MAINTENANCE NOTES:

1. INSPECT DEVICE AFTER EACH RAINFALL. REMOVE SEDIMENT WHEN SEDIMENT REACHES A DEPTH OF NO MORE THAN ONE-HALF THE HEIGHT OF THE RISER. REPAIR BAFFELS IF THEY ARE DAMAGED.
2. PULL SKIMMER TO SIDE OF BASIN WITH ROPE AND INSPECT REGULARLY. KEEP SKIMMER HEAD, ORIFICE AND PIPE FREE OF DEBRIS. REMOVE SEDIMENT FROM BENEATH SKIMMER AND ENSURE VEGETATION DOES NOT INTERFERE WITH SKIMMER OPERATION.

WETLAND MAINTENANCE SCHEDULE			
DESCRIPTION	METHOD	FREQUENCY	SEASON
EMBANKMENT			
INSPECT AND REPAIR EROSION / ANIMAL NESTINGS	VISUAL	ANNUALLY	ALL
OUTLET STRUCTURE			
DEBRIS / OBSTRUCTIONS	BY HAND	WHENEVER NEEDED	ALL
FOREBAY / DEEP POOL			
SEDIMENT / DEBRIS	BY HAND	ONCE PER 6 MONTHS OR WHEN 1/2 FULL OF SEDIMENT	ALL
PLANTS			
REPLACE ANY DEAD OR DISEASED VEGETATION CONSIDERED BEYOND TREATMENT	SEE PLANTING SPECIFICATIONS	TWICE PER YEAR	MAR 15 – APR 30 OCT 1 – NOV 30
TREAT ALL DISEASED PLANTS NOT TO BE REMOVED	MECHANICAL OR BY HAND	WHENEVER NEEDED	ALL
WATER PLANT MATERIAL AND END OF EACH DAY FOR 14 CONSECUTIVE DAYS AFTER PLANTING	BY HAND	IMMEDIATELY AFTER COMPLETION OF PROJECT	N/A
REPLACE SUPPORT STAKES	BY HAND	ONCE PER YEAR	SPRING
REPLACE DEFICIENT STAKES OR WIRES	BY HAND	WHENEVER NEEDED	ALL

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE UNTIL CERTIFICATION BY ENGINEER AT WHICH TIME OWNER WILL ASSUME MAINTENANCE RESPONSIBILITY.

LANDSCAPE WARRANTIES SHALL APPLY TO STORMWATER WETLAND PLANTINGS.

CONSTRUCTION SEQUENCE

1. THE STORMWATER WETLAND SHALL BE UTILIZED AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION.
   - 1.1. SCHEDULE THE FOLLOWING WORK TO COINCIDE WITH AN EXTENDED FORECAST OF NO PRECIPITATION SUCH THAT ALL WORK CAN BE COMPLETED DURING A PERIOD OF DRY WEATHER.
   - 1.2. INSTALL WETLAND BARREL, OUTLET STRUCTURE, KEY TRENCH. THEN THE EMBANKMENT, EMERGENCY SPILLWAY AND OTHER WETLAND COMPONENTS.
   - 1.3. CALL FOR SITE INSPECTION PRIOR TO BACKFILLING WETLAND BARREL.
   - 1.4. INSTALL TEMPORARY SKIMMER ON WETLAND DRAIN. DRAIN VALVE TO REMAIN OPEN.
   - 1.5. EXCAVATE WETLAND TO TEMPORARY SKIMMER BASIN DIMENSIONS. SEE EROSION CONTROL PLAN.
   - 1.6. INSTALL BAFFLES AND OTHER TEMPORARY SKIMMER BASIN COMPONENTS, SEE TEMPORARY SKIMMER BASIN DETAIL.
   - 1.7. SEED ALL DISTURBED AREAS.
2. FOLLOWING COMPLETION OF CONSTRUCTION AND STABILIZATION OF POND DRAINAGE BASIN, PERFORM THE FOLLOWING:
   - 2.1. SCHEDULE THE FOLLOWING WORK TO COINCIDE WITH AN EXTENDED FORECAST OF NO PRECIPITATION SUCH THAT ALL WORK CAN BE COMPLETED DURING A PERIOD OF DRY WEATHER.
   - 2.2. REMOVE TEMPORARY BAFFLES.
   - 2.3. REMOVE ALL ACCUMULATED SEDIMENT. GRADE WETLAND INTERIOR TO SUBGRADE ELEVATIONS.
   - 2.4. INSTALL CLAY LINER AND ARMORED SECTIONS OF FOREBAY WEIRS.
   - 2.5. IF ADDITIONAL DE-WATERING IS NEEDED BELOW DRAIN/SKIMMER ELEVATION, UTILIZE A MUD PUMP WITH FLOATING SUCTION INLET AND DISCHARGE REMAINING WATER THROUGH A SEDIMENT FILTER BAG LOCATED OUTSIDE OF THE BASIN. MONITOR PUMPING TO ENSURE FLOW DOES NOT EXCEED THE CAPACITY OF FILTER BAG.
   - 2.6. INSTALL AND FINE GRADE TOPSOIL TO FINISH GRADES.
   - 2.7. INSTALL TEMPORARY SLOPE LININGS.
   - 2.8. REMOVE TEMPORARY CAP/BLOCKING FROM PRIMARY SPILLWAY.
   - 2.9. INSTALL WETLAND PLANTINGS.
   - 2.10. PERFORM DETAILED TOPOGRAPHIC SURVEY.
   - 2.11. FOLLOWING APPROVAL OF SURVEY, REMOVE TEMPORARY SKIMMER AND CLOSE DRAIN VALVE.

TEMPORARY SEDIMENT BASIN NOTES:

1. THE AREA OF THE NEW CONSTRUCTED WETLAND WILL BE UTILIZED AS A TEMP SEDIMENT BASIN DURING CONSTRUCTION.
2. A TEMP SKIMMER SHALL BE ATTACHED TO THE OUTLET RISER DRAIN. THE BASIN SHALL BE GRADED TO TEMP. CONTOURS SHOWN ON THE EROSION CONTROL PLAN. TEMP. BAFFLES INSTALLED.
3. INSPECT DEVICE AFTER EACH RAINFALL. REMOVE SEDIMENT WHEN SEDIMENT REACHES A DEPTH OF NO MORE THAN ONE-HALF THE HEIGHT OF THE RISER. REPAIR BAFFLES IF DAMAGED.
4. PULL SKIMMER TO SIDE OF BASIN WITH ROPE AND INSPECT REGULARLY. KEEP SKIMMER HEAD, ORIFICE AND PIPE FREE OF DEBRIS. REMOVE SEDIMENT FROM BENEATH SKIMMER AND ENSURE VEGETATION DOES NOT INTERFERE WITH SKIMMER OPERATION.
5. PROVIDE PAINT MARK ON RISER AT 12" HEIGHT. CLEAN AND REPAIR ONCE SEDIMENT REACHES MARK.
6. INSTALL ALL COMPONENTS OF POND EMBANKMENT, OUTLET STRUCTURE, SKIMMER, EMERGENCY SPILLWAY, ETC. (UNLESS NOTED) PRIOR TO BEGINNING CLEARING OPERATIONS.
7. SEE SHEET C-07.05 FOR TEMPORARY BAFFLE INSTALLATION.
8. PROVIDE GROUND COVER/TEMPORARY SEEDING ON BOTTOM OF TEMPORARY BASINS. SEE SEEDING SCHEDULE.
9. CHECK FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY.

AS-BUILT SURVEY REQUIREMENTS

1. CONTRACTOR SHALL PROVIDE AS-BUILT TOPOGRAPHIC SURVEY PERFORMED BY A PROFESSIONAL LAND SURVEYOR CERTIFYING WETLAND AREA DIMENSIONS AND ELEVATIONS OF THE FOLLOWING:
   - 1.1. OUTLET STRUCTURE TOPS AND INVERTS, ORIFICE DIAMETERS, BARREL PIPE SIZES AND INVERTS AND STRUCTURE DIMENSIONS.
   - 1.2. EMERGENCY SPILLWAY ELEVATION AND DIMENSIONS.
   - 1.3. TOPOGRAPHY THAT EXTENDS 20 FEET OUTSIDE LIMITS OF POND WATER SURFACE AND EMBANKMENT.

CLAY LINER

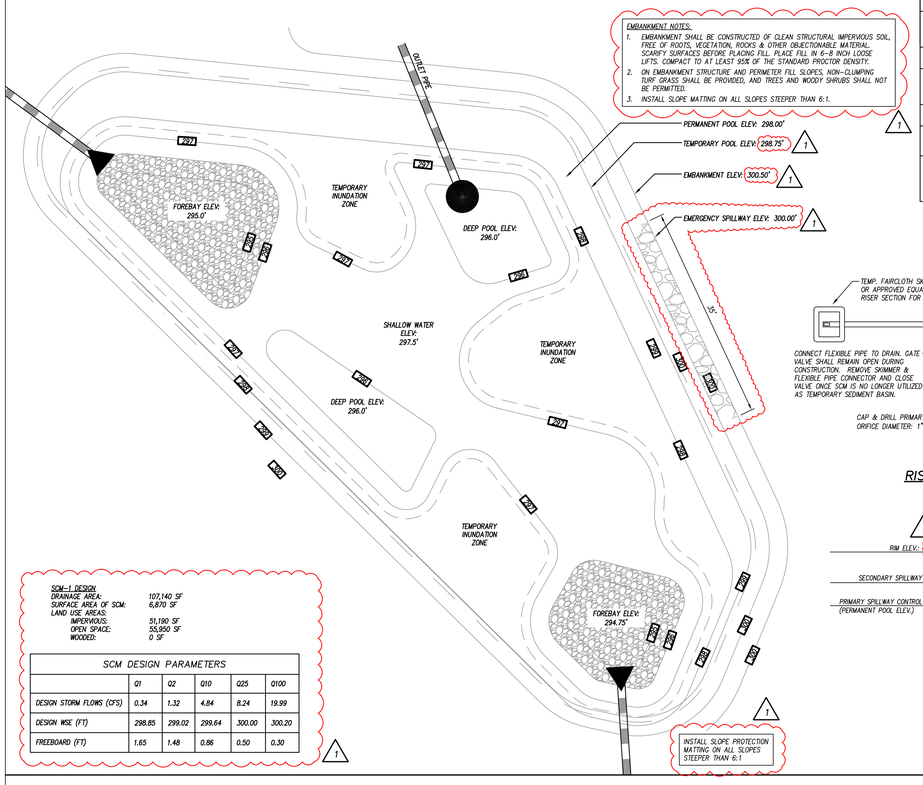
CONTRACTOR SHALL FURNISH AND INSTALL A 6-IN THICK LAYER OF COMPACTED CLAY BENEATH THE WETLAND TOPSOIL IF DEEMED NECESSARY BY THE OWNER.

SUBGRADE OF WETLAND MUST BE OVER-EXCAVATED TO ACCOMMODATE CLAY LAYER.

COMPACTED CLAY SHALL BE TESTED IN PLACE AND SHALL HAVE A PERMEABILITY NO GREATER THAN 0.01 IN/HR.

EMBANKMENT NOTES:

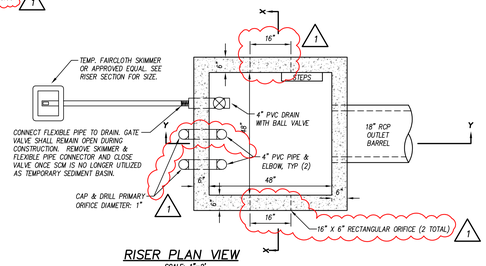
1. EMBANKMENT SHALL BE CONSTRUCTED OF CLEAN STRUCTURAL IMPERVIOUS SOIL, FREE OF ROOTS, VEGETATION, ROCKS & OTHER OBJECTIONABLE MATERIAL. SCARIFY SURFACES BEFORE PLACING FILL. PLACE FILL IN 6-8 INCH LOOSE LIFTS. COMPACT TO AT LEAST 95% OF THE STANDARD PROCTOR DENSITY.
2. ON EMBANKMENT STRUCTURE AND PERIMETER FILL SLOPES, NON-CLUMPING TURF GRASS SHALL BE PROVIDED, AND TREES AND WOODY SHRUBS SHALL NOT BE PERMITTED.
3. INSTALL SLOPE MATTING ON ALL SLOPES STEEPER THAN 6:1.



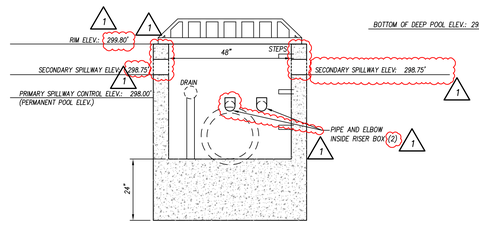
SCM-1 DESIGN
DRAINAGE AREA: 107,140 SF
SURFACE AREA OF SCM: 6,870 SF
LAND USE AREAS:
IMPERVIOUS: 51,190 SF
OPEN SPACE: 55,950 SF
WOODED: 0 SF

SCM DESIGN PARAMETERS

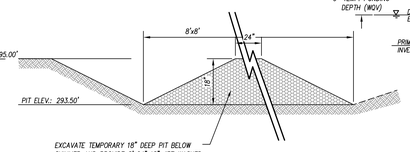
	Q1	Q2	Q10	Q25	Q100
DESIGN STORM FLOWS (CFS)	0.34	1.32	4.84	8.24	19.99
DESIGN WSE (FT)	298.85	299.02	299.64	300.00	300.20
FREEBOARD (FT)	1.65	1.48	0.86	0.50	0.30



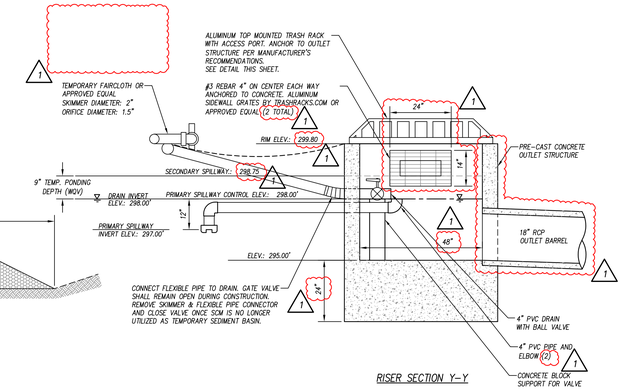
RISER PLAN VIEW
SCALE: 1"=2'



RISER SECTION X-X



DEEP PIT DETAIL FOR SEDIMENT BASIN

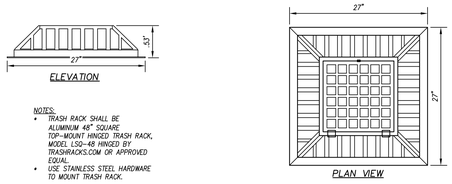


RISER SECTION Y-Y

OUTLET STRUCTURE
SCALE: 1"=2'

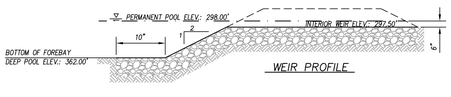
OUTLET STRUCTURE NOTES:
1. ALL STRUCTURES OVER 3'-6" IN DEPTH TO BE PROVIDED WITH STEPS 1'-2" AS SHOWN. STEPS SHALL BE IN ACCORDANCE WITH NCDOT STANDARD 840.66.
2. LOCATE ACCESS GATE OVER STEPS.
3. PRECAST CONCRETE STRUCTURE. 4000 PSI CONCRETE, SEE SPECIFICATIONS.
4. APPLY A MINIMUM TWO COATS OF GRAY BASF MASTERSEAL 581 WATERPROOF SEALANT OR APPROVED EQUAL. APPLY UPON COMPLETION OF CONCRETE REPAIRS OR FILLING/GROUTING OF HOLES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

SCM-1: CONSTRUCTED WETLAND 1" = 10'-0"

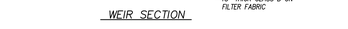


NOTES:
- TRASH RACK SHALL BE ALUMINUM 48" SQUARE TOP-MOUNT HINGED TRASH RACK, MODEL LSO-48 HINGED BY TRASHRACKS.COM OR APPROVED EQUAL.
- USE STAINLESS STEEL HARDWARE TO MOUNT TRASH RACK.

TRASH RACK DETAIL
SCALE: 1"=2'



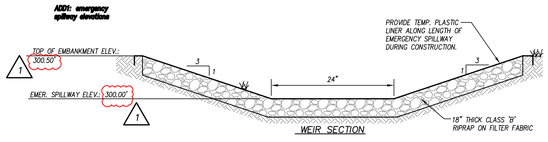
WEIR PROFILE



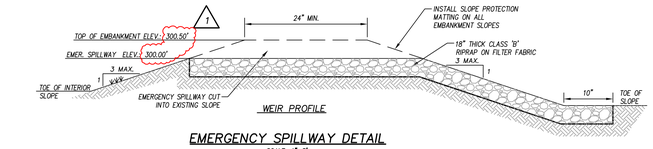
WEIR SECTION

ARMORED FOREBAY/DEEP POOL WEIR DETAIL
SCALE: 1"=5'

ADD1: emergency spillway elevations



WEIR SECTION



WEIR PROFILE

EMERGENCY SPILLWAY DETAIL
SCALE: 1"=5'

Town of Clayton
Planning Department

Planning Director:

Official Document

This document has been reviewed by the Town of Clayton and to the best of our knowledge and belief, conforms to all town, ordinances, policies and specifications that are applicable. Approval by the Town shall not relieve the Applicant and/or Design Professional from the responsibility for adequacy of design or for errors or omissions in the plans and specifications and meeting all applicable standards and regulations.

boomerang DESIGN
rethink, repurpose, results

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COOPER ACADEMY A & R

PROJECT TITLE

"CLIENT'S PROJECT" # - XXX

Digitally signed by Steven J. Miller
Date: 2024.02.20 14:30:51-05'00'

NORTH CAROLINA PROFESSIONAL SEAL 022625 ENGINEER STEVEN J. MILLER

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3. DO NOT SCALE OFF DIMENSIONS.

REVISIONS

NO.	DATE	DESCRIPTION
1	2/20/24	ADDIENDUM #1

BID DOCUMENTS

PROJECT PHASE

2307

BOOMERANG DESIGN PROJECT NUMBER

02.07.24

DRAWING RELEASE DATE

DETAILS

SHEET TITLE

C706

SHEET