

Perimeter dikes.

swales, ditches

and slopes

High Quality

Water (HQW)

Slopes steeper

Slopes 3:1 or

All other areas

with slopes flatter

14 days

than 3:1

If slopes are 10' or less in length and

7-days for slopes greater than 50-feet in length

HQW Zones)

\* "Extensions of time may be approved by the permitting authority based on weather

or other site-specific conditions that make compliance impracticable." (Section II.B (2)(b)

are not steeper than 2:1, 14 days allowed

THE TEMPORARY CONSTRUCTION ENTRANCE ALONG WITH ALL PROPOSED SILT FENCING THROUGHOUT THE ENTIRE

5. FOR STAGE 1, CONTRACTOR SHALL FIRST INSTALL THE CLEAN WATER SWALES AND PIPES/STRUCTURE SYSTEMS AS INDICATED ON THE PLANS. CONTRACTOR SHALL INSTALL ONLY WHEN FORECAST REFLECTS 3-4 DAY OF DRY WEATHER. CONSTRUCT SWALE STARTING FROM DOWNSTREAM END AND STABILIZE WORK WITH RIP RAP AT THE END OF EACH DAY. ONCE CLEAN WATER SWALES ARE INSTALLED AND STABILIZED, CONTRACTOR TO INSTALL THE HORSESHOE INLET PROTECTION ON PIPE SYSTEMS INSTALLED AS PART OF THE CLEAN WATER BYPASS, WHERE INDICATED, AS WELL AS TEMPORARY SKIMMER BASINS PORTIONS OF THE PERMANENT STORMWATER PONDS. CLEAR ONLY AS NECESSARY TO ACCESS THESE AREAS AND TO CONSTRUCT THESE DEVICES. ONCE THE PREVIOUS MEASURES ARE INSTALLED, CLEAR ONLY AS REQUIRED TO INSTALL TEMPORARY DIVERSION BERMS/ DITCHES TO THE SKIMMER BASINS AND OTHER TEMPORARY MEASURES AS SHOWN ON THE APPROVED PLAN. THE CONTRACTOR SHALL STABILIZE ALL DIVERSIONS AND SKIMMER BASINS IMMEDIATELY UPON THEIR CONSTRUCTION. CONTRACTOR TO INSTALL DITCH/SWALE LINER REQUIREMENTS AT THE TIME OF DITCH/SWALE INSTALLATION.

- 6. ALL MEASURES AND DISTURBED AREAS SHALL BE INSTALLED AND INSPECTED FOR COMPLIANCE PRIOR TO COMMENCEMENT OF ANY PROPOSED CLEARING/GRUBBING AND EXCAVATION IN THE RIGHT-OF-WAY OR REMAINDER
- 7. CALL FOR AN INSPECTION FOR COMPLIANCE PRIOR TO ANY ADDITIONAL CLEARING. OBTAIN CERTIFICATE OF
- COMPLIANCE THROUGH ON-SITE INSPECTION BY ENVIRONMENTAL INSPECTOR. 8. ONCE CERTIFICATE OF COMPLIANCE IS OBTAINED, BEGIN CLEARING AND GRUBBING WHERE INDICATED.
- 9. ONCE COMPLETE, ALONG WITH CLEARING AND GRUBBING OF DISTURBED AREAS AS SHOWN ON APPROVED PLAN, BEGIN EXCAVATION OF ROADWAYS AND INSTALLATION OF SUBSURFACE DRAINAGE AND UTILITIES. INSTALL ADDITIONAL INLET PROTECTION DEVICES AS REQUIRED AND/OR SHOWN. ONCE SUBSURFACE DRAINAGE IS INSTALLED AND OPERATIONAL AND APPROVAL HAS BEEN OBTAINED FROM CHATHAM COUNTY, TEMPORARY SKIMMER BASIN ACCESSORIES CAN BE REMOVED AND THE SLOPES STABILIZED. SEED AND MULCH ALL DENUDED AREAS WITHIN 15 WORKING DAYS OF COMPLETION OF ANY PHASE OF CONSTRUCTION. ADJUST / MAINTAIN POSITIVE
- GRADE ON ALL TEMPORARY DITCHES/SWALES TO APPROPRIATE TREATMENT DEVICES AS REQUIRED. 10.REQUEST FINAL APPROVAL BY ENVIRONMENTAL INSPECTOR. IF THE INSPECTOR IS SATISFIED WITH UPSTREAM PERMANENT GROUND COVER, BEGIN REMOVING TEMPORARY EROSION CONTROL MEASURES, TEMPORARY BASINS TO BE DEWATERED WITH SILT BAGS. REMOVE THE SEDIMENT TRAPS AND ALL UNSTABLE SEDIMENT. AFTER STABILIZATION HAS OCCURRED, REMOVE SEDIMENT FROM SKIMMER BASINS AND CONVERT TO PERMANENT STRUCTURES.

\*CONTRACTOR TO REESTABLISH TEMPORARY DIVERSION SWALES AT THE END OF EACH DAY TO ENSURE DRAINAGE TO THE APPROPRIATE STRUCTURE.

TEMPORARY SILT FENCE

DISTURBED LIMIT LINE **EXISTING TREELINE** 

EXISTING 1' CONTOURS

EXISTING 5' CONTOURS PERMENANT DITCH / BERM

REINFORCED GROIN SWALE

CHECK DAM

TEMPORARY INLET PROTECTION TEMPORARY HORSESHOE INLET PROTECTION

COIR WATTLE

REINFORCED SILT FENCE OUTLET OUTLET DISSIPATER

SLOPE PROTECTION

CHART ABOVE. TEMPORARY GROUND COVER WILL BE INSTALLED ON ALL EXPOSED SLOPES IN 7 OR 14 DAYS. PERMANENT GROUND COVER WILL BE INSTALLED ON EXPOSED SLOPES WITHIN 15 WORKING DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR

MAINTENANCE: ALL EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF PRODUCING RAINFALL EVENT. NEEDED REPAIRS WILL BE MADE IMMEDIATELY.

NO DISTURBANCE TO TAKE PLACE INSIDE STREAM BUFFERS OR WETLANDS UNTIL ALL REQUIRED ACOE, 404 PERMITS, NCDWQ 401 PERMITS, AND / OR CHATHAM BUFFER IMPACT AUTHORIZATION HAVE BEEN OBTAINED AND COPY OF PERMITS ON-SITE.

MAXIMUM GRADED SLOPE SHALL NOT EXCEED TWO (2) TO ONE (1).

TOTAL DISTURBED AREA=

NOTE: SEE SHT. ED-01 FOR TEMPORARY AND PERMANENT SWALE DESIGN AND LINER

# NCDENR SELF-INSPECTION PROGRAM

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED.

RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TAKE EFFECT OCTOBER

THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS SHOULD BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM THE LAND QUALITY WEB SITE,

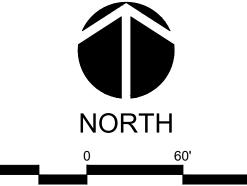
http://portal.ncdenr.org/web/lr/erosion

- 1-800-632-4949. THE CONTRACTOR SHALL CALL AT LEAST 48 HOURS PRIOR
- 3. THE SUBJECT PROPERTY IS LOCATED IN ZONE X, A MINIMAL FLOOD RISK AREA PER FEMA FIRM PANEL 0608, MAP NUMBER 3720060800K, DATED 02/02/07 AND PANEL 9699, MAP NUMBER 3710969900K, DATED 11/17/17.
- 4. IN-STREAM WORK SHALL BE PROHIBITED FROM MARCH 15 THROUGH JUNE 30 TO MINIMIZE IMPACTS TO SPAWNING FISH. 5. TOPOGRAPHIC INFORMATION PROVIDED BY CE GROUP, INC. RALEIGH, NC. PROFILE DATA FROM FIELD SURVEY, AND BACKGROUND TOPOGRAPHY
- 6. DISTURBANCE IS LIMITED TO NO MORE THAN 15 AC OF GRADUAL SLOPED
- DISTURBANCE IS LIMITED TO NO MORE THAN 10 AC OF MODERATELY

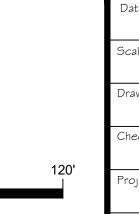
LAND AT ANY ONE TIME (0 – 14.9% SLOPE).

WIDE SLOT GRATES.

- SLOPED LAND AT ANY ONE TIME (15 24.9% SLOPE). 8. NCDOT ASSUMES NO RESPONSIBILITY FOR OPERATION, MAINTENANCE OR LIABILITY OF THE STRUCTURAL STORMWATER BMP'S OR ANY DRAINAGE OUTSIDE OF THE RIGHTS-OF-WAY.
- 9. ALL GRATED INLETS IN DITCHES ARE TO BE NCDOT STD 840.22 OR 840.20
- 10. ALL PROPOSED UTILITIES INSIDE THE PROPOSED SUBDIVISION ROAD RIGHT OF WAY SHALL BE INSTALLED PER THE LATEST NCDOT POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS OF WAY AND ANY LATER NCDOT PUBLISHED GUIDELINES. NO UTILITY SHOULD BE INSTALLED IN THE SHOULDER OR INSIDE THE DITCHLINE. MAINTAIN
- CLEAR ZONE MINIMUM OFFSETS FOR NON-BREAKWAY UTILITY POLES. 11. GUARDRAIL INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 862 OF NCDOT CURRENT ROADWAY STANDARD DRAWINGS. CONTRACTOR TO CONSULT WITH NCDOT PRIOR TO OBTAINING GUARDRAIL TO VERIFY LENGTHS FOR INSTALLATION, IF GUARDRAIL IS REQUIRED. EVERY EFFORT SHALL BE MADE TO AVOID THE NEED FOR GUARDRAIL IN CONSTRUCTION
- OF SHOULDERS AND GRADES. 12. INDIVIDUAL LOTS TO BE GRADED AND PERMITTED SEPARATELY.



SCALE: 1" = 60'





FOR CONSTRUCTION

JULY 27, 2020

1" = 60'

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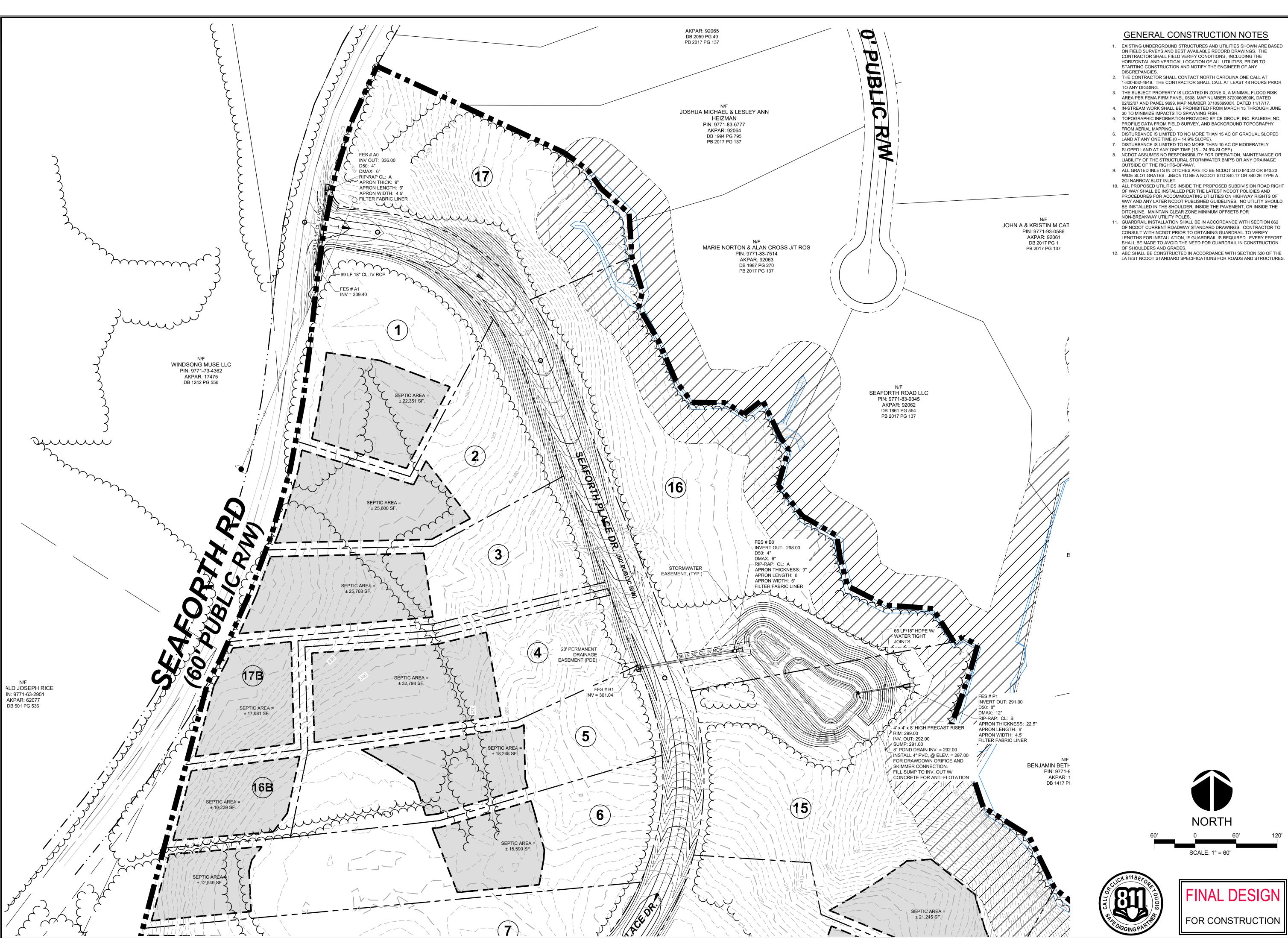
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RALEIGH,NC 27603 PHONE: 919-367-8790 FAX: 919-322-0032

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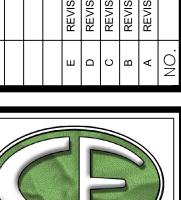
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### **GENERAL CONSTRUCTION NOTES**

- 1. EXISTING UNDERGROUND STRUCTURES AND UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY
- 2. THE CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL AT 1-800-632-4949. THE CONTRACTOR SHALL CALL AT LEAST 48 HOURS PRIOR
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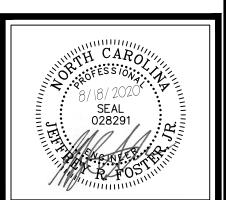


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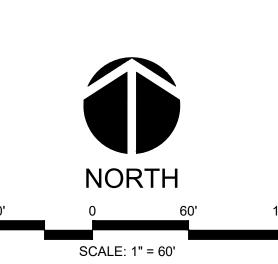
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GRADING & DF CHATHAM C





FOR CONSTRUCTION

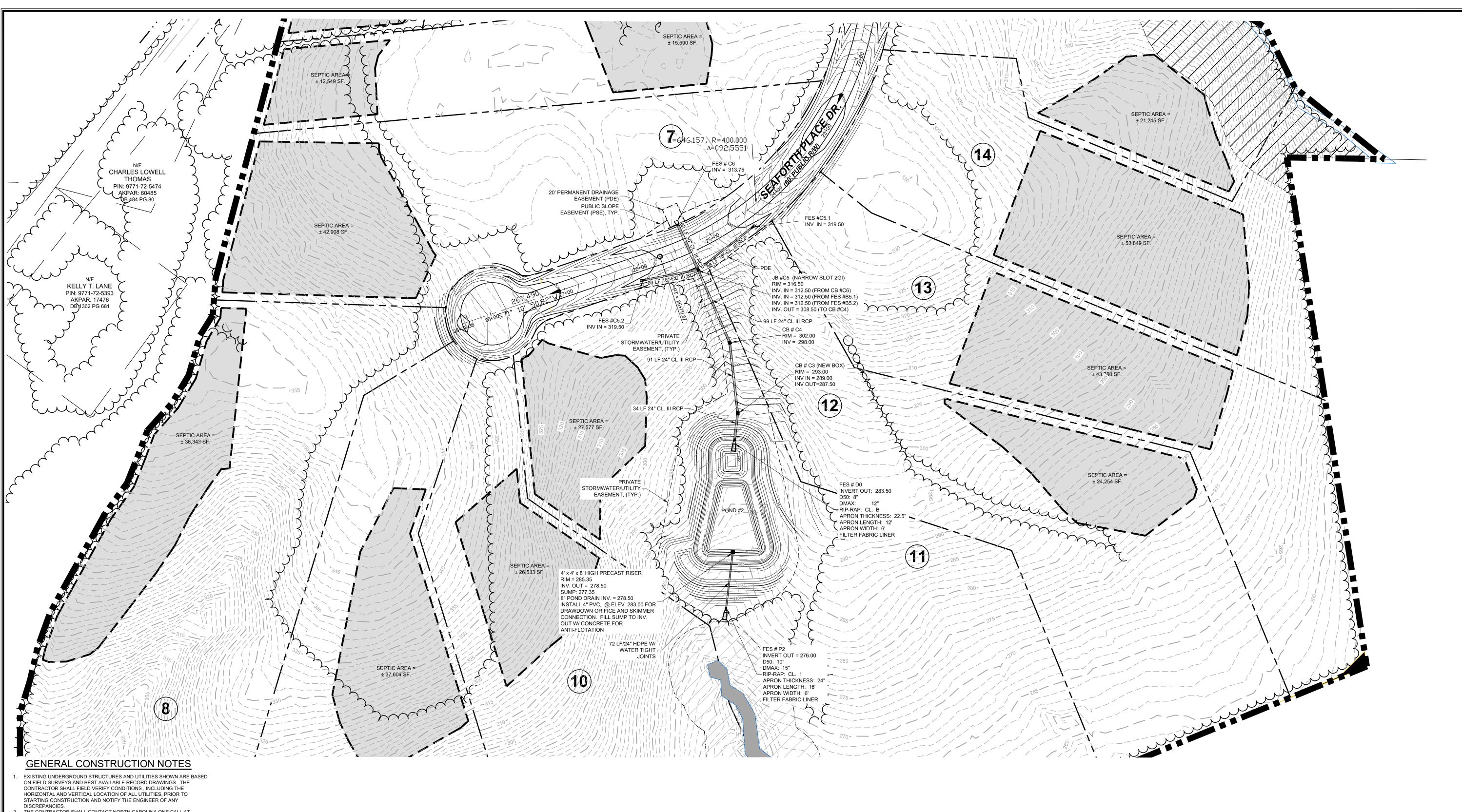
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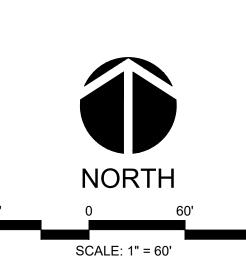
1" = 60'

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FINAL DESIGN
FOR CONSTRUCTION



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JULY 27, 2020

1" = 60'

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CONSTRUCTION F SEAFORTH I

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9. ALL GRATED INLETS IN DITCHES ARE TO BE NCDOT STD 840.22 OR 840.20 WIDE SLOT GRATES. JB#C5 TO BE A NCDOT STD 840.17 OR 840.26 TYPE A

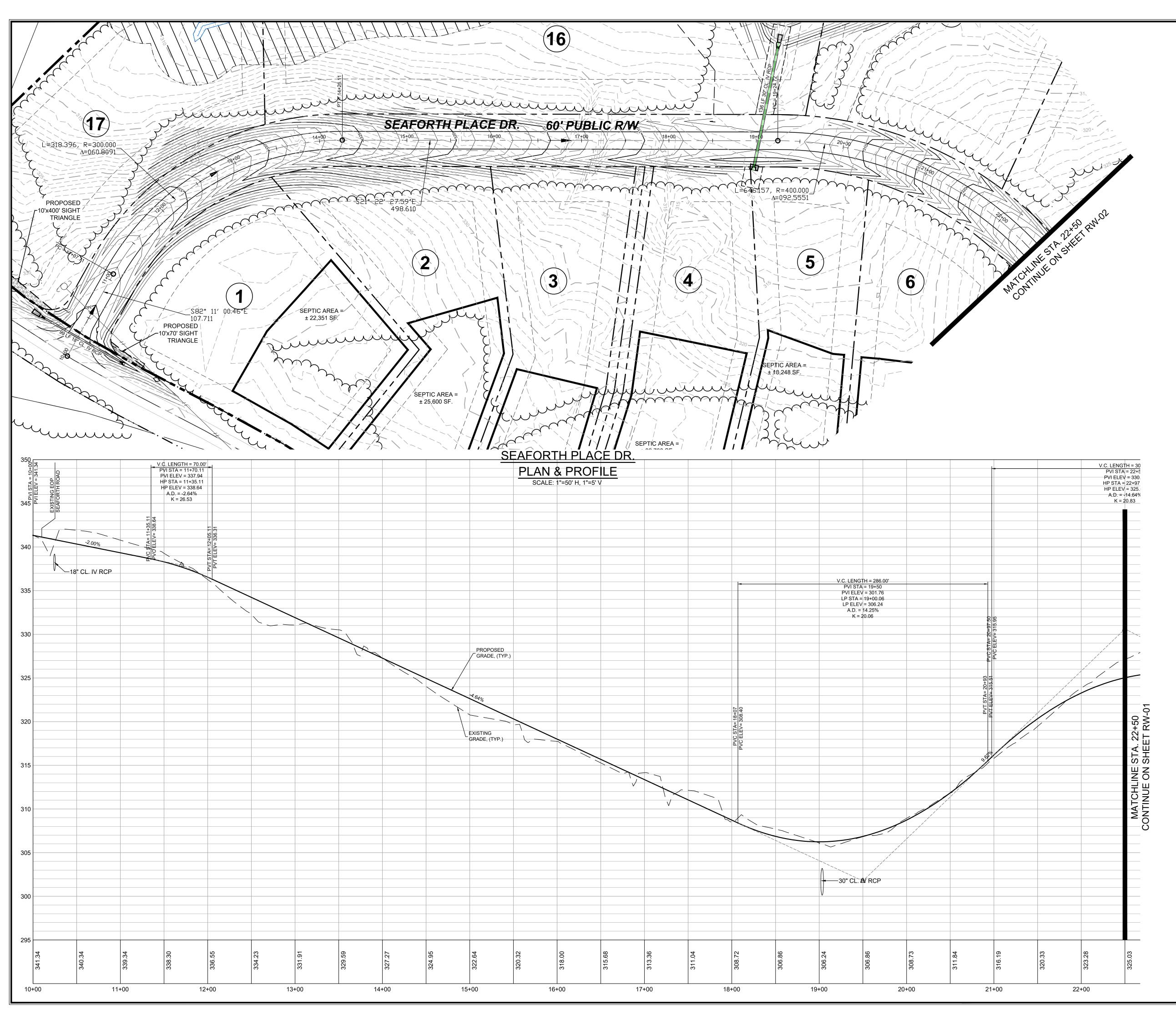
2GI NARROW SLOT INLET.

10. ALL PROPOSED UTILITIES INSIDE THE PROPOSED SUBDIVISION ROAD RIGHT OF WAY SHALL BE INSTALLED PER THE LATEST NCDOT POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS OF WAY AND ANY LATER NCDOT PUBLISHED GUIDELINES. NO UTILITY SHOULD BE INSTALLED IN THE SHOULDER, INSIDE THE PAVEMENT, OR INSIDE THE DITCHLINE. MAINTAIN CLEAR ZONE MINIMUM OFFSETS FOR

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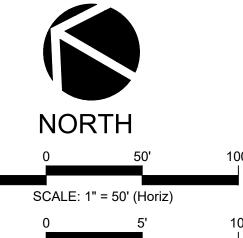
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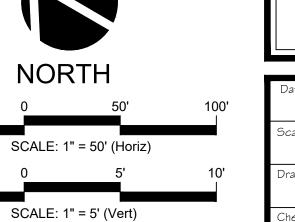
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CONSTRUCTION PLANS FOR SEAFORTH PLACE DR PP1 STA: 10+00 TO 22+50 CHATHAM COUNTY, NC





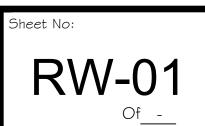


| " = 50' / | " = 5'

JRF

Project No. 124-02 24-02\_11-12-rw-01 to rw-02\_seaforth p







22+00

23+00

24+00

25+00

26+00

27+00

28+00

29+00

30+00

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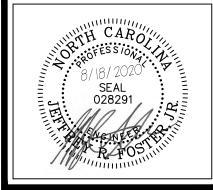
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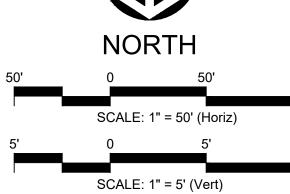
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# CONSTRUCTION PLANS FOR SEAFORTH PLACE DR PP2 STA: 22+50 TO 28+38.36 CHATHAM COUNTY, NC





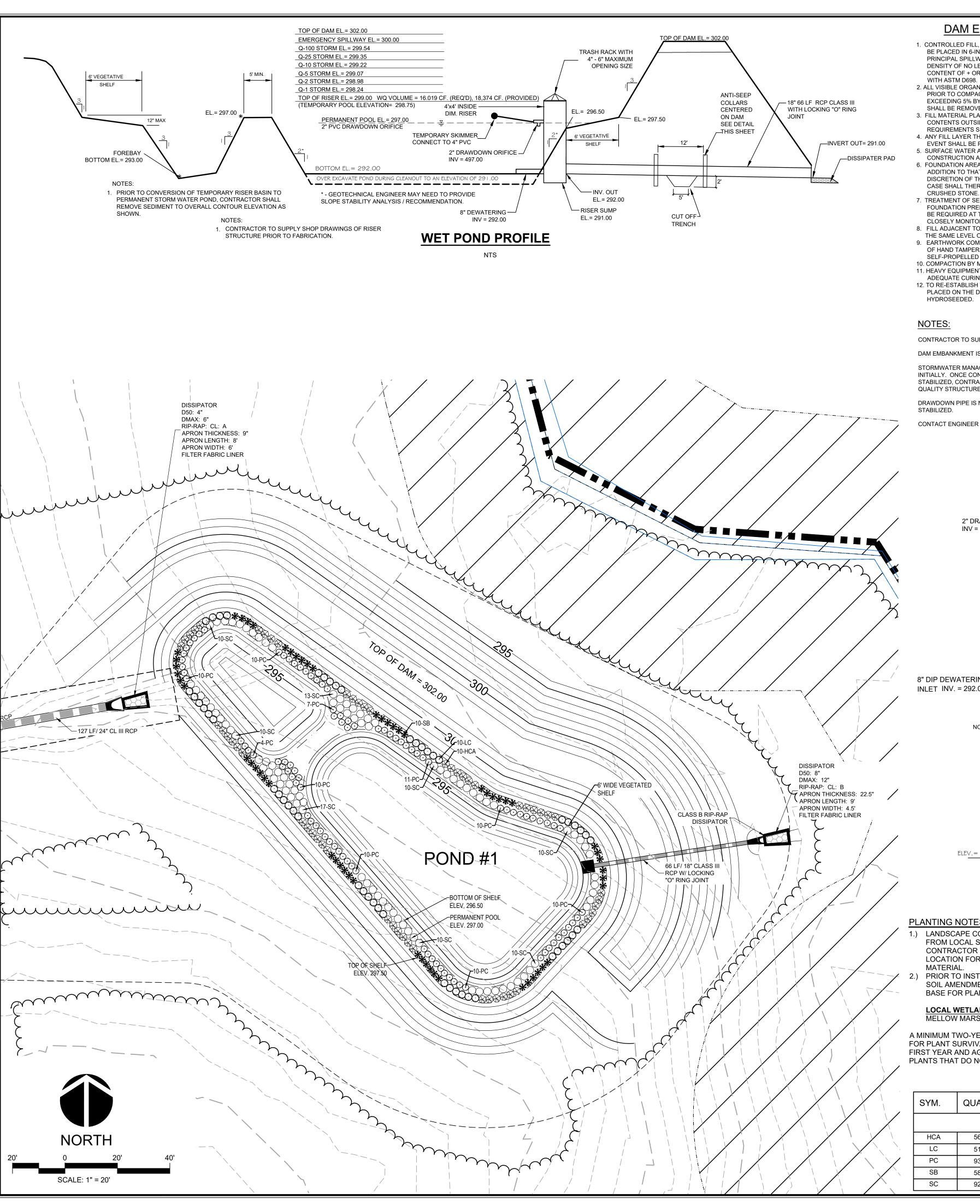
JULY 27, 2020

I" = 50' / I" = 5'

JRF Project No.

124-02 24-02\_11-12-rw-01 to rw-02\_seaforth p





### DAM EMBANKMENT CONSTRUCTION NOTES

- 1. CONTROLLED FILL, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER, IN THE DAM EMBANKMENT SHALL BE PLACED IN 6-INCH LOOSE LAYERS (3-INC 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
- 2. 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.
- 3. 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.
- 4. 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. 5. SURFACE WATER AND STREAM FLOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.
- 6. 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
- 7. 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.
- 8. 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. 9. EARTHWORK COMPACTION WITHIN 3-FEET OF ANY STRUCTURES SHALL BE ACCOMPLISHED BY MEANS
- OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR MINIATURE SELF-PROPELLED ROLLERS.
- 10. COMPACTION BY MEANS OF DROP WEIGHTS FROM A CRANE OR HOIST SHALL NOT BE PERMITTED. 11. HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER CAST-IN-PLACE STRUCTURES UNTIL ADEQUATE CURING TIME HAS ELAPSED.
- 12. 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 MULCHED OR

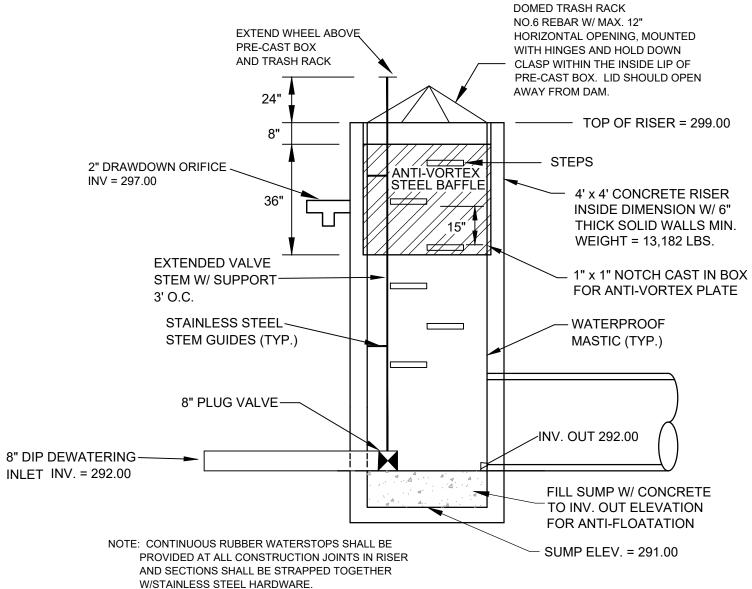
CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR OUTLET STRUCTURE AND TRASH RACK FOR APPROVAL.

DAM EMBANKMENT IS TO BE SEEDED IMMEDIATELY AFTER DAM CONSTRUCTION IS COMPLETE.

STORMWATER MANAGEMENT STRUCTURE IS TO BE UTILIZED AS A TEMPORARY EROSION CONTROL DEVICE INITIALLY. ONCE CONSTRUCTION IS COMPLETED AND UPSTREAM SURFACES HAVE BEEN PERMANENTLY STABILIZED, CONTRACTOR IS TO REMOVE ALL SEDIMENT FROM BASIN AND CONVERT TO PERMANENT WATER QUALITY STRUCTURE. THIS INCLUDES INSTALLING THE PROPOSED PLANTINGS ALONG THE LITTORAL SHELF.

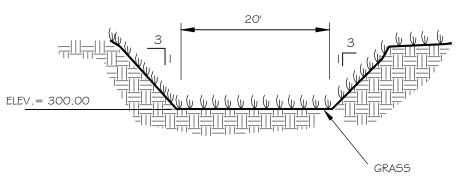
DRAWDOWN PIPE IS NOT TO BE INSTALLED UNTIL ALL UPSTREAM SURFACES HAVE BEEN PERMANENTLY

CONTACT ENGINEER FOR APPROVAL TO CONVERT.



### RISER DETAIL

SCALE : NONE



# **EMERGENCY SPILLWAY**

### **PLANTING NOTES:**

- I.) LANDSCAPE CONTRACTOR SHALL PROVIDE PLANT MATERIAL FROM LOCAL SOURCE TO ENSURE SURVIVABILITY. CONTRACTOR TO PROVIDE SOURCE OF PLANT MATERIAL AND LOCATION FOR APPROVAL PRIOR TO INSTALLATION OF
- PRIOR TO INSTALLING FINAL PLANTINGS, AUGMENT WITH SOIL AMENDMENTS AND TILLING TO PROVIDE ADEQUATE BASE FOR PLANT VITALITY.

### **LOCAL WETLAND NURSERY**

MELLOW MARSH FARM NURSERY - SILER CITY, NC

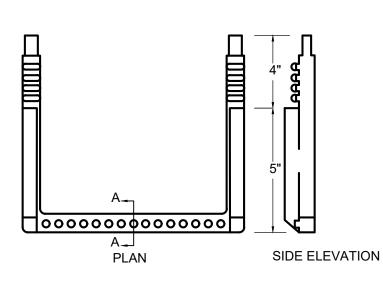
A MINIMUM TWO-YEAR WARRANTY PERIOD SHALL BE PROVIDED FOR PLANT SURVIVAL AND REPLACEMENT. AT THE END OF THE FIRST YEAR AND AGAIN AT THE END OF THE 2ND YEAR ALL PLANTS THAT DO NOT SURVIVE MUST BE REPLACED.

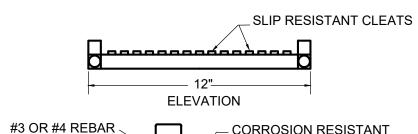
# PLANT LIST

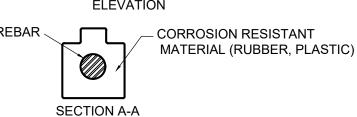
	SYM.	QUAN.	BOTANICAL NAME	COMMON NAME	HT.	ROOT	REMARKS			
	WETLAND PLANTINGS									
	HCA	56	HIBISCUS COCCINEUS 'ALBA'	WHITE ROSE MALLOW	-	4" cont.	3' O.C. Shallow Land			
1	LC	51	LOBELIA CARDINALIS	CARDINAL FLOWER	-	4" cont.	3' O.C. Shallow Land			
′	PC	93	PONTEDERIA CORDATA	PICKERELWEED	-	4" cont.	3' O.C. Shallow Water			
\	SB	58	SACCHARUM BALDWINII	NARROW PLUMEGRASS	-	4" cont.	3' O.C. Shallow Land			
	SC	92	SAURURUS CERNUUS	LIZARD TAIL	-	4" cont.	3' O.C. Shallow Water			

### **GENERAL CONSTRUCTION NOTES**

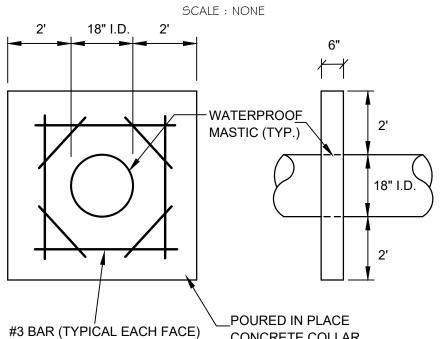
- 1. EXISTING UNDERGROUND STRUCTURES AND UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY
- DISCREPANCIES. 2. THE CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL AT 1-800-632-4949. THE CONTRACTOR SHALL CALL AT LEAST 48 HOURS PRIOR TO ANY DIGGING.
- 3. THE SUBJECT PROPERTY IS LOCATED IN ZONE X, A MINIMAL FLOOD RISK AREA PER FEMA FIRM PANEL 0608, MAP NUMBER 3720060800K, DATED 02/02/07 AND PANEL 9699, MAP NUMBER 3710969900K, DATED 11/17/17
- 4. IN-STREAM WORK SHALL BE PROHIBITED FROM MARCH 15 THROUGH JUNE 30 TO MINIMIZE IMPACTS TO SPAWNING FISH. 5. TOPOGRAPHIC INFORMATION PROVIDED BY CE GROUP, INC. RALEIGH, NC. PROFILE DATA FROM FIELD SURVEY, AND BACKGROUND TOPOGRAPHY
- FROM AERIAL MAPPING. 6. DISTURBANCE IS LIMITED TO NO MORE THAN 15 AC OF GRADUAL SLOPED LAND AT ANY ONE TIME (0 - 14.9% SLOPE).
- 7. DISTURBANCE IS LIMITED TO NO MORE THAN 10 AC OF MODERATELY SLOPED LAND AT ANY ONE TIME (15 – 24.9% SLOPE). 8. NCDOT ASSUMES NO RESPONSIBILITY FOR OPERATION, MAINTENANCE OR LIABILITY OF THE STRUCTURAL STORMWATER BMP'S OR ANY DRAINAGE
- OUTSIDE OF THE RIGHTS-OF-WAY. 9. ALL GRATED INLETS IN DITCHES ARE TO BE NCDOT STD 840.22 OR 840.20 WIDE SLOT GRATES. JB#C5 TO BE A NCDOT STD 840.17 OR 840.26 TYPE A
- 2GI NARROW SLOT INLET. 10. ALL PROPOSED UTILITIES INSIDE THE PROPOSED SUBDIVISION ROAD RIGHT OF WAY SHALL BE INSTALLED PER THE LATEST NCDOT POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS OF WAY AND ANY LATER NCDOT PUBLISHED GUIDELINES. NO UTILITY SHOULD BE INSTALLED IN THE SHOULDER, INSIDE THE PAVEMENT, OR INSIDE THE DITCHLINE. MAINTAIN CLEAR ZONE MINIMUM OFFSETS FOR
- NON-BREAKWAY UTILITY POLES. 11. GUARDRAIL INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 862 OF NCDOT CURRENT ROADWAY STANDARD DRAWINGS. CONTRACTOR TO CONSULT WITH NCDOT PRIOR TO OBTAINING GUARDRAIL TO VERIFY LENGTHS FOR INSTALLATION, IF GUARDRAIL IS REQUIRED. EVERY EFFORT SHALL BE MADE TO AVOID THE NEED FOR GUARDRAIL IN CONSTRUCTION
- OF SHOULDERS AND GRADES. 12. ABC SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 520 OF THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.







### STANDARD SLIP RESISTANT MANHOLE STEP DETAIL



CONCRETE COLLAR NOTE: CONCRETE SHALL BE 3000 PSI @ 28 DAYS REINFORCING STEEL, ASTM A615, GRADE 60: FY - 60,000 PSI

### **ANTI-SEEP COLLAR DETAIL**

COLLAR SHOULD BE PLACED AT LEAST TWO FEET FROM PIPE JOINT

SCALE : NONE

### STORMATER MANAGEMENT CERTIFICATION

I, Jeff Foster, certify that the stormwater management facilities and practices will control and treat the runoff from the 1 year 1-hour storm event for the total drainage area of the structure, that the designs and plans are sufficient to comply with the applicable standards and policies found in the NC DENR Stormwater BMP Design Manual, and that the designs and plans ensure compliance with the County's Stormwater Ordinance.

FOR CONSTRUCTION

301 GLENWOOD AVE. 220

RALEIGH,NC 27603

PHONE: 919-367-8790

FAX: 919-322-0032

www.cegroupinc.com

License # C-1739

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OND

SET A

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JULY 27, 2020

1" = 20'

JPD

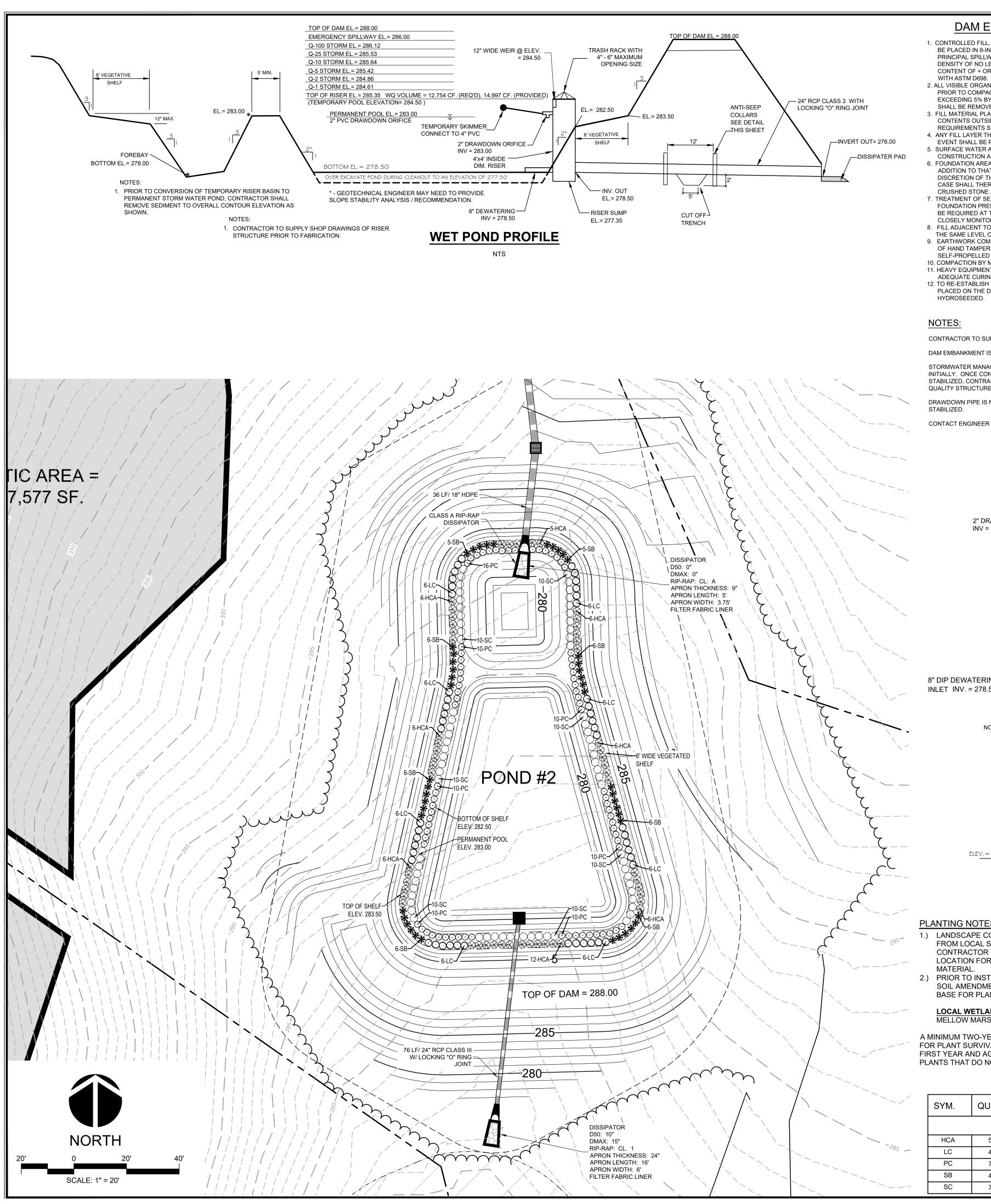
JRF

124-02

omputer Dwg. Name

24-02\_13-wq-01\_storm pond #1

oject No.



### DAM EMBANKMENT CONSTRUCTION NOTES

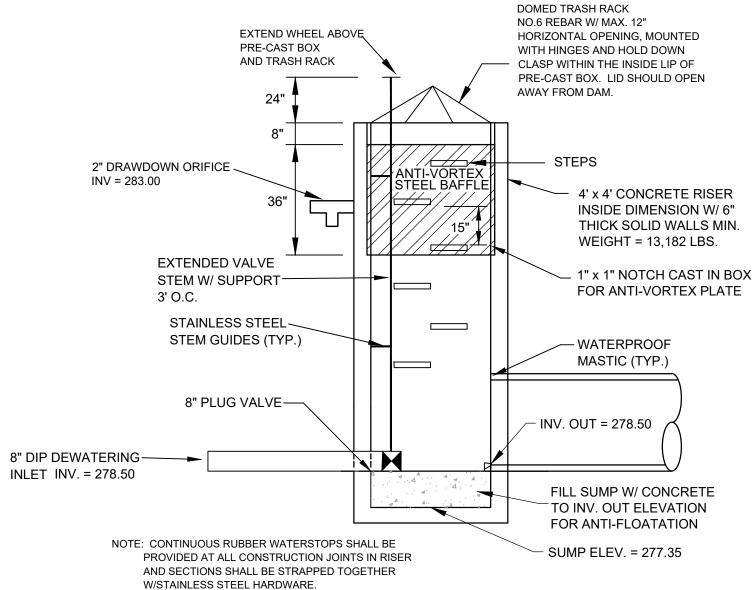
- 1. CONTROLLED FILL, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER, IN THE DAM EMBANKMENT SHALL BE PLACED IN 6-INCH LOOSE LAYERS (3-INC LOOSE LAYERS WITHIN 3-FEET OF EITHER SIDE OF THE PRINCIPAL SPILLWAY PIPE TO A DEPTH OF 2-FEET OVER THE PIPE) AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE
- 2. 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.
- 3. 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.
- 4. 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. 5. SURFACE WATER AND STREAM FLOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT
- CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL. 6. 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
- 7. 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. 8. 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.
- 9. EARTHWORK COMPACTION WITHIN 3-FEET OF ANY STRUCTURES SHALL BE ACCOMPLISHED BY MEANS OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR MINIATURE SELF-PROPELLED ROLLERS.
- 10. COMPACTION BY MEANS OF DROP WEIGHTS FROM A CRANE OR HOIST SHALL NOT BE PERMITTED. 11. HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER CAST-IN-PLACE STRUCTURES UNTIL ADEQUATE CURING TIME HAS ELAPSED.
- 12. 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 MULCHED OR

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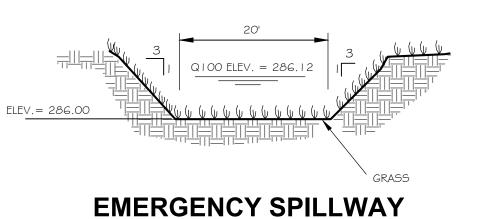
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### RISER DETAIL

SCALE : NONE



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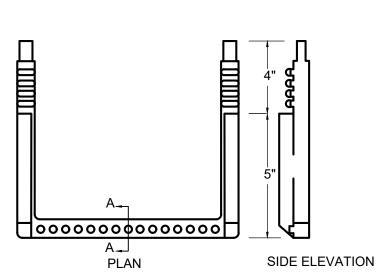
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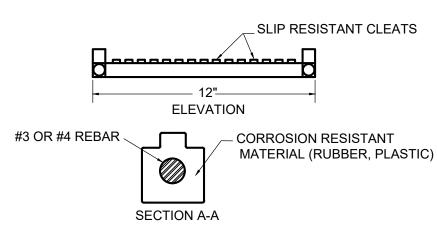
# PLANT LIST

	SYM.	QUAN.								
			BOTANICAL NAME	COMMON NAME	HT.	ROOT	REMARKS			
	WETLAND PLANTINGS									
	HCA	53	HIBISCUS COCCINEUS 'ALBA'	WHITE ROSE MALLOW	-	4" cont.	3' O.C. Shallow Land			
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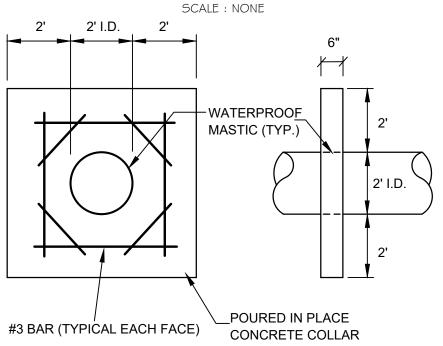
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# STANDARD SLIP RESISTANT MANHOLE STEP DETAIL



NOTE: CONCRETE SHALL BE 3000 PSI @ 28 DAYS REINFORCING STEEL, ASTM A615, GRADE 60: FY - 60,000 PSI COLLAR SHOULD BE PLACED AT LEAST TWO FEET FROM PIPE JOINT

# **ANTI-SEEP COLLAR DETAIL**

SCALE : NONE

### STORMATER MANAGEMENT CERTIFICATION

I, Jeff Foster, certify that the stormwater management facilities and practices will control and treat the runoff from the 1 year 1-hour storm event for the total drainage area of the structure, that the designs and plans are sufficient to comply with the applicable standards and policies found in the NC DENR Stormwater BMP Design Manual, and that the designs and plans ensure compliance with the County's Stormwater Ordinance.



FINAL DESIGN

FOR CONSTRUCTION

WQ-02

JULY 27, 2020

I'' = 20'

JPD

JRF

124-02

omputer Dwg. Name

24-02\_14-wq-02\_storm pond #2

oject No.

301 GLENWOOD AVE. 220

RALEIGH,NC 27603

PHONE: 919-367-8790

FAX: 919-322-0032

www.cegroupinc.com

License # C-1739

#2 NC

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CONSTRUCTION F