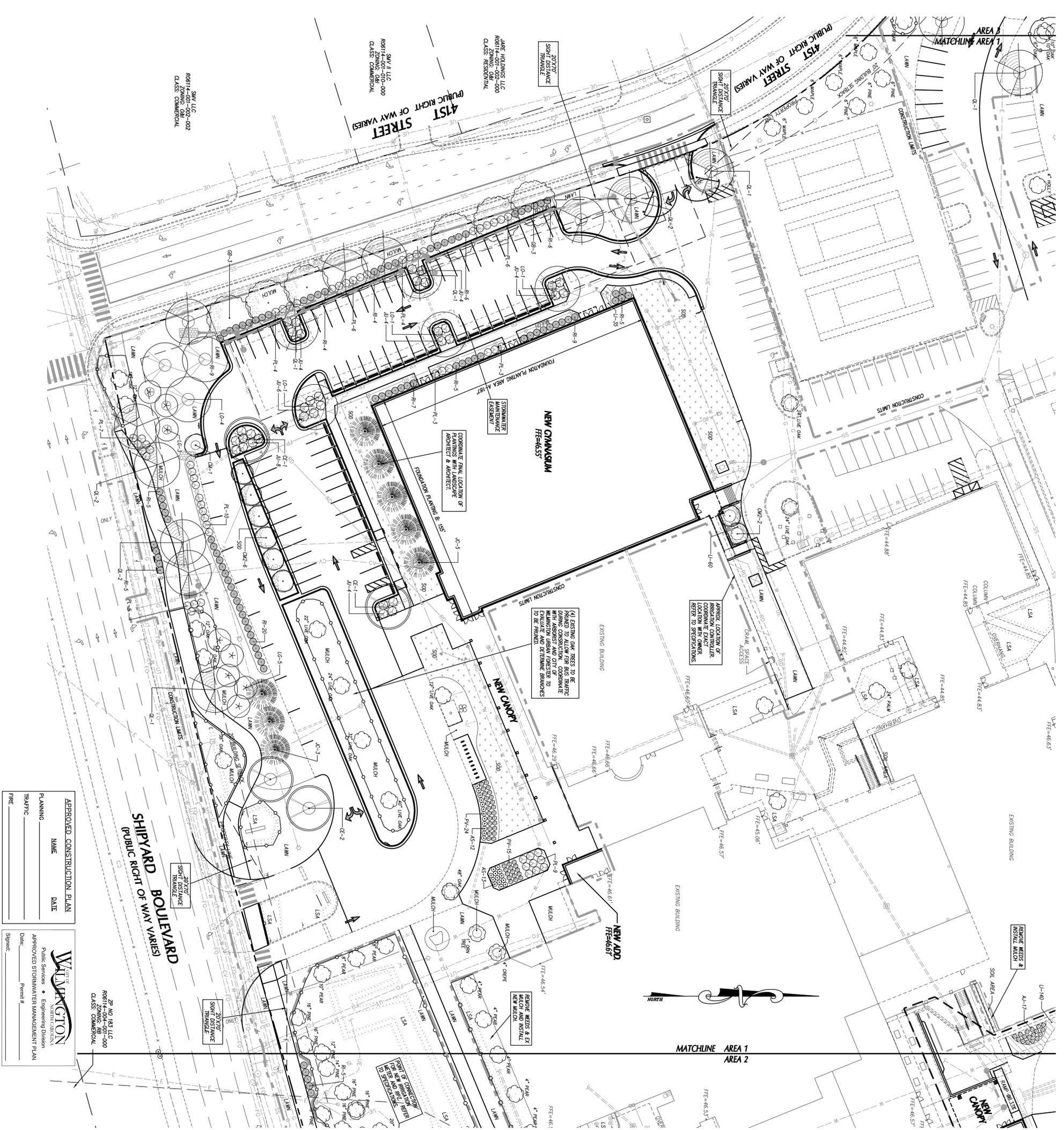


Project ID # 900-9005

ARCHITECTS
BOWMAN MURRAY HEMINGWAY
514 Market Street
Wilmington, NC 28401
Tel: (910) 762-2821
Fax: (910) 762-5366

SHEET NUMBER
C-5.2

SITE UTILITY PLAN



APPROVED CONSTRUCTION PLAN
 NAME _____ DATE _____
 PLANNING _____
 TRAFFIC _____
 FIRE _____

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

SP NO. 183 LLC
 ROB14-004-007-000
 ZONING: RB
 CLASS: COMMERCIAL

SP NO. 183 LLC
 ROB14-004-007-000
 ZONING: RB
 CLASS: COMMERCIAL

- ### LANDSCAPE NOTES
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND/OR MDOT STANDARDS AND SPECIFICATIONS.
 2. LOCATE ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PLANT MATERIAL. NOTIFY OWNER OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THOSE SHOWN ON THE PLAN. BE RESPONSIBLE FOR THE ACCURACY OF ALL FIELD DATA.
 3. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TOTAL QUANTITIES SHOWN ON THE PLAN.
 4. LAWN AREAS SHALL BE SEEDING WITH SUNSHINE PINEAPPLE BERMUDA GRASS 50% COVERAGE (BASED ON A PER SQUARE YARD BASIS) SHALL BE ATTACHED PRIOR TO FINAL INSPECTION.
 5. ALL PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND THE WRITTEN SPECIFICATIONS.
 6. PLANTING BEES TO BE MATCHED WITH A MINIMUM OF 3" OF TRIPLE SHREDED HARDWOOD MULCH. ALL PLANT GROUPINGS SHALL BE MATCHED AS ONE BEG.
 7. ESTABLISH POSITIVE DRAINAGE IN ALL PLANTING BEES AND AWAY FROM BUILDINGS.
 8. ANY TREE SHRUBS INSTALLED IN ALL NEW PLANTING BEES AT MANUFACTURER'S RECOMMENDED RATE PER SQUARE FOOT.
 9. DO NOT INSTALL PLANT MATERIAL IN UNPREPARED SOILS. (i.e. HOLES WHICH WERE FILLED WITH WATER, DO NOT COMPLETELY DRAIN WITHIN TWO HOURS).
 10. ALL SOOLED AREAS SHALL BE TRIM-419 BERMUDA.
 11. ANY TREE WAP SHALL BE REMOVED IMMEDIATELY AFTER INSTALLATION.
 12. SEE SPECIFICATIONS REGARDING WARRANTY/MAINTENANCE REQUIREMENTS FOR ALL PLANTS, SOIL, AND LAWN SEEDING.
 13. PLANTING SEASON.
 14. ALL PROPOSED RESTRICTION WHEN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 50' - 10'.

PLANT SCHEDULE

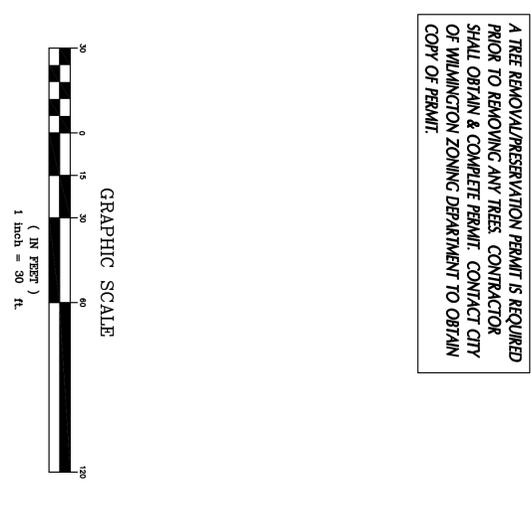
KEY	QTY	PLANT NAME	SIZE	REMARKS
CANOPY AND UNDERSTORY TREES				
BC	-	BAUD CYPRESS Taxodium distichum	2'-2 1/2" CAL. 10-12' HT.	BARB. STRAIGHT TRUNK FULL CROWN
CE	5	BOSSIE CHINESE ELM Ulmus parviflorus 'Bossae'	2'-2 1/2" CAL. 10-12' HT.	BARB. STRAIGHT TRUNK FULL CROWN
CA2	8	CHESTNUT LEAF WATTLE Lagerstroemia indica 'Cherokee'	3-5 TRUNKS 7-8' HT.	BARB. FULL CROWN
CM	4	MATCHZ GRAPPE MYRTLE Lagotisraemia l. x f. 'Natchez'	3-5 TRUNKS 7-8' HT.	BARB. FULL CROWN
GB	6	AUTUMN GOLD GINKGO (MALE ONLY) Ginkgo biloba 'Autumn Gold'	2'-2 1/2" CAL. 10-12' HT.	BARB. STRAIGHT TRUNK FULL CROWN
JC	8	JAPANESE CRYPTOMERIA Cryptomeria japonica	6-7' HT. MIN. FILL TO GROUND	BARB. STRAIGHT TRUNK FILL TO GROUND
LG	12	LITTLE OEN MARGOLIA Magnolia grandiflora 'Little Gem'	1'-1 1/2" CAL. 8-10' HT.	BARB. STRAIGHT TRUNK FILL TO GROUND
LO	7	LIVE OAK Quercus virginiana	2'-2 1/2" CAL. 10-12' HT.	BARB. STRAIGHT TRUNK FULL CROWN
OL	18	LAUREL OAK Quercus laurifolia 'Dornington'	2'-2 1/2" CAL. 10-12' HT.	BARB. STRAIGHT TRUNK FULL CROWN
SHRUBS AND GROUNDCOVERS				
AJ	17	ROZANNE JAPANESE AUCUBA Aucuba japonica 'Rozanne'	18"-24" HT./SPR. CONT., FULL	4.0' O.C.
AS	32	LITTLE BLUESTEM Andropogon scoparium 'The Blues'	18"-24" HT./SPR. CONT., FULL	4.0' O.C.
JJ	43	BLUE PACIFIC JUNIPER Juniperus conferta 'Blue Pacific'	15"-18" SPR. CONT., FULL	6' O.C.
U	275	BIG BLUE LINDOCE Liriodendron 'Big Blue'	3-5 BEES SPACED 18" O.C.	
PL	68	DAKAR CHERRY LAUREL Ficus laurifolia 'Sole Luyken'	18" HT./SPR. CONT., FULL	4' O.C.
PV	39	SWITCHGRASS Panicum virgatum 'Shenandoah'	18"-24" HT./SPR. CONT., FULL	4.0' O.C.
RI	111	REDBIRD INDIAN HAYTIHORN Rhopilepis indica 'Redbird'	18" HT./SPR. CONT., FULL	4' O.C.

GRAPHIC SYMBOLS SUPERSEDE WRITTEN QUANTITIES WHERE DISCREPANCIES OCCUR. SEE SHEET C-7 FOR MORE INFORMATION.

TRIMM 419 500, SEE DETAIL SHEET C-7.6

REFER TO PLAN SHEET C-6.2 FOR LANDSCAPE CALCULATIONS.

A TREE REMOVAL/PRESERVATION PERMIT IS REQUIRED PRIOR TO REMOVING ANY TREES. CONTRACTOR SHALL OBTAIN & COMPLETE PERMIT. CONTACT CITY OF WILMINGTON ZONING DEPARTMENT TO OBTAIN COPY OF PERMIT.



PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

BOWMAN MURRAY HEMINGWAY
ARCHITECTS

514 Market Street
Wilmington, NC 28401
Tel: (910) 762-2621
Fax: (910) 762-2506

Project ID # 900-9005

CLH DESIGN PA
Site Planning & Landscape Architecture
1000 North Salisbury Street
Wilmington, NC 28401
Tel: (910) 762-2621
Fax: (910) 762-2506

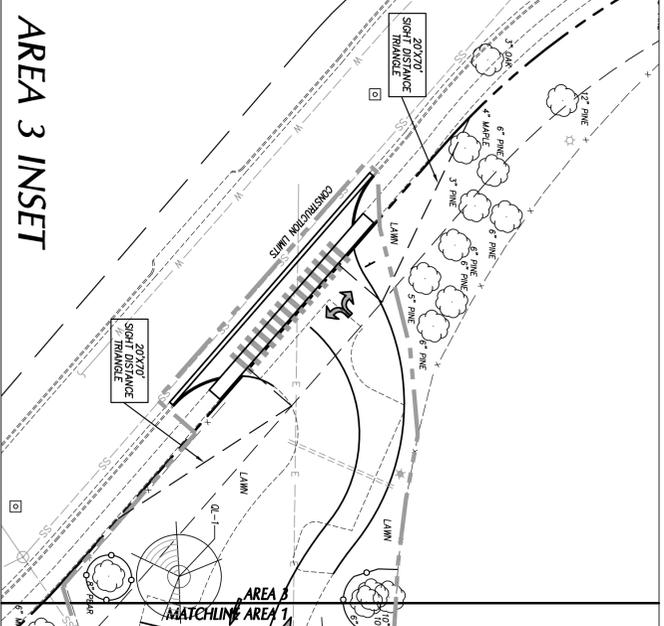
CITY OF WILMINGTON
1861
4-12-16

Phase One: Renovations and Additions to:
John T. Hoggard High School
 4305 Shipyard Blvd.
 Wilmington, North Carolina 28403

SITE PLANTING PLAN
SHEET NUMBER

C-6.1

JOB NUMBER: 15-120
 DRAWN BY: JGM
 CHECKED BY: JGM
 DATE: APRIL 12, 2016
 REVISIONS:



LANDSCAPE CALCULATIONS

STREET VARD REQUIREMENTS

STREET VARD FACTOR = 12

MINIMUM STANDARD: 1 CANOPY TREE (3" CAL. MIN.) - 3 UNDERST. F. PINE, LINE 8 SHRUBS (12" HT. MIN.) OR 10.4 PARKING AREAS

PROVIDED: 7 NEW CANOPY TREES, 55 NEW SHRUBS

PRIMARY STREET VARD, SHIPYARD BOULEVARD - 8'-4" WIDTH (TO LIMITS OF WORK)

SQUARE FEET REQUIRED = 12862.5 (1'-25' W) = 8430 SF

MINIMUM STANDARD REQUIRED: 17 CANOPY TREES, 100 SHRUBS

PROVIDED: 17 EXISTING CANOPY TREES, 23 SHRUBS

23 SHRUBS EXISTING TREES

SECONDARY STREET VARD, 41ST STREET - 8'-18" WIDTH (TO LIMITS OF WORK)

SQUARE FEET REQUIRED = 12478.1/2 = 2295 SF

MINIMUM STANDARD REQUIRED: 4 CANOPY TREES, 23 SHRUBS

PROVIDED: 17 EXISTING CANOPY TREES, 23 SHRUBS

23 SHRUBS EXISTING TREES

FOUNDATION PLANTING REQUIREMENTS (adjacent to parking or internal drive area)

REQUIREMENT: AREA OF BUILDING FACE X 1/2%

FOUNDATION PLANTING AREA A

BUILDING FACE = 187 FT.

BUILDING HEIGHT = 42 FT.

PLANTING AREA REQUIRED = 1943.50 FT.

PLANTING AREA PROVIDED = 1943.50 FT.

FOUNDATION PLANTING AREA B

BUILDING FACE = 184 FT.

BUILDING HEIGHT = 42 FT.

PLANTING AREA REQUIRED = 1778.50 FT.

PLANTING AREA PROVIDED = 1778.50 FT.

PARKING AREA PLANTING REQUIREMENTS

PARKING AREA PERMETER PLANTINGS: N/A

PARKING AREA INTERIOR PLANTINGS

REQUIREMENT: INTERIOR LANDSCAPING MUST EQUAL 8% OF TOTAL PLANTING

LANDSCAPING AREA OF PARKING ISLAND, NO LESS THAN 12' WIDE

ISLAND MUST HAVE GROUNDCOVER

NO PARKING SPACE MORE THAN 120 FEET AWAY FROM AN ISLAND

75% SHADE TREES

15 TREES 2" CALIBER OR GREATER PER ACRE OF RESTORED LAND

ACRES DISBURSED: 50 CREDITS REQUIRED: 75 CREDITS

TREES PROVIDED: 22 TREES/22 CREDITS

CREDITS FOR EXISTING TREES

SIZE	QTY	CREDIT VALUE	TOTAL
2-5" CALIBER	1	-	-
6-11"	15	2	30
12-17"	2	3	6
18-25"	4	4	16
>24"	4	16 2/3 (17 2/3)	29
TOTAL:			65

TOTAL CREDITS PROVIDED: 67

APPROVED CONSTRUCTION PLAN

NAME _____ DATE _____

PLANNING _____ TRAFFIC _____

DATE _____

APPROVED STORMWATER MANAGEMENT PLAN

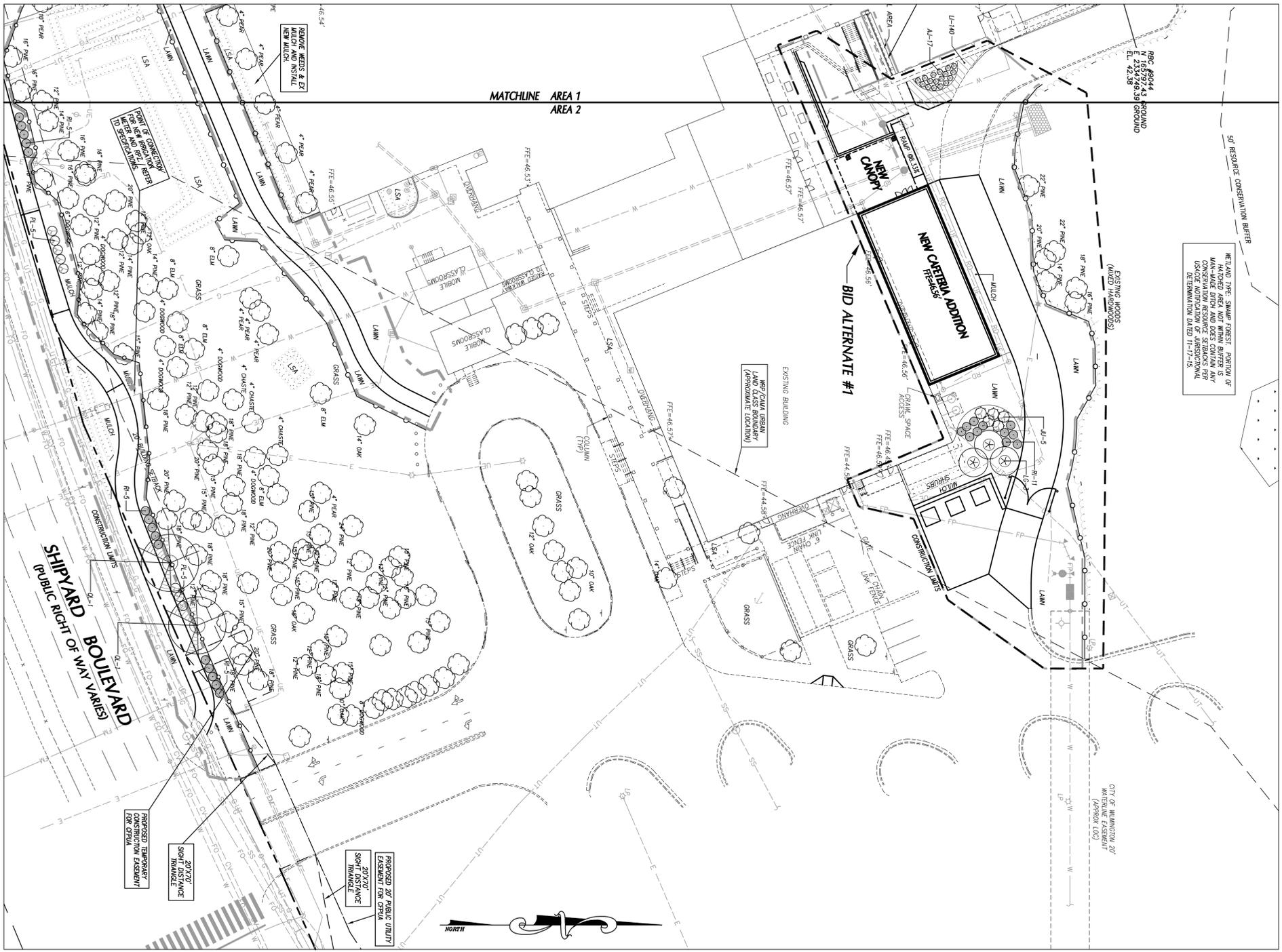
DATE _____ Permit # _____

Public Services • Engineering Division

WILMINGTON

City of Wilmington

Signer: _____



- LANDSCAPE NOTES**
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND/OR NC DOT STANDARDS AND SPECIFICATIONS.
 2. LOCATE ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PLANT MATERIAL. NOTIFY OWNER OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THOSE SHOWN ON THE PLAN.
 3. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND THE TOTAL QUANTITIES SHALL BE AS SHOWN ON THE PLAN.
 4. LAWN AREAS SHALL BE SEEDED WITH SUNSETA/BENNA BERMUDA GRASS SEED COVERAGE (BASED ON A PER SQUARE YARD SHARE) SHALL BE ATTAINED PRIOR TO FINAL INSPECTION.
 5. ALL PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND THE WRITTEN SPECIFICATIONS.
 6. PLANTING BEES TO BE MULCHED WITH A MINIMUM OF 3" OF TRIPLE SHEDDED HARDWOOD MULCH. ALL PLANTING BEES SHALL BE MULCHED AS ONE BED.
 7. ESTABLISH POSITIVE DRAINAGE IN ALL PLANTING BEES AND AWAY FROM BUILDINGS.
 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NEW PLANTING BEES AT ALL MANUFACTURERS' RECOMMENDED RATE PER SQUARE YARD (APPROXIMATE LOCATION).
 9. DO NOT INSTALL PLANT MATERIAL IN UNDESIGNATED SPOTS. (i.e. HOLES WHICH WERE FILLED WITH WATER DO NOT COMPLETELY DRAIN WITHIN TWO HOURS).
 10. ALL SPOOLED AREAS SHALL BE TRIMMED TO 18" BENDS.
 11. ANY TREE NEAR SHALL BE REMOVED IMMEDIATELY AFTER INSTALLATION.
 12. SEE SPECIFICATIONS REGARDING WARRANTY/MAINTENANCE REQUIREMENTS FOR ALL PLANTS, SOIL, AND LAWN SEEDING.
 13. DE-ICE OR DETERGENT SCREENING SHALL BE REPLACED WITHIN SIX MONTHS OR DURING NEXT PLANTING SEASON.
 14. ALL PROPOSED VERTICATION WHEN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISION. SHORT LANS FROM 5' - 10'.

PLANT SCHEDULE

KEY	QTY	PLANT NAME	SIZE	REMARKS
BC	-	BAUD CYPRESS Taxodium distichum	2'-2 1/2" CAL. 10'-12" HT.	BAB3 STRAIGHT TRUNK FULL CROWN
CE	5	BOSQUE CHINESE FLM Ulmus Parviflorus 'Boesque'	2'-2 1/2" CAL. 10'-12" HT.	BAB3 STRAIGHT TRUNK FULL CROWN
CM2	8	CHEQUERER OSAPE MYRTLE Lagerstroemia indica 'Cherokee'	3-5 TRUNKS 7'-8" HT.	BAB3 FULL CROWN
CM	4	NATCHES OSAPE MYRTLE Lagerstroemia indica 'Natchez'	3-5 TRUNKS 7'-8" HT.	BAB3 FULL CROWN
GB	6	AUTUMN GOLD GINKGO (MALE ONLY) Ginkgo biloba 'Autumn Gold'	2'-2 1/2" CAL. 10'-12" HT.	BAB3 STRAIGHT TRUNK FULL CROWN
GC	9	JAPANESE CRYPTOMERIA Cryptomeria japonica	6'-7" HT. MIN.	BAB3 STRAIGHT TRUNK FULL TO GROUND
LG	12	LITTLE GEM MAGNOLIA Magnolia grandiflora 'Little Gem'	1'-1 1/2" CAL. 8'-10" HT.	BAB3 STRAIGHT TRUNK FULL TO GROUND
LO	7	LUTE OAK Quercus virginiana	2'-2 1/2" CAL. 10'-12" HT.	BAB3 STRAIGHT TRUNK FULL CROWN
OL	18	LAIURE OAK Quercus laurifolia 'Dorlington'	2'-2 1/2" CAL. 10'-12" HT.	BAB3 STRAIGHT TRUNK FULL CROWN

SHRUBS AND GROUNDCOVERS

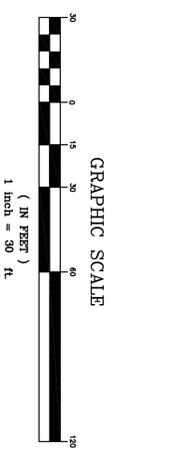
AJ	17	ROZANINE JAPANESE ALUCIBA Aucuba japonica 'Rozanne'	18"-24" HT./SPR. 4.0' O.C.	CONT., FULL
AS	32	LITTLE BLUESTEM Andropogon scoparium 'The Blues'	18"-24" HT./SPR. 4.0' O.C.	CONT., FULL
BJ	43	BLUE PACIFIC JUNIPER Juniperus conferta 'Blue Pacific'	15"-18" SPR. 6' O.C.	CONT., FULL
U	275	BIG BLUE LIRIOPE Liriope muscari 'Big Blue'	3-5 BIBS SPACED 18" O.C.	CONT., FULL
PL	68	DWARF CHERRY LAUREL Prunus laurocerasus 'Oto Luyken'	18" HT./SPR. 4' O.C.	CONT., FULL
PV	39	SMITHGRASS Panicum virgatum 'Shenandoah'	18"-24" HT./SPR. 4.0' O.C.	CONT., FULL
RI	111	REDBIRD INDIAN HAWTHORN Rhoicodaphne indica 'Reedbird'	18" HT./SPR. 4' O.C.	CONT., FULL

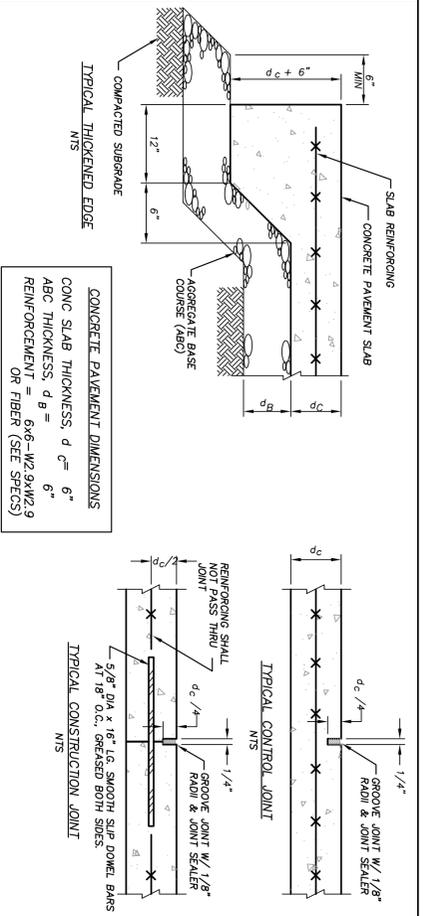
GRAPHIC SYMBOLS REPRESENT WRITTEN QUANTITIES WHERE DISCREPANCIES OCCUR. SEE SHEET C76 FOR MORE INFORMATION.

TRIMM 419 500. SEE DETAIL SHEET C76.

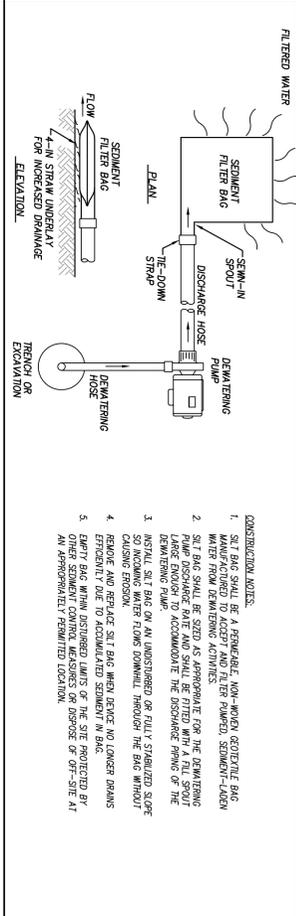
REFER TO PLAN SHEET C-62 FOR LANDSCAPE CALCULATIONS.

A TREE REMOVAL/PRESERVATION PERMIT IS REQUIRED PRIOR TO REMOVING ANY TREES. CONTRACTOR SHALL OBTAIN & COMPLETE PERMIT. CONTACT CITY OF WILMINGTON ZONING DEPARTMENT TO OBTAIN COPY OF PERMIT.

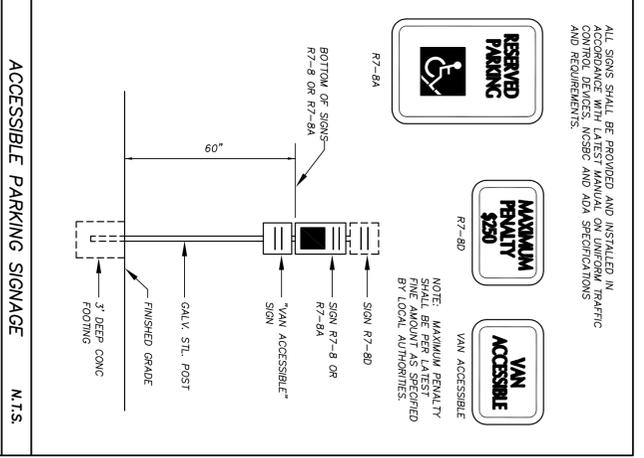
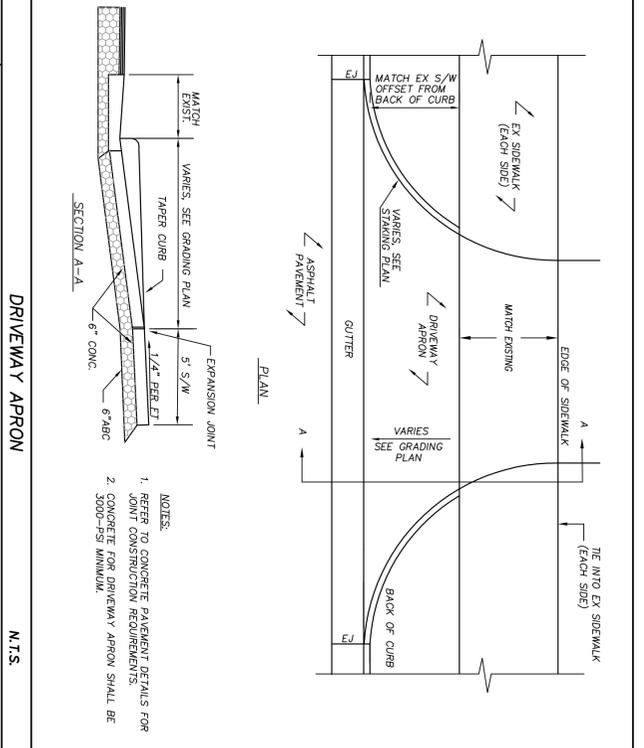
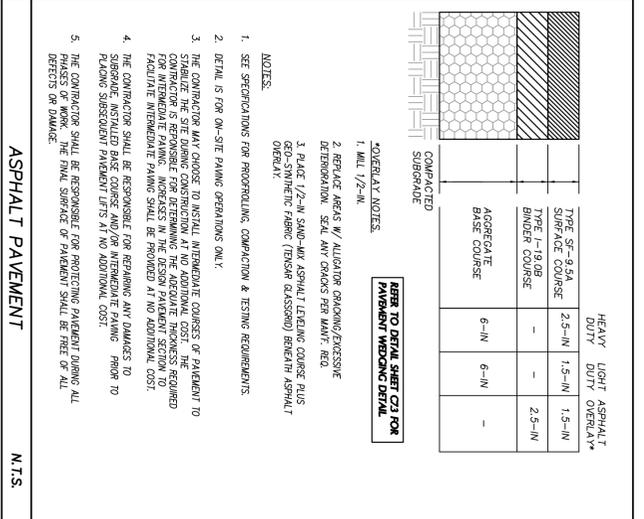




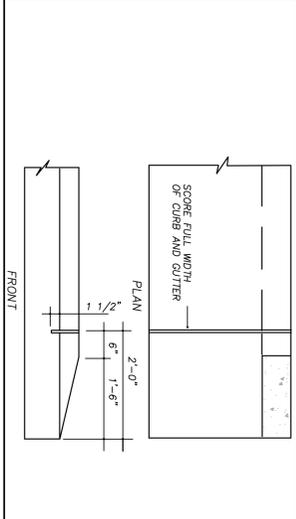
CONCRETE PAVEMENT N.T.S.



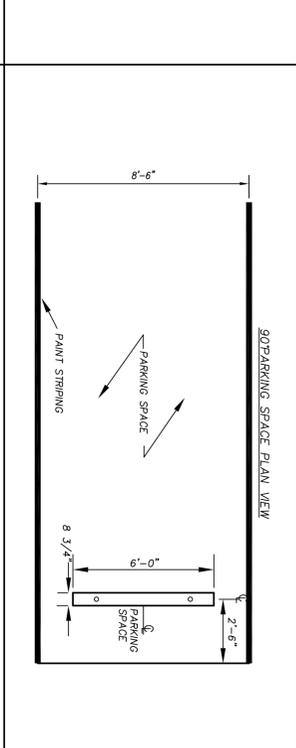
DEWATERING SEDIMENT FILTER BAG N.T.S.



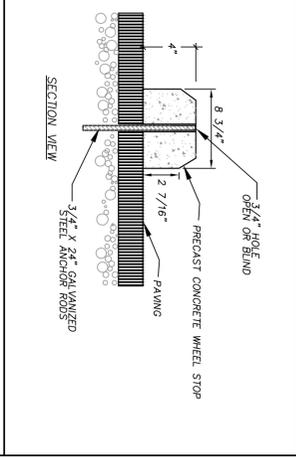
ACCESSIBLE PARKING SIGNAGE N.T.S.



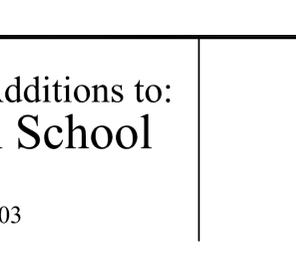
STD METHOD ENDING CURB N.T.S.



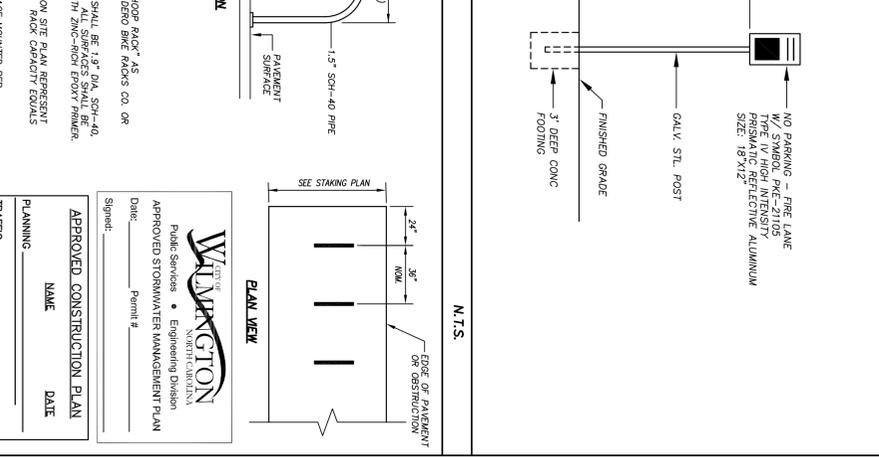
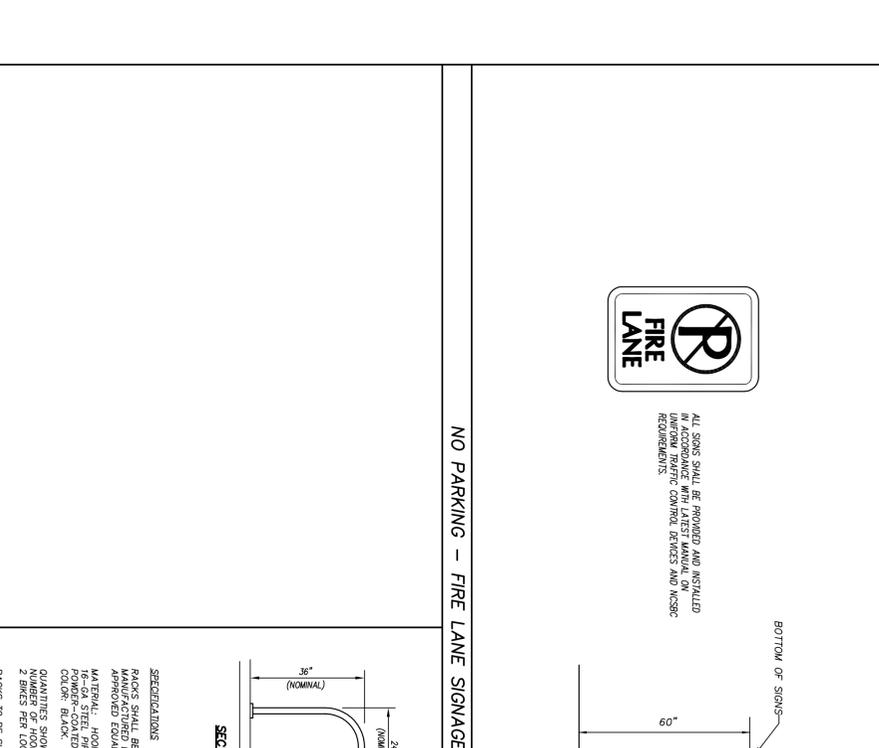
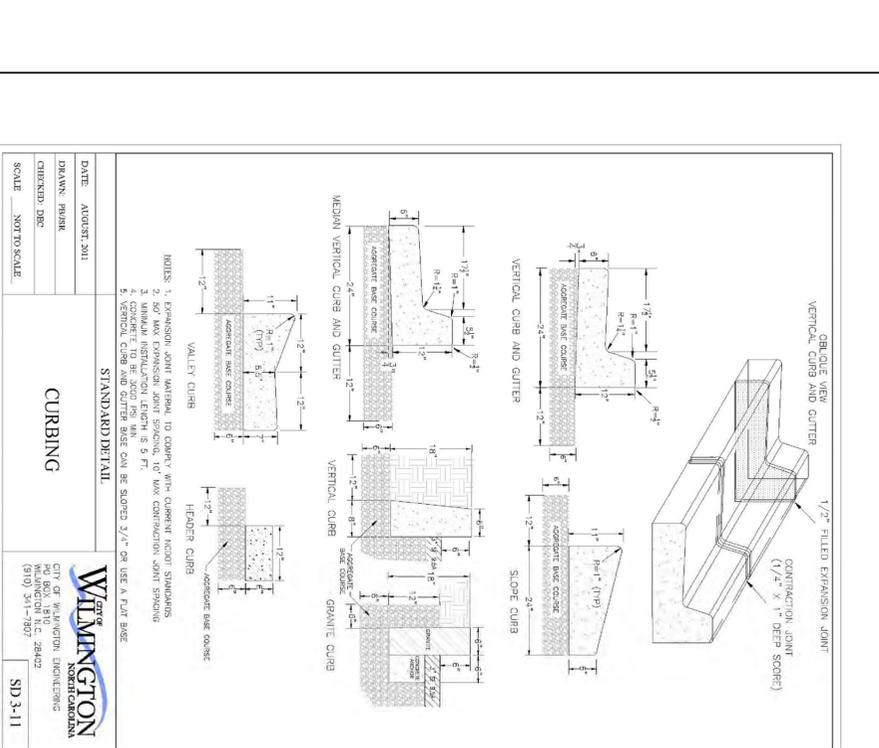
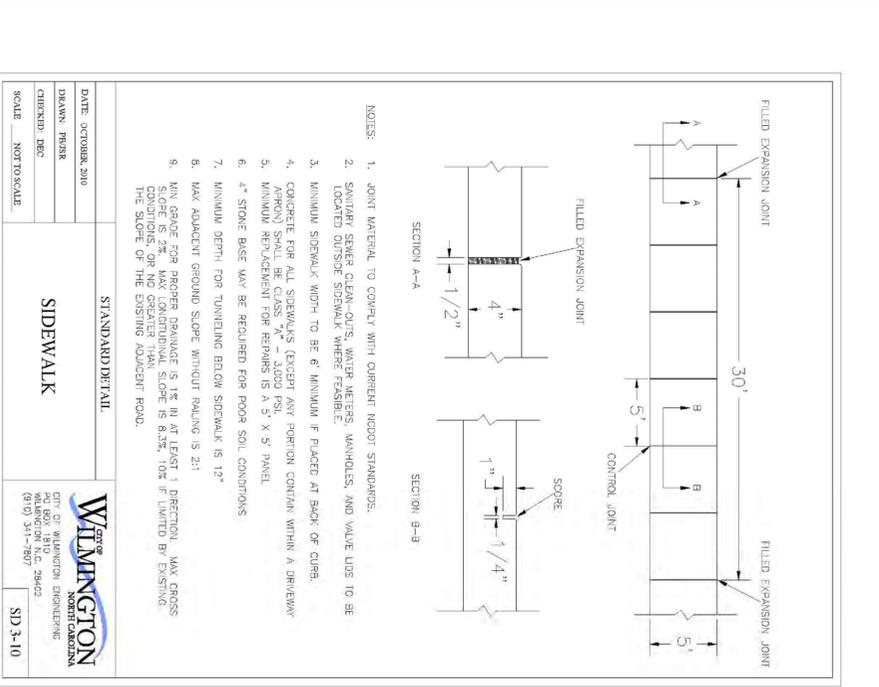
PRE-CAST CONCRETE WHEELSTOP N.T.S.



NO PARKING - FIRE LANE SIGNAGE N.T.S.



BIKE RACK N.T.S.



BIKE RACK N.T.S.

PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

Site/Civil Details

Job Numbers: 15-120
Drawn by: JGM
Checked by: JGM
Date: APRIL 12, 2016

WILMINGTON NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit #: _____
 Signature: _____
 APPROVED CONSTRUCTION PLAN
 NAME _____ DATE _____
 RAFTIC _____
 FIRE _____

CLH DESIGN/PA
 114 Market Street
 Wilmington, NC 28401
 Tel: (910) 762-2621
 Fax: (910) 762-8806
 Project ID #: 9001-9005

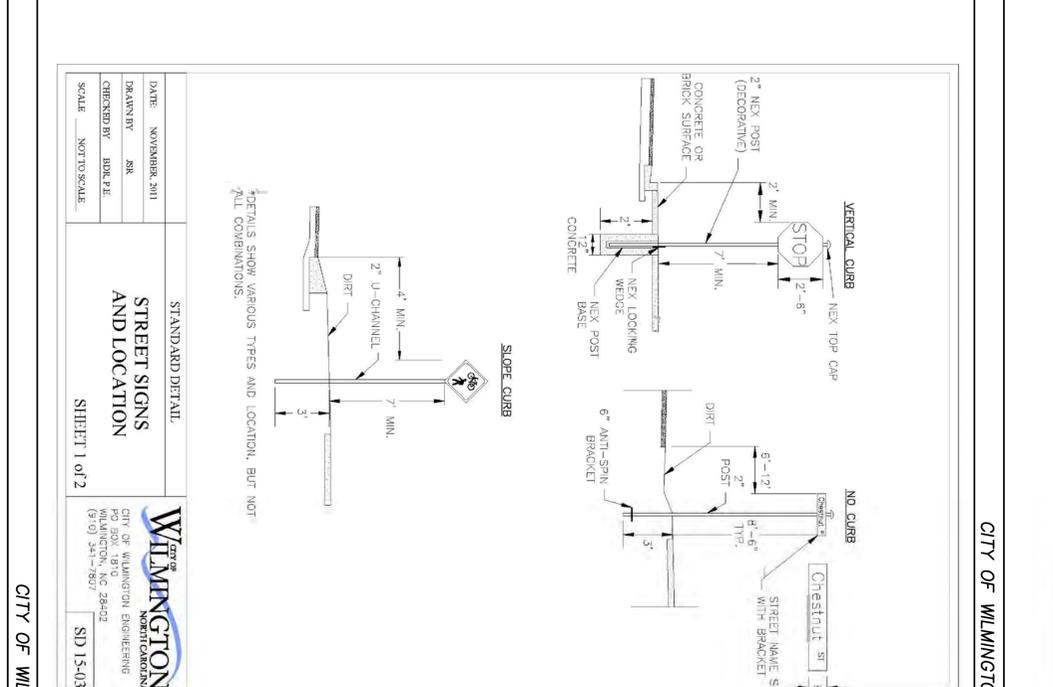
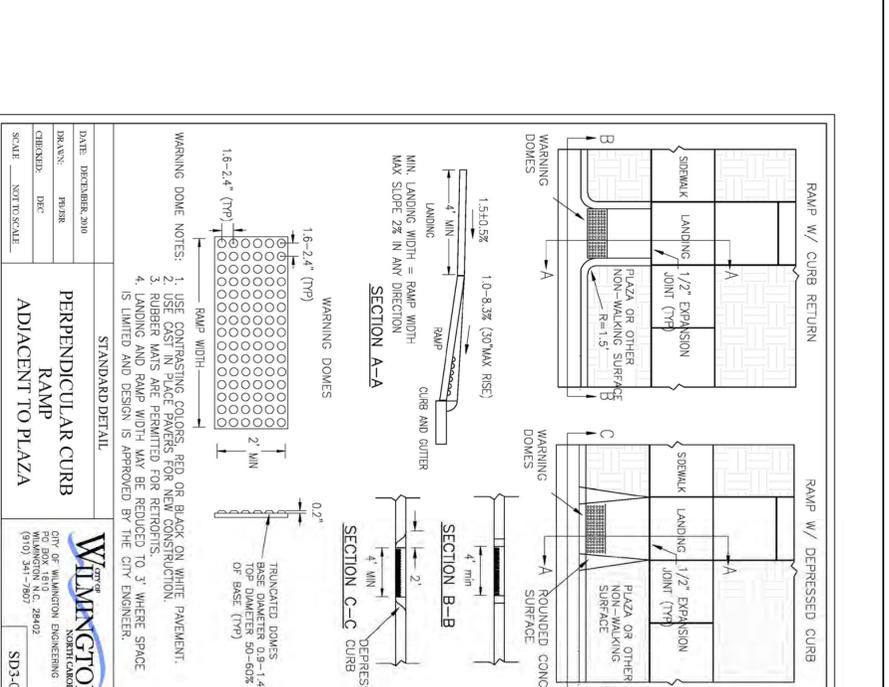
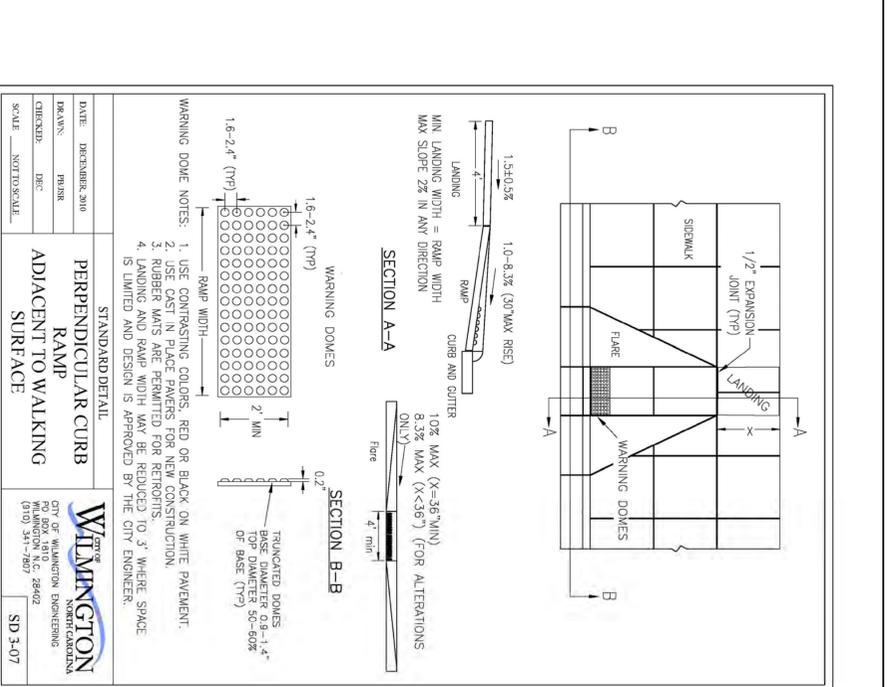
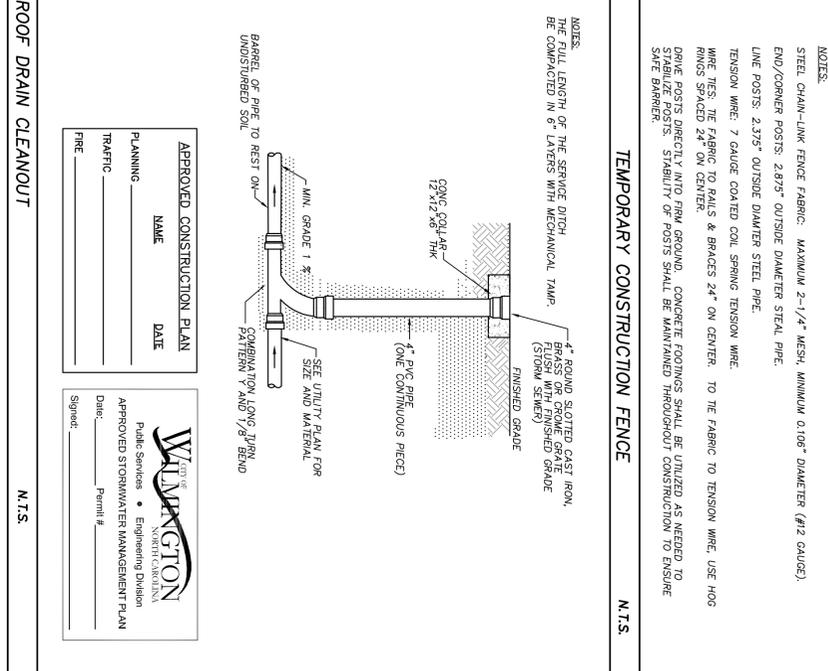
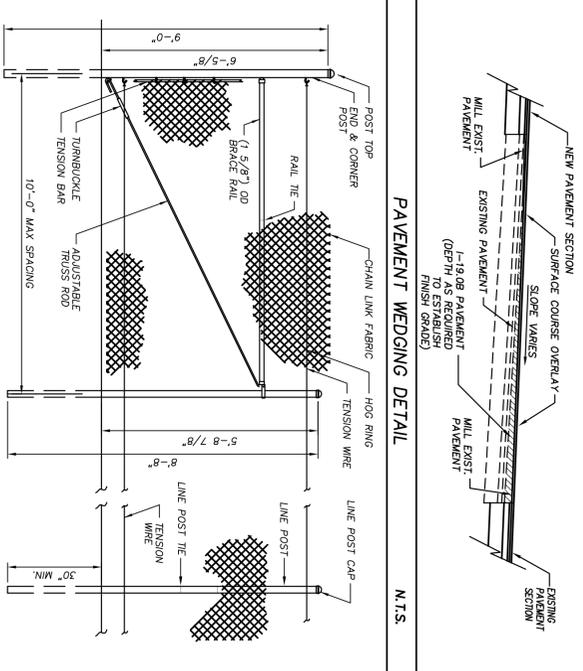
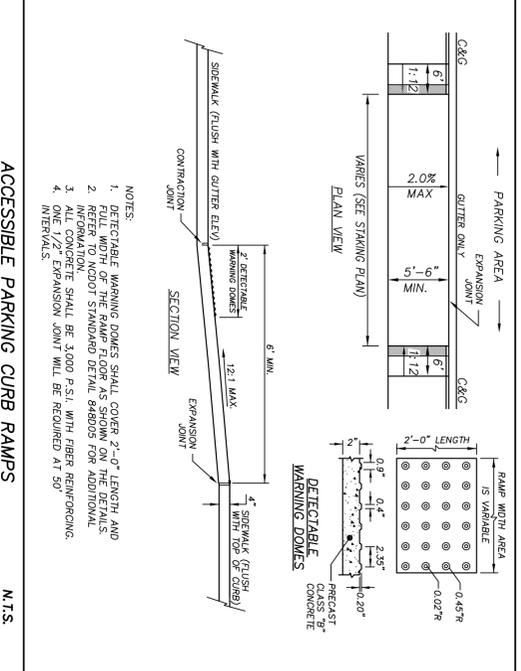
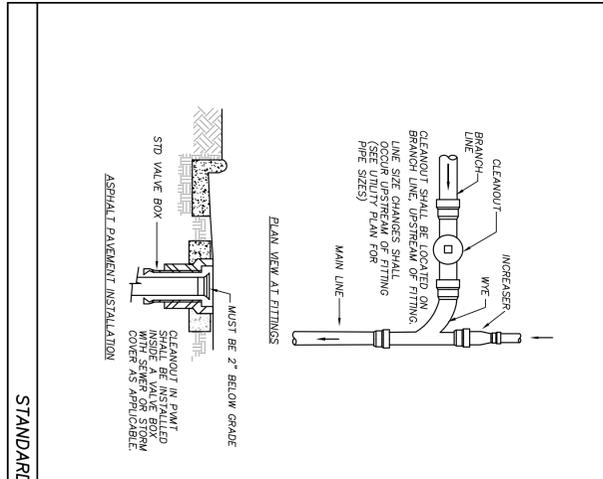
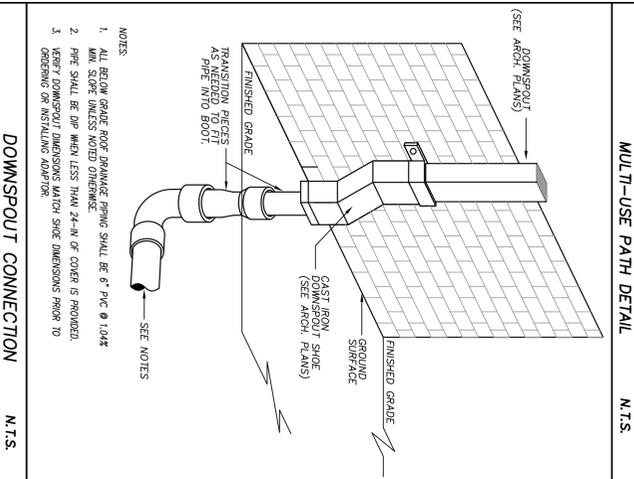
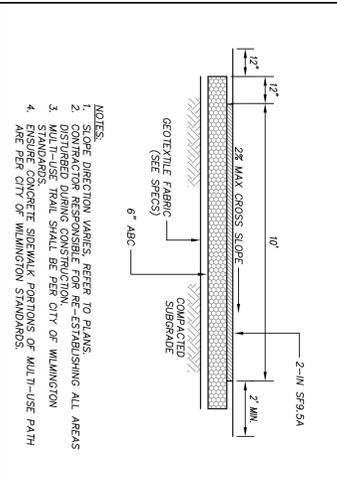
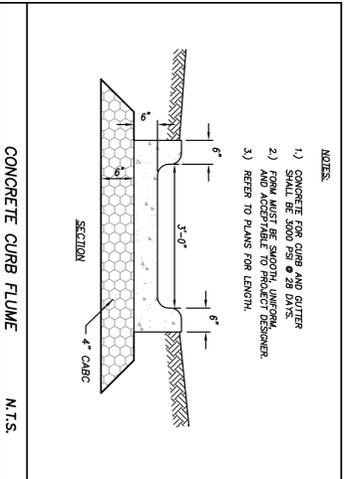
BOWMAN MURRAY HEMINGWAY ARCHITECTS
 114 Market Street
 Wilmington, NC 28401
 Tel: (910) 762-2621
 Fax: (910) 762-8806
 Project ID #: 9001-9005

Professional Engineer Seal: BOWMAN MURRAY HEMINGWAY ARCHITECTS, WILMINGTON, NC, 4-12-16

Sheet Number: C7.2

Phase One: Renovations and Additions to: John T. Hoggard High School

4305 Shipyard Blvd.
 Wilmington, North Carolina 28403



PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

PHASE ONE: RENOVATIONS AND ADDITIONS TO: John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina 28403

BOWMAN MURRAY HEMINGWAY ARCHITECTS
A R MARCH 11, 2016
114 MARKET STREET
WILMINGTON, NC 28401
Tel. - (910) 763-2621
Fax. - (910) 763-8806
Project ID # 900-9005

CLH DESIGN PA
1000 W. 25TH ST.
WILMINGTON, NC 28403
Tel. (910) 341-7807
Fax (910) 341-7807

NOTARY PUBLIC
KATHLEEN A. BOWMAN
2-13-16
4-12-16

PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

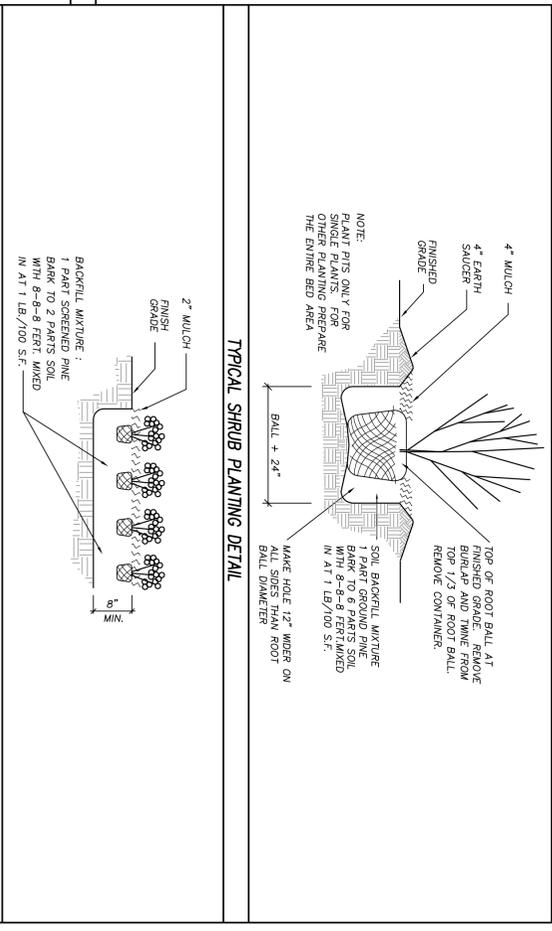
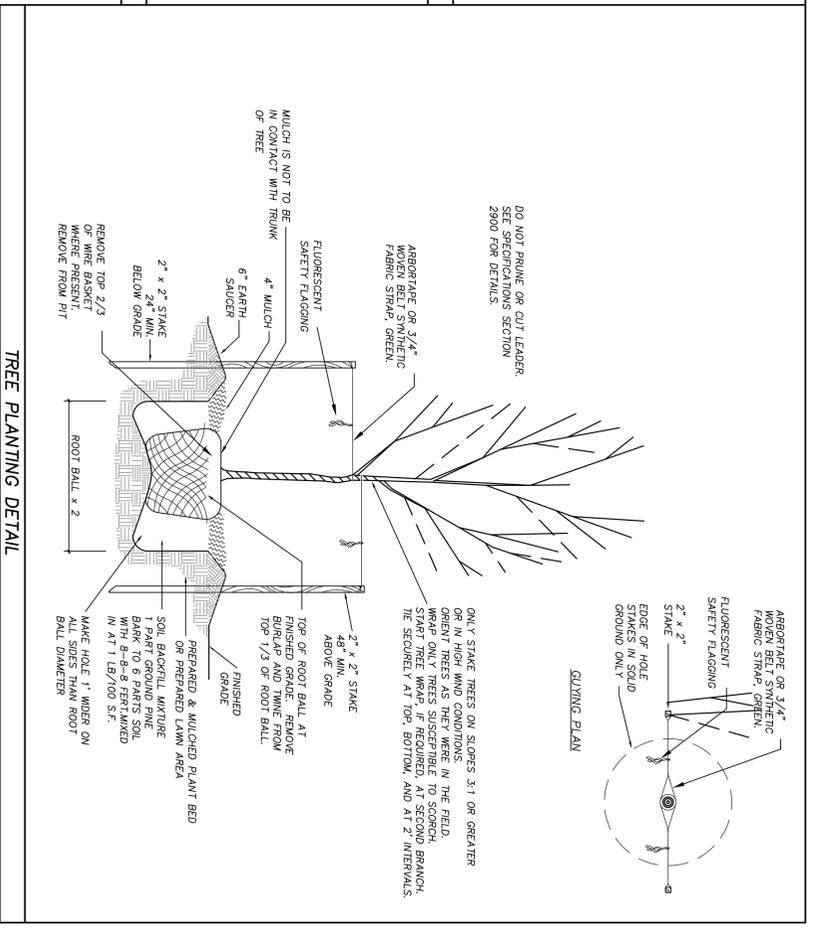
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Phase One: Renovations and Additions to:
John T. Hoggard High School
 4305 Shipyard Blvd.
 Wilmington, North Carolina 28403

JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	APRIL 12, 2016
REVISIONS	

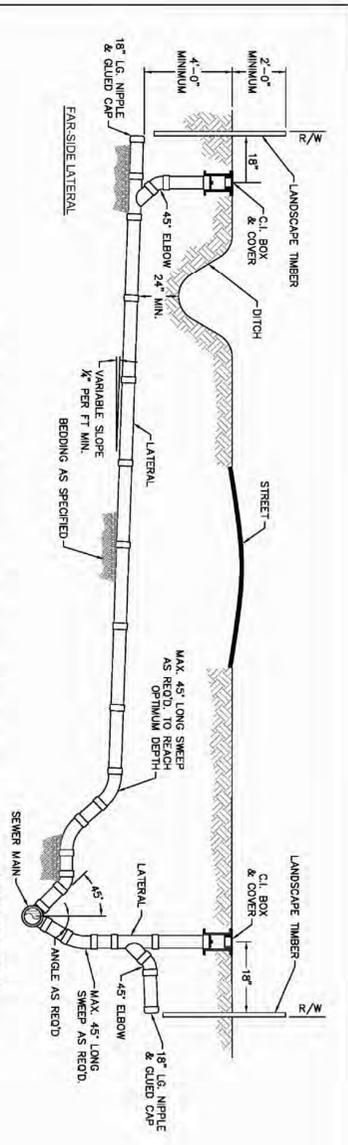
APPROVED CONSTRUCTION PLAN	NAME	DATE
PLANNING		
TRAFFIC		
FIRE		



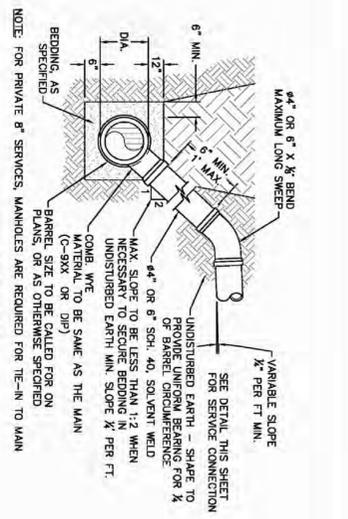
LANDSCAPE NOTES		
1. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT TO REVIEW GRADING ONE WEEK PRIOR TO SEEDING. IF THE LANDSCAPE CONTRACTOR AND LANDSCAPE ARCHITECT FIND GRADING UNACCEPTABLE FOR FINAL SEEDING, LANDSCAPE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE GENERAL CONTRACTOR. LANDSCAPE CONTRACTOR SHALL NOT PROCEED WITHOUT APPROVAL BY LANDSCAPE ARCHITECT.		
11. GENERAL LAWN AREAS SHALL BE SEEDED WITH SUNSTAR/RIVERA BERMUDA/GRASS OR APPROVED EQUIV.		
12. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT TO REVIEW GRADING ONE WEEK PRIOR TO SEEDING. IF THE LANDSCAPE CONTRACTOR AND LANDSCAPE ARCHITECT FIND GRADING UNACCEPTABLE FOR FINAL SEEDING, LANDSCAPE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE GENERAL CONTRACTOR. LANDSCAPE CONTRACTOR SHALL NOT PROCEED WITHOUT APPROVAL BY LANDSCAPE ARCHITECT.		
LANDSCAPE NOTES		
1. CHECK ALL OUT GRADED OR COMPACTED AREAS TO A MINIMUM DEPTH OF 8".		
2. DISC ALL AREAS TO RECEIVE GRASS TO A MINIMUM OF 8 INCHES AND MOUND WITH 3 INCHES OF WELLS SCREENED TOPSOIL ON-SITE SPECIFICATIONS SECTION 29000.		
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE RELATIVELY SMOOTH AND UNIFORM.		
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND PHOSPHATE UNIFORMLY AS PER SPECIFICATIONS AND MIX WELL WITH SOIL.		
5. CONTINUE TILLAGE UNTIL A WELL-PHILLED, FINE, REASONABLY UNIFORM SEEDBED IS PREPARED TO A 6 INCHES DEPTH.		
6. SEED AT RATE SPECIFIED OR AS NEEDED TO ACHIEVE AND MAINTAIN A THICK, HEALTHY GROUND COVERAGE.		
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH BEGON THROUGH WATERING OF GRASSED AREAS IMMEDIATELY UPON INSTALLATION. DO NOT ALLOW GRASSED AREAS TO BECOME EXCESSIVELY DRY.		
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS AS NEEDED.		
9. IF CONFLICTS OCCUR BETWEEN WRITTEN SPECIFICATIONS AND THE DRAWINGS, THE WRITTEN SPECIFICATIONS SHALL PREVAIL.		
SEEDBED PREPARATION		
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS. OR APPLY A MINIMUM 3,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND A MINIMUM 500 LB/ACRE 10-10-10 FERTILIZER, AS NEEDED TO ESTABLISH 95% COVERAGE (AS DETERMINED ON A PER SQUARE YARD BASIS) PRIOR TO SUBSTANTIAL COMPLETION. CONTRACTOR TO SUBMIT A COPY OF ALL SOIL REPORTS TO OWNER UPON RECEIPT.		
LIME & FERTILIZATION SCHEDULE		
DATE	TYPE	LOADING RATE
AUG 15 - FEB 1	FALL RESCUE AND WINTER FFE (GRAN)	70 LBS/ACRE
APR 1 - AUG 15	FALL RESCUE AND GERMAN WHEAT ** OR SIDANGRASS (SMALL-STEMMED VAR) ***	120 LBS/ACRE 25 LBS/ACRE 30 LBS/ACRE
<p>CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR SOIL TESTS. SOIL TESTS SHOULD BE CONDUCTED AT THE END OF EACH YEAR OR DISTURBED AREAS OF THE SITE AS SOON AS POSSIBLE. HOWEVER, NO LATER THAN 30 DAYS AFTER CONSTRUCTION ACTIVITIES HAVE FERMENALLY OR TEMPORARILY CEASED DURING ANY PHASE OF WORK.</p> <p>TEMPORARY OR PERMANENT GROUND COVER SHALL BE PROVIDED ON ALL SLOPES WITHIN 15 WORKING DAYS OR 30 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITIES PERMANENTLY OR TEMPORARILY CEASED.</p> <p>TEMPORARY OR PERMANENT GROUND COVER SHALL BE PROVIDED ON ALL SLOPES WITHIN 15 WORKING DAYS OR 30 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITIES PERMANENTLY OR TEMPORARILY CEASED.</p> <p>**TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT RESTORATION, DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE WORKING.</p>		
TEMPORARY SEEDING SCHEDULE		

CITY OF WILMINGTON LANDSCAPE NOTES		N.T.S.
DATE	APRIL 2008	
DRAWN BY	SR	
CHECKED BY	HR, PE	
SCALE	NOT TO SCALE	
LANDSCAPE NOTES		
1. No plantings over thirty (30) inches in height allowed in vision clearance.		
2. Protection from vehicular traffic provided around all landscaping with a minimum height of six (6) inches.		
3. Owner is responsible for maintenance to ensure plant material lives and prospers.		
4. Planting plans shall be approved by Landscape Designer prior to installation.		
5. Landscaping shall be requiree of the ends of all parking rows.		
6. A low buffer shall be required where parking is within fifty (50) feet of the Right-of-Way.		
7. Landscaped islands shall be a minimum width of twelve (12) feet (back of curb to back of curb) and a minimum of two hundred and sixteen (216) square feet.		
8. A minimum of fifteen (15) trees 2 inches or greater in diameter as measured 6 inches above ground per disturbed acre.		
9. For recommended Plant List see "Landscape" T-10-4.		

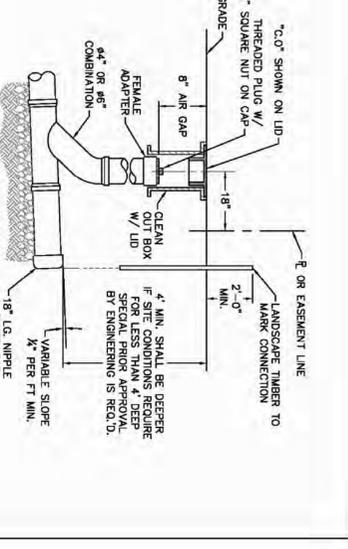
DATE	APR 15 - JUL 15 **	PLANTING RATE
	MULCH SUNSTAR OR RIVERA BERMUDA	85 LBS/ACRE *
JULY 15 - AUG 15	SUNSTAR OR RIVERA BERMUDA SPROGS	5 BUSHELS/1,000 SF
AUG 15 - APR 15	TEMPORARY SEEDING APPLIES**	
<p>* OR AS REQUIRED TO ACHIEVE 95% COVERAGE AS DETERMINED ON A PER SQUARE YARD BASIS PRIOR TO SUBSTANTIAL COMPLETION.</p> <p>** WHEN SEEDING MUST TAKE PLACE OUT-OF-SEASON FOR PERMANENT GRASS, APPROVED TEMPORARY SEEDING SHALL BE USED. PERMANENT GRASS SHALL BE RESPONSIBLE FOR PERMANENT SEEDING AS SPECIFIED IN SECTION AT NO ADDITIONAL COST TO OWNER.</p>		
LAND MAINTENANCE NOTES.		
1. CONTRACTOR SHALL BE RESPONSIBLE FOR LAWN MAINTENANCE UNTIL FINAL COMPLETION.		
2. LAWN MUST BE AT 95% COVERAGE AT SUBSTANTIAL COMPLETION REVIEW TO BE ACCEPTED.		
3. IF NOT AT 95% SUBSTANTIAL COMPLETION WILL BE DELAYED UNTIL THE FOLLOWING GROWING SEASON.		
SUBSTANTIAL COMPLETION (GRASS).		
CONTRACTOR SHALL BE RESPONSIBLE FOR LAWN MAINTENANCE AND WATERING UNTIL SUBSTANTIAL COMPLETION. LAWN/Turf SHALL BE CONSIDERED SUBSTANTIALY COMPLETE WHEN GRASS ESTABLISHMENT IS AT LEAST 95% OF THE MINIMUM REQUIREMENTS ARE MET. SUBSTANTIAL COMPLETION WILL BE DELAYED UNTIL THE MINIMUM REQUIREMENTS ARE MET (POSSIBLY INTO THE FOLLOWING GROWING SEASON). THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR WATERING AND MAINTENANCE OF THE GRASS UNTIL SUBSTANTIAL COMPLETION IS REACHED. SEE SPECIFICATIONS FOR FURTHER INFORMATION.		
PERMANENT SEEDING SCHEDULE - BERMUDA SEED		
<p>PREPARATION OF TEMPORARY GROUND COVER SHALL BE REQUIRED OVER ALL DISTURBED AREAS OF THE SITE AS SOON AS POSSIBLE. HOWEVER, NO LATER THAN 30 DAYS AFTER CONSTRUCTION ACTIVITIES HAVE FERMENALLY OR TEMPORARILY CEASED DURING ANY PHASE OF WORK.</p> <p>TEMPORARY OR PERMANENT GROUND COVER SHALL BE PROVIDED ON ALL SLOPES WITHIN 15 WORKING DAYS OR 30 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITIES PERMANENTLY OR TEMPORARILY CEASED.</p>		
DATE	TYPE	LOADING RATE
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<p>CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR SOIL TESTS. SOIL TESTS SHOULD BE CONDUCTED AT THE END OF EACH YEAR OR DISTURBED AREAS OF THE SITE AS SOON AS POSSIBLE. HOWEVER, NO LATER THAN 30 DAYS AFTER CONSTRUCTION ACTIVITIES HAVE FERMENALLY OR TEMPORARILY CEASED DURING ANY PHASE OF WORK.</p> <p>TEMPORARY OR PERMANENT GROUND COVER SHALL BE PROVIDED ON ALL SLOPES WITHIN 15 WORKING DAYS OR 30 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITIES PERMANENTLY OR TEMPORARILY CEASED.</p> <p>**TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT RESTORATION, DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE WORKING.</p>		
TEMPORARY SEEDING SCHEDULE		



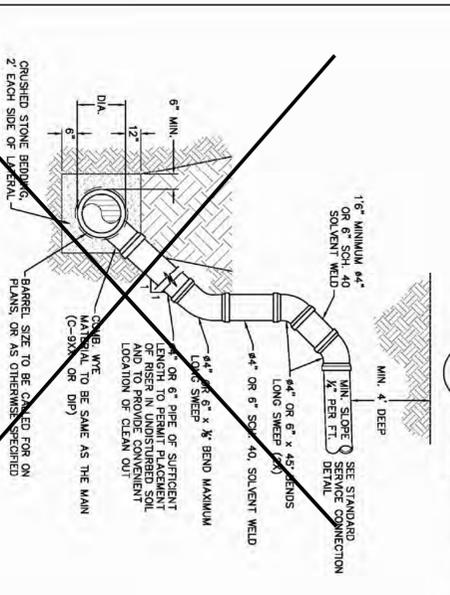
SD-19
NOT TO SCALE
NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR THE IN TO MAIN WITH RIGHT-OF-WAY RESTRICTIONS



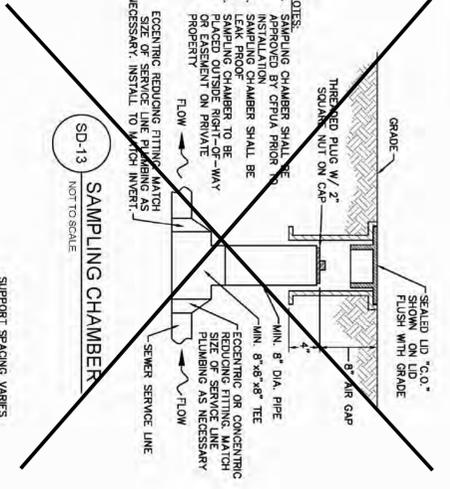
SD-10
NOT TO SCALE
NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR THE IN TO MAIN MAIN DEPTH LESS THAN 8 FT



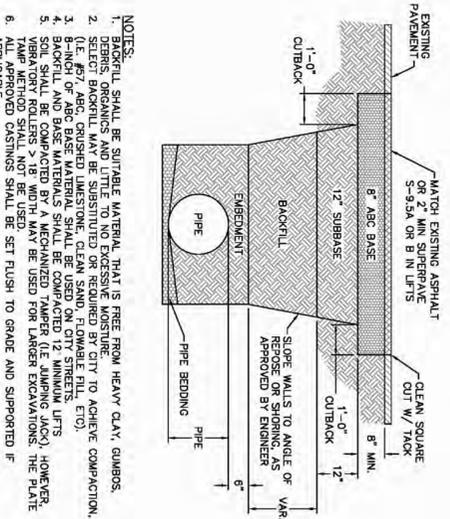
SD-11
NOT TO SCALE
NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR THE IN TO MAIN



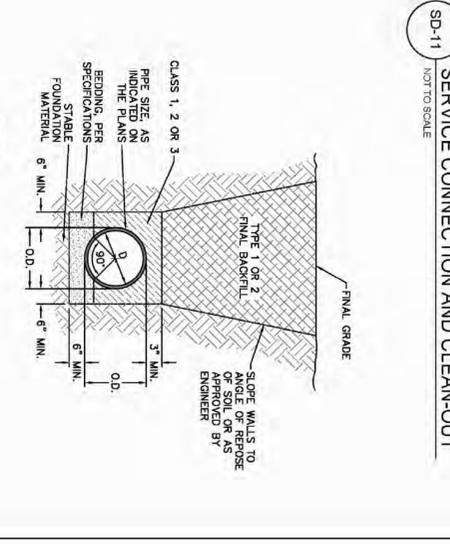
SD-12
NOT TO SCALE



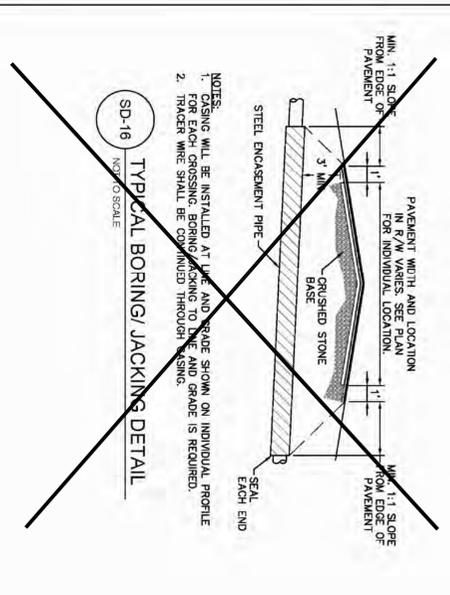
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NOT TO SCALE



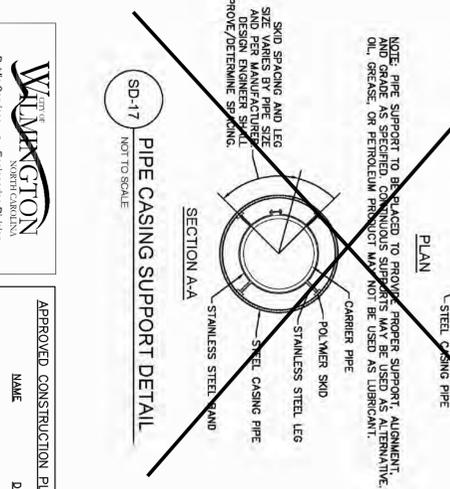
SD-14
NOT TO SCALE



SD-15
NOT TO SCALE



SD-16
NOT TO SCALE



SD-17
NOT TO SCALE

APPROVED CONSTRUCTION PLAN	NAME	DATE
PLANNING		
TRAFFIC		
FIRE		

WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____
Special: _____

APPROVED CONSTRUCTION PLAN

PLANNING	NAME	DATE
TRAFFIC		
FIRE		

REV.	DESCRIPTION	DATE
1	SAMPLING CHAMBER REVISED	10/26/12

CFPUA SANITARY SEWER

STANDARD DETAILS

Cape Fear Public Utility Authority
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)333-6500

SHEET NO.: SSS-D-2

GENERAL NOTES:

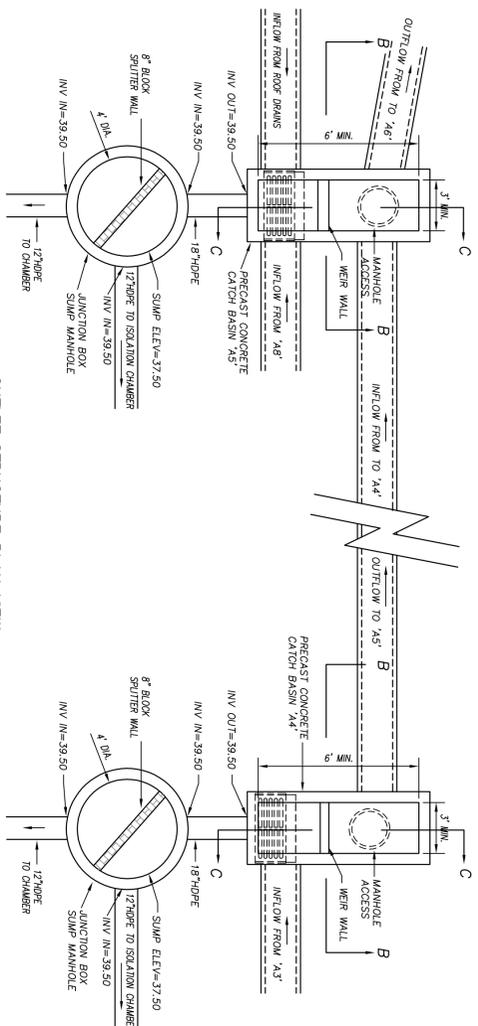
1. UNEXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS. SIGNAL FOR TEMPORARY SEGMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
4. THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND STORAGE AREAS (TO ARRANGE AND ENSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

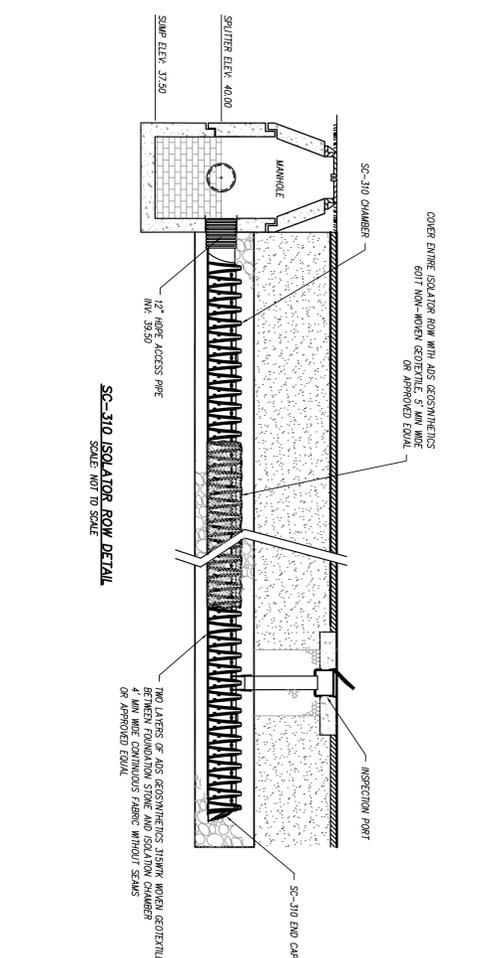


BOWMAN MURRAY HEMINGWAY ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 763-2621
Fax - (910) 763-8806

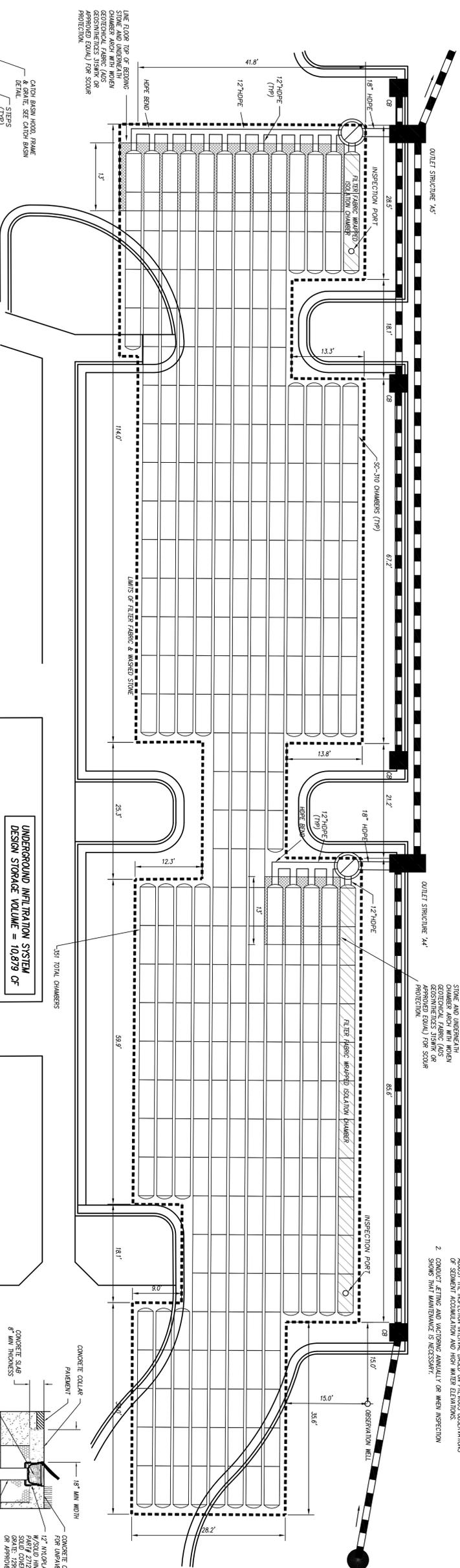
Project ID # 900-9005



OUTLET STRUCTURE PLAN VIEW
SCALE: NOT TO SCALE

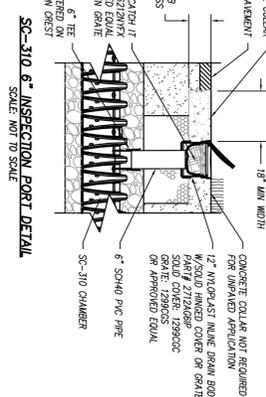


SC-310 ISOLATOR ROW DETAIL
SCALE: NOT TO SCALE



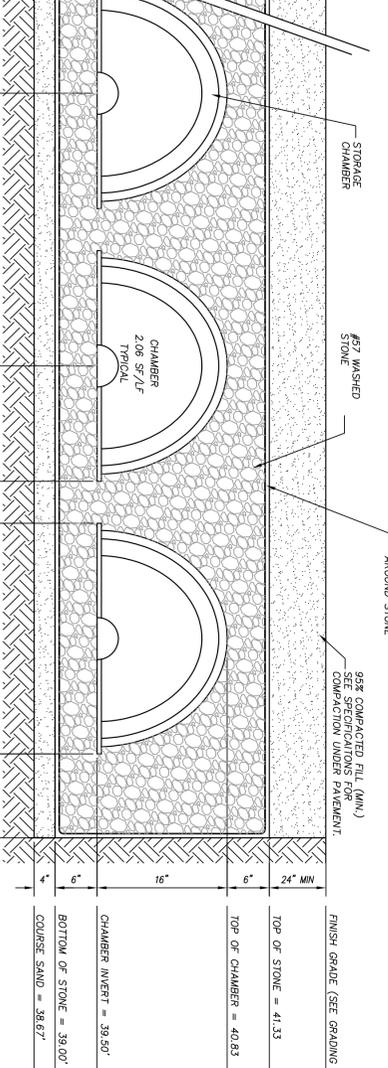
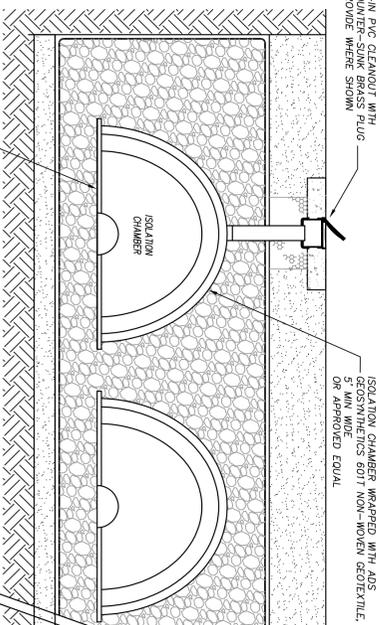
PLAN VIEW
SCALE: 1"=10'

UNDERGROUND INFILTRATION SYSTEM
DESIGN STORAGE VOLUME = 10,879 CF



SC-310 6\"/>

- NOTES
1. MANUFACTURER SHALL BE PROVIDED FROM A SINGLE STORAGE CHAMBER UNITS, CHAMBER CONNECTIONS, FITTINGS AND ACCESSORIES.
 2. STORAGE CHAMBERS SHALL BE IDENTIFIED SC-310 OR APPROVED EQUAL.
 3. ALL PARTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS. REPRESENTATIVE AN INSTALLATION PRE-CONSTRUCTION CONFERENCE SHALL BE SCHEDULED WITH REPRESENTATIVES OF THE DESIGN TEAM, CONTRACTOR AND MANUFACTURER.
 4. CHAMBERS SHALL BE CONSTRUCTED OF HIGH MODULAR WEIGHT WITH OPEN BOTTOMS, INTERLOCKED EDGEMILLS AND REINFORCED SIDEWALLS.
 5. CHAMBER SYSTEMS SHALL BE DESIGNED TO WITHSTAND MINIMUM 14-20 LOAD RAINFALL.
 6. CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF THE COMPLETE SYSTEM TO THE ENGINEER FOR REVIEW AND APPROVAL.
 7. FILTER FABRIC SHALL BE 4-4oz NON-WOVEN GEOTEXTILE.
 8. STONE BACKFILL SHALL BE NO. 57 WASHED STONE.
 9. SYSTEM SHALL NOT BE INSTALLED UNTIL THE COMBING REMAINS ARE STABILIZED AND APPROVED BY THE ENGINEER. EXTREME CARE SHALL BE USED DURING INSTALLATION TO AVOID CONTAMINATION OF WASHED-STONE BACKFILL.
 10. STABILIZED AND APPROVED BY THE ENGINEER. EXTREME CARE SHALL BE USED DURING INSTALLATION TO AVOID CONTAMINATION OF WASHED-STONE BACKFILL.



FINISH GRADE (SEE GRADING PLAN)	TOP OF STONE = 41.33	TOP OF CHAMBER = 40.83	CHAMBER INVERT = 39.90	BOTTOM OF STONE = 39.00	COURSE SAND = 38.67	SHWT = BELOW 37.0'

M.T.S.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT

- A. INSPECT PORTS OF PRECAST CONCRETE MANHOLE
- A.2. REMOVE AND CLEAN FLOW METER
- A.3. USING A FLASHLIGHT AND STAINA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA AND ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. TO STEP 2) IF SEDIMENT IS 1/8\"/>

STEP 2) CLEAN OUT ISOLATOR ROW USING THE LETTAC PROCESS

- A. SPREAD OF 45\"/>

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LOGS RECORD OBSERVATIONS AND ACTIONS

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORAGE SYSTEM

APPROVED CONSTRUCTION PLAN

NAME	DATE
TRAFFIC	
FIRE	

APPROVED BY: _____ DATE: _____

PROJECT ID # 900-9005

PHASE ONE: RENOVATIONS AND ADDITIONS TO:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina 28403

ARCHITECTS
BOWMAN MURRAY HEMMINGWAY
111 Market Street
Wilmington, NC 28401
Tel: (910) 763-2621
Fax: (910) 763-8806

CLH DESIGN PA
100 N. 21st St.
Wilmington, NC 28401
Tel: (910) 763-9900
Fax: (910) 763-9900

PHASE ONE CONSTRUCTION DOCUMENTS: 4-12-2016

C7.9

SHEET NUMBER

DATE: APRIL 12, 2016

REVISIONS

CHECKED BY: JGM

DRAWN BY: JGM

JOB NUMBER: 15-120

