

**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_

Public Utilities: \_\_\_\_\_

Traffic: \_\_\_\_\_

Fire: \_\_\_\_\_

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

Date: \_\_\_\_\_ Permit #: \_\_\_\_\_

Signed: \_\_\_\_\_

**SITE DATA**

PARCEL ID: R05009-006-007-000

ZONING: RB-REGIONAL BUSINESS

CAMA LAND USE CLASSIFICATION: URBAN

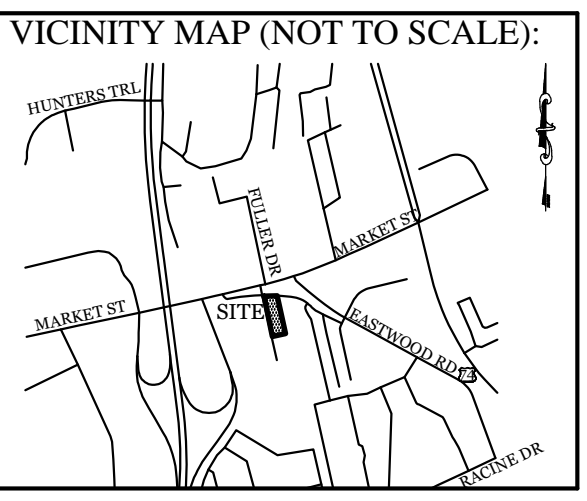
PROJECT ADDRESS: 5 GARRIS RD. WILMINGTON, NC 28403

CURRENT OWNERS: CLOS PROPERTIES LLC 20 OLD EASTWOOD RD. WILMINGTON, NC 28403

TOTAL ACREAGE IN PROJECT BOUNDARY: 95.463 S.F. (2.19 AC.)

EXISTING ONSITE IMPERVIOUS AREAS: SITE IS VACANT

SOIL TYPE: JO (Johnston soils) 31.9%  
Le (Leon sand) 15.2%  
St (Stallings fine sand) 40.1%  
To (Torbama loamy fine sand) 12.7%  
(Per the USDA websoil survey map)



**REVISIONS**

12-20-20	REVISED SITE FOR NEW BUILDING FOOTPRINT.

**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, TREE REMOVAL & PROTECTION PLAN**

FOR

**CAPE FEAR MOTO GROUP**

WILMINGTON, NORTH CAROLINA

**NORTH CAROLINA PROFESSIONAL SEAL**

032555  
ENGINEER  
CHARLES D. CATELIER

*Charles D. Catelier*  
9/8/2020

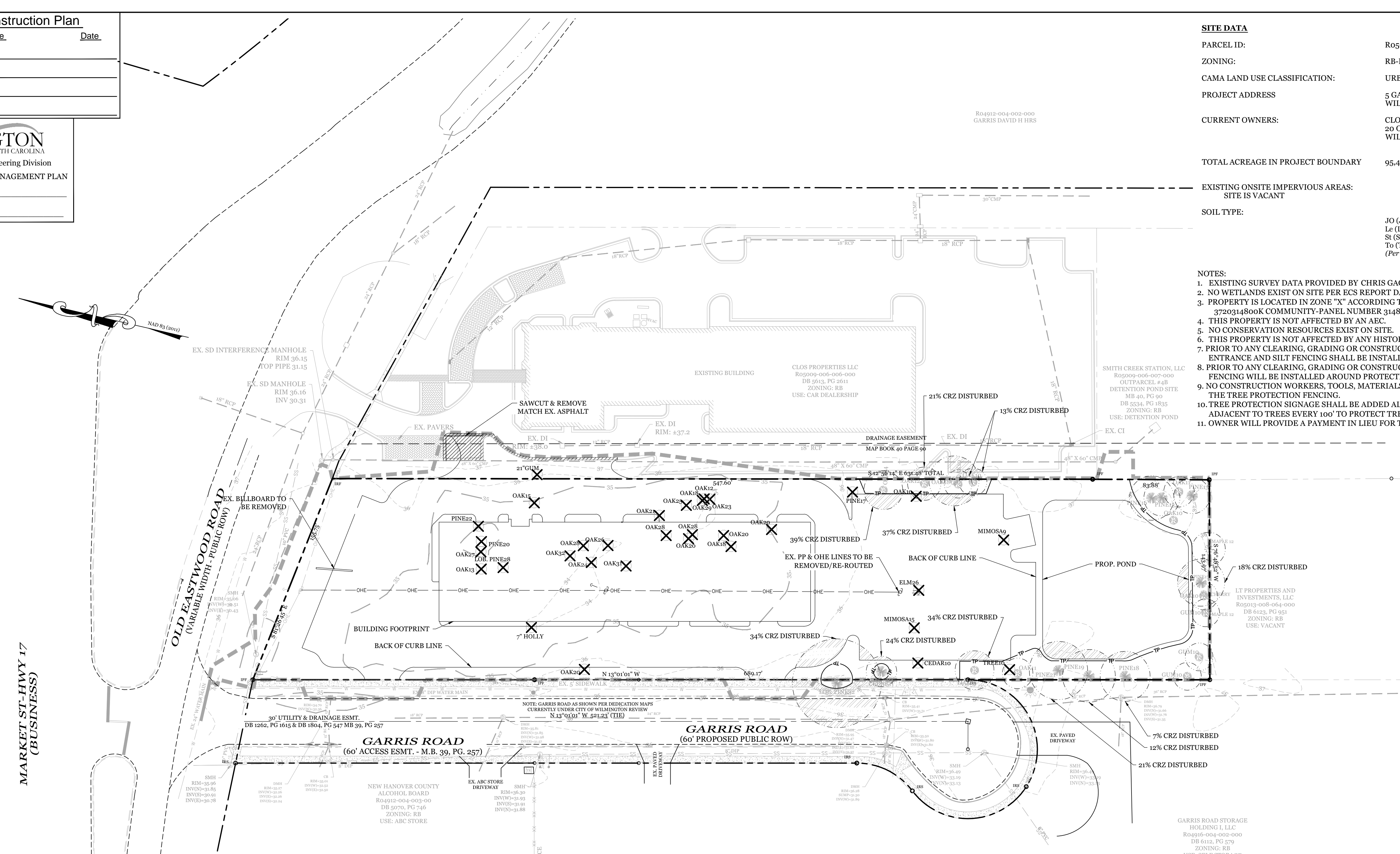
**CLIENT INFORMATION:**

CLOS PROPERTIES, LLC  
SHANE HEFFERNAN  
255 OLD EASTWOOD ROAD  
WILMINGTON, NC 28403  
(910) 202-4662

DRAWN: JAE SHEET SIZE: 24 X 36  
CHECKED: CDC DATE: 9/8/2020  
APPROVED: CDC SCALE: 1" = 40'  
PROJECT NUMBER: 2019-027

DRAWING NUMBER: **C-0**

1 OF 8

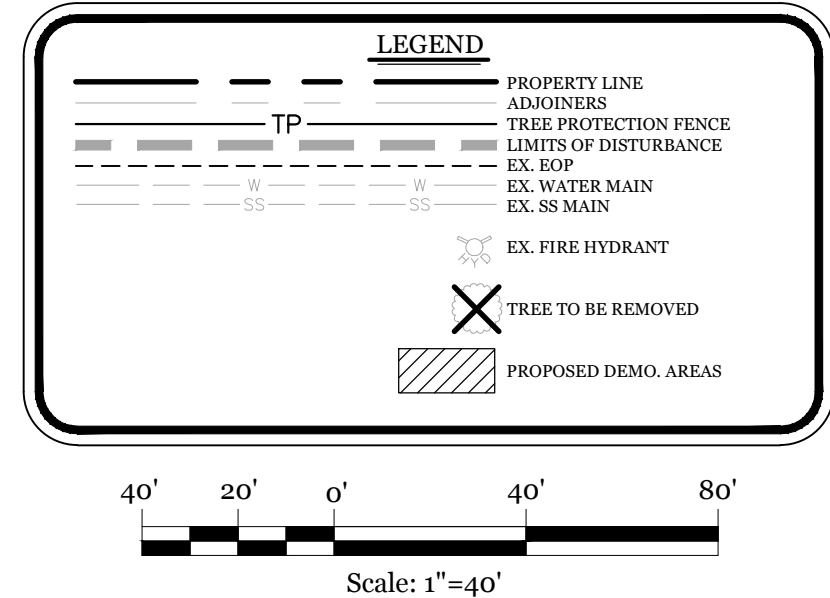
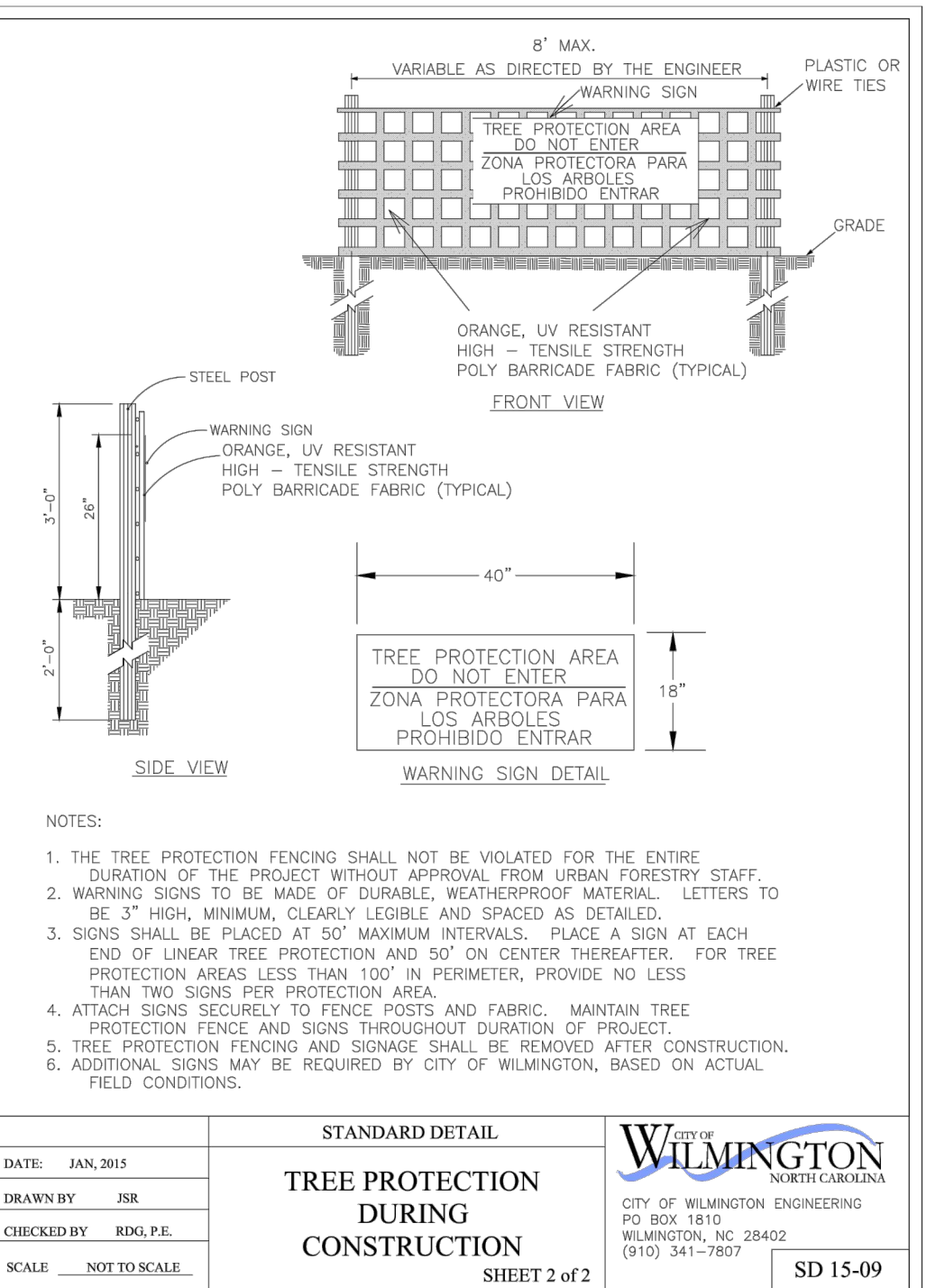
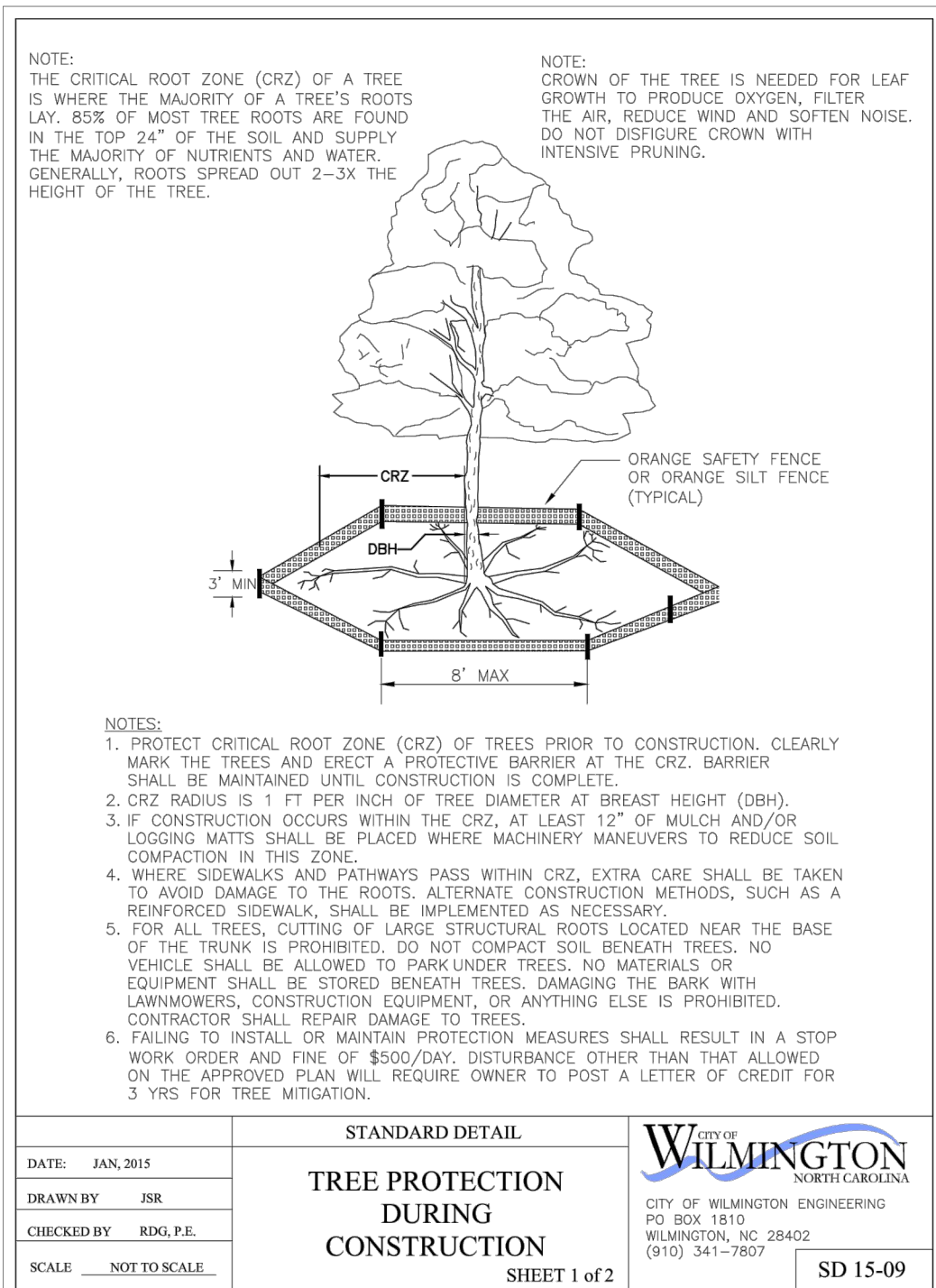


- NOTES:**
- EXISTING SURVEY DATA PROVIDED BY CHRIS GAGNE, N.C. PLS No. L-4700.
  - NO WETLANDS EXIST ON SITE PER ECS REPORT DATED 8/22/16.
  - PROPERTY IS LOCATED IN ZONE "X" ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP, 3720314800K COMMUNITY-PANEL NUMBER 3148, DATED 08/28/18
  - THIS PROPERTY IS NOT AFFECTED BY AN AEC.
  - NO CONSERVATION RESOURCES EXIST ON SITE.
  - THIS PROPERTY IS NOT AFFECTED BY ANY HISTORIC OR ARCHAEOLOGICAL SITES.
  - PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, A CONSTRUCTION ENTRANCE AND SILT FENCING SHALL BE INSTALLED.
  - PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES.
  - NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
  - TREE PROTECTION SIGNAGE SHALL BE ADDED ALONG THE LIMITS OF DISTURBANCE ADJACENT TO TREES EVERY 100' TO PROTECT TREES ADJACENT TO THE CONSTRUCTION SITE.
  - OWNER WILL PROVIDE A PAYMENT IN LIEU FOR THE REQUIRED TREE MITIGATION.

**MITIGATION REQUIRED FOR REMOVAL OF SIGNIFICANT TREES**

QTY	SIZE	TYPE	% MITIGATION	REPLACEMENT TREE QTY
1	24"	OAK	100%	16.00
1	25"	OAK	100%	16.67
1	26"	OAK	100%	17.33
1	27"	OAK	100%	18.00
3	28"	OAK	100%	56.00
1	29"	OAK	100%	19.33
1	31"	OAK	100%	20.67
1	32"	OAK	100%	21.33
2	9"	MIMOSA	25%	3.00
3	15"	MIMOSA	25%	7.50
1	26"	ELM	50%	8.67
<b>TOTAL REPLACEMENT TREES</b>				<b>205</b>

205 TREES REQUIRED FOR MITIGATION - 52 TREE CREDITS = 153 TREES REQUIRED FOR MITIGATION



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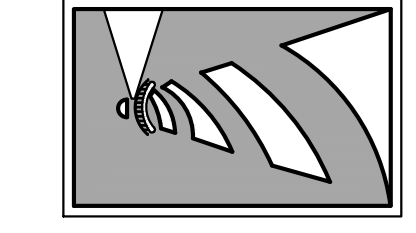
VICINITY MAP (NOT TO SCALE):



REVISIONS

NO.	DATE	DESCRIPTION
12-20-20		REVISED SITE FOR NEW BUILDING FOOTPRINT.

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**SITE PLAN**  
 FOR  
**CAPE FEAR MOTO GROUP**  
 WILMINGTON, NORTH CAROLINA



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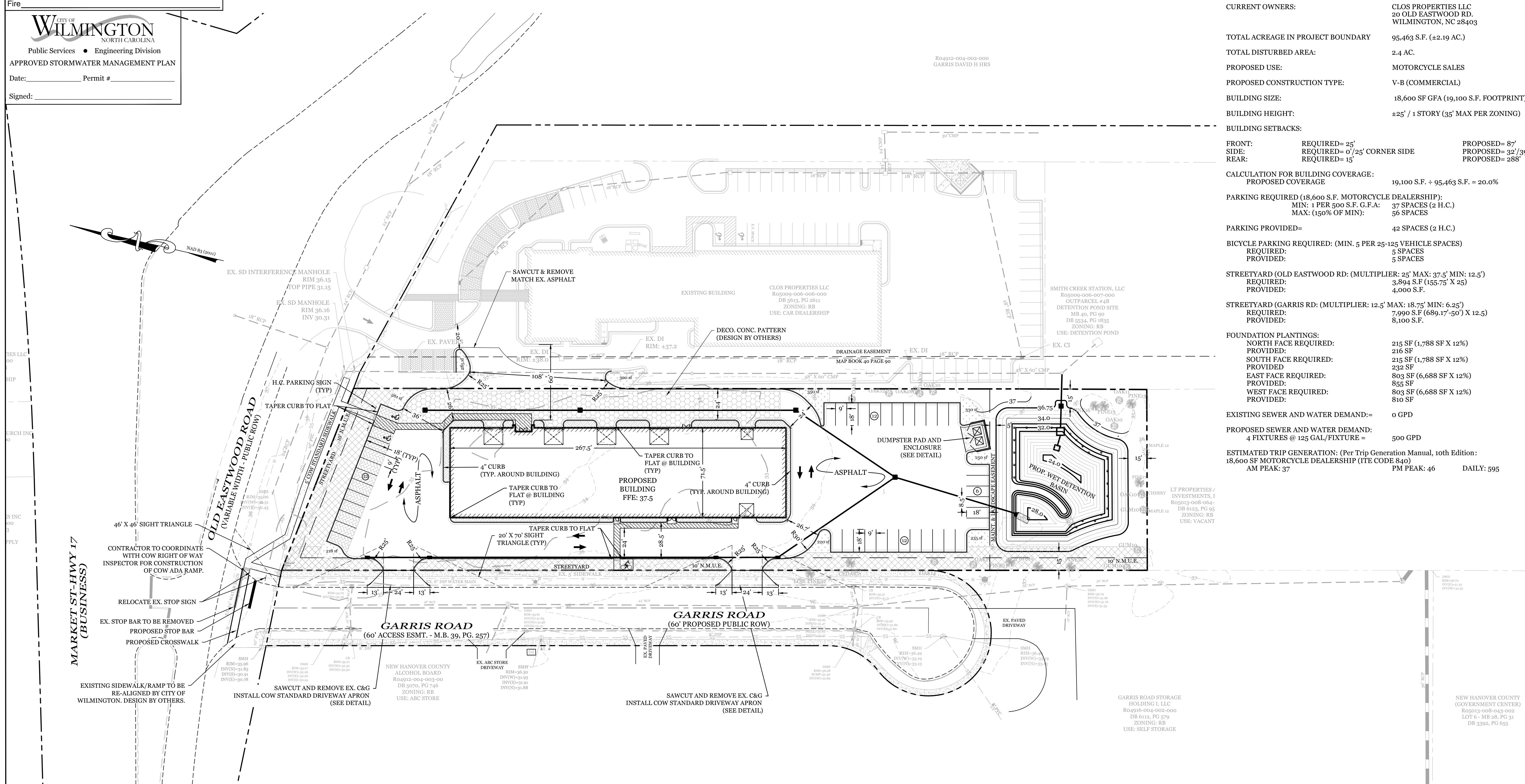
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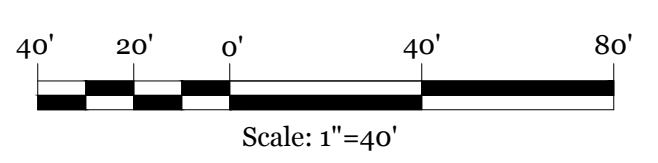
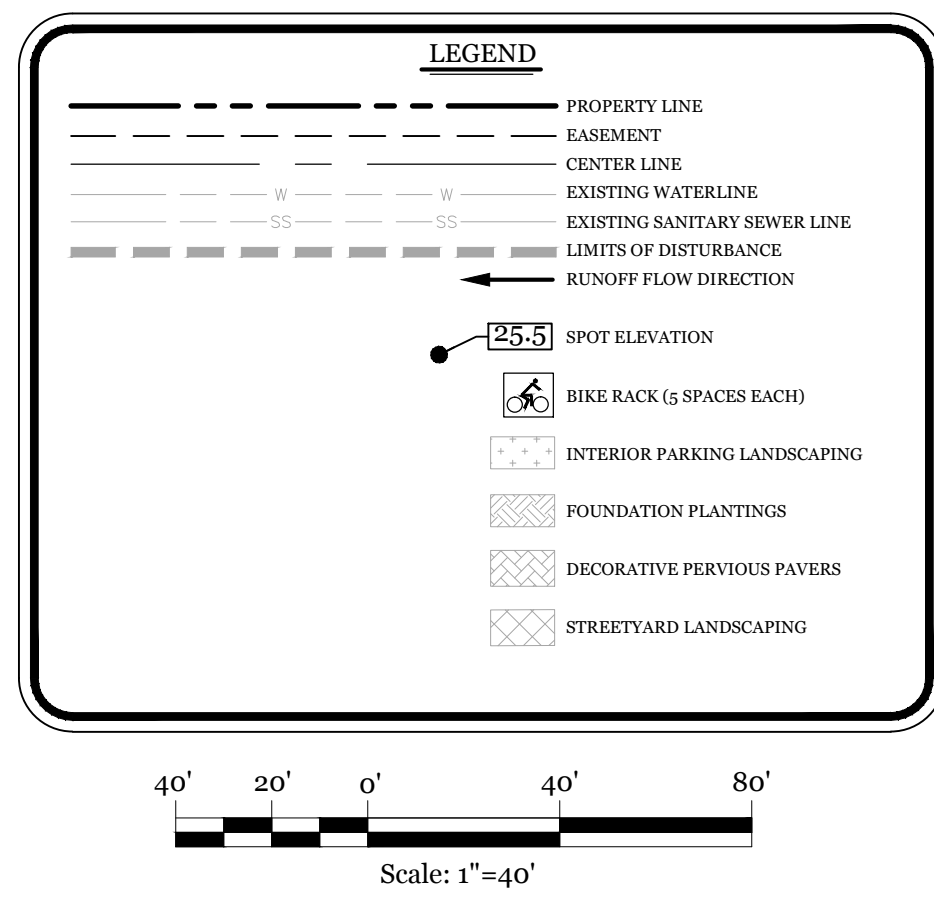
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 CAMA LAND USE CLASSIFICATION: URBAN  
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 CURRENT OWNERS: CLOS PROPERTIES LLC  
 20 OLD EASTWOOD RD. WILMINGTON, NC 28403  
 TOTAL ACREAGE IN PROJECT BOUNDARY: 95.463 S.F. (±2.19 AC.)  
 TOTAL DISTURBED AREA: 2.4 AC.  
 PROPOSED USE: MOTORCYCLE SALES  
 PROPOSED CONSTRUCTION TYPE: V-B (COMMERCIAL)  
 BUILDING SIZE: 18,600 SF GFA (19,100 S.F. FOOTPRINT)  
 BUILDING HEIGHT: ±25' / 1 STORY (35' MAX PER ZONING)  
 BUILDING SETBACKS:  
 FRONT: REQUIRED= 25' PROPOSED= 87'  
 SIDE: REQUIRED= 0'/25' CORNER SIDE PROPOSED= 32'/39'  
 REAR: REQUIRED= 15' PROPOSED= 288'

CALCULATION FOR BUILDING COVERAGE:  
 PROPOSED COVERAGE 19,100 S.F. ÷ 95,463 S.F. = 20.0%  
 PARKING REQUIRED (18,600 S.F. MOTORCYCLE DEALERSHIP):  
 MIN: 1 PER 500 S.F. G.F.A.: 37 SPACES (2 H.C.)  
 MAX: (150% OF MIN): 56 SPACES  
 PARKING PROVIDED= 42 SPACES (2 H.C.)  
 BICYCLE PARKING REQUIRED: (MIN. 5 PER 25-125 VEHICLE SPACES)  
 REQUIRED: 5 SPACES  
 PROVIDED: 5 SPACES  
 STREET YARD (OLD EASTWOOD RD: (MULTIPLIER: 25' MAX: 37.5' MIN: 12.5'))  
 REQUIRED: 3,894 S.F. (155.75' X 25')  
 PROVIDED: 4,000 S.F.  
 STREET YARD (GARRIS RD: (MULTIPLIER: 12.5' MAX: 18.75' MIN: 6.25'))  
 REQUIRED: 7,990 S.F. (689.17'-50') X 12.5'  
 PROVIDED: 8,100 S.F.  
 FOUNDATION PLANTINGS:  
 NORTH FACE REQUIRED: 215 SF (1,788 SF X 12%)  
 PROVIDED: 215 SF  
 SOUTH FACE REQUIRED: 215 SF (1,788 SF X 12%)  
 PROVIDED: 232 SF  
 EAST FACE REQUIRED: 803 SF (6,688 SF X 12%)  
 PROVIDED: 855 SF  
 WEST FACE REQUIRED: 803 SF (6,688 SF X 12%)  
 PROVIDED: 810 SF  
 EXISTING SEWER AND WATER DEMAND= 0 GPD  
 PROPOSED SEWER AND WATER DEMAND:  
 4 FIXTURES @ 125 GAL/FIXTURE = 500 GPD  
 ESTIMATED TRIP GENERATION: (Per Trip Generation Manual, 10th Edition:  
 18,600 SF MOTORCYCLE DEALERSHIP (ITE CODE 840)  
 AM PEAK: 37 PM PEAK: 46 DAILY: 595



- DEVELOPMENT NOTES:**
- ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON ZONING ORDINANCE.
  - PROJECT SHALL COMPLY WITH ALL FEDERAL, STATE & CITY OF WILMINGTON REGULATIONS.
  - RUNOFF FROM ALL IMPERVIOUS SURFACES, INCLUDING ROOF DRAINAGE, TO BE DIRECTED TO STORM DRAIN SYSTEM.
- FIRE & SAFETY NOTES:**
- PROPOSED 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.
  - CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL COMMERCIAL BUILDINGS ON THE SITE THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE.
- GENERAL TRAFFIC NOTES:**
- ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS OFF THE R/W TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
  - ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS. [DETAIL SD 15-13 & SD 11-3 COFW TECH STDS]
  - ALL SIGNS AND PAVEMENT MARKINGS OFF RIGHT OF WAY ARE TO MEET/BE MAINTAINED TO MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS. [DETAIL SD 15-13 & SD 11-3 COFW TECH STDS]
  - A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. NOTE THIS ON THE PLAN AND CONTACT 341-5899 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.
  - CONTACT 811 PRIOR TO CONTACTING CITY OF WILMINGTON, TRAFFIC ENGINEERING REGARDING THE UTILITIES IN ROW.
  - ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30" TO 10'.
  - STREET TREES MUST BE LOCATED A MINIMUM OF 15 FEET FROM STREET LIGHTS. [COFW SD 15-17]
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  - THE PROPOSED CROSSWALK AT THE INTERSECTION OF GARRIS RD AND OLD EASTWOOD RD. ON THE SITE PLAN SHALL BE INSTALLED AS PER CITY/NCDOT STANDARDS.
  - STREET LIGHTS TO BE PROVIDED TO MEET CITY OF WILMINGTON STANDARDS PRIOR TO REQUEST FOR C.O.



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Name \_\_\_\_\_ Date \_\_\_\_\_

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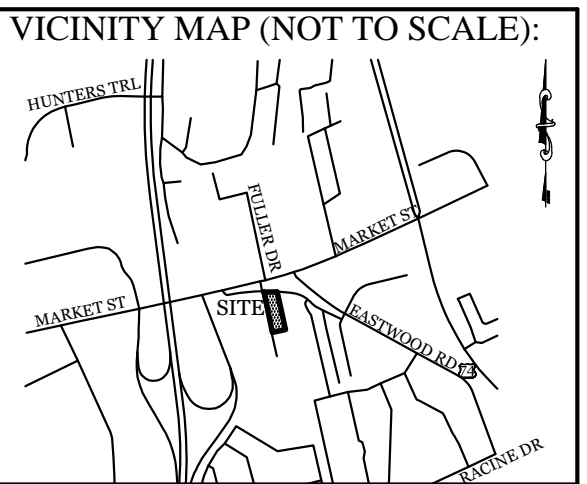
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 TOTAL ACREAGE IN PROJECT BOUNDARY: 95.463 S.F. (±2.19 AC.)  
 TOTAL DISTURBED AREA: 2.4 AC.  
 BUILDING SIZE: 18,600 SF GFA (19,100 S.F. FOOTPRINT)  
 PROPOSED ON-SITE IMPERVIOUS AREAS:  
 BUILDING: 19,100 S.F.  
 ASPHALT: 30,595 S.F.  
 DECO. CONCRETE: 7,505 S.F.  
 DECO. PAVEMENT: 1,900 S.F.  
 CONCRETE SIDEWALK/C&G: 3,980 S.F.  
 FUTURE: 2,049 S.F.  
 TOTAL: 65,129 S.F. (68.2%)  
 PROPOSED OFF-SITE IMPERVIOUS AREAS:  
 CONCRETE DRIVE APRONS: 1,020 S.F.  
 CONCRETE SIDEWALK/C&G: 1,180 S.F.  
 ASPHALT: 2,275 S.F.  
 TOTAL: 4,475 S.F.  
 EXISTING SEWER AND WATER DEMAND: 0 GPD  
 PROPOSED SEWER AND WATER DEMAND:  
 4 FIXTURES @ 125 GAL/FIXTURE = 1,000 GPD



**REVISIONS**

12-20-20	REVISED SITE FOR NEW BUILDING FOOTPRINT.

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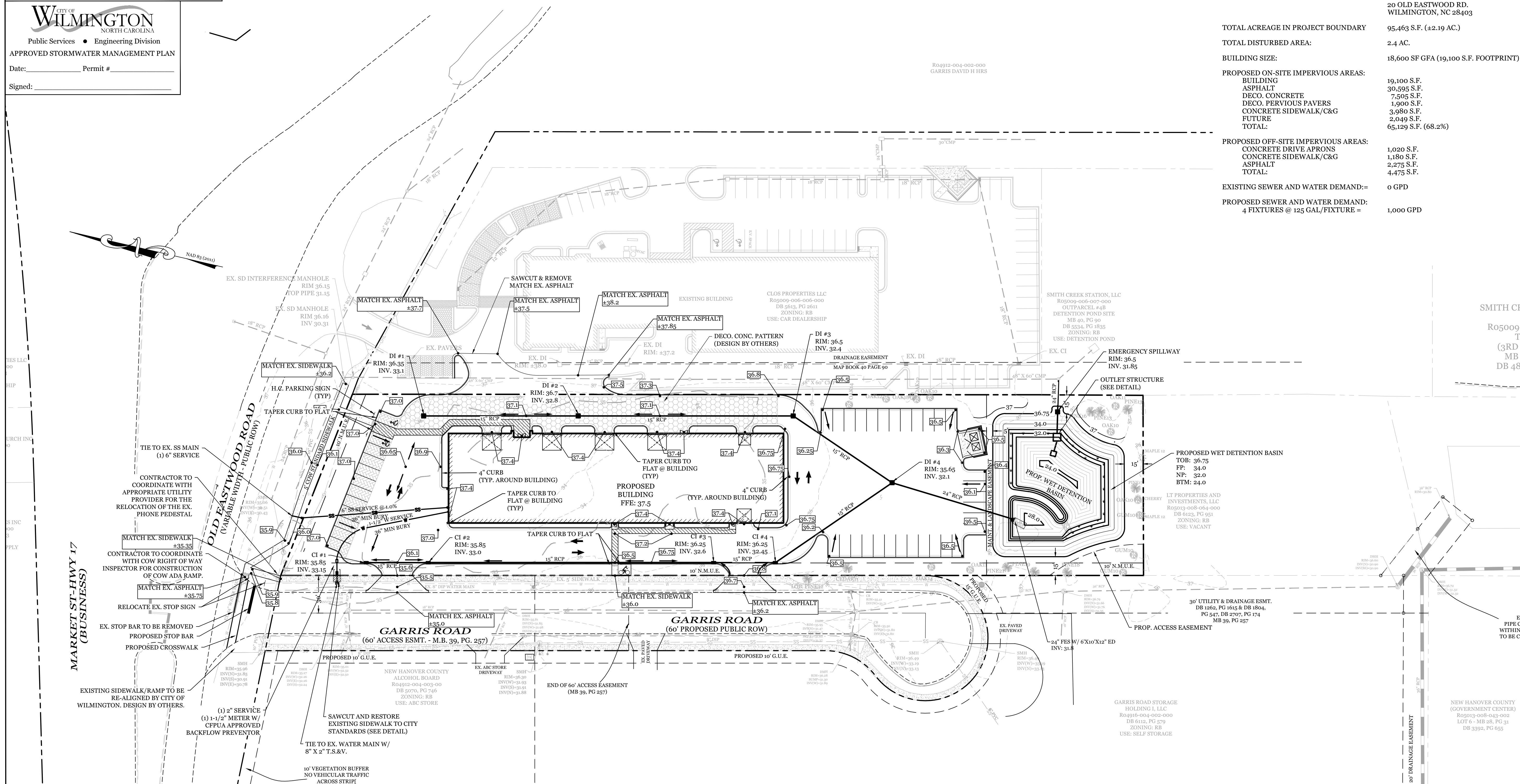
**GRADING, DRAINAGE, & UTILITIES**  
 FOR  
**CAPE FEAR MOTO GROUP**  
 WILMINGTON, NORTH CAROLINA

Charles D. Catey  
 9/8/2020

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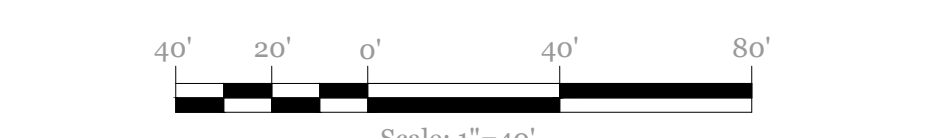
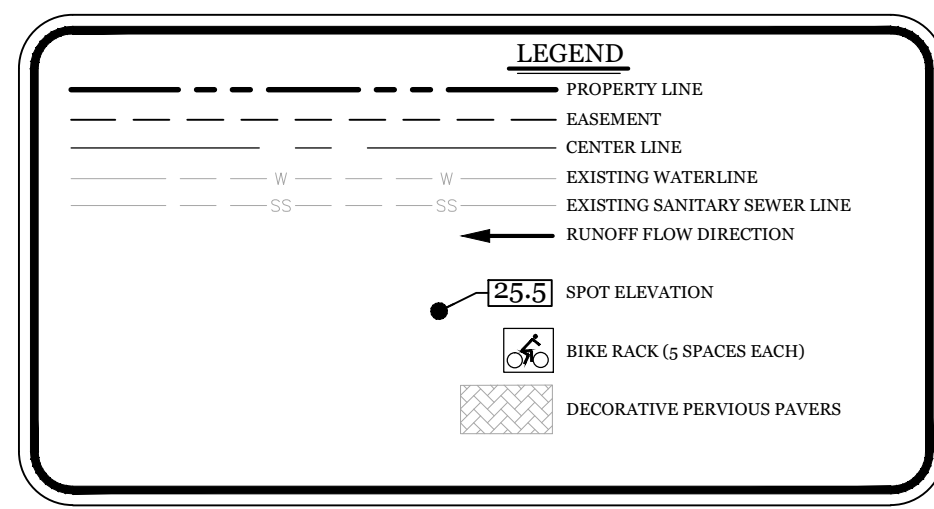
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DRAWING NUMBER: **C-2**  
 3 OF 8



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  - RUNOFF FROM ALL IMPERVIOUS SURFACES, INCLUDING ROOF DRAINAGE, TO BE DIRECTED TO STORM DRAIN SYSTEM.
- UTILITY NOTES:**
- EXISTING WATER AND SANITARY SEWER SERVICES ARE CURRENTLY AVAILABLE TO THE SITE FROM CAPE FEAR PUBLIC UTILITY AUTHORITY PUBLIC MAINS.
  - ALL PROPOSED UTILITY SERVICES, SUCH AS ELECTRIC POWER, CATV, GAS & TELEPHONE SHALL BE INSTALLED UNDERGROUND.
  - ALL WATER & SEWER UTILITIES TO BE INSTALLED PER CFPWA TECHNICAL SPECIFICATIONS & STANDARDS.
  - ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCCCIR OR ASSE.
  - 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.
  - 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.
  - THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. CALL NCB11 AT 811 OR 1-800-632-4949. 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.
  - THE PROCESS FOR TELEPHONE CABLE PLACEMENT: \* FINAL GRADE WILL NEED TO BE ESTABLISHED. \* POWER WILL PLACE THEIR CABLE FIRST - APPROXIMATELY 3' DEEP. \* TELEPHONE & CABLE TV WILL THEN PLACE THEIR CABLE AT APPROXIMATELY 2' DEEP.
  - SOLID WASTE DISPOSAL BY PRIVATE DUMPSTER SERVICE.

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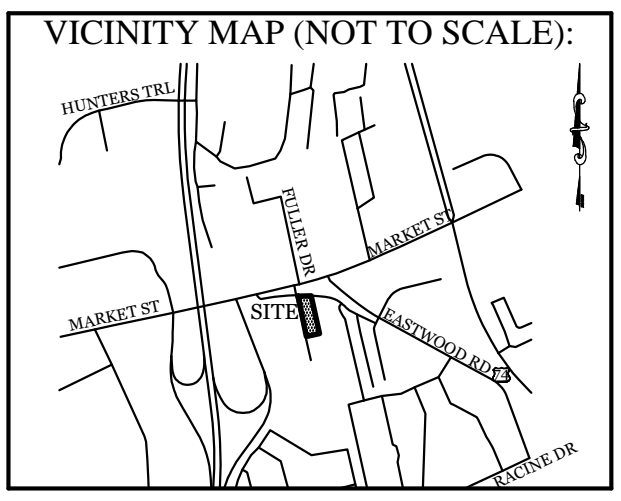
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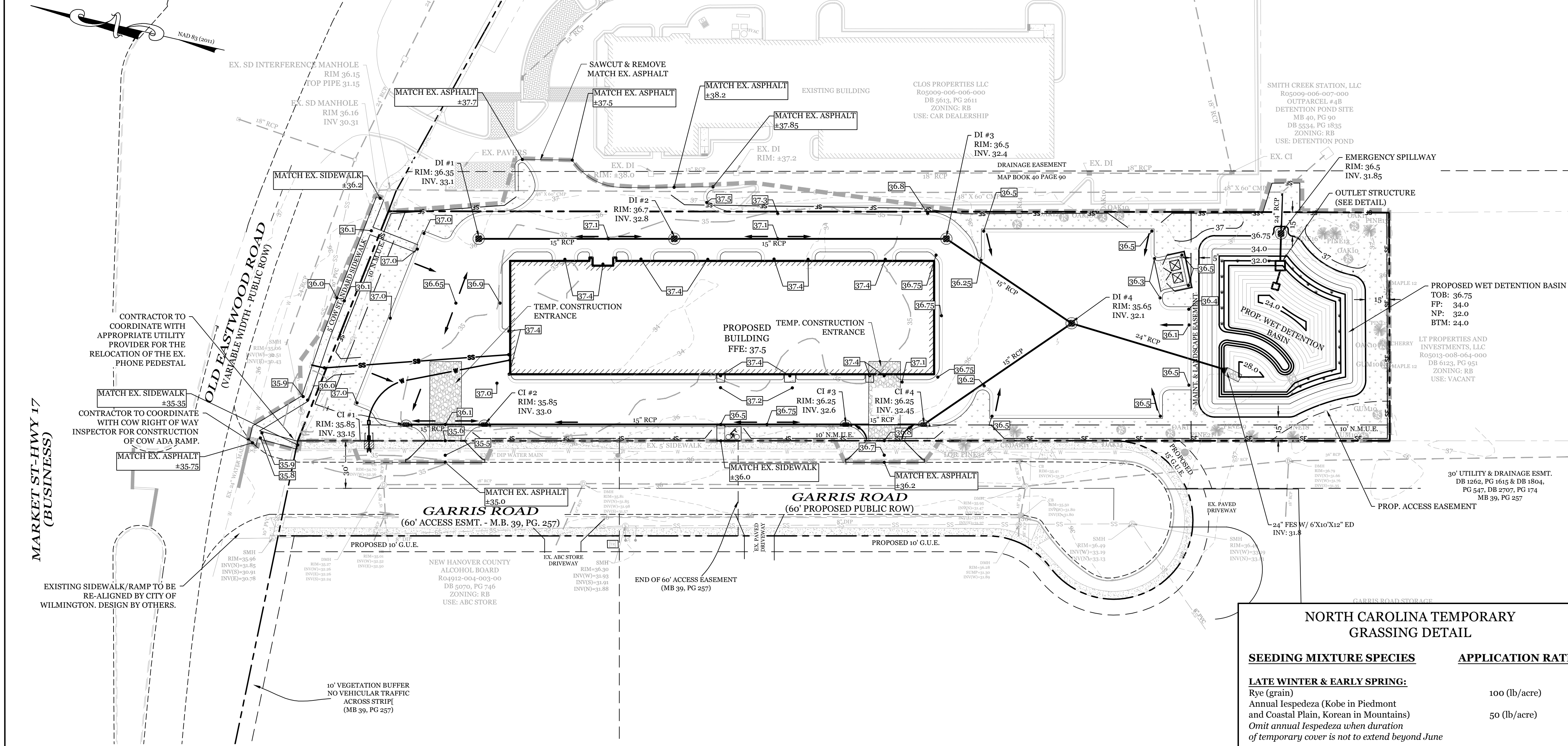


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**LEGEND**

- PROPERTY LINE
- EASEMENT
- CENTER LINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- LIMITS OF DISTURBANCE
- TEMP. SILT FENCE
- CURB INLET PROTECTION
- DROP INLET PROTECTION
- SPOT ELEVATION

Scale: 1"=40'

CONTRACTOR TO COORDINATE WITH APPROPRIATE UTILITY PROVIDER FOR THE RELOCATION OF THE EX. PHONE PEDESTAL.

CONTRACTOR TO COORDINATE WITH COW RIGHT OF WAY INSPECTOR FOR CONSTRUCTION OF COW ADA RAMP.

EXISTING SIDEWALK/RAMP TO BE RE-ALIGNED BY CITY OF WILMINGTON. DESIGN BY OTHERS.

- MAINTENANCE PLAN:**
- ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF INCH RAINFALL.
  - ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF 2-3 INCH STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
  - SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION, SEDIMENT TRAP BAFFLES, AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
  - CHECK SEDIMENT BASIN AND BAFFLES WEEKLY & AFTER EACH RAINFALL EVENT. REMOVE SEDIMENT FROM TRAP & BAFFLES AND RESTORE TO ORIGINAL VOLUME WHEN SEDIMENT ACCUMULATES TO ABOUT 1/2 THE DESIGN VOLUME. REPAIR / REPLACE BAFFLES IF TORN, COLLAPSED, OR INEFFECTIVE.
  - DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
  - SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
  - FAIRCLOTH SKIMMER TO BE ROUTINELY CHECKED FOR SEDIMENT ACCUMULATION, TRASH, AND DEBRIS CLOGGING THE WATER ENTRY ORIFICES. PULL SKIMMER TO SIDE OF BASIN AND HAND REMOVE SEDIMENT AND DEBRIS TO RESTORE FLOW TO ORIGINAL STATE.

- CONSTRUCTION SEQUENCE:**
- CONSTRUCTION OF SITE TO START WITH INSTALLATION OF CONSTRUCTION ENTRANCE AND SILT FENCE ALONG ALL LOCATIONS PER PLANS. UPON INSTALLATION OF SILT FENCE, TREES SHOULD BE REMOVED IN LOCATIONS AS NECESSARY. ALL SLOPED AREAS SHOULD BE SEEDED IN ACCORDANCE TO SPECIFICATIONS. SLOPE STABILIZATION IS WITHIN 7-14 CALENDAR DAYS OF ANY PHASE OF CONSTRUCTION. ALL OTHER AREAS MUST BE STABILIZED WITHIN 15 WORKING DAYS. CONTRACTOR TO FOLLOW NPDES STABILIZATION REQUIREMENTS PER TABLE ON THIS SHEET AS WELL. MOST STRINGENT REQUIREMENT TO BE MET.
  - GENERAL CLEARING AND GRADING OF THIS SITE WILL NOT BE DONE UNTIL THE TEMPORARY SILT FENCE & CONSTRUCTION ENTRANCE HAS BEEN INSTALLED.
  - NO CUT SLOPE OR FILL SLOPE SHALL EXCEED A RISE OR FALL OF ONE FOOT FOR EVERY RUN OF 3 FEET (1 VERTICAL TO 3 HORIZONTAL).
  - NO SEDIMENT WILL BE ALLOWED TO EXIT THE SITE. ALL EROSION SHALL BE CONTROLLED INCLUDING SIDE SLOPES DURING AND AFTER CONSTRUCTION. INSTALL PRIMARY EROSION CONTROL MEASURES BEFORE BEGINNING CONSTRUCTION INCLUDING BUT NOT LIMITED TO GRAVELED CONSTRUCTION ENTRANCE, SILT FENCE, TREE PROTECTION FENCE & SEDIMENT BASINS. INSTALL ALL SECONDARY EROSION CONTROL MEASURES, SUCH AS INLET PROTECTION AS SOON AS POSSIBLE AFTER BEGINNING CONSTRUCTION.
  - ALL EROSION CONTROL MEASURES TO BE INSPECTED AFTER EACH RAIN. SILT FENCE AND INLET PROTECTION TO BE CLEANED WHEN HALF FULL.
  - A 4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL NEW AREAS TO BE GRASSED.
  - MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PROJECT IS COMPLETE.
  - MORE STRINGENT MEASURES MAY BE REQUIRED TO HALT EROSION IF THOSE ON THIS PLAN PROVE TO BE LESS EFFECTIVE.
  - REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF CONSTRUCTION. ALL PERMANENT MEASURES SHALL BE WELL ESTABLISHED PRIOR TO PROJECT COMPLETION.

SYMBOL	GROUND STABILIZATION CRITERIA		
	SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
	* Perimeter dikes, swales, ditches and slopes	7 Days	None
	* High Quality Water (HQW) Zones	7 Days	None
	* Slopes Steeper than 3:1	7 Days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
	* Slopes 3:1 or flatter	14 Days	7-days for slopes greater than 50 ft. in length
	* All other areas with slopes flatter than 4:1	14 Days	None (except for perimeters & HQW Zones)

**NORTH CAROLINA TEMPORARY GRASSING DETAIL**

SEEDING MIXTURE SPECIES	APPLICATION RATE
<b>LATE WINTER &amp; EARLY SPRING:</b> Rye (grain) Annual Lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains) <i>Omit annual Lespedeza when duration of temporary cover is not to extend beyond June</i>	100 (lb/acre) 50 (lb/acre)
<b>SUMMER:</b> German Millet In the Piedmont and Mountains, a small-stemmed sundangrass may be substituted at a rate of 50 (lb/acre)	40 (lb/acre)
<b>FALL:</b> Rye (grain)	120 (lb/acre)

**SEEDING DATES**

- LATE WINTER & EARLY SPRING:**  
Mountains - Above 2500 ft: Feb. 15-May 15  
Piedmont - Jan. 1-May 1  
Coastal Plain - Dec. 1-Apr. 15
- SUMMER:**  
Mountains - May 15-Aug. 15  
Piedmont - May 1-Aug. 15  
Coastal Plain - Apr. 15-Aug. 15
- FALL:**  
Mountains - Aug. 15-Dec. 15  
Coastal Plain and Piedmont - Aug. 15-Dec. 30

**SOIL AMENDMENTS:**  
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

**MULCH:**  
Apply 4,000 lb/acre straw, anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

**MAINTENANCE:**  
Refertilize if growth is not fully adequate. reseed, refertilize and mulch immediately following erosion or other damage.

**NORTH CAROLINA PERMANENT GRASSING DETAIL**

SEEDING MIXTURE SPECIES	APPLICATION RATE
<b>FALL &amp; WINTER:</b> Tall Fescue (blend of two or three improved varieties) Rye (grain)	200 (lb/acre) 25 (lb/acre)
<b>SPRING &amp; SUMMER:</b> Pensacola Bahiagrass Sericea Lespedeza Common Bermudagrass German Millet Tall Fescue	50 (lb/acre) 30 (lb/acre) 10 (lb/acre) 10 (lb/acre) 50 (lb/acre)

**SEEDING DATES**

- FALL & WINTER:**  
January - April  
August - December
- SOIL AMENDMENTS:**  
Apply lime and fertilizer according to soil tests, or apply 3,000-5,000 lb/acre ground agricultural limestone (use the lower rate on sandy soils) and 1,000 lb/acre 10-10-10 fertilizer.
- MAINTENANCE:**  
Fertilize according to soil tests or apply 40 lb/acre nitrogen in January or February, 40 lb in September and 40 lb in November, from a 12-4-8, 16-4-8, or similar turf fertilizer. Avoid fertilizer applications during warm weather, as this increases stand losses to disease. Reseed, fertilize, and mulch damaged areas immediately. mow to a height of 2.5-3.5 inches as needed.

**SPRING & SUMMER:**  
April 1 - July 15

**SOIL AMENDMENTS:**  
Apply lime and fertilizer according to soil tests, or apply 3,000 lb/acre ground agriculture limestone and 500 lb/acre 10-10-10 fertilizer.

**MAINTENANCE:**  
Refertilize the following April with 50 lb/acre nitrogen. Repeat as growth requires. may be mowed only once a year. Where a neat appearance is desired, omit sericea and mow as often as needed.

**MULCH:**  
Apply 4,000 lb/acre straw, anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

**SEDIMENTATION & EROSION CONTROL PLAN**

FOR

**CAPE FEAR MOTO GROUP**

WILMINGTON, NORTH CAROLINA

**PROFESSIONAL SEAL**

CHARLES D. CATEY  
ENGINEER  
032555  
9/8/2020

**CLIENT INFORMATION:**

CLOS PROPERTIES, LLC  
SHANE HEFFERNAN  
255 OLD EASTWOOD ROAD  
WILMINGTON, NC 28403  
(910) 202-4662

DRAWN: JAE	SHEET SIZE: 24 X 36
CHECKED: CDC	DATE: 9/8/2020
APPROVED: CDC	SCALE: 1" = 40'
PROJECT NUMBER: 2019-027	

DRAWING NUMBER: **C-3** 4 OF 8

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

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

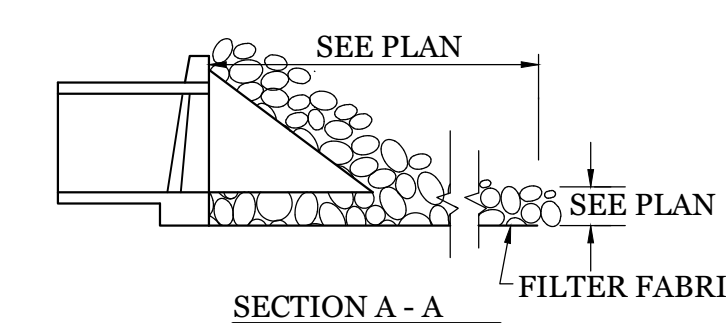
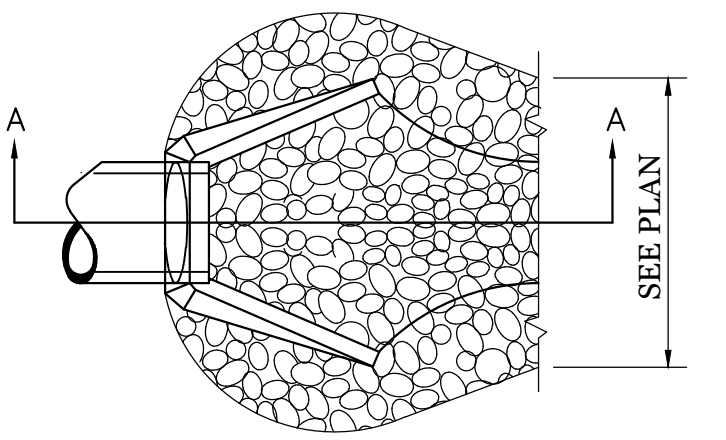


Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_



**ENERGY DISSIPATOR**

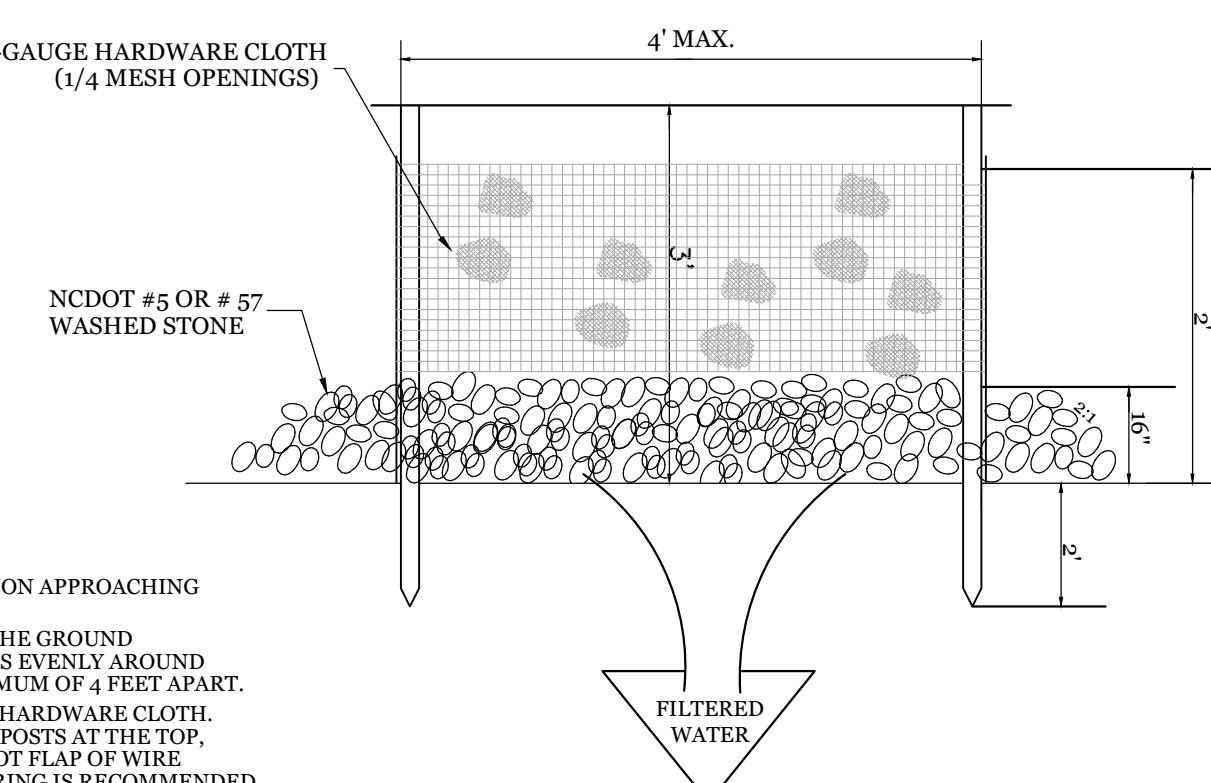
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**CONSTRUCTION SPECIFICATIONS:**

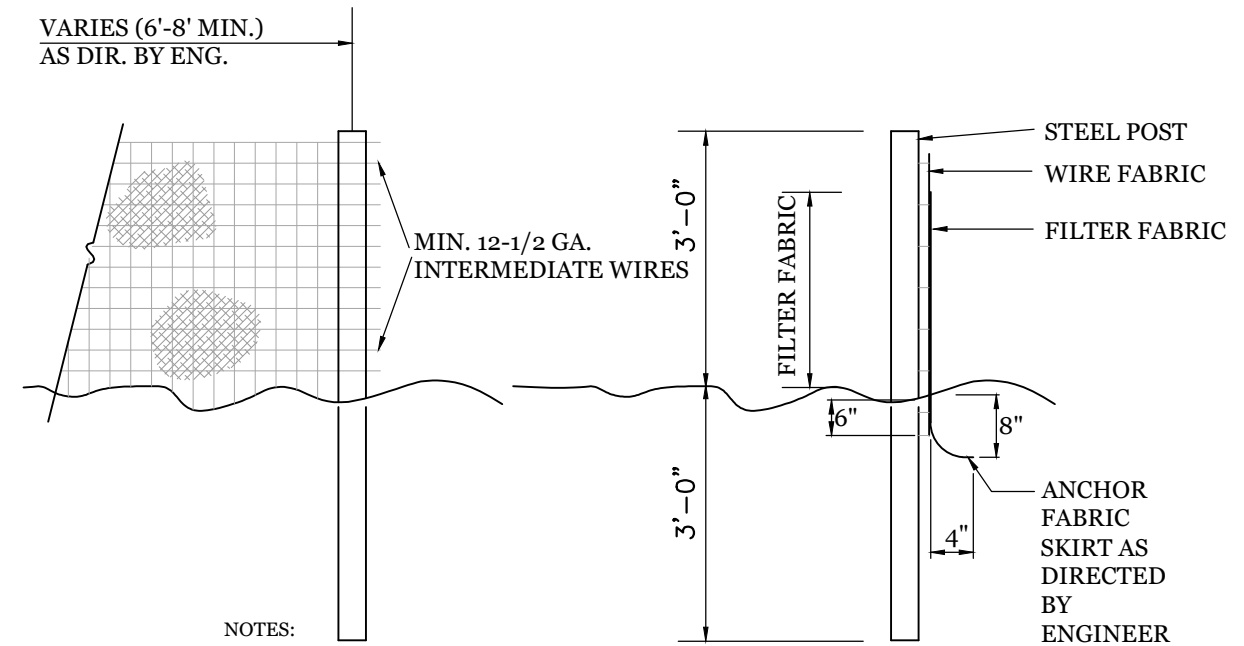
- UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
- DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
- SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2-FOOT FLAP OF WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
- 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.
- ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
- COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUND COVER.

**HARDWARE CLOTH AND GRAVEL INLET PROTECTION**

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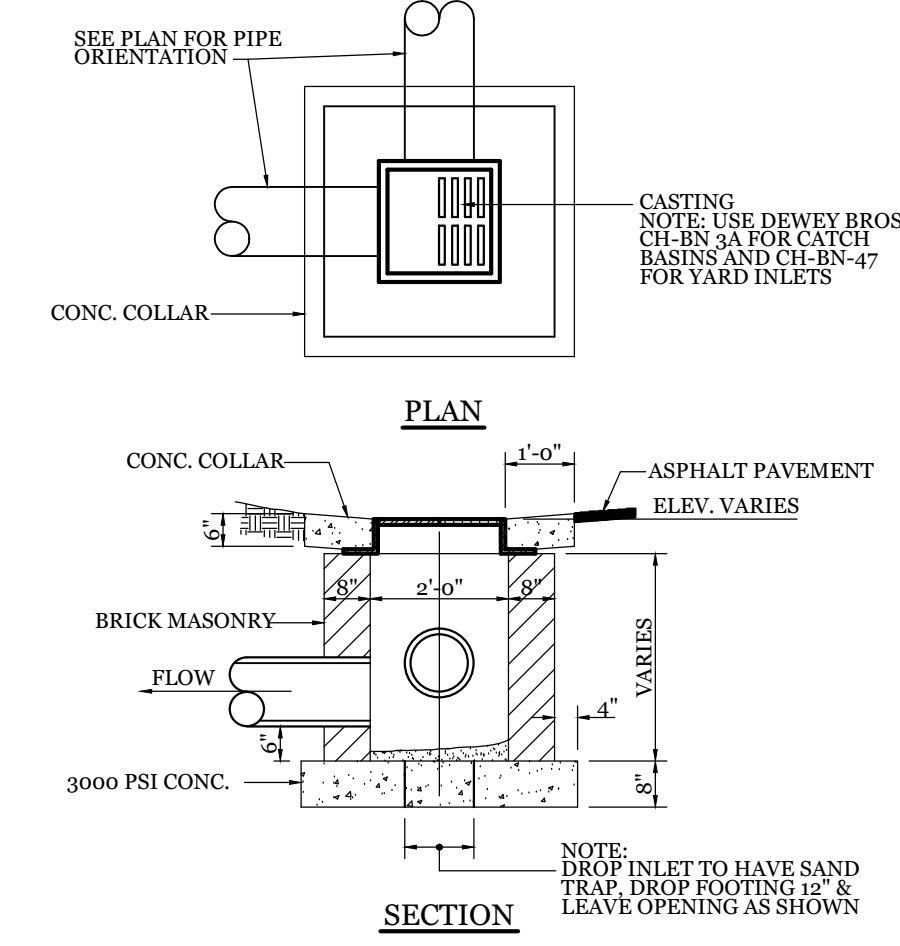
**MAINTENANCE:**  
 INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/4 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.



- NOTES:**
- FENCE FABRIC SHALL BE A MIN. OF 22" IN WIDTH AND SHALL HAVE A MIN. OF SIX LEX WIRES WITH 12" STAY SPACING.
  - FABRIC SHALL BE FOR EROSION CONTROL AND MIN. OF 36" IN WIDTH. FABRIC SHALL BE FASTENED ADEQUATELY TO THE WIRE FABRIC AS DIRECTED BY THE ENGINEER.
  - STEEL POST SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

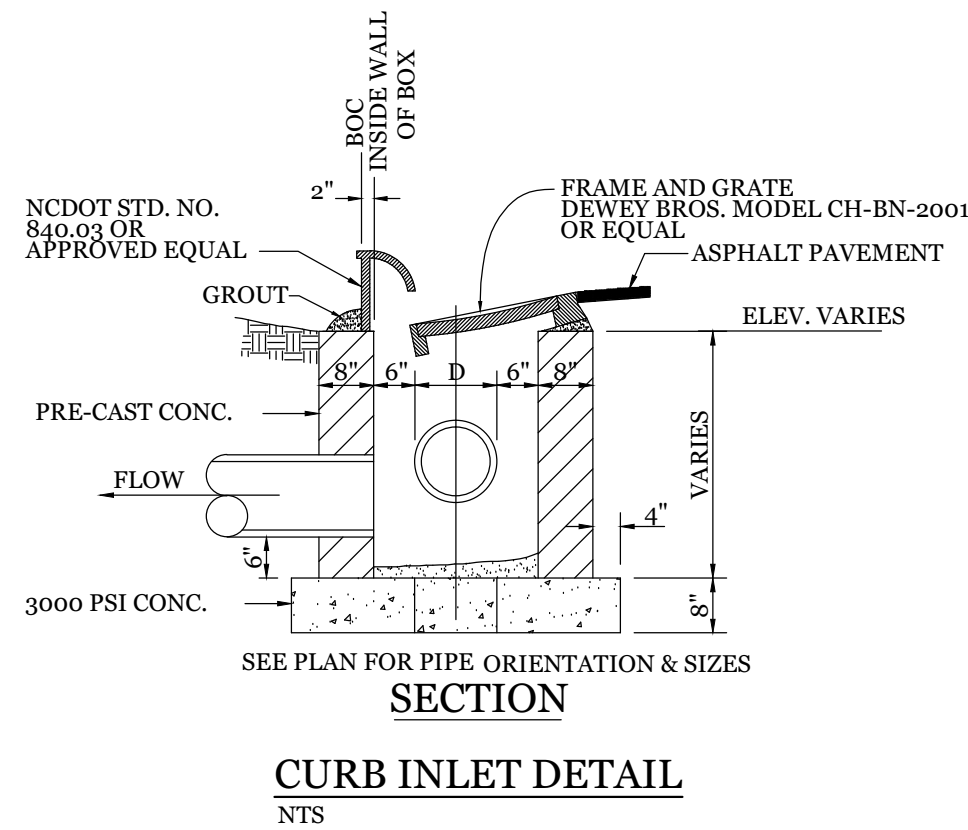
**TEMPORARY SILT FENCE**

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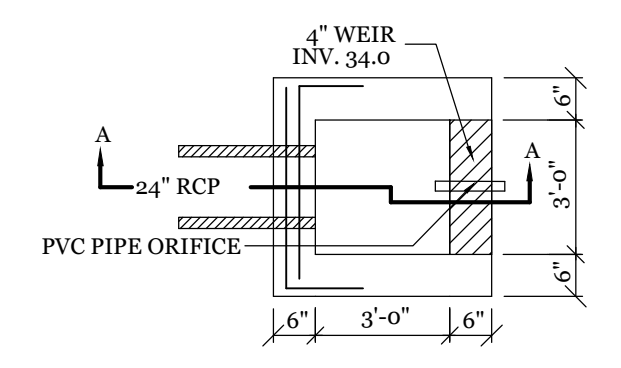
**DROP INLET DETAIL**

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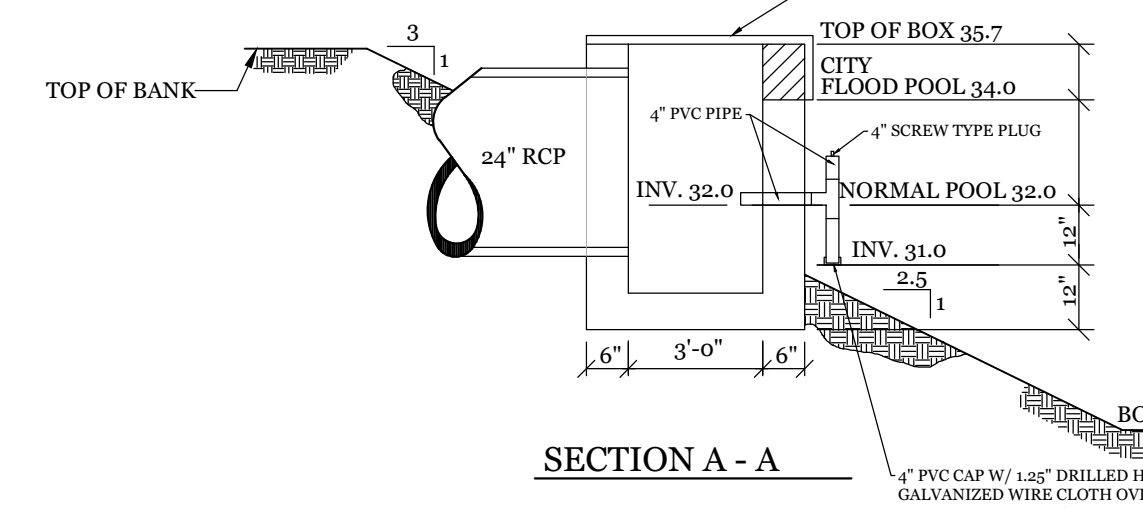


**CURB INLET DETAIL**

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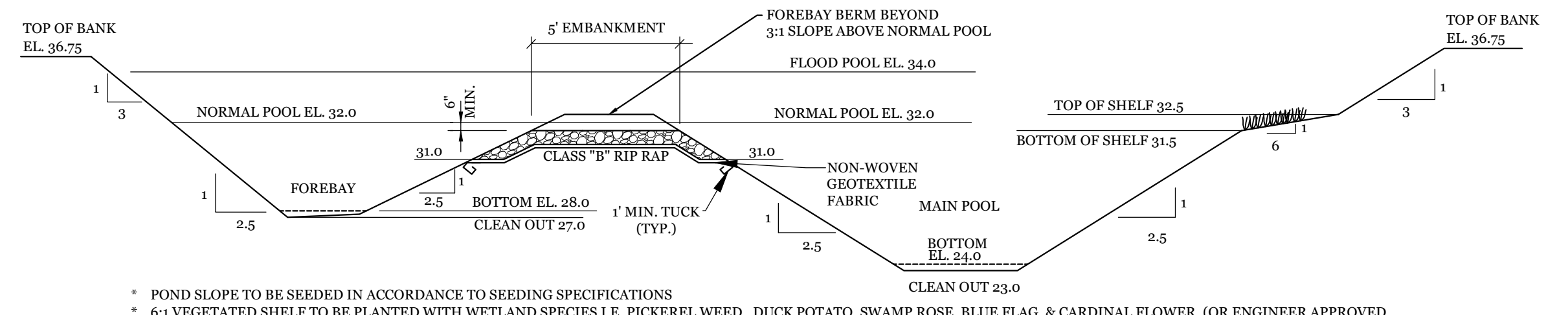


GALV. BAR GRATING - 1" x 1/8" BEARING BARS (MAX OPENING 4"). FASTEN WITH TYPE J CLIPS. ATTACH TO 1-1/4" x 1-1/4" x 1/4" GALVANIZED ANGLE FRAME. MORTAR FRAME TO TOP OF OUTLET STRUCTURE & FACE OF WEIR.



**DETENTION POND OUTLET STRUCTURE**

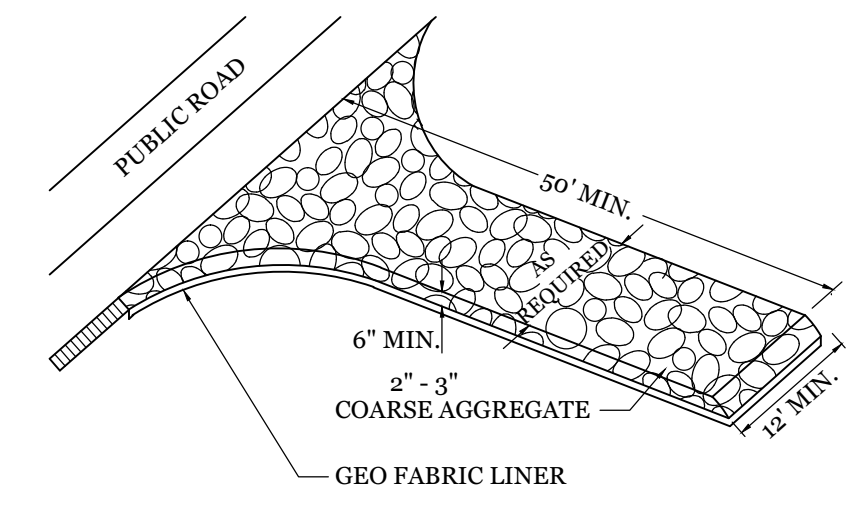
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**DETENTION POND & FOREBAY SECTION**

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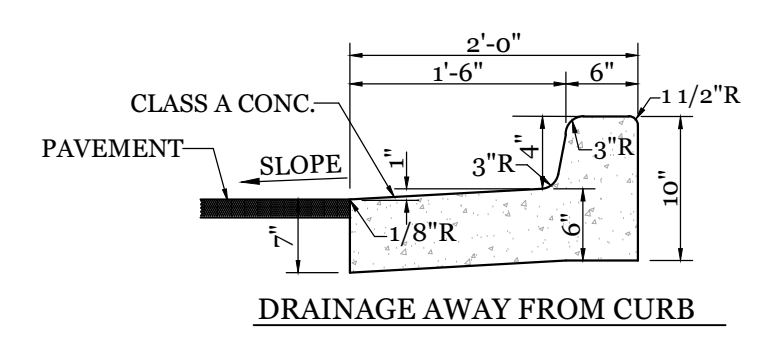
- POND SLOPE TO BE SEEDED IN ACCORDANCE TO SEEDING SPECIFICATIONS
- 6:1 VEGETATED SLOPE TO BE PLANTED WITH WETLAND SPECIES I.E. PICKEREL WEEB, DUCK POTATO, SWAMP ROSE, BLUE FLAG, & CARDINAL FLOWER. (OR ENGINEER APPROVED ALTERNATIVE)
- VEGETATED SHELF SHALL BE PLANTED WITH PLUGS OR POTS AT 24" O.C. IN A CHECKERBOARD PATTERN.
- VEGETATED SHELF PLANTING SHALL NOT BE PLANTED WITHIN 10' OF THE OUTLET STRUCTURES.
- A PUMP WILL BE PROVIDED TO DRAIN THE BASIN FOR MAINTENANCE AND EMERGENCIES
- ANY PORTION OF WET DETENTION BASIN USED FOR S&EC DURING CONSTRUCTION MUST BE CLEANED OUT AND RETURNED TO DESIGN STATE BEFORE USE AS A WET DETENTION BASIN.



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

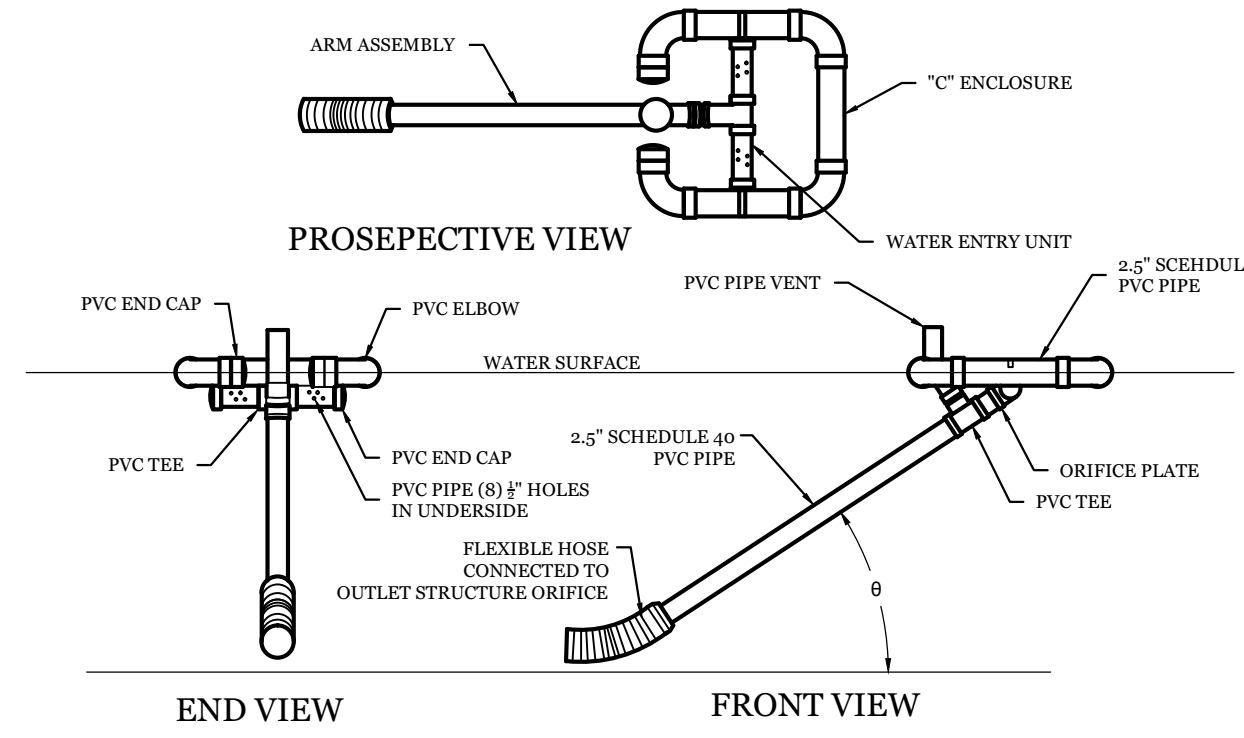
**TEMPORARY GRAVEL CONSTRUCTION ENTRANCE**

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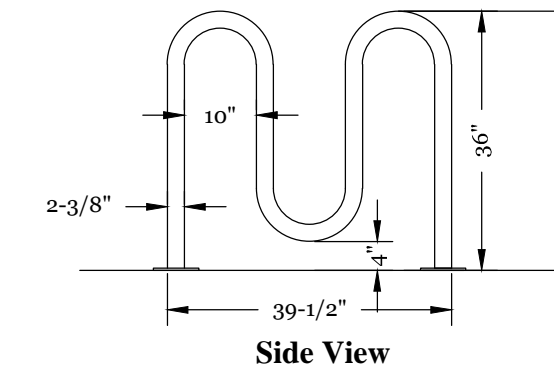
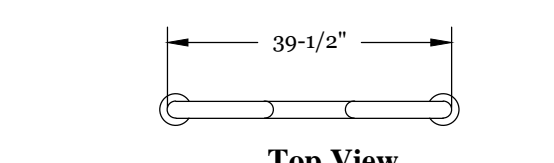
**4" HIGH CURB SECTION**

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**FAIRCLOTH SKIMMER DETAIL**

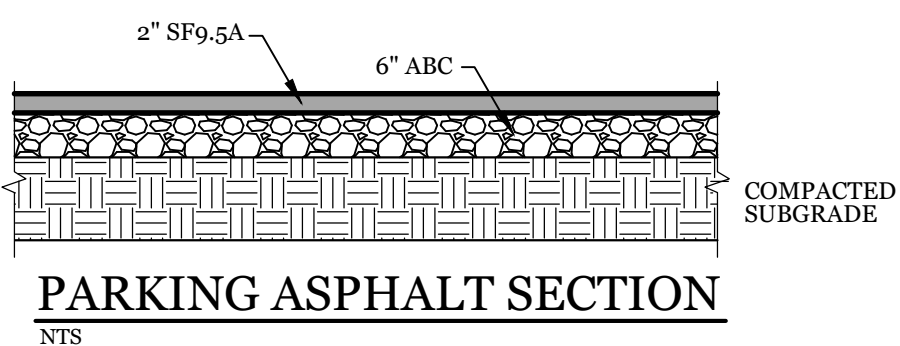
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**WAVE STYLE BIKE RACK DETAIL**

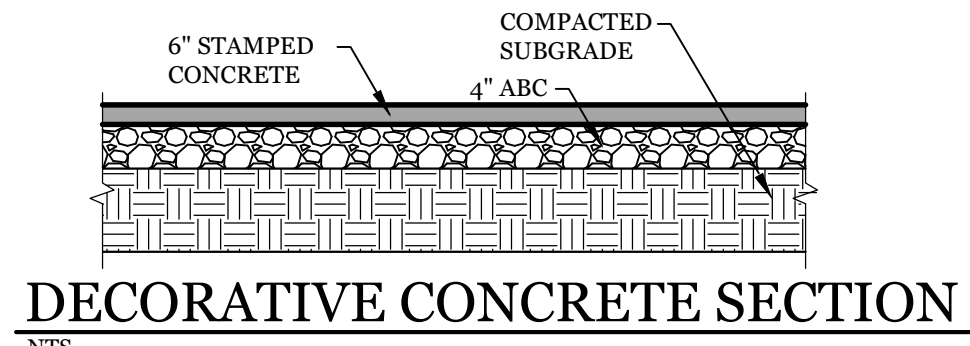
5 BIKE RACK

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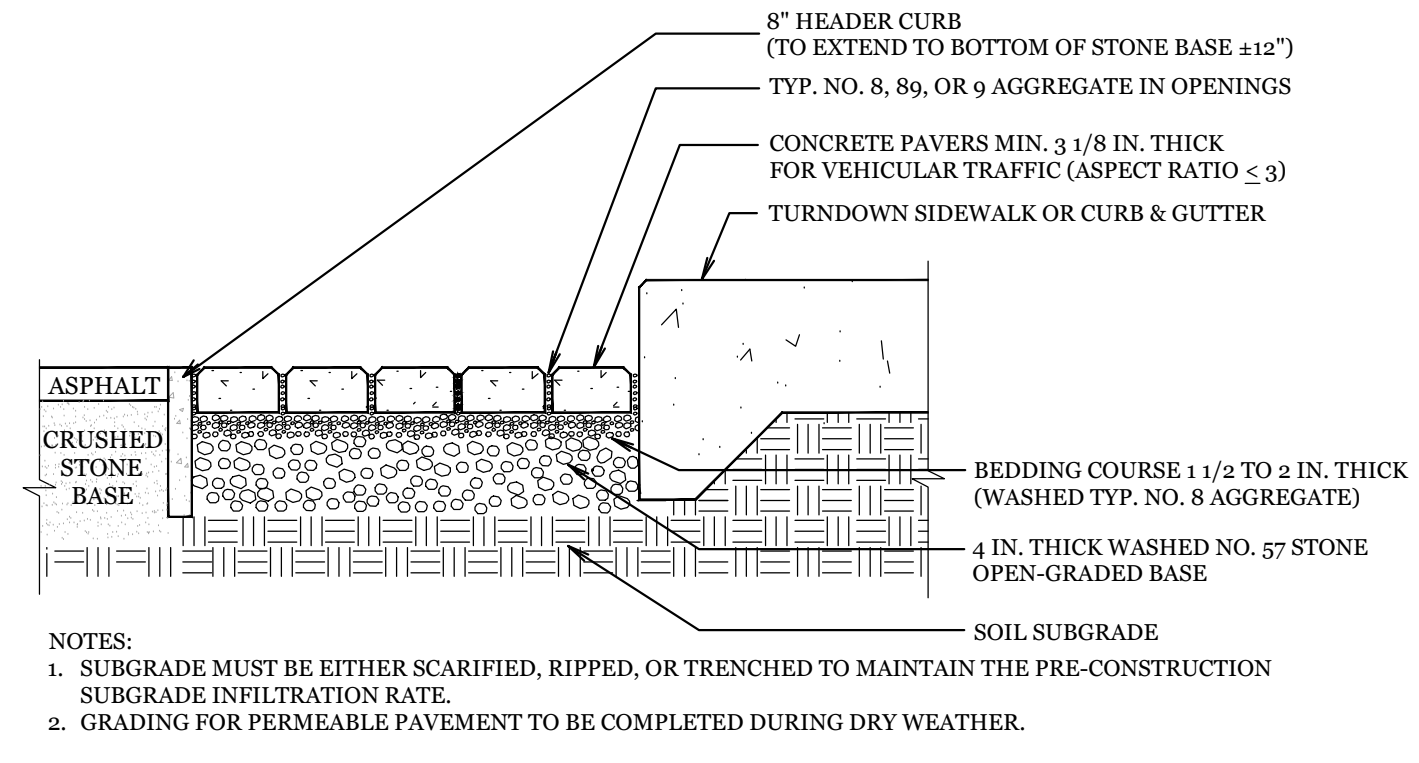
**PARKING ASPHALT SECTION**

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**DECORATIVE CONCRETE SECTION**

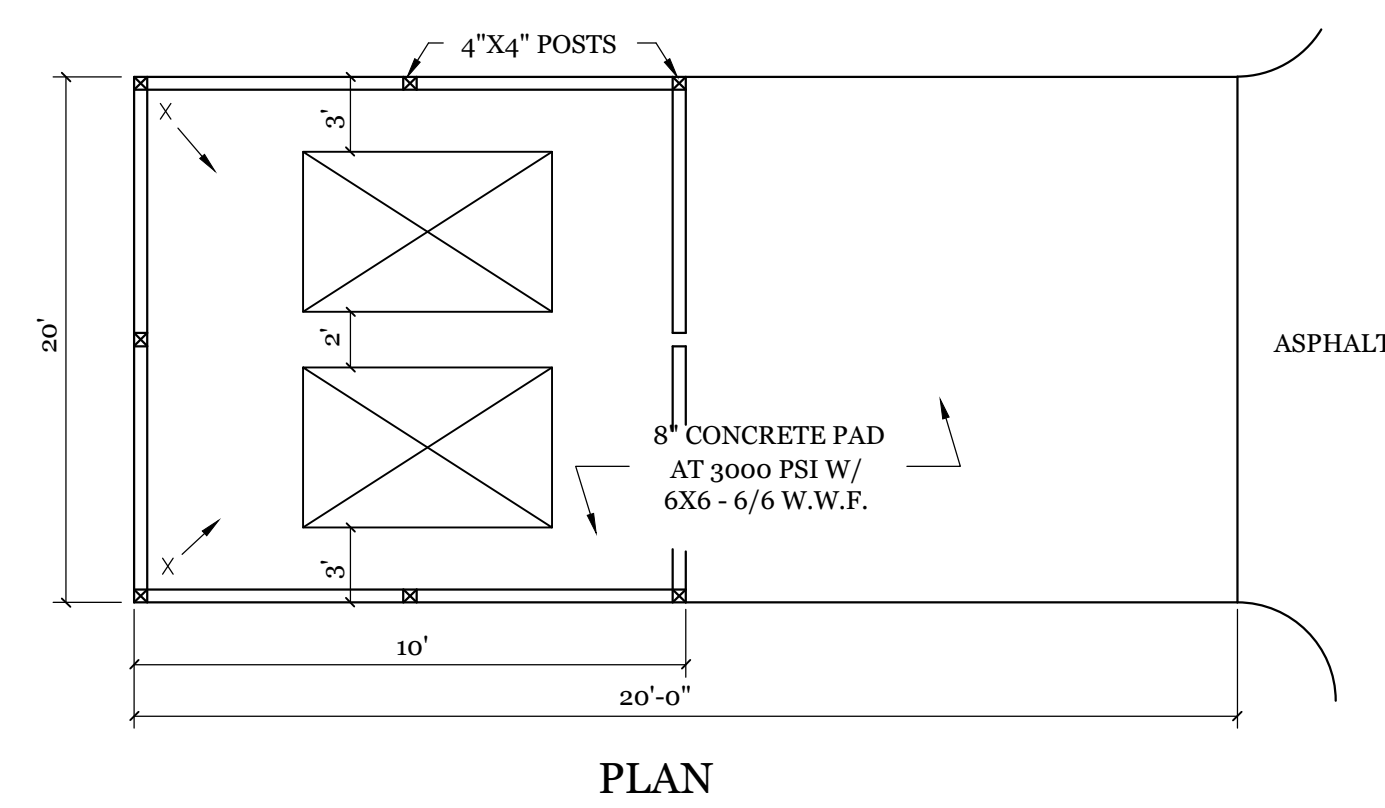
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**PERMEABLE PAVER SECTION**

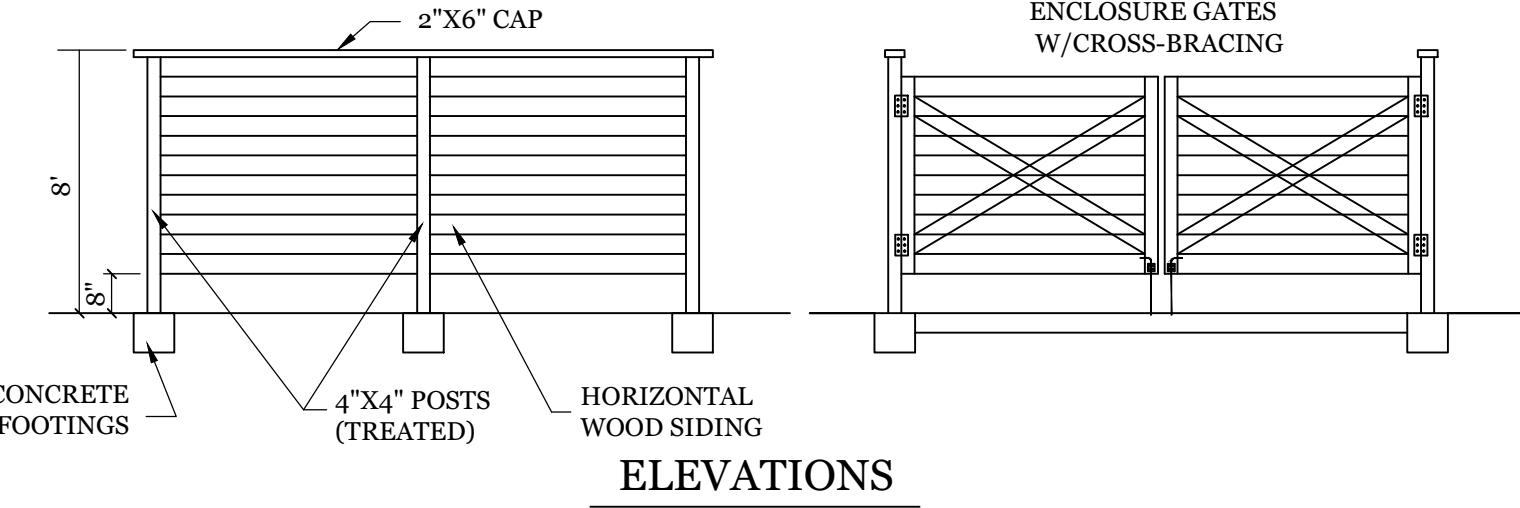
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- NOTES:**
- SUBGRADE MUST BE EITHER SCARIFIED, RIPPED, OR TRENCHED TO MAINTAIN THE PRE-CONSTRUCTION SUBGRADE INFILTRATION RATE.
  - GRADING FOR PERMEABLE PAVEMENT TO BE COMPLETED DURING DRY WEATHER.



**DUMPSTER PAD & ENCLOSURE DETAIL**

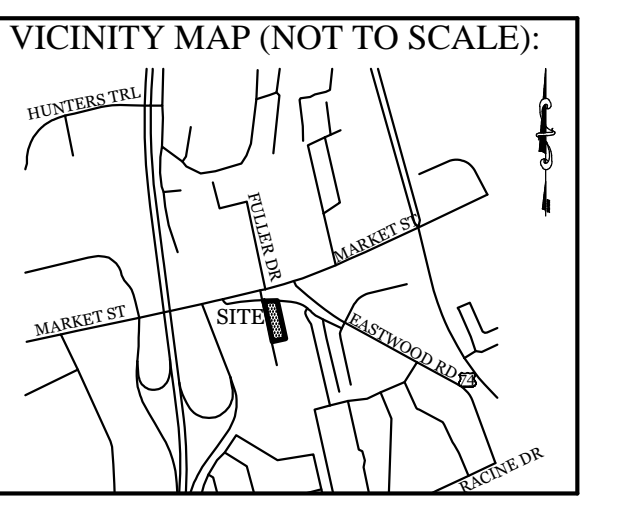
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**ELEVATIONS**

**SITE WORK NOTES:**

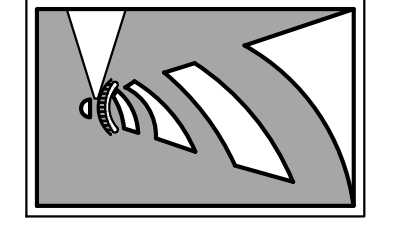
- THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS BOTH ON AND ADJACENT TO THE SITE.
- CLEARING: CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN LIMITS OF CONSTRUCTION UNLESS OTHERWISE DESIGNATED TO REMAIN.
- GRUBBING AND STRIPPING: CONTRACTOR SHALL RAKE AND REMOVE ROOTS, STUMPS, VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITHIN LIMITS OF CONSTRUCTION.
- MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.
- DISPOSAL: CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
- FILL AND COMPACTION SHOULD COMPLY WITH GEOTECHNICAL RECOMMENDATIONS.
- 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.
- THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM AN OFF-SITE PROPERLY PERMITTED FACILITY AS REQUIRED.
- MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.
- 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.
- NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NC ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.
- 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.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE DISCONNECTION/ RECONNECTION AND/OR THE RELOCATION OF ALL EXISTING UTILITIES WITH APPROPRIATE PERSONNEL.
- 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.
- 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.
- THE CONTRACTOR SHALL PROVIDE ANY AND ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK UNLESS OTHERWISE DIRECTED BY OWNER.
- ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO MEET ALL LOCAL, STATE, AND CPWA CODES. METERS, TAPS, MATERIALS, WORKMANSHIP AND ALL FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL REQUIREMENTS.
- 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.
- 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.
- CONCRETE FOR WALKS, CURBS AND DRIVES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS - AIR ENTRAINED.
- 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.
- ALL SIDEWALKS SHALL BE FREE OF CRACKS, BREAKS, OR ANY OTHER DEFECT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY.



**REVISIONS**

10-21-20	REVISED OUTLET STRUCTURE DETAIL
12-29-20	ADDED 4" HIGH CURB DETAIL

**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



**FOR CAPE FEAR MOTO GROUP**  
 WILMINGTON, NORTH CAROLINA

**CHARLES D. CATEY**  
 PROFESSIONAL ENGINEER  
 032555  
 9/8/2020

**CLIENT INFORMATION:**  
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 SHANE HEFFERNAN  
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 (910) 202-4662

DRAWN: JAE SHEET SIZE: 24 X 36  
 CHECKED: CDC DATE: 9/8/2020  
 APPROVED: CDC SCALE: NTS  
 PROJECT NUMBER: 2019-027

DRAWING NUMBER: **C-4** 5 OF 8

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Public Utilities \_\_\_\_\_

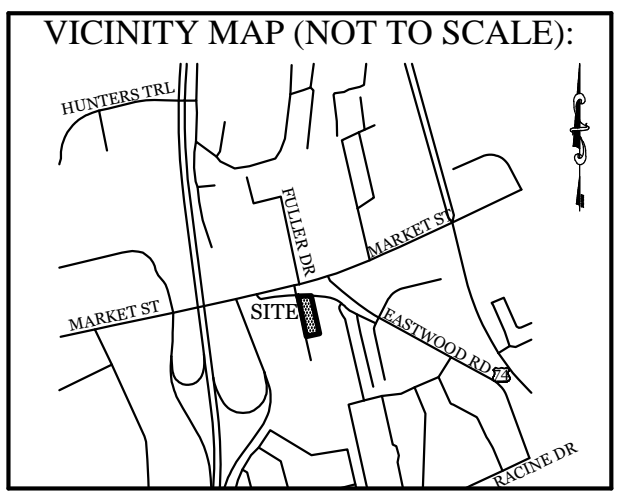
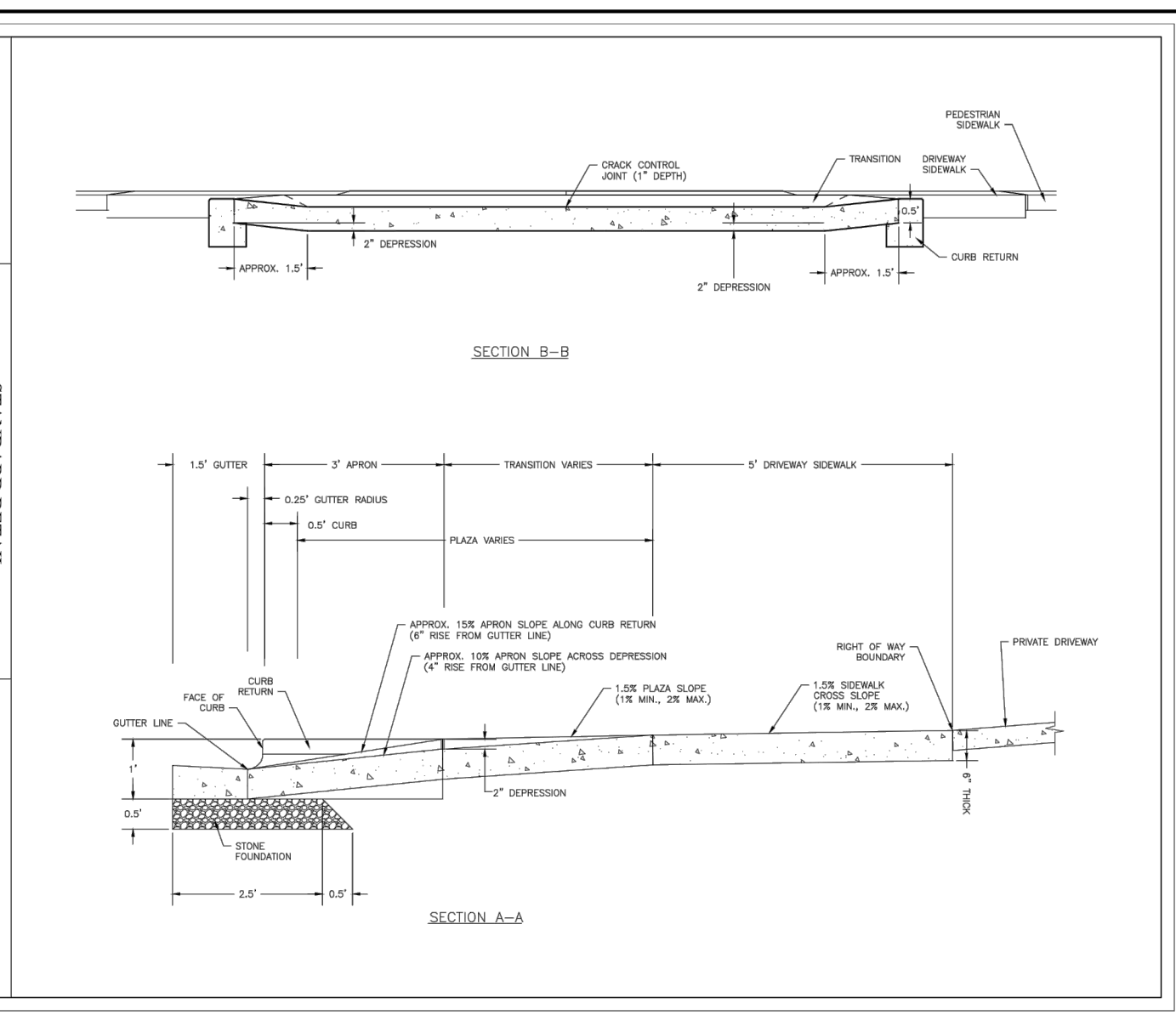
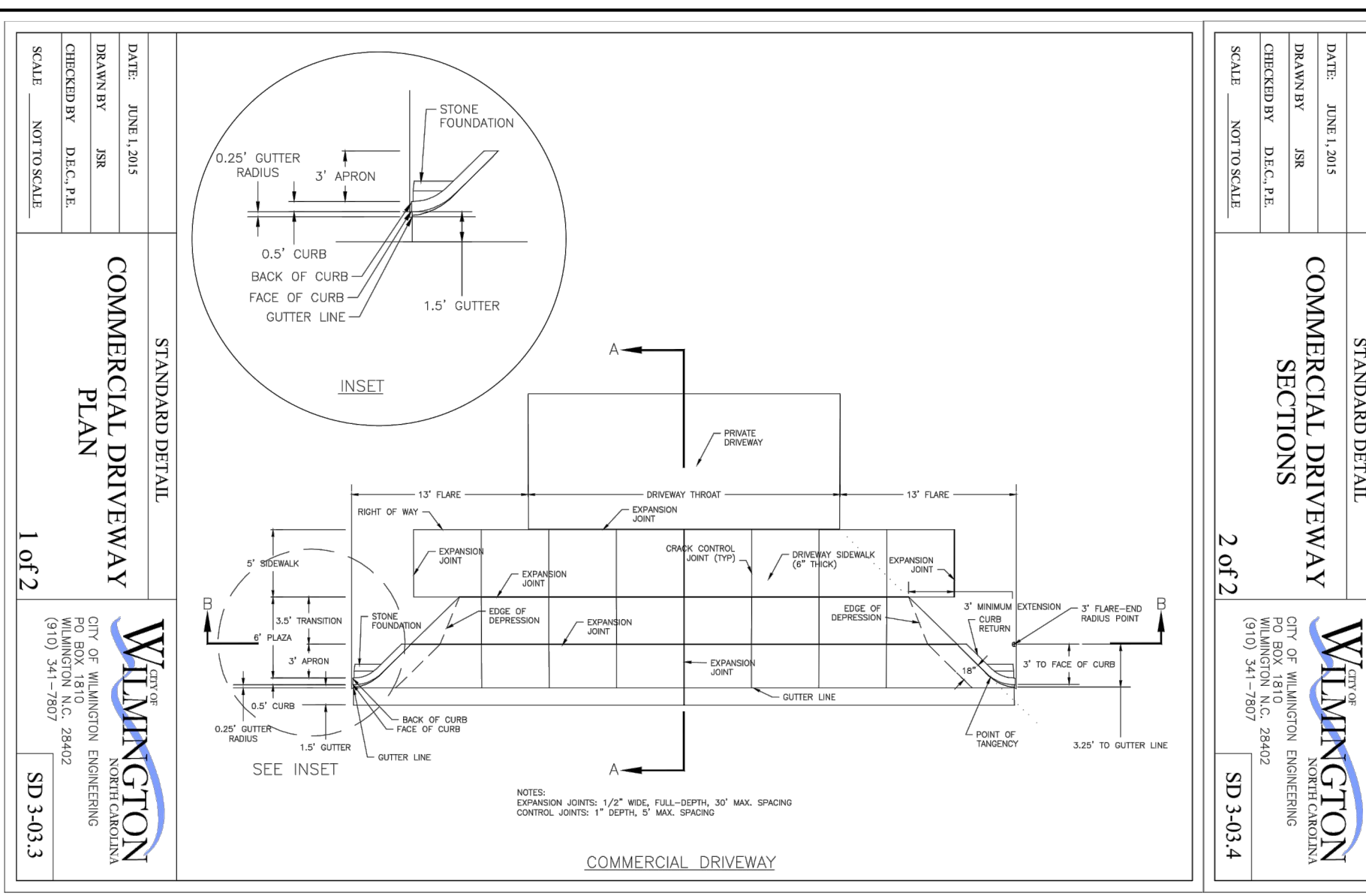
Traffic \_\_\_\_\_

Fire \_\_\_\_\_

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

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

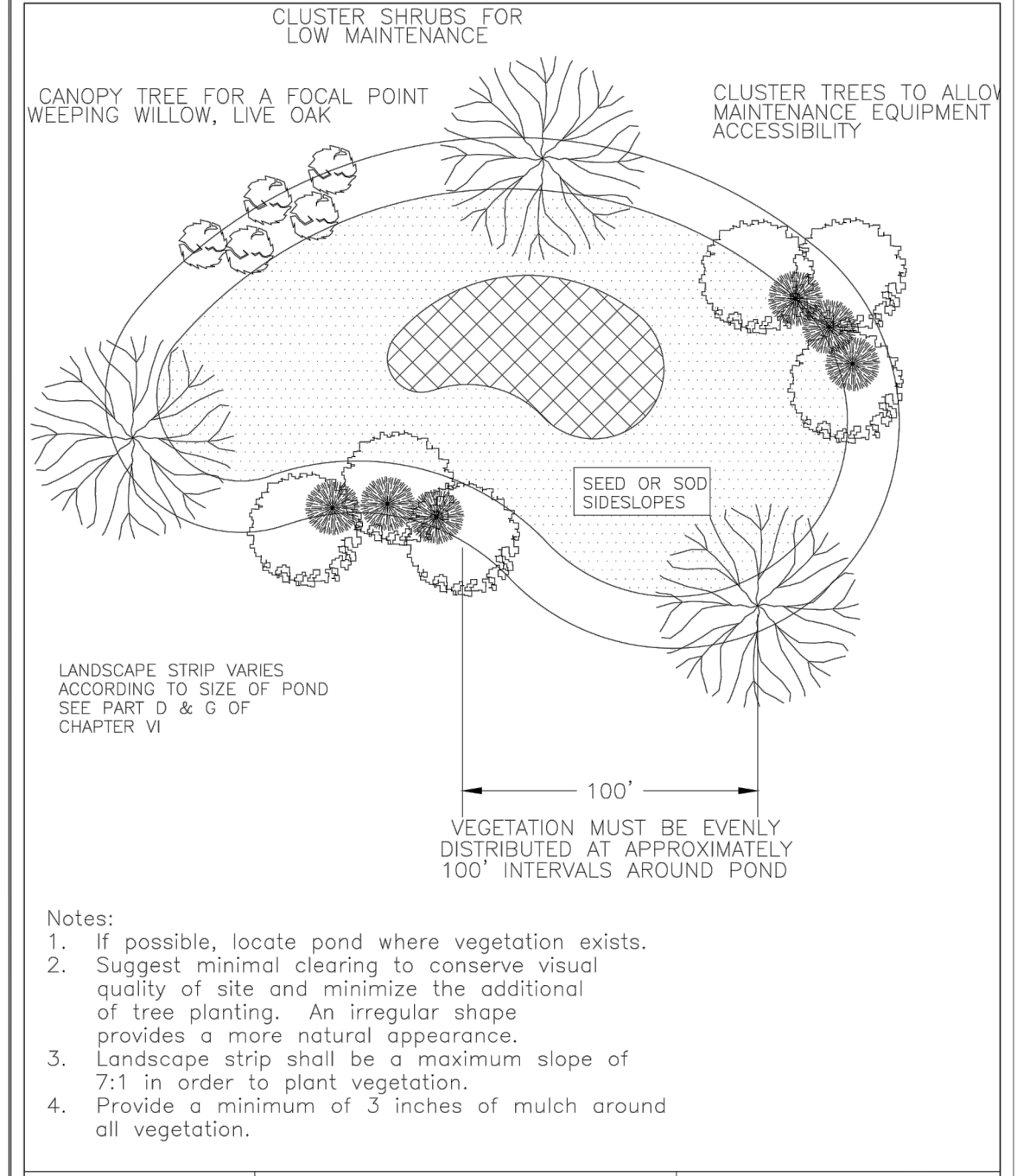
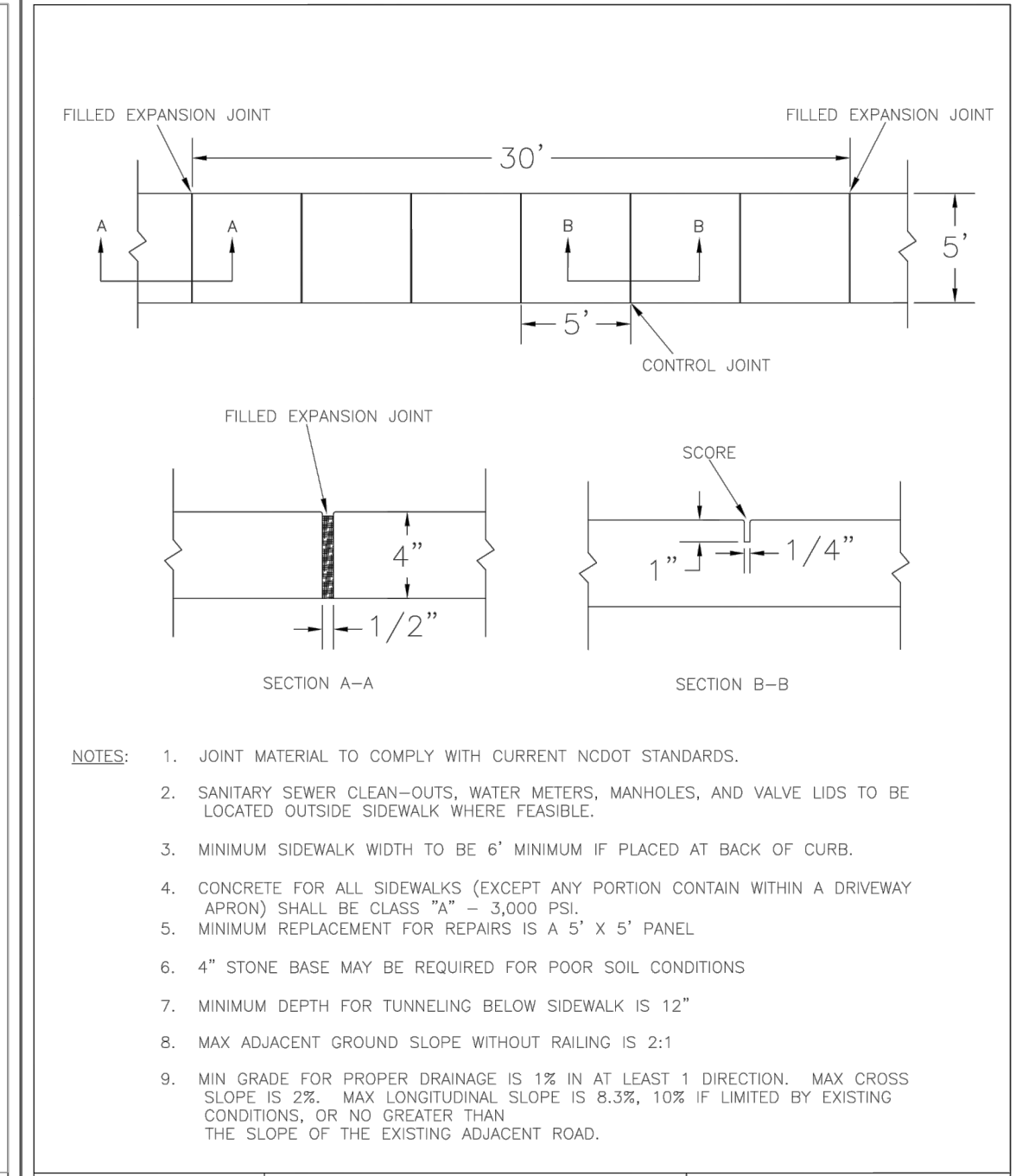
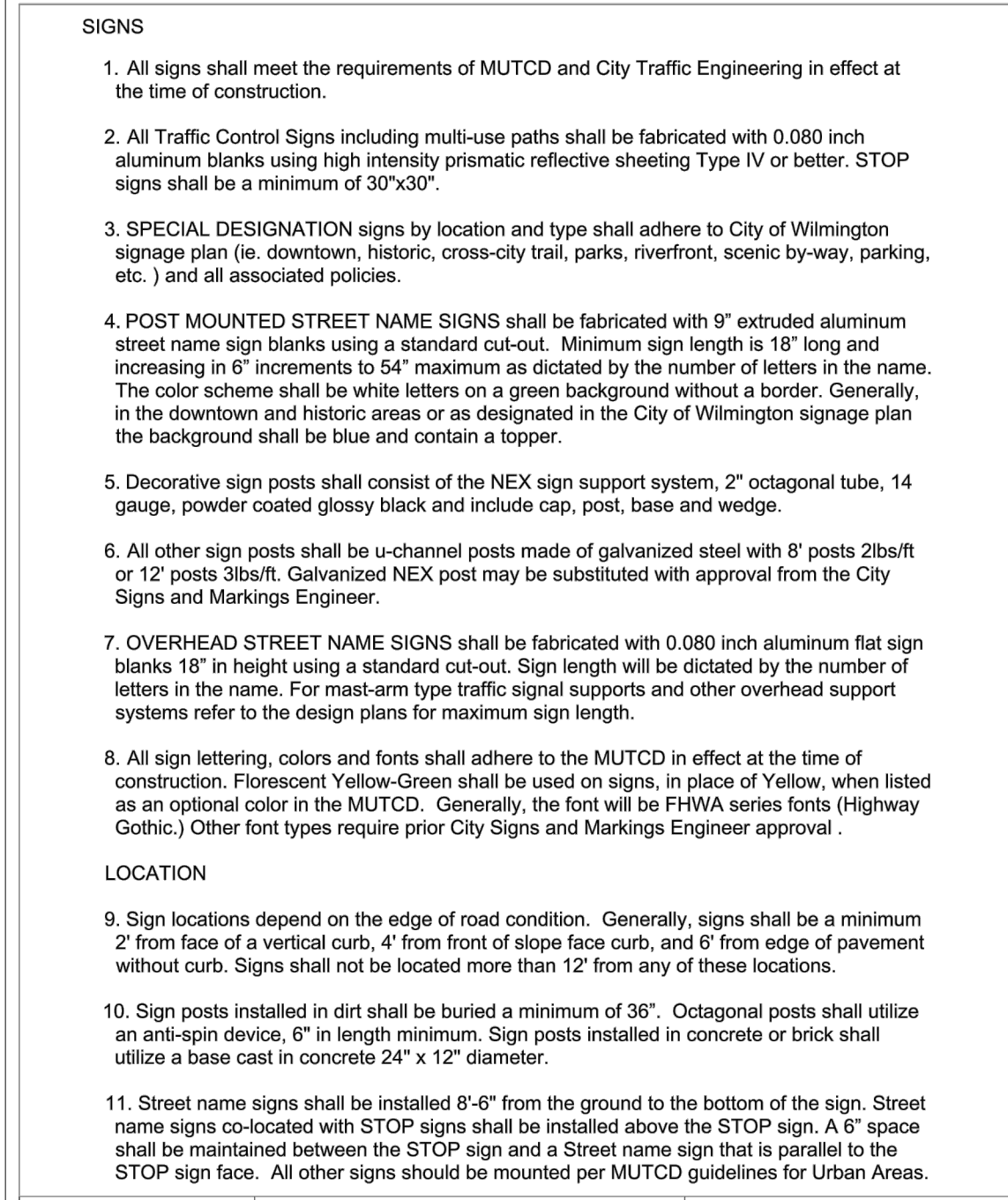
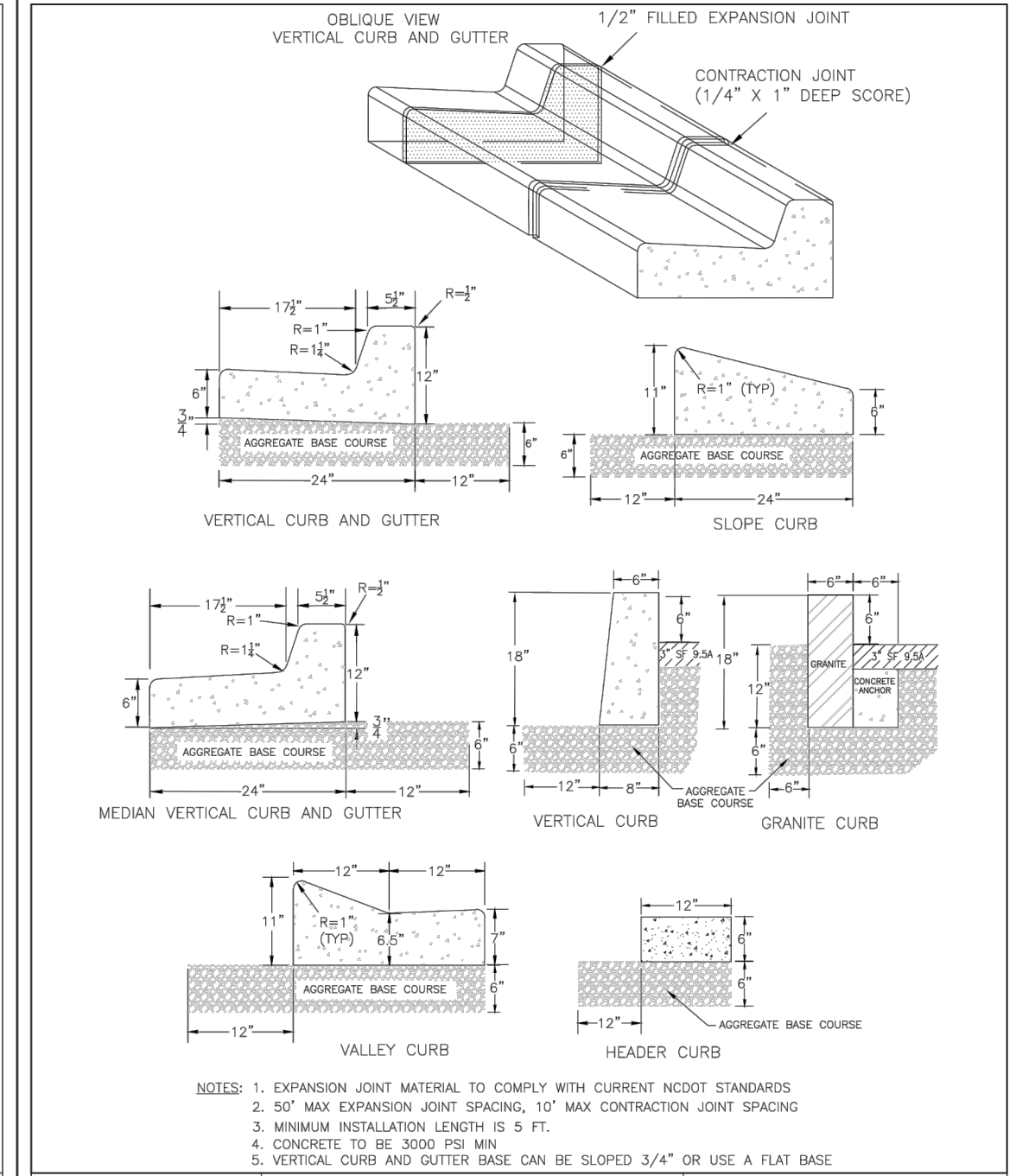
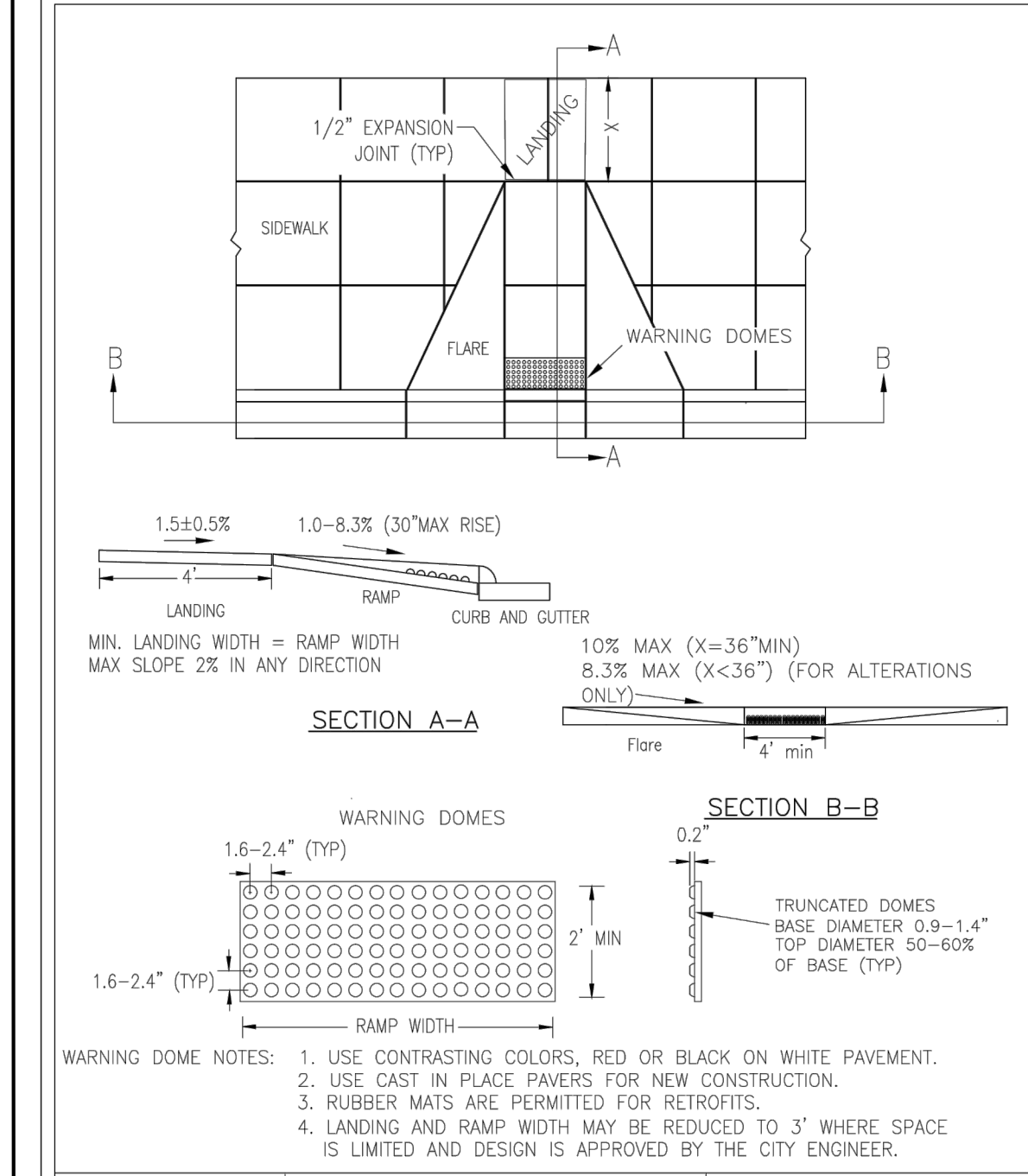
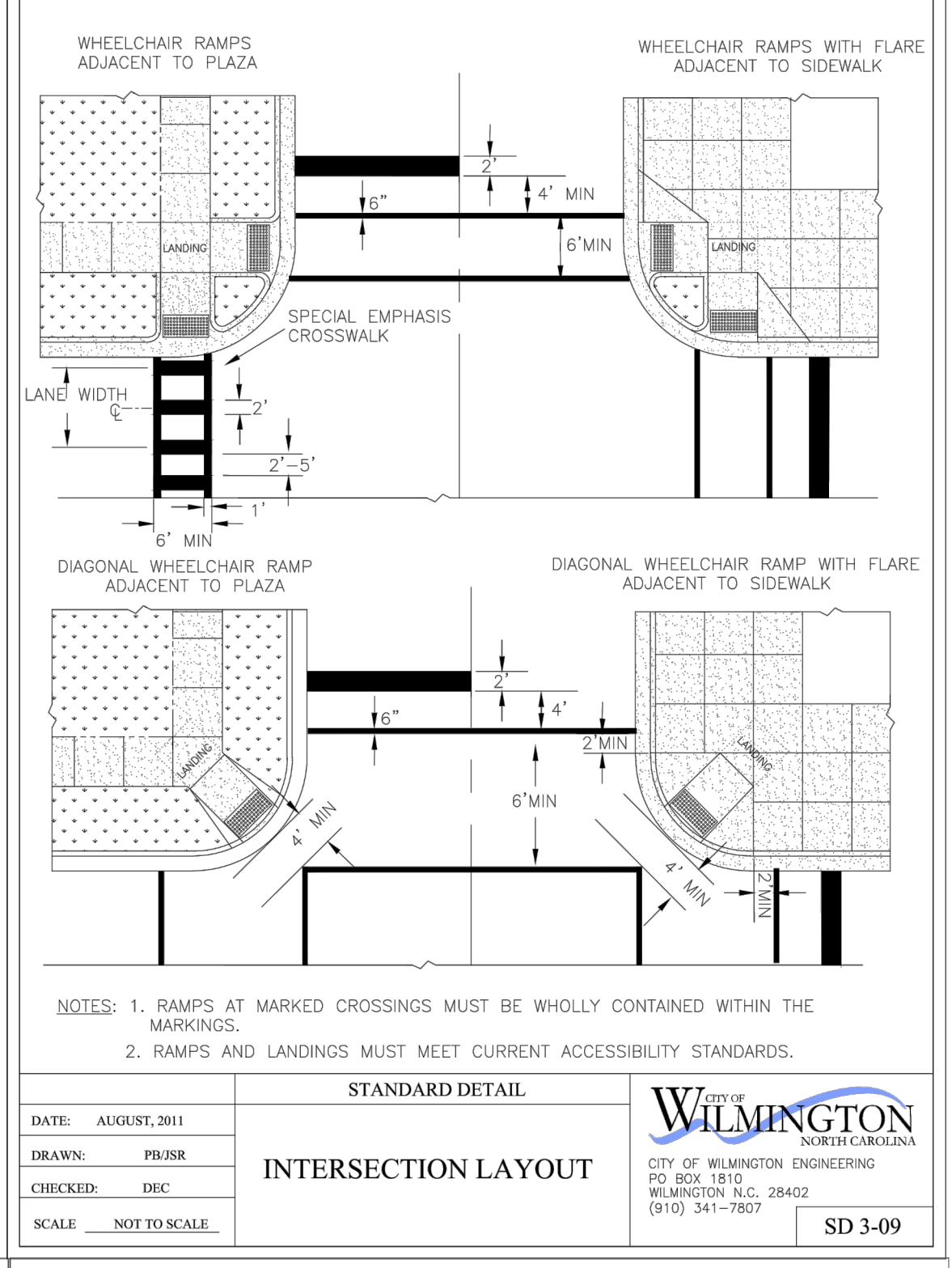
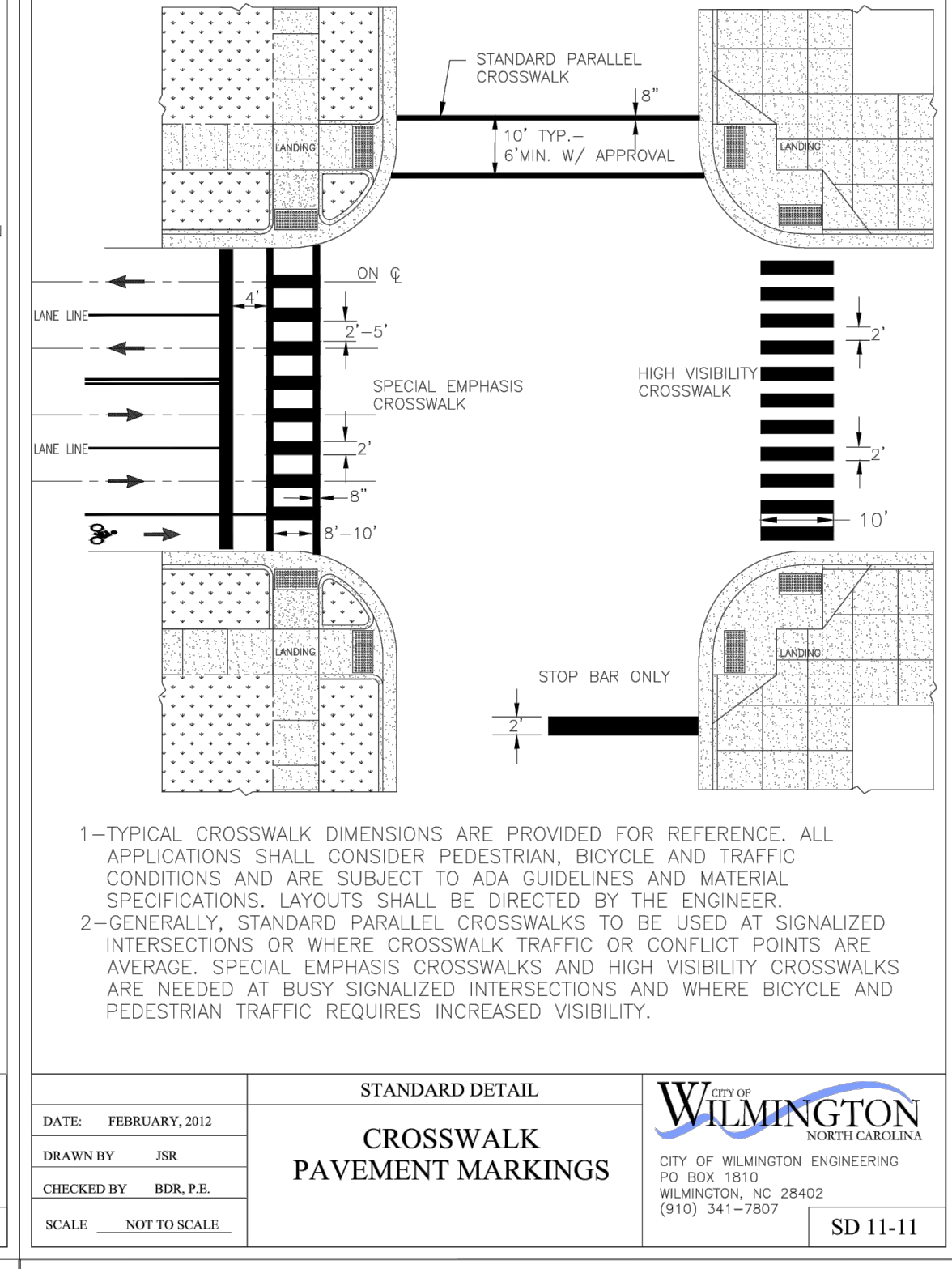
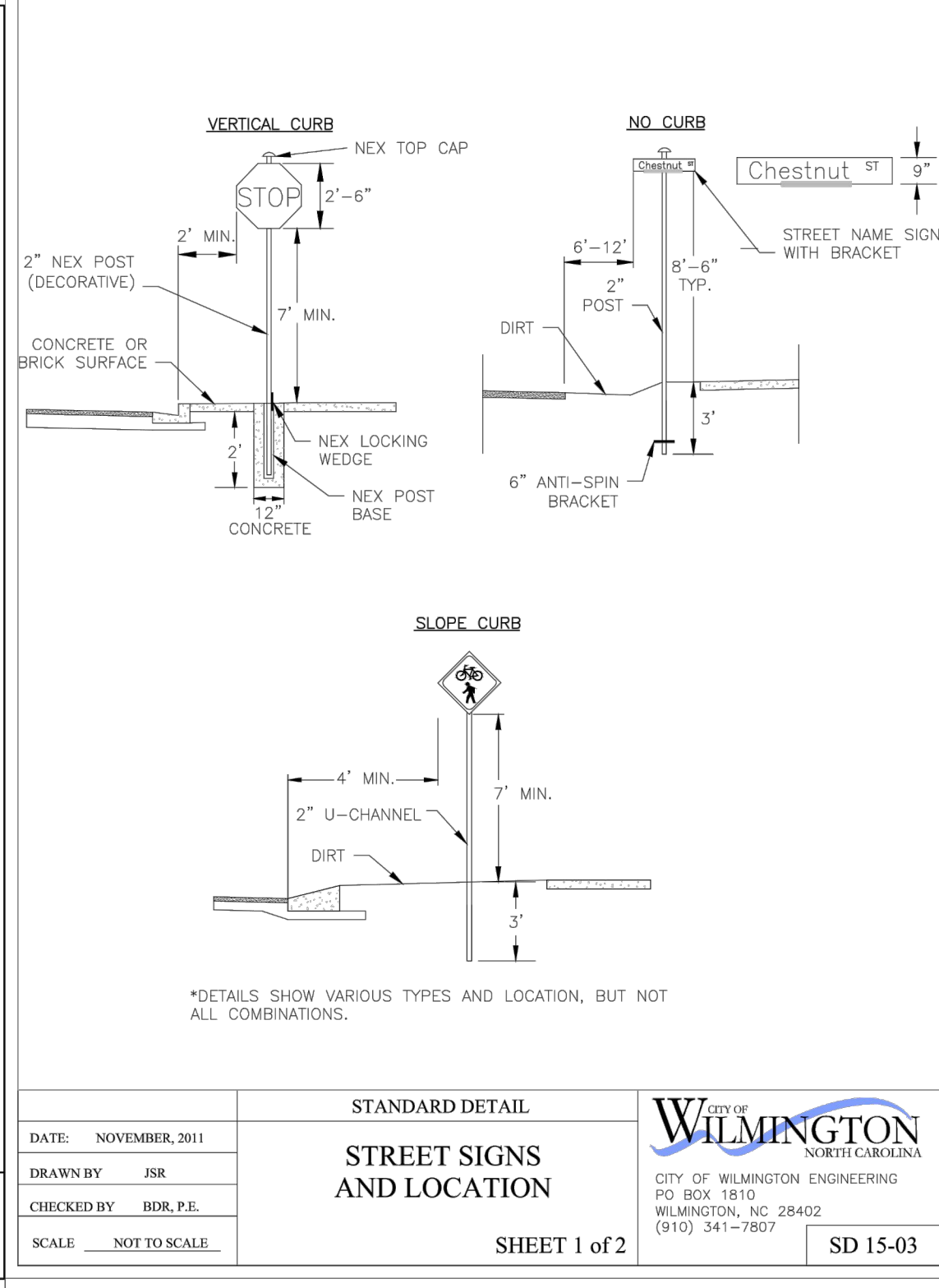
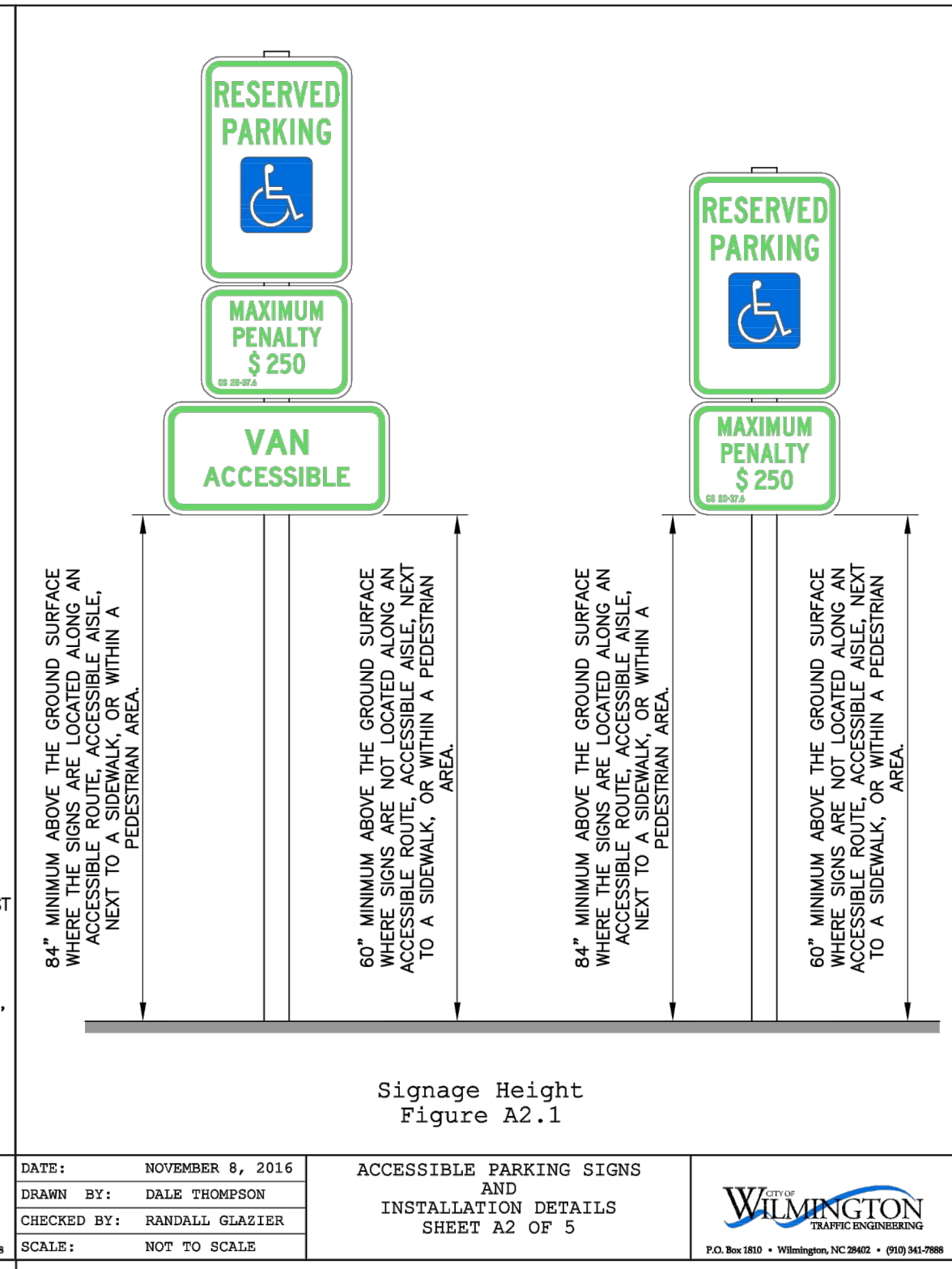
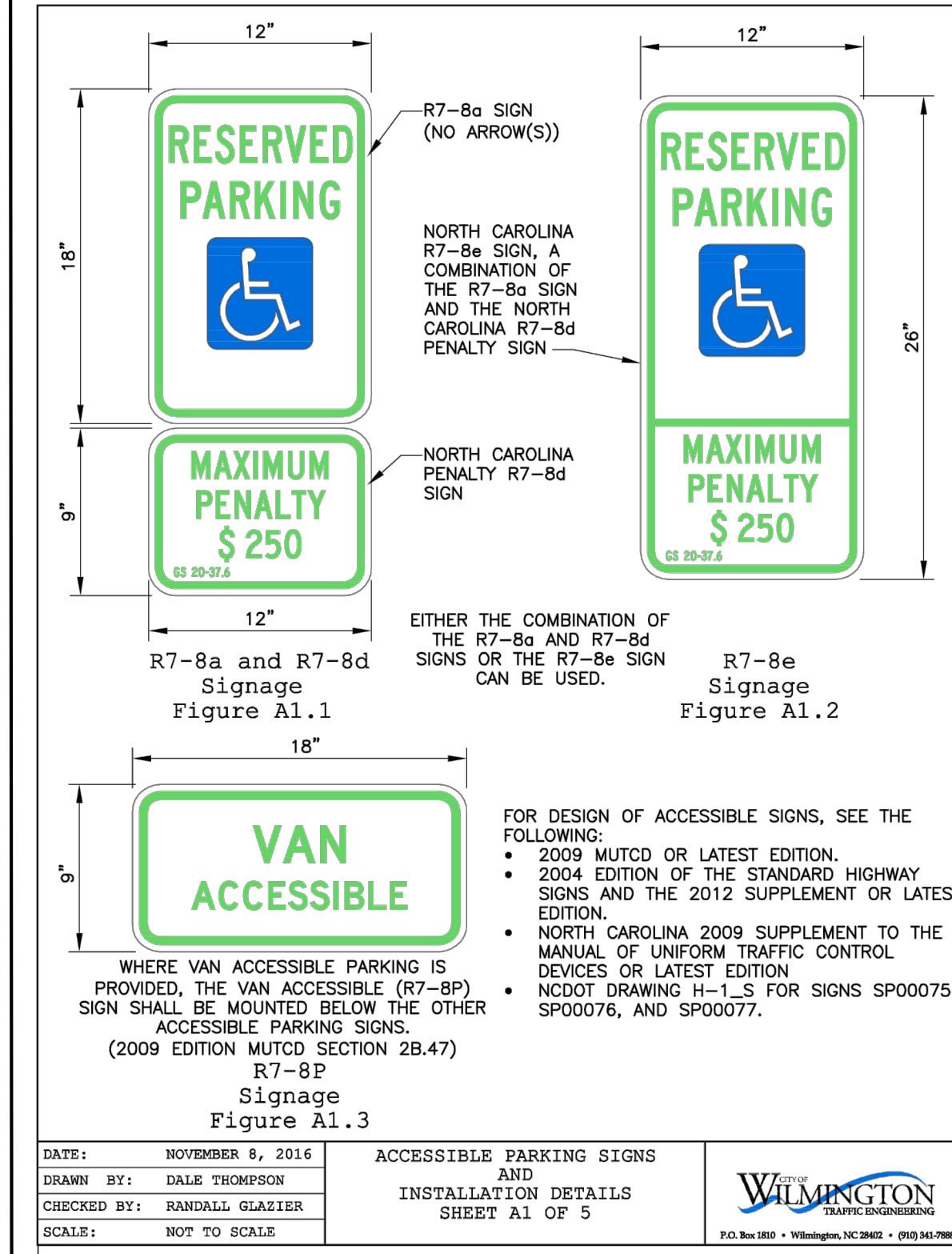
Signed: \_\_\_\_\_



REVISIONS


**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

**CAPE FEAR MOTO GROUP**

WILMINGTON, NORTH CAROLINA

**CITY OF WILMINGTON**  
NORTH CAROLINA  
ENGINEERING  
PO BOX 1810  
WILMINGTON, NC 28402  
(910) 341-7807

SEAL

032555

CHARLES D. CATEY  
ENGINEER

9/8/2020

CLIENT INFORMATION:

CLOS PROPERTIES, LLC  
SHANE HEFFERNAN  
255 OLD EASTWOOD ROAD  
WILMINGTON, NC 28403  
(910) 202-4662

DRAWN: JAE SHEET SIZE: 24 X 36  
CHECKED: CDC DATE: 9/8/2020  
APPROVED: CDC SCALE: NTS  
PROJECT NUMBER: 2019-027

DRAWING NUMBER: **C-5**

6 OF 8

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

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



Public Services • Engineering Division  
**APPROVED STORMWATER MANAGEMENT PLAN**

Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**SITE DATA**

PARCEL ID: R05009-006-007-000  
 ZONING: RB-REGIONAL BUSINESS  
 CAMA LAND USE CLASSIFICATION: URBAN  
 PROJECT ADDRESS: 5 GARRIS RD. WILMINGTON, NC 28403  
 CURRENT OWNERS: CLOS PROPERTIES LLC 20 OLD EASTWOOD RD. WILMINGTON, NC 28403  
 TOTAL ACREAGE IN PROJECT BOUNDARY: 95.463 S.F. (±2.19 AC.)

**LANDSCAPE REQUIREMENTS:**

REQUIRED	PROVIDED
PARKING LOT INTERIOR SHADING: 20% CANOPY COVERAGE (40,000 SF)	8,000 SF 10,605 SF*

\*INCLUDING (5) EXISTING OAKS RANGING BETWEEN 10"-18" DBH.

STREETYARD: (OLD EASTWOOD RD.) (555.75' X 23)	REQUIRED	PROVIDED
CANOPY TREES (3,894 / 600)	6	6
SHRUBS (3,894 / 600 X 6)	39	40

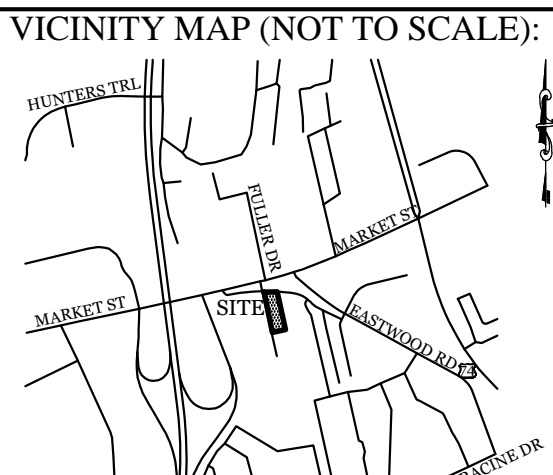
STREETYARD: (GARRIS RD.) (639.17' X 12.5)	REQUIRED	PROVIDED
CANOPY TREES (7,990 / 600)	13	13 (8 EXISTING)
SHRUBS (7,990 / 600 X 6)	80	80

FOUNDATION PLANTINGS: (12% OF BLDG FACE ADJ. TO PARKING AREA)	REQUIRED	PROVIDED
NORTH FACE (1,788 SF X 12%)	215 SF	216 SF
SOUTH FACE (1,788 SF X 12%)	215 SF	232 SF
EAST FACE (6,688 SF X 12%)	803 SF	855 SF
WEST FACE (6,688 SF X 12%)	803 SF	810 SF

TREE REQUIREMENTS PER DISTURBED ACRE:  
 2.4 ACRES DISTURBED X 15 TREES = 36 TREES 45 TREES (21 PLANTED & 24 PRESERVED)

**NOTE:**

- THIS WORK INCLUDES, BUT IS NOT LIMITED TO THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, FINAL GRADING, SEEDING, SOIL AMENDMENTS, ETC. AS MAY BE REQUIRED FOR A COMPLETE INSTALLATION.
- ALL PLANT MATERIALS SHALL BE INSTALLED USING GOOD HORTICULTURAL PRACTICES IN ACCORDANCE WITH THE PLANS AND DETAILS.
- TREE LOCATIONS SHOWN ON PLAN MAY REQUIRE ADJUSTMENT IN THE FIELD, WHENEVER FEASIBLE. TREES SHOULD BE PLANTED A MINIMUM OF TEN (10) FEET FROM ALL UNDERGROUND UTILITIES, STREETLIGHTS, HYDRANTS, AND OUT OF DRAINAGE FLOW LINES. SHOULD THIS NOT BE POSSIBLE, CONTACT THE ENGINEER FOR DECISION ON PLACEMENT.
- ALL TREES IN TURF AREAS SHALL HAVE 12" MIN. CLR. CIRCUMFERENCE AROUND THE TRUNK BASE. PROVIDE 2" MIN. THK. MULCH AT BASE OF TRUNK.
- MATURE PLANTINGS SHALL NOT INTERFERE WITH UTILITIES AND TRAFFIC SIGHT LINES.
- ALL LANDSCAPED ISLANDS AND BEDS TO BE STABILIZED WITH MIN. 4" LAYER OF HARDWOOD MULCH.
- ALL AREAS OF STREETYARD OUTSIDE OF PLANTED BEDS TO BE SODDED TO MATCH GRASS VARIETY WITHIN THE STREETYARD OF ADJACENT LANDROVER-JAGUAR DEALERSHIP.
- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES.
- NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
- TREE PROTECTION SIGNAGE SHALL BE ADDED ALONG THE LIMITS OF DISTURBANCE ADJACENT TO TREES EVERY 100' TO PROTECT TREES ADJACENT TO THE CONSTRUCTION SITE.
- OWNER WILL PROVIDE A PAYMENT IN LIEU FOR THE REQUIRED TREE MITIGATION.



**REVISIONS**

NO.	DATE	DESCRIPTION
12-20-20	REVISED SITE FOR NEW BUILDING FOOTPRINT.	

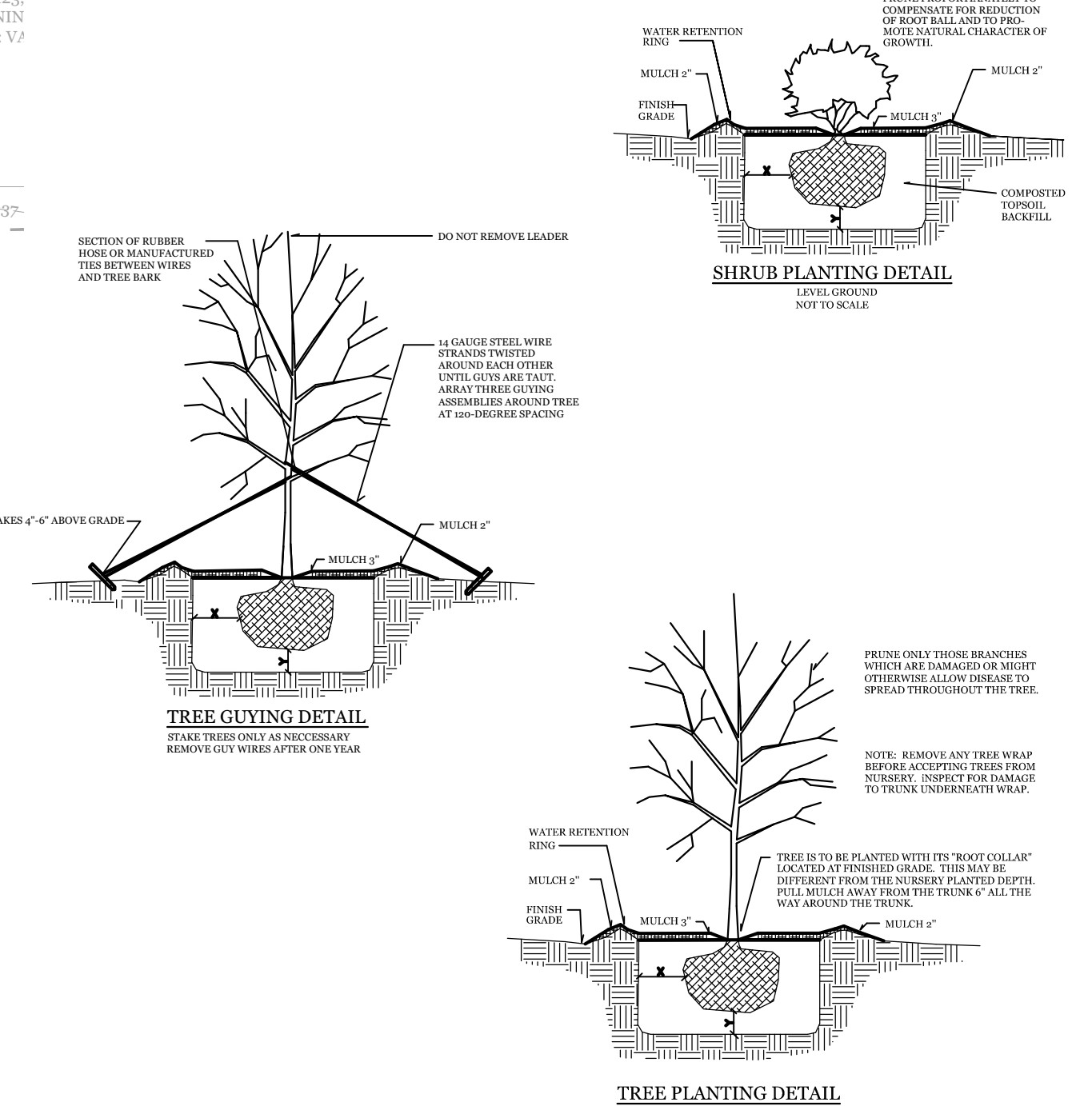
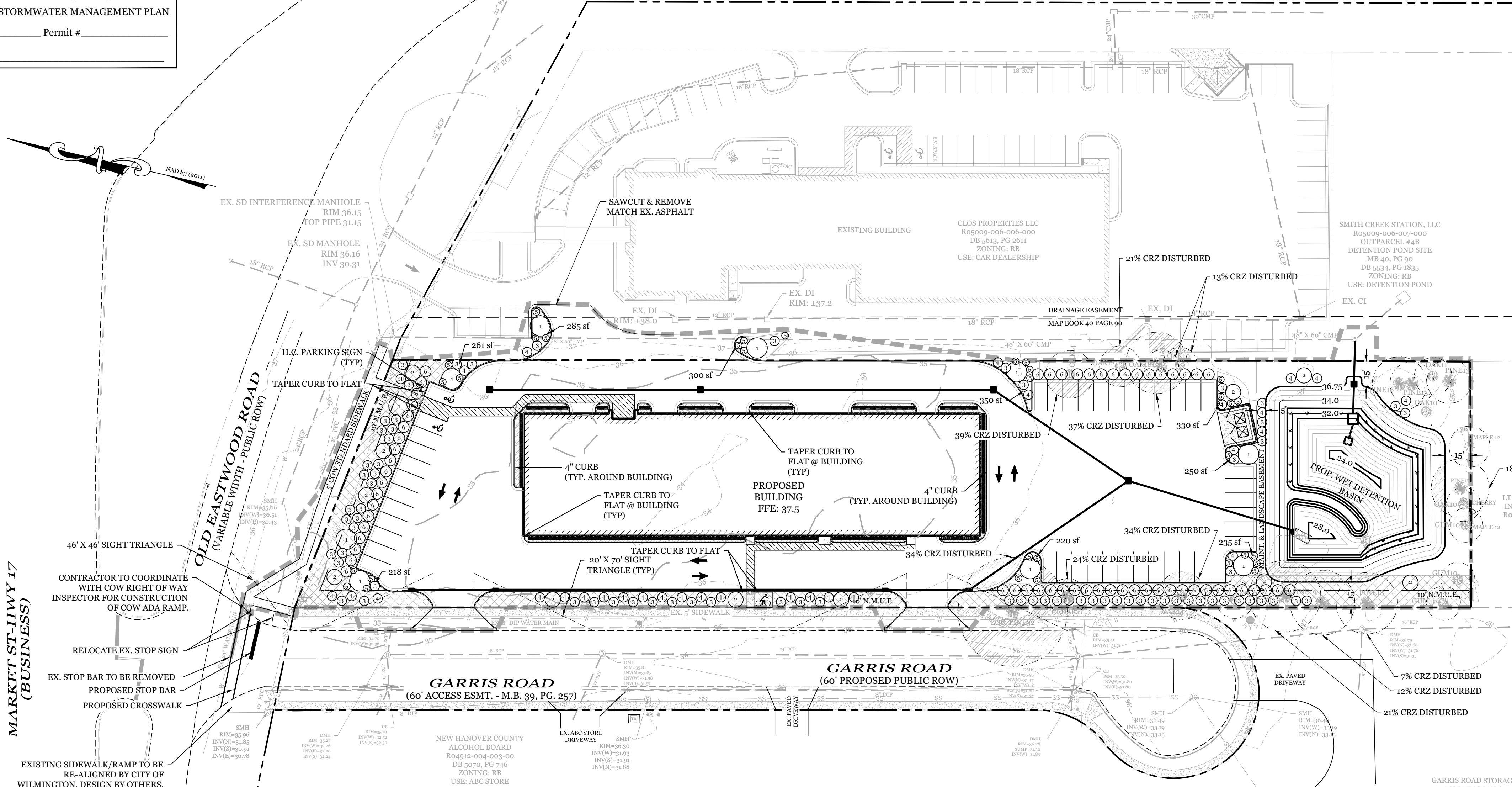
**INTRACOASTAL ENGINEERING, PLLC**  
 5725 Oleander Dr. Unit E-7  
 Wilmington, North Carolina 28403  
 Phone: 910.859.8983  
 Email: charlie@intracoastalengineering.com  
 License Number P-0662

**LANDSCAPE PLAN**  
 FOR  
**CAPE FEAR MOTO GROUP**  
 WILMINGTON, NORTH CAROLINA

Charles D. Catey  
 9/8/2020

**CLIENT INFORMATION:**  
 CLOS PROPERTIES, LLC  
 SHANE HEFFERNAN  
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DRAWN: JAE SHEET SIZE: 24 X 36  
 CHECKED: CDC DATE: 9/8/2020  
 APPROVED: CDC SCALE: 1" = 40'  
 PROJECT NUMBER: 2019-027  
 DRAWING NUMBER: **L-1** 8 OF 8



**PROPOSED LANDSCAPE PLANT LIST**

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	TYPE	MIN. SIZE
1	10	QUERCUS VIRGINIANA	LIVE OAK	SHADE TREE	2.5" CAL.
2	11	LAGERSTROEMIA INDICA	CRAPE MYRTLE	SHADE TREE	2.5" CAL.
3	74	RAPHIOLEPIS INDICA	WHITE INDIAN HAWTHORNE	SHRUB	1 GAL. (12" MIN. HEIGHT)
4	29	ABELIA X GRANDIFLORA	GLOSSY ABELIA	SHRUB	1 GAL. (12" MIN. HEIGHT)
5	32	JUNIPERUS HORIZONTALIS	CREeping JUNIPER	GROUND COVER	1 GAL.
6	CONTINUOUS	BUXUS SEMPERVIRENS	BOXWOOD	SHRUB	1 GAL. (12" MIN. HEIGHT)
6	59	ABELIA X GRANDIFLORA	GLOSSY ABELIA	SHRUB	5 GAL. (3' MIN. HEIGHT)

**CREDITS FOR PRESERVED TREES**

QTY	SIZE	TYPE	DBH	TOTAL DBH
4	10"	OAK	10	40
2	11"	OAK	11	22
1	12"	OAK	12	12
2	14"	OAK	14	28
1	18"	OAK	18	18
3	10"	GUM	10	30
2	12"	MAPLE	12	24
2	11"	CEDAR	11	22
2	13"	PINE	13	26
1	16"	PINE	16	16
1	17"	PINE	17	17
1	18"	PINE	18	18
1	19"	PINE	19	19
1	21"	PINE	21	21
<b>TOTAL CREDITS FOR PRESERVED TREES</b>				<b>52</b>

205 TREES REQUIRED FOR MITIGATION - 52 TREE CREDITS = 153 TREES REQUIRED FOR MITIGATION

