



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
1520 ROYAL PALM SQUARE BLVD., SUITE 310
FORT MYERS, FLORIDA 33919

September 18, 2019

Regulatory Division
West Permits Branch
Fort Myers Permits Section

PUBLIC NOTICE

Permit Application No. SAJ-2019-01500 (SP-SJF)

TO WHOM IT MAY CONCERN: The Jacksonville District of the U.S. Army Corps of Engineers (Corps) has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. §1344) as described below:

APPLICANT: Florida Fish and Wildlife Conservation Commission
Katherine Burke
1317 Winewood Blvd., Building 3 – Suite 315B
Tallahassee, Florida 32399

WATERWAY AND LOCATION: The project would affect waters of the United States associated with Powell Creek, Gator Slough Canal, Caloosahatchee River and Charlotte Harbor. The project site is located at approximately 33150 Oil Well Road, in Section(s) 22, 27 and 34, Township 42 South and Range 24 east in Punta Gorda, Charlotte County, Florida.

Directions to the site are as follows: from Punta Gorda, FL, travel south 10.5 miles on US 41 (Tamiami Trail), travel east 3.5 miles on Oil Well Road, travel south 0.3 miles on unpaved road (old Seaboard Air Line railroad/Zemel Grade) to property access gate.

APPROXIMATE CENTRAL COORDINATES: Latitude 26.79414°
Longitude -81.89741°

PROJECT PURPOSE:

Basic: Surface water management.

Overall: To construct and operate a flow equalization basin to alleviate flooding on the Babcock-Webb Wildlife Management Area (WMA) in Charlotte County, Florida.

EXISTING CONDITIONS: The Bond property consists of 669.09 acres, including 565.97 acres of freshwater wetlands; 49.9 acres of uplands; and 42.4 acres of other waters of the U.S. Onsite vegetation consists of wetland pastures, wet prairies, marshes, altered uplands including an abandoned railroad grade, open water, hydric pine flatwoods, and willow marshes. The existing area surrounding the project consists of extensive natural lands on the Babcock-Webb WMA, cattle pastures, low density

residential, natural preserves, and the Charlotte County Department of Corrections facility.

PROPOSED WORK: The applicant seeks authorization to dredge 2.73 acres of freshwater wetlands and 15.0 acres of other waters of the U.S.; fill 31.62 acres of wetlands and 8.86 acres of other waters of the U.S.; and flood 531.62 acres of wetlands and 17.87 acres of other waters of the U.S. for construction of a 669-acre Bond Farm Flow Equalization Basin to alleviate extensive flooding on the Babcock-Webb Wildlife Management Area (WMA). Other waters of the U.S. will be withdrawn from the WMA during the wet season for storage on Bond Farm up to 4' depth and discharged after the wet season south to the headwaters of Powell Creek, Gator Slough and Prairie Pines Preserve. The wet-season surface water withdrawals from the Babcock-Webb WMA will help restore extensive freshwater wetlands and uplands across the WMA that are severely flooded.

AVOIDANCE AND MINIMIZATION INFORMATION: The applicant has provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment:

The design of Bond Farm as a flow equalization basin requires construction of existing earthen berms around the property to maximize storage, necessitating unavoidable impacts to wetlands and waters. The fill impacts for the earthen berms were minimized as much as possible while meeting engineering requirements for stability, durability, and safety. In order to minimize adverse impacts to adjacent offsite wetlands, construction adjacent to any type of wetland or surface water will require the use of erosion control measures and the implementation of best management practices (BMP). Implementation of erosion control measures will protect water quality and adjacent habitats and will minimize impacts to the adjacent wetland systems.

COMPENSATORY MITIGATION: The Uniform Mitigation Assessment Method (UMAM) was utilized to assess the wetland impacts associated with the project. In accordance with the UMAM methodology, existing site conditions were evaluated for location/landscape, water environment, and vegetation structure to determine the functional value of the wetlands. The 973-acre wetland restoration area dedicated on the Babcock-Webb WMA adjacent to the Bond Farm provides compensatory mitigation for the onsite wetland impacts. Surface water level reductions across the WMA will reduce vegetative stress, restore tree and shrub growth rates, reestablish natural wetland and upland vegetation composition, and facilitate a natural fluctuation of wetland water levels. Actual effects of surface water impoundment extend much further east and north and the ultimate operation of Bond Farm has the potential to provide even greater wetland restoration over time.

CULTURAL RESOURCES: The Corps is aware of historic property/properties within or in proximity of the permit area. The Corps has received correspondence from the State Historic Preservation Office dated July 12, 2019 (DHR Project File No.: 2019-2606-B), concurring with the presented NRHP-ineligible determination of the portion of

8CH02055 within the project, and the determination of no effect to historic properties listed, or eligible for listing, in the NRHP, or otherwise of historical, architectural, or archaeological value. The Corps will initiate consultation with the State Historic Preservation Office and those federally recognized tribes with concerns in Florida and the Permit Area, and the Advisory Council on Historic Preservation as applicable pursuant to 33 CFR 325, Appendix C and Section 106 of the National Historic Preservation Act, by separate letter.

ENDANGERED SPECIES: The Corps has reviewed the following endangered species and the affects the proposed project may have on the Eastern indigo snake (*Drymarchon corais couperi*), Florida panther (*Puma concoryli*), Florida bonneted bat (*Eumops floridanus*), Red-Cockaded Woodpecker (*Picoides borealis*), Audubon's crested caracara (*Caracara cheriway*), Florida scrub-jay (*Aphelocoma coerulescens*) and wood stork (*Mycteria americana*).

Florida bonneted bat: The Corps has determined the proposed project “may affect” the Florida bonneted bat. The project is located in the Focal Area of the species. This determination is based on the Draft Bonneted Bat key which resulted in the following sequential determination: 1-May Affect. The Corps will request U.S. Fish and Wildlife Service concurrence with this determination pursuant to Section 7 of the Endangered Species Act.

Eastern indigo snake: The Corps has made the determination of “may affect”, for the Eastern indigo snake (*Drymarchon corais couperi*). Based on the Eastern Indigo Snake Effect Determination Key (dated August 1, 2017), the Corps determination sequence resulted in A-B-C-May affect. This determination is based on the proposed project impacts to greater than 25 acres of Eastern indigo snake habitat. The Corps will request U.S. Fish and Wildlife Service concurrence with this determination pursuant to Section 7 of the Endangered Species Act.

Wood Stork: The Corps has made the determination of “may affect, but is not likely to adversely affect” (MANLAA) for the wood stork and its designated critical habitat. The Corps has concurrence with this determination pursuant to The Corps of Engineers, Jacksonville District, U.S. Fish and Wildlife Service, South Florida Ecological Services Field Office and State of Florida Effect Determination Key for the Wood Stork in South Florida, January 2010 (Wood Stork Key). Use of the Wood Stork Key resulted in the following sequential determination: A-B-C-E-NLAA. The project lies within the buffer for the 619012, 616165 and 619041 colony sites, and does affect suitable foraging habitat (SFH). The Corps has U.S. Fish and Wildlife Service concurrence for the proposed activities through use of the aforementioned determination key.

Red-cockaded woodpecker and Audubon's crested caracara: The Corps has determined the project “may affect, but is not likely to adversely affect” (MANLAA) on the red-cockaded woodpecker and the Audubon's crested caracara. The project lies within the consultation area for the red-cockaded woodpecker and the Audubon's crested caracara, and potential habitat is present at the project site. The Corps will

request U.S. Fish and Wildlife concurrence with this determination pursuant to Section 7 of the Endangered Species Act by separate letter.

Florida scrub-jay: The Corps has determined the proposed project may affect, but is not likely to adversely affect the Florida scrub-jay (*Aphelocoma coerulescens*). The proposed project is within the consultation area for the Florida scrub-jay. No habitat types utilized by Florida scrub-jays are found within or adjacent to the project area. The Corps will request U.S. Fish and Wildlife concurrence with this determination pursuant to Section 7 of the Endangered Species Act

The Corps has determined the proposal would have no effect on the Florida panther.

ESSENTIAL FISH HABITAT (EFH): This notice initiates consultation with the National Marine Fisheries Service on EFH as required by the Magnuson-Stevens Fishery Conservation and Management Act 1996. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

NOTE: This public notice is being issued based on information furnished by the applicant. This information has not been verified or evaluated to ensure compliance with laws and regulation governing the regulatory program. The jurisdictional line has not been verified by Corps personnel.

AUTHORIZATION FROM OTHER AGENCIES: Water Quality Certification may be required from the Florida Department of Environmental Protection and/or one of the state Water Management Districts.

COMMENTS regarding the potential authorization of the work proposed should be submitted in writing to the attention of the District Engineer through the Fort Myers Permits Section, 1520 Royal Palm Square Blvd, Suite 310, Ft. Myers, Florida 33919 within 21 days from the date of this notice.

The decision whether to issue or deny this permit application will be based on the information received from this public notice and the evaluation of the probable impact to the associated wetlands. This is based on an analysis of the applicant's avoidance and minimization efforts for the project, as well as the compensatory mitigation proposed.

QUESTIONS concerning this application should be directed to the project manager, Stephen J. Fleming, in writing at the Ft. Myers Permits Section, 1520 Royal Palm Square Blvd, Suite 310, Ft. Myers, Florida 33919; by electronic mail at Stephen.J.Fleming@usace.army.mil; by facsimile transmission at (239) 334-0797; or, by telephone at (239) 334-1975.

IMPACT ON NATURAL RESOURCES: Coordination with U.S. Fish and Wildlife Service, Environmental Protection Agency (EPA), the National Marine Fisheries

Services, and other Federal, State, and local agencies, environmental groups, and concerned citizens generally yields pertinent environmental information that is instrumental in determining the impact the proposed action will have on the natural resources of the area.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including cumulative impacts thereof; among these are conservation, economics, esthetics, general environmental concerns, wetlands, historical properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food, and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people. Evaluation of the impact of the activity on the public interest will also include application of the guidelines promulgated by the Administrator, EPA, under authority of Section 404(b) of the Clean Water Act or the criteria established under authority of Section 102(a) of the Marine Protection Research and Sanctuaries Act of 1972. A permit will be granted unless its issuance is found to be contrary to the public interest.

The US Army Corps of Engineers (Corps) is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other Interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this determination, comments are used to assess impacts to endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

COASTAL ZONE MANAGEMENT CONSISTENCY: In Florida, the State approval constitutes compliance with the approved Coastal Zone Management Plan. In Puerto Rico, a Coastal Zone Management Consistency Concurrence is required from the Puerto Rico Planning Board. In the Virgin Islands, the Department of Planning and Natural Resources permit constitutes compliance with the Coastal Zone Management Plan.

REQUEST FOR PUBLIC HEARING: Any person may request a public hearing. The request must be submitted in writing to the District Engineer within the designated comment period of the notice and must state the specific reasons for requesting the public hearing.



FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

1317 WINEWOOD BLVD. BUILDING 3 - SUITE 315B, TALLAHASSEE, FL 32399



1800 OLD DKEECHOBEE RD
WEST PALM BEACH, FLORIDA
PHONE (561) 615-8880 FAX (561) 615-8858
WWW.ADAENGINEERING.NET

BOND FARM HYDROLOGICAL ENHANCEMENT

CHARLOTTE COUNTY, FLORIDA

COMMISSIONERS

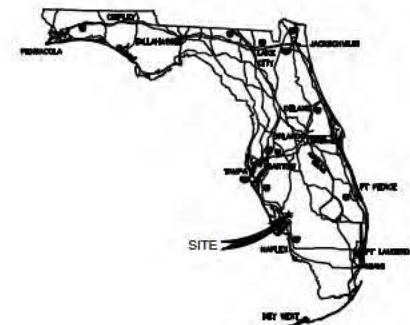
ROBERT A. SPOTTSWOOD (CHAIRMAN)
MICHAEL W. SOLE (VICE CHAIRMAN)
JOSHUA KELLAM
GARY LESTER
GARY NICKLAUS
SONYA ROOD

JULY 2019



LOCATION MAP

1" = 3000'



VICINITY MAP
N.T.S.



NOTES:

1. THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA FISH AND WILDLIFE, ARMY CORPS OF ENGINEERS, AND CHARLOTTE COUNTY ENGINEERING STANDARDS.
2. ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ENLARGED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

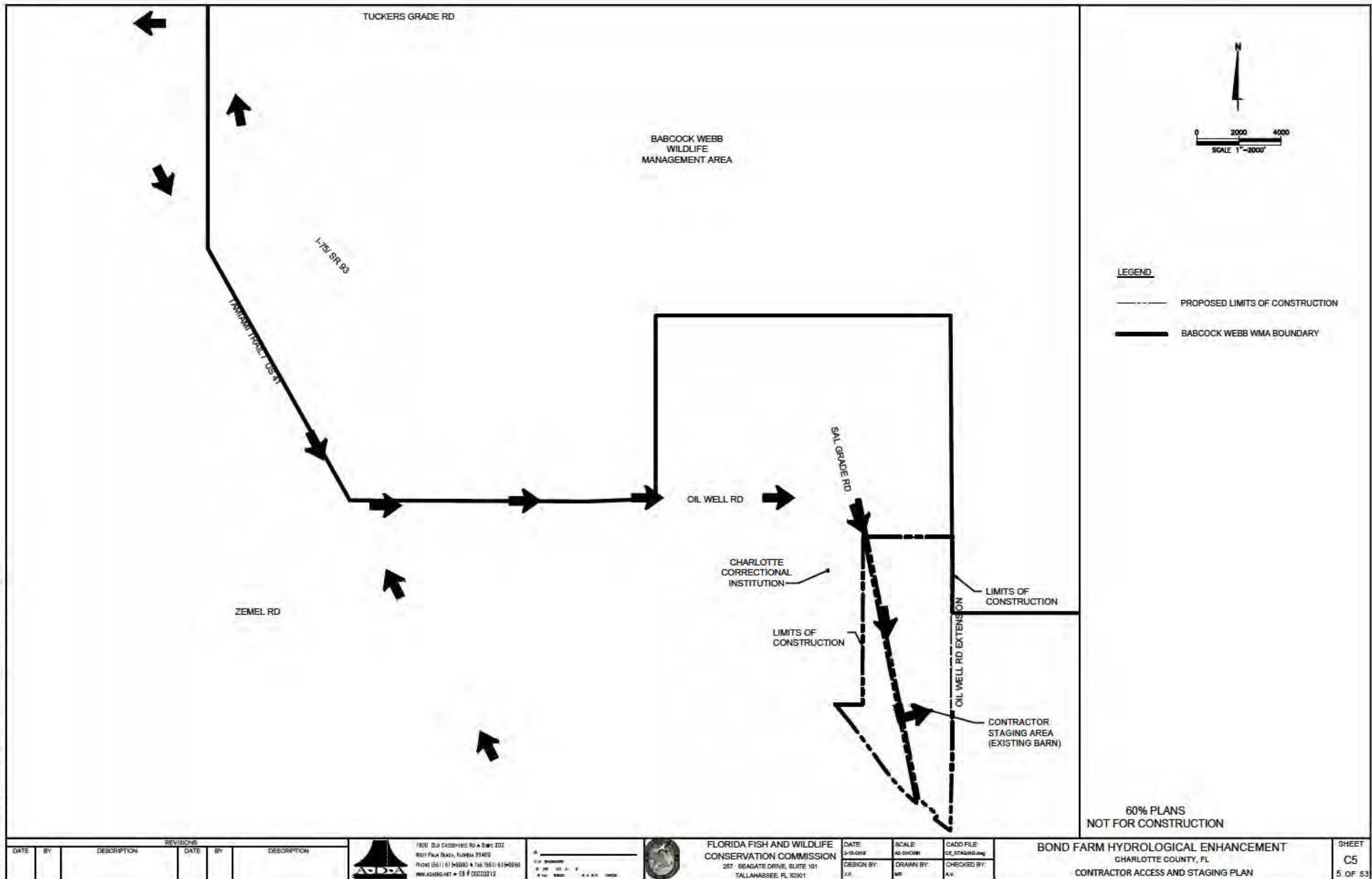
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NOT FOR CONSTRUCTION

ENGINEER OF RECORD:

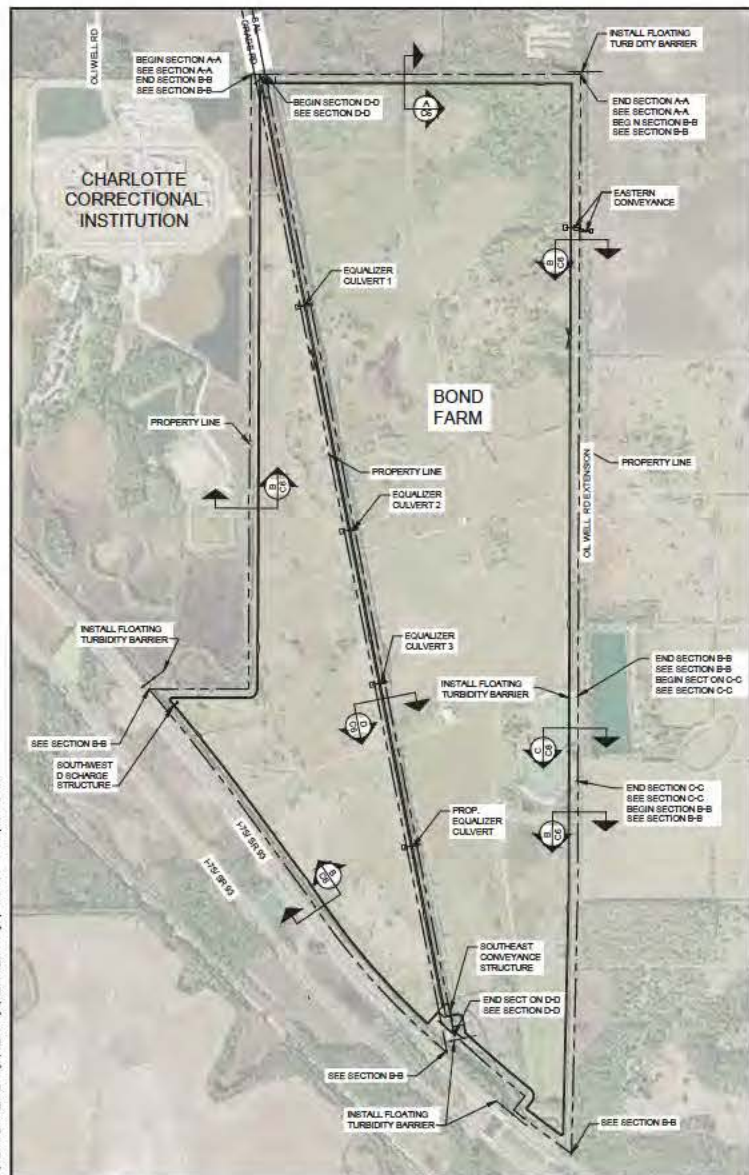
JEFFREY VOLLAT
FLORIDA REGISTRATION P.E. No. 63930



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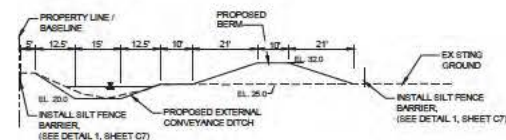
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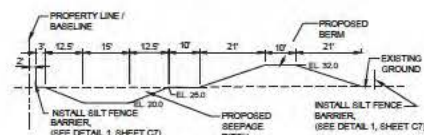
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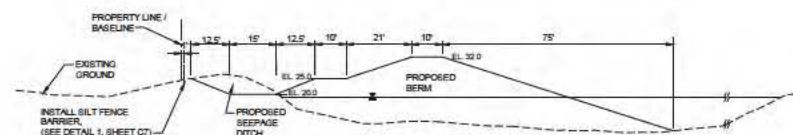
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STRUCTURE LOCATION SITES, SEE SHEET C-9 TO C-12.



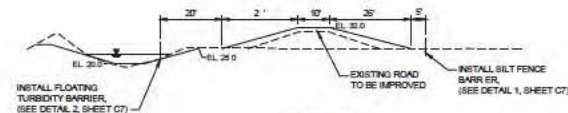
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SECTION B-B
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SECTION C-C
SCALE 1"=10'



SECTION D-D
SCALE 1"=10'

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DATE		BY	DESCRIPTION	DATE		BY	DESCRIPTION



18700 Old Dixie Highway Rd • Suite 202
Nashville, TN 37204 • Phone (615) 615-6000 • Fax (615) 615-6000
WWW.FWC.TN.GOV • 1-800-368-3800

DATE: 4-15-2019
DESIGNED BY: J.V.
DRAWN BY: MR.
CHECKED BY: A.V.



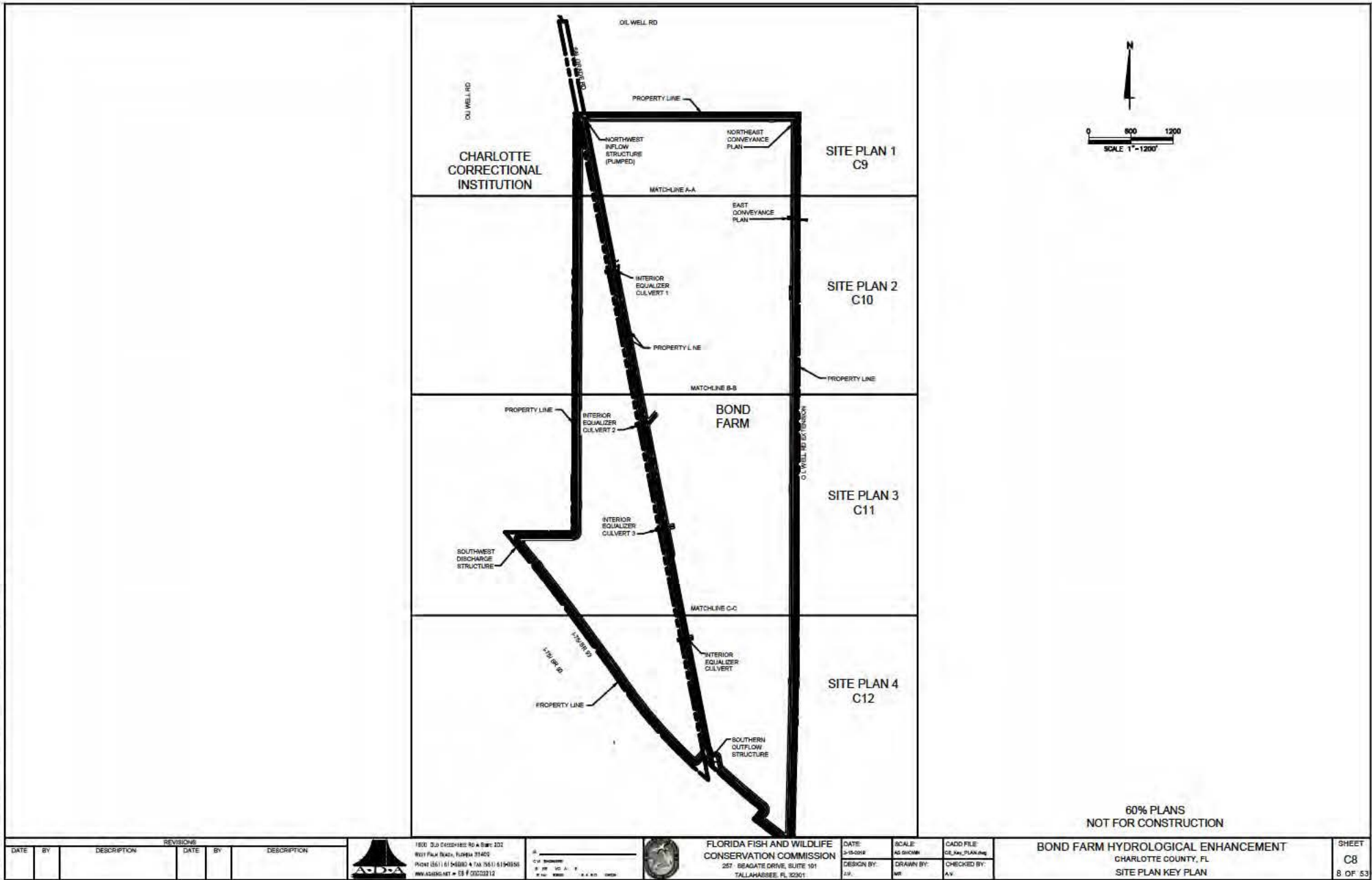
FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 SEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301

DATE: 4-15-2019
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DESIGNED BY: J.V.
DRAWN BY: MR.
CHECKED BY: A.V.

BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
STORMWATER POLLUTION PREVENTION PLAN

SHEET
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8 OF 53

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REVISIONS							
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1800 OLD DODD HILL RD • SUITE 202
WEST PALM BEACH, FLORIDA 33409
PHONE (561) 615-6000 • FAX (561) 615-6056
WWW.FWC.FL • 55 # 00000001

FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 BEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301

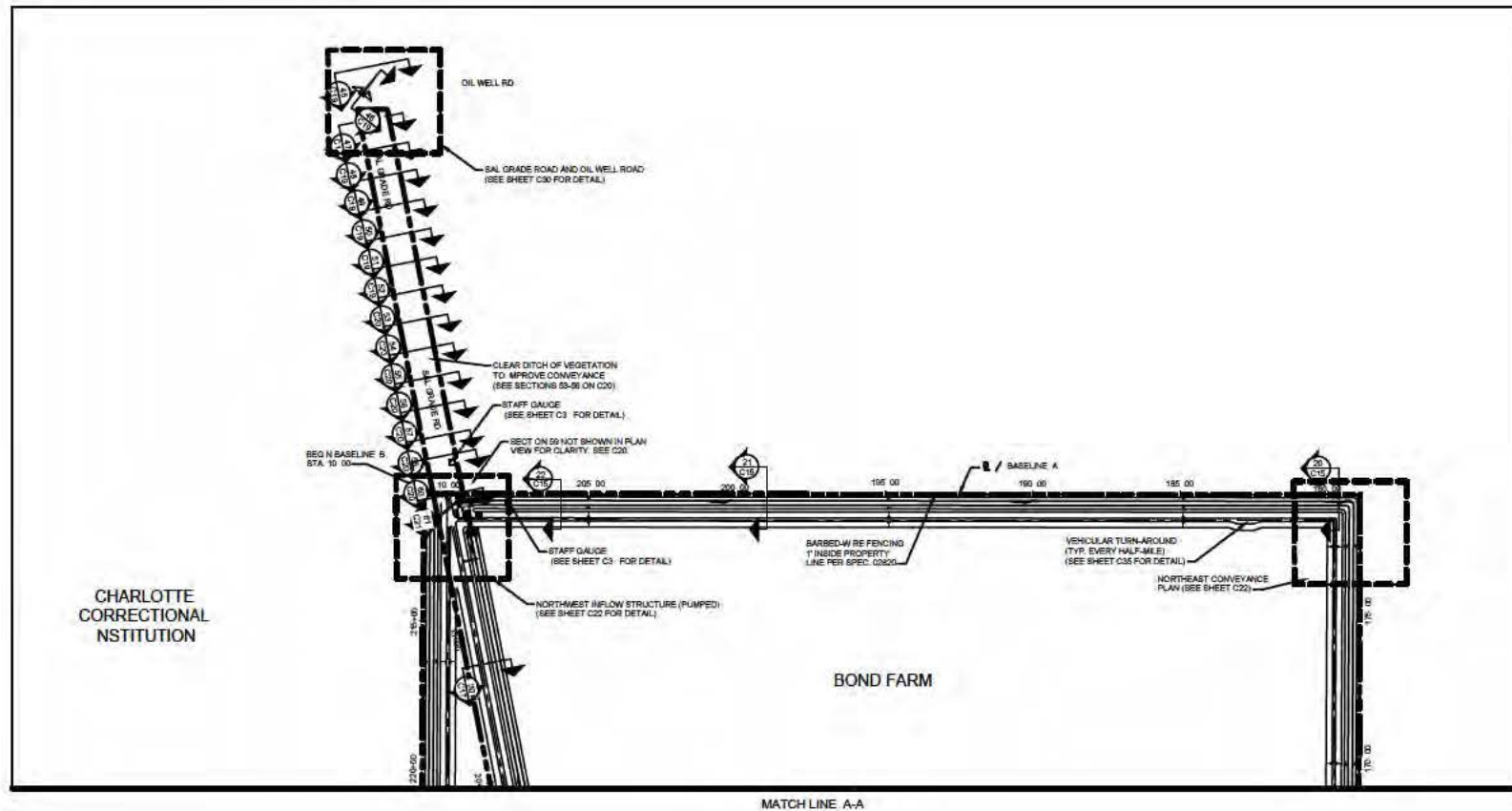


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BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
SITE PLAN KEY PLAN
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8 OF 53

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SECTION LOCATIONS PLAN
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1800 DLA 04524422 RD # 500 222
1001 Palm Beach, Florida 33405
Phone (561) 615-0000 & Fax (561) 615-0055
WWW.FWC.COM # 18 # 00000000

FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 BEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301

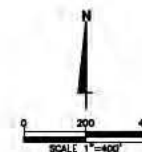
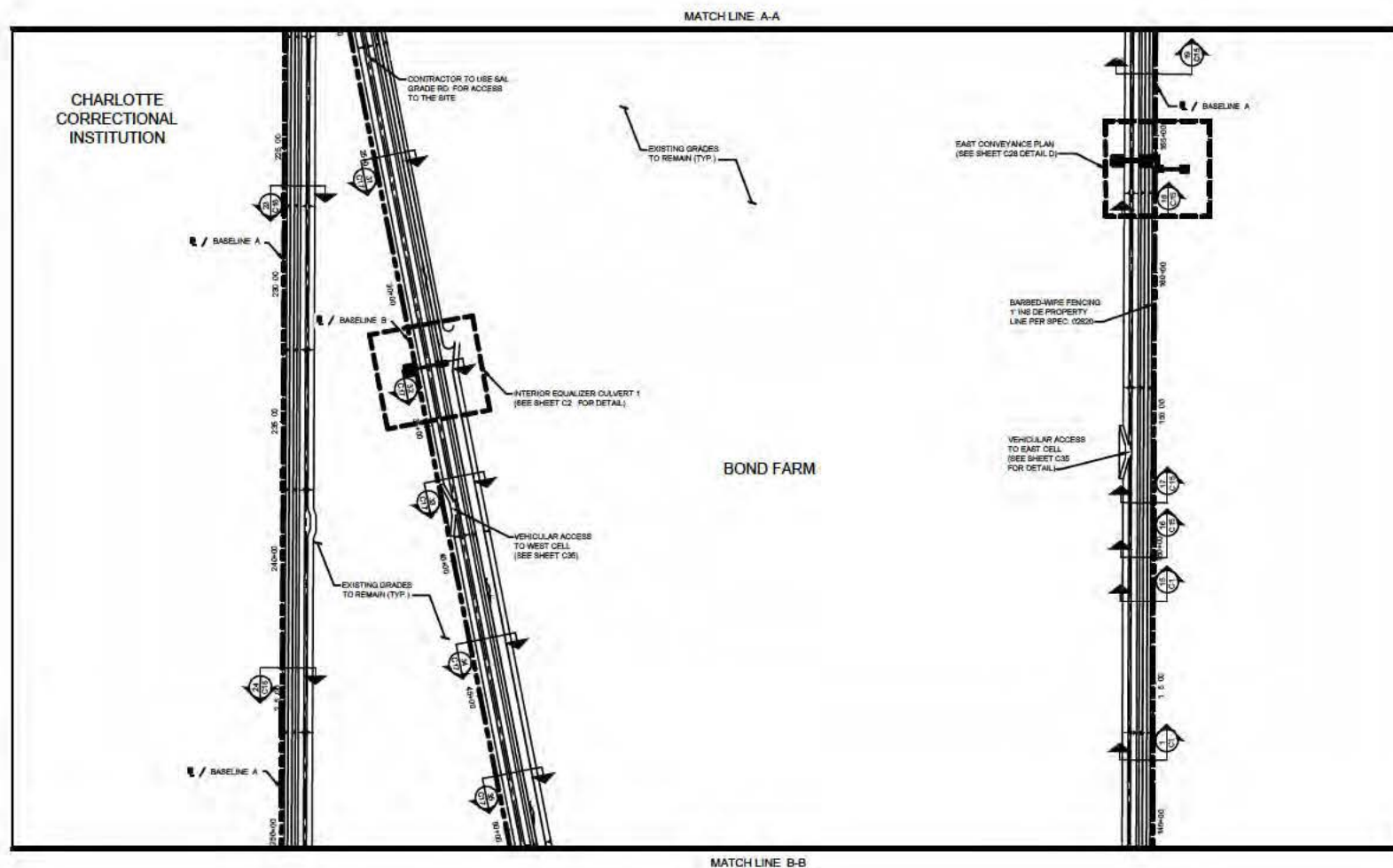


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DRAWN BY: A.V.
CHECKED BY: A.V.

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BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
SITE PLAN 1

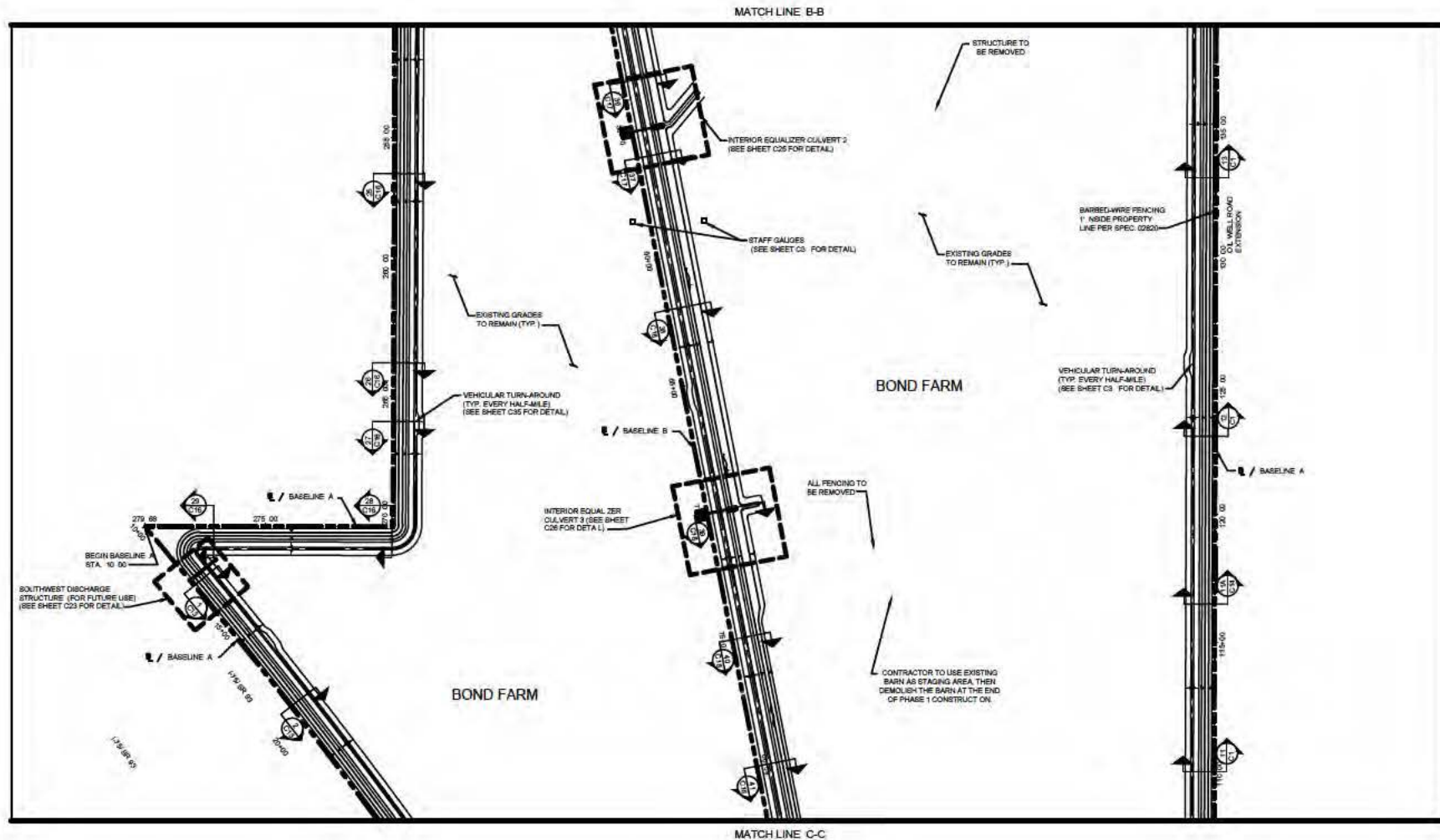
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9 OF 53



60% PLANS
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SECTION LOCATIONS PLAN
SCALE: 1"=100'

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



18000 DLA 04501402 90 4 501 202
1801 Palm Beach, Florida 33409
Phone (561) 615-4000 4 Fax (561) 615-4056
WWW.FWC.FL.GOV

FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 BEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301



DATE: 3-15-2019
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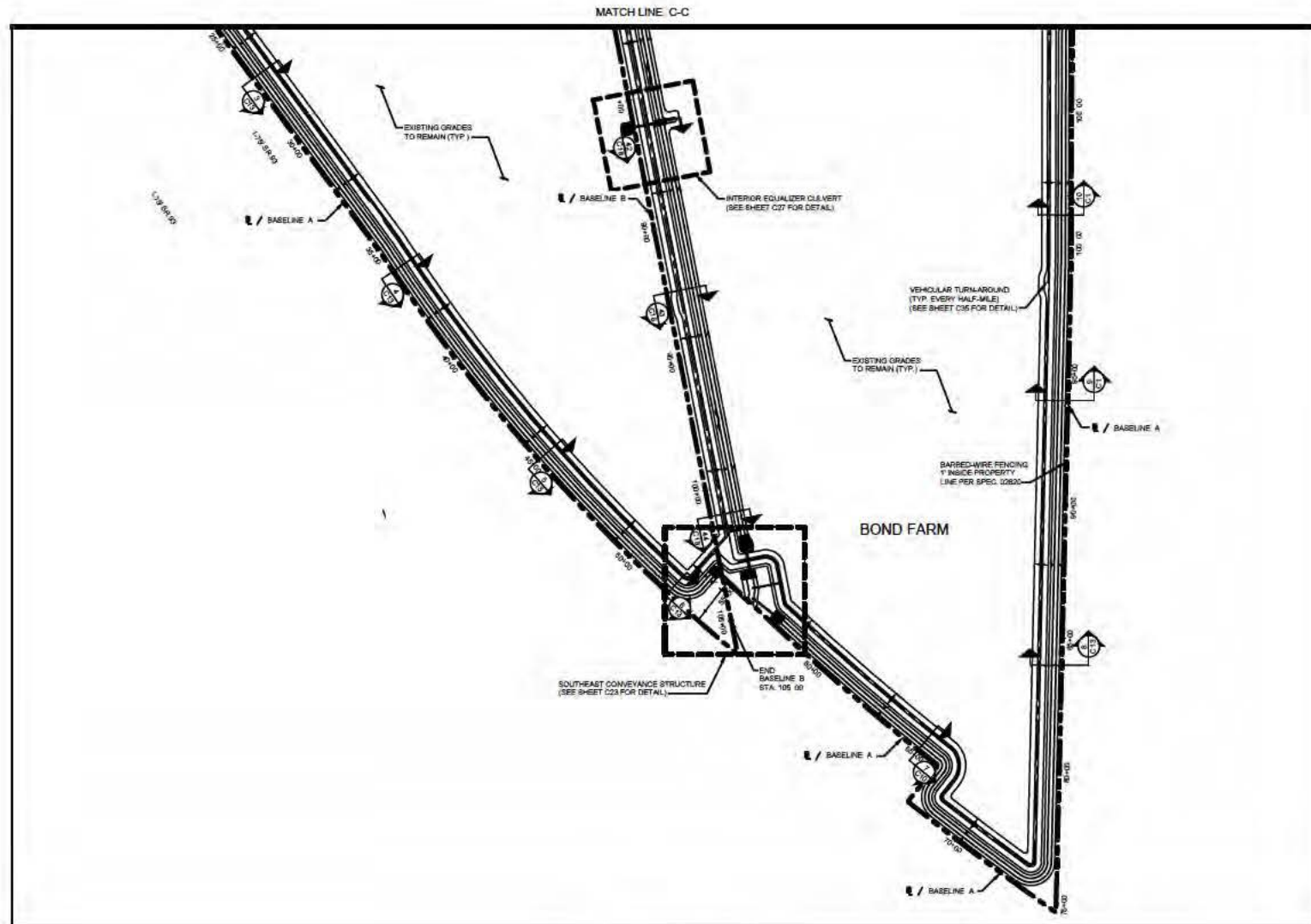
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BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
SITE PLAN 3

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SECTION LOCATIONS PLAN
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REVISIONS					
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1800 OLD DODD HILL RD. # 200
WEST PALM BEACH, FLORIDA 33405
PHONE (561) 615-0000 & (561) 615-0001
WWW.FWCC.FLORIDA.GOV



FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 BEACON DRIVE, SUITE 101
TALLAHASSEE, FL 32301

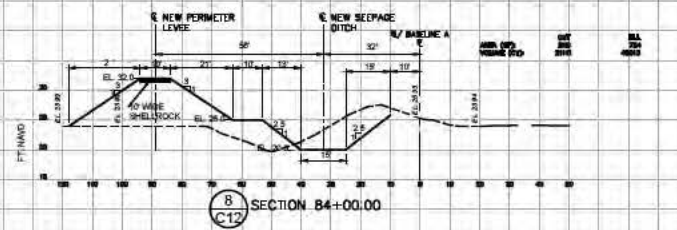
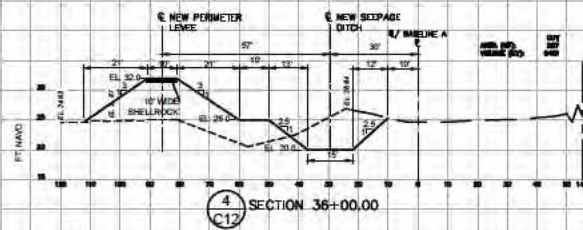
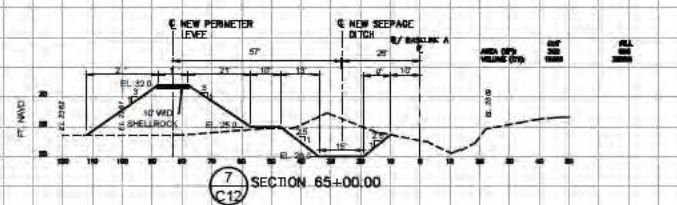
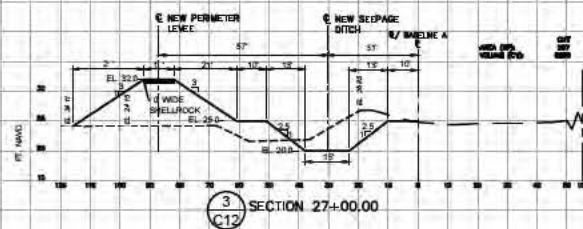
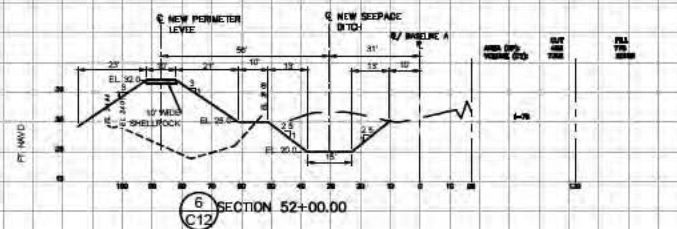
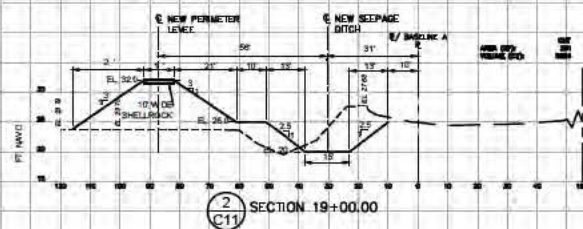
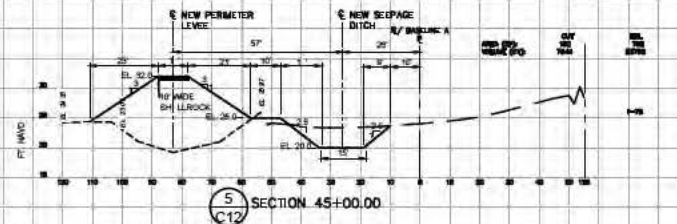
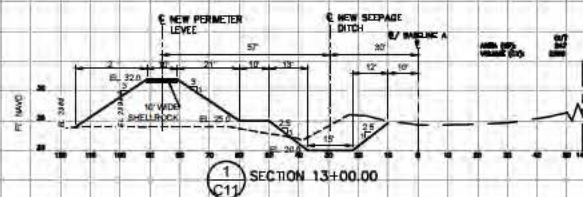
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MR

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A.V.

BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
SITE PLAN 4

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LEGEND

PROPOSED FINISHED GRADE.

EXISTING GRADE BASED ON 2017 NAD-1983 L.DAR DATA FROM ESRI

NOTE: EXISTING GRADES NOT AVAILABLE FROM TOPOGRAPHIC SURVEY WERE SUPPLEMENTED WITH LIDAR DATA.

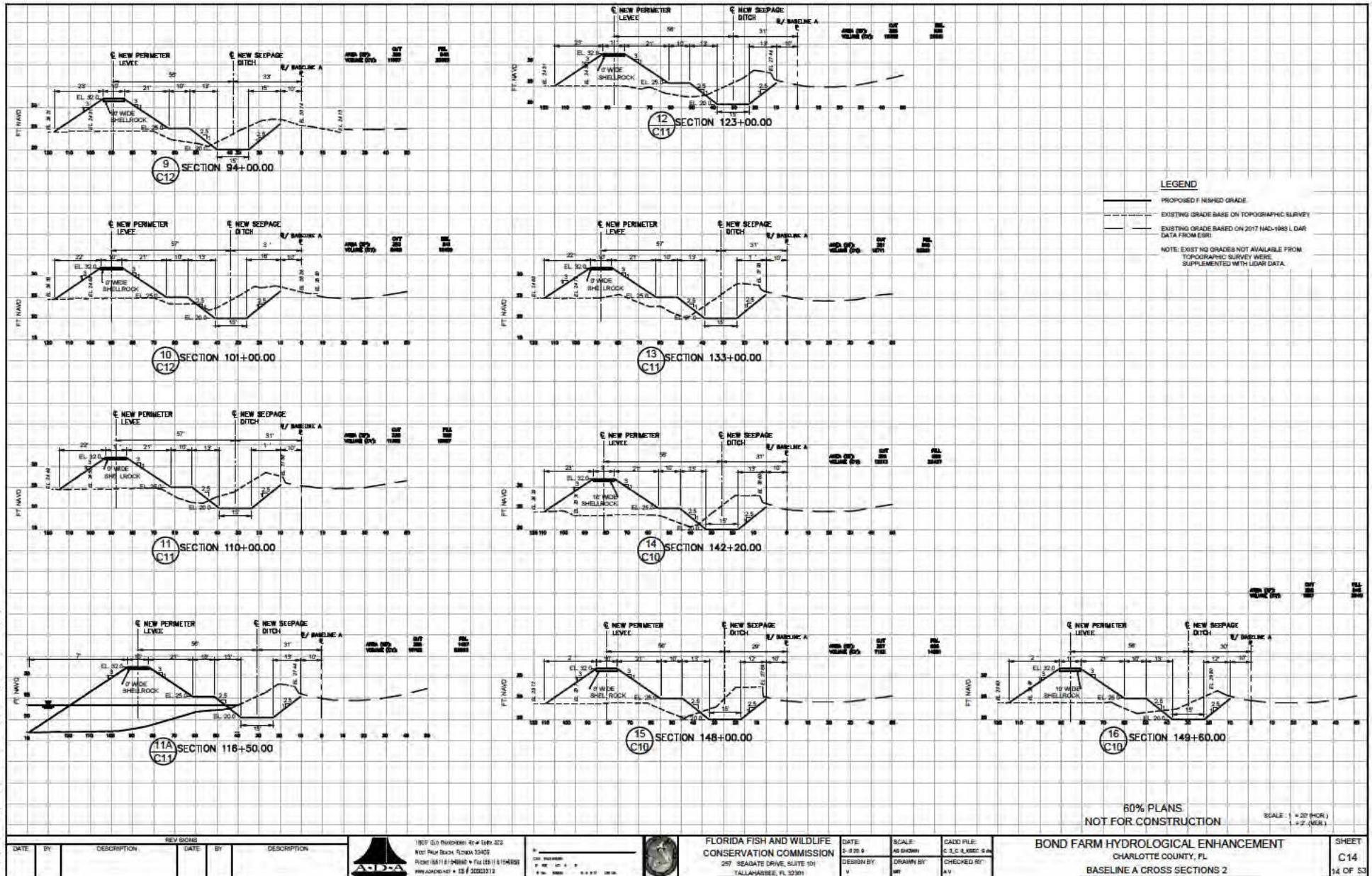
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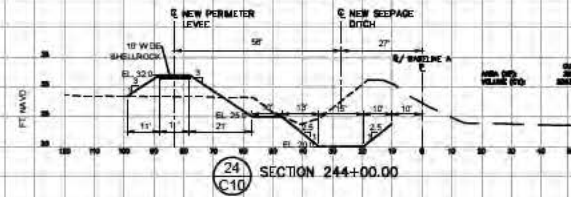
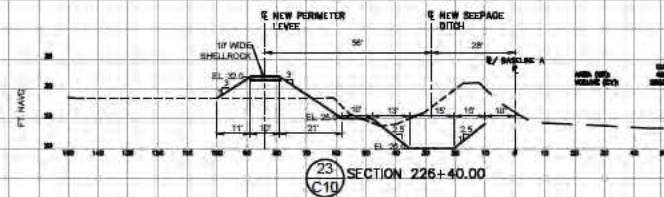
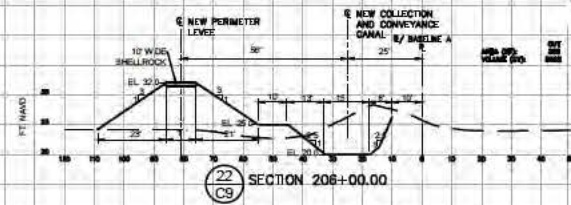
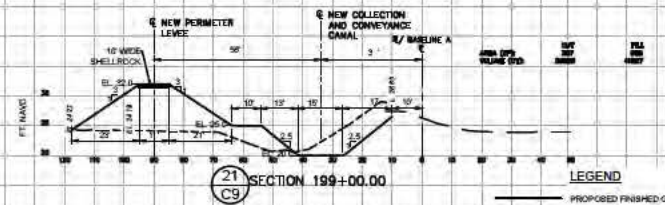
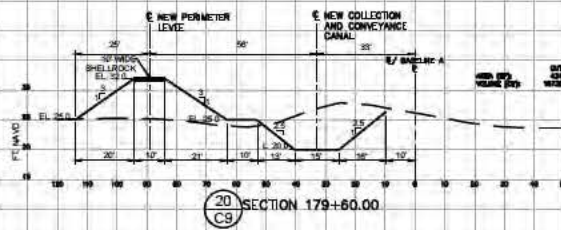
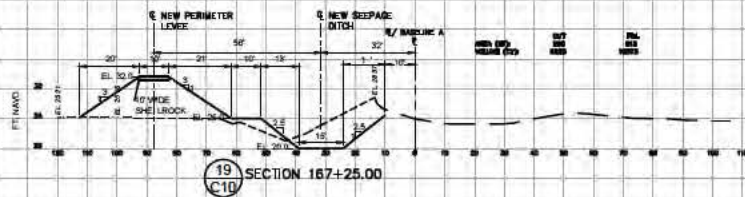
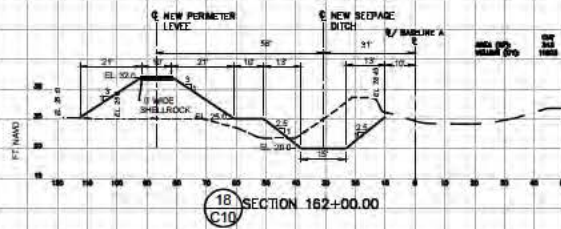
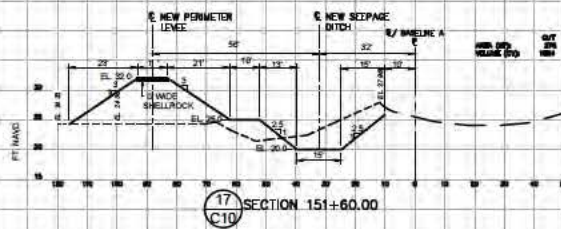
SCALE: 1" = 20' (HOR.)
1" = 2' (VER.)

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P:\Projects\2007 BON FARM\207_Bond_Farm_Plan_CrossSections\121_C11_050223.dwg Aug 13, 2019 - 1:23pm -JCL



P:\Projects\2027 Bond Farm Hydrological Enhancement\2027_Bond_Farm_Hydrological_Enhancement\2027_Bond_Farm_Hydrological_Enhancement.dwg, Aug 13, 2019 - 11:23am - JGJLJ



LEGEND

— PROPOSED FINISHED GRADE

- - - EXISTING GRADE BASE ON TOPOGRAPHIC SURVEY

- - - EXISTING GRADE BASED ON 2017 HAD-1083 LAR DATA FROM EBR.

NOTE: EXISTING GRADES NOT AVAILABLE FROM TOPOGRAPHIC SURVEY WERE SUPPLEMENTED WITH LIDAR DATA.

60% PLANS
NOT FOR CONSTRUCTION

SCALE: 1" = 20' (HORIZ)
1" = 2' (VERT)

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



1907 Old Manatee River Water Control
Atter Pond Basin, Section 15405
RIDGE 1011 (11) NORTH V. TID 1011 (11) NORTH
PROJECT # 12 / 20203313

DATE: 8-13-2019
DESIGN BY: V
SCALE: 1" = 20' (HORIZ)
DRAWN BY: V
CHECKED BY: V



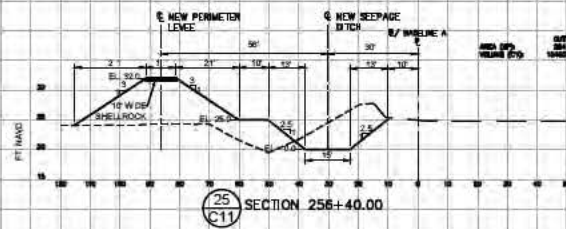
FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 SEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301

DATE: 8-13-2019
DESIGN BY: V
SCALE: 1" = 20' (HORIZ)
DRAWN BY: V
CHECKED BY: V

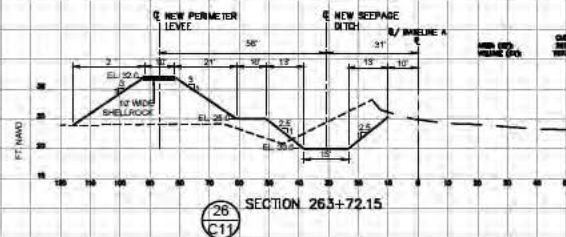
BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
BASELINE A CROSS SECTIONS 3

SHEET
C15
15 OF 53

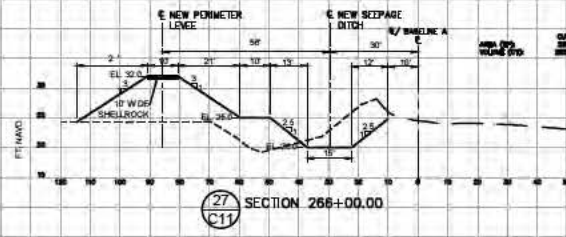
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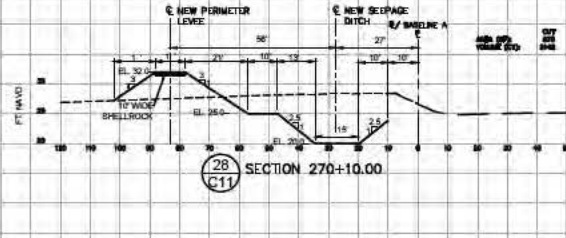
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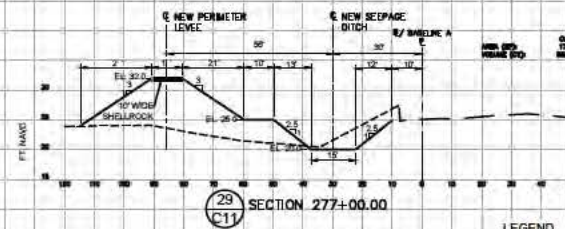
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(27)
C11 SECTION 268+00.00



(28)
C11 SECTION 270+10.00



(29)
C11 SECTION 277+00.00

LEGEND

— PROPOSED FINISHED GRADE

--- EXISTING GRADE BASE ON TOPOGRAPHIC SURVEY

--- EXISTING GRADE BASED ON 2017 MAG-1985 L.D.A.R. DATA FROM FSR

NOTE: EXISTING GRADE IS NOT AVAILABLE FROM TOPOGRAPHIC SURVEY WERE SUPPLEMENTED WITH LIDAR DATA.

60% PLANS
NOT FOR CONSTRUCTION

SCALE: 1" = 20' (HORIZ)
1" = 2' (VERT)

REV		DESCRIPTION	
DATE	BY	DATE	DESCRIPTION



1907 Old Manatee Rd. W. Suite 202
Rt. 100, Seaside, FL 32085
Phone: (904) 241-1000 or (904) 241-1040
FAX: (904) 241-1000



FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 SEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301

DATE:
DESIGN BY:
BY

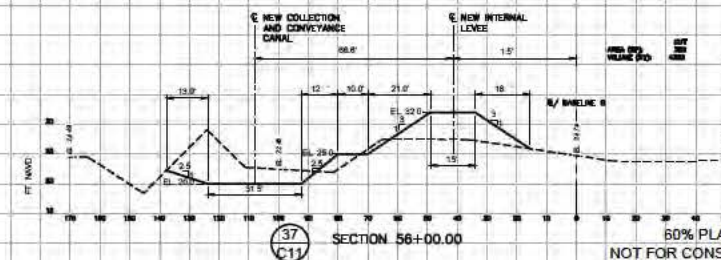
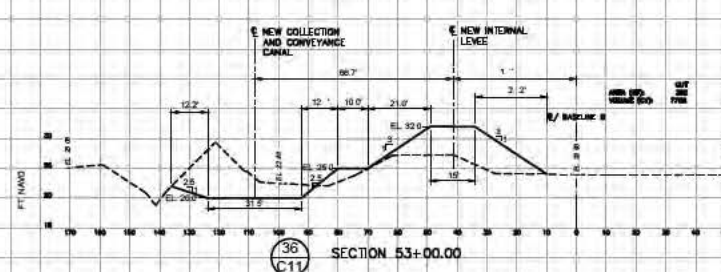
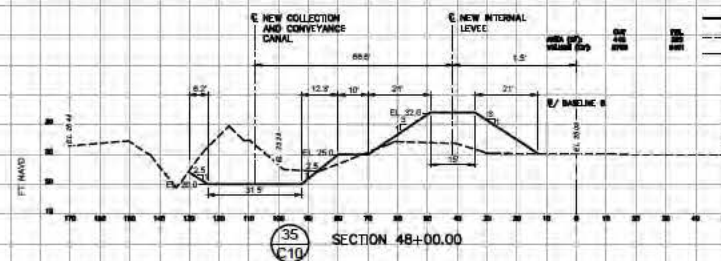
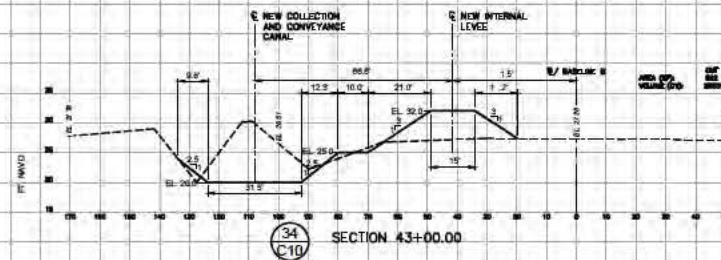
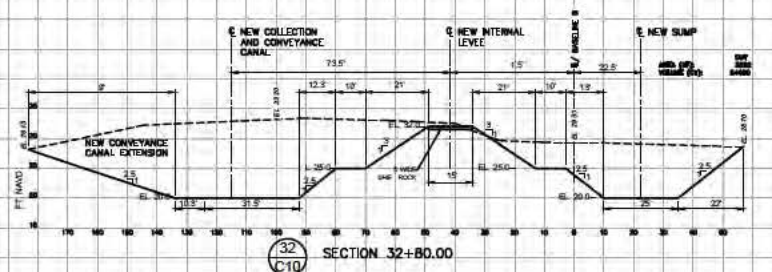
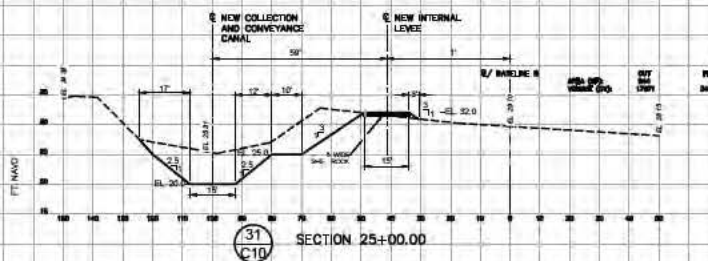
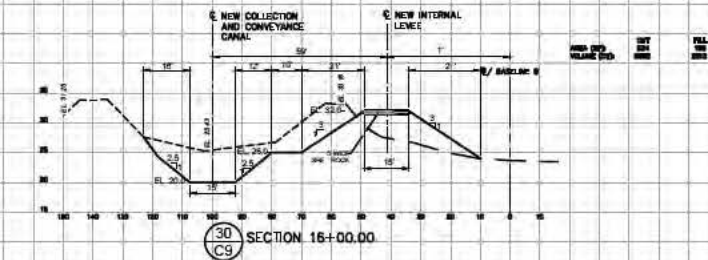
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NO. DRAWN
DRAWN BY:
BY

CADD FILE:
C 12 - LARSEN: 8/14/19
CHECKED BY:
BY

BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
BASELINE A CROSS SECTIONS 4

SHEET
C16
16 OF 53

P:\projects\2021\BOND_FARM_Hydro\Drawings\C17_C18_C19_C20.dwg, Aug 13, 2019 - 1:24pm - JGJL



LEGEND

- PROPOSED FINISHED GRADE
- EXISTING GRADE BASED ON TOPOGRAPHIC SURVEY
- EXISTING GRADE BASED ON 2017 NAD-1983 LIDAR DATA FROM ESRI
- NOTE: EXISTING GRADES NOT AVAILABLE FROM TOPOGRAPHIC SURVEY WERE SUPPLEMENTED WITH LIDAR DATA

60% PLANS
NOT FOR CONSTRUCTION

SCALE: 1" = 20' (HORIZ)
1" = 2' (VERT)

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



1807 Old Henderson Rd. W. Suite 202
Apopka, FL 34812
Phone: (813) 915-1000 or (813) 915-1000
Fax: (813) 915-1000
www.fwc.com

DATE	BY	DESCRIPTION



FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 SEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301

DATE	BY	DESCRIPTION

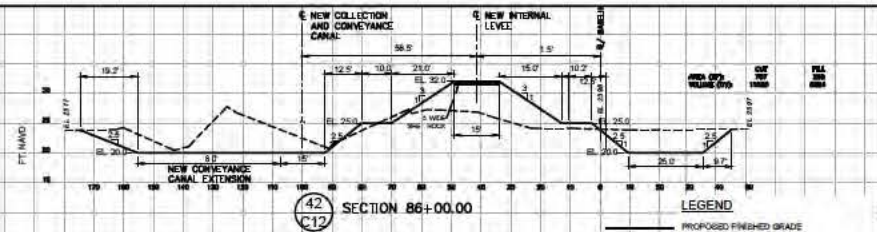
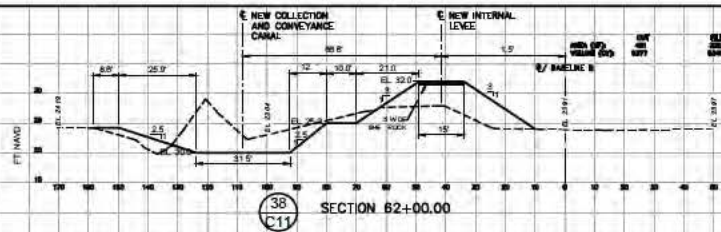
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CADD FILE	BY	DESCRIPTION

BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
BASELINE B CROSS SECTIONS 5

SHEET
C17
17 OF 53

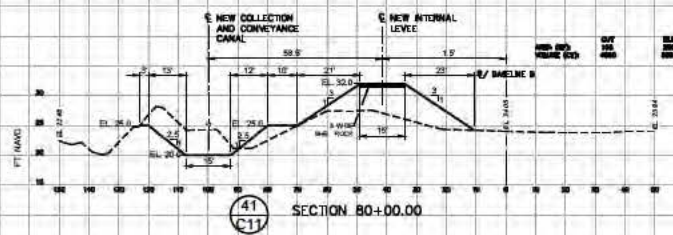
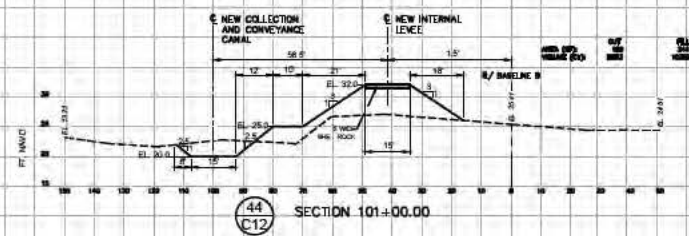
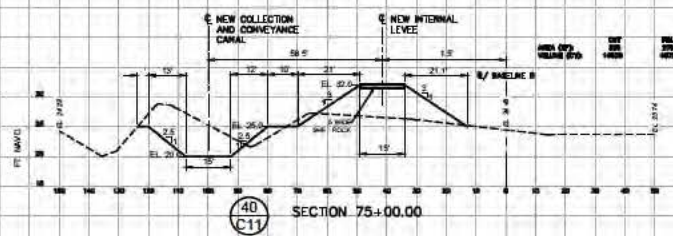
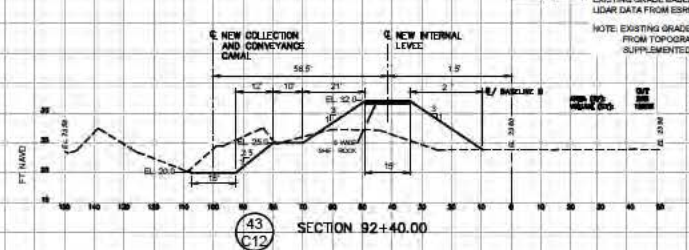
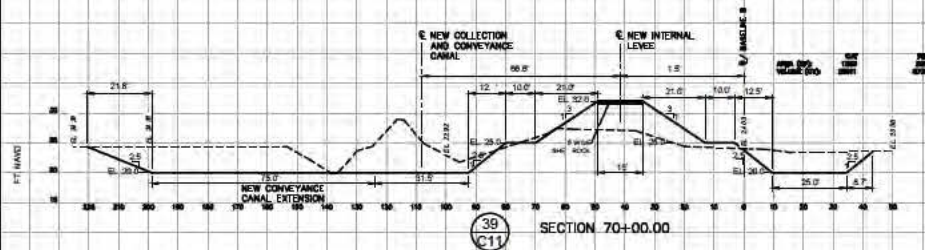
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LEGEND

- PROPOSED FINISHED GRADE
- EXISTING GRADE BASED ON TOPOGRAPHIC SURVEY
- EXISTING GRADE BASED ON 2017 IAD-1985 LIDAR DATA FROM ESRI

NOTE: EXISTING GRADES NOT AVAILABLE FROM TOPOGRAPHIC SURVEY WERE SUPPLEMENTED WITH LIDAR DATA



60% PLANS
NOT FOR CONSTRUCTION

SCALE: 1" = 20' (HOR.)
1" = 2' (VER.)

REV		DATE		DESCRIPTION	
DATE	BY	DATE	BY	DATE	DESCRIPTION



1907 Old Manatee Rd. #100
Rt. 100, Manatee, FL 34455
Phone: (813) 941-1111 or (813) 941-1111
Fax: (813) 941-1111
E-mail: fwc@fwc.com

DATE: 8/13/2019
DESIGN BY: V
SCALE: AS SHOWN
DRAWN BY: M
CHECKED BY: AV

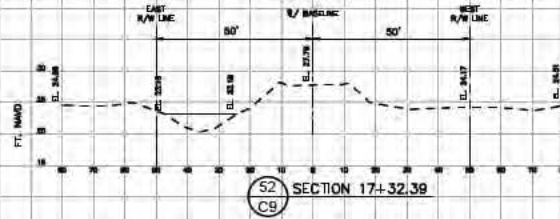
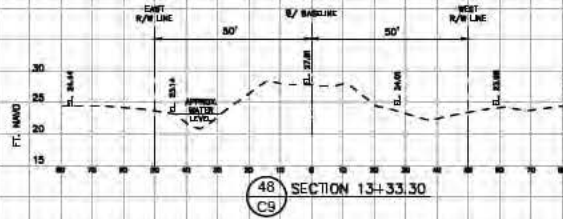
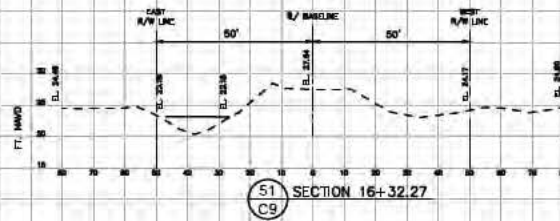
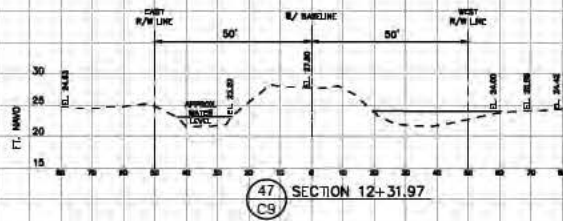
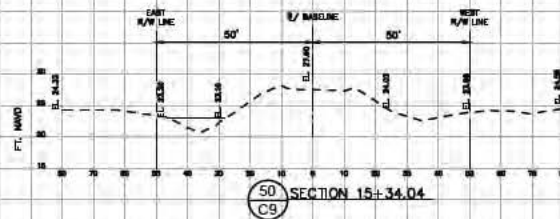
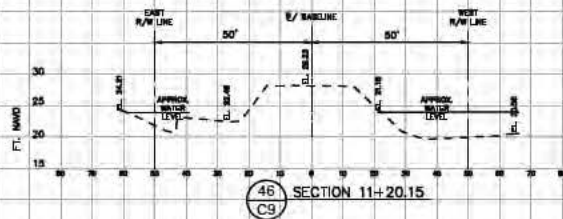
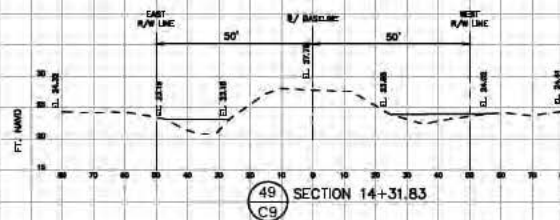
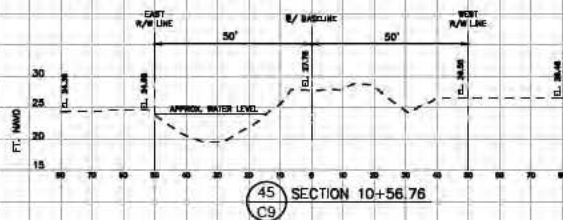


FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 SEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301

DATE: 8/13/2019
DESIGN BY: V
SCALE: AS SHOWN
DRAWN BY: M
CHECKED BY: AV

BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
BASELINE B CROSS SECTIONS 8

SHEET
C18
18 OF 53



LEGEND
 — PROPOSED FINISHED GRADE
 - - - EXISTING GRADE BASE ON TOPOGRAPHIC SURVEY
 NOTE: EXISTING GRADES NOT AVAILABLE FROM TOPOGRAPHIC SURVEY WERE SUPPLEMENTED WITH LOAN DATA.

50% PLANS
 NOT FOR CONSTRUCTION

SCALE: 1" = 20' (HOR.)
 1" = 10' (VER.)

REVISIONS			
DATE	BY	DESCRIPTION	



1800 GULF SHORE DRIVE, SUITE 300
 WEST PALM BEACH, FL 33411
 PHONE: (561) 851-4000 • FAX: (561) 851-4000
 WWW.FWC.FL • 1-800-368-3271

FWC
 1" = 20' (HOR.)
 1" = 10' (VER.)



FLORIDA FISH AND WILDLIFE
 CONSERVATION COMMISSION
 257 SEASIDE DRIVE, SUITE 101
 TALLAHASSEE, FL 32301

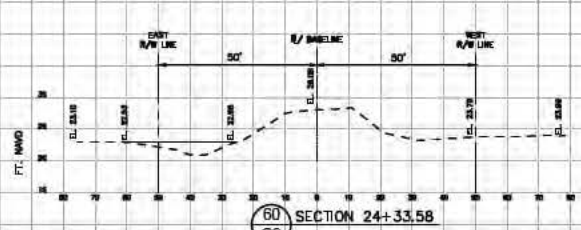
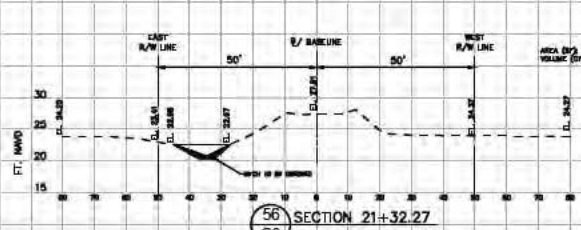
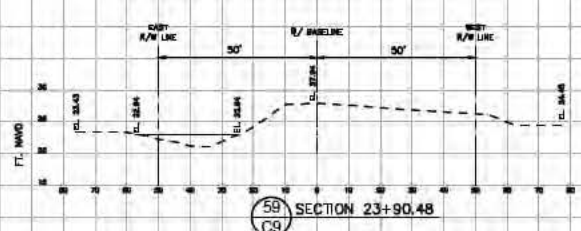
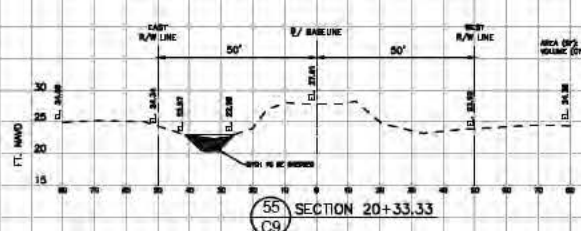
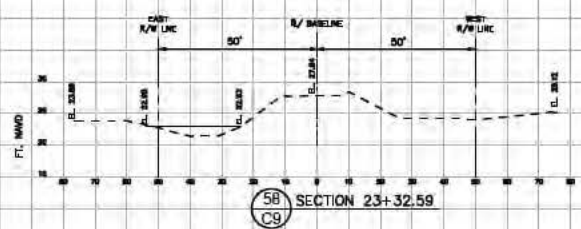
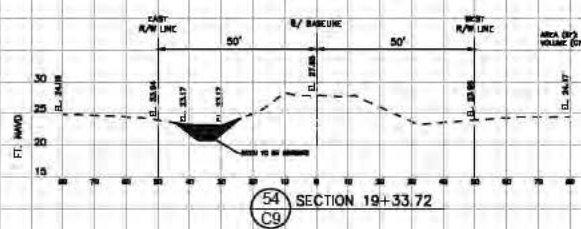
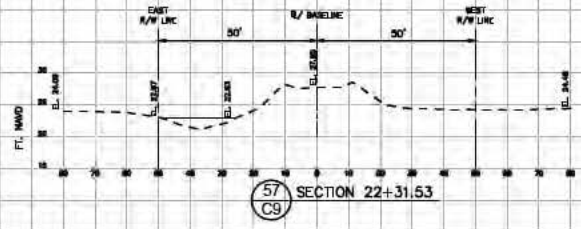
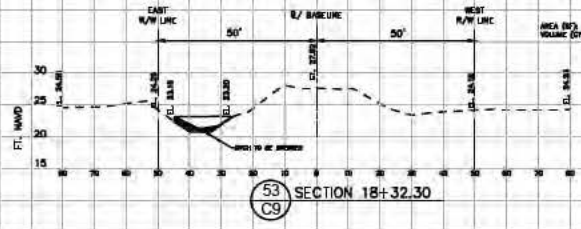
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 CADD CHECKED DATE: [blank]

BOND FARM HYDROLOGICAL ENHANCEMENT
 CHARLOTTE COUNTY, FL
 SAL GRADE ROAD CROSS SECTIONS 1

SHEET
 C19
 19 OF 53



LEGEND
 — PROPOSED FINISHED GRADE
 - - - EXISTING GRADE BASE ON TOPOGRAPHIC SURVEY
 NOTE: EXISTING GRADES NOT AVAILABLE FROM TOPOGRAPHIC SURVEY WERE SUPPLEMENTED WITH LIDAR DATA.

60% PLANS
 NOT FOR CONSTRUCTION
 SCALE: 1" = 20' (HOR.)
 1" = 10' (VER.)

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REVISIONS							
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY



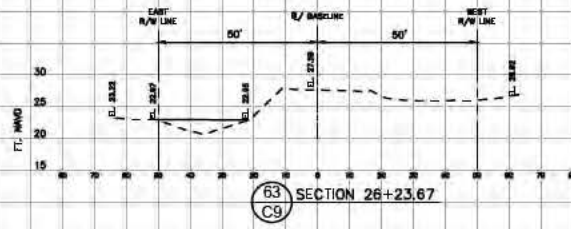
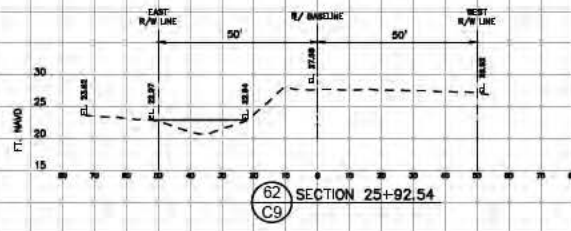
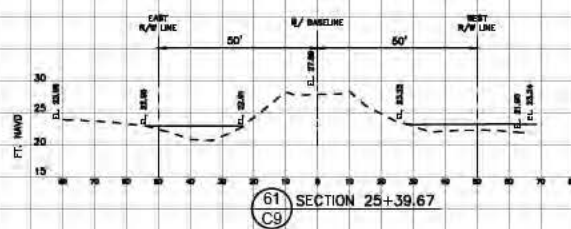
1380 Old Dominion Rd & Suite 500
 West Palm Beach, Florida 33411
 Phone: (561) 615-0100 & (561) 615-0101
 www.adda.com & (800) 333-1111



FLORIDA FISH AND WILDLIFE
 CONSERVATION COMMISSION
 257 SEAGATE DRIVE, SUITE 101
 TALLAHASSEE, FL 32301

DATE: 3-15-2018
 DESIGNED BY: JLS
 SCALE: AS SHOWN
 DRAWN BY: MR
 CHECKED BY: KLV
 CADD FILE: C:\B\C21_NDWS000.dwg
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P:\Projects\2007\BOND FARM\2007_Bond_Farm_Plan_Design\05_Drainage\05A_C21_SALGRADETS.dwg Aug 13, 2019 - 1:11pm JAC/LAT



LEGEND
—— PROPOSED FINISHED GRADE
- - - - EXISTING GRADE BASE ON TOPOGRAPHIC SURVEY
NOTE: EXISTING GRADES NOT AVAILABLE FROM TOPOGRAPHIC SURVEY WERE SUPPLEMENTED WITH LIDAR DATA.

60% PLANS
NOT FOR CONSTRUCTION

SCALE: 1" = 20' (HOR.)
1" = 10' (VER.)

REVISIONS			
DATE	BY	DESCRIPTION	



1801 GUP DRIVE RD • SUITE 100
WEST PALM BEACH, FL 33409
PHONE (561) 814-2882 • FAX (561) 515-6732
WWW.FWC.FL • E-MAIL: FWC@FWC.FL

DATE: 8/13/2019
DESIGN BY: A.V.
DRAWN BY: M.R.
CHECKED BY: A.V.

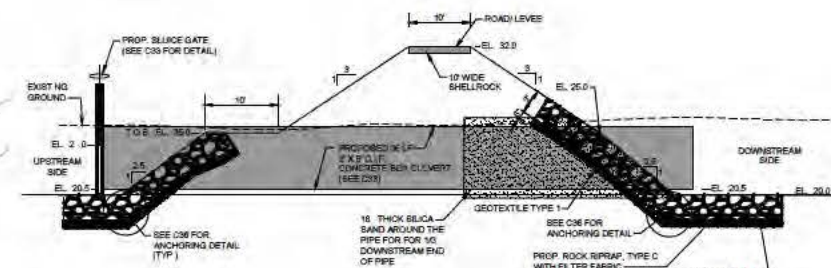


FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 SEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301

DATE: 8/13/2019
SCALE: AS SHOWN
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DESIGN BY: A.V.
DRAWN BY: M.R.
CHECKED BY: A.V.

BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
SAL GRADE ROAD CROSS SECTIONS 3

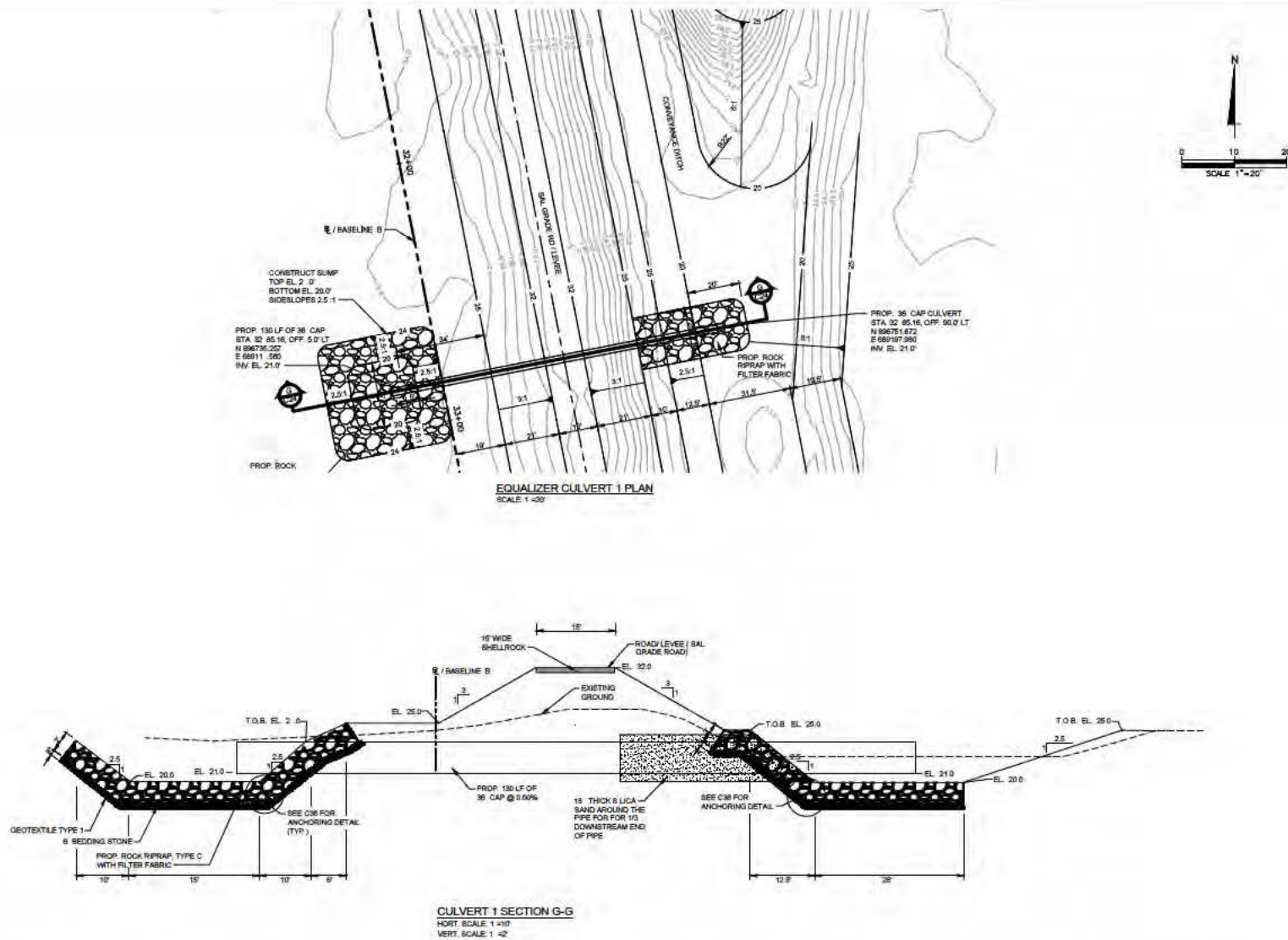
SHEET
C21
21 OF 53



60% PLANS
NOT FOR CONSTRUCTION

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60% PLANS
NOT FOR CONSTRUCTION

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



1600 Old Deshler Rd • Suite 202
West Palm Beach, Florida 33409
Phone (561) 615-0002 • Fax (561) 615-0056
WWW.FWC.COM • CE # 00002212

FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 BEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301



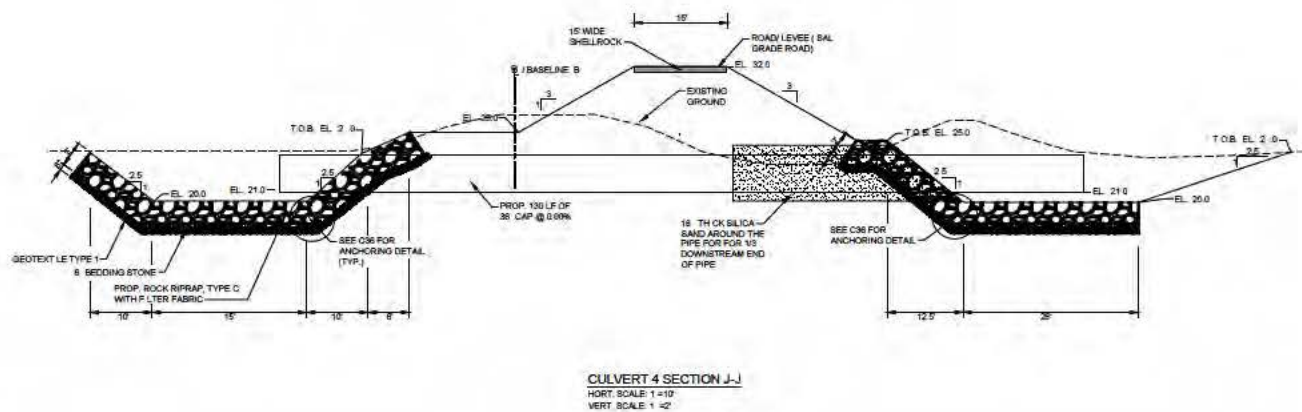
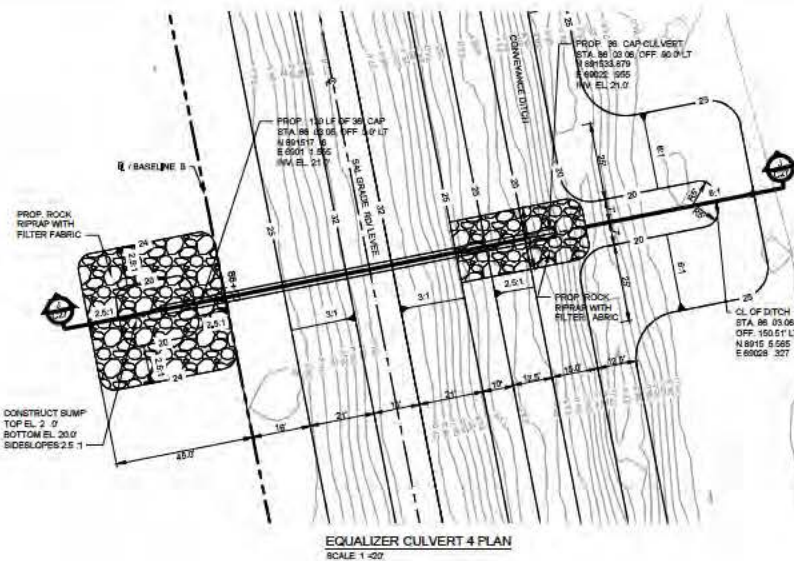
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C:_CADD_FILES\05

BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
INTERIOR EQUALIZER CULVERT 1

SHEET
C24
24 OF 53

P:\Projects\2097 - H&A\1514\07 - Bond Farm - H&A\Design\05_Drawing\022_C27_Plan.dwg, Aug 13, 2018 - 1:28pm ALOUAE



60% PLANS
NOT FOR CONSTRUCTION

REVISIONS							
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		



1800 Old Dixie Highway • Suite 202
West Palm Beach, Florida 33409
Phone (561) 615-4000 • Fax (561) 615-4001
WWW.FWC.COM • 15 000002212

FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 BEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301

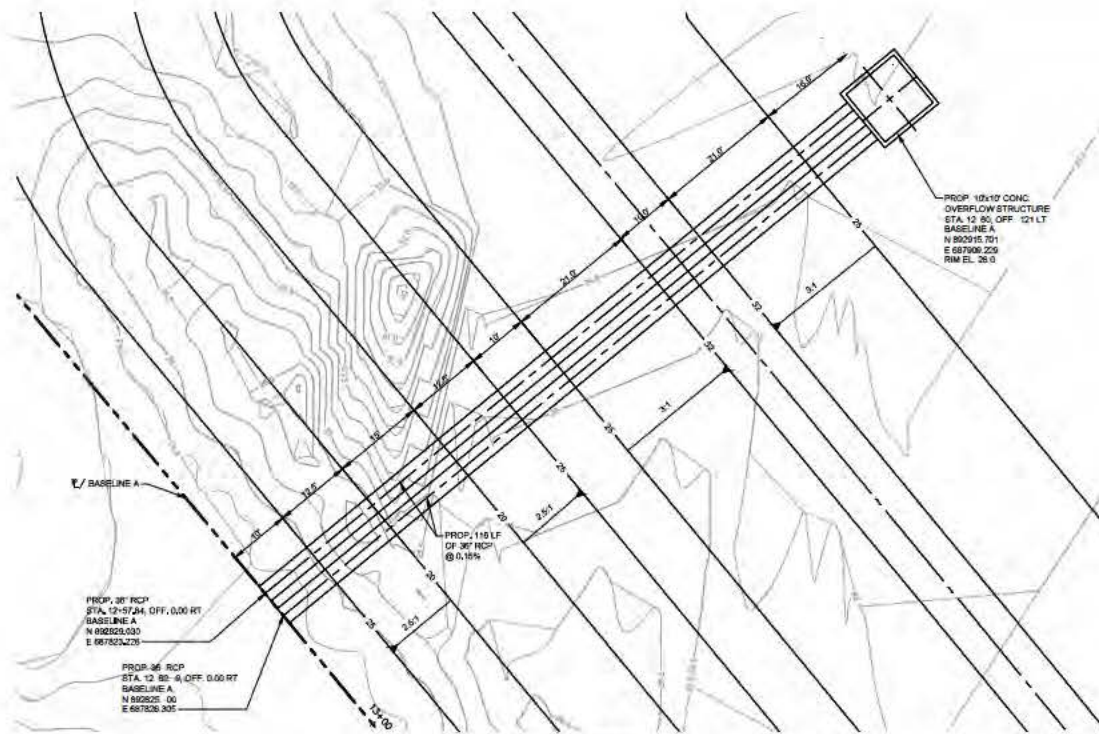


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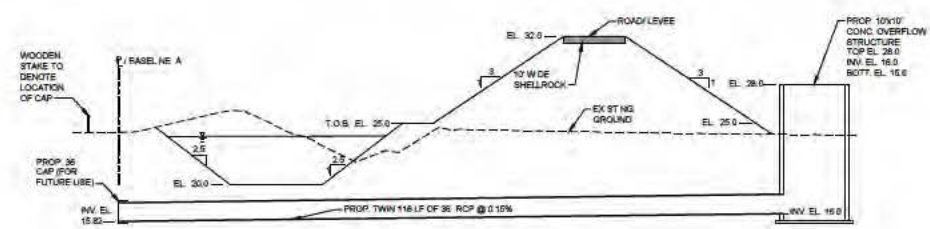
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CHECKED BY: [Signature]

BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
INTERIOR EQUALIZER CULVERT 4

SHEET
C27
27 OF 53



SOUTHWEST DISCHARGE STRUCTURE PLAN
SCALE 1"=10'



SOUTHWEST DISCHARGE STRUCTURE
HORIZ. SCALE 1"=10'
VERT. SCALE 1"=4'

60% PLANS
NOT FOR CONSTRUCTION

REVISIONS			
DATE	BY	DESCRIPTION	DATE



1800 014 0405H402 50 50m 200
1801 014 0405H402 50 50m 200
1802 014 0405H402 50 50m 200
1803 014 0405H402 50 50m 200

FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 BEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301



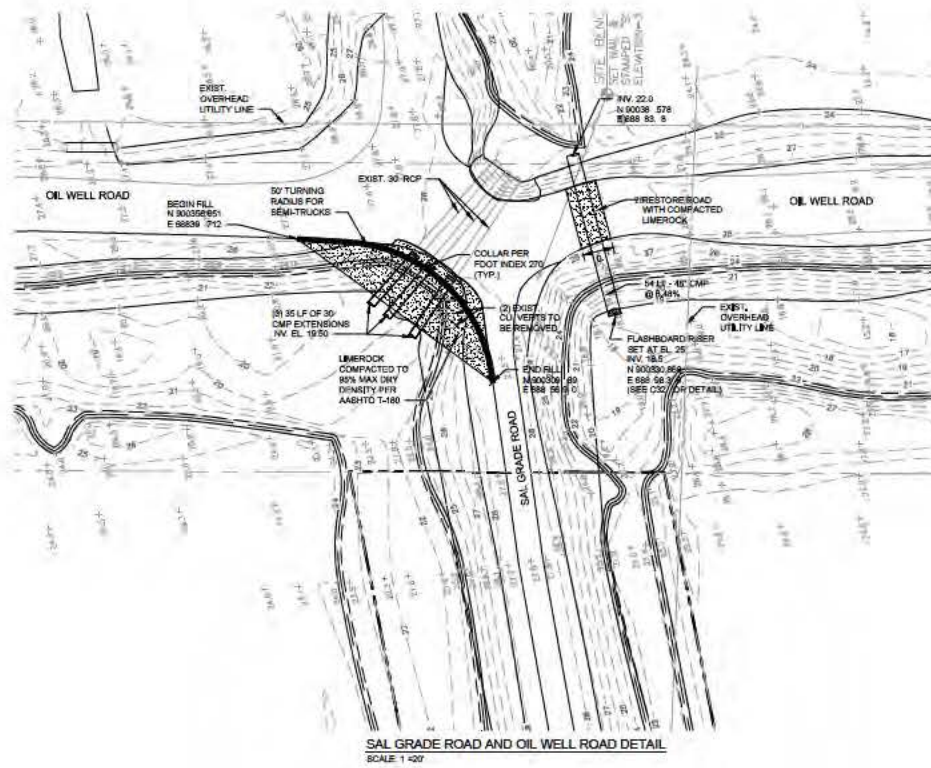
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BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
SOUTHWEST DISCHARGE STRUCTURE (FUTURE DISCHARGE)

SHEET
C29
29 OF 53

P:\Projects\2017\H&A\1514\27_Bond_Farm_Plan_Design\03_Drawing\022_SAL_GRADE.dwg Aug 13, 2018 - 1:31pm AMLX



SAL GRADE ROAD AND OIL WELL ROAD DETAIL
SCALE 1"=20'

60% PLANS
NOT FOR CONSTRUCTION

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



1800 Old Deerpark Rd • Suite 320
West Palm Beach, Florida 33409
Phone (561) 615-6882 • Fax (561) 615-6886
WWW.FWC.COM • ES # 00022212

C.V. INCHES
1" = 10' 0" 1" = 10' 0" 1" = 10' 0"



FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION
257 BEAGATE DRIVE, SUITE 101
TALLAHASSEE, FL 32301

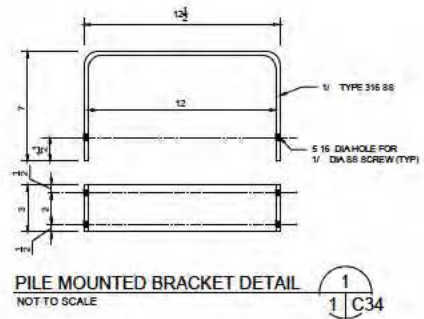
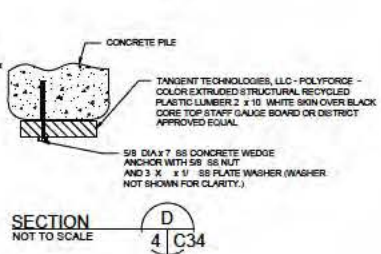
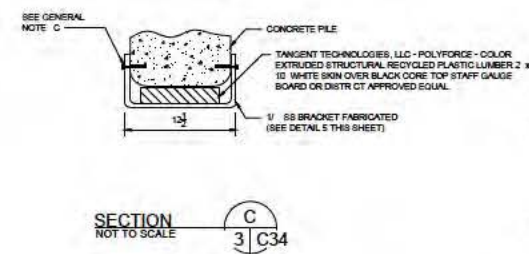
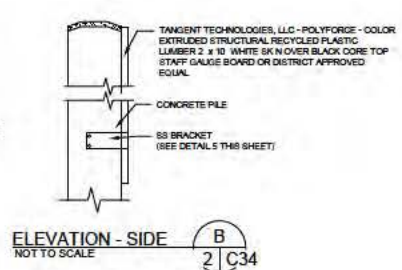
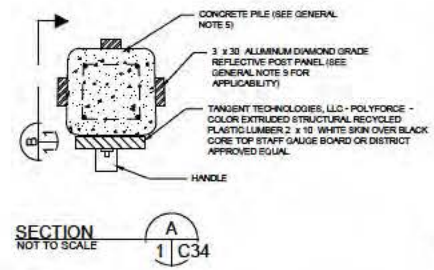
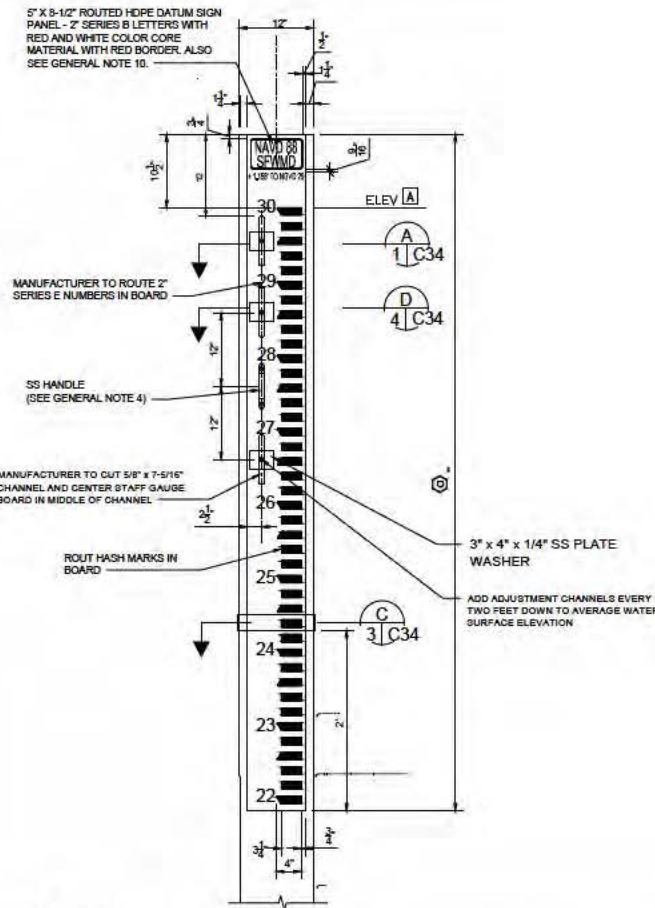
DATE
2-15-2018
DESIGN BY
E.P.

SCALE
AS SHOWN
DRAWN BY
MR

CADD FILE
C32_C30_PLANS.dwg
CHECKED BY
A.V.

BOND FARM HYDROLOGICAL ENHANCEMENT
CHARLOTTE COUNTY, FL
SAL GRADE ROAD & OIL WELL ROAD DETAILS

SHEET
C30
30 OF 53



ELEVATION AND DIMENSION SCHEDULE				
MARK	ELEVATION OR DIMENSION		STRUCTURE NAME	
	UPSTREAM	DOWNSTREAM	DESCRPTION	
1	35.0	33.0	TOP ELEVATION OF GAUGE FOR NAVD (FT NAVD 88)	
2	10	10	GAUGE BOARD LENGTH FOR NAVD 88	
3	28.0	28.0	AVERAGE WATER SURFACE ELEVATION (FT NAVD 88)	
4	35	35	MINIMUM PILE LENGTH (FT)	
5	10	10	MINIMUM EMBEDMENT	

GENERAL NOTES:

- PRIOR TO FABRICATION OF THE STAFF GAUGE, THE CONTRACTOR SHALL DISCUSS AND VERIFY INFORMATION INCLUDING VENDOR(S) FOR FABRICATION OF THE GAUGE BOARD WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT (DISTRICT) PROJECT MANAGER OR SURVEY AND MAPPING SECTION.
- STAFF GAUGES TO BE IN ACCORDANCE WITH DISTRICT TECHNICAL SPECIFICATION SECTION 02781.
- THE CONCRETE PILE MOUNTED STAFF GAUGE SHALL BE ADJUSTABLE.
- HARDWARE:
 - ALL SCREWS, BOLTS, NUTS AND WASHERS SHALL BE TYPE 316 SS UNLESS NOTED OTHERWISE.
 - THE HANDLE SHALL BE A CAST TYPE 316 SS OR COMPARABLE PULL HANDLE WITH FOUR THROUGH HOLES (TWO EACH SIDE), RECTANGULAR GRIP, FOUR (4) SCREWS, MCMASTER CARR ITEM 1325A23 OR DISTRICT APPROVED EQUAL.
 - FASTENERS BRACKET TO CONCRETE USING 1/2" DIA SS HEX HEAD CONCRETE SCREWS, 1-3/4" LONG (2 TYP EACH SIDE).
- PRECAST CONCRETE PILES SHALL CONFORM TO DISTRICT TECHNICAL SPECIFICATION SECTION 02387.
- DATUM CONVERSION (BETWEEN NAVD 88 AND NGVD 29 DATUMS) SHALL BE OBTAINED FROM THE DISTRICT SURVEY AND MAPPING SECTION.
- NO BRACING OR CONNECTION WILL BE MADE TO WALKWAYS OR STRUCTURES UNLESS APPROVED BY THE DISTRICT.
- SERIES B LETTERS SHALL BE BASED ON FEDERAL HIGHWAY ADMINISTRATION STANDARD ALPHABETS FOR TRAFFIC CONTROL DEVICES.
- REFLECTOR AND REFLECTIVE MARKING TAPE SHALL BE PROVIDED ON ALL PILES LOCATED WITHIN CANALS OR WATER BODIES THAT ARE ACCESSIBLE BY THE GENERAL PUBLIC DURING NON-DAYLIGHT HOURS.
 - FASTEN MARKING TAPE TO CONCRETE USING 1/2" X 1-3/4" LONG SS HEX HEAD CONCRETE SCREWS WITH A WASHER.
- MANUFACTURER TO PERMANENTLY MOUNT DATUM SIGN PANEL IN ROUTED CAVITY.
- TANGENT TECHNOLOGIES, LLC IS ONLY THE MANUFACTURER OF THE RECYCLE PLASTIC BOARD, HASH MARK AND OTHER ROUTING BY USE OF A COMPUTER NUMERICAL CONTROL (CNC) MACHINE IS NOT PERFORMED BY TANGENT TECHNOLOGIES, LLC.

50% PLANS
NOT FOR CONSTRUCTION