

# Pender County Planning and Community Development

## Planning Division

805 S. Walker Street  
PO Box 1519  
Burgaw, NC 28425



Phone: 910-259-1202  
Fax: 910-259-1295  
[www.pendercountync.gov](http://www.pendercountync.gov)

---

## Gordon Business Park Expansion Application Information Master Development Plan

**Case Number:** MDP 2023-47

**Application Type:** Master Development Plan

**Applicant:** Michael Nadeau

**Owners:** Gordon Investments, LLC

**Location:** Approximately half a mile southwest of the intersection of Jenkins Road & St. Johns Church Road

**Property ID #(s):** 3293-54-2403-0000, 3293-54-0393-0000

**Description:** Request for the approval of a Master Development Plan for two buildings totaling about 15,504 sq ft for offices, indoor rec, & non-store retailer type uses.

**Current Zoning:** RP, Residential Performance

**Technical Review Committee Meeting:** 04/06/2023

**Board of County Commissioners/Planning Board Meeting**

N/A

### Application Materials

Application Package

Site Plan

# **APPLICATION PACKAGE**

## APPLICATION FOR MASTER DEVELOPMENT PLAN

THIS SECTION FOR OFFICE USE			
Application No.	MDP	Date	
Application Fee	\$	Invoice Number:	
Pre-Application Conference		Hearing Date	
<b>SECTION 1: APPLICANT INFORMATION</b>			
Applicant's Name:	Michael Nadeau	Owner's Name:	Gordon Investments, LLC
Applicant's Address:	P.O> Box 56	Owner's Address:	same
City, State, & Zip	Hampstead, NC 28443	City, State, & Zip	
Phone Number:	910 620 1237	Phone Number:	
Email Address:	Mike@creativecommercial.biz	Email Address:	
Legal relationship of applicant to land owner:	Same		
<b>SECTION 2: PROJECT INFORMATION</b>			
Type of Master Development Plan	<input type="checkbox"/> Residential <i>RP, PD, RM MH District</i>	<input type="checkbox"/> Commercial <i>GB, OI, IT, GI District</i>	GB
Property Identification Number (PIN):	3293-54-2403-0000 3293-54-0393-0000	Total property acreage:	2.27
Zoning Classification:	GB and RP (change applied for)	Acreage to be disturbed:	2.27
Project Address :	Hwy 17		
Description of Project Location:	Next to Hampstead Paint Store, just north of Alphonso Nixon Road		
Describe activities to be undertaken on project site:	Develop two buildings		
<b>SECTION 3: SIGNATURES</b>			
Applicant's Signature		Date:	3/7/23
Applicant's Printed Name	MICHAEL NADEAU	Date:	
Owner's Signature	GORDON INVESTMENTS, LLC	Date:	
Owner's Printed Name	by:  MICHAEL NADEAU MANAGER	Date:	3/7/23

# **SITE PLAN(S)**

## SHEET INDEX

COVER / NOTES SHEET	C-1
TREE PLAN	C-2
EROSION & SEDIMENTATION CONTROL PLAN - PH I	C-3
EROSION & SEDIMENTATION CONTROL PLAN - PH. II	C-4
GRADING & STORM DRAINAGE PLAN	C-5
SITE AND UTILITY PLAN	C-6
AUTO TRACKING PLAN	C-7
EROSION & SEDIMENTATION CONTROL DETAILS	D-1
EROSION & SEDIMENTATION CONTROL DETAILS	D-2
SITE DETAILS	D-3
STORMDRAINAGE DETAILS	D-4
WET POND DETAILS	D-5
WATER DETAILS	D-6

# MASTER DEVELOPMENT PLAN FOR GORDON BUSINESS PARK US HWY. 17 HAMPSTEAD, NC 28443 PENDER COUNTY

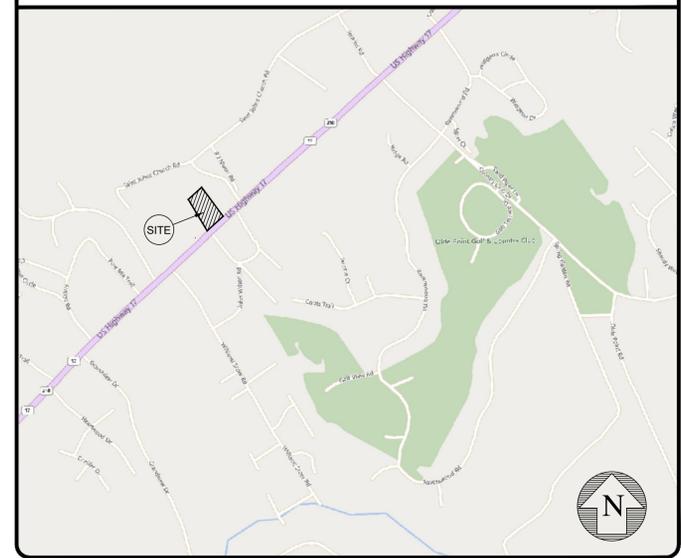
TRC REVIEW #1 - 02/03/2023  
TRC REVIEW #2 - 06/02/2023

**DEVELOPER / OWNER CONTACT**  
GORDON INVESTMENTS, LLC  
MIKE NADEAU, CCIM  
15894 HIGHWAY 17  
PO BOX 56  
HAMPSTEAD, NC 28443  
(910) 270-5100 (PHONE)  
(910) 270-5110 (FAX)  
MIKE@CREATIVECOMMERCIAL.BIZ

**SURVEY CONTACT**  
HANOVER DESIGN SERVICE, P.A.  
JON L. WAYNE, PLS  
1123 FLORAL PARKWAY  
WILMINGTON, NC 28403  
(910) 343-8002 (PHONE)  
JWAYNE@HDSILM.COM

**ENGINEER CONTACT**  
SUMMIT DESIGN & ENGINEERING SERVICES  
GREG THOMPSON, PE, PLS  
320 EXECUTIVE CT.  
HILLSBOROUGH, NC 27278  
(919) 732-3883 (PHONE)  
(919) 732-6676 (FAX)  
GREG.THOMPSON@SUMMITDE.COM

## VICINITY MAP SCALE: 1" = 1000'



### GENERAL SITE NOTES

- ANY DISCREPANCY IN THIS PLAN AND THE ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE ENGINEER AS DEFINED WITHIN THE PROJECT SPECIFICATIONS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS, AND DIMENSIONS SHOWN HEREIN BEFORE BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES, AND ROWS (PUBLIC OR PRIVATE) PRIOR TO WORKING IN THESE AREAS.
- THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THE WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND THE ADJOINING PROPERTY PROTECTED FROM DAMAGE.
- ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE RESPECTIVE UTILITY.
- DO NOT SCALE THIS DRAWING SET AS IT IS A REPRODUCTION SUBJECT TO DISTORTION.
- THE CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
- THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "LIMITS OF CONSTRUCTION" BROOM CLEAN AT ALL TIMES.
- THE CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
- IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE PROVIDED TO THE OWNER FOR REVIEW. NO DEPARTURES FROM THE CONTRACT DOCUMENT SHALL BE MADE WITHOUT PERMISSION OF THE OWNER.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
- THE ENGINEER/ARCHITECT/OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS / ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.

### GENERAL GRADING NOTES

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

### UTILITY/ DRAINAGE CONSTRUCTION SEQUENCE NOTES

- THE CONTRACTOR SHALL SUBMIT MEANS, METHODS, AND CONSTRUCTION SEQUENCING SCHEDULE TO THE OWNER PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONTRACTOR TO INSTALL, CERTIFY AND ACTIVATE PROPOSED SEWER AND WATER SYSTEMS, AND ABANDON EXISTING SEWER SYSTEM (GROUT FILL), PRIOR TO INSTALLATION OF PROPOSED DRAINAGE SYSTEM PIPE.
- THE CONTRACTOR IS RESPONSIBLE TO PERFORM ALL CONSTRUCTION ACTIVITIES IN A MANNER WHICH WILL NOT RESULT IN SANITARY SEWER OVERFLOWS OR BYPASSES TO THE WATERS OF THE STATE. IF SUCH DAMAGES ARE THE RESULT OF CONTRACTORS ACTIONS, THEY ARE RESPONSIBLE FOR ALL REMEDIES AND COSTS, INCLUDING FINES.

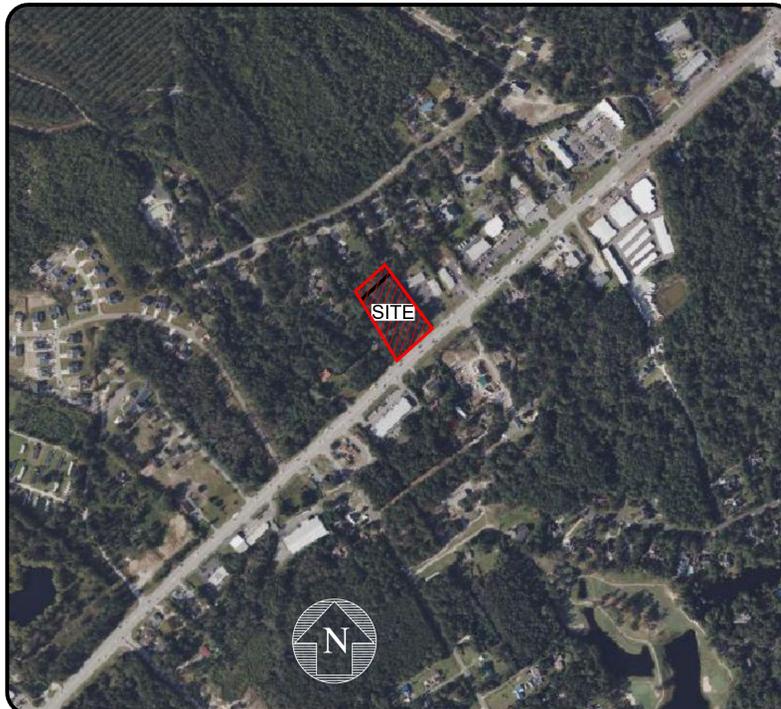
### GENERAL ELECTRICAL NOTES

- THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ANY REQUIRED ELECTRICAL DRAWINGS, INFORMATION AND SUPPORTING DOCUMENTATION THAT MAY BE REQUIRED TO SATISFY REQUIREMENTS OF THE INSPECTIONS DEPARTMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH OWNER AND POWER UTILITY PROVIDER FOR RELOCATION OF POWER SERVICE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING FEES AND INSPECTION CHARGES.
- TEMPORARY ELECTRICAL SERVICE REQUIRED FOR PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR TO COORDINATE WITH OWNER FOR PLACEMENT OF PERMANENT POWER SERVICE.
- CONTRACTOR AND SUBS RESPONSIBLE FOR TEMPORARY CONSTRUCTION SERVICE.

### GENERAL UTILITY NOTES

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING UTILITY LOCATIONS BEFORE STARTING CONSTRUCTION. NOTIFY 811 UTILITY LOCATING OR INDIVIDUAL UTILITY OWNERS FOR UNDERGROUND LOCATIONS AT LEAST 48 HOURS IN ADVANCE.
- UTILITY SEPARATION REQUIREMENTS SHALL BE MAINTAINED AS REQUIRED BY CODE:
  - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASMENT EXTENDED 10 FEET ON EACH SIDE OF CROSSING MUST BE SPECIFIED AND INSTALLED TO WATERLINE SPECIFICATIONS.
  - MAINTAIN 18 INCHES MIN. VERTICAL SEPARATION AT ALL WATERMAIN AND RCP STORM DRAIN CROSSINGS; MAINTAIN 24 INCHES MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER AND RCP STORM DRAIN CROSSINGS; WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS AND A CONCRETE CRADLE HAVING 6 INCH (TYP.) MIN. CLEARANCE.
  - ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER AND SEWER FACILITIES WITH 18 INCH MIN. VERTICAL SEPARATION REQUIRED.
- EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

**PARCEL DATA:**  
PIN: 3293-54-2291-0000  
DB / PG: 5742/616  
2.27 AC



**SITE LOCATION MAP**  
NOT TO SCALE

### DEMOLITION NOTES

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

### EROSION CONTROL NOTES

- ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN COMPLIANCE WITH THE SEDIMENTATION POLLUTION CONTROL ACT OF 1973.
- ALL LAND DISTURBING ACTIVITIES ARE TO BE PLANNED AND CONDUCTED TO LIMIT EXPOSURE TO THE SHORTEST FEASIBLE TIME.
- ALL DISTURBED AREAS SHALL BE STABILIZED BY A PERMANENT GROUND COVER.
- AS SOON AS ALL AREAS ARE PERMANENTLY STABILIZED, ALL PERMANENT MEASURES HAVE BEEN INSTALLED, AND FINAL APPROVAL IS RECEIVED FROM THE OWNER, THE TEMPORARY MEASURES MAY BE REMOVED.
- OVER THE LIFE OF THE PROJECT, THE OWNER SHALL MAKE PERIODIC INSPECTIONS TO EVALUATE THE CONTRACTOR'S EFFORTS AND SUCCESS IN CONTROL EROSION OF SOILS TO OFF-SITE AREAS. IF AREAS ARE FOUND WHERE EROSION IS TAKING PLACE, THE CONTRACTOR SHALL TAKE THE NECESSARY MEASURES TO REMEDY THE SITUATION.
- THE CONTRACTOR SHALL COMPLY WITH THE EROSION CONTROL PERMIT ISSUED FOR THIS PROJECT. IN ANY EVENT THAT THE CONTRACTOR IS UNABLE TO COMPLY WITH THE PERMIT CONDITIONS, AN IMMEDIATE WRITTEN NOTICE SHALL BE PROVIDED TO THE OWNER.
- SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF-FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE FIRST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED AND KEPT CLEAN WEEKLY.
- SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM BAFFLES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE FIRST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
- ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDING AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.

### CONSTRUCTION SEQUENCE NOTES

- HOLD A PRE-CONSTRUCTION MEETING WITH NCDOT AND OBTAIN APPROVAL OF METHODS AND RESOURCES, AS REQUIRED.
- CONTRACTOR SHALL PERFORM ALL WORK WITHIN THE LIMITS OF DISTURBANCE.
- INSTALL TEMPORARY SILT FENCING ALONG THE ROAD RIGHT-OF-WAYS AND INLET PROTECTION MEASURES AT ALL CATCH BASINS AND PIPE ENTRANCES.
- CLEAR AND GRUB THE SITE WHILE MAINTAINING POSITIVE DRAINAGE TOWARD THE EROSION CONTROL MEASURES.
- BRING SITE TO FINISHED GRADE AND IMMEDIATELY INSTALL EXCELSION MATTING WHERE REQUIRED TO ASSURE SLOPE STABILIZATION.
- MAINTAIN ALL TEMPORARY EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- AFTER ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED AND APPROVED, REMOVE TEMPORARY SILT FENCING, SEDIMENT AND EROSION CONTROL MEASURES. CLEAN AND RESTORE FINAL GRADES AS REQUIRED.



Know what's below.  
Call before you dig.

CONTRACTOR SHALL NOTIFY "811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

COPYRIGHT © 2023  
ENGINEERING SERVICES  
DRAWING ALTERATION  
IT IS A VIOLATION OF LAW FOR ANY PERSON  
TO REPRODUCE OR TRANSMIT IN ANY FORM OR  
BY ANY MEANS, ELECTRONIC OR MECHANICAL,  
INCLUDING PHOTOCOPYING, RECORDING, OR BY  
ANY INFORMATION STORAGE AND RETRIEVAL  
SYSTEM, WITHOUT PERMISSION IN WRITING  
FROM THE ENGINEER/ARCHITECT/OWNER.  
DATE: 02/03/2023

PROJECT MANAGER  
GRT (GREG.THOMPSON@SUMMITDE.COM)  
PROJECT MANAGER  
GRT (GREG.THOMPSON@SUMMITDE.COM)  
DRAWN BY  
SLF (SANDY.FALK@SUMMITDE.COM)  
FIRST ISSUE DATE  
02/03/2023

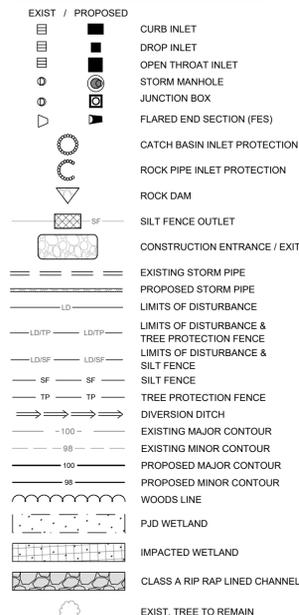


**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
State License #: P-0339  
320 Executive Court  
Hillsborough, NC 27278  
Tel: (919) 732-3883 Fax: (919) 732-6676  
www.summitde.com

LAND DEVELOPMENT PLANS FOR  
**GORDON INVESTMENTS LLC**  
US HIGHWAY 17  
HAMPSTEAD, NC 28443  
COVER / NOTES SHEET

PROJECT NO.  
**22-0318**  
DRAWING NAME:  
**22-0088\_CS**  
SHEET NO.  
**C-1**

**EROSION CONTROL LEGEND:**



NOTE: "WOODS LINE" IS FOR ILLUSTRATIVE PURPOSES ONLY AND CLARITY OF THE PLANS. REFER TO THE "LIMITS OF DISTURBANCE" LINE FOR ACTUAL CLEARING LIMITS. WHERE SILT FENCE AND TREE PROTECTION FENCE COINCIDE, CONSTRUCT ONLY ONE AND ADHERE TO THE SIGNAGE AND DIMENSIONAL REQUIREMENT SHOWN ON TREE PROTECTION DETAIL (SEE EROSION CONTROL DETAIL SHEET). FOR STAKING AND CONSTRUCTING SILT FENCE, USE LOCATION OF "LDT" LINE. AS "SF" LINE IS OFFSET ONLY FOR LEGIBILITY - ACTUAL LOCATION IS AT "LDT".

**SIGNIFICANT TREES TO BE PROTECTED DURING CONSTRUCTION:**

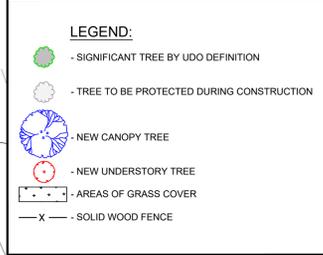
- 1002 20" PINE
- 1003 10" GUM
- 1007 26" PINE
- 1008 11" OAK
- 1071 10" MAPLE
- 1072 11" MAPLE
- 1073 13" MAPLE
- 1092 9" OAK
- 1125 27" PINE
- 1151 23" PINE
- 1157 10" MAPLE

**TREE MITIGATION SCHEDULE:**  
 49 OAK REMOVED = 98 TO BE REPLANTED  
 3 GUM REMOVED = 6 TO BE REPLANTED  
 18 MAPLE REMOVED = 36 TO BE REPLANTED  
 TREE MITIGATION @ 2:1 = 140 TREES TO REPLANT

**SIGNIFICANT TREES TO BE REMOVED:**

- |                |                           |
|----------------|---------------------------|
| 1004 16" OAK   | 1084 8" OAK               |
| 1005 13" GUM   | 1087 8" OAK               |
| 1009 13" GUM   | 1088 12" MAPLE            |
| 1010 12" GUM   | 1089 9" OAK               |
| 1013 8" OAK    | 1090 12" OAK              |
| 1015 8" OAK    | 1091 12" MAPLE            |
| 1016 9" OAK    | 1093 13" OAK              |
| 1018 15" MAPLE | 1096 11" OAK              |
| 1022 12" MAPLE | 1104 12" OAK              |
| 1032 12" OAK   | 1105 15" OAK              |
| 1038 18" MAPLE | 1106 9" OAK               |
| 1041 12" MAPLE | 1107 12" OAK              |
| 1045 14" MAPLE | 1108 13" OAK              |
| 1046 13" MAPLE | 1109 10" OAK              |
| 1047 12" MAPLE | 1112 17" OAK              |
| 1049 8" OAK    | 1113 15" MAPLE            |
| 1050 11" OAK   | 1114 21" OAK              |
| 1051 12" OAK   | 1116 14" OAK              |
| 1052 12" OAK   | 1122 14" MAPLE            |
| 1053 10" OAK   | 1132 9" OAK               |
| 1054 12" MAPLE | 1140 13" MAPLE            |
| 1055 11" OAK   | 1141 9" OAK               |
| 1056 9" OAK    | 1142 10" OAK              |
| 1057 17" OAK   | 1143 8" OAK               |
| 1058 9" OAK    | 1147 9" OAK               |
| 1059 15" OAK   | 1005 10" OAK              |
| 1063 16" OAK   | 1178 12" MAPLE            |
| 1064 15" OAK   | 1184 13" OAK              |
| 1065 9" OAK    | 1186 13" MAPLE            |
| 1066 13" OAK   | 1187 17" MAPLE            |
| 1073 13" MAPLE | 2006 11" OAK              |
| 1075 13" OAK   | 2037 11" OAK              |
| 1076 9" OAK    | 2040 9" OAK               |
| 1077 8" OAK    | 2042 TWIN 13" / 13" MAPLE |
| 1079 8" OAK    | 2043 8" OAK               |

TOTAL TREES TO BE REMOVED = 70 TREES



**UDO SEC. - 8.1.3 TREE SURVEY REQUIRED**

**A. SIGNIFICANT TREE SURVEY**

1) A SIGNIFICANT TREE SURVEY SHALL BE REQUIRED FOR ANY COMMERCIAL OR INDUSTRIAL ZONED PROPERTY AND ALL MIXED USE DISTRICTS. THE SIGNIFICANT TREE SURVEY SHALL SHOW THE GENERAL LOCATION, SPECIES AND SIZE OF ANY SIGNIFICANT TREE. HOWEVER, A SIGNIFICANT TREE SURVEY SHALL NOT BE REQUIRED FOR LAND IN DESIGNATED SPECIAL FLOOD HAZARD AREAS (UNLESS FILLED OR DEVELOPED IN ACCORDANCE WITH AN APPROVED PERMIT), JURISDICTIONAL AND COASTAL WETLANDS AND WETLAND BUFFERS, DESIGNATED AREAS OF ENVIRONMENTAL CONCERN, AND STREAM BUFFERS.

**2) FOR PURPOSES OF THIS ORDINANCE, A SIGNIFICANT TREE SHALL BE DEFINED AS FOLLOWS:**

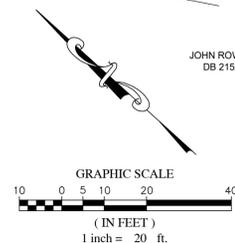
- a) AN AMERICAN HOLLY WITH A TRUNK CALIPER MEASUREMENT OF 6" OR GREATER MEASURED AT 4.5 FEET ABOVE GROUND;
- b) A FLOWERING DOGWOOD WITH A TRUNK CALIPER MEASUREMENT OF 4" OR GREATER MEASURED AT 4.5 FEET ABOVE GROUND;
- c) A WATER OAK WITH A TRUNK CALIPER MEASUREMENT OF 8" OR GREATER MEASURED AT 4.5 FEET ABOVE GROUND;
- d) A LIVE OAK WITH A TRUNK CALIPER MEASUREMENT OF 8" OR GREATER MEASURED AT 4.5 FEET ABOVE GROUND; AND
- e) ANY TREE SPECIES INCLUDED IN THE PLANTING TABLE, EXCEPT A "LOBLOLLY PINE" (SEE APPENDIX C) WITH A TRUNK CALIPER MEASUREMENT OF 12" OR GREATER MEASURED AT 4.5 FEET ABOVE GROUND.

3) FOR DEVELOPMENT PLANS WHERE SPECIFIC BUILDING LOCATIONS ARE NOT SHOWN, A MORE GENERALIZED SURVEY OF VEGETATION MAY BE PROVIDED IN LIEU OF A SIGNIFICANT TREE SURVEY. THIS SURVEY SHALL DESCRIBE EXISTING FOREST STANDS, INDICATING THE AVERAGE SPECIES AND SIZE OF TREES ON THE TRACT.

4) WHERE ANY SIGNIFICANT TREE SHOWN ON THE SIGNIFICANT TREE SURVEY IS PROPOSED TO BE REMOVED SUCH REMOVAL SHALL BE MITIGATED BY THE PLANTING ON SITE OF TWO (2) TREES OF THE SAME SPECIES WITH A MINIMUM CALIPER OF 2" OR GREATER.

**LANDSCAPE BUFFER REQUIREMENTS:**

- A-1** - 15 FOOT WIDE STRIP WITH 3 CANOPY TREES, 2 UNDERSTORY TREES AND A GRASS COVER OF AT LEAST 98 % COVERAGE (EXCEPT WITHIN 4 FEET OF THE BASE OF ANY TREE), PER 100 LINEAR FEET
- B-1** - 10 FOOT WIDE STRIP WITH 3 CANOPY TREES, 4 UNDERSTORY TREES AND A GRASS COVER OF AT LEAST 98 % COVERAGE (EXCEPT WITHIN 4 FEET OF THE BASE OF ANY TREE), PER 100 LINEAR FEET.
- C-1** - 10 FOOT WIDE STRIP WITH A 6 FOOT HIGH WOOD STOCKADE, BASKET WEAVE, OR OTHER SOLID WOOD FENCE AND 2 CANOPY TREES AND A GRASS COVER OF AT LEAST 98 % COVERAGE (EXCEPT WITHIN 4 FEET OF THE BASE OF ANY TREE), PER 100 LINEAR FEET.
- C-3** - 20 FOOT WIDE STRIP WITH AN EVERGREEN HEDGE THAT WILL PROVIDE A CONTINUOUS SCREEN AT LEAST 6' HIGH WITHIN 4 YEARS AND 1 CANOPY TREE OR 3 UNDERSTORY TREES AND A GRASS COVER OF AT LEAST 98 % COVERAGE (EXCEPT WITHIN 4 FEET OF THE BASE OF ANY TREE), PER 100 LINEAR FEET.



**811**  
 Know what's below.  
 Call before you dig.

NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

**COPYRIGHT** © 2023  
 SUMMIT DESIGN AND ENGINEERING SERVICES  
 DRAWING ALTERNATION  
 THIS IS A PRELIMINARY DESIGN AND SHALL BE USED ONLY FOR INFORMATIONAL PURPOSES. IT IS NOT TO BE USED FOR CONSTRUCTION OR AS A BASIS FOR ANY OTHER DESIGN OR CONTRACT. THE USER OF THIS DOCUMENT ASSUMES ALL LIABILITY FOR ANY AND ALL DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF THIS DOCUMENT. NO PART OF THIS DOCUMENT SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SUMMIT DESIGN AND ENGINEERING SERVICES.  
 PROJECT MANAGER: GRT (GREG THOMPSON@SUMMITDE.COM)  
 PROJECT MANAGER: GRT (GREG THOMPSON@SUMMITDE.COM)  
 DRAWN BY: SFP (SANDY PALM@SUMMITDE.COM)  
 FIRST ISSUE DATE: 02/03/2023



**SUMMIT**  
 DESIGN AND ENGINEERING SERVICES  
 Since License # P-0539  
 520 Executive Court  
 Hillsborough, NC 27278  
 Voice: (919) 732-3883 Fax: (919) 732-4676  
 www.summitde.com

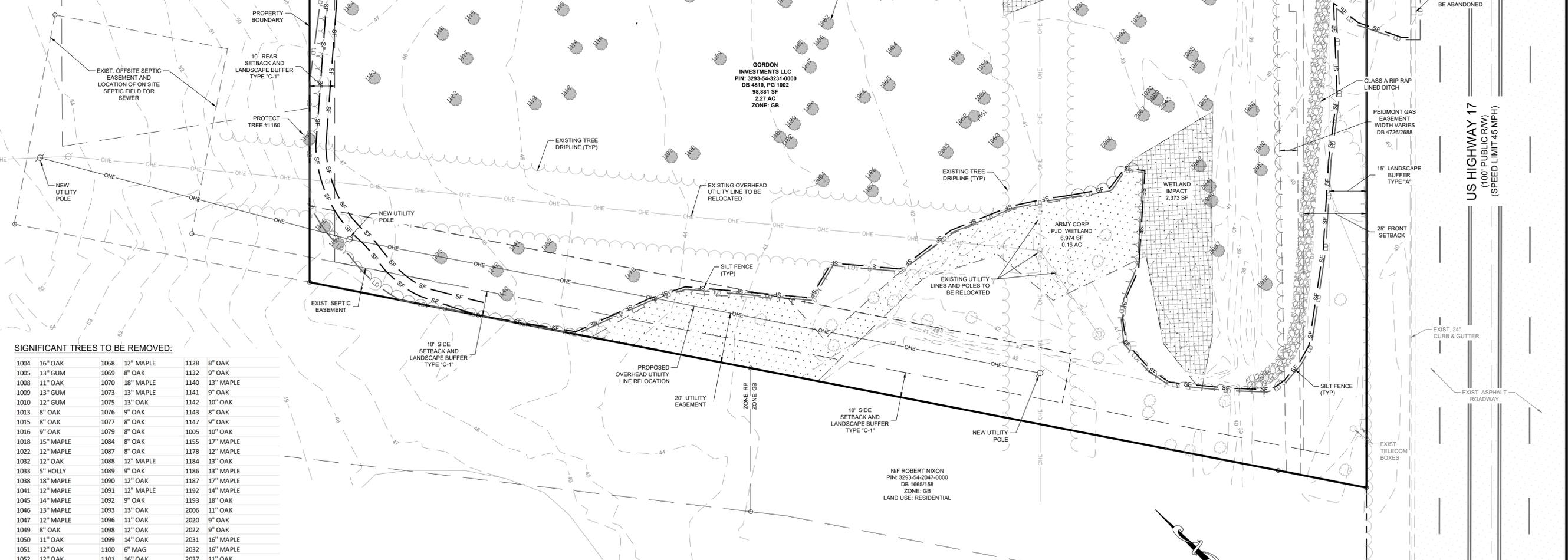
**LAND DEVELOPMENT PLANS FOR**  
**GORDON INVESTMENTS LLC**  
 US HIGHWAY 17  
 HAMPSTEAD, NC 28443  
**TREE AND LANDSCAPE PLAN**

PROJECT NO. 22-0318  
 DRAWING NAME: 22-0318\_EC.dwg  
 SHEET NO. C-2

**EROSION CONTROL LEGEND:**

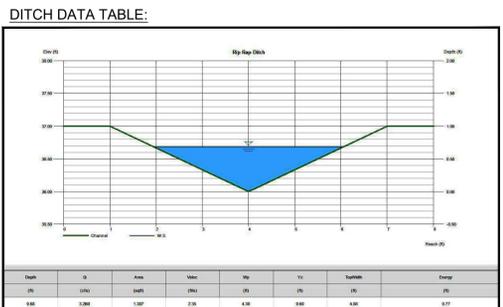
- |  |                                    |
|--|------------------------------------|
|  | CURB INLET                         |
|  | DROP INLET                         |
|  | OPEN THROAT INLET                  |
|  | STORM MANHOLE                      |
|  | JUNCTION BOX                       |
|  | FLARED END SECTION (FES)           |
|  | CATCH BASIN INLET PROTECTION       |
|  | ROCK PIPE INLET PROTECTION         |
|  | ROCK DAM                           |
|  | SILT FENCE OUTLET                  |
|  | CONSTRUCTION ENTRANCE / EXIT       |
|  | EXISTING STORM PIPE                |
|  | PROPOSED STORM PIPE                |
|  | LIMITS OF DISTURBANCE              |
|  | TREE PROTECTION FENCE              |
|  | LIMITS OF DISTURBANCE & SILT FENCE |
|  | SILT FENCE                         |
|  | TREE PROTECTION FENCE              |
|  | DIVERSION DITCH                    |
|  | EXISTING MAJOR CONTOUR             |
|  | EXISTING MINOR CONTOUR             |
|  | PROPOSED MAJOR CONTOUR             |
|  | PROPOSED MINOR CONTOUR             |
|  | WOODS LINE                         |
|  | PJD WETLAND                        |
|  | IMPACTED WETLAND                   |
|  | CLASS A RIP RAP LINED CHANNEL      |
|  | EXIST. TREE TO BE REMOVED          |
|  | EXIST. TREE TO REMAIN              |

NOTE: "WOODS LINE" IS FOR ILLUSTRATIVE PURPOSES ONLY AND CLARITY OF THE PLANS. REFER TO THE "LIMITS OF DISTURBANCE" LINE FOR ACTUAL CLEARING LIMITS. WHERE SILT FENCE AND TREE PROTECTION FENCE COINCIDE, CONSTRUCT ONLY ORANGE SILT FENCE AND ADHERE TO THE SIGNAGE AND DIMENSIONAL REQUIREMENT SHOWN ON TREE PROTECTION DETAIL (SEE EROSION CONTROL DETAIL SHEET). FOR STAKING AND CONSTRUCTING SILT FENCE, USE LOCATION OF "LDTP" LINE. "SF" LINE IS OFFSET ONLY FOR LEGIBILITY - ACTUAL LOCATION IS AT "LDTP".

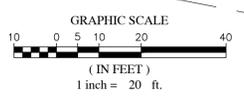


**SIGNIFICANT TREES TO BE REMOVED:**

1004 16" OAK	1068 12" MAPLE	1128 8" OAK
1005 13" GUM	1069 8" OAK	1132 9" OAK
1008 11" OAK	1070 18" MAPLE	1140 13" MAPLE
1009 13" GUM	1073 13" MAPLE	1141 9" OAK
1010 12" GUM	1075 13" OAK	1142 10" OAK
1013 8" OAK	1076 9" OAK	1143 8" OAK
1015 8" OAK	1077 8" OAK	1147 9" OAK
1016 9" OAK	1079 8" OAK	1005 10" OAK
1018 15" MAPLE	1084 8" OAK	1155 17" MAPLE
1022 12" MAPLE	1087 8" OAK	1178 12" MAPLE
1032 12" OAK	1088 12" MAPLE	1184 13" OAK
1033 5" HOLLY	1089 9" OAK	1186 13" MAPLE
1038 18" MAPLE	1090 12" OAK	1187 17" MAPLE
1041 12" MAPLE	1091 12" MAPLE	1192 14" MAPLE
1045 14" MAPLE	1092 9" OAK	1193 18" OAK
1046 13" MAPLE	1093 13" OAK	2006 11" OAK
1047 12" MAPLE	1096 11" OAK	2020 9" OAK
1049 8" OAK	1098 12" OAK	2022 9" OAK
1050 11" OAK	1099 14" OAK	2031 16" MAPLE
1051 12" OAK	1100 6" MAG	2032 16" MAPLE
1052 12" OAK	1101 16" OAK	2037 11" OAK
1053 10" OAK	1104 12" OAK	2040 9" OAK
1054 12" MAPLE	1105 15" OAK	2042 TWIN 13" / 13" MAPLE
1055 11" OAK	1106 9" OAK	2043 8" OAK
1056 9" OAK	1107 12" OAK	2045 10" OAK
1057 17" OAK	1108 13" OAK	
1058 9" OAK	1109 10" OAK	
1059 15" OAK	1112 17" OAK	
1063 16" OAK	1113 15" MAPLE	
1064 15" OAK	1114 21" OAK	
1065 9" OAK	1116 14" OAK	
1066 13" OAK	1122 14" MAPLE	



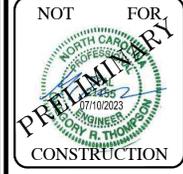
SITE DISTURBED AREA  
72,031 SF (1.65 AC)  
R/W DISTURBED AREA  
1,613 SF (0.04 AC)  
  
TOTAL DISTURBED AREA  
73,644 SF (1.69 AC)



NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

COPYRIGHT © 2023  
SUMMIT DESIGN AND ENGINEERING SERVICES  
DRAWING ALTERNATION  
THIS DRAWING IS THE PROPERTY OF SUMMIT DESIGN AND ENGINEERING SERVICES. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SUMMIT DESIGN AND ENGINEERING SERVICES.

PROJECT MANAGER  
GREG THOMPSON@SUMMITDE.COM  
PROJECT MANAGER  
GREG THOMPSON@SUMMITDE.COM  
DRAWN BY  
SP (SANDY PALM@SUMMITDE.COM)  
FIRST ISSUE DATE  
02/03/2023

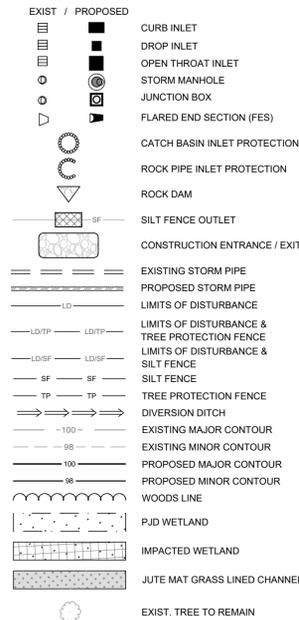


**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Since License # P-0339  
320 Executive Court  
Hillsborough, NC 27278  
Voice: (919) 732-3883 Fax: (919) 732-4676  
www.summitde.com

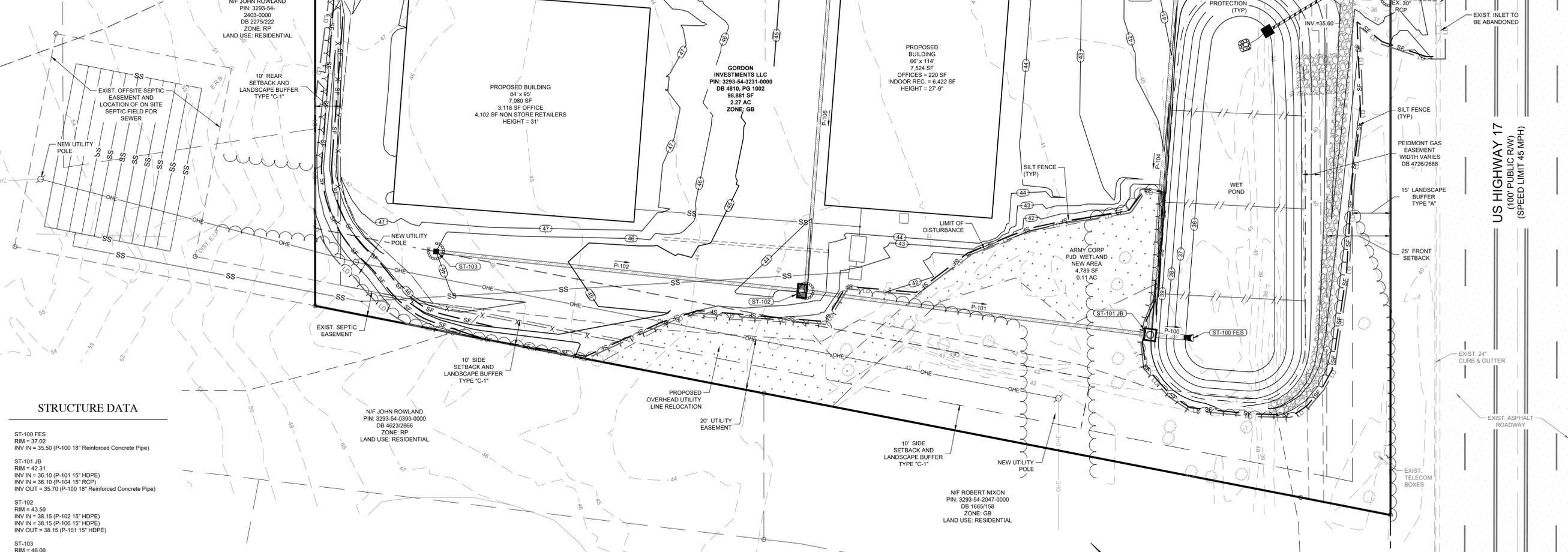
LAND DEVELOPMENT PLANS FOR  
**GORDON INVESTMENTS LLC**  
US HIGHWAY 17  
HAMPSHIRE, NC 28443  
**EROSION AND SEDIMENTATION CONTROL PLAN - PH I**

PROJECT NO.  
**22-0318**  
DRAWING NAME:  
22-0318\_EC.dwg  
SHEET NO.  
**C-3**

**EROSION CONTROL LEGEND:**



NOTE: "WOODS LINE" IS FOR ILLUSTRATIVE PURPOSES ONLY AND CLARITY OF THE PLANS. REFER TO THE "LIMITS OF DISTURBANCE" LINE FOR ACTUAL CLEARING LIMITS. WHERE SILT FENCE AND TREE PROTECTION FENCE COINCIDE, CONSTRUCT ONLY ORANGE SILT FENCE AND ADHERE TO THE SIGNAGE AND DIMENSIONAL REQUIREMENT SHOWN ON TREE PROTECTION DETAIL (SEE EROSION CONTROL DETAIL SHEET). FOR STAKING AND CONSTRUCTING SILT FENCE, USE LOCATION OF "LD" & "TPI" LINE. AS "SS" LINE IS OFFSET ONLY FOR LEGIBILITY - ACTUAL LOCATION IS AT "LD" AD "TPI".



**STRUCTURE DATA**

- ST-100 FES  
RIM = 37.02  
INV IN = 35.50 (P-100 18" Reinforced Concrete Pipe)
- ST-101 JB  
RIM = 42.31  
INV IN = 36.10 (P-101 15" HDPE)  
INV IN = 36.10 (P-104 15" RCP)  
INV OUT = 35.70 (P-100 18" Reinforced Concrete Pipe)
- ST-102  
RIM = 43.50  
INV IN = 38.15 (P-102 15" HDPE)  
INV IN = 38.15 (P-106 15" HDPE)  
INV OUT = 38.15 (P-101 15" HDPE)
- ST-103  
RIM = 46.00  
INV OUT = 40.35 (P-102 15" HDPE)
- ST-104  
RIM = 40.30  
INV IN = 37.50 (P-105 15" RCP)  
INV OUT = 37.50 (P-104 15" RCP)
- ST-105  
RIM = 42.69  
INV OUT = 38.80 (P-105 15" RCP)
- ST-106  
RIM = 44.10  
INV IN = 40.20 (P-107 15" HDPE)  
INV OUT = 40.20 (P-106 15" HDPE)
- ST-107  
RIM = 43.80  
INV OUT = 40.85 (P-107 15" HDPE)

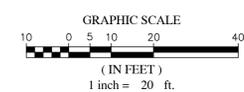
**PIPE SCHEDULE**

NAME	LENGTH	SIZE	SLOPE	START	INVERT UP	END	INVERT DOWN
P-100	17.00'	18"	1.18%	ST-101 JB	35.70	ST-100 FES	35.50
P-101	136.41'	15"	1.50%	ST-102	38.15	ST-101 JB	36.10
P-102	146.17'	15"	1.51%	ST-103	40.35	ST-102	38.15
P-104	135.99'	15"	1.03%	ST-104	37.50	ST-101 JB	36.10
P-105	64.08'	15"	2.03%	ST-105	38.80	ST-104	37.50
P-106	136.54'	15"	1.50%	ST-106	40.20	ST-102	38.15
P-107	43.63'	15"	1.49%	ST-107	40.85	ST-106	40.20



Know what's below.  
Call before you dig.

SITE DISTURBED AREA  
72,031 SF (1.65 AC)  
R/W DISTURBED AREA  
1,613 SF (0.04 AC)  
TOTAL DISTURBED AREA  
73,644 SF (1.69 AC)



**NOT FOR PRELIMINARY CONSTRUCTION**

**SUMMIT DESIGN AND ENGINEERING SERVICES**  
 State License #: P-0339  
 520 Executive Court  
 Hillsborough, NC 27278  
 Voice: (919) 732-3883 Fax: (919) 732-4676  
 www.summitde.com

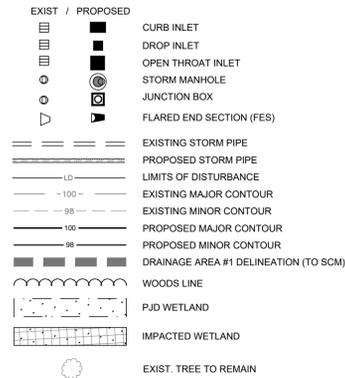
**LAND DEVELOPMENT PLANS FOR GORDON INVESTMENTS LLC**  
 US HIGHWAY 17  
 HAMPSTEAD, NC 28443

**EROSION AND SEDIMENTATION CONTROL PLAN - PH II**

PROJECT NO. 22-0318  
 DRAWING NAME: 22-0318\_EC.dwg  
 SHEET NO. C-4

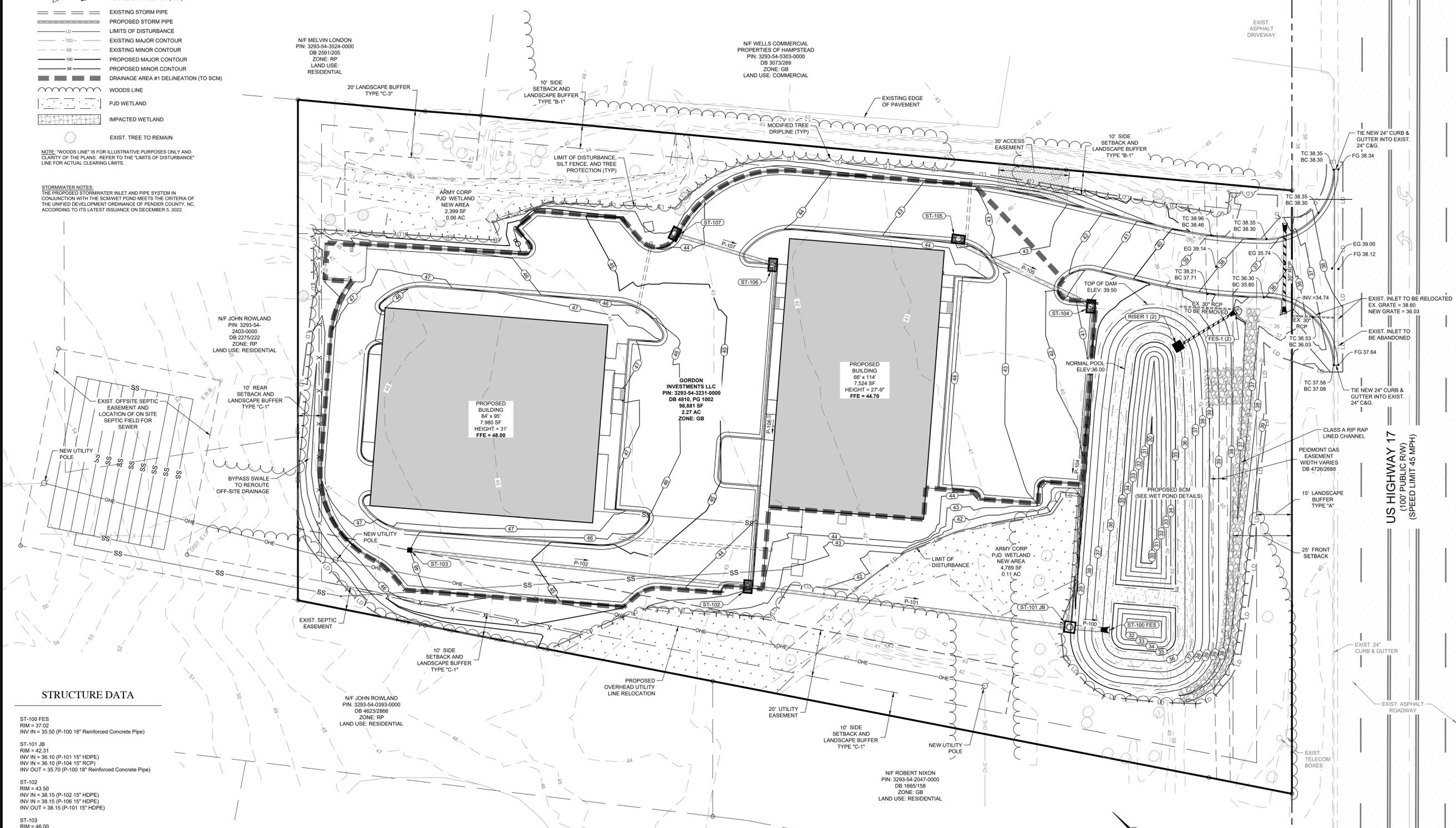
NO.	DATE	BY	REVISIONS
7			
6			
5			
4			
3			
2			
1			

**GRADING & STORM LEGEND:**



NOTE: "WOODS LINE" IS FOR ILLUSTRATIVE PURPOSES ONLY AND CLARITY OF THE PLANS. REFER TO THE "LIMITS OF DISTURBANCE" LINE FOR ACTUAL CLEARING LIMITS.

STORMWATER NOTES:  
THE PROPOSED STORMWATER INLET AND PIPE SYSTEM IN CONJUNCTION WITH THE SCMWET POND MEETS THE CRITERIA OF THE UNIFIED DEVELOPMENT ORDINANCE OF FENDER COUNTY, NC, ACCORDING TO ITS LATEST ISSUANCE ON DECEMBER 5, 2022.



**STRUCTURE DATA**

- ST-100 FES  
RIM = 37.02  
INV IN = 35.50 (P-100 18" Reinforced Concrete Pipe)
- ST-101 JB  
RIM = 42.31  
INV IN = 36.10 (P-101 15" HDPE)  
INV IN = 36.10 (P-104 15" RCP)  
INV OUT = 35.70 (P-100 18" Reinforced Concrete Pipe)
- ST-102  
RIM = 43.50  
INV IN = 38.15 (P-102 15" HDPE)  
INV IN = 38.15 (P-106 15" HDPE)  
INV OUT = 38.15 (P-101 15" HDPE)
- ST-103  
RIM = 46.00  
INV OUT = 40.35 (P-102 15" HDPE)
- ST-104  
RIM = 40.30  
INV IN = 37.50 (P-105 15" RCP)  
INV OUT = 37.50 (P-104 15" RCP)
- ST-105  
RIM = 42.69  
INV OUT = 38.80 (P-105 15" RCP)
- ST-106  
RIM = 44.10  
INV IN = 40.20 (P-107 15" HDPE)  
INV OUT = 40.20 (P-106 15" HDPE)
- ST-107  
RIM = 43.80  
INV OUT = 40.85 (P-107 15" HDPE)

**PIPE SCHEDULE**

NAME	LENGTH	SIZE	SLOPE	START	INVERT UP	END	INVERT DOWN
P-100	17.00'	18"	1.18%	ST-101 JB	35.70	ST-100 FES	35.50
P-101	136.41'	15"	1.50%	ST-102	38.15	ST-101 JB	36.10
P-102	146.17'	15"	1.51%	ST-103	40.35	ST-102	38.15
P-104	135.99'	15"	1.03%	ST-104	37.50	ST-101 JB	36.10
P-105	64.08'	15"	2.03%	ST-105	38.80	ST-104	37.50
P-106	136.54'	15"	1.50%	ST-106	40.20	ST-102	38.15
P-107	43.63'	15"	1.49%	ST-107	40.85	ST-106	40.20

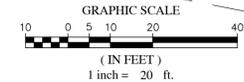
**Runoff Calculations**

Analysis Point	Tributary Basin	Area (ac)	tc (min)	CN	Q <sub>1</sub> (cfs)	Q <sub>10</sub> (cfs)	Q <sub>25</sub> (cfs)	Q <sub>50</sub> (cfs)
1	Pre-Developed	1.05	22.6	77	1.36	3.73	5.08	6.27
1	Post-Developed (Routed through SCM)	1.05	5	97	0.92	3.76	4.24	4.58

SITE DISTURBED AREA  
72,031 SF (1.65 AC)  
R/W DISTURBED AREA  
1,613 SF (0.04 AC)  
TOTAL DISTURBED AREA  
73,644 SF (1.69 AC)



Know what's below.  
Call before you dig.



NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

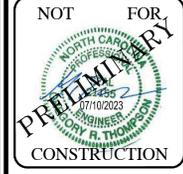
COPYRIGHT © 2023  
SUMMIT DESIGN AND ENGINEERING SERVICES  
DRAWING ALTERNATION  
THIS DRAWING UNDER THE DIRECTION OF  
ENGINEER, LANDSCAPE ARCHITECT, OR  
ARCHITECT IN ANY STATE OR JURISDICTION  
WHERE THE PROFESSIONAL SEAL OF THE  
DRAWING IS REQUIRED SHALL BE VALID ONLY  
IF THE DRAWING IS SIGNED AND SEALED BY  
THE PROFESSIONAL PERSONNEL OF THE  
FIRM AS SHOWN ON THIS DRAWING.

PROJECT MANAGER  
GRT (GREG THOMPSON@SUMMITDE.COM)

PROJECT MANAGER  
GRT (GREG THOMPSON@SUMMITDE.COM)

DRAWN BY  
SJT (SANDY PAL@SUMMITDE.COM)

FIRST ISSUE DATE  
02/03/2023



**SUMMIT**  
DESIGN AND ENGINEERING SERVICES

Since License # P-0539  
320 Executive Court  
Hillsborough, NC 27278  
Voice: (919) 732-3883 Fax: (919) 732-4676  
www.summitde.com

LAND DEVELOPMENT PLANS FOR  
**GORDON INVESTMENTS LLC**  
US HIGHWAY 17  
HAMPSHIRE, NC 28443

**GRADING & STORM DRAINAGE PLAN**

PROJECT NO.  
**22-0318**

DRAWING NAME:  
22-0318\_G.dwg

SHEET NO.  
**C-5**

**SITE INFORMATION**

OWNER/DEVELOPER: GORDON INVESTMENTS LLC  
 P.O. BOX 56  
 HAMPSTEAD, NC 28443

ADDRESS: US HIGHWAY 17  
 HAMPSTEAD, NC 28443

PIN: 3293-54-3231-0000  
 JURISDICTION: PENDER COUNTY  
 CITY: HAMPSTEAD  
 COUNTY: PENDER  
 STATE: NORTH CAROLINA  
 RIVER BASIN: WHITE OAK RIVER BASIN  
 FEMA MAP #: 3720329300J - ZONE "X",  
 EFFECTIVE FEBRUARY 16, 2007

DEED BOOK/PAGE: 2.27 AC - 98,806 SF  
 TOTAL PROJECT AREA: 2.27 AC - 98,806 SF  
 EXISTING USE: VACANT

ZONING: GB - GENERAL BUSINESS

ADJACENT ZONING: GB - GENERAL BUSINESS  
 RP - RESIDENTIAL PERFORMANCE

IMPERVIOUS: 1.04 AC - 45,337 SF  
 45,337 SF (IMP.) / 98,806 SF (PROJ. AREA)  
 = 46% IMPERVIOUS

SCM SIZING: 45,337 (IMP.) X 3.65 (NCDEQ 50% IMP.)  
 = 165,480 / 100 = 1,655 SF SCM + 15% = 1,903 SF

WETLAND IMPACT: 4,324 SF (0.099 AC)

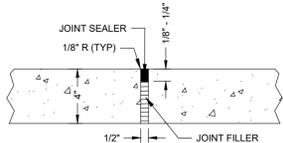
SETBACKS: REQUIRED  
 FRONT SETBACK: 25'  
 SIDE SETBACK: 10'  
 REAR SETBACK: 10'

LANDSCAPE: REQUIRED YARDS  
 STREET: 15'  
 SIDE: 10'  
 REAR: 10'

BUILDING HEIGHT: MAX. 40'  
 MIN. BLDG. SEPARATION: MIN. 20'

PARKING REQUIRED:  
 INDOOR REC. - 1 PER 250 SF @ 6,422 SF = 26 SPACES  
 OFFICES - 1 PER 300 SF @ 3,380 SF = 12 SPACES  
 NON STORE RETAIL - 1 PER 5000 SF @ 4,110 SF = 1 SPACE  
 REQUIRED SPACES = 39 SPACES  
 PROVIDED = 44 SPACES

SOILS:  
 KUB - KUREB FINE SAND - 2 TO 6 PERCENT SLOPES - HSG: A  
 LNA - LEON FINE SAND - 0 TO 2 PERCENT SLOPES - HSG: A/D

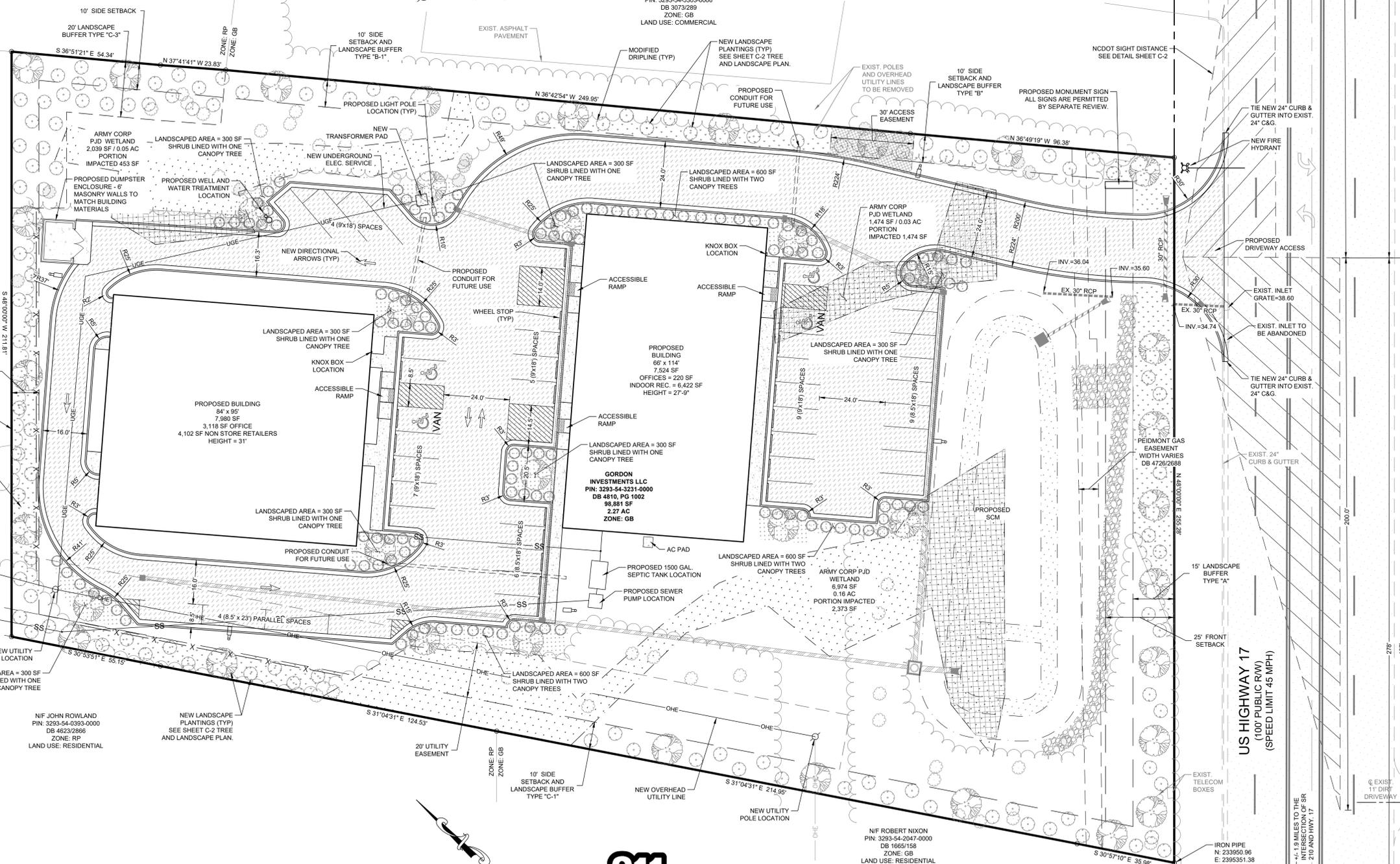


**SIDEWALK DETAIL NOTES:**

- AT A MINIMUM, CONCRETE SHALL MEET NCDOT SPECIFICATIONS AND BE CLASS B PORTLAND CEMENT.
- PLACE A GROOVE JOINT 1" DEEP W/ 1/8" RADIUS IN THE CONCRETE SIDEWALK AT 5' INTERVALS OR AS CALLED OUT ON THE PLANS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
- FINISHED SURFACE OF SIDEWALK TO BE BROOM FINISHED, PERPENDICULAR TO TRAFFIC FLOW.
- REFERENCE NCDOT STANDARD DRAWING 848.01.
- USE A 4" GRAVEL BASE BENEATH SIDEWALK.

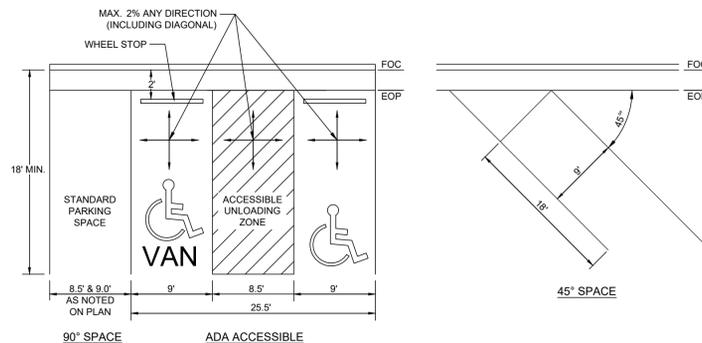
**SIDEWALK DETAIL**

N/F MELVIN LONDON  
 PIN: 3293-54-3224-0000  
 DB 2591/226  
 ZONE: RP  
 LAND USE: RESIDENTIAL



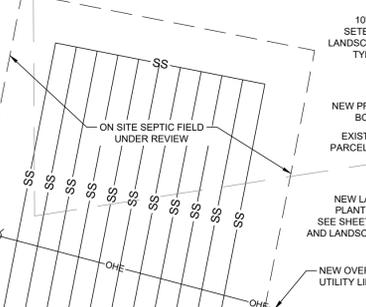
**LEGEND:**

- EXISTING CONTOUR
- OVERHEAD UTILITY LINE
- TREE DRIP LINE
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- SILT FENCE
- WETLAND
- IMPACTED WETLAND
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE
- PROPOSED CROSS ACCESS EASEMENT
- REQUIRED LANDSCAPE AREAS
- ROCK CHECK DAM
- OUTLET STRUCTURE
- FLARED END SECTION
- LIGHT FIXTURE FOR CONCEPTUAL PURPOSES ONLY. A FULL LIGHTING PLAN WILL BE SUPPLIED BY OTHERS.
- UTILITY POLE



**PARKING SPACES - TYPICAL**

NOTE: PARKING STRIPES ARE TO BE NCDOT STD 4" WIDE WHITE STRIPES.

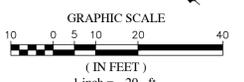


TYP. ASPHALT CROSS SECTION

**WPMO TRIP GENERATION:**

Land Use (ITE Code)	Intensity	Unit	24 Hour Volumes	AM Peak Hour Trips	PM Peak Hour Trips
ITE 150 Warehousing	9,980	SF	54	25	28
ITE 822 Strip Retail Plaza (<40K)	7,524	SF	409	18	50

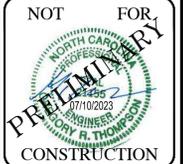
BASED ON THE ITE TRIP GENERATION 11th EDITION, A TIA IS NOT REQUIRED.



NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

COPYRIGHT © 2023  
 SUMMIT DESIGN AND ENGINEERING SERVICES  
 DRAWING ALTERNATION

PROJECT MANAGER: GREG THOMPSON@SUMMITDE.COM  
 PROJECT MANAGER: GREG THOMPSON@SUMMITDE.COM  
 DRAWN BY: S.F. SANDY@SUMMITDE.COM  
 FIRST ISSUE DATE: 02/03/2023

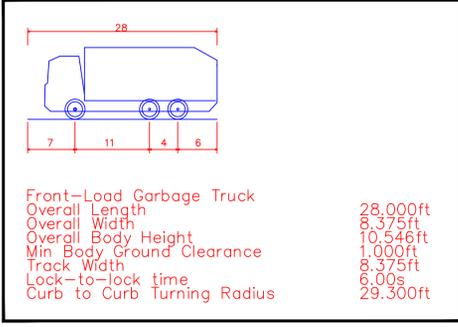


**SUMMIT**  
 DESIGN AND ENGINEERING SERVICES  
 State License #: P-0339  
 320 Executive Court  
 Hillsborough, NC 27278  
 Voice: (919) 732-3883 Fax: (919) 732-6676  
 www.summitde.com

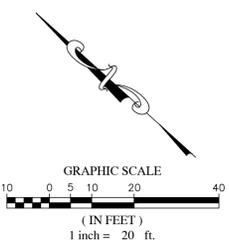
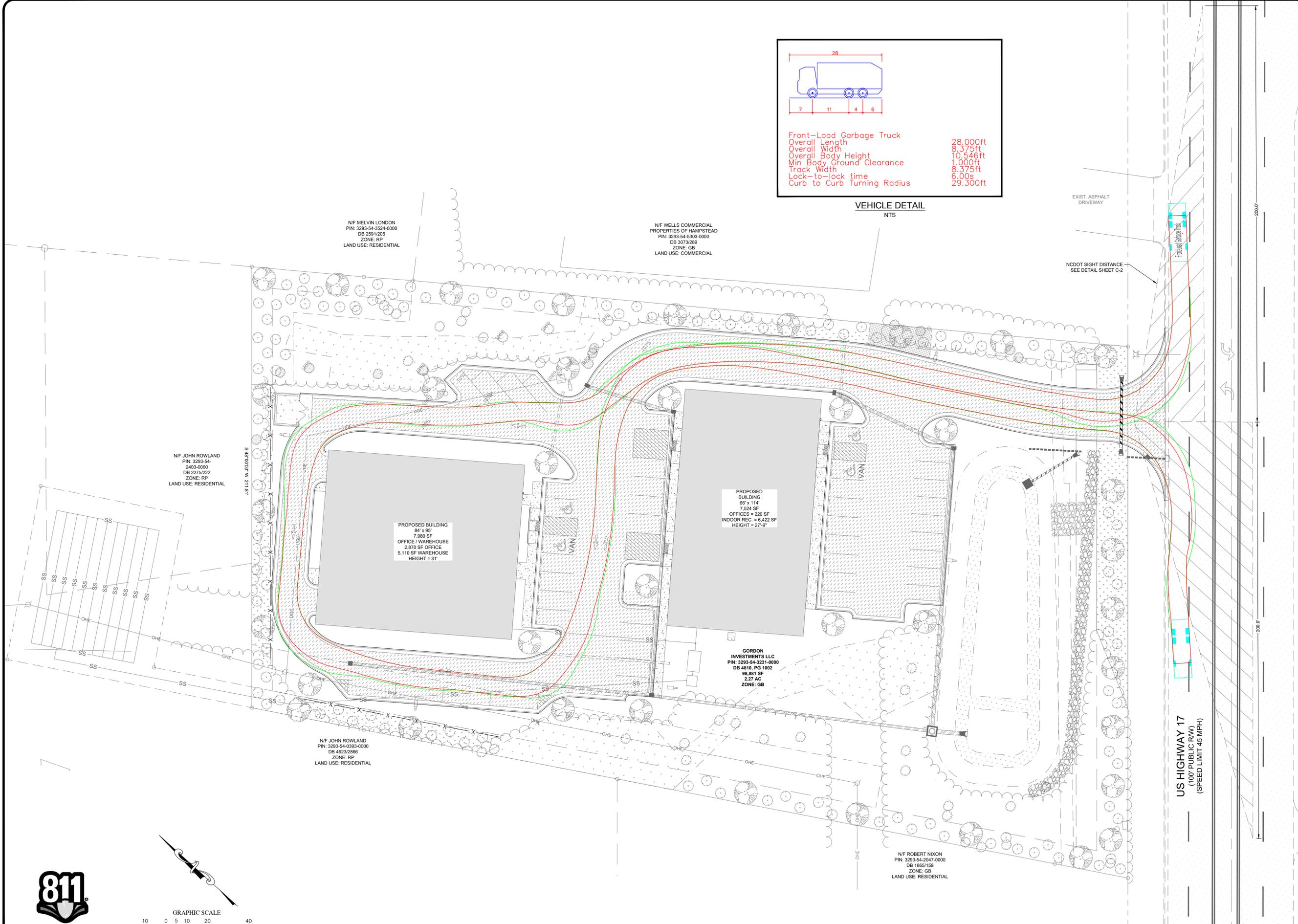
LAND DEVELOPMENT PLANS FOR  
**GORDON INVESTMENTS LLC**  
 US HIGHWAY 17  
 HAMPSTEAD, NC 28443

**SITE AND UTILITY PLAN**

PROJECT NO: 22-0318  
 DRAWING NAME: 22-0088\_S  
 SHEET NO: C-6



VEHICLE DETAIL  
NTS



Know what's below.  
 Call before you dig.

NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

COPYRIGHT © 2023  
 SUMMIT DESIGN AND  
 ENGINEERING SERVICES  
 DRAWING ALTERATION  
 THIS IS A REVISED DRAWING FOR ANY PERSON  
 WHO HAS NOT BEEN ADVISED BY THE  
 LICENSED ARCHITECT, PROFESSIONAL  
 LAND SURVEYOR, OR ANY OTHER  
 PROFESSIONAL ENGINEER OR ARCHITECT  
 WHO ALTERS THIS DOCUMENT IS SUBJECT  
 TO PENALTY UNDER THE PENALTY LAWS  
 OF THIS STATE. ANY ALTERATION TO THIS  
 DRAWING SHALL BE THE RESPONSIBILITY  
 OF THE USER.

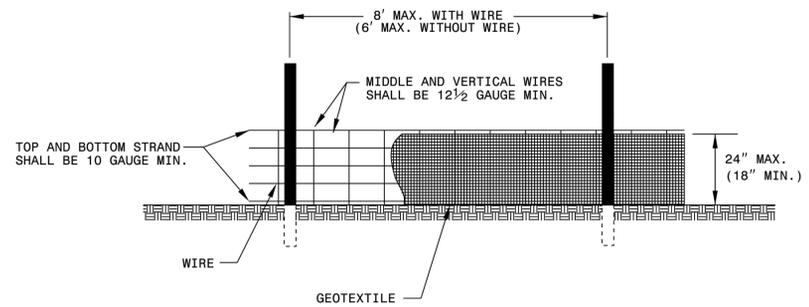
PROJECT MANAGER  
 GRT (GREG THOMPSON@SUMMITDE.COM)  
 PROJECT MANAGER  
 GRT (GREG THOMPSON@SUMMITDE.COM)  
 DRAWN BY  
 SIF (SANDY FALK@SUMMITDE.COM)  
 FIRST ISSUE DATE  
 02/03/2023

FOR  
 REFERENCE  
 ONLY

**SUMMIT**  
 DESIGN AND ENGINEERING SERVICES  
 State License #: P-0339  
 320 Executive Court  
 Hillsborough, NC 27278  
 Tel: (919) 732-3883 Fax: (919) 732-6676  
 www.summitde.com

LAND DEVELOPMENT PLANS FOR  
**GORDON INVESTMENTS LLC**  
 US HIGHWAY 17  
 HAMPSTEAD, NC 28443  
**AUTO TRACKING PLAN**

PROJECT NO.  
 22-0318  
 DRAWING NAME:  
 22-0088\_S  
 SHEET NO.  
 C-7



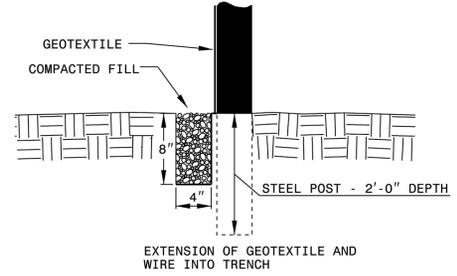
**NOTES**

USE GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE POSTS AND WIRE AS DIRECTED.

USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 5 LINE WIRES WITH 12" VERTICAL SPACING.

PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.

FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TEMPORARY SILT FENCE**

SHEET 1 OF 1  
**1605.01**

**NOTES**

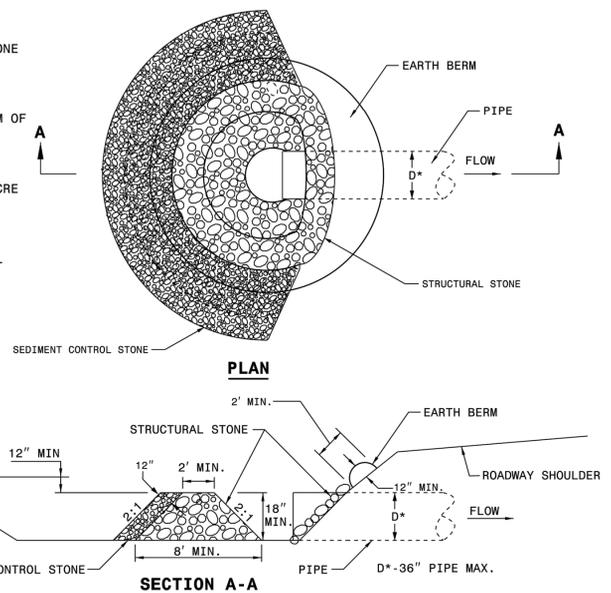
USE CLASS B EROSION CONTROL STONE FOR STRUCTURAL STONE.

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

CONSTRUCT TOP OF BERM A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR DIVERSION POINT.

PROVIDE A TOTAL SEDIMENT TRAP VOLUME OF 3600± CUBIC FEET PER ACRE OF DISTURBED AREA. SOME OF THE REQUIRED VOLUME MAY BE PROVIDED BY UP OR DOWNSTREAM CONTROLS.

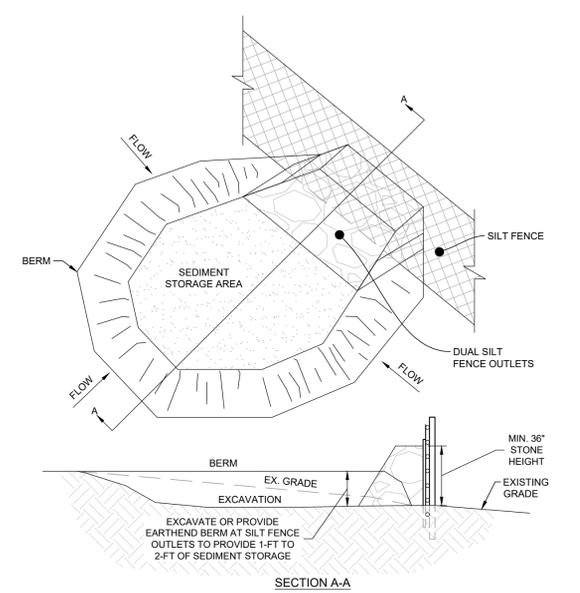
DO NOT INSTALL WHEN DEVICE WILL BE WITHIN 30 FEET OF VEHICULAR TRAVEL LANE.



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**ROCK PIPE INLET SEDIMENT TRAP TYPE A**

SHEET 1 OF 1  
**1635.01**



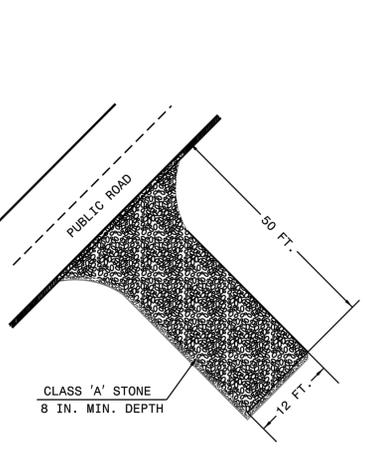
**SEDIMENT STORAGE NOTES:**

- PROVIDE MIN. OF 1,800 CF OF SEDIMENT STORAGE VOLUME PER 1 AC. OF DRAINAGE AREA.
- PROVIDE SEDIMENT STORAGE AT SILT FENCE OUTLETS NOTED ON PLAN AND AS NECESSARY BASED ON FIELD CONDITIONS. ADDITIONAL SEDIMENT STORAGE DEVICES AND/OR STORAGE VOLUME AT EACH DEVICE MAY BE REQUIRED AT THE DISCRETION OF THE EROSION CONTROL INSPECTOR OR PROJECT ENGINEER.
- PROVIDE TEMPORARY DIVERSIONS TO EACH SEDIMENT STORAGE DEVICE AS NEEDED AND DIRECT SEDIMENT LADEN RUNOFF TO THE DIVERSIONS AND SILT FENCE OUTLETS THROUGHOUT ALL PHASES OF CONSTRUCTION.

**MAINTENANCE AND FINAL REMOVAL:**

- INSPECT AND MONITOR SEDIMENT STORAGE DEVICES WEEKLY AND AFTER EACH RAINFALL EVENT.
- STORAGE AREA SIZE, DEPTH, AND ELEVATIONS SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION AND REPAIRED AS NEEDED.
- ONCE A MAXIMUM DEPTH OF 0.25 FT OF SEDIMENT HAS ACCUMULATED, ALL SEDIMENT SHALL BE IMMEDIATELY REMOVED AND THE ORIGINAL SIZE, DEPTH, AND ELEVATIONS OF THE STORAGE AREA SHALL BE RESTORED AS SHOWN ON THE APPROVED PLANS.
- ANY MATERIAL REMOVED FROM SEDIMENT STORAGE DEVICES SHALL BE STORED ON-SITE IN THE SPOILS AREA AS SHOWN ON THE APPROVED EROSION CONTROL PLAN. ONCE FINAL GRADES ARE ACHIEVED, SUITABLE MATERIAL CAN BE SPREAD ON-SITE AS NEEDED FOR LANDSCAPING USE OR DISPOSED OF AT A PROPERLY PERMITTED LOCATION.
- MAINTAIN POSITIVE DRAINAGE TO THE SEDIMENT STORAGE DEVICE AND ASSOCIATED SILT FENCE OUTLETS THROUGHOUT ALL PHASES OF CONSTRUCTION.
- WHEN FINAL GRADES AS SHOWN ON THE APPROVED GRADING IS ACHIEVED, AND ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED, CONTACT THE EROSION CONTROL INSPECTOR FOR FINAL INSPECTION PRIOR TO DECOMMISSIONING EACH SEDIMENT STORAGE DEVICE.

**SEDIMENT STORAGE AT SILT FENCE**  
NTS



**NOTES**

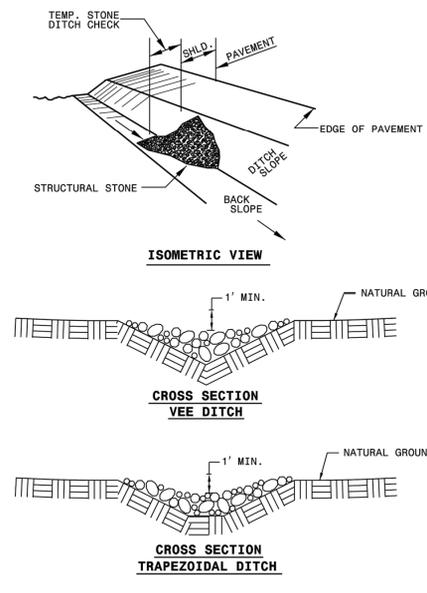
- PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
- LOCATE ENTRANCES TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
- MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
- ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
- LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
- NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
- USE CLASS 'A' STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.
- INSTALL CONSTRUCTION ENTRANCES IN A WAY TO PREVENT VEHICLES FROM BYPASSING CONSTRUCTION ENTRANCE LEAVING PROJECT SITE.

NOTE: PLACE GEOTEXTILE FOR DRAINAGE BENEATH STONE

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**GRAVEL CONSTRUCTION ENTRANCE**

SHEET 1 OF 1  
**1607.01**



**NOTES**

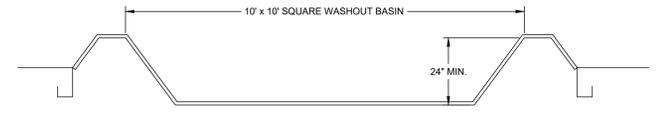
USE CLASS B EROSION CONTROL STONE FOR STRUCTURAL STONE.

THE ENGINEER MAY DIRECT THE OPTION OF CLASS A STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TEMPORARY ROCK SILT CHECK TYPE B**

SHEET 1 OF 1  
**1633.02**



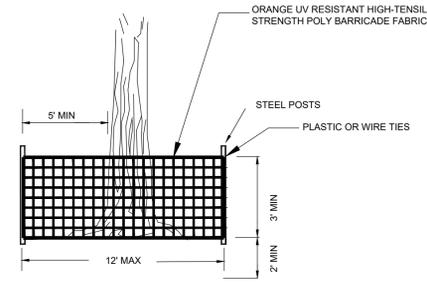
**NOTES**

- INSTALL CONCRETE WASHOUT PIT AT LOCATION(S) SHOWN ON PLANS.
- LINE PIT WITH IMPERVIOUS FABRIC OR POLYETHYLENE SHEET. ANCHOR FABRIC INTO GROUND OUTSIDE PIT AS SHOWN.
- MAXIMUM WATER AND SEDIMENT DEPTH IS 12" PIT MUST BE EXCAVATED AND RE-LINED WHEN DEPTH OF SEDIMENT REACHES 12" OR COMBINED WATER/SEDIMENT DEPTH EXCEEDS 12" FOLLOWING WASHOUT OF CONCRETE TRUCK.
- ALLOW WATER TO EVAPORATE COMPLETELY PRIOR TO EXCAVATING PIT.
- WASHOUT PIT MAY BE LOCATED NO CLOSER THAN 50' TO DRAINS, INLETS, OR SURFACE WATERS.

**CONCRETE WASHOUT PIT**

**HANDLING OF CONCRETE NOTES:**

- CONCRETE MATERIALS ON-SITE, INCLUDING EXCESS CONCRETE MUST BE CONTROLLED AND MANAGED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS OR BUFFERS. NO CONCRETE OR CEMENT SLURRY SHALL BE DISCHARGED FROM THE SITE.
- ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING, OR SIMILAR-STRENGTH MATERIAL, AND FREE OF HOLES OR TEARS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
- ALL WASHOUT OPERATIONS MUST BE AT LEAST 50 FEET FROM STORM DRAINS OR WATERBODIES UNLESS INDIVIDUAL SITE DIFFICULTIES MAKE THIS REQUIREMENT IMPRACTICAL. A REDUCTION OF THIS DISTANCE REQUIREMENT WILL BE ALLOWED ON A CASE-BY-CASE BASIS IF THE PERMITTING AUTHORITY DETERMINES THAT THE WASHOUT FACILITY WITH A REDUCED BUFFER WILL ADEQUATELY PROTECT THE WATER QUALITY IN ADJACENT STREAMS.
- WASHOUT OF CONCRETE TRUCKS SHALL BE PERFORMED IN DESIGNATED AREAS ONLY.
- A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS ABOUT THE REQUIREMENT TO USE THE FACILITY.
- THE HARDENED RESIDUE FROM THE CONCRETE WASHOUT WILL BE DISPOSED OF IN THE SAME MANNER AS OTHER NON-HAZARDOUS CONSTRUCTION WASTE MATERIALS OR MAY BE BROKEN UP AND USED ON SITE AS DEEMED APPROPRIATE BY THE CONTRACTOR. MAINTENANCE OF THE WASHOUT IS TO INCLUDE REMOVAL OF HARDENED CONCRETE. FACILITY SHALL HAVE SUFFICIENT VOLUME TO CONTAIN ALL THE CONCRETE WASTE RESULTING FROM WASHOUT AND A MINIMUM FREEBOARD OF 12 INCHES. FACILITY SHALL NOT BE FILLED BEYOND 95% CAPACITY AND SHALL BE CLEANED OUT ONCE 75% FULL UNLESS A NEW FACILITY IS CONSTRUCTED.
- PORTABLE, REMOVABLE CONTAINERS MAY BE USED AS ABOVE GRADE CONCRETE WASHOUTS PROVIDED TRUCK OPERATORS ARE ABLE TO WASH INDIVIDUAL CHUTE SECTIONS OUT OVER THE WASHOUT.
- IF STORED LIQUIDS HAVE NOT EVAPORATED AND THE WASHOUT IS NEARLY FULL, THE LIQUIDS MAY BE VACUUMED AND DISPOSED OF OFF-SITE IN A LEGALLY ACCEPTABLE MANNER OR DISPOSED OF ON-SITE IN A MANNER AND LOCATION THAT IT WILL NOT REACH STREAMS AND OTHER BODIES OF WATER. ON-SITE PITS AND OTHER INFILTRATION DEVICES WILL BE ACCEPTABLE IF THE DEVICE IS DESIGNED TO INFILTRATE THE ANTICIPATED VOLUME OF WATER AND APPROVED PRIOR TO ITS USE BY THE PERMITTING AUTHORITY.



**TREE PROTECTION FENCE**  
NTS

**NOTES**

- TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE OR ISSUANCE OF A GRADING PERMIT.
- WARNING SIGNS IN BOTH ENGLISH AND SPANISH SHALL BE PLACED IN TREE PROTECTION AREAS @ 50'. THE SIGNS SHOULD READ, "TREE PROTECTION AREA-NO TRESPASSING" AND "ZONA PROTECTORA PARA LOS ARBOLES/PROHIBIDO ENTRAR".
- WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.
- LETTERS TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
- PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.
- FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
- ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
- MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.
- ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF RALEIGH INSPECTIONS DEPARTMENT BASED ON ACTUAL FIELD CONDITIONS.

NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

COPYRIGHT © 2023  
SUMMIT DESIGN AND  
ENGINEERING SERVICES  
DRAWING ALTERNATION

IT IS A VIOLATION OF LAW FOR ANY PERSON  
TO REPRODUCE OR TRANSMIT IN ANY MANNER  
UNLESS ARCHITECT, PROFESSIONAL  
ENGINEER, OR LAND SURVEYOR TO A PLAN OR  
SPECIFICATION FOR WHICH THIS DOCUMENT IS REQUIRED  
AND WHOSE NAME IS LISTED ON THE DRAWING.  
NOTATION: ALL REVISIONS TO BE FOLLOWED BY THE  
DESIGNER/OWNER OF THE DRAWINGS.

PROJECT MANAGER  
GREG THOMPSON@SUMMITDE.COM

DESIGNER  
GREG THOMPSON@SUMMITDE.COM

DRAWN BY  
SANDY FAN@SUMMITDE.COM

FIRST ISSUE DATE  
02/03/2023



NOT FOR CONSTRUCTION

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES

State License #: P-0339  
320 Elizabeth Court  
Hillsborough, NC 27278  
Voice: (919) 732-3883 Fax: (919) 732-6676  
www.summitde.com

LAND DEVELOPMENT PLANS FOR  
**GORDON INVESTMENTS LLC**  
US HIGHWAY 17  
HAMPSHIRE, NC 28443

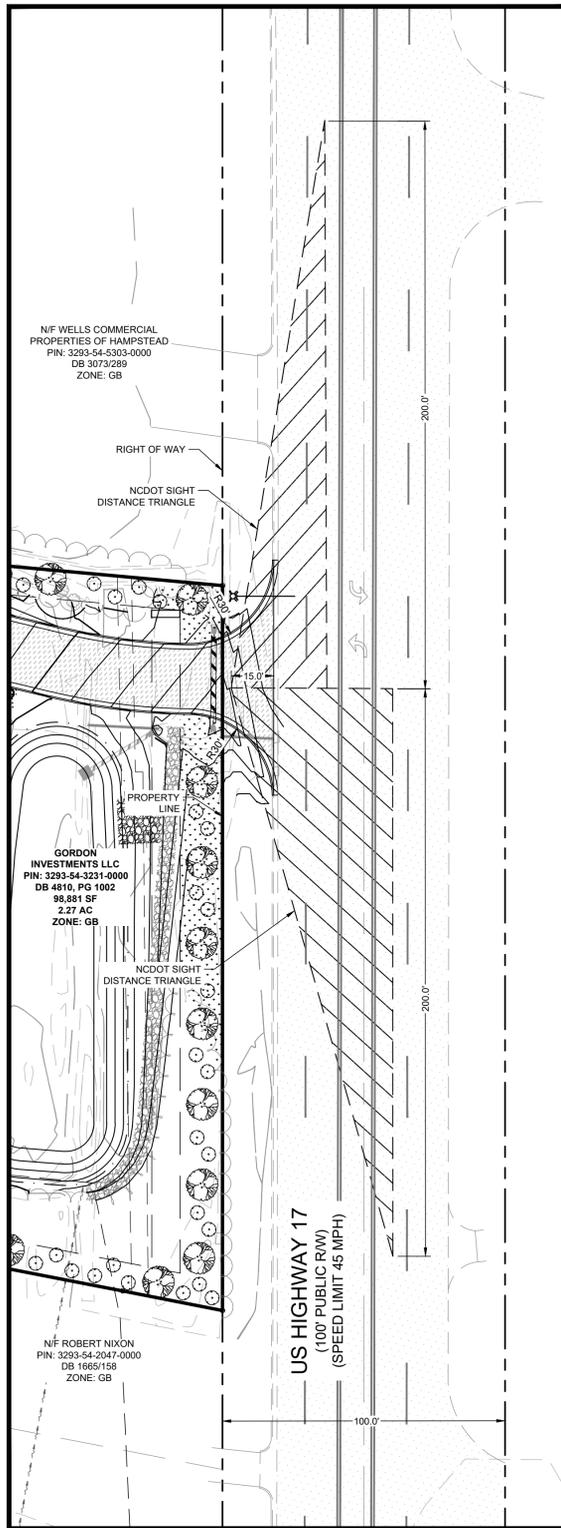
EROSION AND SEDIMENTATION  
CONTROL DETAILS

PROJECT NO.  
**22-0318**

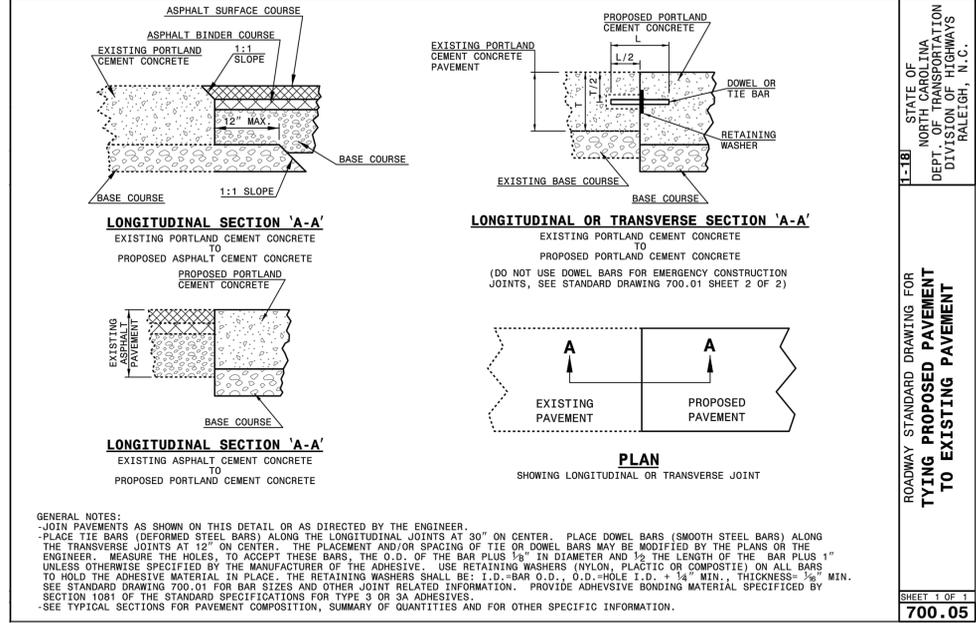
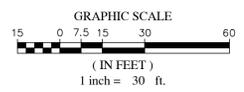
DRAWING NAME:  
**22-0088\_D**

SHEET NO.  
**D-1**





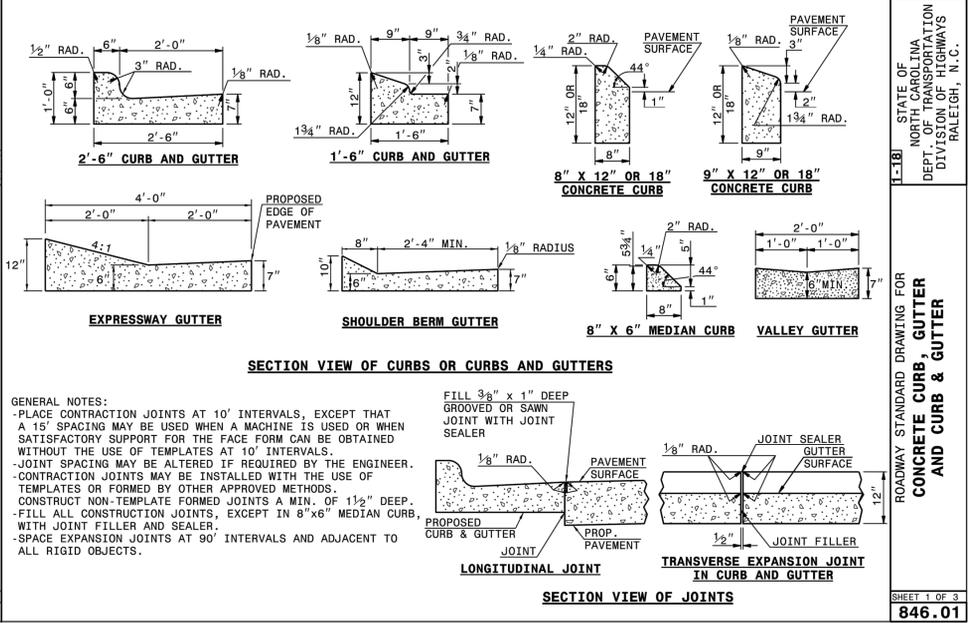
**SIGHT DISTANCE DETAIL**  
SCALE 1" = 30'



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR  
**TYING PROPOSED PAVEMENT TO EXISTING PAVEMENT**

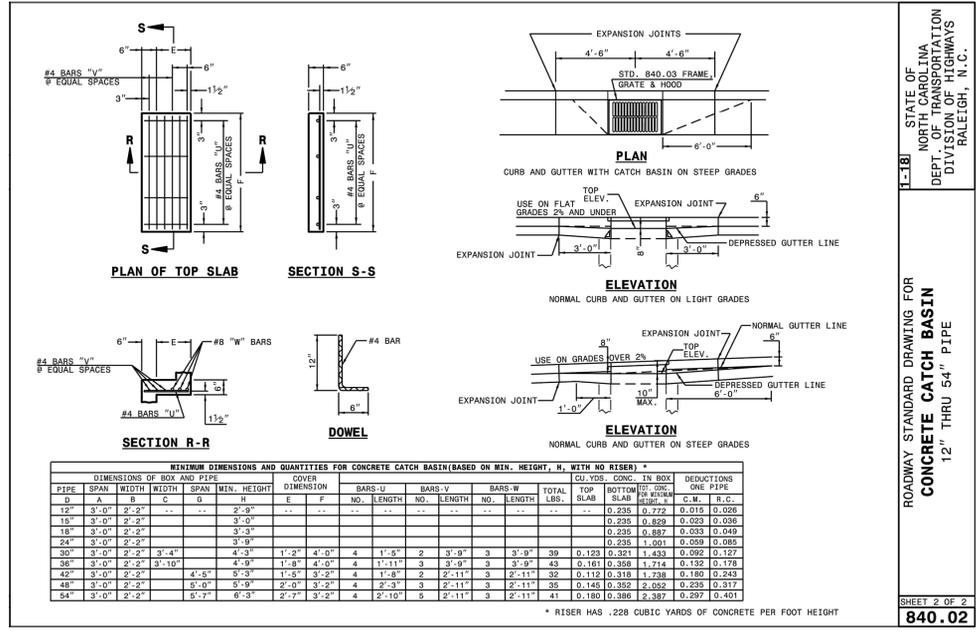
SHEET 1 OF 1  
**700.05**



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR  
**CONCRETE CURB, GUTTER AND CURB & GUTTER**

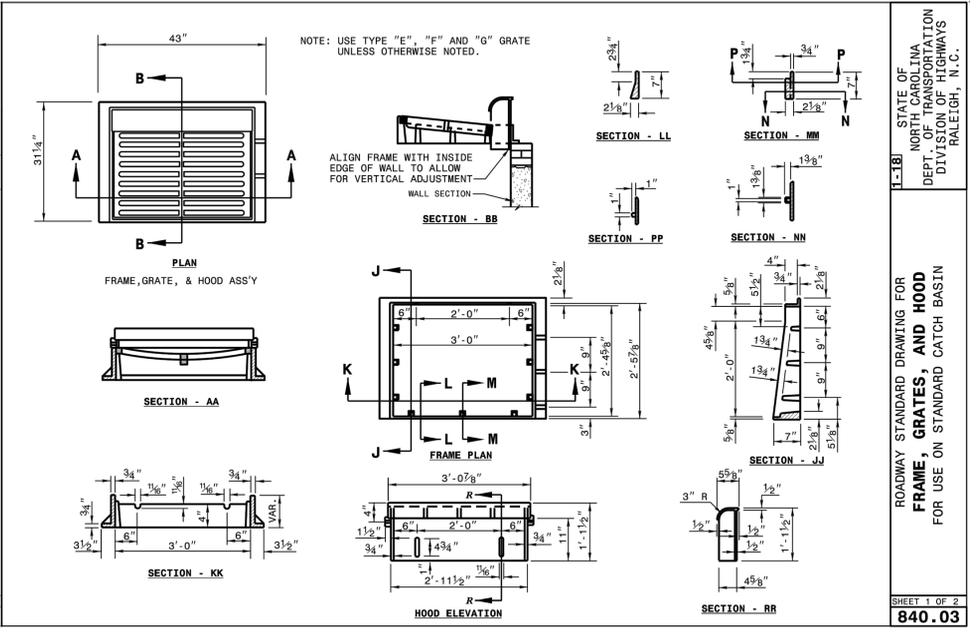
SHEET 1 OF 3  
**846.01**



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR  
**CONCRETE CATCH BASIN 12" THRU 54" PIPE**

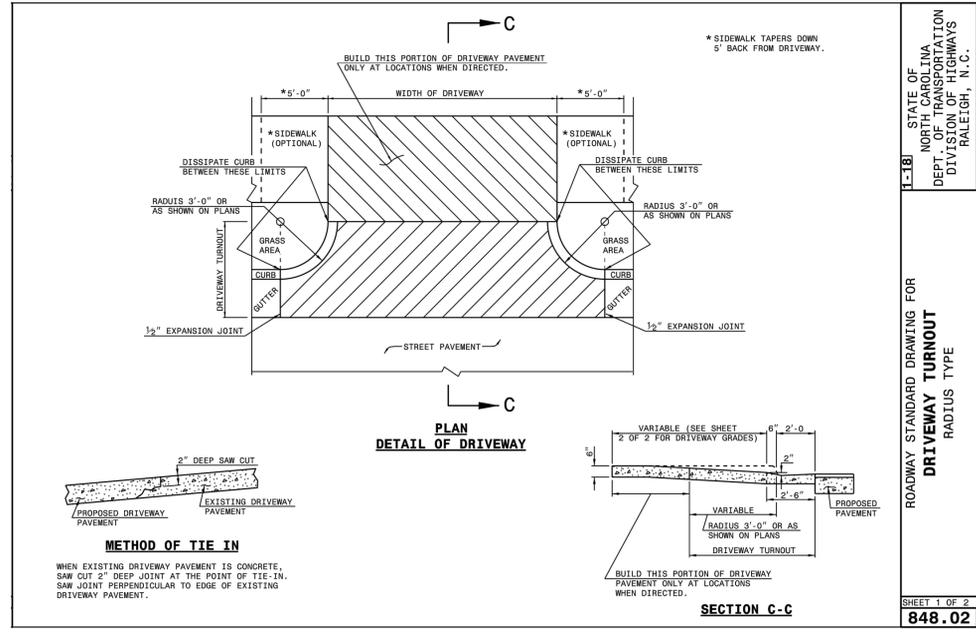
SHEET 2 OF 2  
**840.02**



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR  
**FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN**

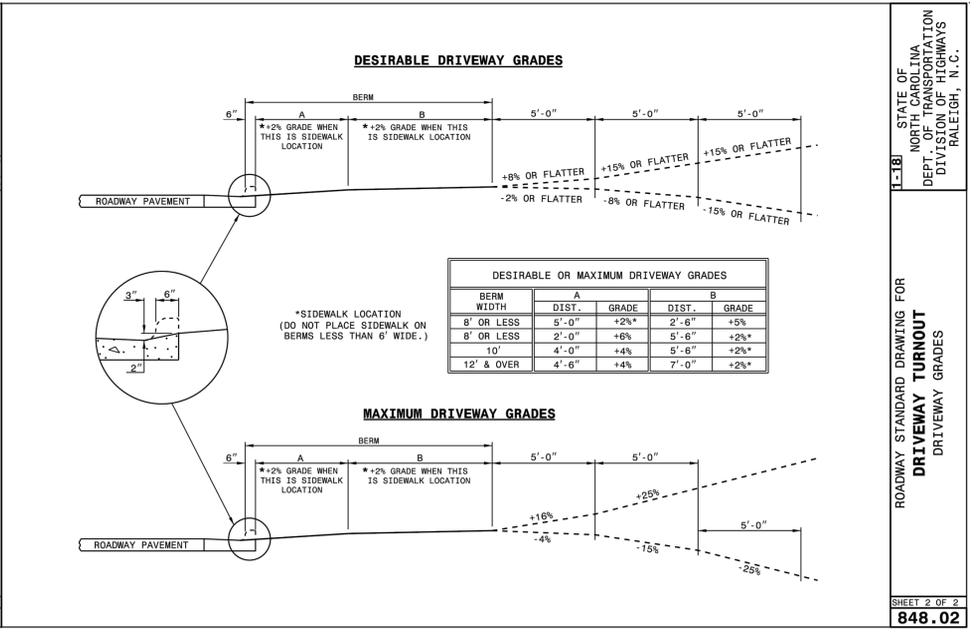
SHEET 1 OF 2  
**840.03**



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR  
**DRIVEWAY TURNOUT RADIUS TYPE**

SHEET 1 OF 2  
**848.02**



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR  
**DRIVEWAY TURNOUT DRIVEWAY GRADES**

SHEET 2 OF 2  
**848.02**

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N. C.

PROJECT MANAGER: GREG THOMPSON@SUMMITDE.COM  
PROJECT MANAGER: GREG THOMPSON@SUMMITDE.COM  
DRAWN BY: S.F. SANDY FAY@SUMMITDE.COM  
FIRST ISSUE DATE: 02/03/2023

**NOT FOR CONSTRUCTION**

**SUMMIT DESIGN AND ENGINEERING SERVICES**  
State License #: P-0339  
320 Executive Court  
Hillsborough, NC 27278  
Voice: (919) 732-3883 Fax: (919) 732-6676  
www.summitde.com

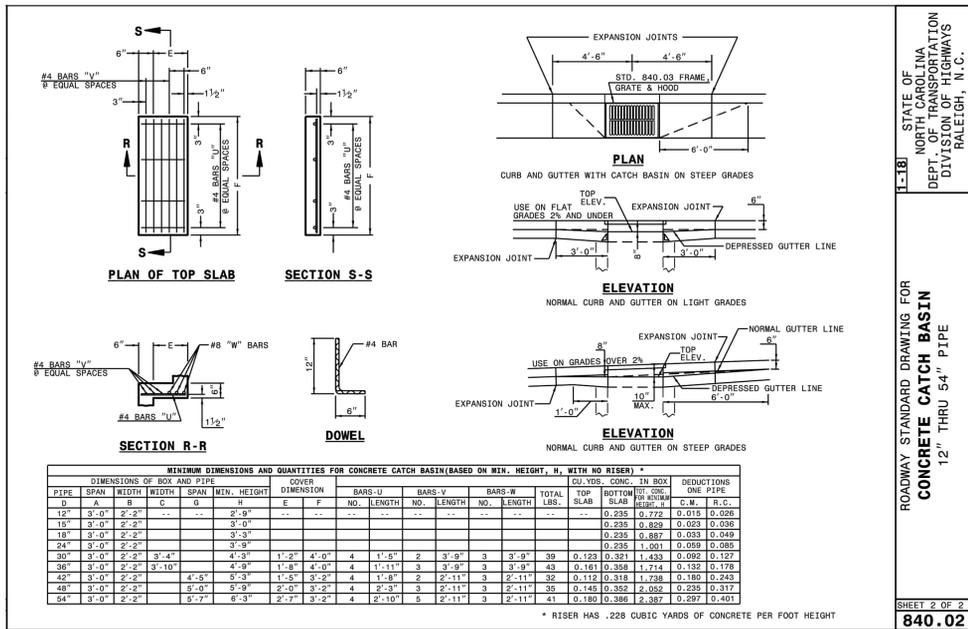
**LAND DEVELOPMENT PLANS FOR GORDON INVESTMENTS LLC**  
US HIGHWAY 17  
HAMPSTEAD, NC 28443

**SITE DETAILS**

PROJECT NO.: 22-0318  
DRAWING NAME: 22-0088\_NCDOT  
SHEET NO.: D-3

REVISIONS: 7, 6, 5, 4, 3, 2, 1

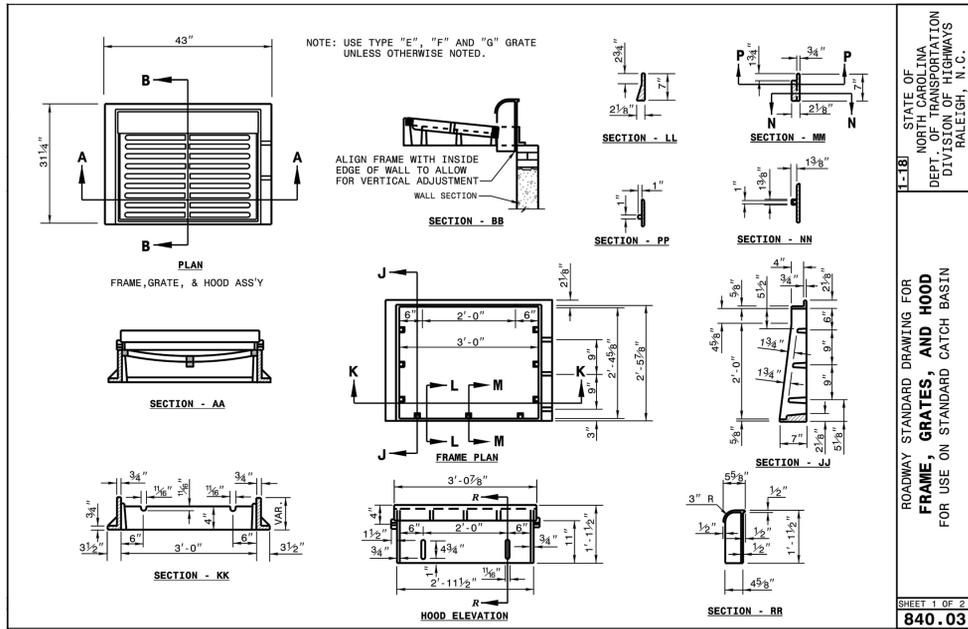
DATE: BY:



1-181 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR CONCRETE CATCH BASIN 12" THRU 54" PIPE

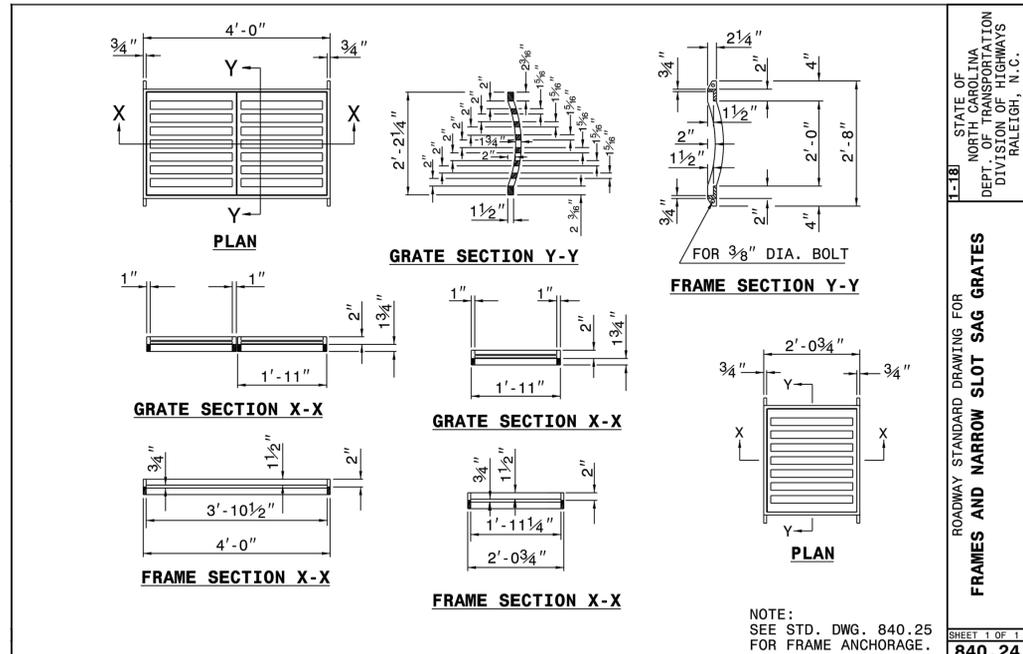
SHEET 2 OF 2 840.02



1-181 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN

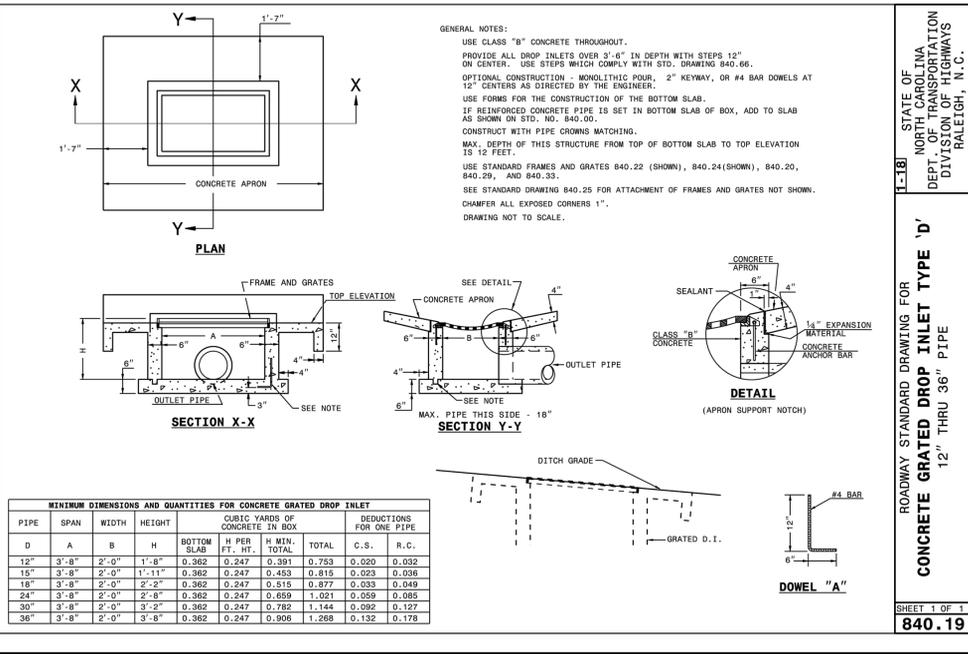
SHEET 1 OF 2 840.03



1-181 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR FRAMES AND NARROW SLOT SAG GRATES

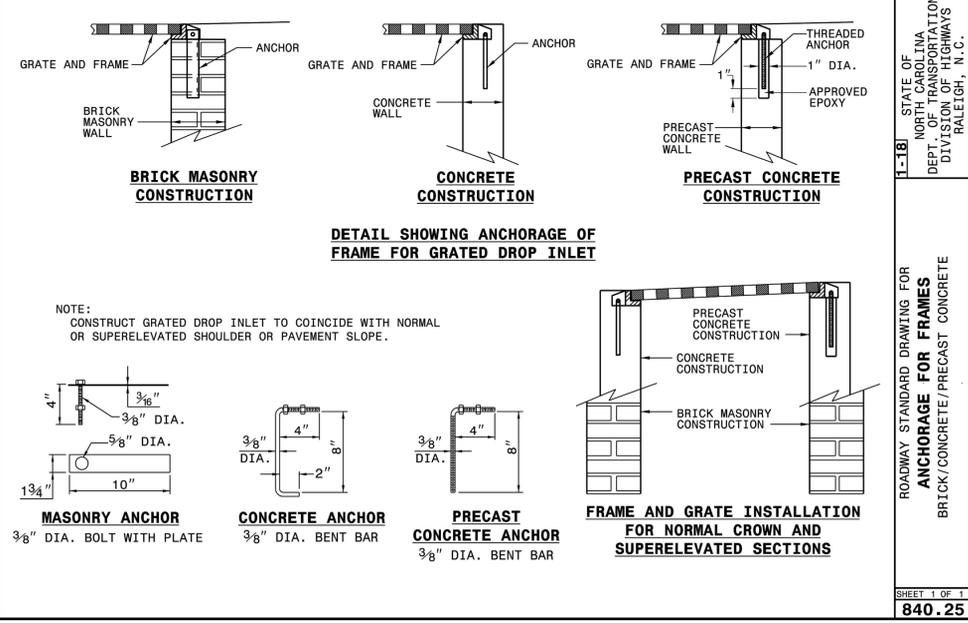
SHEET 1 OF 1 840.24



1-181 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR CONCRETE GRATED DROP INLET TYPE 'D' THRU 36" PIPE

SHEET 1 OF 1 840.19



1-181 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR ANCHORAGE FOR FRAMES BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1 840.25



NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

PROJECT MANAGER: GRT (GREG THOMPSON@SUMMITDE.COM)  
 PROJECT MANAGER: GRT (GREG THOMPSON@SUMMITDE.COM)  
 DRAWN BY: S.F. SANDY/FAL@SUMMITDE.COM  
 FIRST ISSUE DATE: 02/03/2023

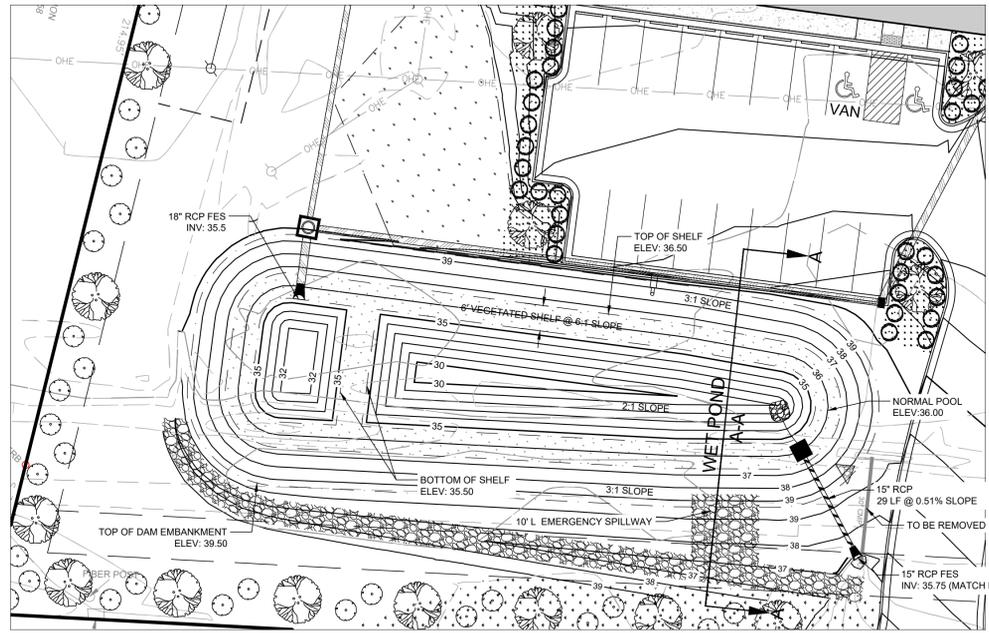


**SUMMIT**  
 DESIGN AND ENGINEERING SERVICES  
 State License #: P-0339  
 320 Executive Court  
 Hillsborough, NC 27278  
 Voice: (919) 732-3883 Fax: (919) 732-6676  
 www.summitde.com

LAND DEVELOPMENT PLANS FOR GORDON INVESTMENTS LLC  
 US HIGHWAY 17  
 HAMPSHIRE, NC 28443

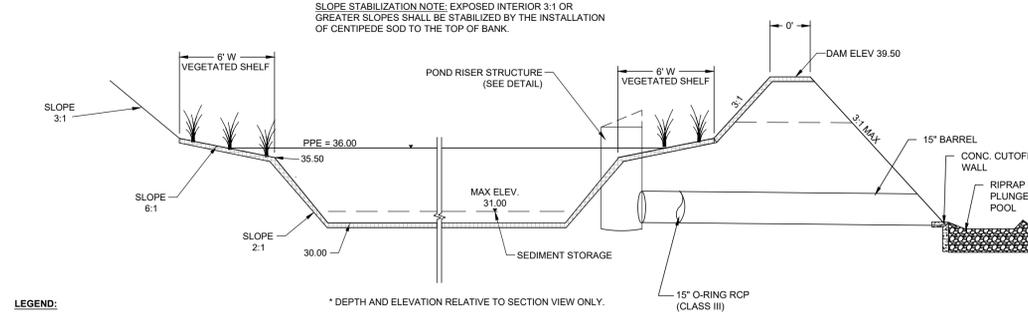
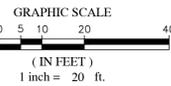
PROJECT NO. 22-0318  
 DRAWING NAME: 22-0088\_NCDOT  
 SHEET NO. D-4

STORM DRAINAGE DETAILS



**WET POND DETAIL**

SCALE: 1" = 20'



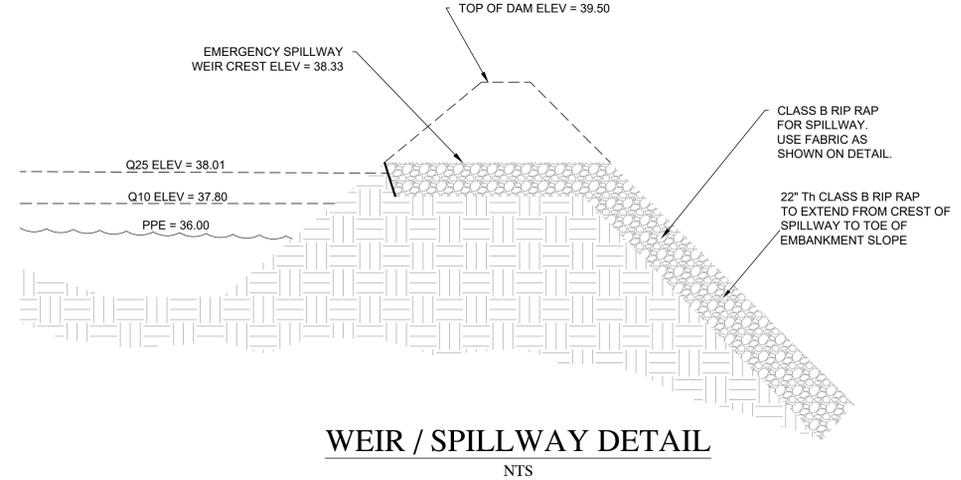
**LEGEND:**

VEGETATED SHELF AREA: 2,075 SF

SLOPE STABILIZATION NOTE: EXPOSED INTERIOR 3:1 OR GREATER SLOPES SHALL BE STABILIZED BY THE INSTALLATION OF CENTIPEDE SOD TO THE TOP OF BANK.

**WET DETENTION POND STRUCTURE DETAILS:**

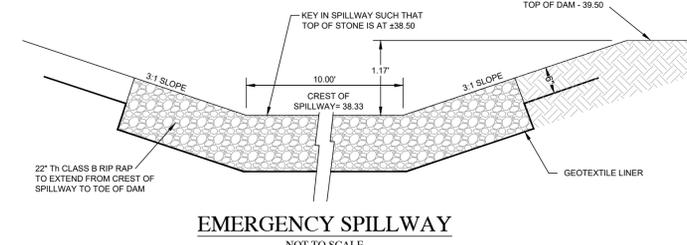
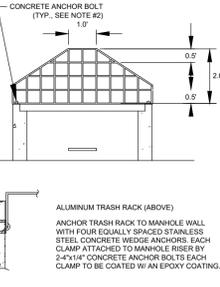
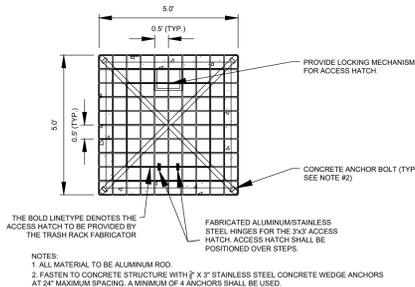
	DESIGN	AS-BUILT
INLET STRUCTURE (RISER) ELEV	38.33	
EMER OVERFLOW (WEIR) ELEV	38.33	
DEWATERING ORIFICE SIZE/ELEV	1.125" @ 36.0	
WEIR OPENING	3"X18" (3 SIDES) 37.20	
TOP OF DAM	39.50	
DESIGN STORM ELEV (10-yr)	37.80	
DESIGN STORM VOLUME (10-yr)	16.873 CF	
DESIGN STORM ELEV (25-yr)	38.01	
DESIGN STORM VOLUME (25-yr)	20.192 CF	
OUTLET PIPE/ BARREL	15"	
OUTLET PIPE INVERT ELEV	36.00	
Q10 FLOW FROM BASIN (cfs)	3.76 CFS	
Q25 FLOW FROM BASIN (cfs)	4.24 CFS	



**VEGETATED SHELF PLANTING CHART**  
(2,075 SF / 200SF \* 50 = 519 PLANTS)

SCIENTIFIC NAME	COMMON NAME	QTY.	PCT. OF QTY.	SIZE*
ASCLEPIAS INCARNATA	SWAMP MILK WEED	173	33.33%	4" POT
LOBELIA CARDINALIS	CARDINAL FLOWER	173	33.33%	4" POT
EUPATORIADELPHUS FISTULOSUS	JOE PYE WEED	173	34.33%	4" POT
<b>SUB TOTAL:</b>		<b>519</b>	<b>100%</b>	

- NOTES:**
- INSTALL WET POND PLANTS PER SUBCHAPTER A-3 OF THE NCDEQ STORMWATER DESIGN MANUAL.
  - VEGETATED SHELF PLANTS SHALL BE INSTALLED AT A RATE OF 50 PLANTS PER 200 SQUARE FEET.
  - SOD INTERIOR BANK OF SCM ABOVE VEGETATED SHELF ELEVATION, TOP OF DAM, AND ON DAM EMBANKMENT WITH CENTIPEDE GRASS.
  - MAINTAIN HEALTH OF WET POND PLANTINGS PER SUBCHAPTER A-3 OF THE NCDEQ STORMWATER DESIGN MANUAL.
  - PROVIDE 1 YEAR WARRANTY FOR PLANTS.
  - ONE YEAR (1 YR.) WARRANTY SHALL BE TRANSFERABLE TO ANY SUBSEQUENT OWNER UPON CONVEYANCE OF THE PROPERTY PRIOR TO ITS EXPIRATION.



**WET POND PLANTING NOTES:**

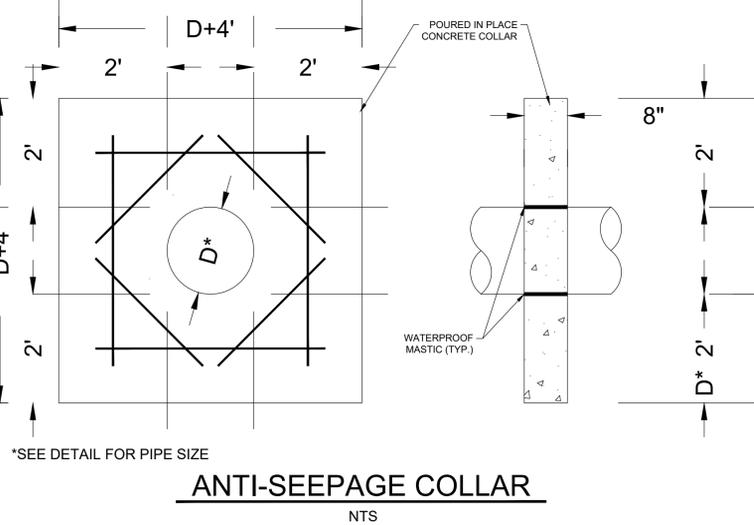
- CONTACT ENGINEER PRIOR TO CONSTRUCTION FOR PRE-CONSTRUCTION CONFERENCE.
- SOILS USED WITHIN THE WET POND MUST ADHERE TO THE FOLLOWING REQUIREMENTS:
  - THE SOIL MIX MUST BE UNIFORM AND FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR MATERIAL GREATER THAN 2 INCHES IN DIAMETER.
  - THE PH SHOULD BE BETWEEN 4.5 AND 7.0. IF THE PH FALLS OUTSIDE OF THIS RANGE, CONTRACTOR SHALL FOLLOW RECOMMENDATIONS OF SOIL TEST RESULTS FOR APPROPRIATE APPLICATION RATES.
- ALL TOP SOIL TO BE USED WITHIN THE WET POND SHALL BE ANALYZED AT A SOIL TESTING LAB, AND CONTRACTOR SHALL FOLLOW RECOMMENDATIONS OF SOIL TEST RESULTS BEFORE PLANTING.
- ALL MANAGED PERVIOUS AREAS SHALL BE SEEDED OR PLANTED PER THE FOLLOWING CRITERIA:
  - TILL OR DISC SOIL TO APPROPRIATE DEPTH PER NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL PERMANENT STABILIZATION REQUIREMENTS.
  - AMEND SOIL TO PROVIDE SUFFICIENT ORGANIC MATTER FOR LONG-TERM VEGETATION GROWTH AND INFILTRATION.
  - IF SOIL IS NOT AMENDED, PROVIDE JUSTIFICATION (I.E. SOIL TEST RESULTS) FOR WHY THE AMENDMENT WAS NOT NECESSARY.
  - ADDITIONAL AMENDMENTS AS NECESSARY TO ENSURE THAT THE PERVIOUS SURFACE IS INFILTRATING STORMWATER AT PRE-DEVELOPMENT RATES.
- SOIL AMENDMENTS SHOULD BE INCORPORATED AT THE END OF THE SITE DEVELOPMENT PROCESS AND THE WET POND SHOULD BE PLANTED AND MULCHED IMMEDIATELY AFTER AMENDING THE SOIL TO STABILIZE THE SITE AS SOON AS POSSIBLE.
- WET POND PLANTS SHALL BE OBTAINED FROM A SIMILAR PLACE OF ORIGIN OR LOCAL SOURCE TO ENSURE SURVIVABILITY. WET POND SEED MIXES ARE NOT ALLOWED.
- INSTALL STORMWATER WET POND PLANTS PER SUBCHAPTERS A-3 AND C-3 OF THE NCDEQ STORMWATER DESIGN MANUAL.
- SOD INTERIOR BANK OF SCM ABOVE VEGETATED SHELF ELEVATION WITH CENTIPEDE GRASS.
- MAINTAIN HEALTH OF STORMWATER WET POND PLANTINGS PER SUBCHAPTER C-3 OF THE NCDEQ STORMWATER DESIGN MANUAL. CONTRACTOR SHALL REPLACE ANY PLANT LOSSES WITH THE APPROPRIATE VEGETATED SHELF PLANTINGS AS SHOWN ON THIS SHEET FOR A MINIMUM OF 1 YEARS FROM INSTALLATION. ALL PLANTS THAT DO NOT SURVIVE AT THE END OF THE FIRST YEAR WARRANTY PERIOD MUST BE REPLACED. IF A MINIMUM COVERAGE OF 70 PERCENT IS NOT ACHIEVED IN THE PLANTED WET POND AFTER THE SECOND GROWING SEASON, SUPPLEMENTAL PLANTING SHOULD BE COMPLETED.
- ENSURE NEWLY INSTALLED PLANTINGS ARE PROVIDED WITH ADEQUATE WATER, ESPECIALLY DURING DRY PERIODS.
- NEW PLANTINGS SHOULD BE INSPECTED FREQUENTLY AND MAINTENANCE PERFORMED OR PLANTING REPLACED AS NEEDED.
- TREES OR SHRUBS SHALL NOT BE PLANTED ON ANY PORTIONS OF WATER IMPOUNDING EMBANKMENTS, WITHIN THEIR SPILLWAYS/CHANNELS, AND THE REQUIRED ACCESS AND MAINTENANCE EASEMENT.

**DECOMMISSIONING A SEDIMENT BASIN:**

- CALL FOR ON-SITE DETERMINATION MEETING WHEN REQUESTING TO DECOMMISSION PHASE OUT A TEMPORARY SEDIMENT BASIN.
- DETERMINATION CAN ONLY BE MADE BY THE LOCAL EROSION CONTROL SPECIALIST AND/OR HIS OR HER SUPERVISOR.
- ONCE IT HAS BEEN AGREED THAT THE TEMPORARY SEDIMENT BASIN CAN BE REMOVED, IT MUST BE MARKED AND INITIALED BY THE EROSION CONTROL INSPECTOR.
- IF THE SEDIMENT BASIN HAS WATER IN IT, THE WATER MUST BE PUMPED OUT FROM THE SURFACE INTO A FILTER BAG ON A LEVEL AREA FREE OF DEBRIS (OR ANOTHER APPROVED METHOD WITH NON-EROSIVE PROPERTIES).
- REMOVE SKIMMER AND PLUG ANY HOLES IN THE RISER (IF APPLICABLE) AND REMOVE ALL BAFFLE MATERIALS.
- IF THERE IS A LOT OF SEDIMENT IN THE BOTTOM OF THE BASIN, MIX WITH DRY MATERIAL OR SET ASIDE TO DRY, BEFORE HAULING OFF.
- FILL/COVER BASIN PER THE APPROVED GRADING PLAN.
- AFTER FINAL GRADING HAS BEEN COMPLETED, AREA MUST BE STABILIZED WITH LIME, SEED, FERTILIZER, STRAW AND TACK ACCORDING TO DURHAM COUNTY'S SEEDING APPLICATION RATES AND SPECS.

**DAM EMBANKMENT CONSTRUCTION STANDARDS:**

- CONTROLLED FILL, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER, IN THE DAM EMBANKMENT SHALL BE PLACED IN 6-INCH LOOSE LAYERS (3-INCH LOOSE LAYERS WITHIN 3- FEET OF EITHER SIDE OF THE PRINCIPAL SPILLWAY PIPE TO A DEPTH OF 2- FEET OVER THE PIPE) AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698.
- ALL VISIBLE ORGANIC DEBRIS SUCH AS ROOTS AND LIMBS SHALL BE REMOVED FROM THE FILL MATERIAL PRIOR TO COMPACTION TO THE REQUIRED DENSITY. SOILS WITH ORGANIC MATTER CONTENT EXCEEDING 5% BY WEIGHT SHALL NOT BE USED. STONES GREATER THAN 3-INCH (IN ANY DIRECTION) SHALL BE REMOVED FROM THE FILL PRIOR TO COMPACTION.
- FILL MATERIAL PLACED AT DENSITIES LOWER THAN SPECIFIED MINIMUM DENSITIES OR AT MOISTURE CONTENTS OUTSIDE THE SPECIFIED RANGES OR OTHERWISE NOT CONFORMING TO SPECIFIED REQUIREMENTS SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIALS.
- ANY FILL LAYER THAT IS SMOOTH DRUM ROLLED TO REDUCE MOISTURE PENETRATION DURING A STORM EVENT SHALL BE PROPERLY SCARIFIED PRIOR TO THE PLACEMENT OF THE NEXT SOIL LIFT.
- SURFACE WATER AND STREAM FLOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.
- FOUNDATION AREAS MAY REQUIRE UNDERCUTTING OF COMPRESSIBLE AND/OR UNSUITABLE SOILS IN ADDITION TO THAT INDICATED ON THE PLANS. ALL SUCH UNDERCUTTING SHALL BE PERFORMED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND SHALL BE MONITORED AND DOCUMENTED. IN NO CASE SHALL THERE BE AN ATTEMPT TO STABILIZE ANY PORTIONS OF THE FOUNDATION SOILS WITH CRUSHED STONE.
- TREATMENT OF SEEPAGE AREAS, SUBGRADE PREPARATION, FOUNDATION DEWATERING AND ROCK FOUNDATION PREPARATION (I.E. TREATMENT WITH SLUSH GROUTING, DENTAL CONCRETE, ETC.) MAY BE REQUIRED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER. ALL SUCH ACTIVITIES SHALL BE CLOSELY MONITORED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER.
- FILL ADJACENT TO THE RISER AND PRINCIPAL SPILLWAY PIPE SHALL BE PLACED SO THAT LIFTS ARE AT THE SAME LEVEL ON BOTH SIDES OF THE STRUCTURES.
- EARTHWORK COMPACTION WITHIN 3- FEET OF ANY STRUCTURES SHALL BE ACCOMPLISHED BY MEANS OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR MINUTELY SELF-PROPELLED ROLLERS.
- COMPACTION BY MEANS OF DROP WEIGHTS FROM A CRANE OR HOIST SHALL NOT BE PERMITTED.
- HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER CAST-IN-PLACE STRUCTURES (INCLUDING THE CRADLE) UNTIL ADEQUATE CURING TIME HAS ELAPSED.
- TO RE-ESTABLISH VEGETATION AFTER CONSTRUCTION, A 2- TO 3- INCH LAYER OF TOPSOIL SHALL BE PLACED ON THE DISTURBED EMBANKMENT SURFACE AND THE AREA SEEDED AND SODDED OR HYDROSEEDED.



NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

COPYRIGHT © 2023  
SUMMIT DESIGN AND  
ENGINEERING SERVICES  
DRAWING ALTERATION

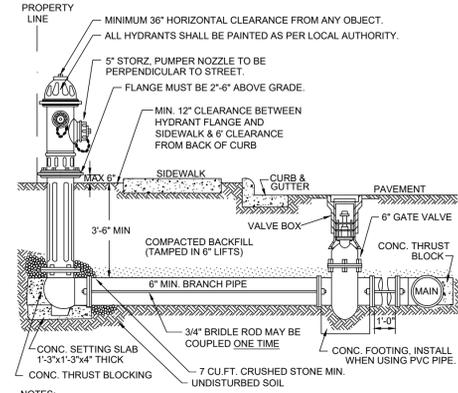
PROJECT MANAGER  
GRT (GREG.THOMPSON@SUMMITDE.COM)  
PROJECT MANAGER  
GRT (GREG.THOMPSON@SUMMITDE.COM)  
DRAWN BY  
SIF (SANDY.FALK@SUMMITDE.COM)  
FIRST ISSUE DATE  
02/03/2023



**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
State License #: P-0939  
320 Executive Court  
Hillsborough, NC 27278  
Voice: (919) 732-3883 Fax: (919) 732-4676  
www.summitde.com

LAND DEVELOPMENT PLANS FOR  
**GORDON INVESTMENTS LLC**  
US HIGHWAY 17  
HAMPSTEAD, NC 28443  
WET POND DETAILS

PROJECT NO.  
**22-0318**  
DRAWING NAME:  
**22-0088\_D**  
SHEET NO.  
**D-5**



NOTES:  
 FIRE HYDRANT - SHALL BE A CLOW MEDALLION WITH A 5 1/4\"/>

**STANDARD FIRE HYDRANT INSTALLATION**

NTS

NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

COPYRIGHT © 2023  
 SUMMIT DESIGN AND  
 ENGINEERING SERVICES  
 DRAWING ALTERATION  
 FIRE A VIOLATION OF LAW FOR ANY PERSON  
 UNLICENSED ARCHITECT, PROFESSIONAL  
 LAND SURVEYOR TO ALTER ANY ITEM OR  
 ANY PART OF THIS DOCUMENT IS REQUIRED  
 NOTATION ALTERED BY FOLLOWED BY THE  
 DESCRIPTION OF THE ALTERATION.

PROJECT MANAGER  
 GRT (GREG.THOMPSON@SUMMITDE.COM)  
 PROJECT MANAGER  
 GRT (GREG.THOMPSON@SUMMITDE.COM)  
 DRAWN BY  
 SIF (SANDY.FALK@SUMMITDE.COM)  
 FIRST ISSUE DATE  
 02/03/2023



**SUMMIT**  
 DESIGN AND ENGINEERING SERVICES  
 State License #: P-0339  
 320 Executive Court  
 Hillsborough, NC 27278  
 Voice: (919) 732-3883 Fax: (919) 732-4676  
 www.summitde.com

LAND DEVELOPMENT PLANS FOR  
**GORDON INVESTMENTS LLC**  
 US HIGHWAY 17  
 HAMPSTEAD, NC 28443  
**WATER DETAILS**

PROJECT NO.  
**22-0318**  
 DRAWING NAME:  
 22-0088\_D  
 SHEET NO.  
**D-6**