



Intracoastal Engineering PLLC

June 22nd, 2017

**Development Services
305 Chestnut Street
Wilmington NC, 28401**

Attn: Jeff Walton

Re: Land Rover-Jaguar
PN 2015-016

Dear Mr. Walton,

Please find enclosed (4) sets of plans revised per comments. Below are our responses to each comment.

Please review for approval and contact us with any questions, comments or additional information needed.

Traffic Comments:

TECHNICAL STANDARDS – ACCESS (driveway, sidewalk, and sight distance):

1. **Please provide signage, pavement markings and Do Not Enter signage to prevent on site exiting traffic from going out the one way entrance. [7-9 CofW Tech Stds]**
Pavement markings and a "One Way/Do Not Enter" sign are now shown.
2. **The site does not appear to have internal sidewalk adjacent to the building or handicap parking spaces. If internal sidewalk is present, please show dimensions for the existing and proposed sidewalks. *We have added dimension for internal sidewalks as well as a detail.***
3. **Provide a sidewalk connection between the site and the public sidewalk.**
A pedestrian connection is shown from the R/W to the building.

TECHNICAL STANDARDS – PARKING:

6. **Please label the radius on the landscape islands. [Chapter VII, Detail SD 15-13 CofWTSSM]**
We have labeled the landscape island radii.

7. Please ensure the two parking space at the northeastern portion of the building can back out without striking the building corner. *While we acknowledge that this area of the site is tight, we feel there is enough room for vehicles to maneuver and given the site constraints, we do not see a viable way to increase space in that area.*

TECHNICAL STANDARDS – PARKING:

1. The ADA path is required to go from the ADA parking spaces to the building. The Handicap Accessible Path from the Handicap Accessible Parking Spaces appears to end at the Service Entry doors, which is typically not a regular customer entrance. *The service entry bay is a customer entrance and has direct access to the Showroom. This is the most practical path for someone to take. The alternative would be an unnecessarily long path all the way around the building to the front. We feel the H.C. parking location and walking path is the most reasonable location to provide access to both the service area as well as the Showroom.*
2. Please clarify where the ADA Accessible Path enters the building/show room. *The service entry bay is a customer entrance and has direct access to the Showroom.*

Arborist comments:

- Crepemyrtle is not a large shade tree. Please choose an appropriate large-maturing shade tree. *We have replaced the Crepe Myrtles with Live Oaks.*

Fire Comments:

I have yet to see Chief Sammy Flowers (my predecessor) comments for version 1 addressed on the plans "..... If the new construction is all classified as a repair garage, it will be a Group S-1 Storage occupancy. Being an S-1 over 12,000 square feet, fire sprinkler protection is required.

However, if the intent is to separate the interior space to reduce the square footage of the repair garage to less than 12,000 sf, there will not be a fire sprinkler requirement."

The building will not be sprinkled. Per the Architect, the building Type is 2B and is classified as "non-separated mixed use."

If the building will not be separated or compartmentalized by the appropriate fire rated separation and an automatic sprinkler system will be used then the following comments need to be addressed or added to the plans:

- Hydrant must be within 150' of the FDC. **

- The FDC must be within 40' of fire apparatus placement. **
- Show all FDC locations on final plan.
- FDC must be on the front of the building unless otherwise approved.
- Landscaping or parking cannot block or impede the Fire Hydrants or FDC. A 3-foot clear space shall be maintained around the circumference of the hydrant and FDC. **
- Hydrant must be within 300' of the buildings. (Commercial)
- Water flow analysis will be required to determine the correct water main size to meet sprinkler system demand and fire-flow requirements.
- Contractor shall maintain an all weather access for emergency vehicles at all times during construction. **
- Type of Construction of Building according to the International Building Code must be present on the plans.
- In addition to the standard comments, additional fire protection and accessibility requirements may be required due to any special circumstances concerning the project. **
- Private Underground Fire Lines require a separate underground fire line permit from the Wilmington Fire and Life Safety Division 910-343-0696 **
- All isolation valves within the "Hot Box" shall be electrically supervised. Please work closely with your fire sprinkler and alarm installer in regards to running wire for tamper switch. **

****comments must be present on the plans**

If no sprinkler system will be used and the building is compartmentalized, then only the following apply:

- Landscaping or parking cannot block or impede the Fire Hydrants or FDC. A 3-foot clear space shall be maintained around the circumference of the hydrant and FDC. **

- Contractor shall maintain an all weather access for emergency vehicles at all times during construction. **

- Type of Construction of Building according to the International Building Code must be present on the plans.

****comments must be on the plans**

We have added applicable fire / safety notes to the plan.

Site Plan Comments:

- **Sec. 18-60 (c) (15): Show a proposed landscape plan.**
 - **Dimension landscape islands, several do not meet the minimum required.**
 - **Can you just label them in tags on the landscape plan? I need to confirm all sizes and I can't do that with the way it's drawn currently.**

Landscape island dimensions are now shown on the landscape plan.

- **Landscape islands are independent of streetyard. Please show streetyard compliance once the landscape islands are removed from the calculations**

We have revised the plan to meet both streetyard and parking lot interior landscaping requirements.

Landscape Plan to Include:

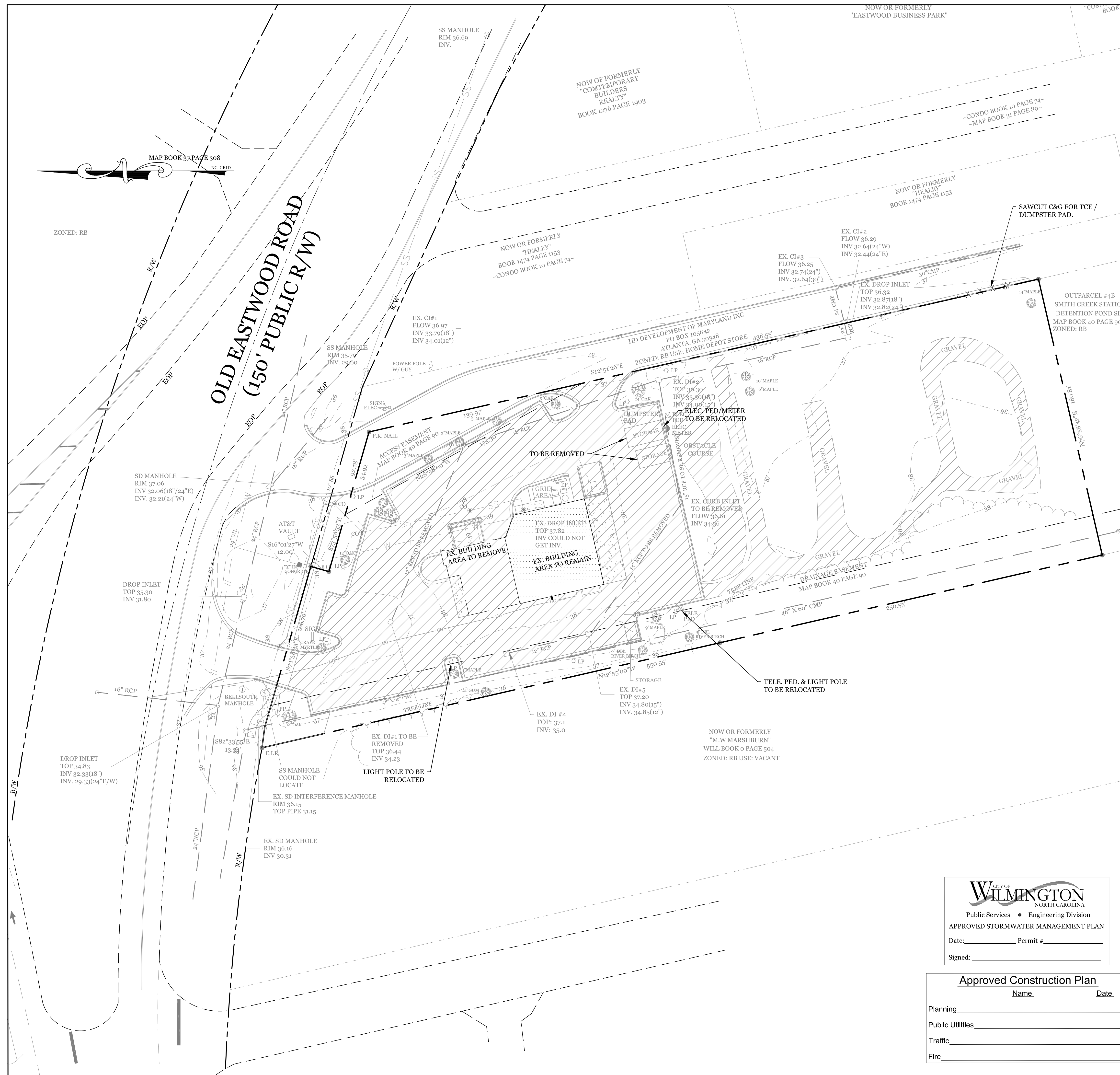
- **Since parking faces a right-of-way a low buffer of shrubs at least 3 foot tall is required. Please add to the landscape plans.**
 - **I need the type shrub being used and show height in planting list.**

We have included the type of shrub to be used to supplement the existing shrubs to meet this requirement.

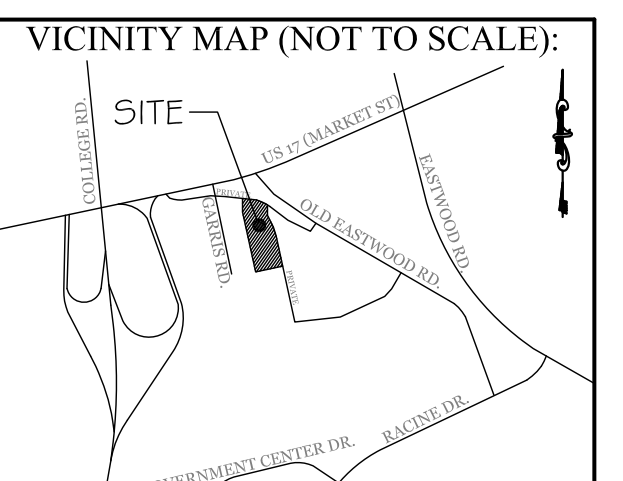
Sincerely,
Intracoastal Engineering PLLC



Adam Ellis



SITE DATA	
PARCEL ID:	R05009-006-006-000
ZONING:	R-B-REGIONAL BUSINESS
CAMA LAND USE CLASSIFICATION:	URBAN
PROJECT ADDRESS:	20 OLD EASTWOOD RD. WILMINGTON, NC 28403
CURRENT OWNERS:	CLOS PROPERTIES LLC 1 CHESTERFIELD COURT GREENSBORO, NC 27410
TOTAL ACREAGE IN PROJECT BOUNDARY:	89,908 S.F. (2.06 AC.)
TOTAL ONSITE IMPERVIOUS BEFORE DEVELOPMENT:	
BUILDING	4,606 S.F.
GRAVEL	7,765 S.F.
OBSTACLE COURSE	2,885 S.F.
DRIVES/PARKING	28,358 S.F.
SIDEWALK/GRILL AREA	770 S.F.
TOTAL	44,384 S.F. ÷ 89,908 S.F. = 49.4%
EXISTING ONSITE IMPERVIOUS TO BE REMOVED:	
BUILDING	1,581 S.F.
GRAVEL	7,765 S.F.
OBSTACLE COURSE	2,885 S.F.
DRIVES/PARKING	28,173 S.F.
TOTAL	40,404 S.F.
TOTAL EXISTING ONSITE IMPERVIOUS TO BE REMAIN:	3,980 S.F.
TOTAL OFFSITE IMPERVIOUS BEFORE DEVELOPMENT:	
SIDEWALK	410 S.F.
TOTAL	410 S.F.



REVISIONS	
REV: 5-5-17 PER COW ZONING AND STORMWATER COMMENTS	
REV: 6-15-17 ADDED CURB CUT FOR REVISED DUMPSTER / T.C.E. LOCATION	

INTRACOASTAL ENGINEERING, PLLC
 5725 Oleander Dr. Unit E-7
 Wilmington, North Carolina 28403
 Phone: 910.859.8983
 Email: Charlie@intracoastalengineering.com
 License Number P-0662

EXISTING CONDITIONS /
 DEMOLITION PLAN
 FOR
**LAND ROVER
 -JAGUAR**
 20 OLD EASTWOOD RD.
 WILMINGTON, NORTH CAROLINA

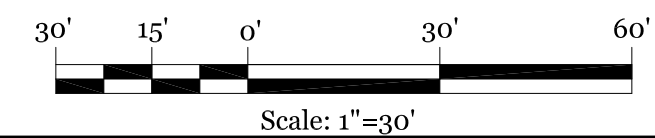
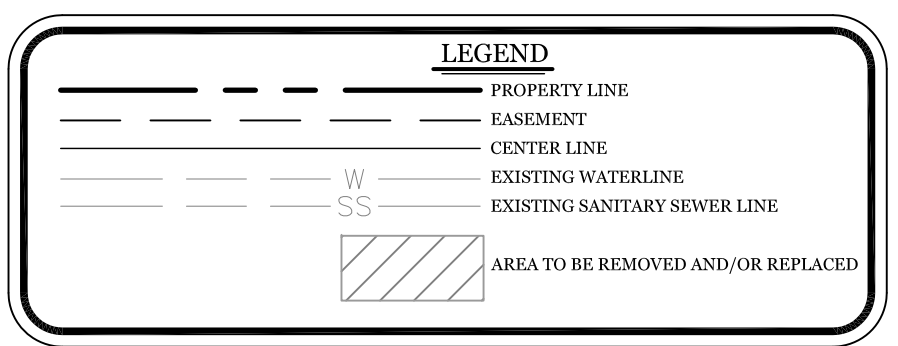
CLIENT INFORMATION:
 CLOS PROPERTIES, LLC
 A.J. ALIAH
 20 EASTWOOD ROAD
 WILMINGTON, NC 28403
 (910) 332-3500

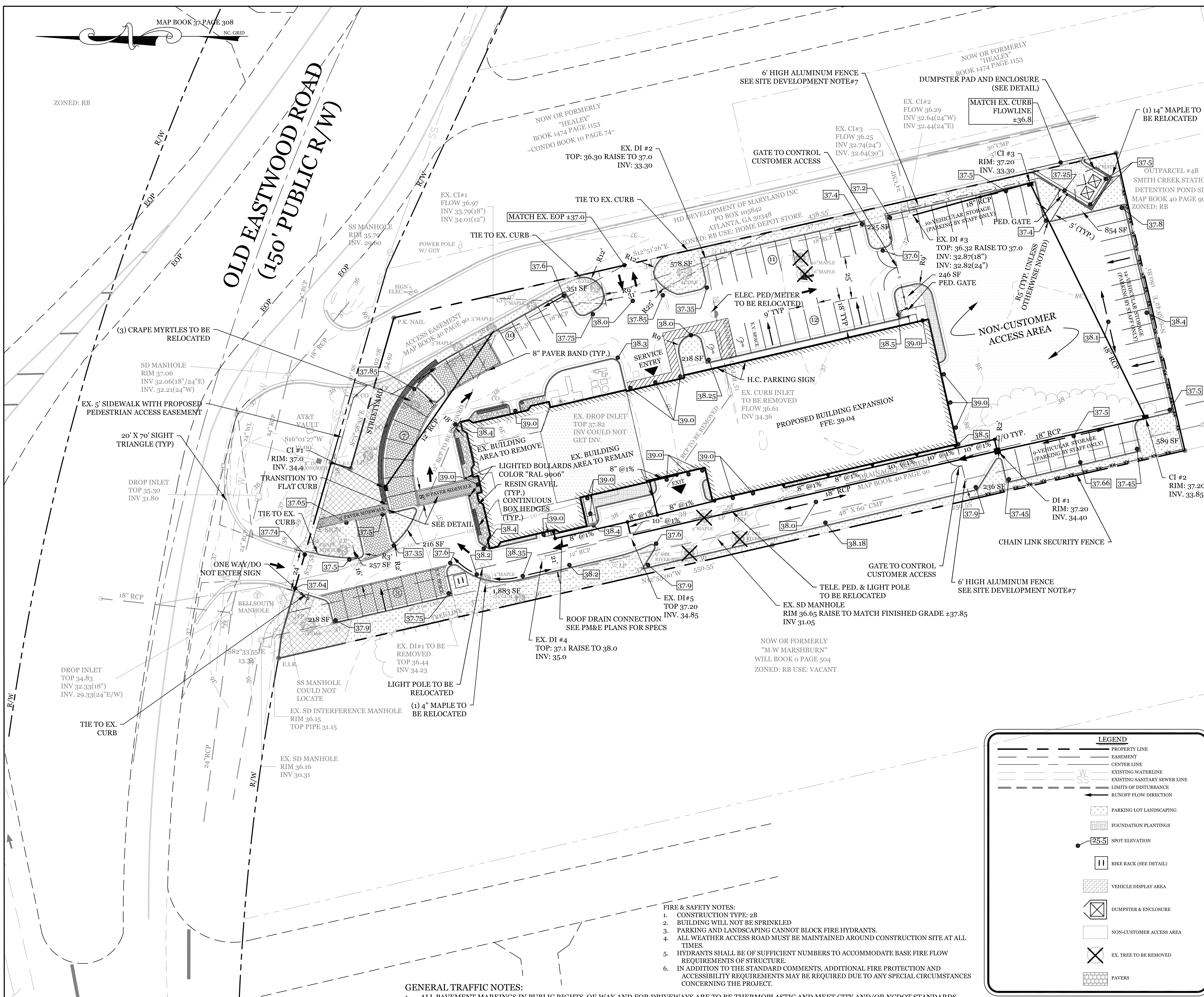
DRAWN:	JAE	SHEET SIZE:	24 X 36
CHECKED:	CDC	DATE:	3/21/2017
APPROVED:	CDC	SCALE:	1" = 30'
PROJECT NUMBER:	2015-016		

DRAWING NUMBER:
C-0 1 OF 5

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

Approved Construction Plan	
Name	Date
Planning	_____
Public Utilities	_____
Traffic	_____
Fire	_____





SITE DATA
 PARCEL ID: R05009-006-006-000
 ZONING: R-B-REGIONAL BUSINESS
 CAMA LAND USE CLASSIFICATION: URBAN
 PROJECT ADDRESS: 20 OLD EASTWOOD RD. WILMINGTON, NC 28403
 CURRENT OWNERS: CLOS PROPERTIES LLC 1 CHESTERFIELD COURT GREENSBORO, NC 27410

TOTAL ACRES IN PROJECT BOUNDARY: 89,908 S.F. (2.06 AC.)
 TOTAL BUILDING SIZE IN SQUARE FEET: 19,734 S.F. TOTAL
 BUILDING HEIGHT: 22'
 BUILDING SETBACKS:
 FRONT: REQUIRED= 25' PROPOSED= 55'
 SIDE: REQUIRED= 0' PROPOSED= 34'
 REAR: REQUIRED= 15' PROPOSED= 130'

CALCULATION FOR BUILDING COVERAGE: 19,734 S.F. + 89,908 S.F. = 21.9 %
 TOTAL ONSITE IMPERVIOUS BEFORE DEVELOPMENT

BUILDING	4,666 S.F.
GRAVEL	7,765 S.F.
OBSTACLE COURSE	2,885 S.F.
DRIVES/PARKING	28,358 S.F.
SIDEWALK/GRILL AREA	770 S.F.
TOTAL	44,384 S.F. + 89,908 S.F. = 49.4%

* ALL EXISTING IMPERVIOUS AREA TO BE REMOVED EXCEPT WHAT IS LISTED BELOW

AFTER DEVELOPMENT BUILDINGS 19,734 S.F. (*3,025 S.F. EXISTING)
 DRIVES/PARKING 52,926 S.F. (*185 S.F. EXISTING)
 SIDEWALK/GRILL AREA 922 S.F. (*770 S.F. EXISTING)
 FUTURE TOTAL 80,760 S.F. + 89,908 S.F. = 89.8%

TOTAL OFFSITE IMPERVIOUS BEFORE AND AFTER DEVELOPMENT:
 SIDEWALK 410 S.F.
 TOTAL 410 S.F.

PARKING REQUIRED: (AUTOMOBILE DEALER 1 PER 500 S.F. G.F.A.)
 19,734 S.F./500 S.F. = 39.47 SPACES MIN

PARKING PROVIDED= 48 SPACES (2 H.C.)
 BICYCLE PARKING REQUIRED (5 per 100 CAR SPACES)
 48 / 100 * 5 = 2.4 BIKE SPACES

BICYCLE PARKING PROVIDED: 5 SPACES

PARKING LOT INTERIOR LANDSCAPING
 REQUIRED 52,926 S.F. * 8% = 4,234 S.F.
 PROVIDED 5,871 S.F.

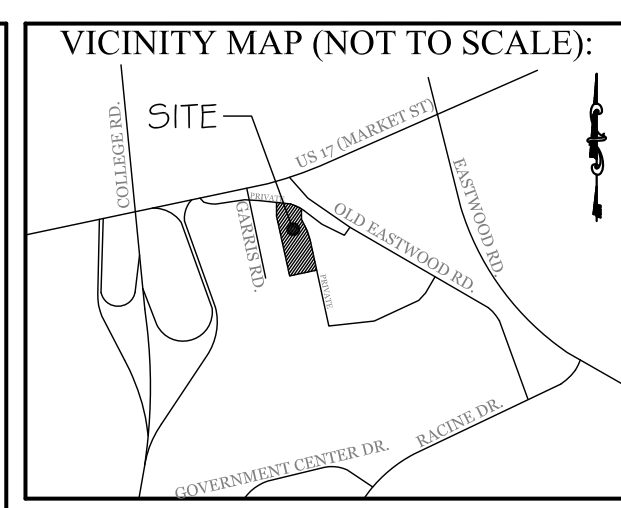
PARKING LOT INTERIOR SHADING TO BE SHOWN ON LANDSCAPE PLAN

STREETYARD: (MULTIPLIER: 25' MAX: 37.5' MIN: 12.5')
 REQUIRED: 3,000 S.F. (120' X 25')
 PROVIDED: 3,065 S.F.

FOUNDATION PLANTINGS:
 NORTH FACE REQUIRED: 203 SF (1,694 SF X 12%)
 PROVIDED: 395 SF
 SOUTH FACE REQUIRED: 20 SF (1,672 SF X 12%)
 PROVIDED: 234 SF
 EAST FACE REQUIRED: 747 SF (6,226 SF X 12%)
 PROVIDED: 757 SF
 WEST FACE REQUIRED: 0 SF (REAR OF BLD W/O PARKING)
 PROVIDED: 400 SF

DEVELOPMENT NOTES:
 1. ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON ZONING ORDINANCE.
 2. PROJECT SHALL COMPLY WITH ALL FEDERAL, STATE & CITY OF WILMINGTON REGULATIONS.
 3. NO WETLANDS EXIST ON SITE.
 4. PROPERTY IS LOCATED IN ZONE "X" ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP, 3720314800J COMMUNITY-PANEL NUMBER 3148, DATED 04/03/06
 5. PAVEMENT MATERIAL TO BE REVIEWED AND APPROVED BY JAGUAR LAND ROVER PRIOR TO PURCHASE.
 6. SITE LIGHTING TO BE DESIGNED BY OTHERS AND APPROVED BY JAGUAR LAND ROVER AS WELL AS THE CITY OF WILMINGTON.
 7. CLASSIC MAJESTIC 3-RAIL ALUMINUM FENCE BY AMERISTAR FENCING PRODUCTS 1-888-333-3422, OR ENGINEER APPROVED EQUIVALENT. SHOP DRAWINGS REQUIRED FOR ALL MATERIALS, CONNECTIONS HARDWARE, LAYOUT, ETC. FENCE TO BE SMOOTH & PAINTED COLOR "RAL 7022"

UTILITY NOTES:
 1. EXISTING WATER AND SANITARY SEWER SERVICES ARE CURRENTLY AVAILABLE TO THE SITE FROM CAPE FEAR PUBLIC UTILITY AUTHORITY PUBLIC MAINS.
 2. ALL UTILITY SERVICES, SUCH AS ELECTRIC POWER, CATV, GAS & TELEPHONE SHALL BE INSTALLED UNDERGROUND.
 3. ALL WATER & SEWER UTILITIES TO BE INSTALLED PER CFPWA TECHNICAL SPECIFICATIONS & STANDARDS.
 4. PROJECT SHALL COMPLY WITH CFPWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND N.C.D.E.N.R. HAS ISSUED THEIR "FINAL APPROVAL". CALL 343-3910 FOR INFORMATION.
 5. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCPCCHR OR ASSE.
 6. WATER & SEWER SERVICES CAN NOT BE ACTIVATED ON NEW MAINS UNTIL THE ENGINEER'S CERTIFICATION AND AS-BUILTS ARE RECEIVED AND "FINAL APPROVAL" ISSUED BY THE PUBLIC WATER SUPPLY SECTION OF NCDENR, AND "FINAL ENGINEERING CERTIFICATION" ISSUED BY DIVISION OF WATER QUALITY SECTION OF NCDENR.
 7. IF CONTRACTOR DESIRES CFPWA WATER FOR CONSTRUCTION, HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
 8. WHEN PVC WATER MAINS AND SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED, SINGLE-STRAND COPPER WIRE INSTALLED & STRAPPED TO THE PIPES WITH DUCT TAPE. THIS IS TO BE ACCESSIBLE IN ALL VALVES AND METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
 9. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OR EXISTING UTILITIES DURING CONSTRUCTION. CALL 5-1-1-LOCA AT 1-800-692-4949. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY UTILITIES, CURB & GUTTER, PAVEMENT, ETC. THAT MAY BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE REPAIRED TO AT LEAST THE QUALITY OR WORKMANSHIP FOUND IN THE ORIGINAL ITEM.
 10. THE BELLSOUTH CONTACT IS STEVE DAVVAULT, BUILDING INDUSTRY CONSULTANT, AT 910-392-8712. CONTACT HIM PRIOR TO STARTING THE PROJECT IN ORDER TO FACILITATE GOOD COMMUNICATION AND MAXIMUM FLEXIBILITY.
 11. THE PROCESS FOR TELEPHONE CABLE PLACEMENT: * FINAL GRADE WILL NEED TO BE ESTABLISHED. * POWER WILL PLACE THEIR CABLE FIRST - APPROXIMATELY 3' DEEP. * BELLSOUTH & CABLE TV WILL THEN PLACE THEIR CABLE AT APPROXIMATELY 2' DEEP.
 12. SOLID WASTE DISPOSAL BY PRIVATE DUMPSTER SERVICE.



REVISIONS

REV: 5-5-17 PER COW ZONING AND STORMWATER COMMENTS
REV: 6-2-17 ADDED ROOF DRAIN TIE-IN TO STORMWATER SYSTEM
REV: 6-15-17 PER COW COMMENTS

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 5725 Oleander Dr. Unit E-7
 Wilmington, North Carolina 28403
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 Email: Charlie@intracoastalengineering.com
 License Number P-0662

SITE, GRADING, & DRAINAGE PLAN
 FOR
LAND ROVER -JAGUAR
 20 OLD EASTWOOD RD.
 WILMINGTON, NORTH CAROLINA

CLIENT INFORMATION:
 CLOS PROPERTIES, LLC
 A.J. ALIAH
 20 EASTWOOD ROAD
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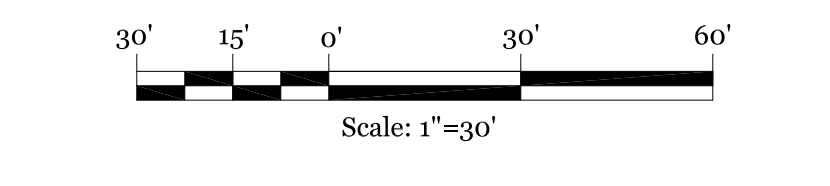
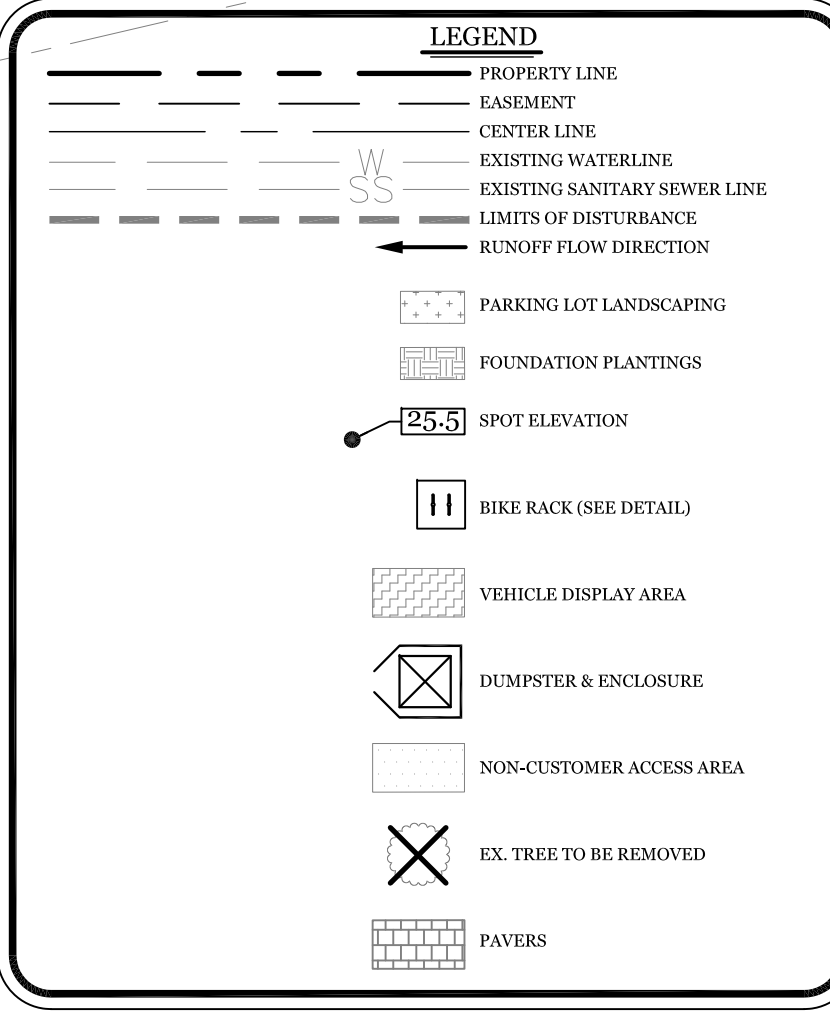
DRAWN: JAE SHEET SIZE: 24 X 36
 CHECKED: CDC DATE: 3/21/2017
 APPROVED: CDC SCALE: 1" = 30'
 PROJECT NUMBER: 2015-016

DRAWING NUMBER: **C-1** 2 OF 5

STORM DRAIN PIPE LENGTH/SLOPE

PIPE	LENGTH	SLOPE
CI#1 TO EX. CI#1	113 FT	0.35%
EX. DI#5 TO DI#1	220 FT	0.20%
DI#1 TO CI#2	89 FT	0.62%
CI#2 TO CI#3	150 FT	0.37%
CI#3 TO EX. DI#3	95 FT	0.45%

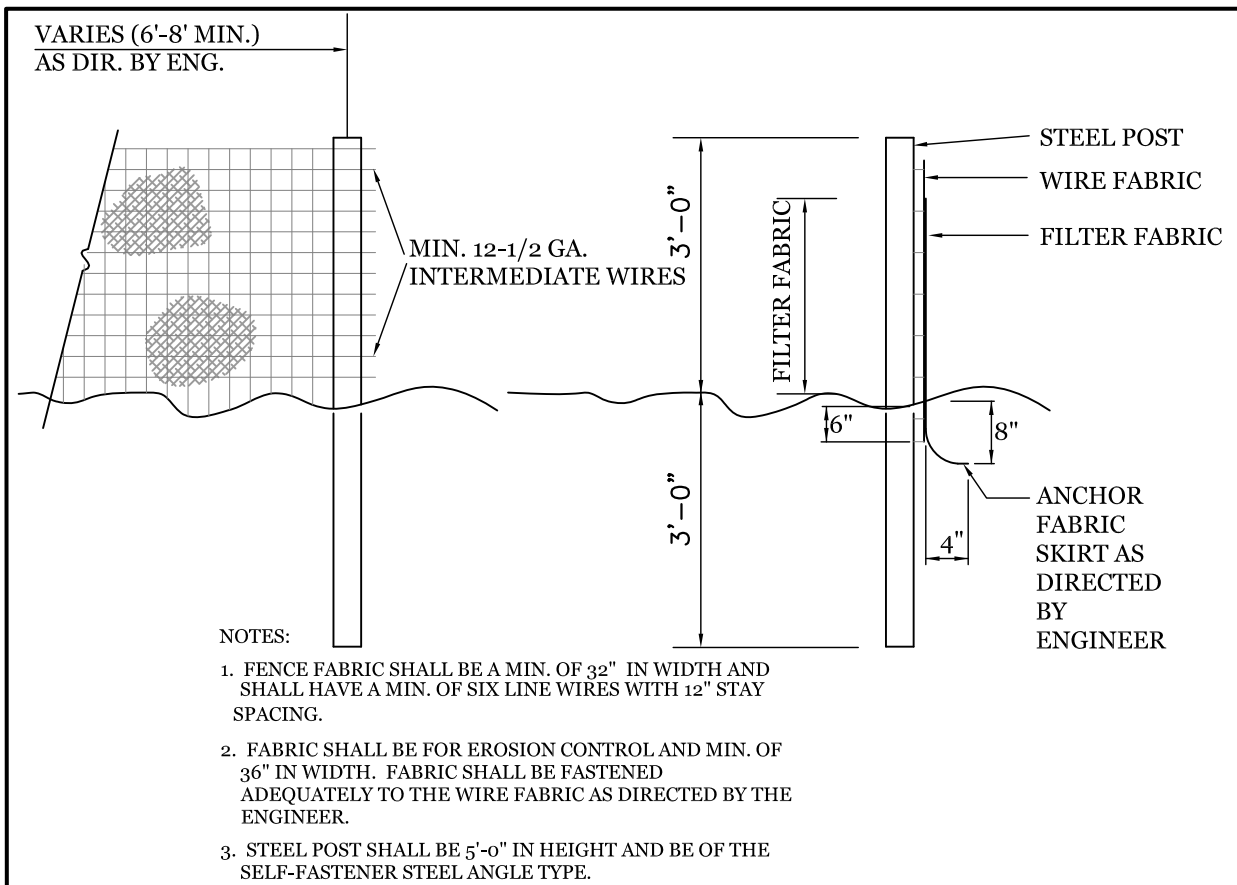
- FIRE & SAFETY NOTES:**
- CONSTRUCTION TYPE: 2B
 - BUILDING WILL NOT BE SPRINKLED
 - PARKING AND LANDSCAPING CANNOT BLOCK FIRE HYDRANTS.
 - ALL WEATHER ACCESS ROAD MUST BE MAINTAINED AROUND CONSTRUCTION SITE AT ALL TIMES.
 - HYDRANTS SHALL BE OF SUFFICIENT NUMBERS TO ACCOMMODATE BASE FIRE FLOW REQUIREMENTS OF STRUCTURE.
 - IN ADDITION TO THE STANDARD COMMENTS, ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- GENERAL TRAFFIC NOTES:**
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS. [DETAIL SD-13 COFW TECH STDS]
 - ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS. [DETAIL SD 15-13 COFW TECH STDS]
 - A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. NOTE THIS ON THE PLAN AND CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
 - ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
 - A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT. [SD 15-14 COFW TECH STDS]
 - CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
 - ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' TO 10'.
 - ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
 - ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
 - CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
 - A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT. [SD 15-14 COFW TECH STDS]



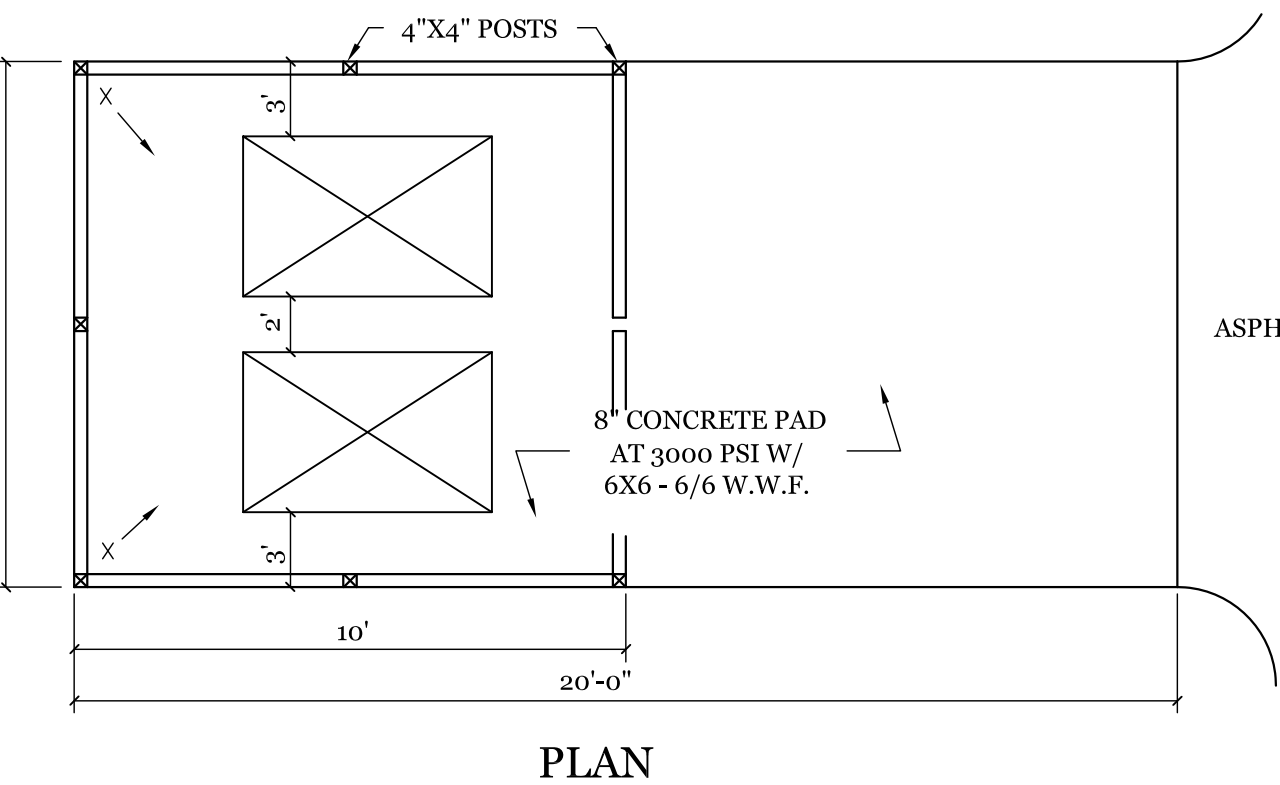
CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____

Approved Construction Plan

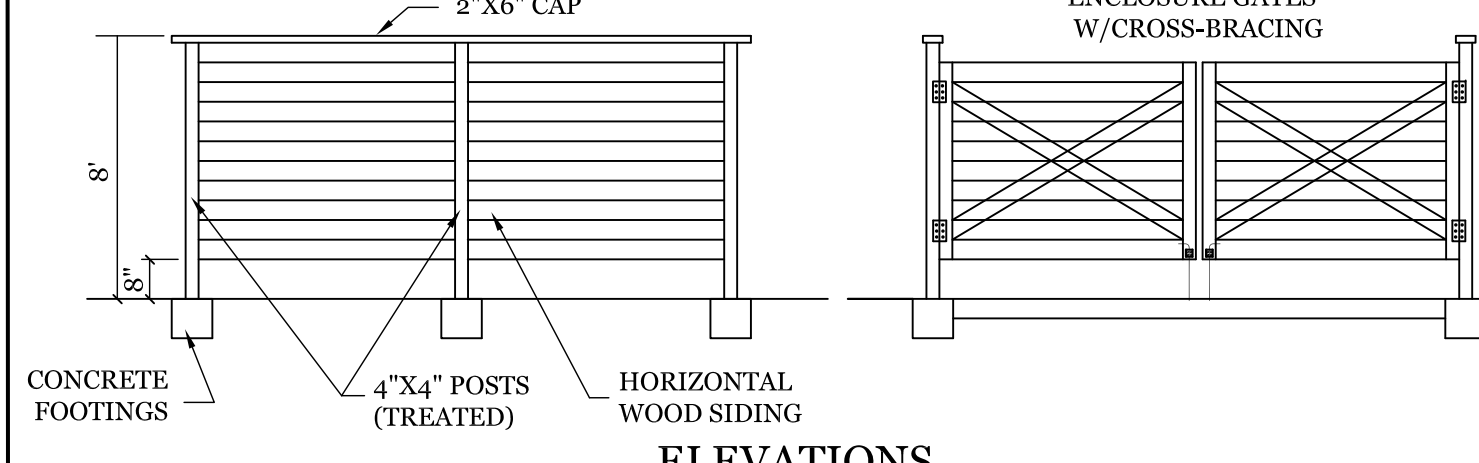
Name	Date
Planning	
Public Utilities	
Traffic	
Fire	



TEMPORARY SILT FENCE
NTS

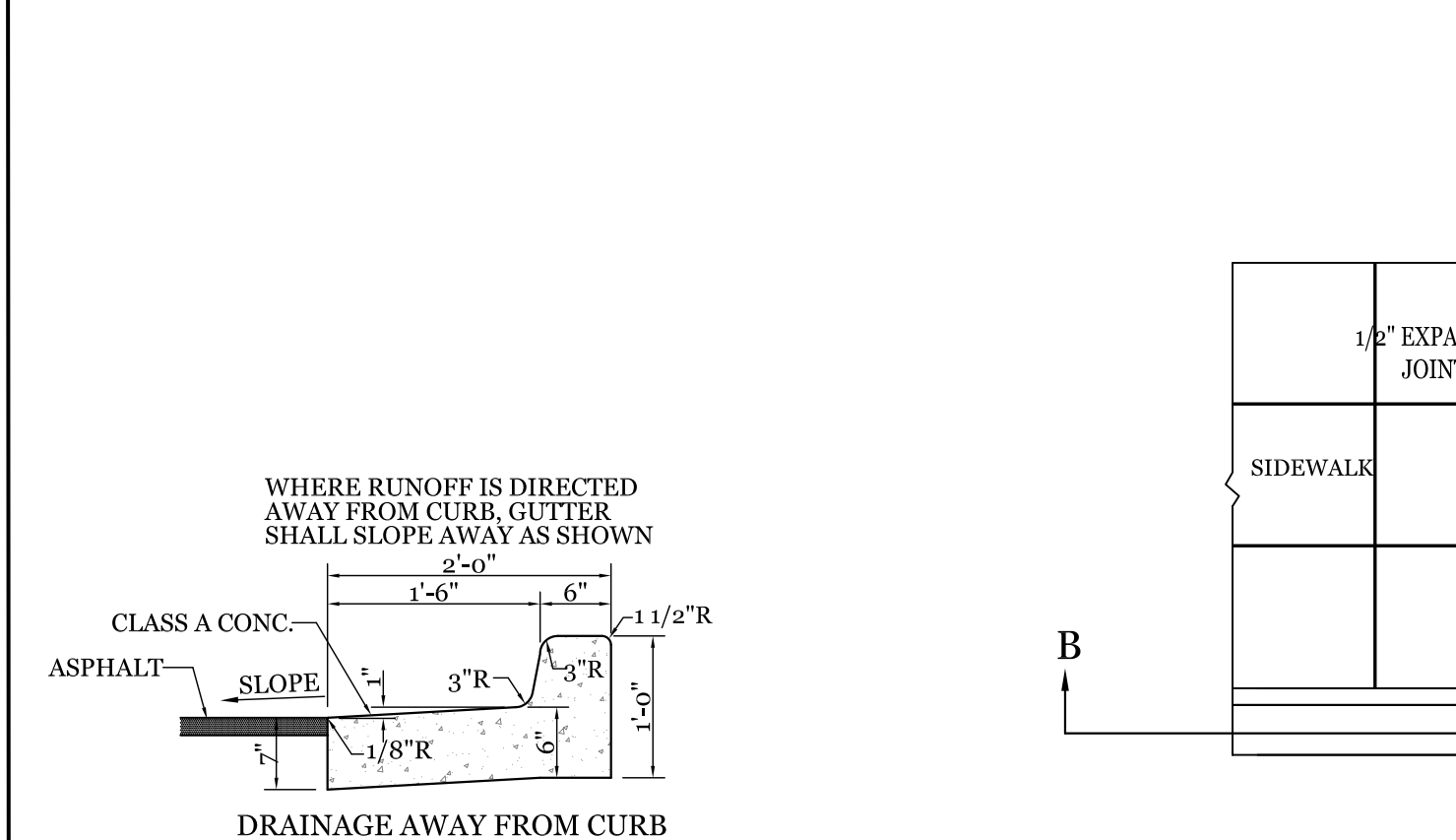


PLAN



ELEVATIONS

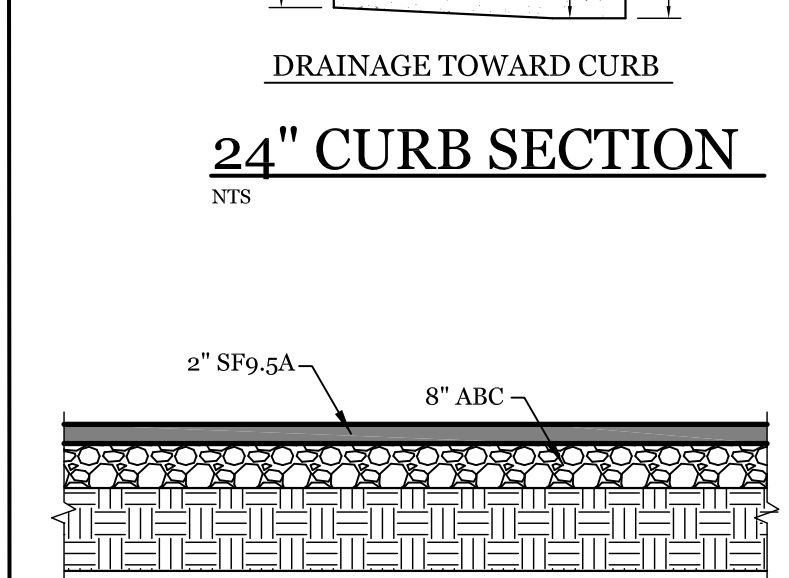
DUMPSTER PAD & ENCLOSURE DETAIL
NTS



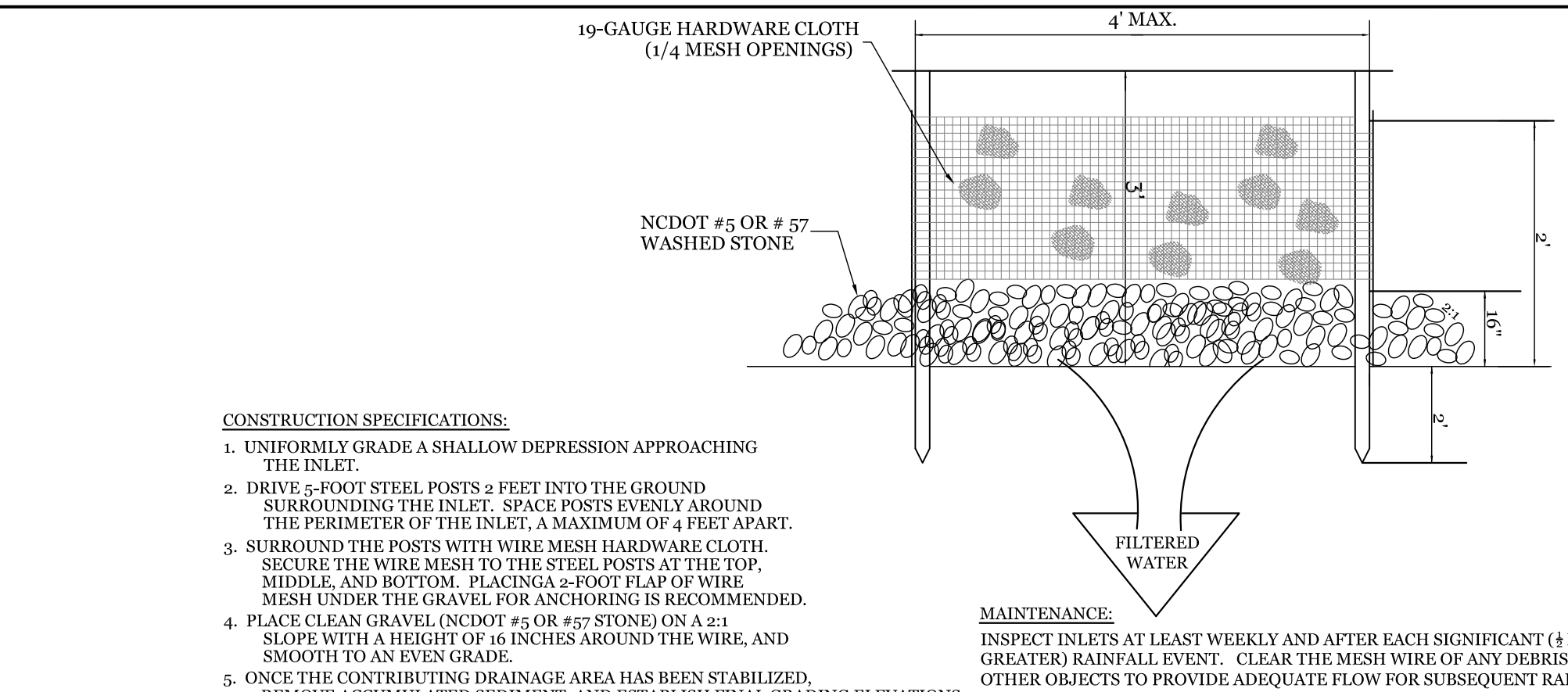
DRAINAGE AWAY FROM CURB

DRAINAGE TOWARD CURB

24" CURB SECTION
NTS



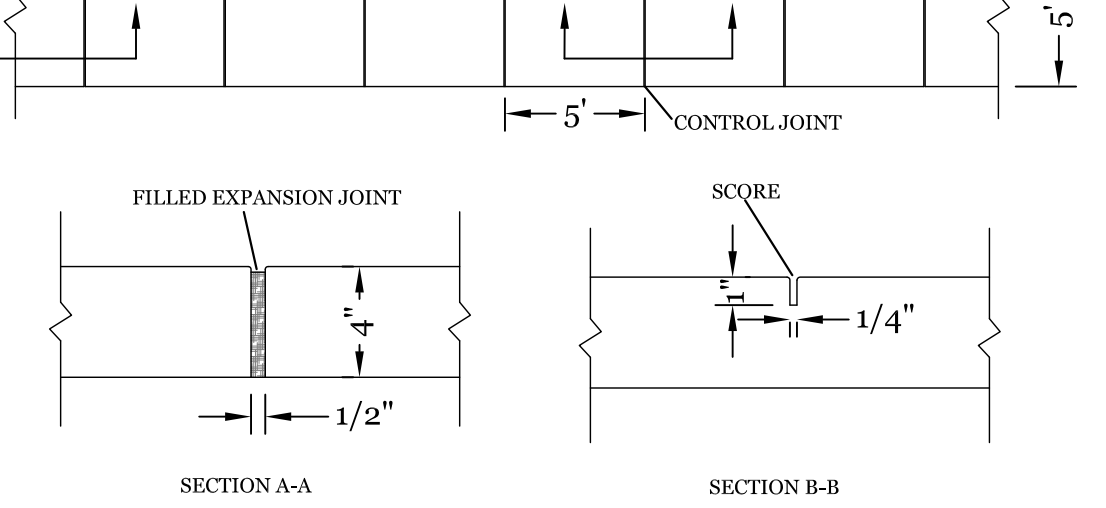
PAVEMENT SECTION
NTS



CONSTRUCTION SPECIFICATIONS:

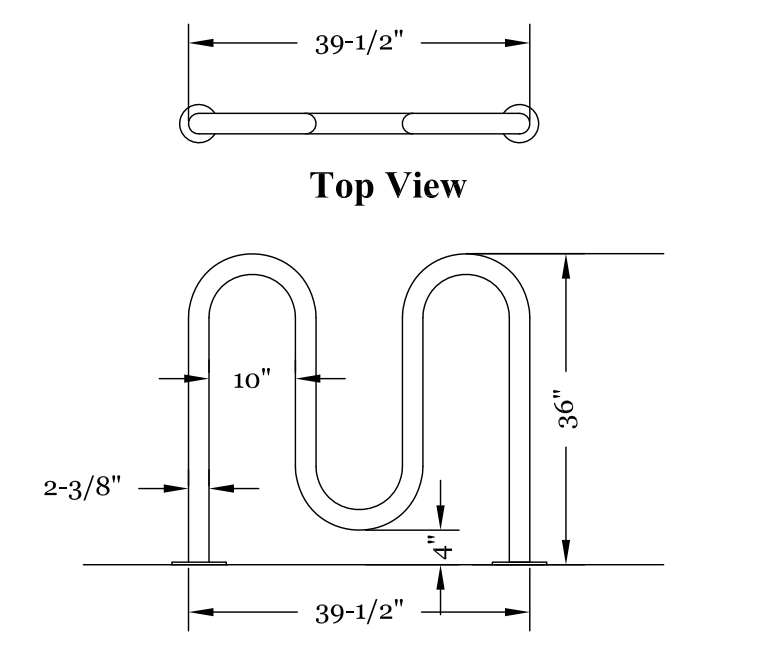
1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
3. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE AND BOTTOM. PLACING A 2-FOOT FLAP OF WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NCDOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUND COVER.

HARDWARE CLOTH AND GRAVEL INLET PROTECTION
NTS



SECTION A-A

SECTION B-B



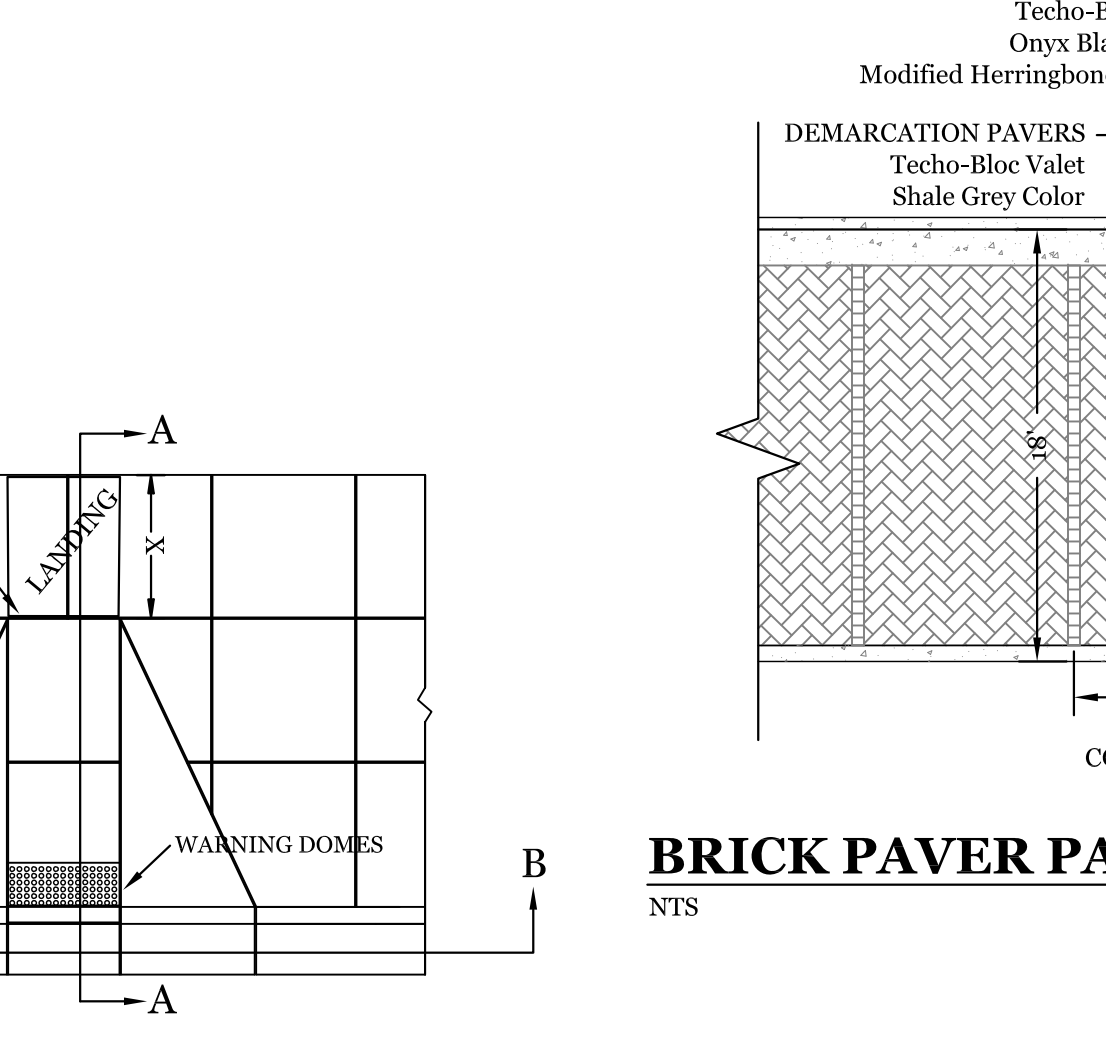
Top View

Side View

WAVE STYLE BIKE RACK DETAIL
5 BIKE RACK
NTS

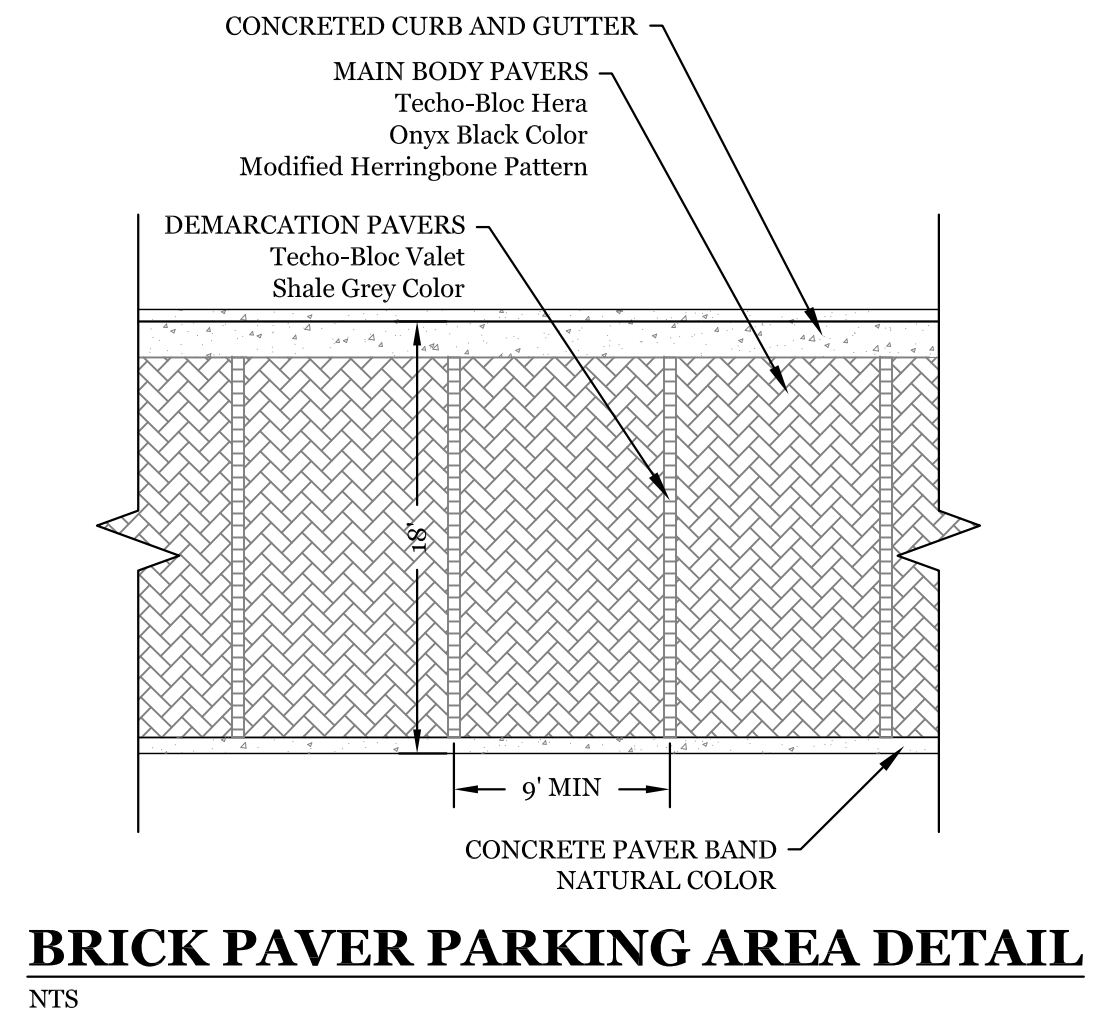
- NOTES:
1. TO BE PAINTED COLOR "RAL 9006"

SIDEWALK DETAIL
NTS

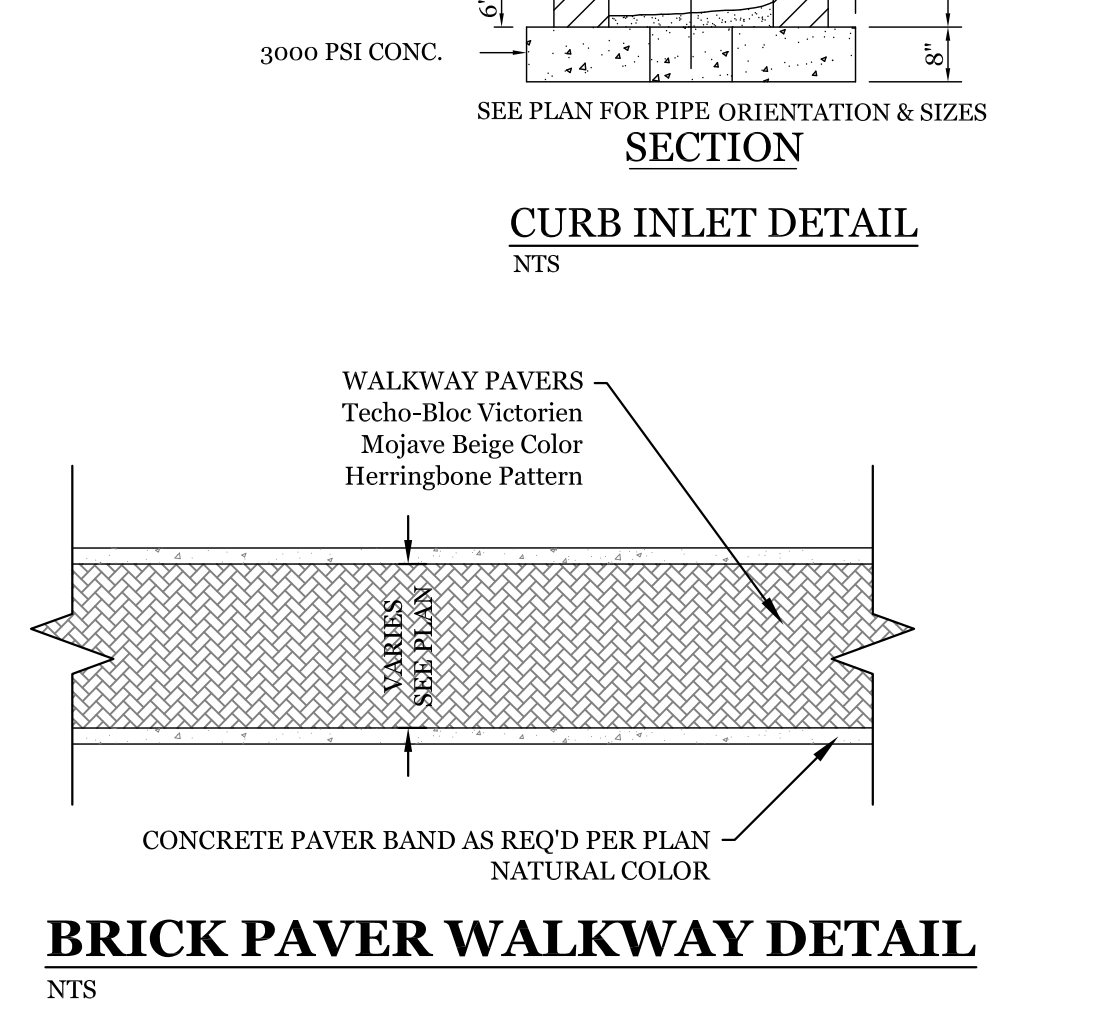


SECTION A-A

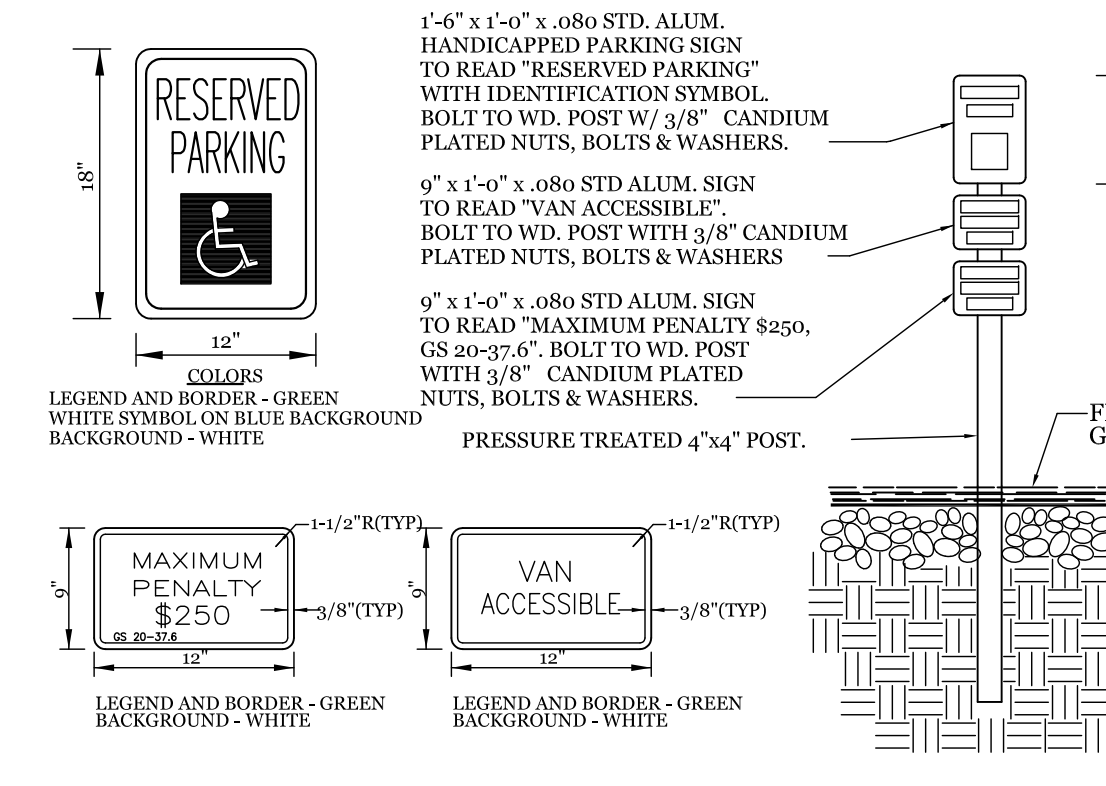
SECTION B-B



BRICK PAVER PARKING AREA DETAIL
NTS



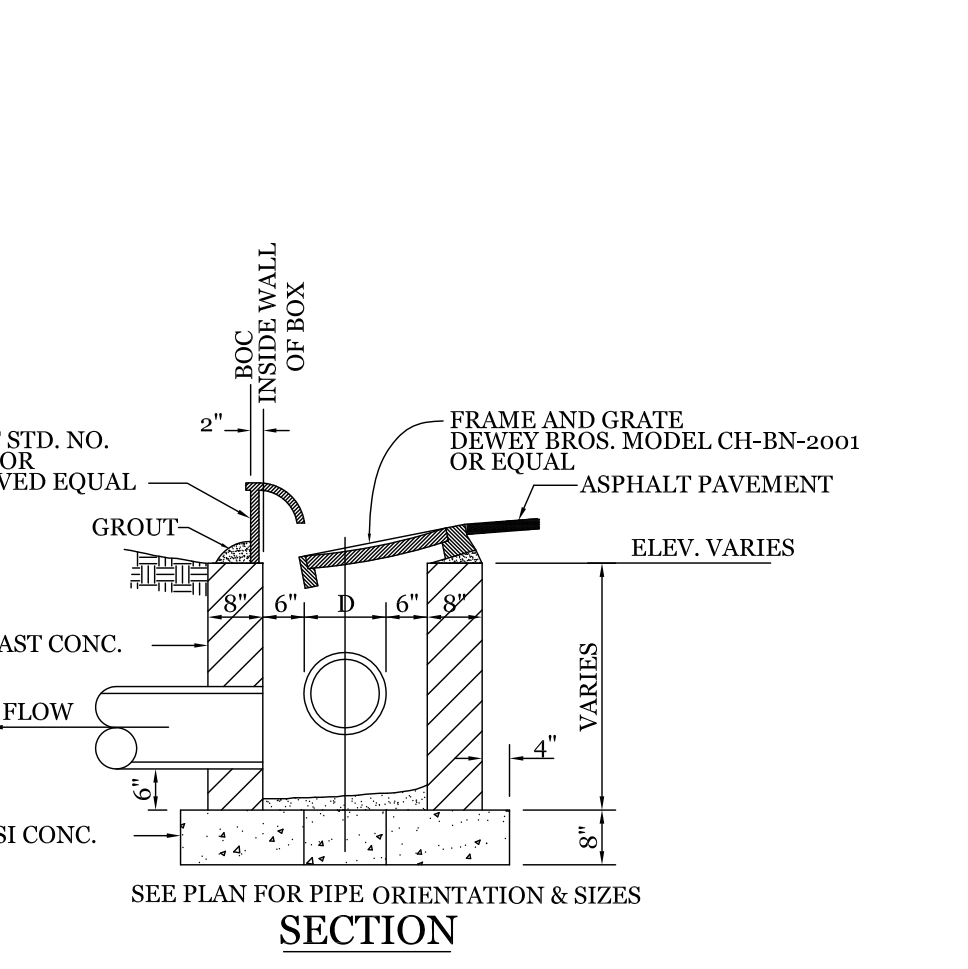
BRICK PAVER WALKWAY DETAIL
NTS



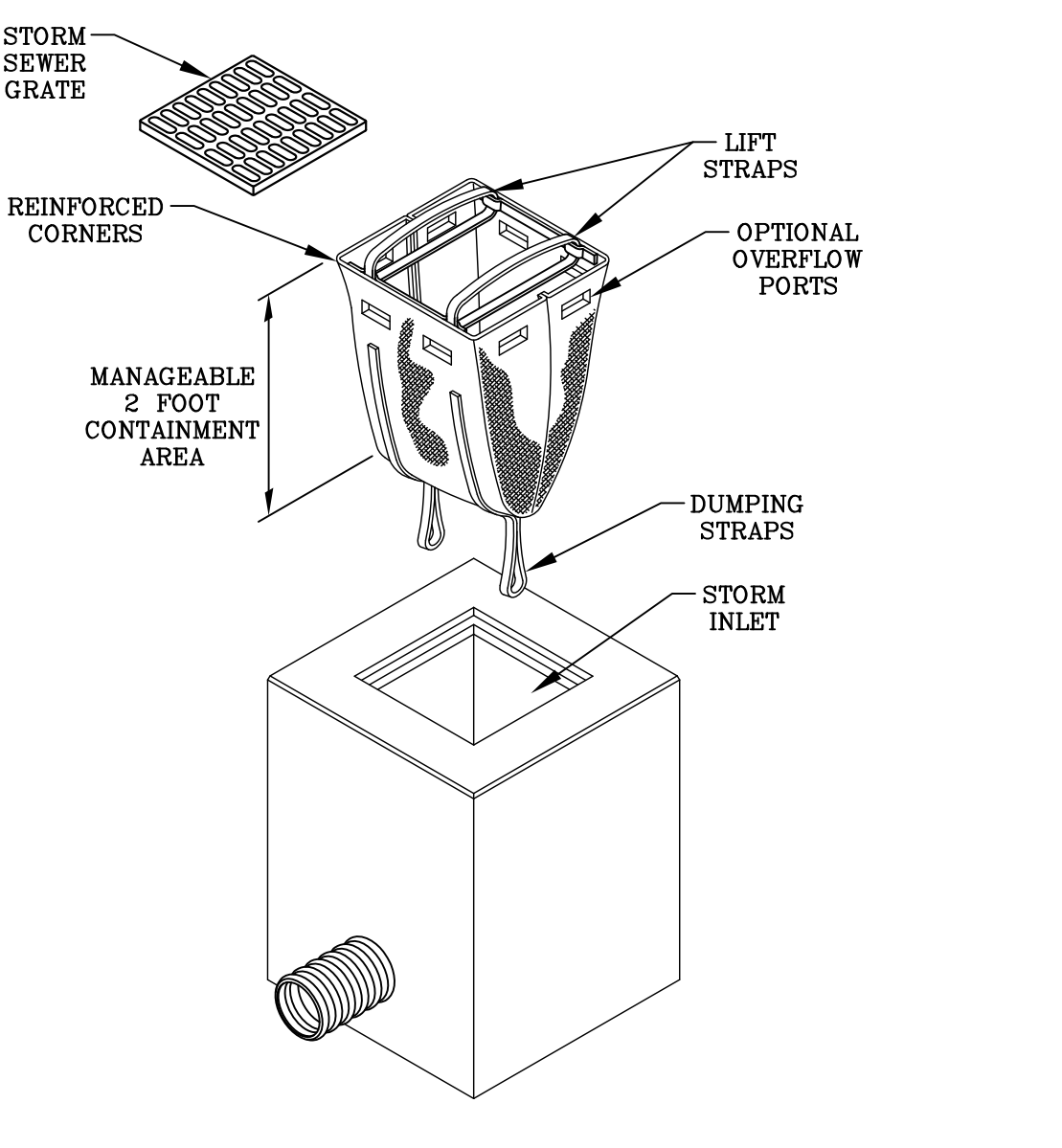
TYPICAL HANDICAPPED SIGN DETAIL
NTS

SITE WORK NOTES:

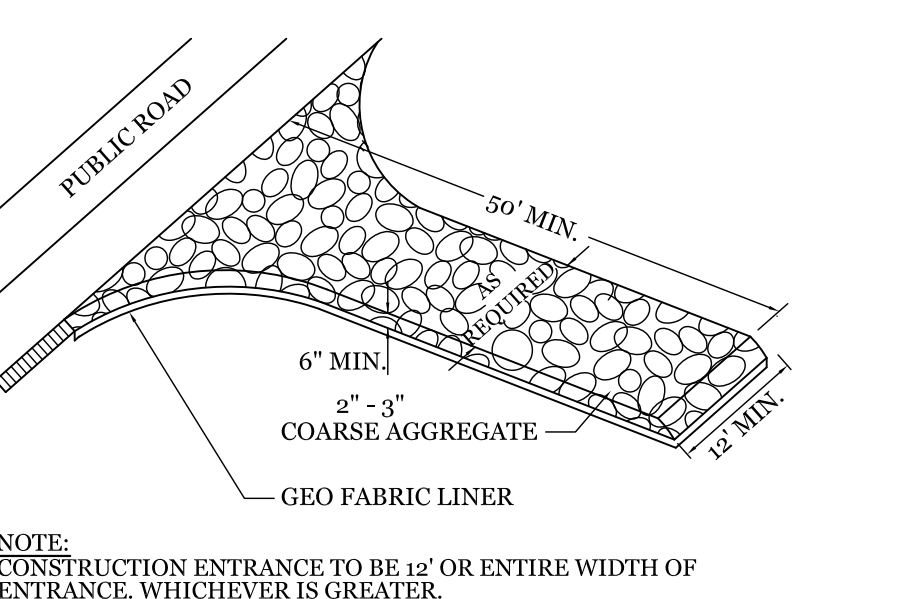
1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS BOTH ON AND ADJACENT TO THE SITE.
2. CLEARING: CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN LIMITS OF CONSTRUCTION UNLESS OTHERWISE DESIGNATED TO REMAIN. GRUBBING AND STRIPPING: CONTRACTOR SHALL RAKE AND REMOVE ROOTS, STUMPS, VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITHIN LIMITS OF CONSTRUCTION.
3. MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.
4. DISPOSAL: CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
5. FILL AND COMPACTION SHOULD COMPLY WITH GEOTECHNICAL RECOMMENDATIONS.
6. THE CONTRACTOR SHALL NOTE THAT THE GRADING PLAN MAY NOT REPRESENT A BALANCED EARTHWORK CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT AND FILL QUANTITIES AND COMPLETE INSTALLATION TO SPECIFIED GRADES.
7. THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM AN OFF-SITE PROPERLY PERMITTED FACILITY AS REQUIRED.
8. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT ELEVATIONS AND LOCATIONS OF ALL EXISTING UTILITIES AT ALL CROSSINGS PRIOR TO COMMENCING TRENCH EXCAVATION. IF ACTUAL CLEARANCES ARE LESS THAN INDICATED ON PLAN, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. ANY CONDITION DISCOVERED OR EXISTING THAT WOULD NECESSITATE A MODIFICATION OF THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
9. NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NO ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. BEFORE COMMENCING ANY EXCAVATIONS IN OR ALONG ROADWAYS OR RIGHT-OF-WAYS, PUBLIC AREAS OR IN PRIVATE EASEMENTS, THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE PERSONNEL OF THEIR INTENT TO EXCAVATE, IN WRITING, NOT LESS THAN 10 DAYS PRIOR TO EXCAVATING.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE DISCONNECTION/ RECONNECTION AND/OR THE RELOCATION OF ALL EXISTING UTILITIES WITH APPROPRIATE PERSONNEL.
12. CONTRACTOR SHALL ADJUST ALL MANHOLES, VALVE & CURB BOXES TO FINAL GRADE UPON COMPLETION OF ALL CONSTRUCTION. ANY BOXES DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
13. EXISTING SURVEYING PERFORMED BY MICHAEL UNDERWOOD AND ASSOCIATES, PA
14. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE. FURTHERMORE THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES OR QUESTIONS TO THE ENGINEER PRIOR TO INSTALLATION.
15. THE CONTRACTOR SHALL PROVIDE ANY AND ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK UNLESS OTHERWISE DIRECTED BY OWNER.
16. ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO MEET ALL LOCAL, STATE, AND CPPUA CODES. METERS, TAPS, MATERIALS, WORKMANSHIP AND ALL FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL REQUIREMENTS.
17. ALL BACKFILL FROM UTILITY INSTALLATION MUST BE COMPACTED OR AMENDED TO PROVIDE TRAFFIC BEARING CAPACITY. GEOTECHNICAL ENGINEER TO BE CONSULTED AT CONTRACTORS COST AS NECESSARY.
18. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO INSTALLATION. ALL AREAS SHALL BE SLOPED TO DRAIN AWAY FROM BUILDINGS AT ALL TIMES.
19. CONCRETE FOR WALKS, CURBS AND DRIVES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS - AIR ENTRAINED.
20. FIELD TESTING SHALL BE DONE BY AN INDEPENDENT TESTING LABORATORY PAID FOR BY THE OWNER. FURTHER TESTING REQUIRED DUE TO A FAILED TEST WILL BE PAID FOR BY THE CONTRACTOR.
21. ALL SIDEWALKS SHALL BE FREE OF CRACKS, BREAKS, OR ANY OTHER DEFECT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY.



CURB INLET DETAIL
NTS

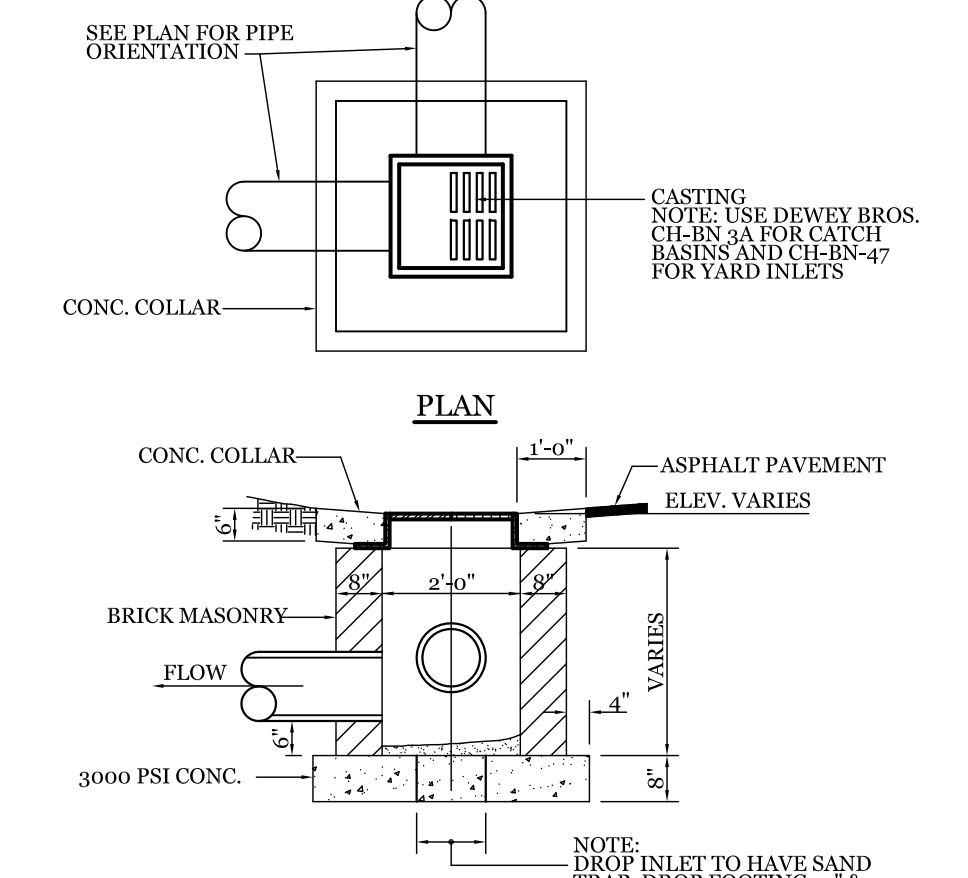


DANDY SACK™ DETAIL
NTS



TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
NTS

NOTE: CONSTRUCTION ENTRANCE TO BE 12" OR ENTIRE WIDTH OF ENTRANCE, WHICHEVER IS GREATER.

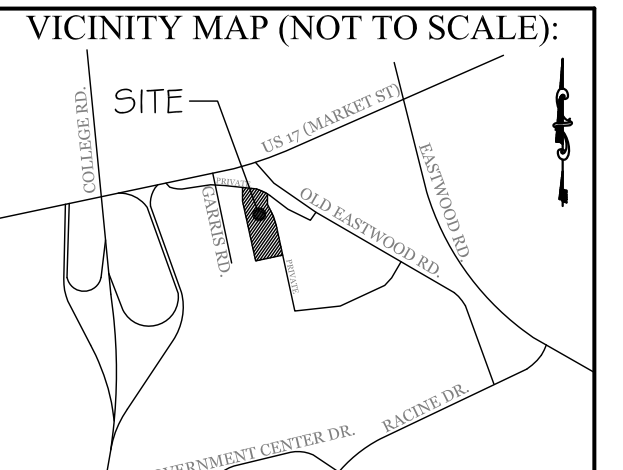


DROP INLET DETAIL
NTS

APPROVED CONSTRUCTION PLAN
NTS

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

Approved Construction Plan		Name	Date
Planning			
Public Utilities			
Traffic			
Fire			



REVISIONS

REV.	DATE	DESCRIPTION
5-5-17		PER COW STORMWATER COMMENTS
5-25-17		ADDED BIKE RACK & BRICK PAVEMENT DETAILS

INTRACOASTAL ENGINEERING, PLLC
5725 Oleander Dr. Unit E-7
Wilmington, North Carolina 28403
Phone: 910.859.8983
Email: charlie@intracoastalengineering.com
License Number P-0662

DETAILS

FOR

LAND ROVER -JAGUAR

20 OLD EASTWOOD RD.
WILMINGTON, NORTH CAROLINA

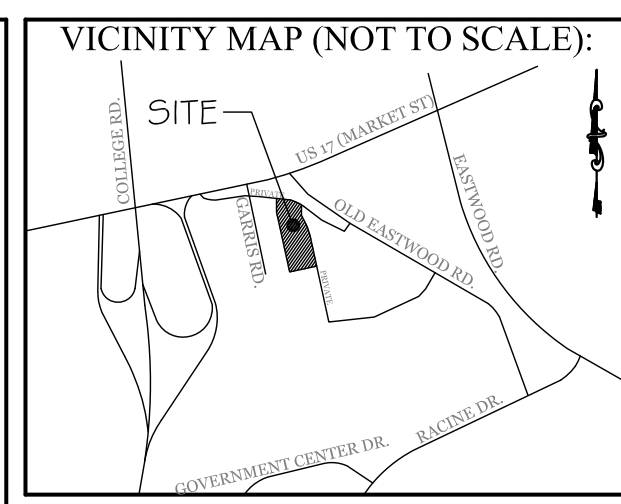
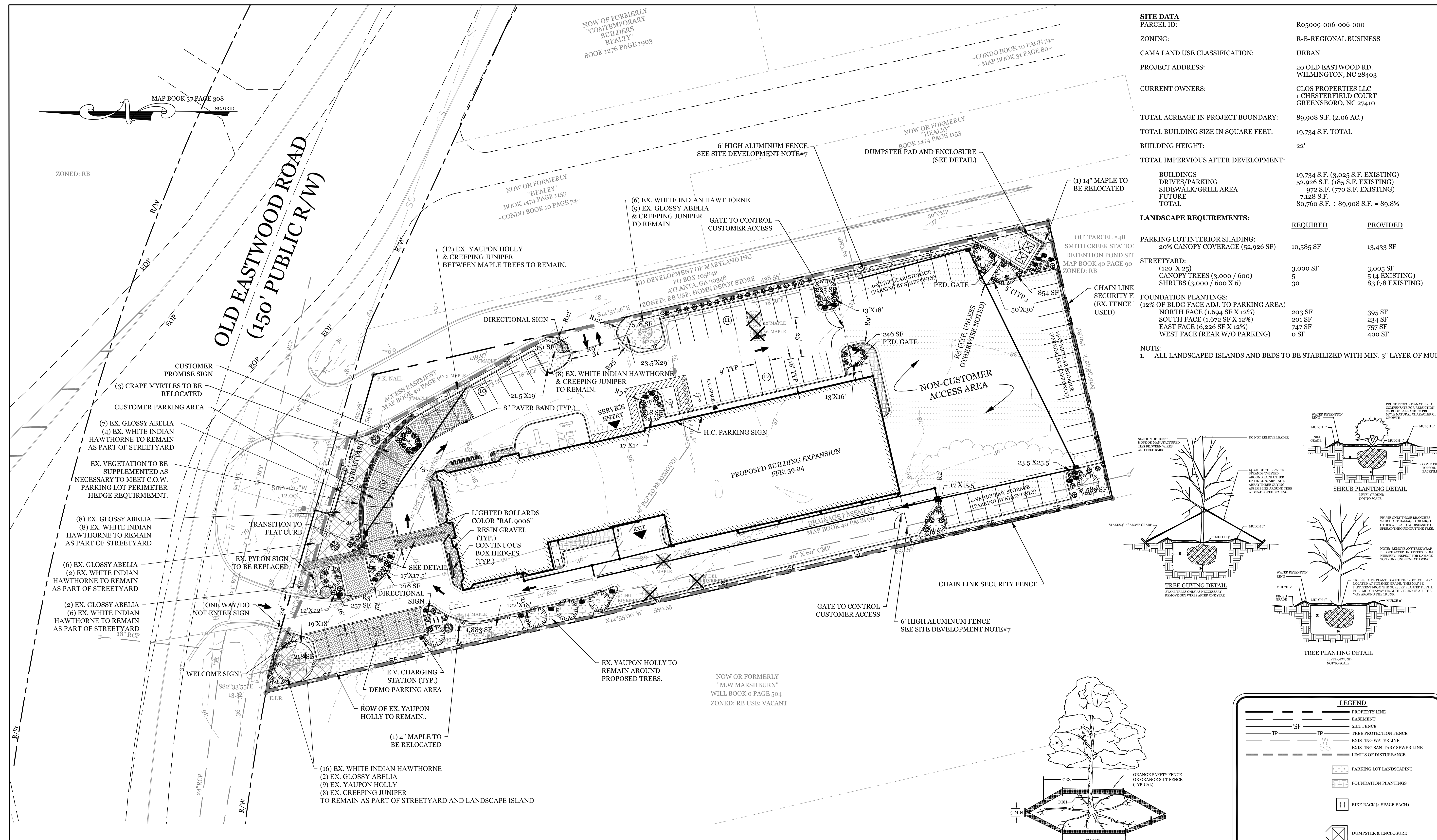
Charles D. Cazier
3.21.17

CLIENT INFORMATION:

CLOS PROPERTIES, LLC
A.J. ALIAH
20 EASTWOOD ROAD
WILMINGTON, NC 28403
(910) 332-3500

DRAWN: JAE SHEET SIZE: 24 X 36
CHECKED: CDC DATE: 3/21/2017
APPROVED: CDC SCALE: NTS
PROJECT NUMBER: 2015-016

DRAWING NUMBER: **C-3** 4 OF 5



REVISIONS

REV: 5-5-17 PER COW ZONING COMMENTS.
REV: 6-15-17 PER COW COMMENTS.

INTRACOASTAL ENGINEERING, PLLC
 5725 Oleander Dr. Unit E-7
 Wilmington, North Carolina 28403
 Phone: 910.859.8983
 Email: Charlie@intracoastalengineering.com
 License Number P-0662

LANDSCAPE PLAN
 FOR
LAND ROVER -JAGUAR
 20 OLD EASTWOOD RD.
 WILMINGTON, NORTH CAROLINA

CLIENT INFORMATION:
 CLOS PROPERTIES, LLC
 A.J. ALIAH
 20 EASTWOOD ROAD
 WILMINGTON, NC 28403
 (910) 332-3500

DRAWN: JAE SHEET SIZE: 24 X 36
 CHECKED: CDC DATE: 3/21/2017
 APPROVED: CDC SCALE: 1" = 30'
 PROJECT NUMBER: 2015-016
 DRAWING NUMBER: **L-1**

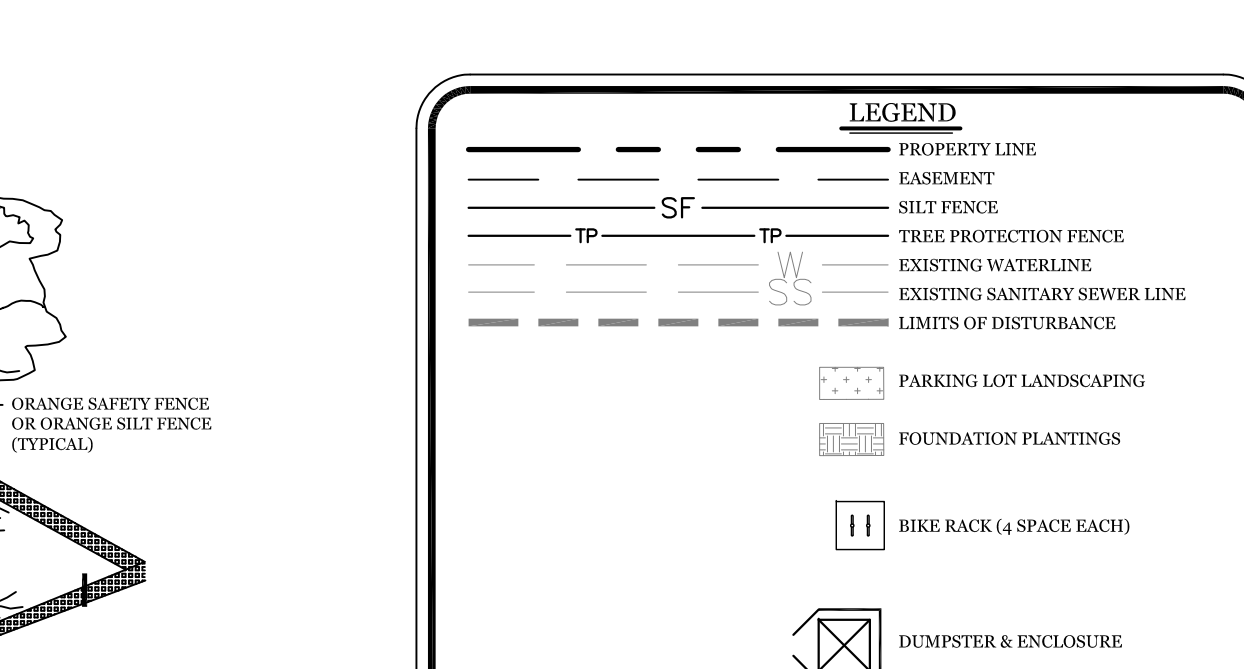
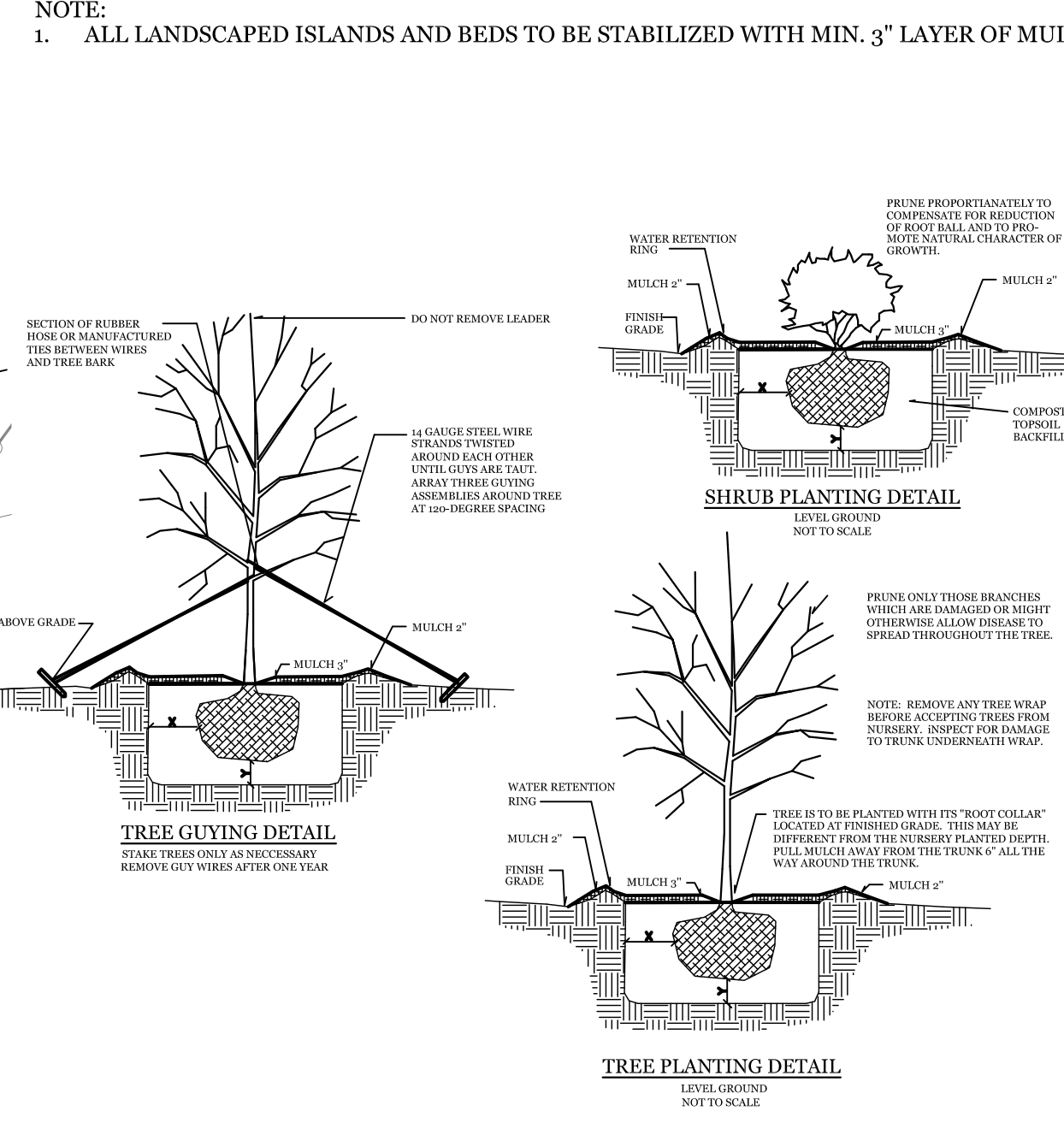
SITE DATA

PARCEL ID: R05009-006-006-000
 ZONING: R-B-REGIONAL BUSINESS
 CAMA LAND USE CLASSIFICATION: URBAN
 PROJECT ADDRESS: 20 OLD EASTWOOD RD. WILMINGTON, NC 28403
 CURRENT OWNERS: CLOS PROPERTIES LLC 1 CHESTERFIELD COURT GREENSBORO, NC 27410
 TOTAL ACREAGE IN PROJECT BOUNDARY: 89,908 S.F. (2.06 AC.)
 TOTAL BUILDING SIZE IN SQUARE FEET: 19,734 S.F. TOTAL
 BUILDING HEIGHT: 22'
 TOTAL IMPERVIOUS AFTER DEVELOPMENT:
 BUILDINGS 19,734 S.F. (3.025 S.F. EXISTING)
 DRIVES/PARKING 52,926 S.F. (185 S.F. EXISTING)
 SIDEWALK/GRILL AREA 972 S.F. (770 S.F. EXISTING)
 FUTURE 7,128 S.F.
 TOTAL 80,760 S.F. + 89,908 S.F. = 89.8%

LANDSCAPE REQUIREMENTS:

	REQUIRED	PROVIDED
PARKING LOT INTERIOR SHADING: 20% CANOPY COVERAGE (52,926 SF)	10,585 SF	13,433 SF
STREETYARD: (120' X 25) CANOPY TREES (3,000 / 600) SHRUBS (3,000 / 600 X 6)	3,000 SF 5 30	3,005 SF 5 (4 EXISTING) 83 (78 EXISTING)
FOUNDATION PLANTINGS: (12% OF BLDG FACE ADJ. TO PARKING AREA) NORTH FACE (1,694 SF X 12%) SOUTH FACE (1,672 SF X 12%) EAST FACE (6,226 SF X 12%) WEST FACE (REAR W/O PARKING) 0 SF	203 SF 201 SF 747 SF 0 SF	395 SF 234 SF 757 SF 400 SF

NOTE:
 1. ALL LANDSCAPED ISLANDS AND BEDS TO BE STABILIZED WITH MIN. 3" LAYER OF MULCH.



LEGEND

---	PROPERTY LINE
---	EASEMENT
---	SILT FENCE
---	TREE PROTECTION FENCE
---	EXISTING WATERLINE
---	EXISTING SANITARY SEWER LINE
---	LIMITS OF DISTURBANCE
---	PARKING LOT LANDSCAPING
---	FOUNDATION PLANTINGS
---	BIKE RACK (4 SPACE EACH)
---	DUMPSTER & ENCLOSURE
---	NON-CUSTOMER ACCESS AREA
---	EX. TREE TO BE REMOVED
---	EX. TREE RELOCATION

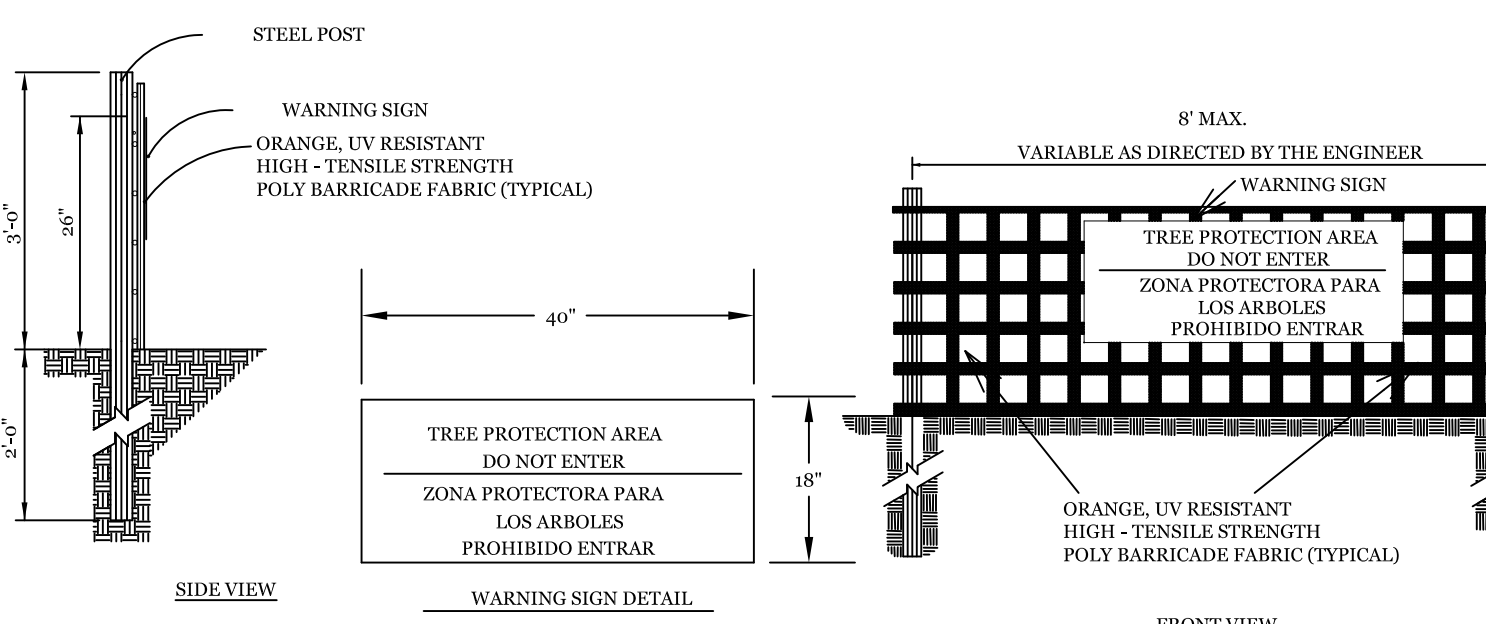
Approved Construction Plan

Name _____ Date _____

Planning _____
 Public Utilities _____
 Traffic _____
 Fire _____

PROPOSED LANDSCAPE PLANT LIST

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	TYPE	SIZE
	15	QUERCUS VIRGINIANA	LIVE OAK	LARGE SHADE TREE	2.5" CAL.
	51	RAPHIOLEPIS INDICA	WHITE INDIAN HAWTHORNE	SMALL SHRUB	1 GAL.
	29	ABELIA X GRANDIFLORA	GLOSSY ABELIA	SMALL SHRUB	1 GAL.
	22	JUNIPERUS HORIZONTALIS	CREeping JUNIPER	GROUND COVER	1 GAL.
	CONTINUOUS	BUXUS SEMPERVIRENS	BOXWOOD	SMALL SHRUB	1 GAL.
	AS-NEEDED	ABELIA X GRANDIFLORA	GLOSSY ABELIA	SMALL SHRUB	1 GAL. (3' MIN HEIGHT)



NOTES:

- PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
- CRZ RADII IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
- IF CONSTRUCTION OCCURS WITHIN THE CRZ AT LEAST 12" OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
- WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
- FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LANSLOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
- FALLING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.
- THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 1/2-2/3 THE HEIGHT OF THE TREE.
- CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISTURBE CROWN WITH EXCESSIVE PRUNING.

TREE PROTECTION DETAIL (SD 15-09)
 NOT TO SCALE

NOTES:

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