

STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.
SC	BEAUFORT			S-7-159	1

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CITY OF BEAUFORT



MOSSY OAKS DRAINAGE IMPROVEMENT PLANS BASIN 2 - WEST

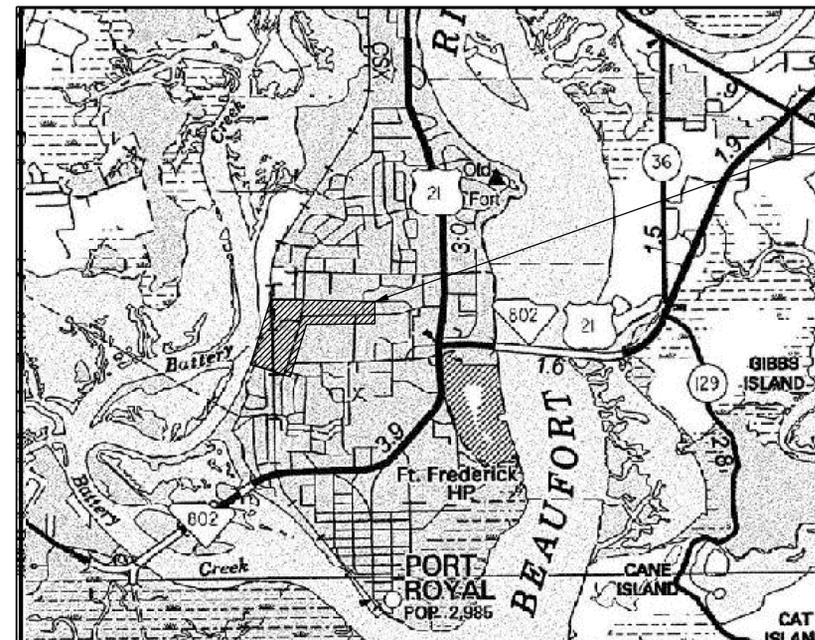
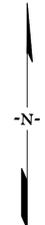
Hydraulic Design Reference for these plans is the:
2009
Edition of SCDOT's "Requirements for Hydraulic Design Studies"

Design Reference for these plans is the:
3R
These Plans Were Designed Using "3R" Principles From the 2017 Roadway Design Manual

ENVIRONMENTAL PERMIT INFORMATION					
USACE PERMIT	___YES___	___NO___			
NEPA DOCUMENT	___YES___	___NO___			
401 CERTIFICATION	___YES___	___NO___			
OCRM CAP	___YES___	___NO___			
NAVIGABLE WATERS	___SC___	___USCG___	___USACE___	___N/A___	

3 DAYS BEFORE DIGGING IN
SOUTH CAROLINA
CALL 811
SOUTH CAROLINA 811 (SC811)
WWW.SC811.COM
ALL UTILITIES MAY NOT BE A MEMBER OF SC811

RAILROAD INVOLVEMENT?
YES NO



LAYOUT
N.T.S.

	BATTERY CREEK ROAD	TOTAL (MILES)
NET LENGTH OF ROADWAY	0.15	0.15
NET LENGTH OF BRIDGES	-	-
NET LENGTH OF PROJECT	0.15	0.15
LENGTH OF EXCEPTIONS	-	-
GROSS LENGTH OF PROJECT	0.15	0.15

EQUALITIES IN STATIONING:
NONE

NOTE: EXCEPT AS MAY OTHERWISE BE SPECIFIED ON THE PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIALS AND WORKMANSHIP ON THIS PROJECT SHALL TO CONFORM WITH SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2007 EDITION) AND STANDARD DRAWINGS FOR ROAD CONSTRUCTION IN EFFECT AT THE TIME OF LETTING.

NPDES PERMIT INFORMATION

Disturbed Area = 2.8 Acre(s)
Project Area = 3.6 Acre(s)

Approximate Location of Roadway is
Begin
Latitude 32°23'40" N
Longitude 80°42'01" W
End
Latitude 32°23'47" N
Longitude 80°41'58" W

Hydraulic and NPDES Design provided by:
I.C.E.

Designs may be obtained from the SCDOT Regional Production Group

THE DESIGNER ASSUMES NO RESPONSIBILITY FOR THE DESIGN OF RECORD OR THE RESPONSIBILITY TO OBTAIN THE PERMIT IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

For Right Of Way Acquisition:

Consultant Engineer of Record
Date _____

CONSULTING ENGINEERING FIRM

JE INFRASTRUCTURE
CONSULTING & ENGINEERING

ENGINEER OF RECORD

**ISSUED
FOR BID**

FOR CONSTRUCTION : _____
DATE _____

SUMMARY OF ESTIMATED QUANTITIES

PAY ITEM	DESCRIPTION	QUANTITY	UNIT
1031000	MOBILIZATION	1	LS
1032010	BONDS AND INSURANCE	1	LS
1050800	CONSTRUCTION STAKES, LINES & GRADES	1	EA
1071000	TRAFFIC CONTROL	1	LS
1090200	AS-BUILT CONSTRUCTION PLANS	1	LS
2012000	CLEARING & GRUBBING WITHIN ROADWAY	1	LS
2023000	REMOVAL & DISPOSAL OF EXISTING PAVEMENT	33.1	SY
2031200	SITE EXCAVATION	1	LS
2027000	REMOVAL & DISPOSAL OF EXISTING CONCRETE	44.0	CY
3100310	HOT MIX ASPHALT BASE COURSE - TYPE B	43	TON
4013990	MILLING EXISTING ASPHALT PAVEMENT (VARIABLE)	221.9	SY
4020320	HOT MIX ASPHALT INTERMEDIATE COURSE TYPE B	205	TON
4030320	HOT MIX ASPHALT SURFACE COURSE TYPE C	161	TON
6020005	PERMANENT CONSTRUCTION SIGNS (GROUND MOUNTED)	76	SF
7143615	15" SMOOTH WALL PIPE	28	LF
7143618	18" SMOOTH WALL PIPE	198	LF
7143660	60" SMOOTH WALL PIPE	100	LF
7204100	CONCRETE SIDEWALK (4" UNIFORM)	440	SY
8041020	RIP-RAP (CLASS B)	38	TON
8048200	GEOTEXTILE FOR EROSION CONTROL UNDER RIPRAP(CLASS 2)TYPE A	33	SY
8100100	PERMANENT COVER	0.50	ACRE
8100200	TEMPORARY COVER	0.25	ACRE
8104005	FERTILIZER (NITROGEN)	50	LB
8104010	FERTILIZER (PHOSPHORIC ACID)	50	LB
8104015	FERTILIZER (POTASH)	50	LB
8105005	AGRICULTURAL GRANULAR LIME	1004	LB
8109901	MOWING	2	ACRE
8153000	SILT FENCE	1056	LF
8153090	REPLACE/REPAIR SILT FENCE	106	LF
8154050	REMOVAL OF SILT RETAINED BY SILT FENCE	264	LF

JE INFRASTRUCTURE
CONSULTING & ENGINEERING

**ISSUED
FOR BID**

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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	RNT	DATE 01/17/2020	
DRAWN BY:	RNT	DATE 01/17/2020	
CHECKED BY:	JCH	DATE 01/17/2020	

BEAUFORT COUNTY
CITY OF BEAUFORT

MOSSY OAKS
BASIN 2 - WEST
SUMMARY OF ESTIMATED QUANTITIES

STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.
SC	BEAUFORT			S-7-159	3

GENERAL NOTES

GENERAL CONSTRUCTION NOTES:

SEE INDIVIDUAL CURVES ON REFERENCE DATA SHEET FOR SUPERELEVATION RATE AND DESIGN SPEED, AS APPLICABLE.

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM AVAILABLE INFORMATION AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE UTILITIES INFORMATION SHOWN ON THE DRAWINGS. IT IS THEREFORE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THAT THE PROPER COORDINATION WITH THE VARIOUS UTILITY OWNERS HAS BEEN PERFORMED.

THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY OWNERS DURING RELOCATION OPERATIONS. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY WHETHER SHOWN ON THE DRAWINGS OR LOCATED BY THE UTILITY COMPANY. COST OF DAMAGES TO ANY UTILITIES AS A RESULT OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ALL WORKMANSHIP AND MATERIALS USED ON THIS PROJECT SHALL CONFORM TO THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2007 EDITION), SCDOT 2007 SUPPLEMENTAL SPECIFICATIONS, SCDOT SUPPLEMENTAL TECHNICAL SPECIFICATIONS IN EFFECT AT THE TIME OF LETTING, AND SCDOT 2009 STANDARD DRAWINGS EXCEPT WHERE OTHERWISE NOTED IN THE PLANS.

ALL EXISTING ROAD SIGNS AFFECTED BY CONSTRUCTION ACTIVITIES SHALL BE RETAINED, RELOCATED, OR REMOVED AS DIRECTED BY ENGINEER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM COST FOR CLEARING AND GRUBBING.

ALL NEW SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SCDOT STANDARD DRAWINGS, NEW 2P & 3P SIGN SUPPORTS REQUIRED FOR RELOCATED SIGNS WILL BE PAID PER LINEAR FOOT INSTALLED AND ACCEPTED.

THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN ALL NECESSARY PROVISIONS FOR TRAFFIC CONTROL FOR THE DURATION OF THE PROJECT. THESE PROVISIONS, AS IN EACH CASE IS APPLICABLE, WILL CONFORM TO THE REQUIREMENTS CONTAINED IN THE SCDOT STANDARD SPECIFICATIONS, STANDARD DRAWINGS, SUPPLEMENTAL SPECIFICATIONS, SPECIAL PROVISIONS, THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT THE TRAFFIC CONTROL PLAN TO THE COUNTY FOR APPROVAL BEFORE BEGINNING CONSTRUCTION.

THE LUMP SUM COST FOR TRAFFIC CONTROL SHALL INCLUDE ALL WORK AS DIRECTED ABOVE. THIS LUMP SUM COST SHALL INCLUDE TEMPORARY CONSTRUCTION SIGNS, BARRICADES, DRUMS, CONES, LIGHTS, AND OTHER ITEMS AS REQUIRED TO COMPLETE THIS WORK.

CONTRACTOR SHALL REFER TO SCDOT STD. DWG. 605-010-02 FOR PLACEMENT OF PERMANENT CONSTRUCTION SIGNS. THIS PROJECT REQUIRES ONE (1) SCHEME C. SIGNS SHALL BE PAID FOR PER SQUARE FOOT INSTALLED AND ACCEPTED UNDER THE BID ITEM FOR PERMANENT CONSTRUCTION SIGNS.

EROSION CONTROL NOTES:

IF NECESSARY, SLOPES WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS IN ADDITION TO HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.

- A) WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICAL.
- B) WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.

ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.

PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.

ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.

RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C. REG. 72-300 ET SEQ. AND SCR100000.

TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.

ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CANNOT BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.

LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.

A COPY OF THE SWPPP, INSPECTION RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.

INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.

MINIMIZE SOIL COMPACTION AND UNLESS INFEASIBLE, PRESERVE TOPSOIL.

MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING. WHEEL WASH WATER, AND OTHER WASH WATERS, WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.

THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:

- WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL;
- WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND
- SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.

AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTION MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.

EROSION CONTROL NOTES (CONT):

IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM WATER EVENT WHENEVER PRACTICABLE. THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.

A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT AS APPROVED OTHERWISE.

THE CONTRACTOR IS REQUIRED TO IDENTIFY AND MAINTAIN AN ON-SITE CONCRETE WASHDOWN AREA THAT MEETS ALL REQUIREMENTS /BMPs OF SCDHEC. APPROVED WASHOUT AREAS MAY INCLUDE SECTIONS OF SIDEWALK THAT HAVE BEEN FORMED AND THAT ARE LOCATED AHEAD OF THE CURRENT CONCRETE POUR. THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVAL OF CONCRETE REMNANTS AND PREPARING THE SUBGRADE IN THESE AREAS PRIOR TO PLACEMENT OF THE NEXT DAYS CONCRETE POUR.

SEQUENCE OF CONSTRUCTION

1. OBTAIN NPDES COVERAGE FROM DHEC .
2. NOTIFY SC DHEC REGIONAL OFFICE AND THE CITY OF BEAUFORT DEPARTMENT OF PUBLIC WORKS 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. INSTALL TREE PROTECTION AND DELINEATE CLEARING LIMITS.
4. CLEARING & GRUBBING ONLY AS NECESSARY FOR INSTALLATION OF PERIMETER CONTROLS (E.G. SILT FENCE).
5. INSTALL PERIMETER CONTROLS (E.G. SILT FENCE).
6. CLEARING AND GRUBBING OF SITE (SEDIMENT & EROSION CONTROL MEASURES FOR THESE AREAS MUST ALREADY BE INSTALLED).
7. WORK ON SPANISH MOSS TRAIL (IE TEMPORARY COFFER DAM, SHEET PILE WALL, REPLACE CULVERTS, HEADWALL, FLAP GATES, RECONSTRUCT PATHWAY)
8. CLEAN DITCHES
9. INSTALL UPSTREAM STORM DRAINAGE.
10. INSTALL COFFER DAM FOR BATTERY CREEK ROAD.
11. DETOUR WORK FOR BATTERY CREEK ROAD STORM DRAINAGE CROSSING
12. FINE GRADING ON BATTERY CREEK ROAD.
13. ASPHALT PAVING.
14. CONSTRUCT SIDEWALK.
15. FINISH GRADING AND FINAL GRASSING.
16. MAINTAIN ALL SEDIMENT AND EROSION CONTROL DEVICES FOR THE EXTENT OF THE PROJECT
17. REMOVAL OF SEDIMENT CONTROLS AFTER SITE HAS BEEN STABILIZED.
18. CONTACT THE CITY OF BEAUFORT DEPARTMENT OF PUBLIC WORKS FOR FINAL PROJECT INSPECTION.
19. FILE NOTICE OF TERMINATION.

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REV. NO.	BY	DATE	DESCRIPTION OF REVISION	
DESIGNED BY:	BJL	DATE 08/22/2019		
DRAWN BY:	BJL	DATE 08/22/2019		
CHECKED BY:	JCH	DATE 08/22/2019		

BEAUFORT COUNTY
CITY OF BEAUFORT

MOSSY OAKS
BASIN 2 - WEST
GENERAL CONSTRUCTION NOTES

SHEET 3

SCALE: NTS

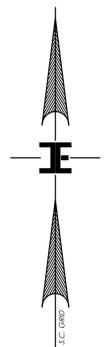
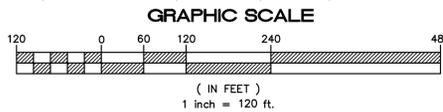
STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.
SC	BEAUFORT				4

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ALL WORK OUTSIDE
BASIN 2 - WEST
TO BE DONE BY OTHERS

PROPERTY OWNER DATA TABLE			
NO.	TAX MAP NO.	OWNER	MAILING ADDRESS
1	R100 008 000 0028	LINDA SUE & FRED EMERSON BAZEMORE JR	PO BOX 4117, BEAUFORT, SC 29902
2	R120 008 000 023C	LINDAA ORR DUPREIST	14 RIVERFRONT PLACE, BEAUFORT, SC 29902
3	R120 008 000 0088	NANCY K & JAMES C PISCOTTANO, JTROS	1306 BATTERY CREEK RD, BEAUFORT, SC 29902
4	R120 008 000 0513	RACHELE & GASTON R BEACH, JTROS	1404 BATTERY CREEK RD, BEAUFORT, SC 29902
5	R120 008 000 0512	DARLENE S RAYMOND	1402 BATTERY CREEK RD, BEAUFORT, SC 29902
6	R120 008 000 0511	ALBER RUTH BARNETTE	PO BOX 2017, BEAUFORT, SC 29901
7	R120 008 000 0510	MANFRED ZOCHLINS & ROSEMARIE WAGNER	1304 BATTERY CREEK RD, BEAUFORT, SC 29902
8	R120 008 000 0455	AARON THOMAS GREENE	1302 BATTERY CREEK RD, BEAUFORT, SC 29902
9	R120 008 000 0454	BRITTI AILIS & WADE RUSSELL CRAWFORD	1300 BATTERY CREEK RD, BEAUFORT, SC 29902
10	R120 008 000 0453	CHRISTINA G & DANIEL L HUGHES JR	2 ABBY LN, BEAUFORT, SC 29902
11	R120 008 000 008A	BIWSA	6 SNAKE RD, OKATIE, SC 29909
12	R120 008 000 0630	CITY OF BEAUFORT	1911 BOUNDARY ST, BEAUFORT, SC 29902
13	R120 008 000 0612	BEAUFORT COUNTY	100 RIBAUT RD, BEAUFORT, SC 29902
14	R120 008 000 0015	CITY OF BEAUFORT	1911 BOUNDARY ST, BEAUFORT, SC 29902
14A	R120 008 000 0015	PERMANENT MOBILE PUMP STORAGE SHED LOCATION	
15	R120 008 000 0440	JONATHAN T SPAULDING	3930 AUSTIN ESTATE DR, BRYAN, TX 77808
16	R120 006 000 0150	GAZER-SPAN INC	PO BOX 5093, BEAUFORT, SC 29905
17	R120 008 000 0565	JUSTIN E DAUBERT	1 HERMITAGE POINT, BEAUFORT, SC 29902
18	R120 008 000 0564	LODOSCHAT JENKINS	1210 BATTERY CREEK RD, BEAUFORT, SC 29902
19	R120 008 000 442A	WILLIAM C HERNDON	2715 SOUTHSIDE BLVD, BEAUFORT, SC 29902
20	R120 006 000 0372	BROADWAY LYNN N/K/A GEREN LYNN	2750 BROAD ST, BEAUFORT, SC 29902
21	R120 008 000 0424	LINDA S GREENE, BARTON VOLLMER, AMBER NICOLE VOLLMER	2713 SOUTHSIDE BLVD, BEAUFORT, SC 29902
22	R120 008 000 0366	MARION B WISELEY	2709 SOUTHSIDE BLVD, BEAUFORT, SC 29902
23	R120 008 000 0426	BRADLEY LEMAN & S KATSUYO JTROS	883 MAGNOLIA BLUFF, BEAUFORT, SC 29902
24	R120 008 000 0427	XING YING & JIE LIN	3094 TOFTE DR, DULUTH, GA 30096
25	R120 008 000 0428	WALTER H SINGLETON	PO BOX 951, BEAUFORT, SC 29901
26	R120 008 000 0429	BRIAN M CHEMSAK	2615 SOUTHSIDE BLVD, BEAUFORT, SC 29902
27	R120 008 000 0418	ANNA M & JOSE ARRUDA	2613 SOUTHSIDE BLVD, BEAUFORT, SC 29902
28	R120 008 000 0419	CLAY MARCEL DALON	2611 SOUTHSIDE BLVD, BEAUFORT, SC 29902
29	R120 008 000 0421	DANA C & DAVID E GASQUE	11 BURCKMYER DR, BEAUFORT, SC 29902
30	R120 006 000 0505	CITY OF BEAUFORT	1911 BOUNDARY ST, BEAUFORT, SC 29902
31	R120 006 000 0504	CITY OF BEAUFORT	1911 BOUNDARY ST, BEAUFORT, SC 29902



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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	M. HAMMOND	DATE 07/11/2019	
DRAWN BY:	L. WILEN	DATE 04/10/2020	
CHECKED BY:	A. KLOSTERMAN	DATE 04/10/2020	

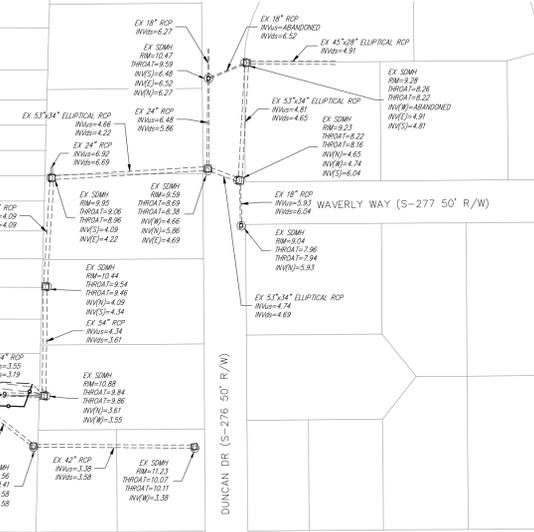
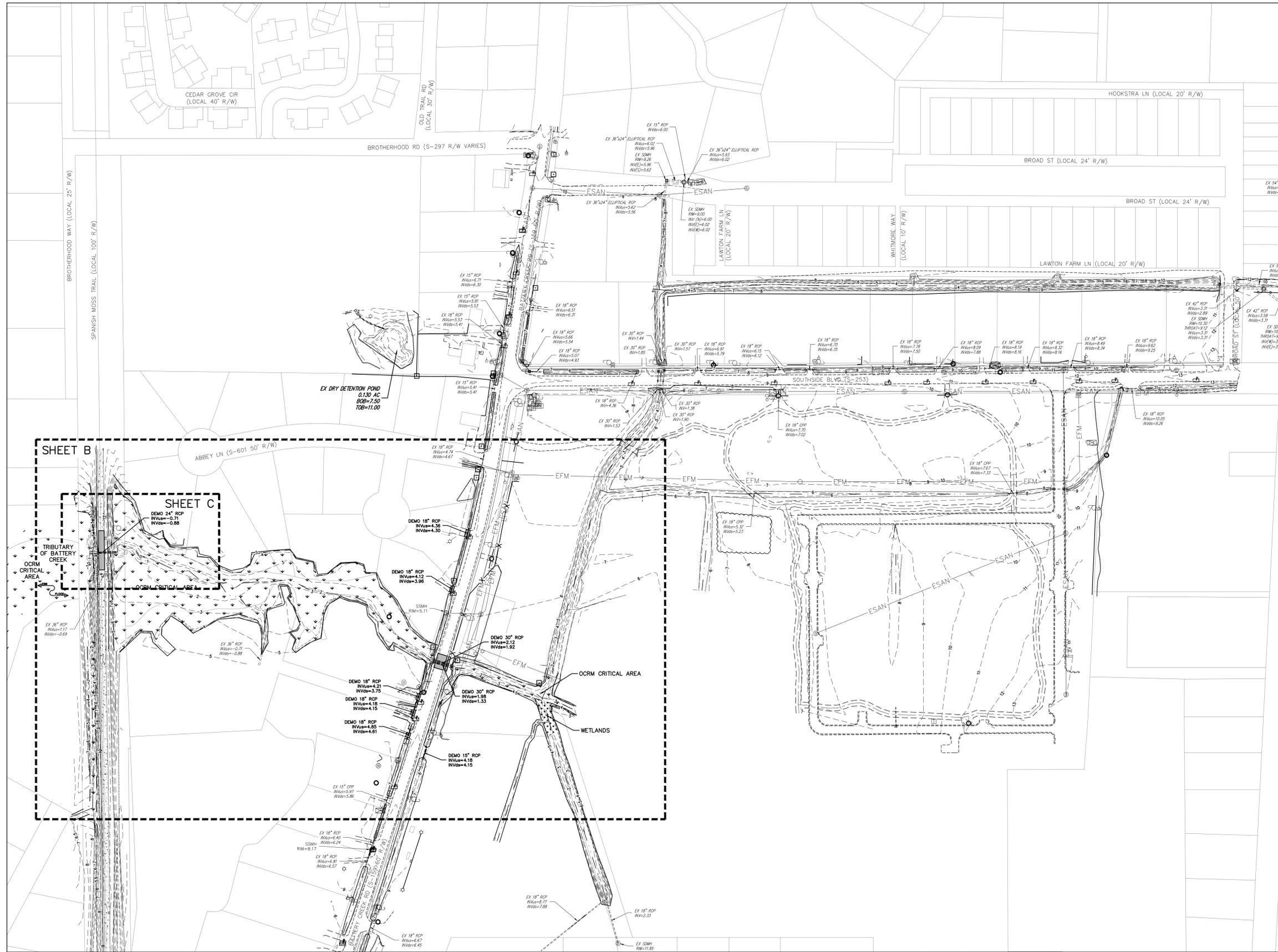
BEAUFORT COUNTY
CITY OF BEAUFORT

MOSSY OAKS BASIN 2 – WEST
DRAINAGE ALIGNMENT &
PROPERTY OWNER SHEET

SHEET 4 SCALE: 1"=120'

STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.
SC	BEAUFORT				5A

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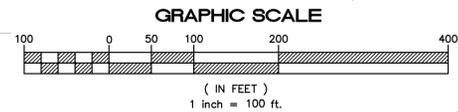
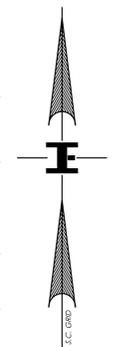


SHEET B

SHEET C

TALBIRD RD (S-504 50' R/W)

HOLMES DR (LOCAL 20' R/W)



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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	M. HAMMOND	DATE 07/11/2019	
DRAWN BY:	L. WILEN	DATE 04/10/2020	
CHECKED BY:	A. KLOSTERMAN	DATE 04/10/2020	

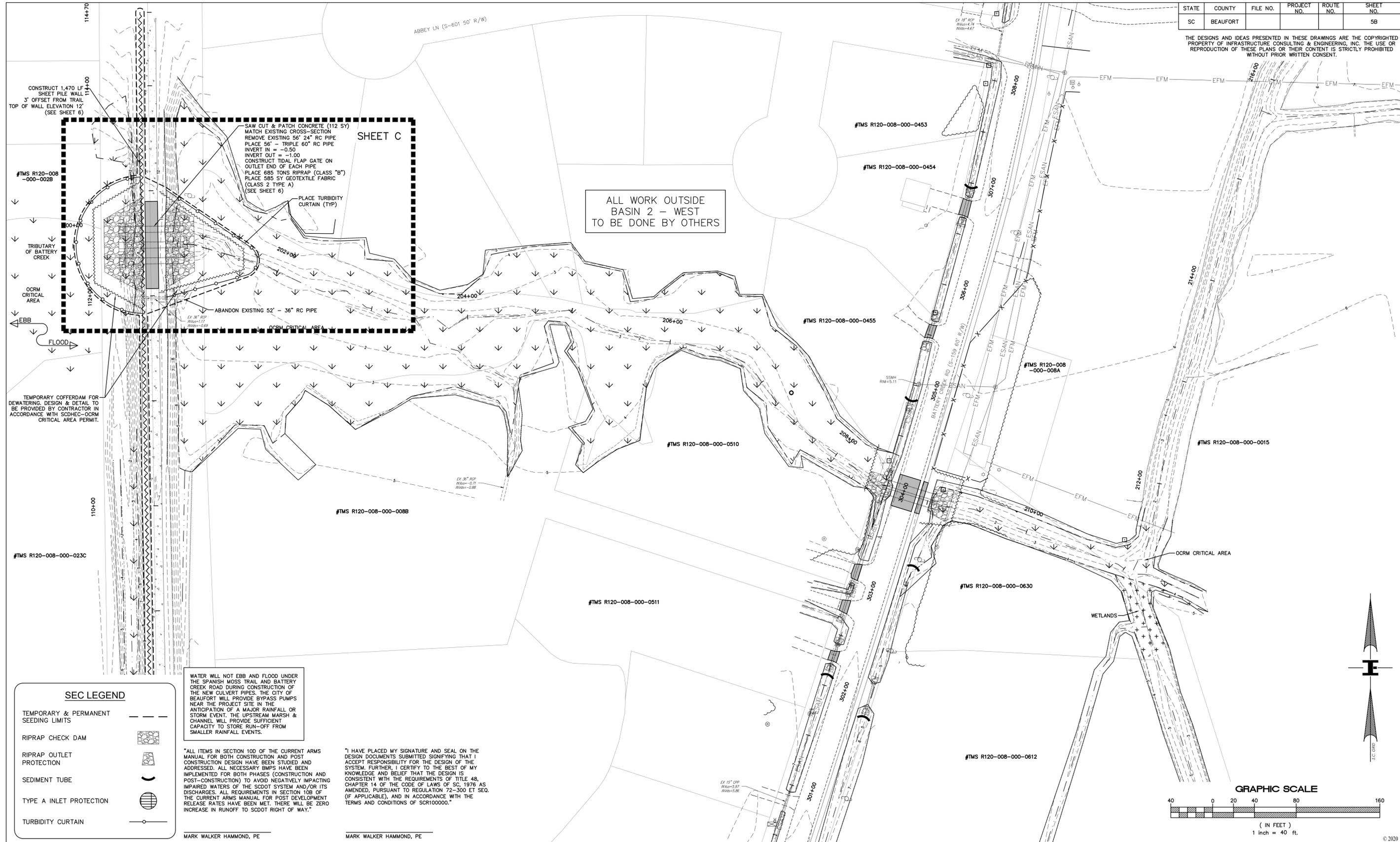
BEAUFORT COUNTY
CITY OF BEAUFORT

MOSSY OAKS BASIN 2 – WEST
DRAINAGE IMPROVEMENT PLAN

SHEET 5A SCALE: 1"=100'

STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.
SC	BEAUFORT				5B

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ALL WORK OUTSIDE
BASIN 2 - WEST
TO BE DONE BY OTHERS

SHEET C

SAW OUT & PATCH CONCRETE (112 SY)
MATCH EXISTING CROSS-SECTION
REMOVE EXISTING 56" 24" RC PIPE
PLACE 56" - TRIPLE 60" RC PIPE
INVERT IN = -0.50
INVERT OUT = -1.00
CONSTRUCT TIDAL FLAP GATE ON
OUTLET END OF EACH PIPE
PLACE 685 TONS RIPRAP (CLASS "B")
PLACE 585 SY GEOTEXTILE FABRIC
(CLASS 2 TYPE A)
(SEE SHEET 6)
PLACE TURBIDITY CURTAIN (TYP)

WATER WILL NOT EBB AND FLOOD UNDER THE SPANISH MOSS TRAIL AND BATTERY CREEK ROAD DURING CONSTRUCTION OF THE NEW CULVERT PIPES. THE CITY OF BEAUFORT WILL PROVIDE BYPASS PUMPS NEAR THE PROJECT SITE IN THE ANTICIPATION OF A MAJOR RAINFALL OR STORM EVENT. THE UPSTREAM MARSH & CHANNEL WILL PROVIDE SUFFICIENT CAPACITY TO STORE RUN-OFF FROM SMALLER RAINFALL EVENTS.

"ALL ITEMS IN SECTION 100 OF THE CURRENT ARMS MANUAL FOR BOTH CONSTRUCTION AND POST CONSTRUCTION DESIGN HAVE BEEN STUDIED AND ADDRESSED. ALL NECESSARY BMPs HAVE BEEN IMPLEMENTED FOR BOTH PHASES (CONSTRUCTION AND POST-CONSTRUCTION) TO AVOID NEGATIVELY IMPACTING IMPAIRED WATERS OF THE SCDOT SYSTEM AND/OR ITS DISCHARGES. ALL REQUIREMENTS IN SECTION 10B OF THE CURRENT ARMS MANUAL FOR POST DEVELOPMENT RELEASE RATES HAVE BEEN MET. THERE WILL BE ZERO INCREASE IN RUNOFF TO SCDOT RIGHT OF WAY."

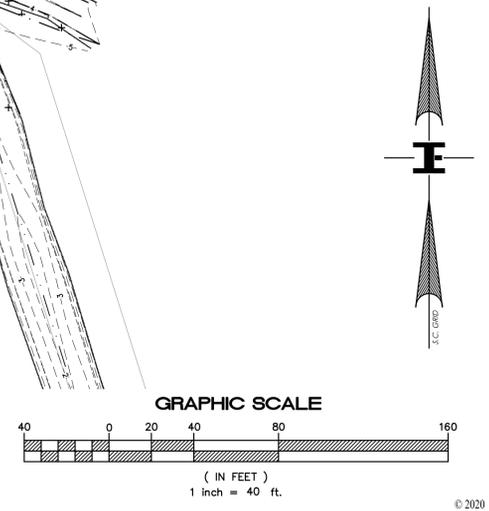
"I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER, I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 72-500 ET SEQ. (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCR100000."

MARK WALKER HAMMOND, PE

MARK WALKER HAMMOND, PE

SEC LEGEND

TEMPORARY & PERMANENT SEEDING LIMITS	
RIPRAP CHECK DAM	
RIPRAP OUTLET PROTECTION	
SEDIMENT TUBE	
TYPE A INLET PROTECTION	
TURBIDITY CURTAIN	



ISSUED FOR BID

4			
3			
2			
1			
REV. NO.	BY	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	M. HAMMOND	DATE 07/11/2019	
DRAWN BY:	L. WILLEN	DATE 04/10/2020	
CHECKED BY:	A. KLOSTERMAN	DATE 04/10/2020	

BEAUFORT COUNTY
CITY OF BEAUFORT

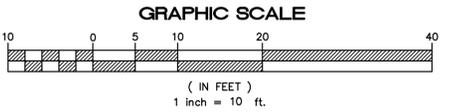
MOSSY OAKS BASIN 2 - WEST
DRAINAGE IMPROVEMENT PLAN

SHEET 5B

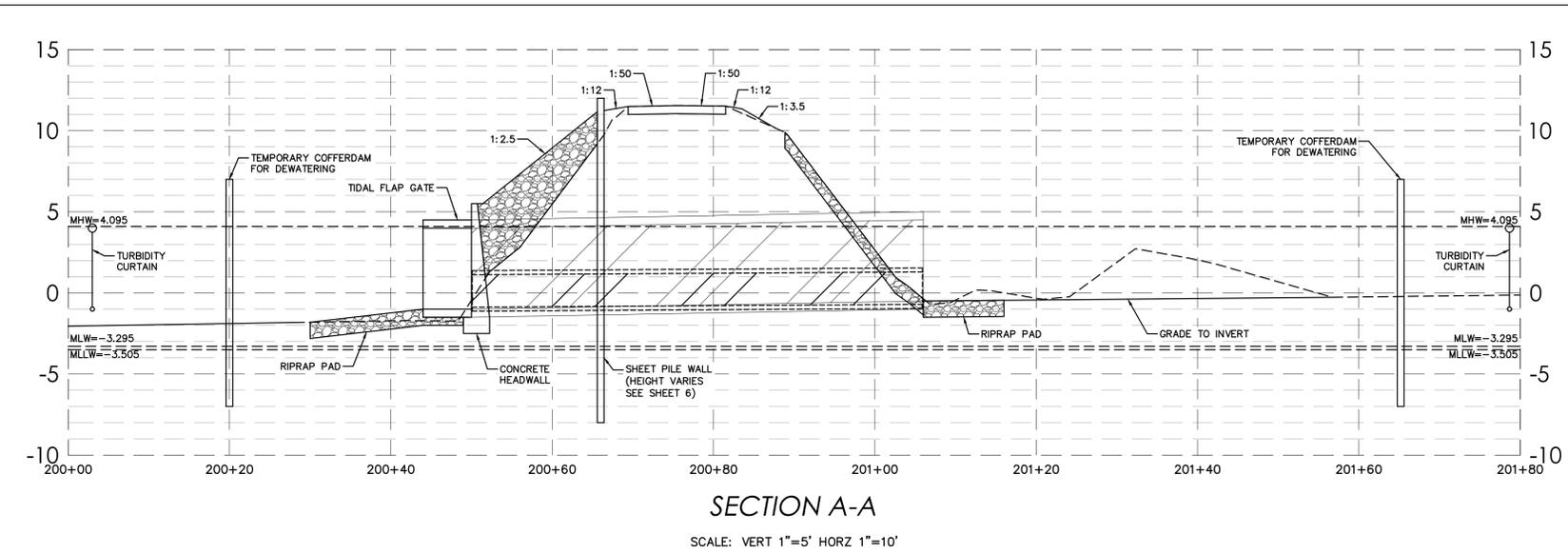
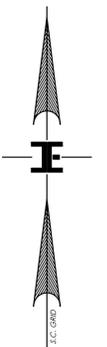
SCALE: 1"=40'

STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.
SC	BEAUFORT				5C

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SEC LEGEND	
TEMPORARY & PERMANENT SEEDING LIMITS	---
RIPRAP CHECK DAM	
RIPRAP OUTLET PROTECTION	
SEDIMENT TUBE	
TYPE A INLET PROTECTION	
TURBIDITY CURTAIN	

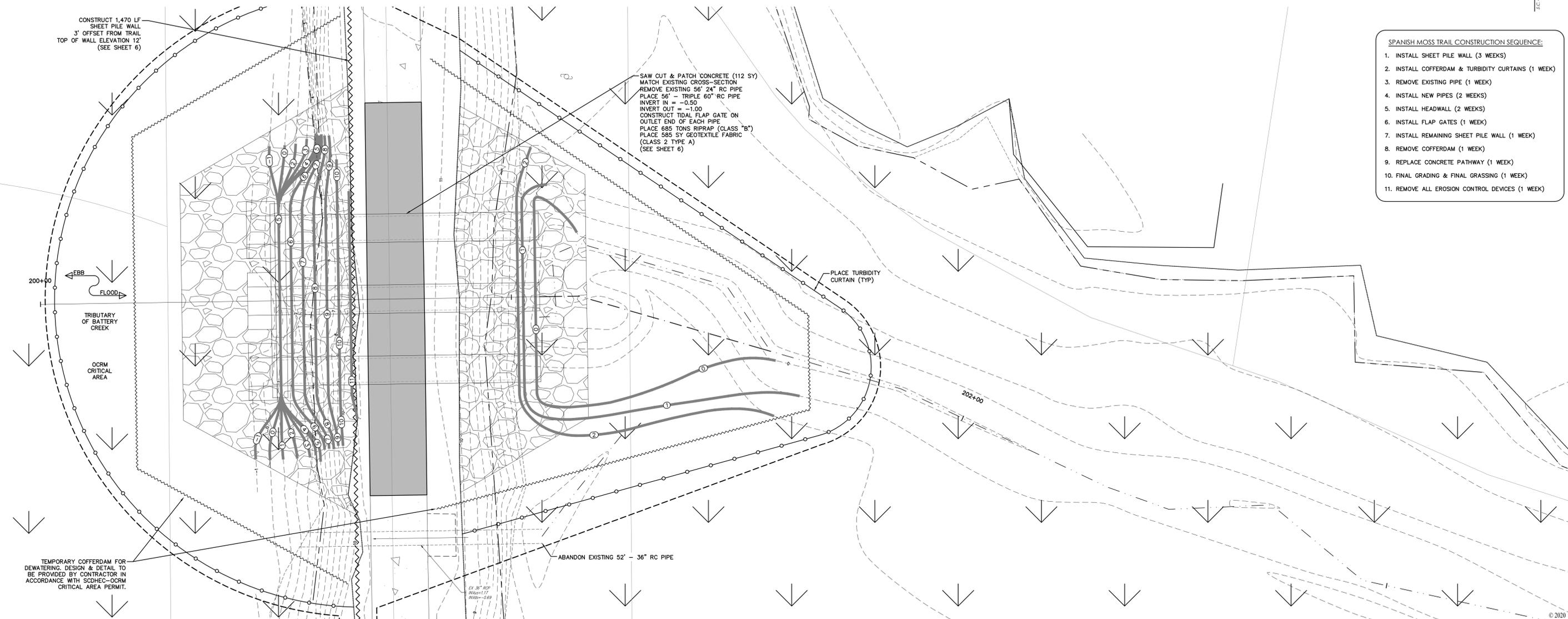


SECTION A-A
SCALE: VERT 1"=5' HORIZ 1"=10'

"ALL ITEMS IN SECTION 10D OF THE CURRENT ARMS MANUAL FOR BOTH CONSTRUCTION AND POST CONSTRUCTION DESIGN HAVE BEEN STUDIED AND ADDRESSED. ALL NECESSARY BMPs HAVE BEEN IMPLEMENTED FOR BOTH PHASES (CONSTRUCTION AND POST-CONSTRUCTION) TO AVOID NEGATIVELY IMPACTING IMPAIRED WATERS OF THE SCDDOT SYSTEM AND/OR ITS DISCHARGES. ALL REQUIREMENTS IN SECTION 10B OF THE CURRENT ARMS MANUAL FOR POST DEVELOPMENT RELEASE RATES HAVE BEEN MET. THERE WILL BE ZERO INCREASE IN RUNOFF TO SCDDOT RIGHT OF WAY."

MARK WALKER HAMMOND, PE
"I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER, I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 72-500 ET SEQ. (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCRI00000."

MARK WALKER HAMMOND, PE
ANY DEWATERING OF SEDIMENT LADEN WATER TO BE IN ACCORDANCE WITH SCDHEC-OCRM STANDARDS USING APPROPRIATE BMPs. SEE DETAIL SHEET FOR TYPICAL DEWATERING SETUP, DETAILS, AND SPECIFICATIONS. CONTRACTOR TO COORDINATE DEWATERING PLAN AND LOCATION OF BMPs WITH ENGINEER PRIOR TO CONSTRUCTION.
WATER WILL NOT EBB AND FLOOD UNDER THE SPANISH MOSS TRAIL DURING CONSTRUCTION OF THE NEW CULVERT PIPES. THE CITY OF BEAUFORT WILL PROVIDE BYPASS PUMPS NEAR THE PROJECT SITE IN THE ANTICIPATION OF A MAJOR RAINFALL OR STORM EVENT. THE UPSTREAM MARSH WILL PROVIDE SUFFICIENT CAPACITY TO STORE RUN-OFF FROM SMALLER RAINFALL EVENTS.



- SPANISH MOSS TRAIL CONSTRUCTION SEQUENCE:**
1. INSTALL SHEET PILE WALL (3 WEEKS)
 2. INSTALL COFFERDAM & TURBIDITY CURTAINS (1 WEEK)
 3. REMOVE EXISTING PIPE (1 WEEK)
 4. INSTALL NEW PIPES (2 WEEKS)
 5. INSTALL HEADWALL (2 WEEKS)
 6. INSTALL FLAP GATES (1 WEEK)
 7. INSTALL REMAINING SHEET PILE WALL (1 WEEK)
 8. REMOVE COFFERDAM (1 WEEK)
 9. REPLACE CONCRETE PATHWAY (1 WEEK)
 10. FINAL GRADING & FINAL GRASSING (1 WEEK)
 11. REMOVE ALL EROSION CONTROL DEVICES (1 WEEK)



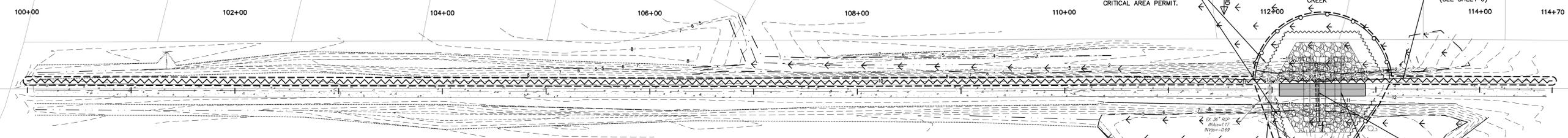
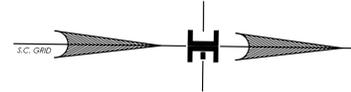
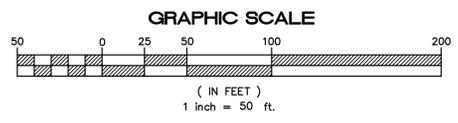
ISSUED FOR BID

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			
DESIGNED BY:	M. HAMMOND	DATE	07/11/2019
DRAWN BY:	L. WILLEN	DATE	04/10/2020
CHECKED BY:	A. KLOSTERMAN	DATE	04/10/2020

BEAUFORT COUNTY
CITY OF BEAUFORT
MOSSY OAKS BASIN 2 - WEST
DRAINAGE IMPROVEMENT PLAN
SHEET 5C
SCALE: 1"=10'

STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.
SC	BEAUFORT				6

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SEC LEGEND

TEMPORARY & PERMANENT SEEDING LIMITS	---
RIPRAP CHECK DAM	[Symbol]
RIPRAP OUTLET PROTECTION	[Symbol]
SEDIMENT TUBE	[Symbol]
TYPE A INLET PROTECTION	[Symbol]
TURBIDITY CURTAIN	[Symbol]

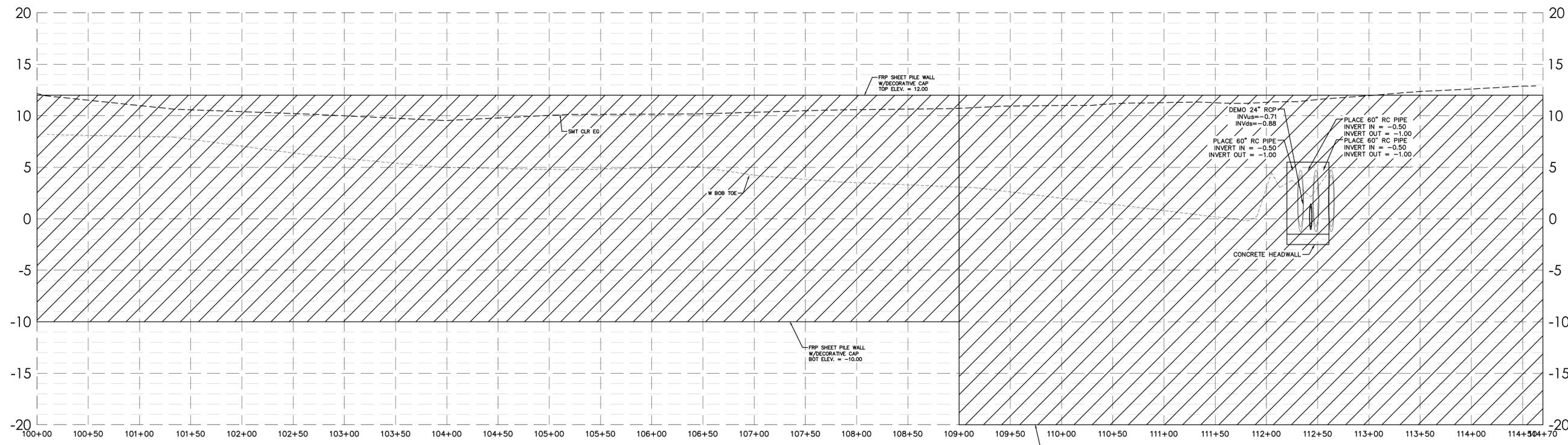
- SPANISH MOSS TRAIL CONSTRUCTION SEQUENCE:**
1. INSTALL SHEET PILE WALL (3 WEEKS)
 2. INSTALL COFFERDAM & TURBIDITY CURTAINS (1 WEEK)
 3. REMOVE EXISTING PIPE (1 WEEK)
 4. INSTALL NEW PIPES (2 WEEKS)
 5. INSTALL HEADWALL (2 WEEKS)
 6. INSTALL FLAP GATES (1 WEEK)
 7. INSTALL REMAINING SHEET PILE WALL (1 WEEK)
 8. REMOVE COFFERDAM (1 WEEK)
 9. REPLACE CONCRETE PATHWAY (1 WEEK)
 10. FINAL GRADING & FINAL GRASSING (1 WEEK)
 11. REMOVE ALL EROSION CONTROL DEVICES (1 WEEK)

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MARK WALKER HAMMOND, PE

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SMT CLR PROFILE

SCALE: VERT 1"=5' HORZ 1"=50'

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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	M. HAMMOND	DATE	07/11/2019
DRAWN BY:	L. WILEN	DATE	04/10/2020
CHECKED BY:	A. KLOSTERMAN	DATE	04/10/2020

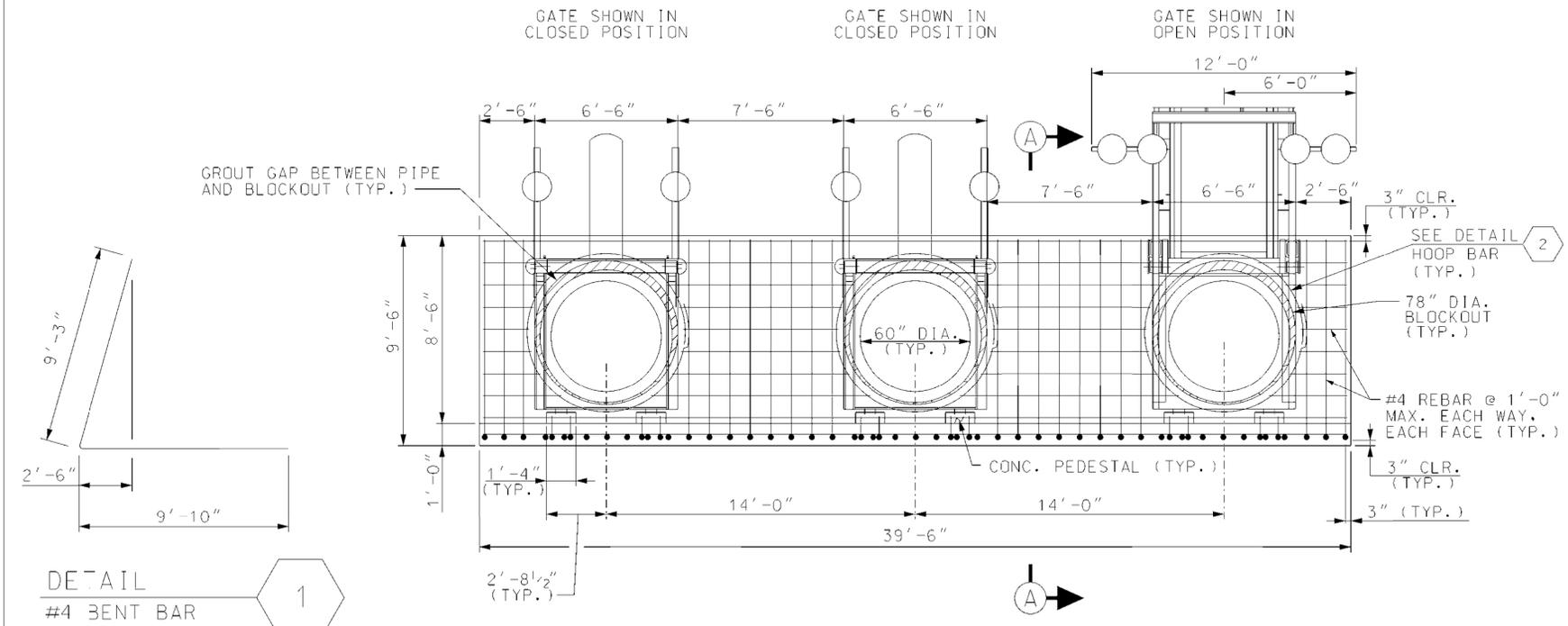
BEAUFORT COUNTY
CITY OF BEAUFORT

MOSSY OAKS BASIN 2 – WEST
FRP WALL PLAN & PROFILE

SHEET 6

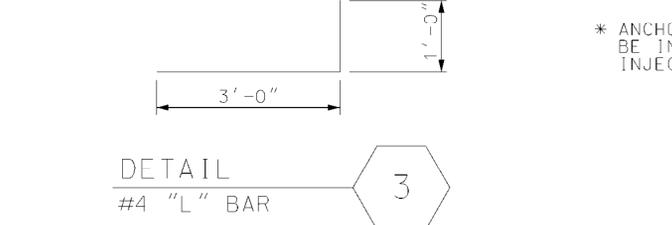
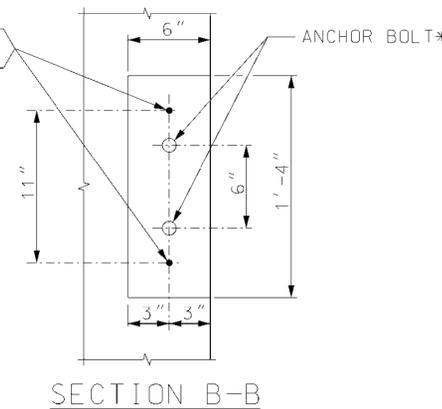
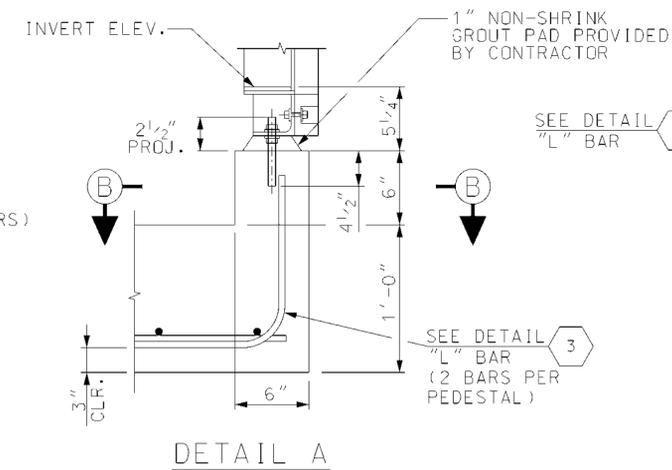
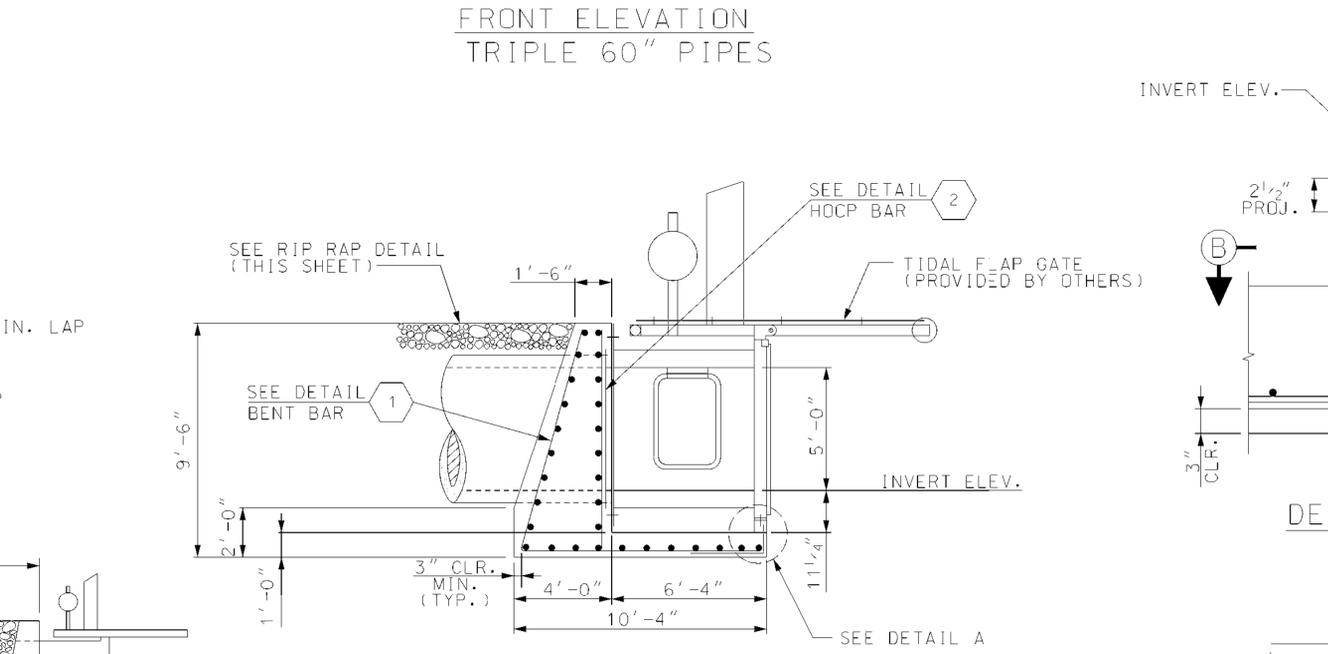
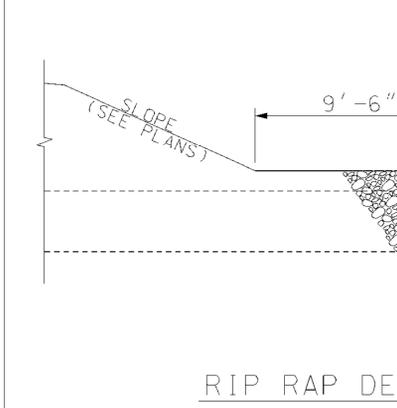
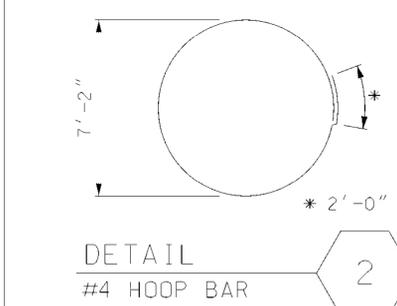
SCALE: 1"=50'

STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.
SC	BEAUFORT			SPANISH MOSS TRAIL	7



- NOTES:
- ALL CONCRETE SHALL BE CAST-IN-PLACE (CLASS 4000).
 - REINFORCING STEEL SHALL BE ASTM A-706, LOW-ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT, GRADE 60.
 - GROUT SHALL BE TYPE M MORTAR MATERIAL IN ACCORDANCE WITH SECTION 718 OF THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).
 - IN THE EVENT THE HEADWALL IS SKEWED TO THE PIPE, THE PORTION OF PIPE THAT PROTRUDES BEYOND THE EXPOSED FACE OF THE HEADWALL SHALL BE CUT FLUSH AND GROUTED SMOOTH WITH THE EXPOSED FACE OF THE HEADWALL.
 - PIPES SHALL BE GROUTED IN PLACE.
 - PIPES AND HEADWALL SHALL BE BACKFILLED AND COMPACTED AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS. THE CULVERTS SHALL BEAR ON A STONE MAT SUBGRADE. THE SUBGRADE SHALL BE EXCAVATED A MINIMUM OF 2 FEET AND BACKFILLED WITH WELL-GRADED SAND. AT THE BASE OF THE EXCAVATION, PLACE MIRAFI HP270 GEOTEXTILE OR APPROVED EQUIVALENT FOR REINFORCEMENT AND SEPARATION.
 - PIPE INVERTS SHALL BE SET IN ACCORDANCE WITH ELEVATIONS SPECIFIED IN THE SPANISH MOSS TRAIL IMPROVEMENT PLANS.
 - THE CONTRACT UNIT PRICE FOR STRAIGHT HEADWALL FOR CIRCULAR PIPES SHALL INCLUDE THE COST OF FURNISHING ALL MATERIALS AND WORK INCIDENTAL TO THE CONSTRUCTION OF THE STRUCTURE COMPLETE AND IN PLACE AS SHOWN (INCLUDING CLASS B RIP-RAP, TEMPORARY SHORING & DEWATERING) IN ACCORDANCE WITH THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).
 - CONTRACTOR SHALL INSTALL TEMPORARY SHORING AND DEWATER AS NECESSARY TO MAINTAIN A DRY, STABLE WORK ENVIRONMENT.
 - THE PAY ITEM SHALL BE:
STRAIGHT CONCRETE HEADWALL (60" PIPE 3 LINES) - EACH

FRONT ELEVATION TRIPLE 60" PIPES



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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	JFF	DATE 08/22/2019	
DRAWN BY:	JFF	DATE 08/22/2019	
CHECKED BY:	RAJ	DATE 08/22/2019	

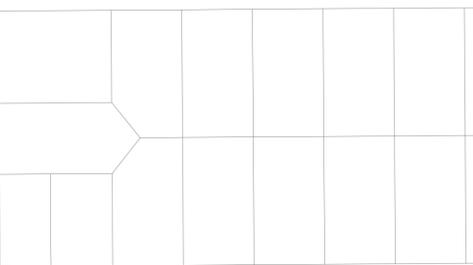
BEAUFORT COUNTY
CITY OF BEAUFORT

SPANISH MOSS TRAIL
BASIN 2
HEADWALL DETAILS

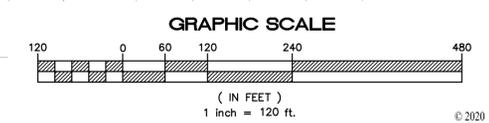
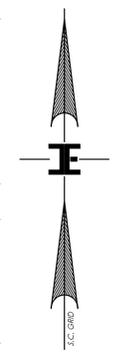
SHEET SCALE: NTS

STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.
SC	BEAUFORT				9

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USACE PROJECT LIMITS



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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	M. HAMMOND	DATE	07/11/2019
DRAWN BY:	L. WILEN	DATE	04/10/2020
CHECKED BY:	A. KLOSTERMAN	DATE	04/10/2020

BEAUFORT COUNTY
CITY OF BEAUFORT

MOSSY OAKS BASIN 2 – WEST
PROJECT LIMITS SHEET

SHEET 9 SCALE: 1"=120'