

Savannah Industrial Logistics, LLC and Savannah Industrial Transportation, LLC After-the-Fact Construction and Operation of Rail Line

Effingham County, Georgia

Docket Nos. FD 36723 and FD 36723 (Sub-No. 1)

DRAFT ENVIRONMENTAL ASSESSMENT

Volume II: Appendices



Information Contact:

Karen Stevens, Environmental Protection Specialist

Surface Transportation Board
Office of Environmental Analysis
395 E. Street, SW
Washington, DC 20423

202.245.0304



Appendix A - Agency and Tribal Consultation

List of Agencies Contacted

Agency	Response Received
Federal Agencies	
Natural Resources Conservation Service, U.S. Department of Agriculture	Yes – 05/09/2024
Regional Office of Environment, U.S. Department of Housing and Urban Development	No
U.S. Department of Housing and Urban Development	No
USACE Savannah District	No
National Center for Environmental Health	No
Planning and Compliance Division, National Park Service	No
Environmental Affairs Program, US Geological Survey	No
Region Four Atlanta Federal Center, U.S. Environmental Protection Agency	No
Region Four, U.S. Environmental Protection Agency	No
U.S. Fish and Wildlife Service	No
U.S. Fish and Wildlife Service- Ecological Services Field Office	Yes – 05/09/2024
Mitigation Division, Federal Emergency Management Agency	No
State Agencies	
Georgia Department of Transportation	Yes – 05/29/2024
Georgia Department of Natural Resources	No
Environmental Protection Division	Yes – 05/21/2024
Wildlife Resources Division	No
Georgia State Historic Preservation Officers	No
Georgia Trust for Historic Preservation	Yes – 06/04/2024
Georgia Forestry Commission	No
Floodplain Management Office, Georgia Department of Natural Resources	Yes – 05/15/2024
Georgia Department of Community Affairs	No
Coastal Regional Commission of Georgia	No
Chatham County-Savannah Metro Planning Commission	Yes – 06/03/2024
Local/Regional Agencies	
11+	No
Effingham County	No
City of Rincon	No
Effingham County School District	Yes – 05/07/2024
Effingham Superior Court	No
County Commissioner	No
Effingham County Emergency Medical Services	No
Effingham County Sheriff's Department	No
City of Rincon	No
Tribal Name	
Alabama-Quassarte Tribal Town	No
Catawba Indian Nation (aka Catawba Indian Tribe of South Carolina)	No
Coushatta Tribe of Louisiana	No

Muscogee (Creek) Nation	No
Seminole Tribe of Florida	No
Stakeholders	
CSXT	No
Norfolk Southern Railroad	Yes – 06/05/2024
Georgia Ports Authority	No
Federal and State Elected Officials	
U.S. Senate	No
U.S. House of Representatives	No
Georgia House of Representatives	No
State of Georgia	No
Georgia Senate	No

Agency Consultation Letter



SURFACE TRANSPORTATION BOARD
Washington, DC 20423

Office of Environmental Analysis

May 6, 2024

James Tillman
State Conservationist
Natural Resources Conservation Service, U.S. Department of Agriculture
355 E Hancock Ave
Athens, Georgia 30601-2775

By email at james.tillman@usda.gov

RE: Docket No. FD 36723, Savannah Industrial Logistics, LLC – Construction Exemption & Docket No. FD 36723 (Sub-No. 1), Savannah Industrial Transportation LLC (SIT) – Lease and Operation Exemption – Line of Savannah Industrial Logistics, LLC in Effingham County, Ga.; Preliminary Environmental Consultation

Pursuant to 49 U.S.C. § 10502 and the Surface Transportation Board’s (Board) decision in Savannah Indus. Transp., LLC—Operation Exemption—in Effingham Cnty., Ga., FD 36489, (STB served Aug. 1, 2023) (August Decision), Savannah Industrial Logistics, LLC (SIL) filed for after-the-fact authority to construct a rail line (the Line) in Docket No. FD 36723, and Savannah Industrial Transportation, LLC (SIT), an affiliate of SIL, filed for after-the-fact authority to lease and operate the same Line in Docket No. 36723 (Sub-No. 1).¹ The Line, which is located in an industrial park near Rincon, in Effingham County, Georgia, has no mileposts and extends from a connection with Norfolk Southern Railway Company (NSR) near NSR milepost 16.6 to a connection with CSX Transportation, Inc. (CSXT), near CSXT milepost S484.0, a distance of approximately 11,404 feet. (See Attachment 1: Maps).

Before making its decision on whether to grant this authority, the Board must consider the potential environmental impacts of SIL and SIT’s construction and lease and operation proposals, pursuant to the National Environmental Policy Act (NEPA) (42 U.S.C. §§ 4321-4370m-11), the Board’s environmental rules at 49 C.F.R. Part 1105, and related environmental laws, including Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108).

¹ The Board determined that because the Line was already being operated as a “rail line” within the Board’s jurisdiction, SIL should have gotten prior approval from the Board to construct and operate the Line. See August Decision at 2-3. The Board, therefore, directed SIL to file for construction authority under 49 U.S.C. § 10901 or § 10502 after the fact. The Board further found that SIT should have sought Board authority prior to acquiring the Line through its lease agreement with SIL. Id. at 6. Accordingly, the Board instructed SIT to seek acquisition authority under 49 U.S.C. 10901 or 10502 after the fact.

The Board's Office of Environmental Analysis (OEA) will prepare environmental documentation to analyze the potential environmental and historic impacts of the after-the-fact construction, lease and operation of the Line. The purpose of this letter is to advise you of the proposals, request information on the resources under your jurisdiction that could be affected, identify any permits and approvals that could be required, and identify any other concerns you may have.

Background

The Line already exists because it was constructed in the latter half of 2020 and leased without the requisite Board authority. The Line currently serves one shipper in the industrial park. In the August Decision, the Board specifically allowed SIT to continue its current operations to the existing shipper on the Line pending a final decision from the Board on whether to authorize the after-the-fact construction and lease and operation. SIT has recently filed for authority from the Board to add three additional shippers.

SIT currently operates one train a day, 5 days a week, on the Line and forecasts that the number of trains per day and level of service over the Line, post authorization, would remain at one train a day, 5 days per week.

Additional background information can be found in the Board's decisions in Docket Nos. 36489, 36723, and 36723 (Sub-No. 1). These decisions and related filings can be found on the Board's website at www.stb.gov.

Request for Comments

OEA requests your comments within 30 days and no later than **June 5, 2024**. All comments and filings can be submitted electronically through the Board's website at www.stb.gov. To submit an environmental comment, select "File an Environmental Comment" (below the "Need Assistance?" button) on the Board's home page. Please make sure to refer to **Docket Nos. FD 36723 and FD 36723 (Sub-No. 1)** in all correspondence, including e-filings, addressed to the Board. Brief comments can be typed in the comment field provided, and lengthier comments can be attached as Word, Adobe Acrobat, or other file formats. Commenters are strongly encouraged to submit comments via the Board's e-filing system.

You may also send written comments to Karen Stevens, OEA's Project Manager, by mail to:

Karen Stevens
Surface Transportation Board, OEA
Docket Nos. FD 36723 and FD 36723 (Sub-No. 1)
395 E Street, SW
Washington, DC 20423

We look forward to hearing from you. If you have any questions, please feel free to contact Karen Stevens at 202-245-0304 or by email at Karen.Stevens@stb.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Danielle Gosselin", is positioned above a thin vertical line.

Danielle Gosselin
Director
Office of Environmental Analysis

Enclosures:

Attachment 1: Maps

Attachment 2: Initial Agency and Tribal Distribution List

Figure 1: Project Overview Map

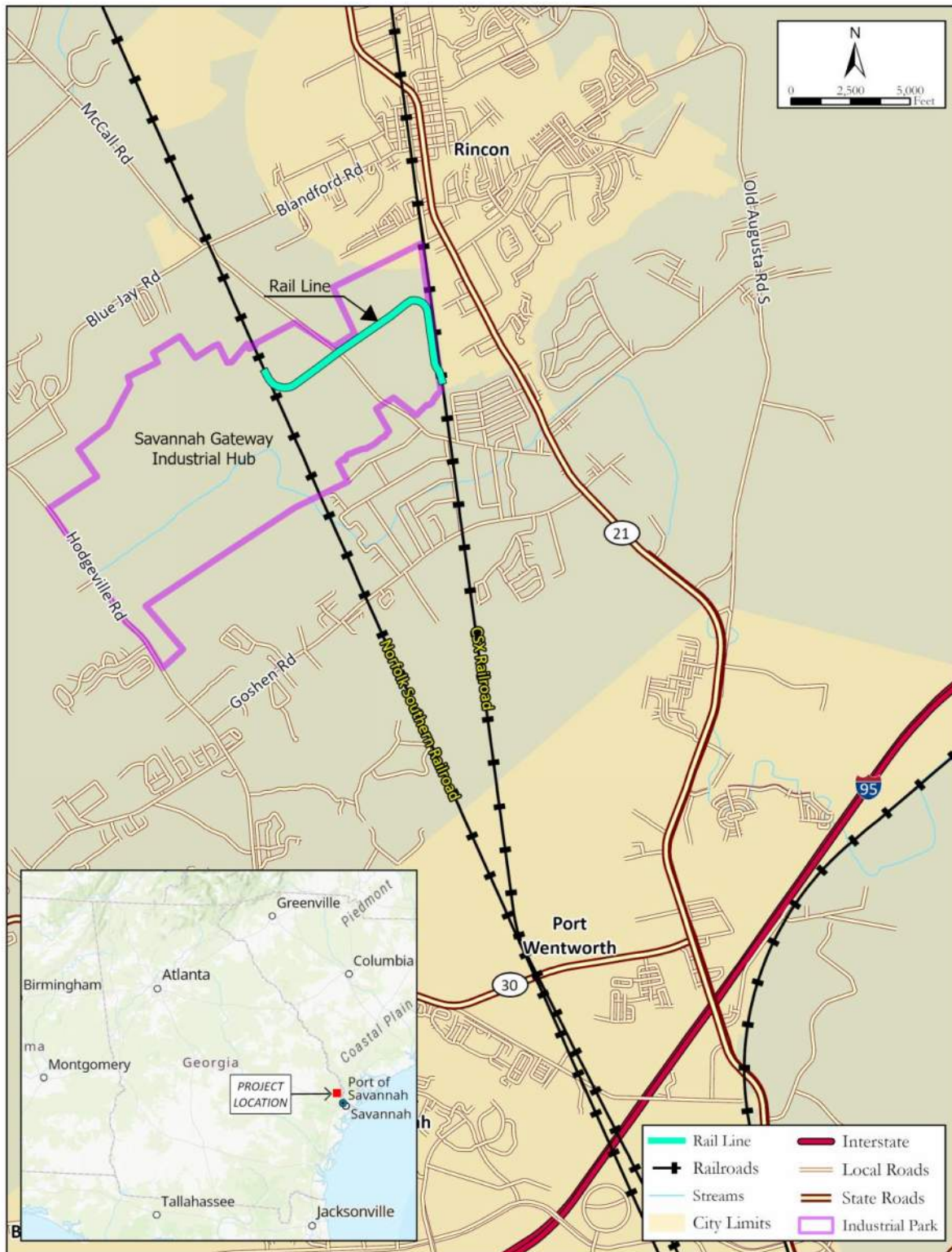
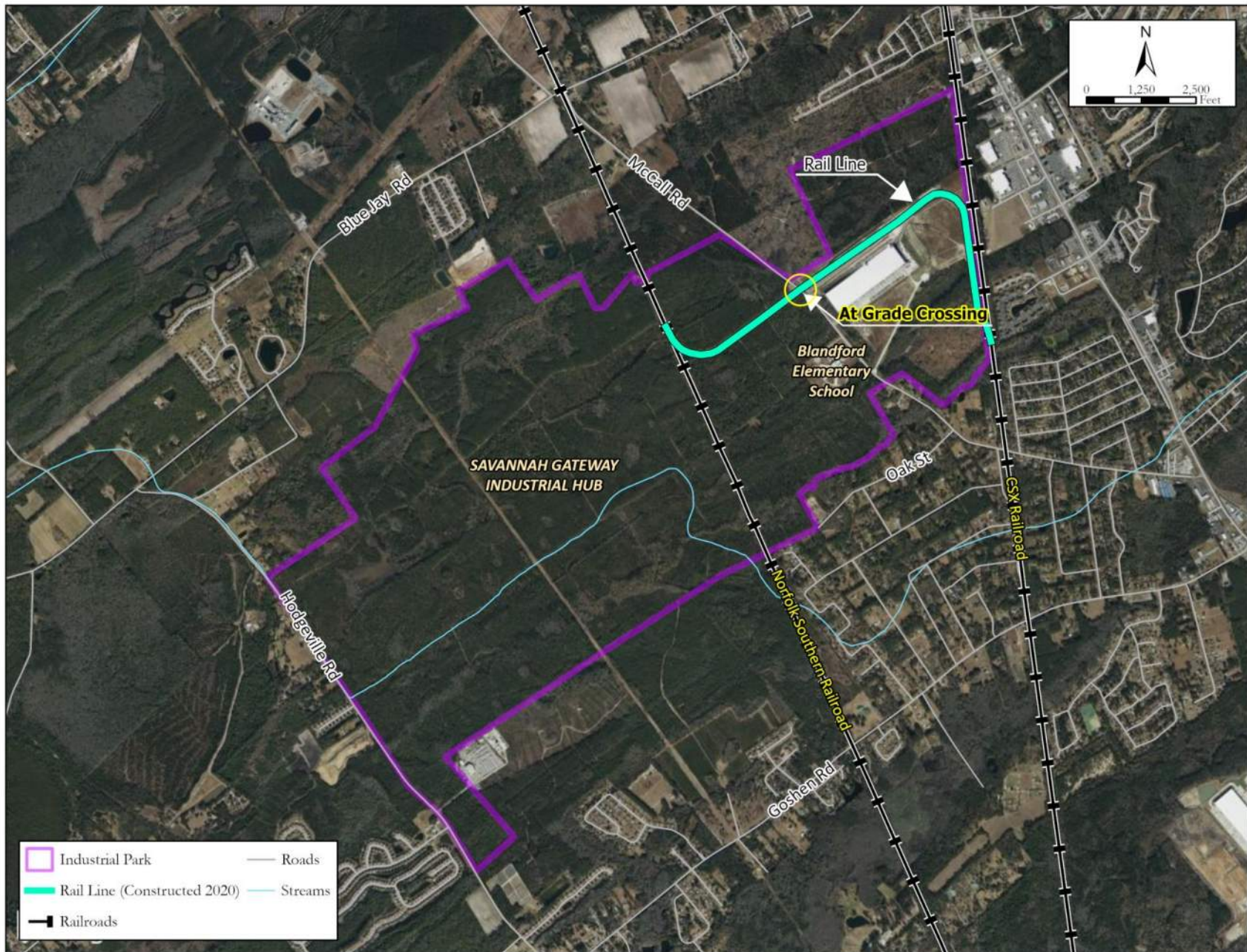


Figure 2: Project Location Map – Effingham County, Georgia



Agency Responses

From: [Womack, Ronnie](#)
To: [Stevens, Karen](#)
Cc: [Ford, Yancy](#)
Subject: Blandford Elementary School
Date: Tuesday, May 7, 2024 10:33:30 AM

You don't often get email from rwomack@effingham.k12.ga.us. [Learn why this is important](#)

Hello Ms. Stevens. I received an email concerning more train traffic on the railroad beside Blandford Elementary. I wanted to reach out to you and give you the school traffic times. School traffic is from 7:00am to 8:00am and 2:20pm to 3:00pm. These are the times students are being dropped off and picked up. Please let me know if you need anything else from us. Thanks.

Ron J. Womack
Chief Operations Officer
Effingham County Schools
Phone: 912-754-2515
Fax: 912-235-0109



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601-2523
Phone: (706) 460-7161 Fax: (706) 613-6059



In Reply Refer To:

09/17/2024 13:32:12 UTC

Project Code: 2024-0096725

Project Name: Docket No. FD 36723, Savannah Industrial Logistics, LLC—Construction
Exemption & Docket No. FD 36723

Subject: List of threatened and endangered species that may occur in your proposed project
location or may be affected by your proposed project

To Whom It May Concern:

Thank you for requesting information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act as amended (16 USC 701-715), Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Bald and Golden Eagle Protection Act as amended (16 USC 668-668c). We provide the following guidance for determining which federally imperiled species may occur within your project area and to recommend conservation measures to consider for your project if you determine those species or designated critical habitats may be affected by the project activities.

FEDERALLY-LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Attached is a list of endangered, threatened, and proposed species that may occur in your project area. Your project area may not necessarily include all or any of these species. Under the ESA, it is the responsibility of the Federal action agency, their designated non-Federal representative, or a project proponent to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally listed threatened or endangered fish or wildlife species without the appropriate permit. If you need additional guidance to inform your effect determination, please contact the Service.

If you determine that your proposed action may affect federally listed species, please consult with the Service. Through the consultation (for projects seeking Federal funding or permitting) or technical assistance (for non-Federal projects) process, we will work with you to evaluate information contained in a biological assessment or equivalent documents that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a) (1)(B) of the ESA (also known as a Habitat Conservation Plan) may be necessary to exempt "take" of federally listed threatened or endangered fish or wildlife species when it cannot be avoided. For more information regarding formal consultation and HCPs, please see the Service's [Section 7 Consultation Library](#) and [Habitat Conservation Plans Library](#).

Action Area. The scope of ESA compliance includes direct and indirect effects of project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations). The "action area" is the spatial extent of an action's direct and indirect modifications or impacts to the land, water, or air (50 CFR 402.02). Large projects may have effects to land, water, or air outside the immediate footprint of the project, and these areas should be included as part of the action area. Effects to land, water, or air outside of a project footprint could include things like lighting, dust, smoke, and noise. To obtain a complete list of species, the action area should be uploaded or drawn in IPaC rather than just the project footprint. Please note that a lead federal agency may consider an action area that excludes portions of the project footprint. In these cases, further coordination with our office may be required to ensure compliance with the ESA. It is the responsibility of the project proponent to coordinate with the lead federal agency to understand the action and action area being reviewed as part of ESA Section 7 consultation.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. An updated list may be requested through IPaC.

HOW TO SUBMIT A PROJECT REVIEW PACKAGE

IF YOUR ACTION MAY AFFECT ANY FEDERALLY LISTED SPECIES AND YOU WOULD LIKE TECHNICAL ASSISTANCE FROM OUR OFFICE, PLEASE SEND US A COMPLETE PROJECT REVIEW PACKAGE. A STEP-BY-STEP GUIDE IS AVAILABLE BELOW AND SUPPLEMENTAL GUIDANCE IS AVAILABLE AT THE GEORGIA ECOLOGICAL SERVICES [PROJECT PLANNING AND REVIEW](https://www.fws.gov/office/georgia-ecological-services/project-planning-review) PAGE ([HTTPS://WWW.FWS.GOV/OFFICE/GEORGIA-ECOLOGICAL-SERVICES/PROJECT-PLANNING-REVIEW](https://www.fws.gov/office/georgia-ecological-services/project-planning-review)).

REQUESTS FOR THREATENED AND ENDANGERED SPECIES PROJECT REVIEWS MUST BE SUBMITTED TO OUR OFFICE USING THE PROCESS DESCRIBED BELOW. ALL STEPS MUST BE COMPLETED TO ENSURE YOUR

PROJECT IS REVIEWED BY A BIOLOGIST IN OUR OFFICE AND YOU RECEIVE A TIMELY RESPONSE.

STEP 1. REQUEST AN OFFICIAL SPECIES LIST FOR YOUR PROJECT THROUGH IPAC. YOU HAVE JUST COMPLETED THIS STEP.

STEP 2. COMPLETE APPLICABLE DETERMINATION KEYS (DKEY'S, FOR SHORT)

STEP 3. SEND YOUR COMPLETE PROJECT REVIEW PACKAGE TO GAES_ASSISTANCE@FWS.GOV FOR REVIEW IF NO DKEY IS APPLICABLE OR CERTAIN PROJECT COMPONENTS HAVE NOT BEEN ADDRESSED (I.E. A SPECIES RETURNED BY IPAC DOES NOT HAVE A DKEY). A COMPLETE PROJECT REVIEW PACKAGE SHOULD INCLUDE:

- 1. A DESCRIPTION OF THE PROPOSED ACTION, INCLUDING ANY MEASURES INTENDED TO AVOID, MINIMIZE, OR OFFSET EFFECTS OF THE ACTION. THE DESCRIPTION SHALL PROVIDE SUFFICIENT DETAIL TO ASSESS THE EFFECTS OF THE ACTION ON LISTED SPECIES AND CRITICAL HABITAT, SUCH AS THE PURPOSE OF THE ACTION; DURATION AND TIMING OF THE ACTION; LOCATION (LATITUDE AND LONGITUDE); SPECIFIC ACTIVITIES INVOLVING DISTURBANCE TO LAND, WATER, AND AIR, AND HOW THEY WILL BE CARRIED OUT; CURRENT DESCRIPTION OF AREAS TO BE AFFECTED DIRECTLY OR INDIRECTLY BY THE ACTION; AND MAPS, DRAWINGS, OR SIMILAR SCHEMATICS OF THE ACTION. PLEASE SUBMIT ALL AREAS OF A PROJECT AS ONE SINGLE SUBMISSION AND DO NOT SEPARATE INTO SMALLER COMPONENTS/SUBMISSIONS.**
- 2. AN UPDATED OFFICIAL SPECIES LIST AND DETERMINATION KEY RESULTS**
- 3. BIOLOGICAL ASSESSMENTS (MAY INCLUDE HABITAT ASSESSMENTS AND INFORMATION ON THE PRESENCE OF LISTED SPECIES IN THE ACTION AREA);**
- 4. DESCRIPTION OF EFFECTS OF THE ACTION ON SPECIES IN THE ACTION AREA AND, IF RELEVANT, EFFECT DETERMINATIONS FOR SPECIES AND CRITICAL HABITAT;**
- 5. CONSERVATION MEASURES AND ANY OTHER AVAILABLE INFORMATION RELATED TO THE NATURE AND SCOPE OF THE PROPOSED ACTION RELEVANT TO ITS EFFECTS ON LISTED SPECIES OR DESIGNATED CRITICAL HABITAT (E.G., MANAGEMENT PLANS RELATED TO STORMWATER, VEGETATION, EROSION AND SEDIMENT PLANS). VISIT THE [GEORGIA CONSERVATION PLANNING TOOLBOX \(HTTPS://WWW.FWS.GOV/STORY/CONSERVATION-TOOLS-GEORGIA\)](https://www.fws.gov/story/conservation-tools-georgia) FOR INFORMATION ABOUT CONSERVATION MEASURES.**

6. IN THE EMAIL SUBJECT LINE, USE THE FOLLOWING FORMAT TO INCLUDE THE PROJECT CODE FROM YOUR IPAC SPECIES LIST AND THE COUNTY IN WHICH THE PROJECT IS LOCATED (EXAMPLE: PROJECT CODE: 2023-0049730 GWINNETT CO.). FOR GEORGIA DEPARTMENT OF TRANSPORTATION RELATED PROJECTS, PLEASE WORK WITH THE OFFICE OF ENVIRONMENTAL SERVICES ECOLOGIST TO DETERMINE THE APPROPRIATE USFWS TRANSPORTATION LIAISON.

THE GEORGIA ECOLOGICAL SERVICES FIELD OFFICE WILL SEND A RESPONSE EMAIL WITHIN APPROXIMATELY 30 DAYS OF RECEIPT WITH TECHNICAL ASSISTANCE OR FURTHER RECOMMENDATIONS FOR SPECIFIC SPECIES.

WETLANDS AND FLOODPLAINS

UNDER EXECUTIVE ORDERS 11988 AND 11990, FEDERAL AGENCIES ARE REQUIRED TO MINIMIZE THE DESTRUCTION, LOSS, OR DEGRADATION OF WETLANDS AND FLOODPLAINS, AND PRESERVE AND ENHANCE THEIR NATURAL AND BENEFICIAL VALUES. THESE HABITATS SHOULD BE CONSERVED THROUGH AVOIDANCE, OR MITIGATED TO ENSURE THAT THERE WOULD BE NO NET LOSS OF WETLANDS FUNCTION AND VALUE. WE ENCOURAGE YOU TO USE THE NATIONAL WETLAND INVENTORY (NWI) MAPS IN CONJUNCTION WITH GROUND-TRUTHING TO IDENTIFY WETLANDS OCCURRING IN YOUR PROJECT AREA. THE SERVICE'S [NWI PROGRAM WEBSITE \(HTTPS://WWW.FWS.GOV/PROGRAM/NATIONAL-WETLANDS-INVENTORY\)](https://www.fws.gov/program/national-wetlands-inventory) INTEGRATES DIGITAL MAP DATA WITH OTHER RESOURCE INFORMATION. WE ALSO RECOMMEND YOU CONTACT THE U.S. ARMY CORPS OF ENGINEERS FOR PERMITTING REQUIREMENTS UNDER SECTION 404 OF THE CLEAN WATER ACT IF YOUR PROPOSED ACTION COULD IMPACT FLOODPLAINS OR WETLANDS.

MIGRATORY BIRDS

THE MBTA PROHIBITS THE TAKING OF MIGRATORY BIRDS, NESTS, AND EGGS, EXCEPT AS PERMITTED BY THE SERVICE'S [MIGRATORY BIRDS PROGRAM \(HTTPS://FWS.GOV/PROGRAM/MIGRATORY-BIRDS\)](https://fws.gov/program/migratory-birds). TO MINIMIZE THE LIKELIHOOD OF ADVERSE IMPACTS TO MIGRATORY BIRDS, WE RECOMMEND CONSTRUCTION ACTIVITIES OCCUR OUTSIDE THE GENERAL BIRD NESTING SEASON FROM MARCH THROUGH AUGUST, OR THAT AREAS PROPOSED FOR CONSTRUCTION DURING THE NESTING SEASON BE SURVEYED, AND WHEN OCCUPIED, AVOIDED UNTIL THE YOUNG HAVE FLEDGED.

WE RECOMMEND REVIEW OF BIRDS OF CONSERVATION CONCERN TO FULLY EVALUATE THE EFFECTS TO THE BIRDS AT YOUR SITE. THIS LIST IDENTIFIES BIRDS THAT ARE POTENTIALLY THREATENED BY DISTURBANCE AND CONSTRUCTION. IT CAN BE FOUND AT THE SERVICE'S [MIGRATORY BIRDS](#)

CONSERVATION LIBRARY COLLECTION ([HTTPS://FWS.GOV/LIBRARY/ COLLECTIONS/MIGRATORY-BIRD-CONSERVATION-DOCUMENTS](https://fws.gov/library/collections/migratory-bird-conservation-documents)).

INFORMATION RELATED TO BEST PRACTICES AND MIGRATORY BIRDS CAN BE FOUND AT THE SERVICE'S **AVOIDING AND MINIMIZING INCIDENTAL TAKE OF MIGRATORY BIRDS LIBRARY COLLECTION ([HTTPS://FWS.GOV/LIBRARY/ COLLECTIONS/AVOIDING-AND-MINIMIZING-INCIDENTAL-TAKE-MIGRATORY-BIRDS](https://fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds))**.

BALD AND GOLDEN EAGLES

THE BALD EAGLE (*HALIAEETUS LEUCOCEPHALUS*) WAS DELISTED UNDER THE ESA ON AUGUST 9, 2007. BOTH THE BALD EAGLE AND GOLDEN EAGLE (*AQUILA CHRYSAETOS*) ARE STILL PROTECTED UNDER THE MIGRATORY BIRD TREATY ACT (MBTA) AND BALD AND GOLDEN EAGLE PROTECTION ACT (BGEPA). THE BGEPA AFFORDS BOTH EAGLES PROTECTION IN ADDITION TO THAT PROVIDED BY THE MBTA, IN PARTICULAR, BY MAKING IT UNLAWFUL TO “DISTURB” EAGLES. UNDER THE BGEPA, THE SERVICE MAY ISSUE LIMITED PERMITS TO INCIDENTALLY “TAKE” EAGLES (E.G., INJURY, INTERFERING WITH NORMAL BREEDING, FEEDING, OR SHELTERING BEHAVIOR NEST ABANDONMENT). FOR INFORMATION ON BALD AND GOLDEN EAGLE MANAGEMENT GUIDELINES, WE RECOMMEND YOU REVIEW INFORMATION PROVIDED AT THE SERVICE'S **BALD AND GOLDEN EAGLE MANAGEMENT LIBRARY COLLECTION**.

NATIVE BATS

IF YOUR SPECIES LIST INCLUDES INDIANA BAT (*MYOTIS SODALIS*), NORTHERN LONG-EARED BAT (*M. SEPTENTRIONALIS*), OR TRICOLORED BAT (*PERIMYOTIS SUBFLAVUS*) AND THE PROJECT IS EXPECTED TO IMPACT FORESTED HABITAT, TREE CLEARING SHOULD OCCUR OUTSIDE OF THE PERIODS WHEN BATS MAY BE PRESENT AND MOST VULNERABLE. FEDERALLY LISTED BATS COULD BE ACTIVELY PRESENT IN FORESTED LANDSCAPES FROM SPRING THROUGH FALL OF ANY YEAR. IN MUCH OF GEORGIA, OUR WINTERS ARE MILD ENOUGH THAT TRICOLORED BATS ARE LIKELY ACTIVE ON THE LANDSCAPE TO SOME EXTENT YEAR-ROUND. PUPS ARE INCAPABLE OF FLIGHT AND VULNERABLE TO DISTURBANCE FROM THE SPRING TO SUMMER. OUR RECOMMENDED SEASONAL CLEARING RESTRICTION WINDOWS DEPEND ON SPECIES AND REGION IN GEORGIA. PLEASE REACH OUT TO US FOR GUIDANCE.

INDIANA, NORTHERN LONG-EARED, TRICOLORED, AND GRAY (*M. GRISCESENS*) BATS ARE ALL KNOWN TO UTILIZE BRIDGES AND CULVERTS IN GEORGIA. IF YOUR PROJECT INCLUDES MAINTENANCE, CONSTRUCTION, OR ANY OTHER MODIFICATION OR DEMOLITION TO TRANSPORTATION STRUCTURES, A QUALIFIED INDIVIDUAL SHOULD COMPLETE A SURVEY OF THESE STRUCTURES FOR BATS AND SUBMIT YOUR FINDINGS VIA THE

“GADNR BATS IN BRIDGES” FORM IN THE SURVEY123 APP, FREE ON APPLE AND ANDROID DEVICES. PLEASE INCLUDE THESE FINDINGS IN ANY BIOLOGICAL ASSESSMENT(S) OR OTHER DOCUMENTATION THAT IS SUBMITTED TO OUR OFFICE FOR TECHNICAL ASSISTANCE OR CONSULTATION.

ADDITIONAL INFORMATION CAN BE FOUND AT GEORGIA ECOLOGICAL SERVICES' [CONSERVATION PLANNING TOOLBOX](#) AND [BAT CONSERVATION IN GEORGIA](#) PAGES.

MONARCH BUTTERFLY

ON DECEMBER 20, 2020, THE SERVICE DETERMINED THAT LISTING THE MONARCH BUTTERFLY (*DANAUS PLEXIPPUS*) UNDER THE ENDANGERED SPECIES ACT IS WARRANTED BUT PRECLUDED AT THIS TIME BY HIGHER PRIORITY LISTING ACTIONS. WITH THIS FINDING, THE MONARCH BUTTERFLY BECOMES A CANDIDATE FOR LISTING. THE SERVICE WILL REVIEW ITS STATUS EACH YEAR UNTIL WE ARE ABLE TO BEGIN DEVELOPING A PROPOSAL TO LIST THE MONARCH.

AS IT IS A CANDIDATE FOR LISTING, THE SERVICE WELCOMES CONSERVATION MEASURES FOR THIS SPECIES. RECOMMENDED, AND VOLUNTARY, CONSERVATION MEASURES FOR PROJECTS IN GEORGIA CAN BE FOUND AT THE [MONARCH CONSERVATION IN GEORGIA](#) PAGE.

EASTERN INDIGO SNAKE

OUR OFFICE HAS PUBLISHED GUIDANCE DOCUMENTS TO ASSIST PROJECT PROPONENTS IN AVOIDING AND MINIMIZING POTENTIAL IMPACT TO THE EASTERN INDIGO SNAKE. THE [VISUAL ENCOUNTER SURVEY PROTOCOL FOR THE EASTERN INDIGO SNAKE \(*DRYMARCHON COUPERI*\) IN GEORGIA](#) IS RECOMMENDED FOR PROJECT PROPONENTS OR THEIR DESIGNEES TO EVALUATE THE POSSIBLE PRESENCE OF THE EASTERN INDIGO SNAKE AT A PROPOSED PROJECT SITE. THE [STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE \(*DRYMARCHON COUPERI*\)](#) INCLUDE EDUCATIONAL MATERIALS AND TRAINING THAT CAN HELP PROTECT THE SPECIES BY MAKING STAFF WORKING ON A PROJECT SITE AWARE OF THEIR PRESENCE AND TRAITS. IN GEORGIA, INDIGO SNAKES ARE CLOSELY ASSOCIATED WITH THE STATE-LISTED GOPHER TORTOISE (*GOPHERUS POLYPHEMUS*), A REPTILE THAT EXCAVATES EXTENSIVE UNDERGROUND BURROWS THAT PROVIDE THE SNAKE SHELTER FROM WINTER COLD AND SUMMER DESICCATION.

SOLAR ENERGY DEVELOPMENT

THE [RECOMMENDED PRACTICES FOR THE RESPONSIBLE SITING AND DESIGN OF SOLAR DEVELOPMENT IN GEORGIA, VERSION 2.0](#) (PUBLISHED IN MAY 2024)

ARE INTENDED TO PROVIDE VOLUNTARY GUIDANCE TO SUPPORT CONSIDERATION OF NATURAL RESOURCES DURING THE DEVELOPMENT OF PHOTOVOLTAIC SOLAR IN GEORGIA. FURTHERMORE, THE [GEORGIA LOW IMPACT SOLAR SITING TOOL \(LISST\)](#) IS ALSO AVAILABLE AS A MAP LAYER IN IPAC (FIND IT IN THE "LAYERS" BOX > "ENVIRONMENTAL DATA") TO PROVIDE PROJECT MANAGERS WITH THE DATA TO IDENTIFY AREAS THAT MAY BE PREFERRED FOR LOW-IMPACT DEVELOPMENT. THE TOOL SEEKS TO SUPPORT THE ACCELERATION OF LARGE-SCALE SOLAR DEVELOPMENT IN AREAS WITH LESS IMPACT TO THE ENVIRONMENT.

STATE AGENCY COORDINATION

ADDITIONAL INFORMATION THAT ADDRESSES AT-RISK OR HIGH PRIORITY NATURAL RESOURCES CAN BE FOUND IN THE STATE WILDLIFE ACTION PLAN ([HTTPS://GEORGIAWILDLIFE.COM/WILDLIFEACTIONPLAN](https://georgiawildlife.com/wildlifeactionplan)), AT GEORGIA DEPARTMENT OF NATURAL RESOURCES, WILDLIFE RESOURCES DIVISION BIODIVERSITY PORTAL ([HTTPS://GEORGIAWILDLIFE.COM/CONSERVATION/SPECIES-OF-CONCERN](https://georgiawildlife.com/conservation/species-of-concern)), GEORGIA'S NATURAL, ARCHAEOLOGICAL, AND HISTORIC RESOURCES GIS PORTAL ([HTTPS://WWW.GNAHRGIS.ORG/GNAHRGIS/INDEX.DO](https://www.gnahrgis.org/gnahrgis/index.do)) PAGES.

THANK YOU FOR YOUR CONCERN FOR ENDANGERED AND THREATENED SPECIES. WE APPRECIATE YOUR EFFORTS TO IDENTIFY AND AVOID IMPACTS TO LISTED AND SENSITIVE SPECIES IN YOUR PROJECT AREA. FOR FURTHER CONSULTATION ON YOUR PROPOSED ACTIVITY, PLEASE EMAIL GAES_ASSISTANCE@FWS.GOV AND REFERENCE THE PROJECT COUNTY AND YOUR SERVICE PROJECT TRACKING NUMBER.

THIS LETTER CONSTITUTES GEORGIA ECOLOGICAL SERVICES' GENERAL COMMENTS UNDER THE AUTHORITY OF THE ENDANGERED SPECIES ACT.

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Georgia Ecological Services Field Office

355 East Hancock Avenue

Room 320

Athens, GA 30601-2523

(706) 460-7161

PROJECT SUMMARY

Project Code: 2024-0096725

Project Name: Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction Exemption & Docket No. FD 36723

Project Type: Railroad - Maintenance/Modification

Project Description: Savannah Industrial Logistics, LLC (SIL) filed for after-the-fact authority to construct a rail line (the Line) in Docket No. FD 36723, and Savannah Industrial Transportation, LLC (SIT), an affiliate of SIL, filed for after-the-fact authority to lease and operate the same Line in Docket No. 36723 (Sub-No. 1).²⁰ The Line, which is located in an industrial park near Rincon, in Effingham County, Georgia, has no mileposts and extends from a connection with Norfolk Southern Railway Company (NSR) near NSR milepost 16.6 to a connection with CSX Transportation, Inc. (CSXT), near CSXT milepost S484.0, a distance of approximately 11,404 feet.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@32.26727955,-81.24339588447006,14z>



Counties: Effingham County, Georgia

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Eastern Indigo Snake <i>Drymarchon couperi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Pondberry <i>Lindera melissifolia</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1279	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

1. The [Bald and Golden Eagle Protection Act](#) of 1940.

2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

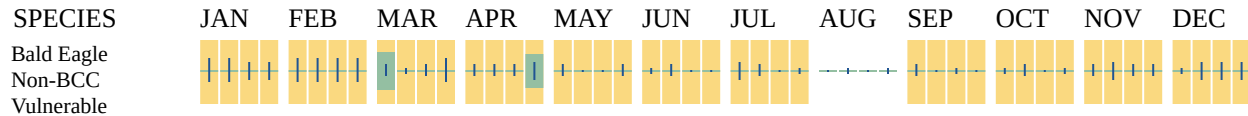
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Brown-headed Nuthatch <i>Sitta pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9427	Breeds Mar 1 to Jul 15
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Chuck-will's-widow <i>Antrostomus carolinensis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9604	Breeds May 10 to Jul 10
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20
Least Tern <i>Sternula antillarum antillarum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11919	Breeds Apr 25 to Sep 5
Painted Bunting <i>Passerina ciris</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9511	Breeds Apr 25 to Aug 15
Prairie Warbler <i>Setophaga discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10

NAME	BREEDING SEASON
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

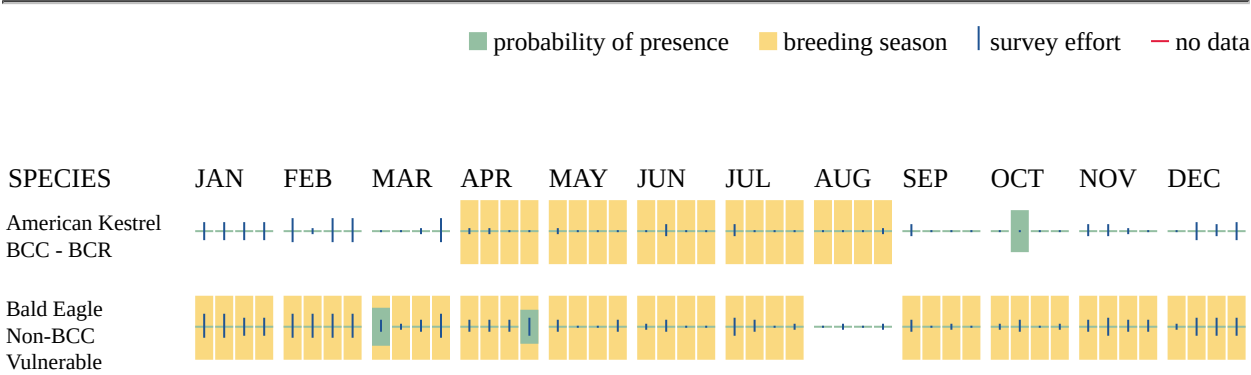
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

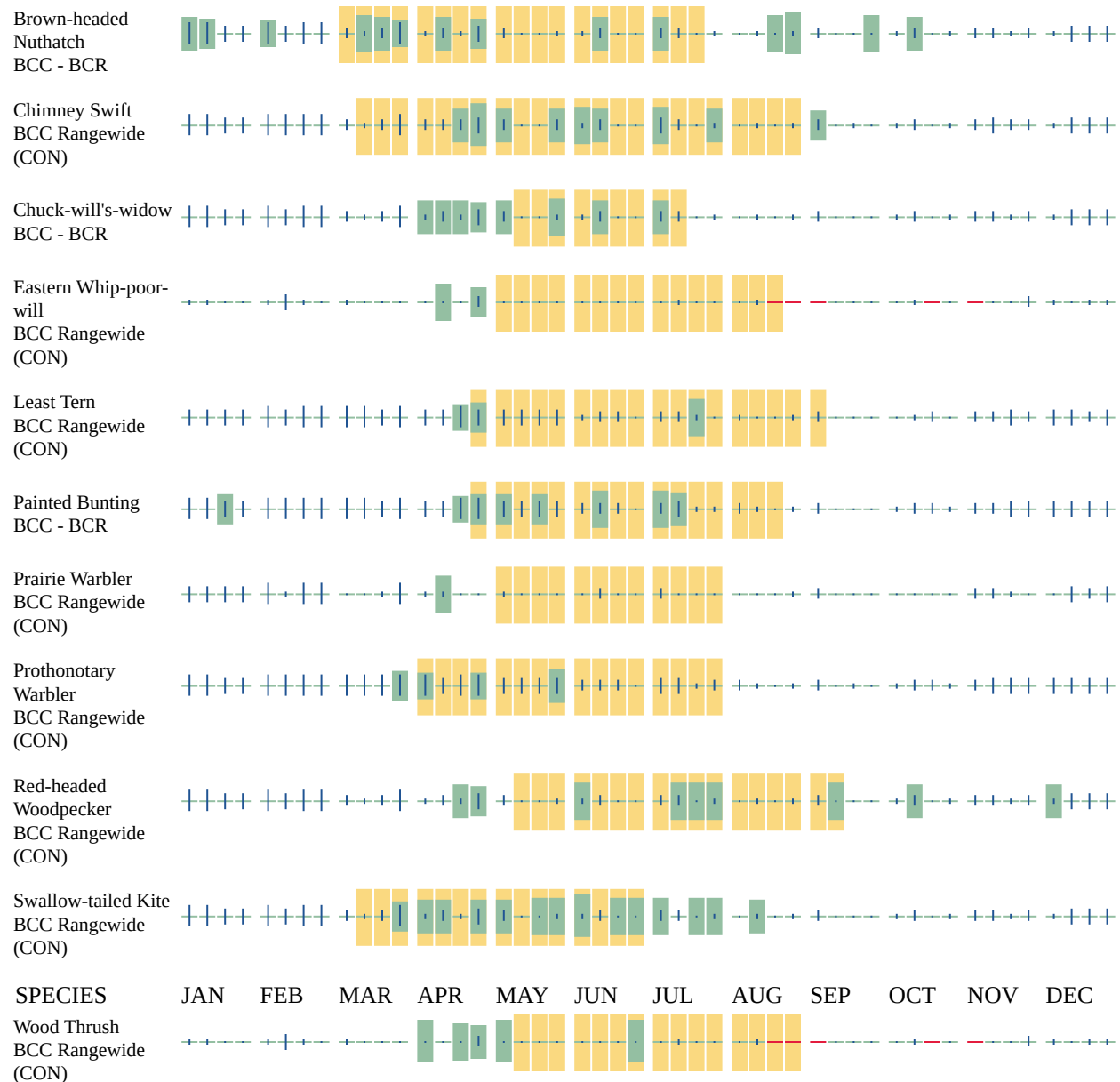
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1/3B
- PFO1/4Ad
- PSS1B
- PFO1A

RIVERINE

- R2UBH

IPAC USER CONTACT INFORMATION

Agency: Surface Transportation Board
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Address Line 2: Suite 1000
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Zip: 29201
Email: chandlertr@cdmsmith.com
Phone: 8033605197



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601-2523
Phone: (706) 460-7161 Fax: (706) 613-6059



In Reply Refer To: 10/30/2024 15:57:58 UTC
Project code: 2024-0096725
Project Name: Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction
Exemption & Docket No. FD 36723

Federal Nexus: yes
Federal Action Agency (if applicable): Surface Transportation Board

Subject: Record of project representative's no effect determination for 'Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction Exemption & Docket No. FD 36723'

Dear Russell Chandler:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on October 30, 2024, for 'Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction Exemption & Docket No. FD 36723' (here forward, Project). This project has been assigned Project Code 2024-0096725 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the **Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey)**, invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Based on your answers and the assistance of the Service's Caribbean DKey, you determined the proposed Action will have "No Effect" on the following species:

Determination for the Northern Long-Eared Bat and/or Tricolored Bat

Based upon your IPaC submission and a standing analysis, your project has reached the following effect determinations:

Species	Listing Status	Determination
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Eastern Indigo Snake *Drymarchon couperi* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Pondberry *Lindera melissifolia* Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the species covered by this key. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Georgia Ecological Services Field Office and reference Project Code 2024-0096725 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction Exemption & Docket No. FD 36723

2. Description

The following description was provided for the project 'Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction Exemption & Docket No. FD 36723':

Savannah Industrial Logistics, LLC (SIL) filed for after-the-fact authority to construct a rail line (the Line) in Docket No. FD 36723, and Savannah Industrial Transportation, LLC (SIT), an affiliate of SIL, filed for after-the-fact authority to lease and operate the same Line in Docket No. 36723 (Sub-No. 1).²⁰ The Line, which is located in an industrial park near Rincon, in Effingham County, Georgia, has no mileposts and extends from a connection with Norfolk Southern Railway Company (NSR) near NSR milepost 16.6 to a connection with CSX Transportation, Inc. (CSXT), near CSXT milepost S484.0, a distance of approximately 11,404 feet.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@32.26727955,-81.24339588447006,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the species covered by this determination key. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

Yes

4. Your project overlaps with an area where northern long-eared bats or tricolored bats may be present and roosting in trees year-round.

Do you understand that your project may impact bats roosting in trees at any time during the year?

Yes

5. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

6. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

7. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

8. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

9. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

10. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

11. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

12. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

13. Does the action area contain (1) talus or (2) anthropogenic or naturally formed rock shelters or crevices in rocky outcrops, rock faces or cliffs?

No

14. Will the action cause effects to a bridge?

Note: Covered bridges should be considered as bridges in this question.

No

15. Will the action result in effects to a culvert or tunnel at any time of year?

No

16. Are trees present within 1000 feet of the action area?

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

17. Does the action include the intentional exclusion of bats from a building or structure?

Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

18. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats**?

No

19. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic permanently or temporarily on one or more existing roads?

Note: For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

21. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

22. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

Note: For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

23. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

24. Will the action include drilling or blasting?

No

25. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

No

26. Will the proposed action involve the use of herbicides or other pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

No

27. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

28. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

29. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

No

30. Will the proposed action result in the use of prescribed fire?

Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

No

31. Does the action area intersect the tricolored bat species list area?

Automatically answered

Yes

32. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

33. Your project overlaps with an area where tricolored bats may be present and roosting in trees year-round.

Has a presence/probable absence survey for the tricolored bat following the Service's [Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area? If unsure, answer "No."

No

34. Your project overlaps with an area where tricolored bats may be present and roosting in trees year-round.

Is suitable tricolored bat habitat present within 1000 feet of project activities? Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer "Yes." Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

35. Do you have any documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Surface Transportation Board
Name: Russell Chandler
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Address Line 2: Suite 1000
City: Columbia
State: SC
Zip: 29201
Email: chandlertr@cdmsmith.com
Phone: 8033605197

5/9/2024	EI-33569	FD_36723	Bill Wikoff - f&w biologist	US Fish & Wildlife Service - Ecological Services Field Office	The project is not expected to impact ESA listed species. This comment also applies to Docket No. FD 36723 (Sub-No. 1) which I was not able to successfully enter above in the Docket No. field.	Athens, GA
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[Show Less](#)

From: [Tillman, James - FPAC-NRCS, DC](#)
To: [Belvin, Michael L.](#)
Cc: [Stevens, Karen](#); [Morehead, Madison R.](#)
Subject: RE: [External Email]Savannah Industrial Logistics, LLC and Savannah Industrial Transportation, LLC – After-the-Fact Rail Line Construction, Lease, and Operation (Docket Nos. FD 36723 and FD 36723 (Sub-No. 1X)) – Request for Comment
Date: Thursday, May 9, 2024 7:01:25 AM

You don't often get email from james.tillman@usda.gov. [Learn why this is important](#)

Thanks.

From: Belvin, Michael L. <belvinml@cdmsmith.com>
Sent: Monday, May 6, 2024 2:35 PM
To: Tillman, James - FPAC-NRCS, DC <james.tillman@usda.gov>
Cc: Stevens, Karen <Karen.Stevens@stb.gov>; Morehead, Madison R. <moreheadmr@cdmsmith.com>
Subject: [External Email]Savannah Industrial Logistics, LLC and Savannah Industrial Transportation, LLC – After-the-Fact Rail Line Construction, Lease, and Operation (Docket Nos. FD 36723 and FD 36723 (Sub-No. 1X)) – Request for Comment

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[External Email]

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On behalf of the Surface Transportation Board's (Board) Office of Environmental Analysis (OEA), CDM Smith (OEA's third party contractor) is sending the attached letter (attached) to inform you of an after-the-fact rail line construction, lease, and operation located in an industrial park near Rincon, Georgia. OEA is currently gathering information about the project and is requesting your input. If you have any questions, please contact Karen Stevens at 202-345-0304 or by email at Karen.Stevens@stb.gov.

We look forward to hearing from you.

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Jeff W. Cown, Director

Watershed Protection Branch

2 Martin Luther King, Jr. Drive
Suite 1470A, East Tower
Atlanta, Georgia 30334
404-463-1511

FLOODPLAIN ENCROACHMENT REVIEW

To: Belvin, Michael L. <belvinml@cdmsmith.com>

PROJECT NAME:	Savannah Industrial Logistics	COUNTY:	Effingham	COMMUNITY:	Effingham County
LOCATION:	Please refer to the project map.				
BRIEF PROJECT DESCRIPTION:	Savannah Industrial Logistics, LLC (SIL) filed for after-the-fact authority to construct a rail line (the Line) in Docket No. FD 36723, and Savannah Industrial Transportation, LLC (SIT), an affiliate of SIL, filed for after-the-fact authority to lease and operate the same Line in Docket No. 36723 (Sub-No. 1).20 The Line, which is located in an industrial park near Rincon, in Effingham County, Georgia, has no mileposts and extends from a connection with Norfolk Southern Railway Company (NSR) near NSR milepost 16.6 to a connection with CSX Transportation, Inc. (CSXT), near CSXT milepost S484.0, a distance of approximately 11,404 feet.				
APPLICANT:	US Surface Transportation Board	APPLICATION DATED:	05/14/2024	APPLICATION RECEIVED:	05/14/2024

SFHA* ENCROACHMENT:	Yes	EFFECTIVE PANEL(S):	13103C0269E, 13103C0288E (Effective Date: 09/11/2009)	FLOOD RISK ZONE(S):	AE, X Shaded, X
www.georgiadfirm.com		PRELIMINARY PANEL(S):	N/A	FLOOD RISK ZONE(S):	N/A
https://msc.fema.gov/portal		LETTER OF MAP CHANGE (S):	N/A	FLOOD RISK ZONE(S):	N/A
WATERSHED(S):		Lower Savannah (8 Digit HUC: 03060109)	COMMUNITY CONTACT:	<u>Planner & Floodplain Admin.</u> Address: 804 South Laurel Street, Springfield, GA 31329 Tel: (912)754-2128 <u>Georgia State Financing and Investment Commission, Senior Civil Engineer</u> Address: 270 Washington Street Atlanta, GA 30334 Tel: (404) 655-7640	
COMMENTS:		After review of the effective Flood Insurance Rate Map (FIRM) panel cited above developed by the Federal Emergency Management Agency (FEMA), a portion of the proposed project site are located within Special Flood Hazard Areas (SFHA), in Zone AE (the base floodplain mapped by detailed methods, and the base flood elevations are provided), an area inundated by the 1% annual chance flood, often referred to as the 100-year flood or base flood. Also, portions of the proposed project are in Zone X (shaded), an area of moderate risk, inundated by the 0.2% annual chance flood, often referred to as the 500-year flood. The rest of the proposed site is located outside of the Special Flood Hazard Area (SFHA), in Zone X, an area of low flood risk. Please see the Floodplain Snapshots and FEMA FIRM Extracts in the following pages for the portions of the project that are encroached on the SFHA. For projects located within or close to the SFHA, the implementation of project work should be in accordance with the floodplain management criteria outlined in 44 CFR 60.3 and all applicable ordinances of the local jurisdictions (please refer to the community contact listed above for details) that govern development within the SFHA. Some practical considerations would be to: (i) use flood resistant material for portions of facilities below the regulatory base flood elevation (BFE); (ii) as far as practical, elevate new construction above regulatory BFE or flood proof (make watertight) to that elevation; and (iii) elevate facility utility systems including ducting, electrical panels etc., above the regulatory BFE or flood proof to that elevation. (iv) Elevate facility utility systems including ducting, electrical panels etc., above the computed BFE or flood proof to that elevation.			

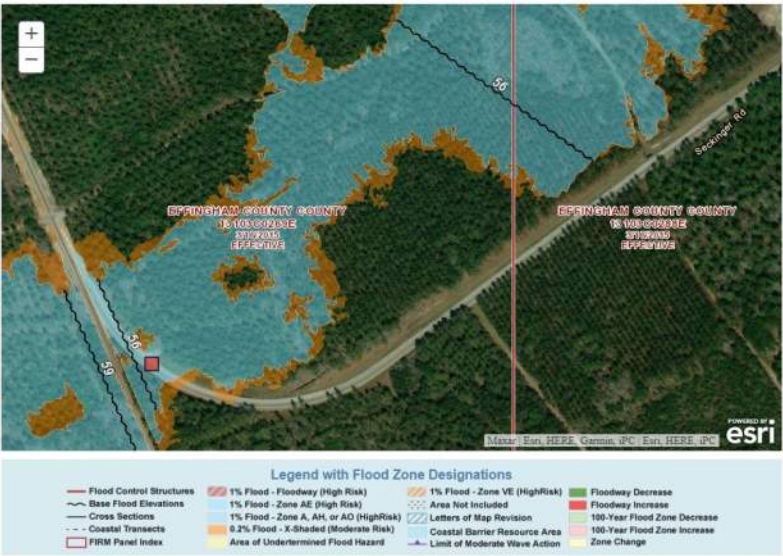
Please note that this response addresses issues related specifically to the possible effects of the project on floodplains in the area, it does not override or supersede any State or local procedural substantive provisions which may apply to floodplain management requirements associated with amendments to State or local floodplain zoning ordinances, maps, or State or local procedures adopted under the National Flood Insurance Program.

Prepared By: Olivia Martin Telephone: (470) 845-1108 Email: Olivia.Martin@dnr.ga.gov
Signature: *Olivia T.S. Martin* Date: 05/15/2024

*Special Flood Hazard Area – Area Inundated by the 1% Annual Chance Flood (Often Referred to as the 100-year Flood)

Attachments:

31326, Rincon, Georgia

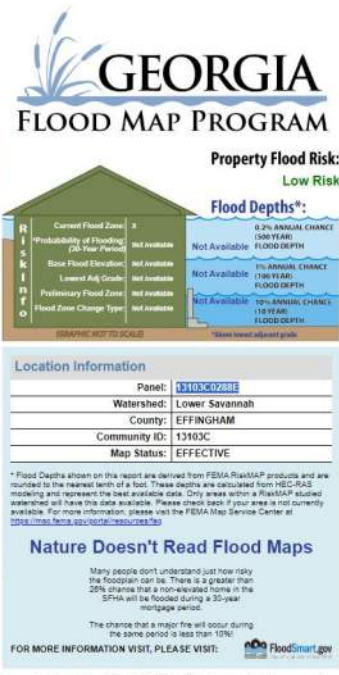
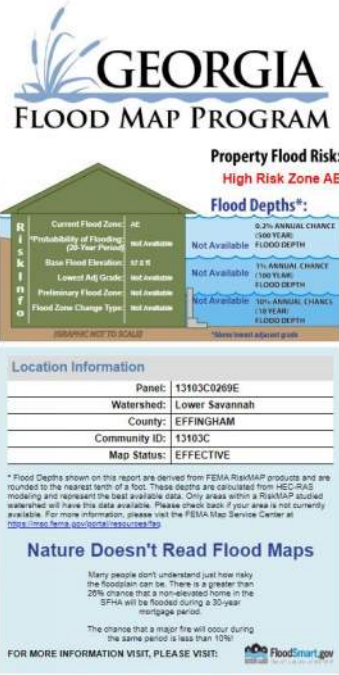


Floodplain Snapshot for the proposed project area

31326, Rincon, Georgia



Floodplain Snapshot for the proposed project area



31326, Rincon, Georgia

GEORGIA FLOOD MAP PROGRAM



Location Information

Panel:	13103C0288E
Watershed:	Lower Savannah
County:	EFFINGHAM
Community ID:	13103C
Map Status:	EFFECTIVE

Nature Doesn't Read Flood Maps

Many people don't understand just how risky the floodplain can be. There is a greater than 26% chance that a non-qualified home in the SFHA will be flooded during a 30-year mortgage period.

The chance that a major fire will occur during the same period is less than 10%!

FOR MORE INFORMATION VISIT, PLEASE VISIT: www.floodsmart.gov



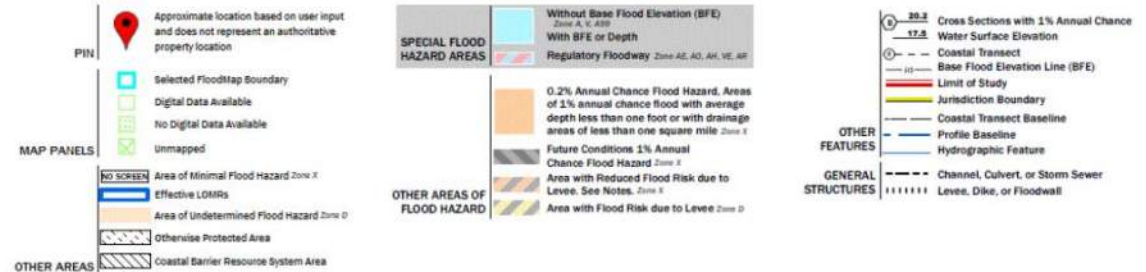
Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRM (Flood Risk Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of lot location, not extent of structure(s).

Floodplain Snapshot for the proposed project area

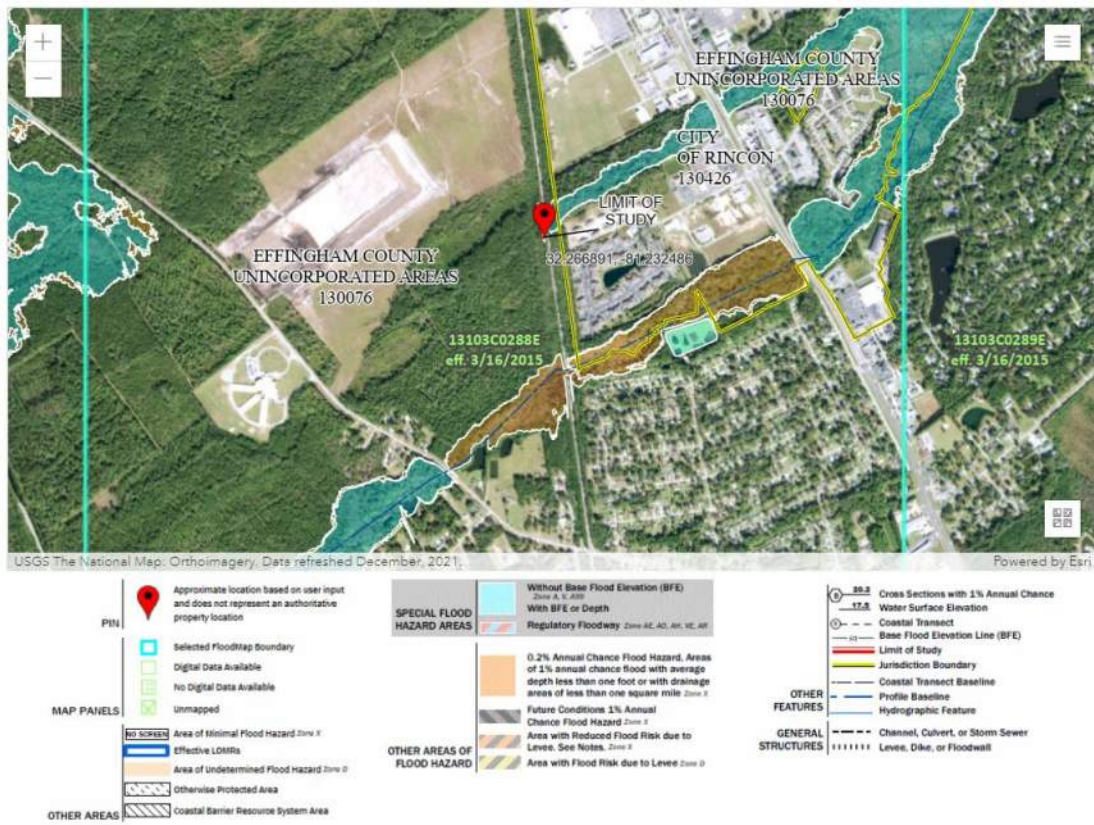


USGS The National Map: Orthoimagery, Data refreshed December, 2021.

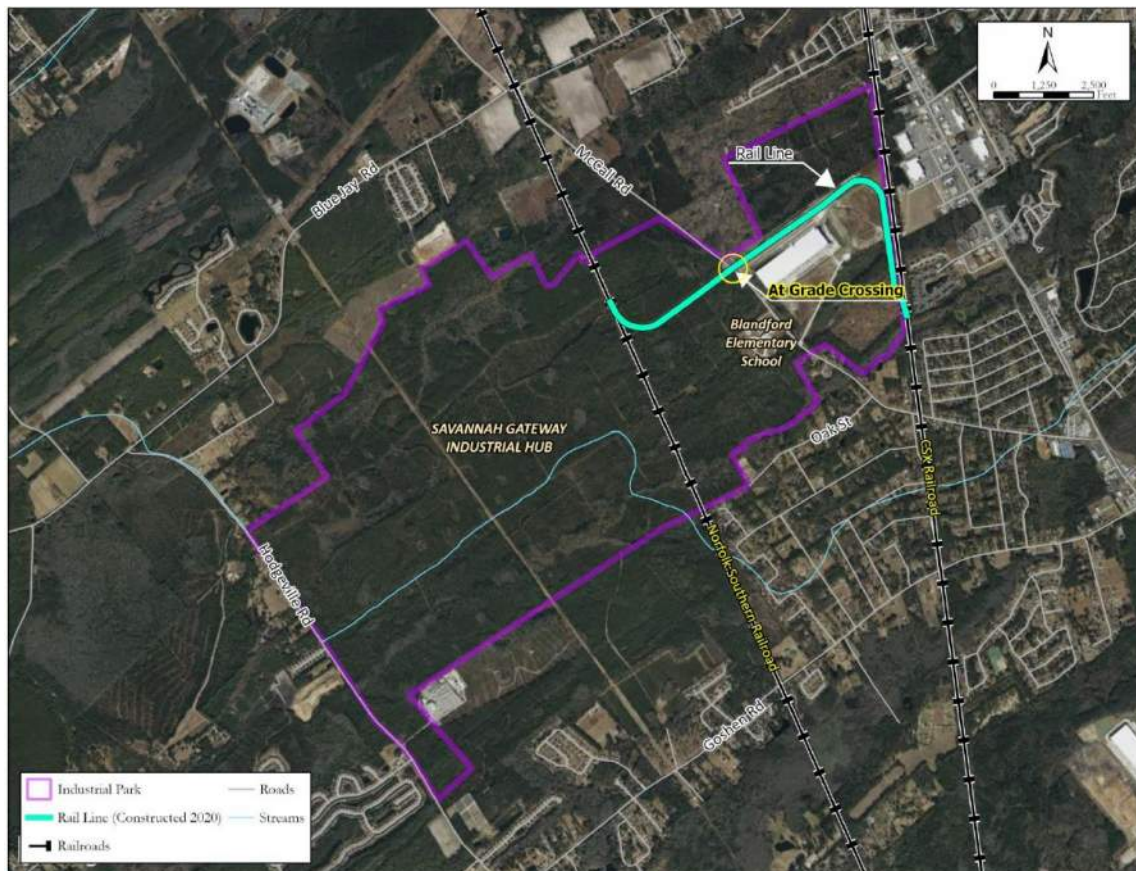
Powered by Esri



FEMA FIRM Extract



FEMA FIRM Extract



Proposed Project Location Map

From: [Borchardt, David J](#)
To: [Stevens, Karen](#); [Morehead, Madison R.](#)
Cc: [Phillips, Amber](#); [Duff, Eric](#); [Robertson, Elliott S](#)
Subject: GDOT Response for RE: Savannah Industrial Logistics, LLC and Savannah Industrial Transportation, LLC – After-the-Fact Rail Line Construction, Lease, and Operation (Docket Nos. FD 36723 and FD 36723 (Sub-No. 1X)) – Request for Comment
Date: Wednesday, May 29, 2024 6:12:23 PM
Attachments: [image.png](#)
[Docket Nos. FD 36723 and FD 36723 \(Sub-No. 1X\)\) – Request for Comment.pdf](#)

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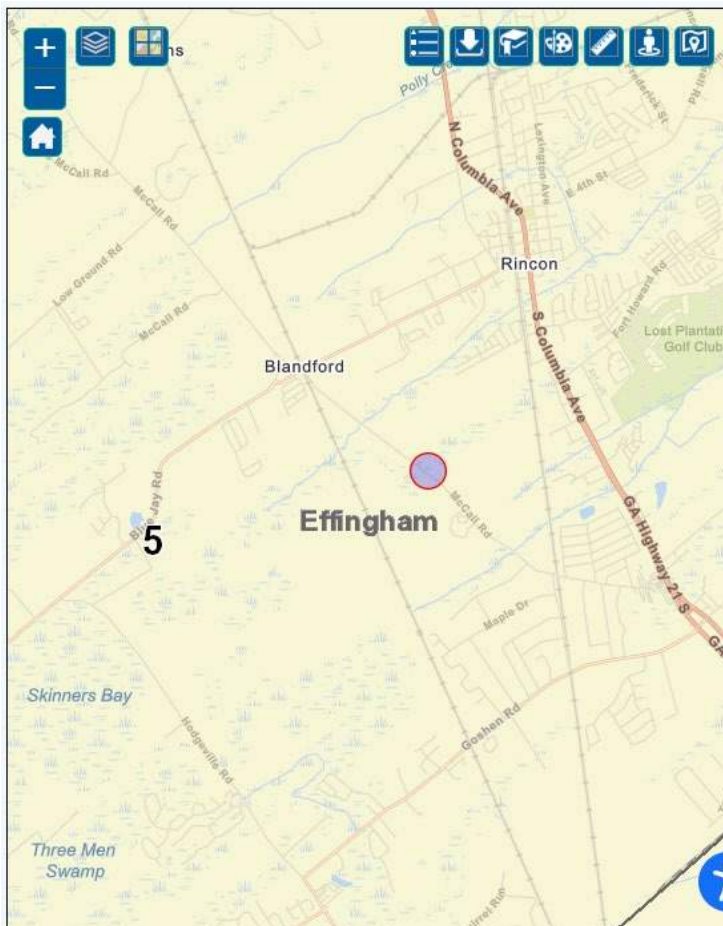
GDOT does not have any projects in the vicinity of the rail location; below snippet is from GDOTs internal database of past/active projects with the 'red circled dot' acting as the industrial park/rail line general vicinity. Please follow up with any additional questions.

Thank you for including our agency in your efforts.

David Borchardt

GDOT OES-NEPA Section

Office: 404-631-1184; Email: dborchardt@dot.ga.gov



From: Belvin, Michael L. <belvinml@cdmsmith.com>

Sent: Monday, May 6, 2024 3:02 PM

To: Duff, Eric <eduff@dot.ga.gov>

Cc: Stevens, Karen <Karen.Stevens@stb.gov>; Morehead, Madison R. <moreheadmr@cdmsmith.com>

Subject: Savannah Industrial Logistics, LLC and Savannah Industrial Transportation, LLC – After-the-Fact Rail Line Construction, Lease, and Operation (Docket Nos. FD 36723 and FD 36723 (Sub-No. 1X)) – Request for Comment

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On behalf of the Surface Transportation Board's (Board) Office of Environmental Analysis (OEA), CDM Smith (OEA's third party contractor) is sending the attached letter (attached) to inform you of an after-the-fact rail line construction, lease, and operation located in an industrial park near Rincon, Georgia. OEA is currently gathering information about the project and is requesting your input. If you have any questions, please contact Karen Stevens at 202-345-0304 or by email at Karen.Stevens@stb.gov.

We look forward to hearing from you.

Human trafficking impacts every corner of the globe, including our state and local communities. Georgia DOT is committed to end human trafficking in Georgia through education enabling its employees and the public to recognize the signs of human trafficking and how to react in order to help make a change. To learn more about the warning signs of human trafficking, visit <https://doas.ga.gov/human-resources-administration/human-trafficking-awareness/trafficking-in-georgia>. To report any suspicious activity, call the Georgia Human Trafficking Hotline at 866-363-4842. Let's band together to end human trafficking in Georgia.

From: [Cown, Jeff](#)
To: [Belvin, Michael L.](#)
Cc: [Stevens, Karen](#); [Morehead, Madison R.](#)
Subject: RE: Savannah Industrial Logistics, LLC and Savannah Industrial Transportation, LLC – After-the-Fact Rail Line Construction, Lease, and Operation (Docket Nos. FD 36723 and FD 36723 (Sub-No. 1X)) – Request for Comment
Date: Tuesday, May 21, 2024 10:29:18 AM
Attachments: [image.png](#)

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Michael,

I forwarded to my folks and they didn't have any comments.

Jeff

Jeff Cown
 Director
Environmental Protection Division
 O: (404) 656-4713 | M: (404) 772-4974

A division of the
GEORGIA DEPARTMENT OF NATURAL RESOURCES



From: Belvin, Michael L. <belvinml@cdmsmith.com>
Sent: Monday, May 6, 2024 3:06 PM
To: Cown, Jeff <Jeff.Cown@dnr.ga.gov>
Cc: Stevens, Karen <Karen.Stevens@stb.gov>; Morehead, Madison R. <moreheadmr@cdmsmith.com>
Subject: Savannah Industrial Logistics, LLC and Savannah Industrial Transportation, LLC – After-the-Fact Rail Line Construction, Lease, and Operation (Docket Nos. FD 36723 and FD 36723 (Sub-No. 1X)) – Request for Comment

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We look forward to hearing from you.



C H A T H A M C O U N T Y - S A V A N N A H

METROPOLITAN PLANNING COMMISSION

Planning the Future - Respecting the Past

June 3, 2024

Via Electronic Mail

Karen.Stevens@stb.gov

Karen Jarrett
Chair

Travis H. Coles
Vice-Chair

Wayne Noha
Secretary

Laureen Boles
Treasurer

Traci Amick

Joseph B. Ervin

Jeff Notrica

Stephen Plunk

Coren Ross

Dwayne Stephens

Joseph T. Welch

Tom Woiwode

Michael Kaigler
Ex Officio
County Manager

Jay Melder
Ex Officio
City Manager

Melanie Wilson
Executive Director/CEO

Ms. Karen Stevens
Surface Transportation Board, OEA
Docket Nos. FD 36723 and FD 36723 (Sub-No. 1)
395 E Street, SW
Washington, DC 20423

RE: Docket No. FD 36723, Savannah Industrial Logistics, LLC – Construction Exemption & Docket No. FD 36723 (Sub-No. 1), Savannah Industrial Transportation LLC (SIT) – Lease and Operation Exemption – Line of Savannah Industrial Logistics, LLC in Effingham County, Ga.; Preliminary Environmental Consultation

Dear Ms. Stevens:

The Chatham County-Savannah Metropolitan Planning Commission (MPC) and Coastal Region Metropolitan Planning Organization (CORE MPO) are submitting comments regarding the safety and environmental impacts of the Savannah Industrial Logistics, LLC (SIL) rail line connection between Norfolk Southern Railway Company (NSR) and CSX Transportation, Inc. (CSXT). These comments rely on the CORE MPO Regional Freight Plan, completed in October 2023.

The MPC recommends the Surface Transportation Board consider the safety of at-grade crossings, impact on environmental justice populations, climate vulnerability, and emissions. Recommendations from the Regional Freight Plan relevant to the crossing are included.

At-Grade Crossings

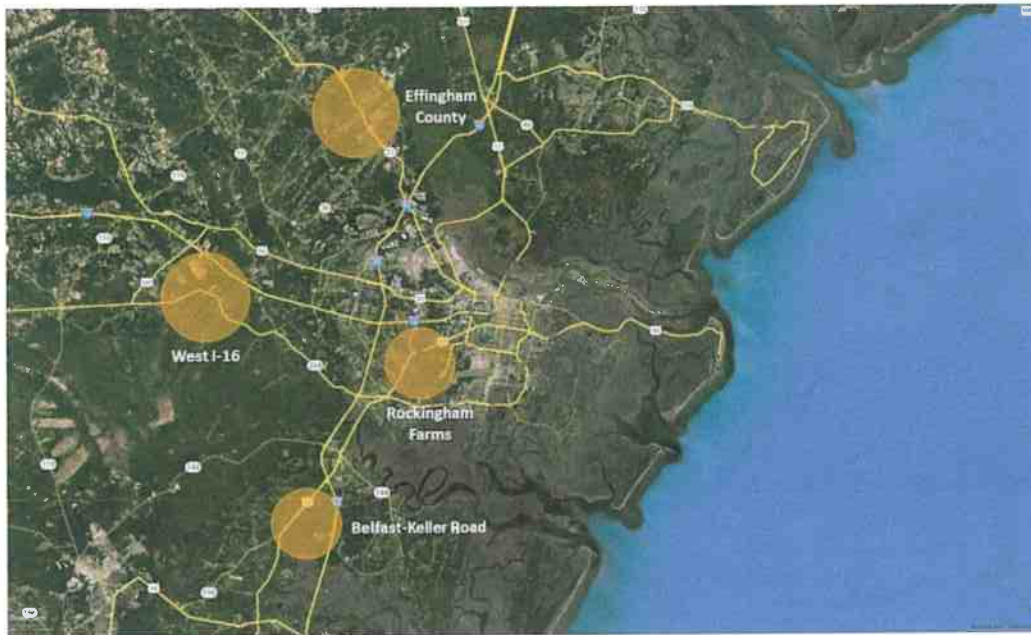
At-grade rail crossings are prevalent throughout the CORE MPO region and generally represent a physical constraint that contributes to freight and traffic bottlenecks. These crossings are points where the highway and rail systems interact and have the potential for conflict.

110 EAST STATE STREET, P.O. BOX 8246, SAVANNAH GEORGIA 31412 - 8246 PHONE 912-651-1440 FACSIMILE 912-335-5922

c:\users\everett\appdata\local\microsoft\windows\inetcache\content.outlook\82z4aoqa\2024-05-31-

savannahindustriallogistics_mpc.docx

FIGURE 2.6 EMERGING FREIGHT CLUSTERS



Source: Cambridge Systematics.

There are 192 at-grade crossings throughout the CORE MPO region. Nearly half of them are within a 5-mile radius of the Port of Savannah and impact key freight corridors such as SR 21, SR 25, SR 307, and Presidents Street. At-grade crossings and access management appear to be contributing factors to the region's congestion and travel time reliability challenges. Truck delays are largely concentrated on a handful of the region's major freight corridors. These include I-95, I-16, I-516, and SR 21.

Related to the region's congestion and reliability as well as infrastructure condition challenges, are challenges to network connectivity. Stakeholders for the CORE MPO Freight Plan Update identified two primary challenges that impact network connectivity in the region: (1) at-grade crossings and (2) lack of east-west roadway connectivity in certain areas. As the region has grown and new freight activity centers are emerging, formerly rural communities are now experiencing an influx of freight-oriented developments. While these developments are situated on or adjacent to major freight corridors, the existing freight network does not efficiently handle the origin-destination patterns generated by these developments.

Effingham County provides an example of this challenge, as it contains an emerging freight cluster along SR 21, where the SIL rail line acts as a connection within the Savannah Gateway Industrial Hub. Warehouses, distribution centers, and other freight-oriented land uses have been developed along or near freight corridors such as SR 21, McCall Road, and Old Augusta Road.

June 3, 2024

Docket No. FD 36723 and FD 36723 (Sub-No. 1)

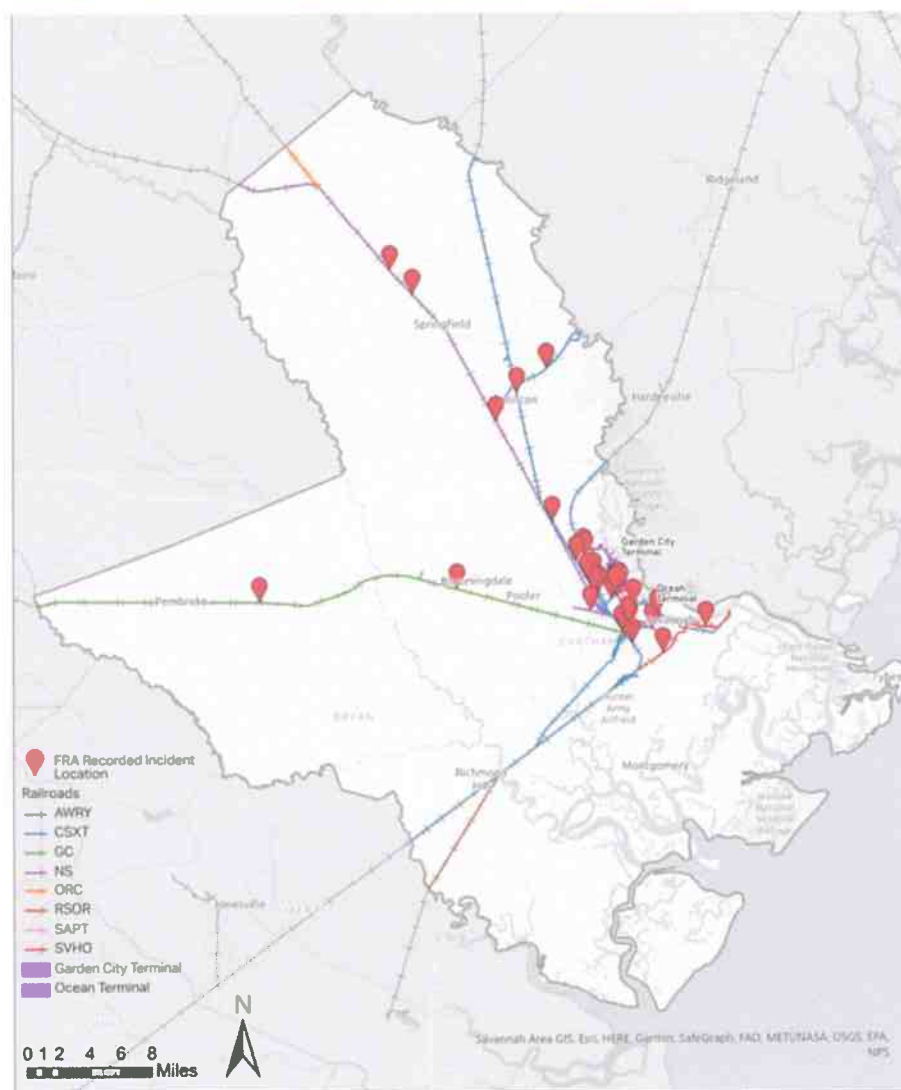
Chatham County-Savannah Metropolitan Planning Commission

Page 3

While the Savannah Gateway Industrial Hub is not fully built out yet, increased freight activity, by truck and rail, is expected to impact McCall Road.

The current roadway network provides good north-south connectivity to I-95 and the Port of Savannah, however, it does not provide good east-west connectivity to I-16. This contributes to congestion and reliability challenges on corridors such as SR 21 as they must facilitate east-west freight trips generated by these land uses due to a lack of connectivity. It appears the SIL rail line seeks to improve east-west connectivity yet did not consider the impacts on safety.

FIGURE 3.9 REGION-WIDE HIGHWAY-RAIL CROSSING INCIDENTS, 2012 - 2021



Source: Federal Railroad Administration, Highway-Rail Crossing Inventory; AECOM.

June 3, 2024

Docket No. FD 36723 and FD 36723 (Sub-No. 1)

Chatham County-Savannah Metropolitan Planning Commission

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Communities along corridors between freight gateways, auxiliary facilities, distribution centers, or manufacturers also face their own set of negative externalities produced by freight vehicle traffic. Communities along SR 21 have experienced growing truck traffic volume and congestion. For these types of impacts, roadway reconstruction projects can help alleviate these effects when these projects seek to accommodate freight vehicles while also enhancing safety and traffic flow for other users. For example, completion of the Jimmy Deloach extension as well as Effingham Parkway are expected to help alleviate overall congestion on SR 21.

While minor and (to a lesser extent) severe injury truck-involved crashes are broadly distributed across the region's highway network, fatal injury crashes appear to have primarily occurred on a few key freight routes. These include I-16, I-95, SR 21, SR 17/SR 30, and U.S. 17. Between 2012 and 2021, there were 62 highway-rail incidents involving freight railroads. Some crossings have had multiple incidents over this time frame. Of the region's 62 highway-rail incidents, 38 occurred at 11 crossings.

At-grade rail crossings represent points where the highway and rail systems interact and have the potential for conflict. Grade-level rail crossings can impose significant delays to trucks and other vehicles as they wait for trains to pass. In addition, trucks idling at crossings emit more pollutants especially as they must accelerate from a complete stop. Furthermore, at-grade crossings are a potential safety hazard as they present an opportunity for trains to collide with vehicles, pedestrians, or other roadway users. In total, there are 192 public at-grade rail crossings in the 3-county region of Bryan, Effingham, and Chatham County. Ninety percent of at-grade crossings are in environmental justice areas and historically disadvantaged communities. This means that initiatives to separate crossings, improve their safety, or reduce associated delays would benefit these communities.

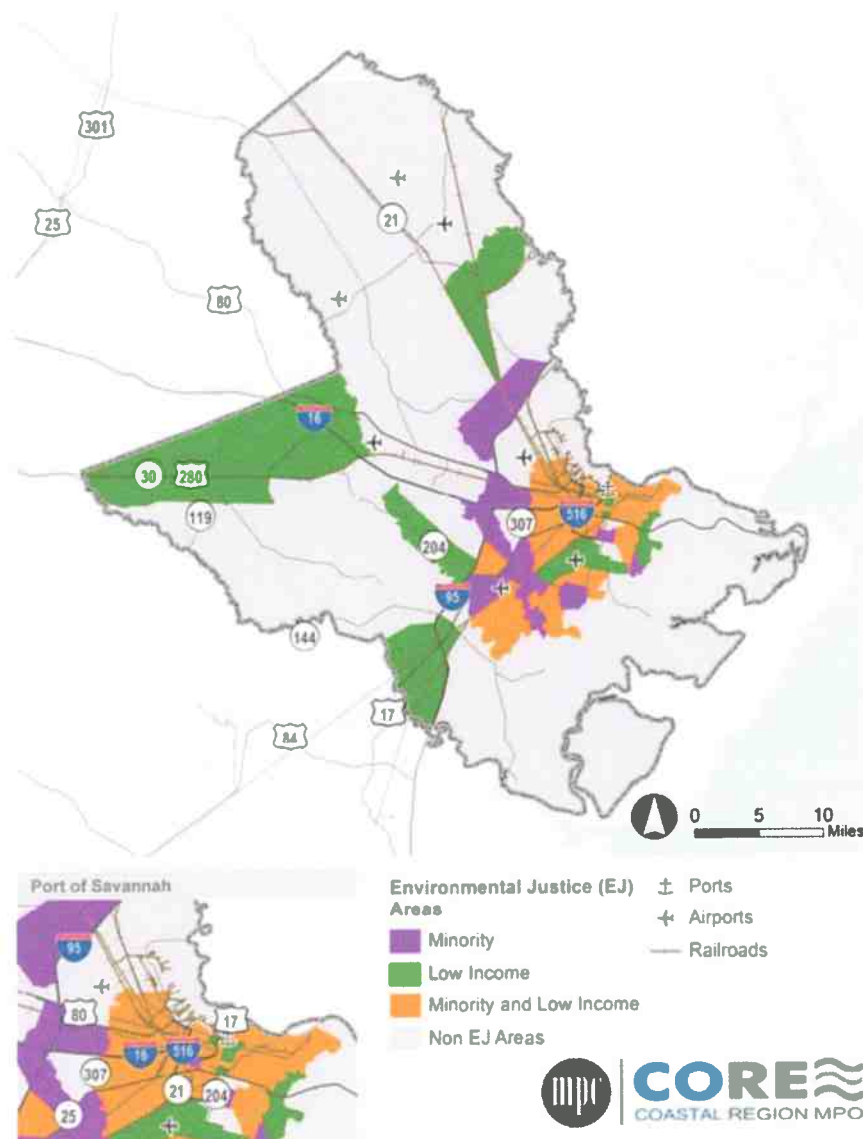
Low-income areas are defined as Census tracts with a share of the population below poverty level larger than the regional share of 12.8 percent. In Effingham County, income-based environmental justice areas were identified around the cities of Rincon and Springfield. The SIL rail line is in an identified low-income area. The Blandford Elementary School is located just south of the SIL rail line at-grade crossing along McCall Road within the Savannah Industrial Gateway Hub. The at-grade crossing is within the school zone and could impact on school traffic and pose a risk to safety. There are currently no active safety measures at the crossing.

Active crossing treatments are those that give visual and audible advance notice of the approach of a train. These include flashing-light signals (both mast-mounted and cantilevered), bells, automatic gates, active advance warning devices, and highway traffic signals. Passive crossing treatments consist of regulatory signs, warning signs, guide signs, and pavement markings. These

Docket No. FD 36723 and FD 36723 (Sub-No. 1)
Chatham County-Savannah Metropolitan Planning Commission
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devices provide static messages of warning, guidance, and in some instances, mandatory action for the driver. Generally, active crossing treatments provide greater safety to roadway users than passive or no treatments. We recommend active crossing treatments be implemented for the at-grade crossing along McCall Road.

FIGURE 2.1 ENVIRONMENTAL JUSTICE TARGET AREAS, 2020



Source: U.S. Census Bureau, 2020 Decennial Census and the 2016-2020 American Community Survey 5-Year Estimates; Cambridge Systematics, Inc. analysis.

June 3, 2024

Docket No. FD 36723 and FD 36723 (Sub-No. 1)

Chatham County-Savannah Metropolitan Planning Commission

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Source: Google Maps Street View

Noise and GHG Emissions

Increased noise and CO₂ emissions from the expected increase in freight activity are also potential concerns. Freight facilities and vehicles can generate significant noise, with loading and unloading equipment and 24-hour operations contributing to noise pollution in areas surrounding freight-intensive uses. Further, there are multiple regional trends indicating that truck CO₂ emissions will increase over the long term unless action is taken by regional leaders and their state and federal partners. The CORE MPO region is projected to experience substantial population growth over the next 20 years and will grow at a rate that exceeds statewide and national averages.

In addition, freight-related land use throughout the region is becoming more prevalent. The region's various economic development agencies are currently developing over 15,000 acres of land for heavy industrial and logistics uses. This is in addition to privately held properties being developed by the private sector for industrial uses. Underlying both the population growth and freight land use trends is the trend of accelerated growth at the Port of Savannah.

Vulnerable Railroad Assets

Figure 8.13 depicts the region's railroads and their composite risk vulnerability. The SIL rail line is in an area of low to moderate risk. As freight assets are put at risk, so too are the supply chains of which those assets are a part. If disrupted, freight movements are forced to find alternative and often unsuitable routes.

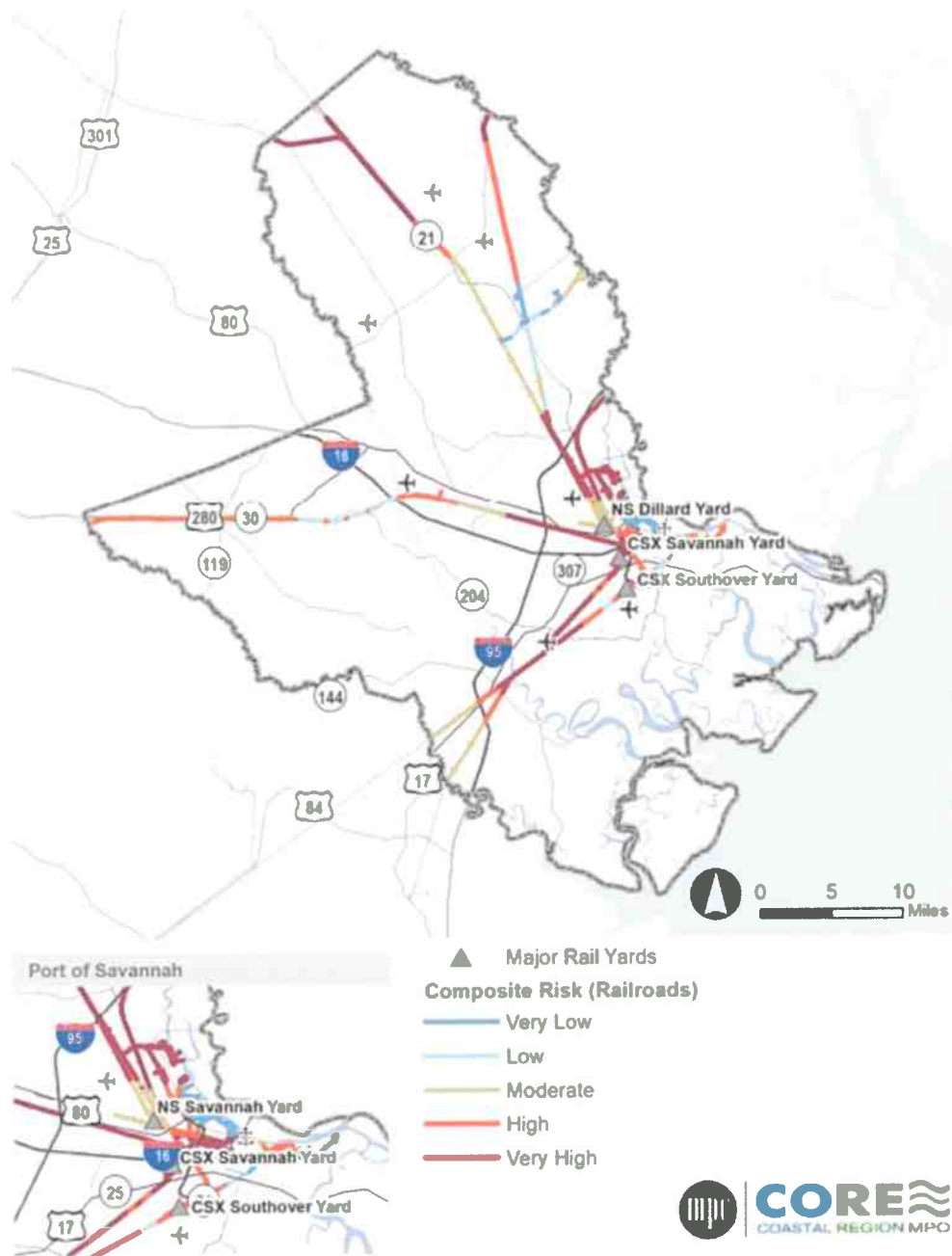
June 3, 2024

Docket No. FD 36723 and FD 36723 (Sub-No. 1)

Chatham County-Savannah Metropolitan Planning Commission

Page 7

FIGURE 8.13 VULNERABLE RAILROAD ASSETS



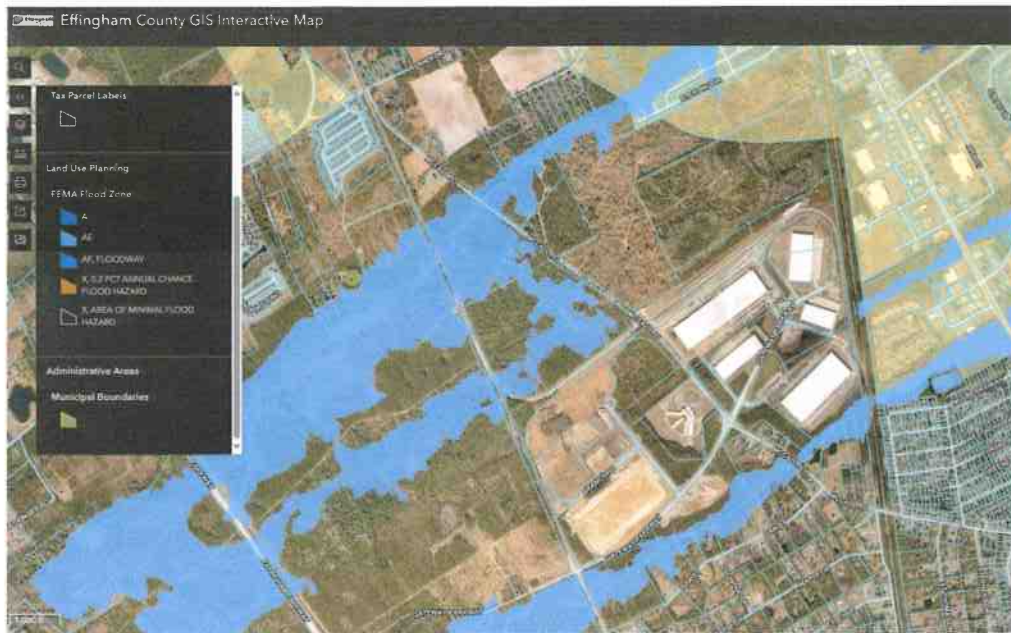
Wetlands are present west of McCall Road along the northern portion of the SIL rail line. The rail line does not appear to cross the wetlands except where it connects to the Norfolk Southern rail line.

June 3, 2024

Docket No. FD 36723 and FD 36723 (Sub-No. 1)

Chatham County-Savannah Metropolitan Planning Commission

Page 8



Source: Effingham County GIS

Freight Plan Recommendations:

The Regional Freight Plan offered recommendations at program and policy levels. There are several relevant to McCall Road, at-grade crossings, CO2 emissions, and green infrastructure. The Freight Plan anticipates McCall Road will need to be widened to accommodate for increased truck movement and will eventually need to be considered for the Effingham County Truck Ordinance.

Recommendations include:

- Traffic Signal at SR 21 and McCall Road (North): Signalize intersection, install northbound left turn lane, provide permissive-protected signal phase for westbound and northbound left turn movements, provide overlap phase for eastbound right turn movement.
- Lane Improvements at SR 21 and McCall Road (South): Install additional northbound left turn lane, install additional eastbound left turn lane, covert eastbound right turn lane to a channelized free-flowing movement.
- Blue Jay/McCall Road Freight Upgrades: Widen travel lanes and improve roadway structure to support truck movement. Upon completion, addition of these segments to the County truck ordinance as truck routes should be considered.
- McCall Road (South) Freight Improvements: Widen travel lanes and improve roadway structure to support truck movement. Upon completion, this roadway should be considered for the County truck ordinance.

June 3, 2024

Docket No. FD 36723 and FD 36723 (Sub-No. 1)

Chatham County-Savannah Metropolitan Planning Commission

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- Rail Crossing Safety Improvements: The region has nearly 200 at-grade rail crossings, but highway-rail incidents were concentrated at 34 crossings. The region should upgrade the safety equipment at these crossings.
- Install Green Infrastructure along Freight Routes and in Industrial Hubs: Incorporate green infrastructure such as bioswales, planter boxes, and street trees into the design of freight corridors.
- Estimate and Monitor Transportation Emissions to Support Mobility 2045 Environmental Goals: The CORE MPO may consider estimating and monitoring transportation emissions on a periodic basis. This would allow the CORE MPO to periodically assess and (as necessary) adjust its initiatives to reduce vehicle-miles traveled, thereby reducing transportation emissions. The Drawdown Georgia Project's Georgia GHG Emissions Tracker tool could serve as the basis for the CORE MPO to develop its own tool for monitoring transportation emissions in the region.

Thank you for the opportunity to comment on Docket No. FD 36723 and FD 36723 (Sub-No. 1). Please contact me with any questions.

Sincerely,



Melanie Wilson
Executive Director and CEO

MW:abm

cc: Wykoda Wang

From: [ER](#)
To: [Stevens, Karen](#)
Cc: [Simon Hardt](#); [CSD Region 12](#)
Subject: Construct Rail Line, Savannah Gateway Industrial Hub, McCall Road, Rincon, HP-240506-008
Date: Tuesday, June 4, 2024 5:05:14 PM
Attachments: [Effingham HP E-Review 2024-2024.pdf](#)

You don't often get email from er@dca.ga.gov. [Learn why this is important](#)

From: Historic Preservation Division

Attached is our letter on the subject undertaking (in Adobe Acrobat PDF format)

Do not respond to this e-mail.

If you have any questions concerning our letter, please contact:

Olivia Kendrick at olivia.kendrick@dca.ga.gov

A free copy of Adobe Acrobat Reader can be downloaded from: www.adobe.com

PLEASE NOTE HPD's new address is: Attn: Environmental Review, 60 Executive Park S, Atlanta, GA 30329

Mail forwarding is no longer available. To avoid delays, we recommend submitting projects to ER@dca.ga.gov.



Learn more about our commitment to [fair housing](#).



ER

Georgia Department of Community Affairs

er@dca.ga.gov

June 4, 2024

Danielle Gosselin
Director, Office of Environmental Analysis
Surface Transportation Board
395 E Street, SW
Washington, DC 20423
Attn: Karen Stevens, Project Manager

**RE: Construct Rail Line, Savannah Gateway Industrial Hub, McCall Road, Rincon
Effingham County, Georgia
HP-240506-008**

Dear Ms. Gosselin:

The Historic Preservation Division (HPD) has received the information submitted concerning the above referenced project. Our comments are offered to assist the Surface Transportation Board (STB) and its applicants in complying with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

The subject project consists of constructing an approximately 11,404-feet (ft.) long rail line within the Savannah Gateway Industrial Hub across a portion of the circa (ca.) 2019 Effingham County parcel 0450F021A00 located along McCall Road and a portion of the ca. 2020 parcel 0450F003 at 4575 McCall Road in Rincon. Based on the information provided, it is HPD's understanding that the rail line construction was completed in late 2020, however consultation with our office was not initiated until May 6, 2024. HPD would like to note that it is not within our role under Section 106 of the NHPA to comment on projects that are already completed since the undertaking may already have affected historic properties. In order to complete the Section 106 process in such circumstances, the federal agency and the Advisory Council on Historic Preservation may consider foreclosure and/or the applicability of Section 110k of the NHPA (54 U.S. Code § 306113). Such consideration by the federal agency can lead to significant project delays.

However, in order to move this project forward and based on the information provided and desktop research, HPD finds the National Register of Historic Places (NRHP)-eligible Savannah & Atlanta (SVAT) Railroad and the Florida Central & Peninsular (FLCP) Railroad are within the proposed project's area of potential effect (APE). However, it is HPD's opinion that the subject project, as proposed, will have **no adverse effect** to historic properties within its APE, as defined in 36 CFR Part 800.5(d)(1), due to the scope and location of the work, existing modern intrusions, and previous ground disturbance.

This letter evidences consultation with our office for compliance with Section 106 of the NHPA. It is important to remember that any changes to this project as it is currently proposed may require additional consultation. HPD encourages federal agencies and project applicants to discuss such changes with our office to ensure that potential effects to historic properties are adequately considered in project planning.

Please refer to project number **HP-240506-008** in any future correspondence regarding this project. If we may be of further assistance, please contact Olivia Kendrick, Environmental Review Historian, at Olivia.Kendrick@dca.ga.gov or (404) 486-6425 or Noah Bryant, Compliance Review Archaeologist, at Noah.Bryant@dca.ga.gov or (404) 679-0649.

Ms. Gosselin
HP-240506-008
June 4, 2024
Page 2

Sincerely,

A handwritten signature in blue ink, appearing to read "Stacy Rieke". The signature is fluid and cursive, with the first name "Stacy" and last name "Rieke" clearly distinguishable.

Stacy Rieke, MHP
Program Manager
Environmental Review & Preservation Planning

SMR/olk

cc: Simon Hardt, Coastal Regional Commission of Georgia
Jennifer Fordham, DCA Regional Services, Region 12



Norfolk Southern Corporation
650 West Peachtree St NW
Atlanta, GA 30308
Telephone (470) 571-5208

Hanna M. Chouest
Deputy General Counsel

June 5, 2024

By E-Filing

RE: Docket No. FD 36723, *Savannah Industrial Logistics, LLC – Construction Exemption* & Docket No. FD 36723 (Sub-No. 1), *Savannah Industrial Transportation LLC (SIT) – Lease and Operation Exemption – Line of Savannah Industrial Logistics, LLC in Effingham County, Ga.; Preliminary Environmental Consultation*

Dear Ms. Stevens,

Norfolk Southern Railway Company (“NSR”) hereby responds to the request sent by the Surface Transportation Board’s Office of Environmental Analysis (“OEA”) regarding the above referenced-dockets on May 6, 2024. In that correspondence, OEA requested comment regarding Savannah Industrial Logistics, LLC’s filing for after-the-fact authority to construct a rail line and Savannah Industrial Transportation, LLC’s filing for after-the-fact authority to lease and operate that same rail line (the “Line”) in an industrial park near Rincon, in Effingham County, Georgia.

NSR confirms that the Line connects to NSR at Milepost 16.6 as reported by the applicants. NSR has no concerns regarding the construction or operation of the Line. To the contrary, NSR supports the development of the industrial park and accompanying rail infrastructure.

Sincerely,

/s/ Hanna Chouest

Hanna Chouest

Appendix B

Grade Crossing Delay

This section addresses the existing conditions and impacts related to grade crossing delay of vehicles (cars and trucks) expected to occur at the at-grade rail crossing of McCall Road immediately west of the Savannah Gateway Industrial Hub (SGIH) property.

The operational traffic analysis evaluated the grade crossing in the study area: existing (2024), No-Action and Proposed Action (2029). These scenarios are used exclusively to refer to existing and future conditions in the traffic analysis.

Scenarios Examined

The existing scenario represents traffic conditions that exist in the year 2024. The roadway traffic volumes were developed assuming a 2 percent annual growth rate from the 2020 base year used in the Lowe Engineers Savannah Gateway Traffic Impact Study prepared on August 30, 2019. (Note: Although referred to as 2020 volumes, they were determined based on 2019 counts and were not impacted by Covid related traffic reductions.)

The future analysis is conducted for 2029. Since the proposed grade crossing is in place for 2024, the future 2029 No-Action and Proposed Action scenarios reflect no changes in roadway or railroad geometrics. The McCall Road grade crossing remains in place. Roadway traffic volumes are assumed to increase at 2 percent per year from the 2024 to 2029 under both scenarios.

The difference between the No-Action and Proposed Action scenario is related to rail operations. Specifically, the current tracks support a single company (QUANTIX) with 5,500 railroad cars per year with an expected increase to 7,500 rail cars per year in the 2029. However, under the No-Action scenario, rail operations on the Line would cease, thus no trains would operate on the Line. The Proposed Action scenario assumes the same increase in rail traffic for QUANTIX plus three additional companies with an expected total of 20,000 rail cars per year in 2029. **Table 1** identifies the anticipated growth in rail cars through 2029.

Table 1. Anticipated Growth in Rail Cars Served at SGIH – 2024 to 2029

CARLOAD GROWTH ESTIMATE						
	2024	2025	2026	2027	2028	2029
Quantix	5500	6000	6500	7000	7500	7500
NewCo 1	0	1000	2000	2000	2000	2000
NewCo 2	0	0	0	2500	10000	10000
NewCo 3	0	0	0	0	0	500
TOTAL CARLOADS:	5500	7000	8500	11500	19500	20000

Assumptions:

- The NewCo companies listed above are potential customers in various stages of development and new customers may be added or listed customers removed at any point due to the nature of this proceeding and general shifts in business.

Assumptions for Rail Volumes and Operations through an Average Week

For 2024, it was assumed that there are 5,500 rail cars per year served by a calculated 10.6 cars per train. This resulted in an assumed conservative length of 850 ft per train (75 ft per car plus 100 ft for locomotive). For future conditions, estimates of train length and frequency were identified recognizing that with increased rail car volumes either an increase in the length of trains, the frequency of trains and/or both will be required.

While multiple variations of the number of trains and their length could occur, the number of trains anticipated to unload by 2029 will be double the existing number of trains. Based on this doubling of the number of trains serving the site, the average number railcars per train is estimated to increase to 19.2 railcars per train for the Proposed Action.

A summary of the railroad operations and assumptions for the existing (2024) and future (2029) conditions is shown in **Table 2**. The No-Action scenario is not reflected in this table and the rest of the analysis as rail operations would cease under this scenario. The analysis shown focuses on the impact of a single rail crossing event and is not dependent on the volume of vehicular traffic on McCall Road or the number of trains.

Table 2. Rail Volumes and Operational Impacts of Single Train Crossing of McCall Road

Year	Description/ Assumptions	Rail Carloads per Year	Trains per Week	Average Length of Train (cars)	Length of Train (ft) - assumes 75 ft per car + 100 ft locomotive
2024 EXISTING: QUANTIX IN CURRENT STAGE: EST. 5,500 rail cars per year					
2024	data computed	5,500	10	10.6	893
PROPOSED ACTION QUANTIX & 3 ADDITIONAL COMPANIES: UP TO 20,000 rail cars per year					
2029	20 trains/ week	20,000	20	19.2	1,542

Notes:

1. Two total trains per day are currently serving the site, half from the CSX Transportation (CSXT) and half from the Norfolk Southern Railway (NSR) rail lines. With deliveries occurring five days per week, this is the equivalent of 10 trains per week.
2. By 2029, the number of trains per day will have doubled to 4 per day (half from CSXT and half from NSR) reflecting 20 trains per week.

Traffic Operations on McCall Road

The volume of roadway traffic (cars and trucks) is a critical input in the calculation of delay under existing conditions. The delay examined in this analysis is associated with vehicles having to slow down and stop as a train approaches, wait for the train to pass, and then continue their trip. Average crossing delay per event is shown in **Table 2**, but an estimate of vehicular volumes are required to estimate the number of vehicles that must stop and are delayed. The traffic volumes used for McCall Road are in **Table 3**.

Table 3. Existing and Future Traffic Volumes on McCall Road

Traffic Volumes on McCall Road			Percent of Daily Traffic			
			9.3%	10.0%	8.0%	4.2%
Year	Scenario	AADT (vpd)	AM Peak (vph)	PM Peak (vph)	Avg Daytime Hour	Avg Hour
2020	Base Year for TIS	5990	560	599	479	250
2024	Existing Year for EA	6484	606	648	519	270
2029	Future Year for EA	7159	669	716	573	298

Notes:

2020 AM & PM Peak developed from Savannah Gateway TIS (Traffic Impact Study) dated 8/30/2019

AADT developed assuming an 10% DHV (i.e. 10% of daily traffic occurs in peak period)

2024 & 2029 volumes calculated using 2% annual growth rate identified in TIS

Roadway traffic volumes were developed assuming a 2 percent annual growth rate from the 2020 base year used in the Lowe Engineers Savannah Gateway Traffic Impact Study prepared on August 30, 2019. (Note: Although referred to as 2020 volumes, they were determined based on 2019 counts and were not impacted by Covid related traffic reductions.) The study focused on peak AM and PM volumes which were converted to AADT volumes assuming a 10 percent Design Hourly Volume (DHV) factor (i.e. 10 percent of the daily volume occurs in the peak period).

In addition, it was noted that train operations currently occur between 5:00 AM and 2:00 PM. NSR interchange occurs before noon and CSXT occurs after noon. NSR does deliver cars on Saturdays. To be conservative, however, it was assumed that rail crossings necessitating stops on McCall Road would occur on weekdays during daylight hours only. This period reflects higher traffic volumes and conservatively provides a higher estimate of roadway vehicle demand. Therefore, an analysis was not conducted to determine Peak PM hour volumes. An average hourly percentage of 8 percent for the daylight hours was also conservatively assumed.

Key Assumptions for Grade Crossing Delay – Individual Train Crossings

The grade crossing delay analysis includes the two general components, one focused on individual train crossings and one focused on cumulative events over an entire day. The performance measures for individual train crossings include blocked crossing time per train, crossing delay per stopped vehicle, and maximum vehicle queue. The performance measures for cumulative events over an entire day include number of vehicles delayed per day, average delay for all vehicles, and level of service (LOS) for vehicular traffic. For simplification purposes, it is assumed that both rail and road traffic are uniform throughout the day using the average daytime hour.

Initial calculations focused on performance measures for a single crossing event. Key assumptions were:

- The Proposed Action is the authorization “after-the-fact” of SIL’s construction of the 11,404-foot rail line, and authorization “after-the-fact” of SIT’s lease and operation of the same rail line as a common carrier. If the Board approves both actions, SIL and SIT would be able to operate the previously constructed rail line as a common carrier and would be required to provide rail service to any shipper within the SGIH upon reasonable request.
- SIL and SIT state that current operations consist of two trains totaling four movements per day that interchange with CSXT and NSR. If the Board authorizes the Proposed Action, SIT and SIL estimate the existing rail traffic on the Line would increase by two trains per day (to a total of four trains, eight movements per day) by 2029.
- CSXT and NSR deliver and pick up (interchange) with SIT. Both CSXT and NSR trains never travel across the Line but rather interchange where the Line meets each Class 1 rail line. SIT operates switching services and provides loading/unloading operations including the movement of rail cars from the CSXT and NSR side tracks.
- Only rail traffic from the west (the NSR line) would need to cross McCall Road with SIT servicing the rail cars over McCall Road. Rail traffic from the eastern tracks (CSXT) would also be serviced by SIT, but would not extend beyond the SIT railyard or McCall Road.
- It is assumed that rail traffic would be split evenly (50 percent each) between NSR and CSXT. With this assumption, only half of rail cars served at the site would need to cross McCall Road.
- Due to the loading and unloading operations at the yard and there being no through traffic, all rail operations are assumed to be slow. For this analysis, all trains crossing McCall Road are assumed to operate at 5 mph for computing delays to McCall Road traffic. This is a conservative assumption for the computation of delays based on the previously identified 10 mph speed for operations by SIT.

Grade Crossing Closure Time and Delays – Individual Train Crossings

Using FRA equations and methodologies, the performance measures for individual train crossings were computed as shown in **Table 4**. The average train length and speed (5 mph) was used to compute the amount of time the grade crossing is blocked. Then the McCall Road traffic volumes were utilized to estimate the number of vehicles forced to stop (or queue) and the total crossing delay per train event is calculated.

An analysis, of the existing scenario, indicates the average blocked time per crossing event in 2024 is 2.6 minutes. By 2025, this time is expected to increase with more rail cars and additional trains serving the facility. In the 2029 Proposed Action, the blocked crossing time is estimated to be 4.1 minutes with approximately 20 cars/train (rounded up from 19.2).

In addition to computing the average crossing event closure time per train, the average and total overall delays for roadway vehicles caused by a single crossing train closure event were estimated. The combined longer closure time (due to more rail cars per train) and increased volumes on McCall Road resulted in increased vehicle delays for an individual crossing as shown in the final column of **Table 4**. In the 2029 Proposed Action, the total blocked delay time for all roadway vehicles is estimated to be 80.4 minutes (i.e. 2.1 minutes/ vehicle for 39.2 roadway vehicles).

Table 4. Performance Measures for Individual Train Crossings (during average daytime hour)

Year	Description/ Assumptions	Average Length of Train (cars)	Length of Train (ft) - assumes 75 ft per car + 100 ft locomotive	Assumed Speed of Train (mph)	Blocked Crossing Time per Train Crossing (min)	Average Delay per Stopped Vehicle on McCall Road (min/veh)	Average Number of Roadway Vehicles Queued per Crossing (in avg daytime hr)	Average Queue Length (assumes 20 ft/veh) (feet)	Total Vehicle Delay per Crossing Event (min)
2024 EXISTING: QUANTIX IN CURRENT STAGE: EST. 5,500 rail cars per year									
2024	data computed	10.6	893	5	2.6	1.3	22.7	455	29.9
PROPOSED ACTION QUANTIX & 3 ADDITIONAL COMPANIES: UP TO 20,000 rail cars per year									
2029	20 trains/week	19.2	1,542	5	4.1	2.1	39.2	784	80.4

Notes:

1. Length of train conservatively assuming 80 ft/ car. (actual length of car approx. 60 ft)
2. Blocked Crossing time reflects travel time of train across tracks plus 0.6 minute lead time.
3. Average delay per vehicle is half of the Blocked Crossing Time assuming equal distribution of arriving vehicles at the crossing.

Grade Crossing Delay – Cumulative Events over an Entire Day

As noted previously, the grade crossing delay analysis includes the two general components, one focused on individual train crossings (see the previous section) and one focused on cumulative events over an entire day. The performance measures for cumulative events over an entire day include number of vehicles delayed per day, average delay for all vehicles, and level of service (LOS) for vehicular traffic.

The next step in this analysis requires an estimation of the number of train crossing events that would occur on the average day. The number of train crossings for each scenario is shown in **Table 6**.

Table 6. Number of Train Crossings per Day

Year	Description/ Assumptions	Rail Carloads per Year	Average Length of Train (cars)	Total Trains per Week	Total SIT Trains Per Week	Days per Week for Deliveries from NS	Number of SIT Trains that Cross McCall Road per day	Number of McCall Road Train Crossings per Day (Enter & Egress)
2024 EXISTING: QUANTIX IN CURRENT STAGE: EST. 5,500 rail cars per year								
2024	data computed	5,500	10.6	10	5	5	1.0	2.0
PROPOSED ACTION QUANTIX & 3 ADDITIONAL COMPANIES: UP TO 20,000 rail cars per year								
2029	20 trains/week	20,000	19.2	20	10	5	2.0	4.0

Notes:

1. Length of train conservatively assuming 80 ft/ car. (actual length of car approx. 60 ft)
2. Blocked Crossing time reflects travel time of train across tracks plus 0.6 minute lead time.
3. Average delay per vehicle is half of the Blocked Crossing Time assuming equal distribution of arriving vehicles at the crossing.
4. Number of Train Crossings per day based on two SIT train crossings per day (1 into and 1 out of site).
5. CSXT also has two trains per day delivering rail cars, but will not cross or close McCall Road. Therefore, CSXT rail cars were not included in delay analysis.

With the number of train crossings per day estimated, the total delay for an average day can be computed using the average delay per crossing event multiplied by the number of crossing events per day. This total can then be converted into average vehicle delay per day as well as other key measures. These calculations are summarized in **Table 7**.

Table 7. Total Crossing Delay per Day (24 Hours)

Year	Description/ Assumptions	Number of McCall Road Train Crossings per Day (Enter & Egress)	Delay per Crossing Event			Delay per Day			
			Average Delay per Stopped Vehicle (min/veh)	Average Number of Vehicles Delayed per Crossing (assumes crossing in avg daytime hr)	Total Delay per Crossing Event (min)	Average Daily Blocked Crossing Time (min)	Average Number of Vehicles Delayed per Day (veh)	Percent of Daily Vehicles Stopped due to Train Crossing	Total Crossing Delay (min/day)
2024 EXISTING: QUANTIX IN CURRENT STAGE: EST. 5,500 rail cars per year									
2024	data computed	2.0	1.3	22.7	29.9	5.3	45	0.7%	59.8
PROPOSED ACTION QUANTIX & 3 ADDITIONAL COMPANIES: UP TO 20,000 rail cars per year									
2029	20 trains/week	4.0	2.1	39.2	80.4	16.4	157	2.2%	321.7

Notes:

1. The computed total crossing delay per day refers to vehicular delays caused by the closure of McCall Road.
2. Variations of train length (rail cars per train) were tested recognizing that future operational needs and procedures are not finalized and may vary. For the options tested, multiple crossings per day by shorter trains has lower delay impacts on roadway traffic. Estimated length of rail cars per train is given in **Table 6**.
3. 20 trains per week reflect interchange with both NS and CSXT. Only trains delivered to the site (half) will cross McCall Road.

Grade Crossing Delay and Level of Service Concept

Level of Service (LOS) is a standardized measure utilized in highway capacity analysis to measure congestion levels and individual drivers perceptions of roadway capacity. Different measures are used for different facility types to more accurately incorporate driver expectations. Nevertheless, the primary focus of level of service is to provide a relative grade for traffic operations.

The general scale ranges from LOS A (indicating relatively free-flow conditions) to LOS F (representing very poor or “failed” operations with excessive delays and queuing). In general LOS C is preferred in rural settings, with LOS D viewed as acceptable in urban settings. LOS E represents unstable conditions which can easily degrade to LOS F or failed conditions.

Although these measures were developed for measuring highway delays, the Level of Service concept is also utilized for grade crossing studies. The specific measure used is based on the method for estimating traffic signal delay and operations. For a traffic signal, the average delay per vehicle is estimated for all vehicles using the signal over a full hour. This average delay per vehicle is utilized to assign a LOS based on the standards shown in the **Table 8** notes.

In applying the LOS threshold chart for railroad crossings, there is one key difference in application of the thresholds. Specifically, the average delay per vehicle over an entire 24-hour period (instead of just one peak hour as used in the signalized intersection standards).

- The one-hour standard for signalized intersections recognizes that a traffic signal results in delays due to red times applying to all directions of flows in phases through the entire hour. Specifically, the red light phases require stops on all approaches from 30 to 60 times every hour with every signal cycle.
- For railroad crossings, the frequency of grade crossings (which require stops on the roadway) are much fewer and can be as few as a couple times a day or as high as a few times an hour. The 24-hour threshold is more applicable for railroad crossings and is used as the standard measure for determining the acceptability of roadway congestion impacts at grade crossings.
- As with intersection traffic signals, an acceptable LOS for a railroad grade crossing (based on a 24-hour period) is LOS C. As shown in **Table 8**, to achieve LOS C an average delay of 35 seconds/vehicle or less is needed.

Primary Measure of Crossing Delay – Average Delay over 24 Hours & Resulting LOS

In **Table 8**, the average delay per roadway vehicle over a 24-hour period is computed and a corresponding LOS is identified. The 24-hour delay is the critical measure utilized in determining whether delays to roadway traffic are acceptable. Key observations are:

- LOS A is anticipated for 2029 operations based upon average daily delay per vehicle of 2.7 seconds per vehicle. This finding indicates that expected impacts on the roadway system for the Proposed Action scenario is acceptable.
- The delay analysis assumes that each SIT interchange with NSR entails two movements. One movement delivers railcars from the SIT railyard to the NSR, and the other movement retrieves railcars from the NSR and delivers them to SIT railyard. Each movement requires crossing McCall Road; therefore, each interchange with NSR requires crossing McCall two times.
- Because SIT interchange with CSXT does not require crossing McCall Road, McCall Road is not closed for SIT interchange with CSXT.

Table 8. Total Crossing Delay per Vehicle and Level of Service for 24 Hour Standard and Peak Hour Worst Case

			Delays and LOS over 24 Hours (Required Rail Crossing Measure & Comparison)			
Year	Description/ Assumptions	Average Length of Train (cars)	Total Crossing Delay (min/day)	Average Vehicles per Day (vpd)	Average Delay per Vehicle in 24 hrs (sec/veh)	LOS over 24 hours
2024	data computed	10.6	59.8	5,990	0.6	A
PROPOSED ACTION QUANTIX & 3 ADDITIONAL COMPANIES: UP TO 20,000 rail cars per year						
2029	20 trains/ wk	19.2	321.7	7,159	2.7	A
		Average Delay per Vehicle (sec/veh)	General description	Notes: 1. LOS criteria shown was developed and is used for traffic signals based on average delay per vehicle during single peak hour. 2. Same criteria table is utilized for grade crossings based on average delay per vehicle over 24-hour period. 3. The 24-hour LOS is the key measure for whether a grade crossing operates acceptably. LOS C is the preferred standard, although LOS D can be acceptable. Source: Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis. (Transportation Research Board 2016)		
	LOS					
	A	DV < 10	Free flow			
	B	10 < DV < 20	Stable flow (slight delays)			
	C	20 < DV < 35	Stable flow (acceptable delays)			
	D	35 < DV < 55	Congested flow nearing capacity			
	E	55 < DV < 80	Unstable flow, slightly over capacity			
	F	80 < DV	High level of delays & queuing, forced flow			

Emergency Vehicle Delay

In addition to delay caused to the motoring public at grade crossing, another potential impact is caused when a rail crossing event slows or prevent emergency vehicles from crossing the tracks during an emergency situation.

In the case of a routine rail crossing coinciding with the arrival of an emergency vehicle, the blocked crossing time identified in **Table 4** would be the delay encountered if the emergency vehicle were forced to stop for the train to pass. The average blocked time per crossing event in 2024 is 2.6 minutes. By 2029, this time is expected to increase. In the 2029 Proposed Action, the blocked crossing time is 4.1 minutes (with approx. 20 cars/train).

It is also possible that an alternate route may be required for different emergency services if there was a prolonged delay or closure at the McCall Road crossing. While it is assumed that there will be no stopped trains on the roadway, it is possible that this could occur for multiple reasons such as a train malfunction, loading and backup issues at SGIH, or an emergency incident at the rail crossing or SGIH itself. In these cases, an alternate route or alternate emergency responder may be required.

In case of this type of scenario, a comparison of alternate routes and travel times was conducted using Google Maps utilities and directional routing capabilities. Travel times from multiple local emergency services units were examined assuming that they had to approach the McCall Road crossing from the north and the south. The results of these different paths is shown in **Table 9**. Some observations include:

- In general, the additional travel time was measured from 1 to 10 minutes. In all cases, this is based on a worst case assumption that the emergency is located adjacent to the McCall Road crossing on the opposite side of the tracks. In most cases, travel delays would be shorter depending on exact location of the emergency.
- For two of the tested emergency services (Rincon Fire Station 4 and the combined Effingham Fire/EMS & Sheriff offices), the diversions increased travel times and trip lengths by over 100 percent.
- Coordination of incident response between emergency services could reduce response time in some incidents. For instance, Rincon Fire Station 1 and 4 have shorter travel paths when approaching the McCall Road grade crossing from the south and north.

Table 9. Potential Emergency Service Diversion Delay and Distances if Incident at Grade Crossing

Emergency Service	Address	Approach Grade Crossing from north		Approach Grade Crossing from south		Increase in travel time & distance		Percent Increase in travel time & distance	
Fire & EMS		minutes	miles	minutes	miles	minutes	miles	minutes	miles
Rincon Fire Station 1	107 W 7th St	7	3.9	8	4.2	1	0.3	14%	8%
Rincon Fire Station 4	618 Blue Jay Road	3	2	13	7.2	10	5.2	333%	260%
Effingham Sheriff, Fire, EMS	109 Goshen Commercial Park	12	6.5	6	2.6	6	3.9	100%	150%
Police & Sheriff									
Effingham Sheriff, Fire, EMS	109 Goshen Commercial Park	12	6.5	6	2.6	6	3.9	100%	150%
Effingham County Sheriff Office	500 W 1st Street, Springfield, GA	16	11.3	19	12.8	3	1.5	19%	13%
Rincon County Police Dept	107 West 17 th Street, Rincon, GA	8	4	8	4.1	0	0.1	0%	2%
Major Hospital & ER									
Effingham County Hospital & Emergency Room	Springfield, GA	13	8.9	20	13	7	4.1	54%	46%
Coastal Carolina Hospital	Hardeeville, SC	31	23.6	24	19.8	7	3.8	29%	19%
East Georgia Regional Hospital	1499 Fair Road, Statesboro, GA	53	39.4	62	46.5	9	7.1	17%	18%

Notes:

1. These diversions are based on an assumed incident just north or south of the McCall Road grade crossing. As such, they should represent a maximum diversion since other locations would not require diverting all the way to the grade crossing.
2. In addition, these diversions assume a full closure of the grade crossing. If the grade crossing is closed for a moving train the estimated blocked crossing time is shown in **Table 4**. In general, depending upon the length of train, the blocked crossing time is estimated to range from 2.5 seconds to 7.4 minutes in 2029.

Conclusions

This section addressed the existing conditions and impacts related to the impact of potential delays due to temporary closures of the McCall Road at-grade rail crossing of McCall Road immediately west of the SGIH property. Three scenarios were examined including: existing (2024), No-Action (2029) and Proposed Action (2029). The key items examined were grade crossing delay and potential delay impacts associated with emergency vehicle access. Specific findings and conclusions are:

Grade Crossing Delays:

- **Table 8** is the key table for assessing operations at the McCall Road grade crossing, specifically the columns examining delays and LOS over a 24-hour period.
- LOS A is anticipated for 2029 operations based upon average daily delay of 2.7 seconds per vehicle as shown in **Table 8**. This finding indicates that expected impacts on the roadway system for the Proposed Action scenario is acceptable.
- Review of the average train length indicates that the estimated number of trains for 2029 increases delays from 0.6 sec/veh/day/vehicle to 2.7 sec/veh/day/vehicle. multiple shorter trains have lower roadway delays (1.9 sec/veh/day/vehicle) than fewer longer trains (4.4 sec/veh/day/vehicle). Both existing and Proposed Action delays reflect LOS A operations over 24 hours.
- Although acceptable, closing of McCall Road is not recommended to minimize traffic related to Blandford Elementary School located directly south of the at-grade crossing.

Emergency Vehicle Delays:

- An analysis of worst case scenario emergency response time was conducted if the McCall Road crossing were closed.
- In most scenarios, the delay would be limited to the blocked crossing time identified in **Table 4**. This assumes that an emergency response vehicle arrives at the crossing at the same time that a train begins crossing and is forced to wait. In these scenarios:
 - The average blocked time per crossing event in 2024 is 2.6 minutes.
 - In the 2029 Proposed Action, the blocked crossing time is estimated to be 4.1 minutes (with approx. 20 cars/train).
- A worst case scenario was also tested where an emergency incident causes a closure at the crossing itself, forcing vehicles to travel on a specific approach. This analysis is summarized in **Table 9**.
- Emergency response estimates are provided for impact assessment only and are not intended to be used for identifying specific emergency operations or routes. Local emergency response professionals are responsible for and best suited to identify needs of their communities.

Appendix C

Noise and Vibration Impact Assessment Methods

This appendix describes the methods that the Surface Transportation Board's (Board) Office of Environmental Analysis (OEA) used to estimate and analyze the potential effects of noise and vibration from construction and operation of the proposed rail line.

Wayside Noise Models

Wayside noise refers to all noise generated by rail cars and locomotives (but not including horn noise). OEA used noise measurements from past noise studies (Surface Transportation Board 1998a, 1998b) as the basis for the wayside noise level projections for the proposed rail line.

The basic equation used for the wayside noise model is as follows:

$$SEL_{cars} = L_{eqref} + 10\log(T_{passby}) + 30\log(S/S_{ref})$$

For locomotives, which can be modeled as moving monopole point sources, the corresponding equation is as follows.

$$SEL_{locos} = SEL_{ref} + 10\log(N_{locos}) - 10\log(S/S_{ref})$$

The total train sound exposure level is computed by logarithmically adding SEL_{locos} and SEL_{cars} .

$$DNL_{100'} = SEL + 10\log(N_d + 10N_n) - 49.4$$

$$DNL = DNL_{100'} + 15\log(100/D)$$

The $10\log(x)$ term in the previous equations can be used to determine the increase (or decrease) in train noise level associated with changes in traffic volumes assuming that the other factors affecting noise (speed, train consist and length, time of day, and number of locomotives) are equivalent. The change in noise level associated with two different traffic volumes would be as follows:

$$\Delta \text{dB} = 10\log(N_2/N_1)$$

where N_1 and N_2 are two different traffic volumes (trains/day)

For example, if rail traffic doubled, the increase in noise level would be $10\log(2) = 3$ dB.

The following parameters apply to the equations above:

SEL_{cars} = Sound exposure level of railcars (A-weighted decibels [dBA])

L_{eqref} = Level equivalent of railcar

T_{passby} = Train passby time, in seconds

S = Train speed, in miles per hour

S_{ref} = Reference train speed

SEL_{locos} = Sound exposure level of locomotive

SEL_{ref} = Reference sound exposure level of locomotive

DNL = Day-night average noise level

N_{locos} = Number of locomotives

N_d = Number of trains during daytime

N_n = Number of trains during nighttime

D = Distance from tracks, in feet

Table 1 shows the reference wayside noise levels used in this study and **Figure 1** shows the wayside noise frequency spectrum used in the calculations.

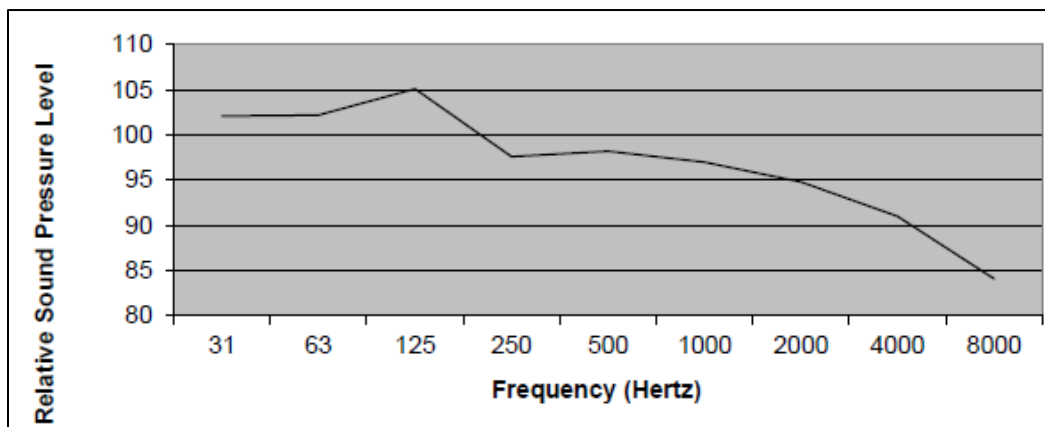
Table 1. Wayside Noise Levels

<i>Description</i>	<i>Average Level (dBA)</i>
<i>Locomotive SEL (30 miles per hour at 100 feet)</i>	95
<i>Railcar L_{eq}</i>	82

Source: Surface Transportation Board 1998a, 1998b

dBA = A-weighted decibels; SEL = sound exposure level; L_{eq} = level equivalent

Figure 1. Wayside Noise Spectrum (Surface Transportation Board 2002)



Horn Noise Models

Freight train horn noise levels can vary for a variety of reasons, including the manner in which an engineer sounds the horn. Consequently, it is important to determine horn noise reference levels based on a large sample size. A substantial amount of horn noise data are available from the Draft Environmental Impact Statement, Proposed Rule for the Use of Locomotive Horns at Highway-Rail Grade Crossings (Federal Railroad Administration 1999), hereafter referred to as the 1999 Federal Railroad Administration (FRA) Draft Environmental Impact Statement (EIS).

The FRA data indicate that horn noise levels increase from the point at which the horn is sounded at 0.25 mile from the grade crossing to when it stops sounding at the grade crossing. In the first 0.125-mile segment, the energy average sound exposure level measured at a distance of 100 feet from the tracks was found to be 107 dBA, and in the second 0.125-mile segment, found to be 110 dBA. The 1999 FRA Draft EIS simplified the horn noise contour shape as a 5-sided polygon, when it is actually a teardrop shape. The Final EIS, Construction and Operation of a Rail Line from the Bayport Loop in Harris County, Texas (Surface Transportation Board 2003) discusses this subject in detail. OEA used the more accurate teardrop contour shape for this analysis. The attenuation or drop-off rate of horn noise is assumed to be 4.5 dBA per doubling of distance away from the tracks (Federal Railroad Administration 1999).

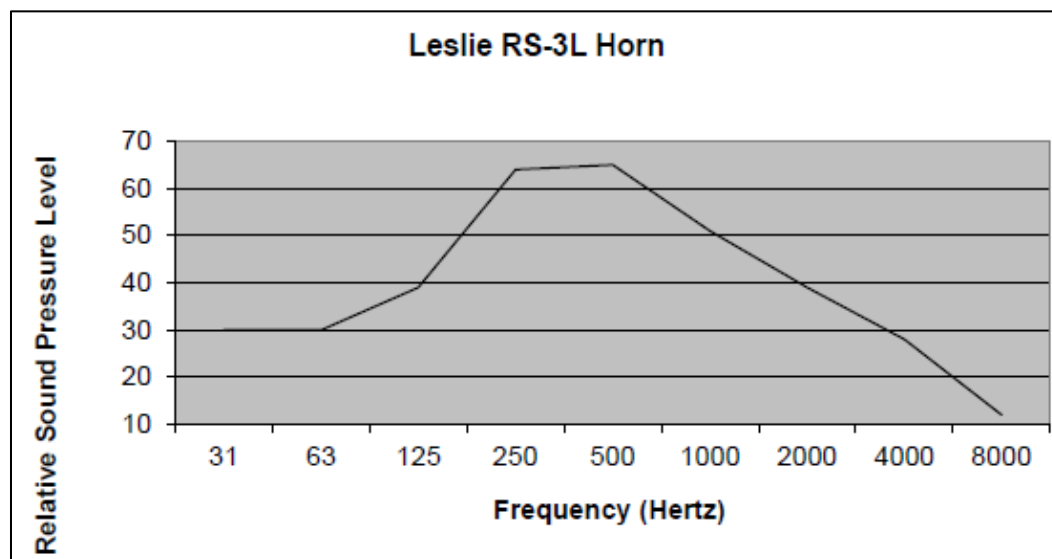
Table 2 lists the reference horn noise levels used in this study, and **Figure 2** shows the horn noise spectrum used in the calculations.

Table 2. Reference Horn Noise Levels

<i>Description</i>	<i>Average Level (dBA)</i>
<i>Horn SEL 1st 0.25 mile</i>	<i>110</i>
<i>Horn SEL 2nd 0.25 mile</i>	<i>107</i>

Source: Federal Railroad Administration 1999
dBA = A-weighted decibels; SEL = sound exposure level

Figure 2. Horn Noise Spectrum (Surface Transportation Board 2002)



Rail Yard Noise Models

Table 3 shows the noise modeling parameters for rail yards.

Table 3. Modeling Parameters for Rail Yard Noise Projections^a

	Equation No.	SEL	L _{max}	n	K (dBA/ft)
Switch Engines	1	98	83	1	0.001
Car Coupling Impacts	1	94	99	2	0.005
Automobile Loader	2	N/A	76	N/A	0.001
Crane	2	N/A	72	N/A	0.0025
Idling Locomotives	3	N/A	67	N/A	0.0025
1) $DNL = SEL + 10\log(N_d + 10N_n) - 49.4 - 10\log(D/100)^n - k(D-100)$ 2) $DNL = L_{max} + 10\log(NH_d + 10NH_n) - 13.8 - 20\log(D/100) - k(D-100)$ 3) $DNL = L_{max} + 10\log(NH_d + 10NH_n) - 13.8 - 20\log(D/100) - k(D-100) + 8\log(1.33N_l) + 10\log(NR)$ Sound Exposure Level (SEL) is the event-specific noise level with the sound level normalized to one second; L_{max} is the maximum noise level which occurs during the event; n is an exponent used in the equations where n=1 for moving sources and n=2 for stationary sources; k is the combined air/ground absorption coefficient. D is the distance in feet; N_d and N_n are the number of daytime and nighttime operations; NH_d and NH_n are the number of hours of daytime and nighttime operations; N_l is the number of noise sources per row; and NR is the number of rows of noise sources. a. STB, 1998, except as otherwise indicated					

Rail Line Operation Vibration Analysis Methods

OEA based the vibration assessment methods on Federal Transit Administration (FTA) methods (2006). Vibration level due to train passbys is approximately proportional to:

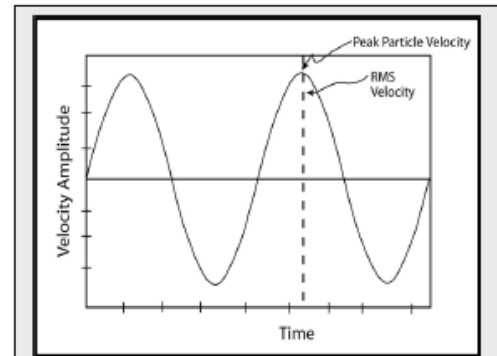
$$V = 20 \times \log (\text{speed}/\text{speed}_{\text{ref}})$$

Where:

V = The ground-borne vibration velocity
 speed = The train speed
 $speed_{ref}$ = The reference speed of the
 train relative to its corresponding
 vibration level

Published (FTA) ground-borne vibration levels are adjusted for train speed by this equation and distance from the rail line to estimate vibration levels at receptor locations.

There are two ground-vibration impacts of general concern: annoyance to humans and damage to buildings. In special cases, activities that are highly sensitive to vibration, such as microelectronics fabrication facilities, are evaluated separately. Two measurements correspond to human annoyance and building damage for evaluating ground vibration: peak particle velocity (PPV) and root-mean square (RMS) velocity. PPV is the maximum instantaneous positive or negative peak of the vibration signal, measured as a distance per time (such as millimeters or inches per second). This measurement has been used historically to evaluate shock-wave type vibrations from actions like blasting, pile driving, and mining activities, and their relationship to building damage. RMS velocity is an average, or smoothed, vibration amplitude, commonly measured over 1-second intervals. It is expressed on a log scale in decibels (VdB) referenced to 0.000001×10^{-6} inch per second and is not to be confused with noise decibels. It is more suitable for addressing human annoyance and characterizing background vibration conditions because it better represents the response.



Peak particle velocity (PPV) is an instantaneous positive or negative peak of a vibration signal, measured as a distance per time.

Root-mean-square (RMS) velocity (VdB) is a measure of ground vibration in decibels used to compare vibration from various sources.

Noise Modeling Results

As described in *Section 3.5 Noise and Vibration*, Computer Aided Noise Abatement (CadnaA), the leading environmental noise software application, was used to compute existing and proposed noise levels in the study area. OEA inputted site-specific data, such as existing roadway and rail alignments, into the model and key assumptions are outlined in *Section 3.5*. It should be noted that currently, train horns are not used on the SIT line but have been included in the analysis to represent a worst case scenario. Train horns were also assumed at the CSXT and NSR railroad lines. On the SIT line, no nighttime operations are assumed. One nighttime freight train operation is assumed on the CSX and NS lines. The CadnaA-modeled noise levels from each source is shown in **Table 4**.

Table 4 CadnaA Noise Modeling Results

Noise Source	Leq50ft Day	Leq50ft Night
SIT Line (Existing Conditions)	68.7	-
SIT Line (Proposed Conditions)	71.7	-
CSX Railroad (Existing and Proposed Conditions)	71.8	68.0
NS Railroad (Existing and Proposed Conditions)	71.7	67.9
McCall Road – roadway traffic	58.2	58.2
Ambient Noise	48.3	48.3

References

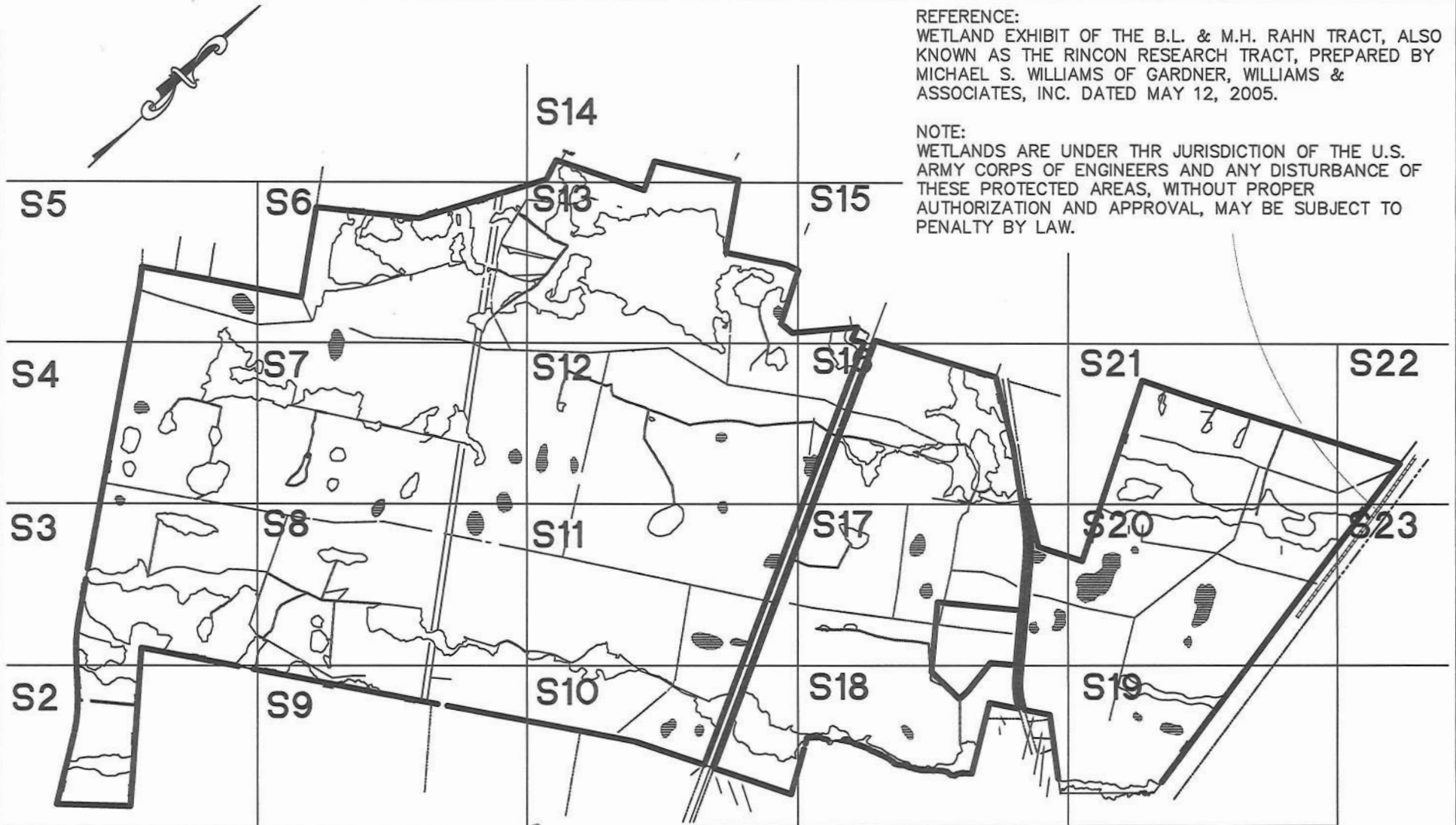
- Federal Railroad Administration. 1999. Draft Environmental Impact Statement, Proposed Rule for the Use of Locomotive Horns at Highway-Rail Grade Crossings.
- Federal Transit Administration. 2006. Transit Noise and Vibration Impact Assessment. May. (FTA-VA-90-1003-06.) Available:
http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf
- Surface Transportation Board. 1998a. Final Environmental Impact Statement No. 980194, Conrail Acquisition (Finance Docket No. 33388) by CSX Corporation and CSX Transportation Inc., and Norfolk Southern Corporation and Norfolk Southern Railway Company (NS).
- Surface Transportation Board. 1998b. Draft Environmental Assessment Canadian National/Illinois Central Railroad Acquisition.
- Surface Transportation Board. 2002. Draft Environmental Impact Statement, Construction and Operation of a Rail Line from the Bayport Loop in Harris County, Texas. December.
- Surface Transportation Board. 2003. Final Environmental Impact Statement, Construction and Operation of a Rail Line from the Bayport Loop in Harris County, Texas. May.

**Appendix D - Previous
Jurisdictional
Determination & Permit**

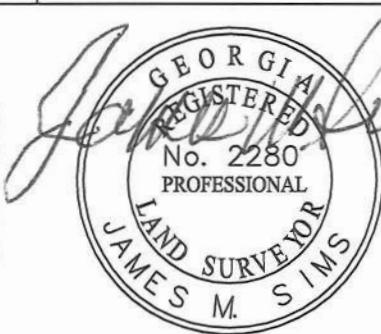
Wetland Survey

REFERENCE:
WETLAND EXHIBIT OF THE B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, PREPARED BY
MICHAEL S. WILLIAMS OF GARDNER, WILLIAMS &
ASSOCIATES, INC. DATED MAY 12, 2005.

NOTE:
WETLANDS ARE UNDER THE JURISDICTION OF THE U.S.
ARMY CORPS OF ENGINEERS AND ANY DISTURBANCE OF
THESE PROTECTED AREAS, WITHOUT PROPER
AUTHORIZATION AND APPROVAL, MAY BE SUBJECT TO
PENALTY BY LAW.



H&B
A Bell Company



JURISDICTIONAL
WETLAND AREA
363.0 ACRES

ISOLATED
WETLAND AREA
32.1 ACRES

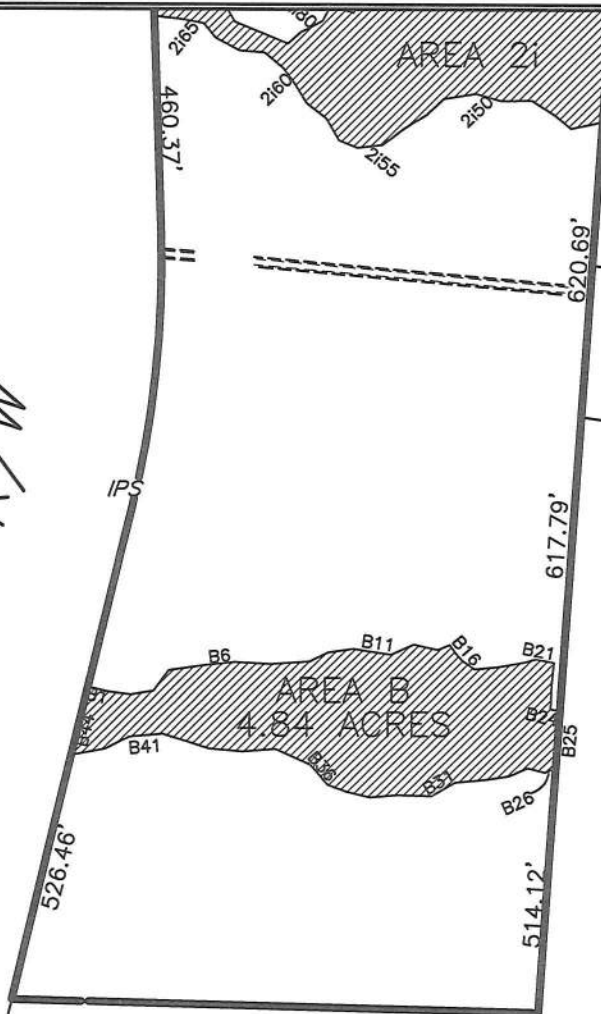
TOTAL
WETLAND AREA
395.1 ACRES

WETLAND EXHIBIT
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RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 1 OF 42



HODGEVILLE ROAD
80' R/W

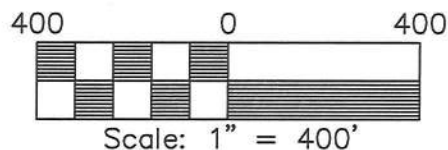


DIAMOND CONCRETE
PRODUCTS HOLDINGS, LLC
PIN# 434-26A

NOW OR FORMERLY
E.W. ZIPPERER
PIN# 434-26

NOW OR FORMERLY
E.W. ZIPPERER
PIN# 434-26

NOW OR FORMERLY
L.E. ZIPPERER
PIN# 434-24



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EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



HODGEVILLE ROAD
80' R/W

JURISDICTIONAL
DITCH

AREA K
3.86 ACRES

N:816801.30
E:932246.12

AREA J
17.96 ACRES

AREA W
1.32 ACRES

N:815559.85
E:933140.19

AREA 21
14.27 ACRES

AREA X
2.29 ACRES

JURISDICTIONAL
DITCH

WETLAND EXHIBIT

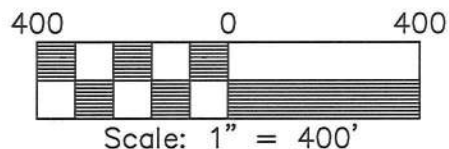
PORTION OF THE FORMER B.L. & M.H. RAHN
TRACT, ALSO KNOWN AS THE RINCON
RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA

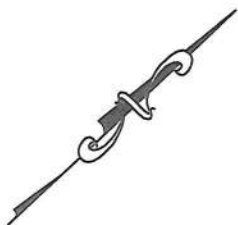
FOR

EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 3 OF 42

HCB
A Bell Company





HODGEVILLE ROAD
80' R/W

4260.78'

ISOLATED WETLANDS
APPROXIMATE
0.69 ACRES +/-

AREA P
1.81 ACRES

AREA R
1.25 ACRES

AREA S
0.85 ACRES

AREA U
24.74 ACRES

AREA Q
0.70 ACRES

AREA N
5.17 ACRES

ISOLATED WETLANDS
APPROXIMATE
0.34 ACRES
+/-

JURISDICTIONAL
DITCH

N:817868.43
E:931200.00

N:817250.16
E:930628.56

N:816843.09
E:930579.04

N:816470.62
E:930837.50

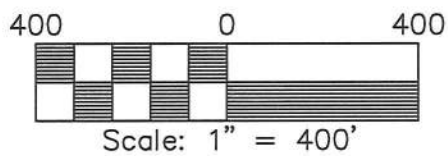
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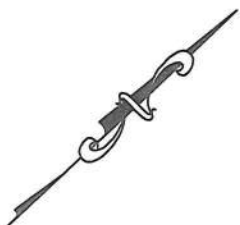
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EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 4 OF 42





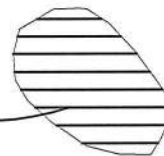
HODGEVILLE ROAD
80' R/W

NOW OR FORMERLY
H.D. WIGGINS
PIN# 415-17

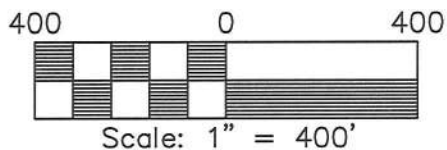
NOW OR FORMERLY
J.W. FREYERMUTH
PIN# 415-20

NOW OR FORMERLY
L.M. NEASE JR
PIN# 415-36

ISOLATED WETLANDS
APPROXIMATE
1.60 ACRES +/-



AREA U
24.74 ACRES

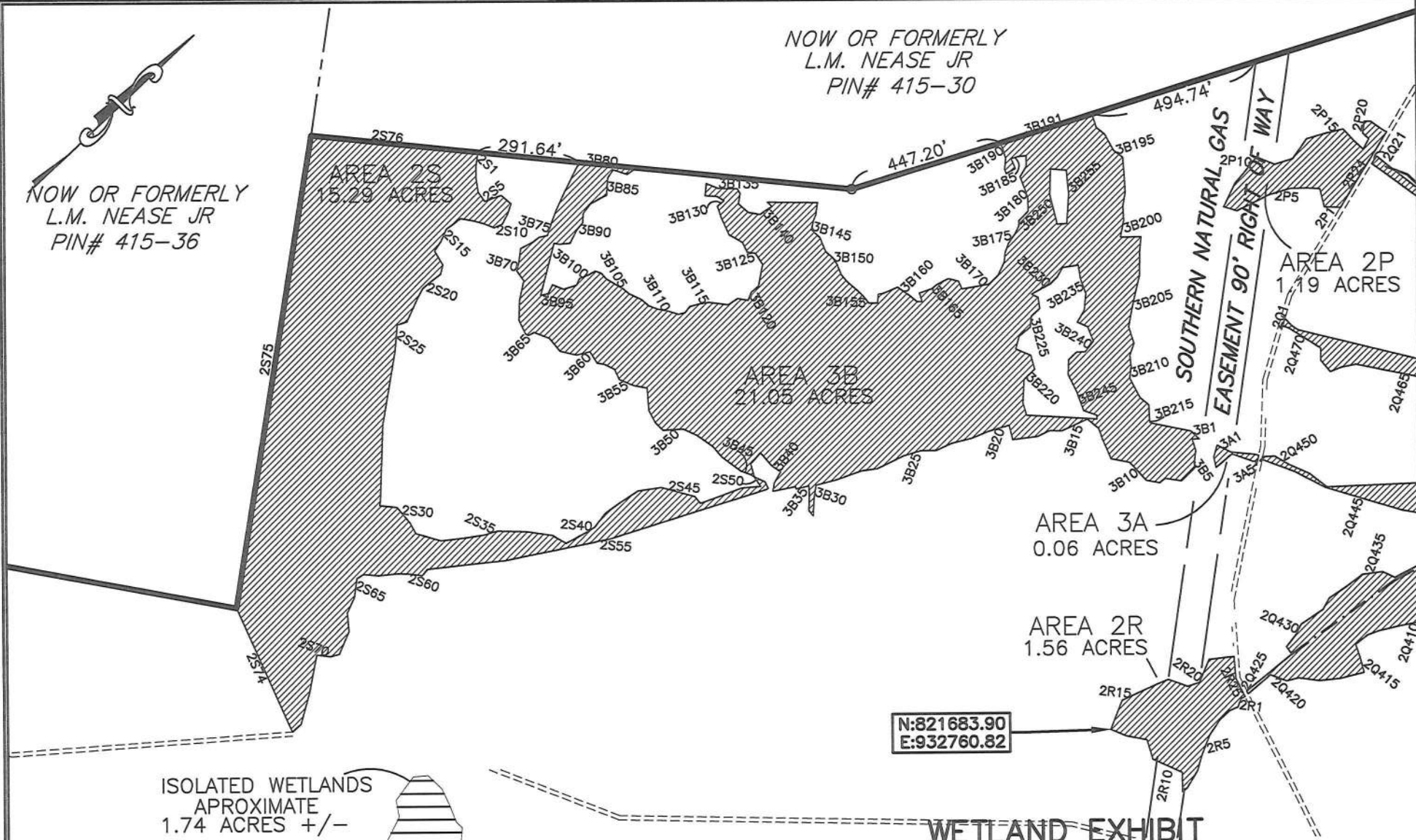


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FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 5 OF 42

NOW OR FORMERLY
L.M. NEASE JR
PIN# 415-36

NOW OR FORMERLY
L.M. NEASE JR
PIN# 415-30



U151

AREA 3H
0.82 ACRES

T21

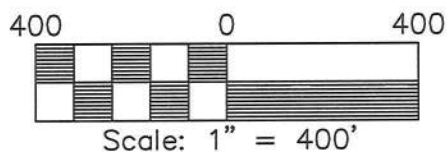
$$\frac{3i10}{3i1}$$

N:818516.84
E:933136.91

AREA 3K
1.31 ACRES

AREA V
4.15 ACRES

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RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



EARTH ROAD (TYP.)

ISOLATED WETLANDS
APPROXIMATE
0.69 ACRES

ISOLATED WETLANDS
APPROXIMATE
1.14 ACRES +/-

ISOLATED WETLANDS
APPROXIMATE
1.55 ACRES +/-

AREA M
2.45 ACRES

N:818104.19
E:934177.57

AREA 3J
0.52 ACRES

N:816831.89
E:934470.19

AREA Y
1.54 ACRES

N:816642.65
E:934878.96

AREA 2F
1.86 ACRES

AREA Z
0.27 ACRES

AREA 2A
19.54 ACRES

SOUTHERN NATURAL GAS
EASEMENT 90' RIGHT OF WAY

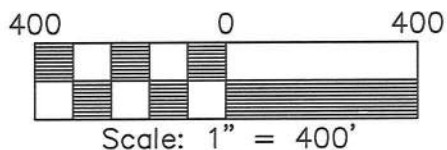
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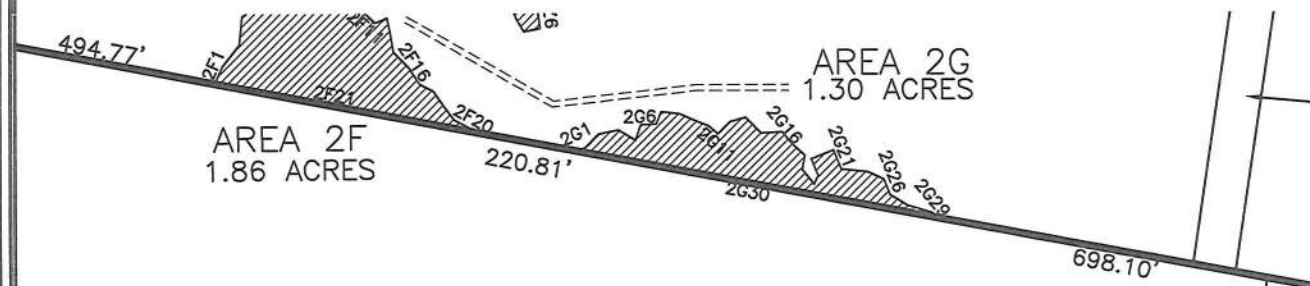
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FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 8 OF 42

HCB
A Bell Company

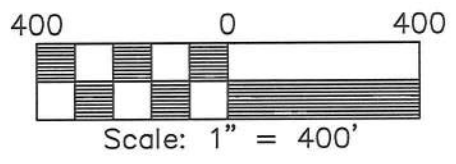




SOUTHERN NATURAL GAS
EASEMENT 90' RIGHT OF WAY

NOW OR FORMERLY
E.W. ZIPPERER
PIN# 434-26

NOW OR FORMERLY
T.S. STRICKLAND JR
PIN# 434-1



WETLAND EXHIBIT
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FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY
SHEET 9 OF 42

NOW OR FORMERLY
T.S. STRICKLAND JR
PIN# 434-1

NOW OR FORMERLY
M.S. SMITH
PIN# 451-22

H.L. & N. RICE
451B-60

C.C. CARTER
451B-59

H.L. & N. RICE
451B-60

RICE
R.C. & T.A.
BURDETTE
451B-61

NOW OR FORMERLY
S. DUNCAN
PIN# 450D-16

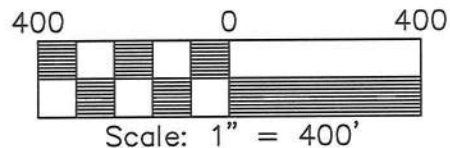
AREA 2W
3.33 ACRES

ISOLATED WETLANDS
APPROXIMATE
0.85 ACRES +/-

ISOLATED WETLANDS
APPROXIMATE
0.38 ACRES +/-

AREA 2X
20.81 ACRES

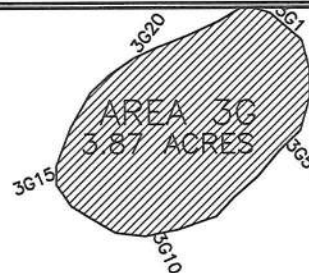
CENTRAL GA RAILROAD 150' R/W



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FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 10 OF 42

EARTH ROAD (TYP.)



ISOLATED WETLANDS
APPROXIMATE
0.43 ACRES +/-

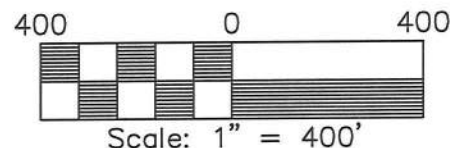
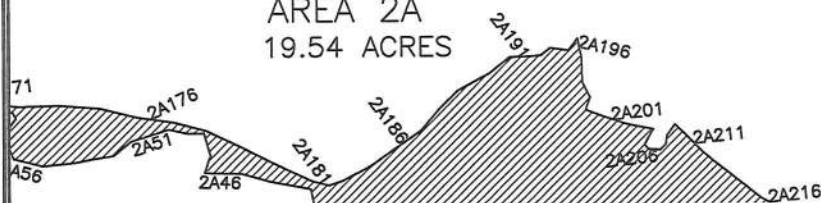
ISOLATED WETLANDS
APPROXIMATE
0.86 ACRES +/-

ISOLATED WETLANDS
APPROXIMATE
1.91 ACRES +/-

ISOLATED WETLANDS
APPROXIMATE
0.50 ACRES +/-

CENTRAL GA RAILROAD
150' R/W

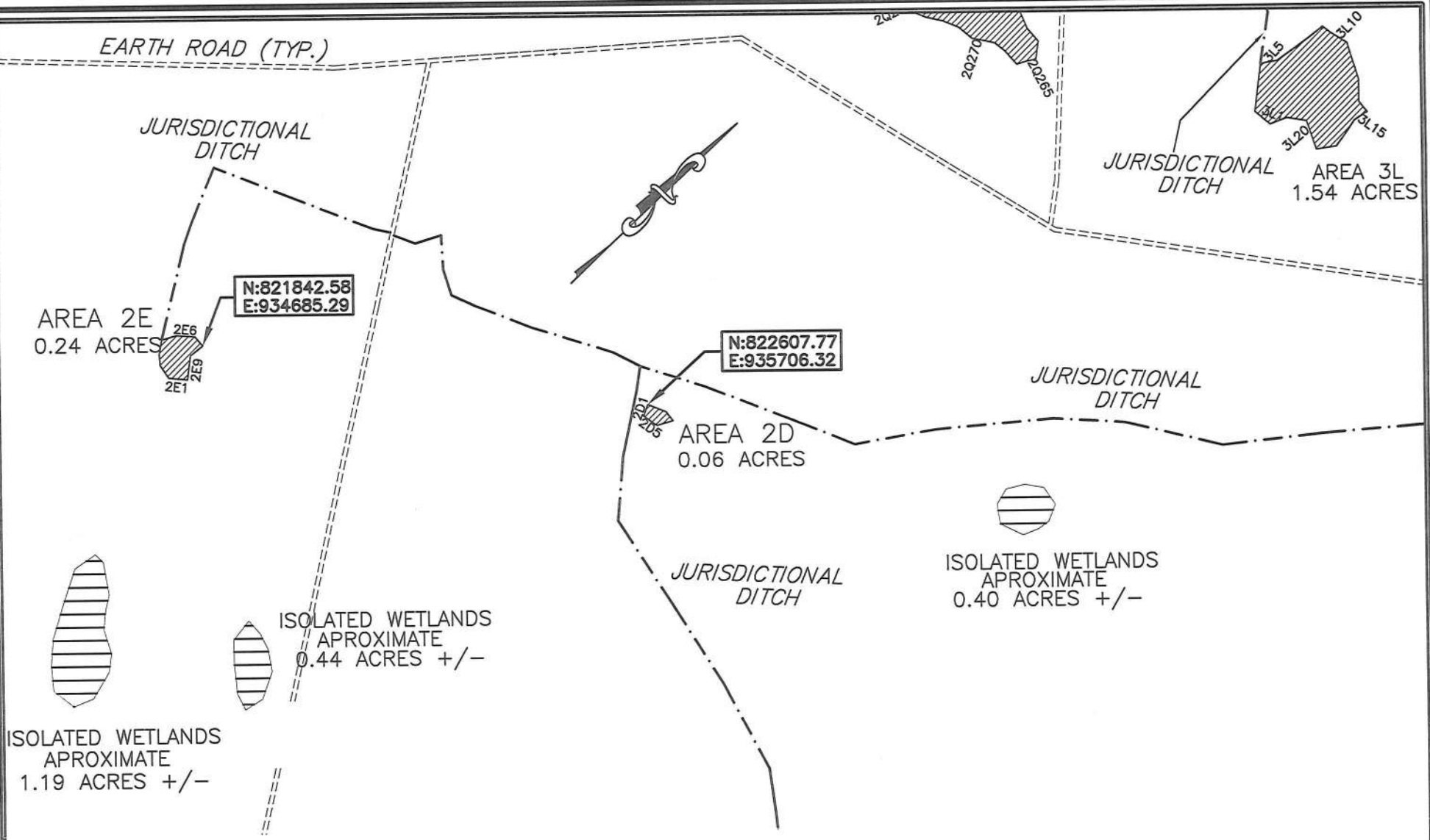
AREA 2A
19.54 ACRES



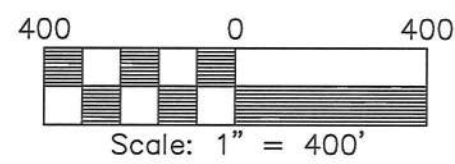
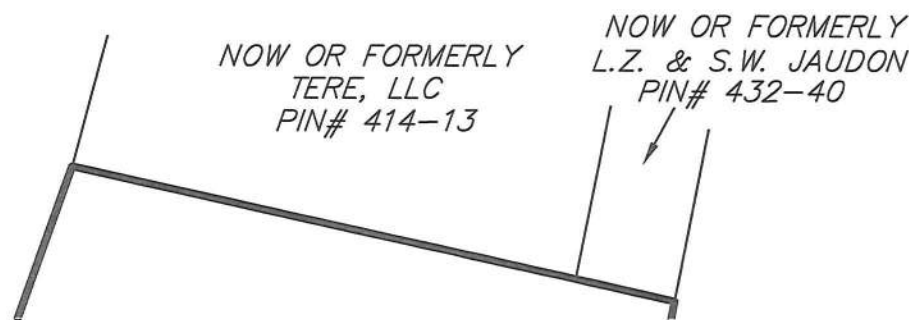
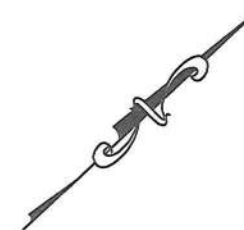
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9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
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NOW OR FORMERLY
O. ZIPPERER
PIN# 432-45

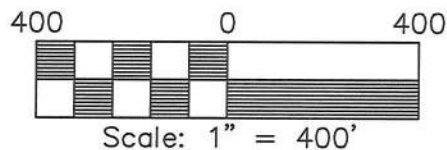
NOW OR FORMERLY
J.N. KESSLER
PIN# 432-47

3.97 ACRES
AREA 2J

151.60'

CENTRAL GA RAILROAD
150' R/W

NOW OR FORMERLY
J.N. KESSLER
PIN# 432-47



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9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

AREA 2J
3.97 ACRES

ISOLATED WETLANDS
APPROXIMATE
0.89 ACRES +/-

JURISDICTIONAL
DITCH

CENTRAL GA RAILROAD
150' R/W

AREA 2N
4.68 ACRES

AREA 2M
17.68 ACRES

AREA 2K
5.17 ACRES

NOW OR FORMERLY
C.W. KESSLER &
F.M. DURKINS
PIN# 432-68

MCCALL ROAD 80' R/W

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# 432-69

AREA 2L
0.41 ACRES

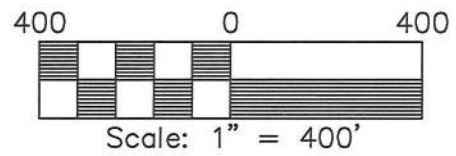
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WETLAND EXHIBIT

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ALSO KNOWN AS THE RINCON RESEARCH TRACT,
9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



CENTRAL GA RAILROAD
150' R/W

AREA 2C
1.94 ACRES

N:823659.79
E:939272.08

ISOLATED WETLANDS
APROXIMATE
1.25 ACRES +/-

JURISDICTIONAL
DITCH

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# 432-69

ISOLATED WETLANDS
APROXIMATE
0.64 ACRES +/-

ISOLATED WETLANDS
APROXIMATE
0.71 ACRES +/-

ISOLATED WETLANDS
APROXIMATE
1.01 ACRES +/-

AREA 2Y
0.22 ACRES

N:822563.49
E:940113.16

EARTH ROAD (TYP.)

AREA 2Z
0.31 ACRES

JURISDICTIONAL
DITCH

ISOLATED WETLANDS
APROXIMATE
0.39 ACRES +/-

N:822155.44
E:939804.72

EFFINGHAM COUNTY
BOARD OF EDUCATION
450-65

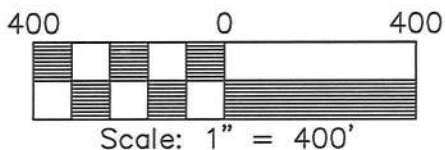
WETLAND EXHIBIT

PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
ALSO KNOWN AS THE RINCON RESEARCH TRACT,
9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA

FOR

EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 17 OF 42



N:822780.04
E:941470.86

AREA 2B
1.08 ACRES

ISOLATED WETLANDS
APPROXIMATE
0.48 ACRES +/-

AREA 2X
20.81 ACRES

EFFINGHAM COUNTY
BOARD OF EDUCATION
450-65

IPS IPS

1/2"IPF

R.V. ROBERTS
PIN# 450D-4A

R.V. ROBERTS
PIN# 450D-4B

NOW OR FORMERLY
L. & M.E. IGOU
PIN# 450D-5

J.C. MARTIN, JR.
& A. HODGES
PIN# 450D-1A

J.C. MARTIN, JR.
PIN# 450D-1B

C.A. & J.Y. COLLINS
PIN# 450D-2B

S.H. BENNETT
PIN# 450D-2A

NOW OR FORMERLY
S.C. MOODY
PIN# 450-5

NOW OR FORMERLY
E.C. DEANGELO
PIN# 450D-15

NOW OR FORMERLY
L. NORTON
PIN# 450D-14

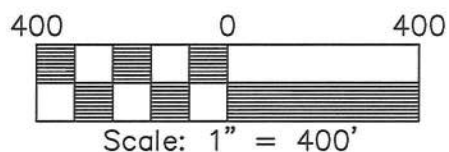
NOW OR FORMERLY
M.E. & L.M. STONE
PIN# 450D-13

NOW OR FORMERLY
W.R. JR. & D.L. SPIKES
PIN# 450D-12

NOW OR FORMERLY
B.R. & M.P.
HANNAH
PIN# 450D-11

NOW OR FORMERLY
N.V. & L.
NEWSOME
PIN# 450D-10

NOW OR FORMERLY
K.S. KOCHER
PIN# 450D-9



WETLAND EXHIBIT

PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
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9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA

FOR

EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

N:824839.32
E:943451.00

AREA 2V
4.88 ACRES

ISOLATED WETLANDS
APPROXIMATE
0.25 ACRES +/-

ISOLATED WETLANDS
APPROXIMATE
0.96 ACRES +/-

N:824105.02
E:945023.25

AREA 3F
4.48 ACRES

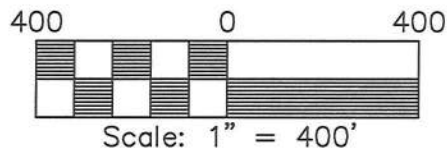
SEABOARD COASTLINE RAILROAD 300' R/W

1436.88'

NOW OR FORMERLY
I.R. McCLENDON
PIN# 450-4

NOW OR FORMERLY
C. & W. SMITH
PIN# 450-1

HCB
A Bell Company



WETLAND EXHIBIT

PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
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9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# 432-69

844.76'

N:826410.15
E:941437.21

AREA 3C
22.69 ACRES

N:827904.36
E:943271.69

AREA 3D
14.07 ACRES

ISOLATED WETLANDS
APPROXIMATE
0.19 ACRES +/-

ISOLATED WETLANDS
APPROXIMATE
5.83 ACRES +/-

EARTH ROAD (TYP.)

ISOLATED WETLANDS
APPROXIMATE
3.26 ACRES +/-

ISOLATED WETLANDS
APPROXIMATE
0.29 ACRES +/-

EARTH ROAD (TYP.)

SEABOARD COASTLINE RAILROAD 300' R/W

HCB
A Bell Company

400 0 400
Scale: 1" = 400'

WETLAND EXHIBIT

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9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

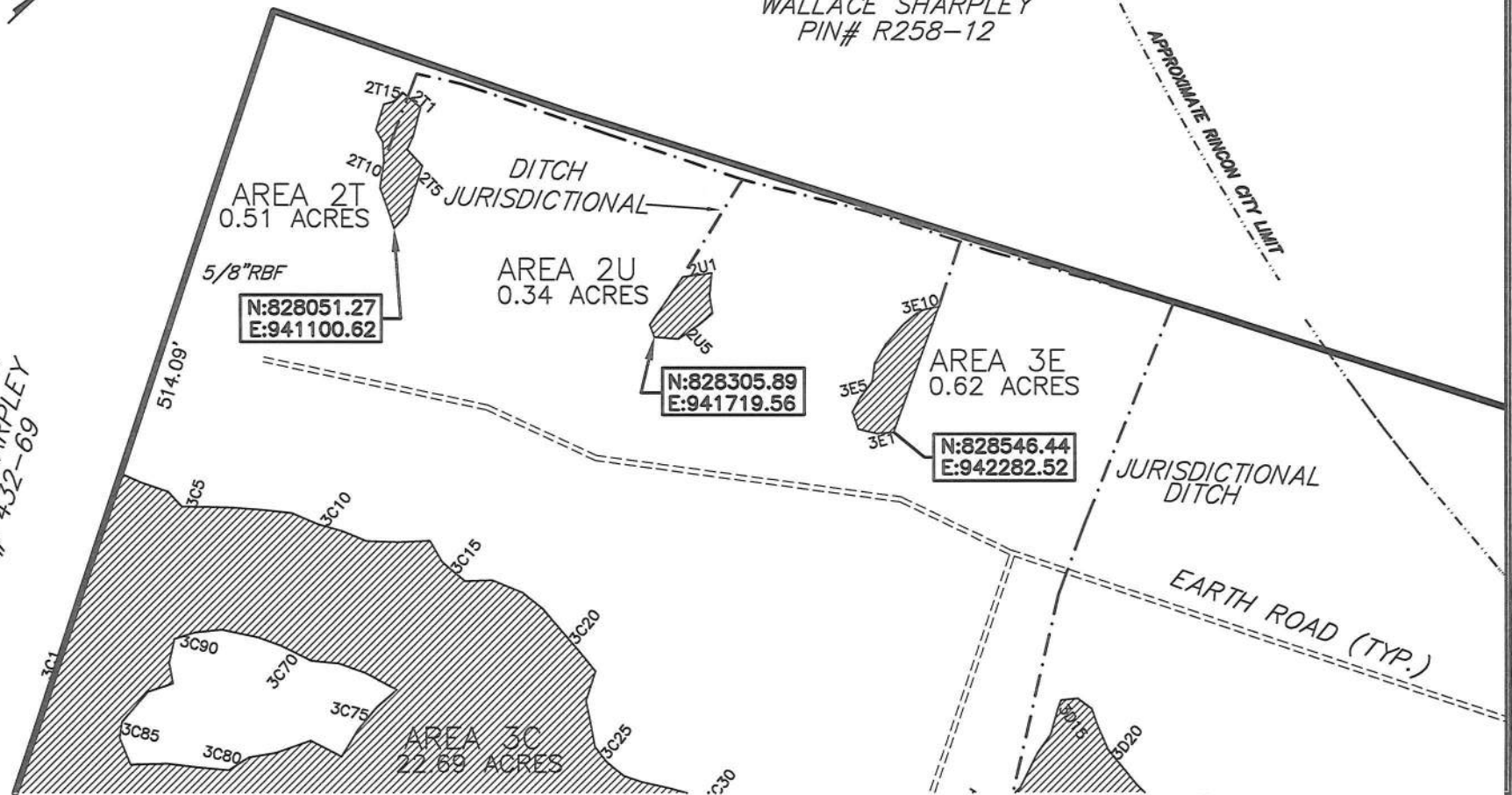
SHEET 20 OF 42



NOW OR FORMERLY
WALLACE SHARPLEY
PIN# R258-12

APPROXIMATE RINCON CITY LIMIT

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# 432-69

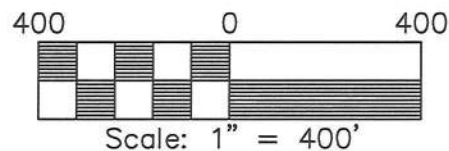


WETLAND EXHIBIT

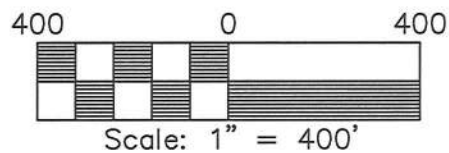
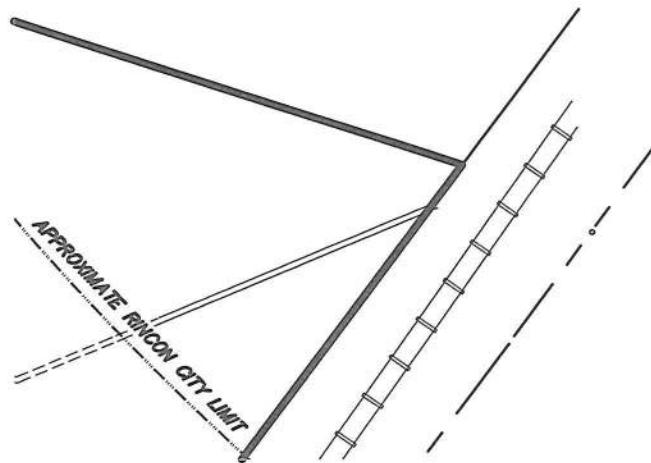
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
ALSO KNOWN AS THE RINCON RESEARCH TRACT,
9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA

FOR

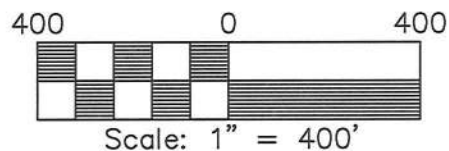
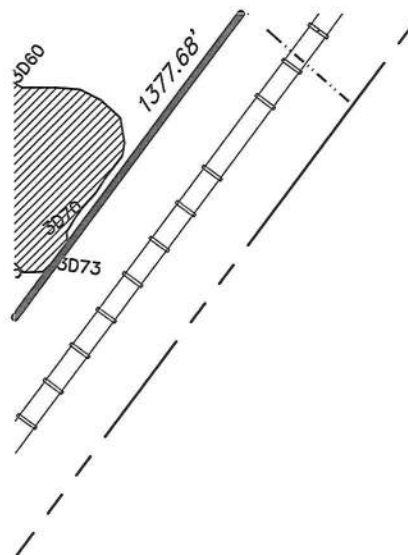
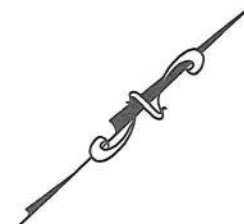
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



NOW OR FORMERLY
WALLACE SHARPLEY
PIN# R258-12



WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
ALSO KNOWN AS THE RINCON RESEARCH TRACT,
9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
ALSO KNOWN AS THE RINCON RESEARCH TRACT,
9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

LINE	BEARING	DISTANCE
B1	N 58°19'43" E	43.08'
B2	N 52°32'24" E	46.83'
B3	N 35°32'37" E	49.69'
B4	N 08°22'36" W	53.61'
B5	N 36°58'07" E	74.97'
B6	N 38°54'13" E	62.89'
B7	N 48°05'29" E	74.82'
B8	N 40°57'25" E	82.24'
B9	N 18°28'11" E	43.17'
B10	N 37°24'33" E	52.60'
B11	N 53°40'57" E	79.46'
B12	N 20°38'47" E	51.76'
B13	N 57°33'57" E	51.16'
B14	N 22°10'17" E	27.05'
B15	S 79°35'33" E	21.37'
B16	S 85°34'51" E	20.10'
B17	N 79°18'36" E	32.29'
B18	N 39°33'31" E	50.19'
B19	N 34°36'25" E	54.48'
B20	N 29°05'20" E	24.26'
B21	N 55°59'58" E	37.99'
B22	S 40°02'33" E	49.38'
B23	S 42°49'54" E	48.14'
B24	N 57°52'11" E	19.60'
B25	S 41°01'42" E	119.89'
B26	S 19°56'21" W	24.17'
B27	S 59°30'42" W	37.90'
B28	S 21°07'28" W	41.56'
B29	S 36°44'56" W	48.94'
B30	S 39°16'52" W	64.46'
B31	S 14°48'06" W	56.71'
B32	S 46°27'47" W	71.50'
B33	S 40°33'13" W	57.39'
B34	S 58°46'19" W	48.15'
B35	S 64°54'09" W	42.43'
B36	N 85°30'58" W	56.29'
B37	S 69°42'16" W	80.34'
B38	S 40°31'10" W	69.75'
B39	S 49°50'08" W	69.53'
B40	S 62°39'17" W	101.63'
B41	S 40°07'19" W	70.04'
B42	S 18°06'08" W	56.64'
B43	S 34°23'26" W	71.77'
B44	N 31°21'27" W	146.94'

LINE	BEARING	DISTANCE
G1	N 86°23'40" W	23.09'
G2	S 11°45'28" E	33.67'
G3	S 41°47'59" W	86.97'
G4	S 61°20'13" W	52.82'
G5	N 60°23'26" W	33.22'
G6	N 54°49'12" W	39.73'
G7	N 26°52'36" W	39.29'
G8	N 04°39'55" W	59.37'
G9	N 09°45'48" E	66.48'
G10	N 36°56'31" E	37.00'
G11	N 28°31'26" E	49.85'
G12	N 35°16'52" E	89.06'
G13	S 23°11'07" E	243.07'

LINE	BEARING	DISTANCE
J1	S 25°41'06" E	343.62'
J2	S 34°02'50" W	53.82'
J3	N 28°55'23" W	57.76'
J4	S 60°54'57" W	72.12'
J5	N 88°45'37" W	48.39'
J6	S 74°38'01" W	46.11'
J7	S 48°38'46" W	48.39'
J8	S 10°27'38" W	63.90'
J9	S 00°14'21" W	35.71'
J10	S 32°51'29" E	38.66'
J11	S 02°40'10" E	53.31'
J12	S 00°14'02" W	90.86'
J13	S 35°31'53" W	34.31'
J14	N 70°23'41" W	49.71'
J15	S 35°42'06" W	58.38'
J16	S 89°48'56" W	48.13'
J17	S 42°50'20" W	77.30'
J18	S 64°54'28" W	60.60'
J19	S 67°02'09" W	74.63'
J20	S 89°38'40" W	82.20'
J21	S 13°56'38" W	39.10'
J22	S 22°57'35" W	68.51'
J23	S 01°10'48" W	55.80'
J24	S 35°34'11" W	78.54'
J25	S 23°43'56" E	65.54'
J26	S 01°35'54" W	124.87'
J27	S 72°56'45" W	68.11'
J28	N 56°29'45" W	71.68'
J29	N 42°46'44" W	81.24'
J30	S 76°05'27" W	61.01'
J31	N 85°20'34" W	58.99'
J32	S 77°10'21" W	48.40'

LINE	BEARING	DISTANCE
J33	S 49°16'26" W	55.12'
J34	S 40°25'57" W	58.83'
J35	S 32°15'40" W	62.82'
J36	S 39°02'51" W	58.08'
J37	S 09°36'44" W	46.57'
J38	S 37°59'59" W	61.91'
J39	S 77°56'16" W	48.25'
J40	S 49°50'21" W	54.24'
J41	S 09°47'07" W	48.69'
J42	S 30°14'24" W	64.16'
J43	S 25°46'26" W	47.13'
J44	S 33°49'02" W	52.04'
J45	S 63°45'19" W	38.15'
J46	S 42°55'26" W	35.12'
J47	N 69°48'57" W	51.74'
J48	N 67°29'49" W	49.52'
J49	S 67°48'23" W	65.33'
J50	S 51°33'45" W	40.58'
J51	S 36°30'31" W	180.52'
J52	S 42°02'29" W	77.34'
J53	S 58°35'32" W	75.64'
J54	S 20°56'21" E	5.60'
J55	N 87°12'58" W	36.71'
J56	S 83°03'04" W	68.45'
J57	N 34°42'32" W	137.05'
J58	N 37°54'24" E	56.96'
J59	N 29°04'52" E	55.41'
J60	N 60°05'31" E	59.06'
J61	N 85°56'24" E	53.30'
J62	N 71°49'28" E	47.61'
J63	N 55°12'27" E	48.63'
J64	N 51°53'41" E	58.84'
J65	N 37°15'46" E	57.53'
J66	N 19°21'29" E	45.95'
J67	N 53°03'09" E	59.54'
J68	N 39°04'30" E	54.61'
J69	N 10°55'24" E	57.28'
J70	N 22°10'59" E	54.74'
J71	N 05°58'14" W	54.22'
J72	N 34°06'59" E	47.29'
J73	N 29°45'51" W	60.76'
J74	N 58°48'34" W	37.85'
J75	N 48°51'32" E	47.45'
J76	S 84°33'06" E	59.52'
J77	S 63°39'09" E	40.38'
J78	S 74°03'30" E	45.63'
J79	S 39°31'47" E	25.99'
J80	S 65°53'05" E	70.85'

LINE	BEARING	DISTANCE
J81	S 49°44'49" E	23.55'
J82	N 35°24'24" E	55.41'
J83	N 17°12'56" E	64.65'
J84	N 23°27'58" E	70.90'
J85	N 22°11'35" E	95.31'
J86	N 36°21'06" W	3.71'
J87	N 33°17'54" E	101.71'
J88	N 41°41'57" E	74.79'
J89	N 45°29'21" E	100.36'
J90	N 58°05'05" E	343.91'
J91	N 51°20'29" E	192.50'
J92	N 23°54'41" E	63.41'
J93	N 14°17'11" E	96.27'
J94	N 47°07'31" E	292.87'
J95	N 51°45'17" E	292.62'
J96	S 50°14'56" E	7.66'

LINE	BEARING	DISTANCE
K1	S 08°50'39" E	31.11'
K2	S 28°10'21" W	42.92'
K3	S 04°17'16" W	40.97'
K4	S 46°08'23" W	36.15'
K5	S 39°45'54" W	46.48'
K6	S 52°47'35" W	47.09'
K7	S 77°37'42" W	53.13'
K8	S 58°56'44" W	44.76'
K9	S 60°45'35" W	43.10'
K10	S 12°17'16" E	32.40'
K11	S 20°35'17" W	50.02'
K12	S 79°16'53" W	39.73'
K13	N 77°57'21" W	20.77'
K14	S 67°40'40" W	37.01'
K15	S 48°46'31" W	33.87'
K16	N 84°03'04" W	44.25'
K17	S 68°50'44" W	36.51'
K18	S 85°13'01" W	33.90'
K19	S 47°35'00" W	37.96'
K20	S 49°41'47" W	40.37'
K21	N 81°21'00" W	38.09'
K22	S 52°03'20" W	28.24'
K23	N 69°54'43" W	38.52'
K24	N 88°15'06" W	22.49'
K25	S 64°15'41" W	49.21'
K26	S 52°39'28" W	3.35'
K27	N 79°37'40" W	46.64'
K28	N 38°02'48" W	43.14'
K29	N 32°18'25" E	38.77'
K30	N 46°56'00" E	56.84'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

K31	N 23°33'50" E	36.67'
K32	N 78°17'12" E	33.76'
K33	N 27°51'15" E	40.35'
K34	N 54°17'57" E	39.59'
K35	N 53°40'08" E	59.27'
K36	N 62°00'01" E	47.30'
K37	N 50°22'53" E	57.01'
K38	N 45°04'52" E	59.47'
K39	N 73°45'26" E	38.15'
K40	N 74°17'20" E	24.75'
K41	N 69°26'38" E	63.67'
K42	N 61°53'34" E	35.56'
K43	N 66°03'19" E	60.62'
K44	N 76°06'05" E	74.37'
K45	N 49°43'05" E	49.22'
K46	N 65°02'30" E	48.80'
K47	N 69°00'41" E	44.32'
K48	S 89°28'24" E	40.36'
K49	N 83°31'39" E	30.16'
K50	S 51°55'47" E	29.56'
K51	S 57°30'01" W	40.34'
K52	S 41°22'48" W	30.46'

LINE	BEARING	DISTANCE
M1	S 48°49'34" W	69.26'
M2	S 23°53'10" W	68.07'
M3	S 06°08'52" W	41.21'
M4	S 48°00'20" W	56.98'
M5	S 89°12'02" W	49.45'
M6	S 65°43'23" W	61.55'
M7	S 51°53'44" W	62.87'
M8	S 34°54'23" W	31.91'
M9	S 25°30'06" W	61.86'
M10	S 51°50'40" W	38.43'
M11	S 70°41'03" W	63.30'
M12	N 81°45'48" W	54.10'
M13	N 89°21'43" W	41.94'
M14	N 79°13'05" W	29.92'
M15	N 14°29'30" W	41.76'
M16	N 19°23'52" E	43.90'
M17	N 41°01'37" E	44.24'
M18	N 49°41'51" E	45.30'
M19	N 25°39'51" E	36.52'
M20	N 10°29'57" E	38.20'
M21	N 78°27'16" E	33.84'
M22	N 62°48'29" E	61.67'

M23	N 64°30'20" E	53.54'
M24	N 57°12'37" E	69.23'
M25	N 57°50'47" E	57.11'
M26	N 50°15'09" E	69.88'
M27	N 44°02'45" E	67.61'
M28	N 50°12'06" E	45.64'
M29	N 77°38'00" E	69.56'
M30	S 74°24'17" E	44.61'
M31	S 08°48'22" E	50.06'
M32	S 41°43'23" W	69.98'

LINE	BEARING	DISTANCE
N1	N 47°40'19" E	43.76'
N2	N 03°53'48" W	59.45'
N3	N 65°32'29" E	62.54'
N4	N 77°29'24" E	47.24'
N5	N 76°40'18" E	52.62'
N6	S 55°45'30" E	62.15'
N7	S 26°09'17" E	54.14'
N8	S 20°30'57" E	44.31'
N9	S 04°34'57" E	45.15'
N10	S 07°10'22" E	30.29'
N11	S 40°45'48" E	26.78'
N12	S 28°59'23" E	40.76'
N13	S 10°14'55" E	46.40'
N14	S 10°15'23" W	38.17'
N15	S 23°35'07" E	33.38'
N16	S 16°27'20" E	33.72'
N17	S 57°08'05" W	40.10'
N18	S 44°31'48" W	28.70'
N19	S 19°46'40" W	25.61'
N20	S 26°48'16" W	37.04'
N21	S 14°06'20" W	56.04'
N22	S 35°59'25" W	19.47'
N23	S 61°42'55" W	22.08'
N24	S 54°24'55" W	27.14'
N25	S 65°47'18" W	56.91'
N26	S 70°29'04" W	49.80'
N27	S 80°05'06" W	55.21'
N28	N 75°14'04" W	55.36'
N29	N 83°58'07" W	47.38'
N30	N 54°25'32" W	74.26'
N31	N 26°18'56" W	58.34'
N32	N 10°17'05" W	86.44'
N33	N 03°22'18" W	68.25'
N34	N 33°07'41" E	77.42'

N35	N 27°25'32" E	64.91'
N36	N 12°41'46" E	75.07'
N37	N 66°28'42" E	36.22'
N38	N 51°41'52" E	52.44'

LINE	BEARING	DISTANCE
P1	N 53°22'22" W	35.12'
P2	N 31°01'54" W	48.72'
P3	N 27°38'20" W	55.62'
P4	N 13°30'13" E	62.20'
P5	N 51°44'16" E	45.06'
P6	N 72°31'57" E	37.42'
P7	N 46°37'30" E	45.48'
P8	S 81°46'18" E	57.34'
P9	S 57°55'43" E	62.74'
P10	S 34°47'33" E	58.85'
P11	S 28°12'29" E	43.79'
P12	S 20°40'29" E	56.47'
P13	S 22°02'16" E	65.56'
P14	S 01°09'09" E	46.59'
P15	S 44°36'50" W	32.94'
P16	S 28°47'16" W	42.17'
P17	S 89°42'02" W	39.62'
P18	S 62°06'04" W	31.45'
P19	S 86°45'22" W	46.50'
P20	N 75°05'35" W	32.66'
P21	N 15°51'58" W	38.38'
P22	N 25°24'56" W	44.14'
P23	N 38°45'08" W	49.43'

LINE	BEARING	DISTANCE
Q1	N 31°05'35" E	30.62'
Q2	N 85°39'55" E	47.07'
Q3	S 79°11'54" E	39.89'
Q4	S 60°54'48" E	49.02'
Q5	S 21°45'10" E	38.50'
Q6	S 17°03'45" E	35.89'
Q7	S 15°28'36" E	54.00'
Q8	S 43°37'42" W	46.47'
Q9	S 71°08'09" W	36.06'
Q10	N 78°16'29" W	39.85'
Q11	N 68°47'19" W	45.67'
Q12	N 53°16'57" W	50.21'
Q13	N 27°55'03" W	52.08'
Q14	N 07°07'39" E	34.17'
Q15	N 35°08'24" E	42.02'

LINE	BEARING	DISTANCE
R1	N 86°18'51" E	35.37'
R2	S 49°53'59" E	46.49'
R3	S 31°59'45" E	45.88'
R4	S 76°39'40" E	41.18'
R5	S 80°39'54" E	64.20'
R6	S 51°39'47" E	46.15'
R7	S 30°39'53" E	38.54'
R8	S 41°14'49" W	53.09'
R9	S 08°00'41" W	40.36'
R10	S 12°39'10" W	47.18'
R11	S 41°19'40" W	32.30'
R12	S 64°48'12" W	60.02'
R13	N 83°28'46" W	57.03'
R14	N 39°14'39" W	47.94'
R15	N 02°07'21" W	49.63'
R16	N 34°39'43" W	45.14'
R17	N 10°28'28" W	60.40'
R18	N 30°16'50" W	56.54'
R19	N 04°25'25" E	54.36'
R20	N 35°05'43" E	38.19'

LINE	BEARING	DISTANCE
S1	S 07°01'37" E	64.84'
S2	S 00°01'08" W	36.22'
S3	S 37°47'27" W	27.85'
S4	S 40°45'32" W	20.92'
S5	N 59°21'16" W	38.69'
S6	N 58°52'15" W	43.87'
S7	N 74°14'18" W	38.88'
S8	N 56°43'45" W	38.79'
S9	N 28°57'09" W	57.56'
S10	N 20°21'46" W	51.28'
S11	N 29°18'18" W	42.37'
S12	N 63°36'51" E	36.58'
S13	N 51°05'14" E	46.11'
S14	S 85°03'28" E	29.20'
S15	S 60°17'53" E	51.15'
S16	S 67°02'59" E	51.15'
S17	S 49°38'57" E	31.50'
S18	S 19°03'22" E	51.03'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

LINE	BEARING	DISTANCE
T1	S 89°41'20" E	42.17'
T2	S 33°48'43" E	48.07'
T3	S 22°31'49" E	66.22'
T4	S 27°59'56" E	63.18'
T5	S 47°52'13" E	53.62'
T6	S 45°07'21" E	60.92'
T7	S 17°00'48" E	78.03'
T8	S 16°50'35" W	67.82'
T9	S 15°51'55" W	58.81'
T10	S 39°20'36" W	48.56'
T11	S 48°41'03" W	62.04'
T12	S 60°14'43" W	47.61'
T13	N 15°12'38" W	57.16'
T14	N 08°31'53" W	57.12'
T15	N 02°35'34" E	73.61'
T16	N 06°25'24" E	62.41'
T17	N 10°40'07" W	76.31'
T18	N 14°29'47" W	61.74'
T19	N 26°53'11" W	63.21'
T20	N 28°00'59" W	79.12'
T21	N 35°02'08" E	33.89'
T22	S 74°17'05" E	8.18'
T23	N 84°15'17" E	5.92'

LINE	BEARING	DISTANCE
U1	S 37°04'53" E	14.37'
U2	S 57°56'41" W	91.21'
U3	S 58°10'32" W	281.57'
U4	S 57°24'06" W	136.93'
U5	S 55°54'32" W	176.89'
U6	S 59°39'55" E	42.48'
U7	S 01°12'48" W	30.18'
U8	S 11°55'11" W	56.94'
U9	S 69°59'48" W	50.54'
U10	S 73°45'49" W	56.28'
U11	S 45°22'59" W	53.61'
U12	S 74°27'52" W	32.05'
U13	N 53°18'49" W	44.49'
U14	N 79°10'46" W	58.20'
U15	S 57°05'19" W	550.08'
U16	S 57°41'34" W	340.03'
U17	S 55°16'03" W	247.41'
U18	S 09°59'34" E	34.75'
U19	S 15°05'07" W	39.00'

U20	S 79°28'03" W	41.18'
U21	S 67°48'06" W	50.00'
U22	S 62°01'59" W	45.61'
U23	S 66°08'59" W	53.35'
U24	N 15°55'16" W	30.79'
U25	S 58°03'11" W	194.96'
U26	S 41°07'15" E	29.37'
U27	S 38°53'49" W	43.34'
U28	S 65°02'54" W	50.11'
U29	S 72°54'11" W	43.54'
U30	N 64°29'28" W	23.54'
U31	S 35°30'38" W	53.06'
U32	S 33°24'09" W	52.68'
U33	S 44°02'53" W	43.50'
U34	S 55°50'24" W	47.62'
U35	S 53°09'42" W	58.55'
U36	S 67°53'29" W	40.79'
U37	S 34°14'06" W	59.74'
U38	S 33°53'09" W	47.27'
U39	S 49°33'07" W	39.23'
U40	S 29°36'34" W	56.61'
U41	S 37°52'54" W	58.69'
U42	S 12°16'15" W	59.85'
U43	S 31°20'01" W	89.16'
U44	S 45°19'14" W	42.96'
U45	N 84°25'59" W	43.54'
U46	N 14°52'10" W	22.53'
U47	N 15°42'32" W	23.76'
U48	N 11°31'49" W	27.54'
U49	N 23°41'36" W	62.84'
U50	N 57°17'01" W	35.65'
U51	S 52°56'34" W	25.27'
U52	S 75°29'49" W	41.38'
U53	N 18°34'51" W	54.97'
U54	N 28°20'27" E	46.04'
U55	N 04°15'44" E	33.10'
U56	N 27°38'06" E	42.44'
U57	N 49°42'37" W	47.23'
U58	N 64°07'10" W	43.99'
U59	S 72°51'43" W	44.25'
U60	N 14°32'57" W	59.38'
U61	N 27°46'46" W	46.76'
U62	N 30°52'36" W	68.38'
U63	N 11°05'30" E	35.83'
U64	N 01°42'04" W	61.78'

U65	N 27°47'24" E	32.21'
U66	N 32°31'56" W	42.78'
U67	N 32°56'14" W	35.71'
U68	N 23°45'51" W	43.82'
U69	N 15°18'30" W	42.01'
U70	N 23°32'14" W	36.29'
U71	N 55°07'03" W	37.64'
U72	N 34°16'55" W	40.72'
U73	N 60°23'19" W	44.46'
U74	S 78°15'31" W	30.63'
U75	S 53°09'47" W	19.40'
U76	N 26°46'38" W	46.35'
U77	N 49°18'29" W	33.22'
U78	N 56°20'36" E	41.27'
U79	N 06°26'22" W	49.02'
U80	N 07°42'31" E	28.70'
U81	S 70°11'45" E	50.21'
U82	S 89°35'25" E	33.55'
U83	S 86°47'40" E	28.88'
U84	S 64°16'19" E	32.94'
U85	S 26°15'41" E	36.96'
U86	N 62°35'33" E	39.87'
U87	N 81°49'39" E	40.00'
U88	S 83°51'40" E	36.85'
U89	S 72°53'08" E	33.77'
U90	N 73°06'48" E	27.70'
U91	N 69°49'25" E	27.86'
U92	N 68°09'27" E	37.95'
U93	S 83°43'49" E	24.70'
U94	S 60°26'18" E	39.18'
U95	N 60°27'35" E	39.88'
U96	N 29°21'16" E	38.41'
U97	N 73°51'41" E	49.14'
U98	S 41°22'38" E	9.32'
U99	S 28°25'45" E	50.03'
U100	S 18°13'57" E	43.79'
U101	S 00°42'21" W	45.62'
U102	S 28°07'06" E	69.49'
U103	N 78°24'29" E	39.70'
U104	N 27°22'12" E	40.55'
U105	N 11°07'20" E	45.59'
U106	N 08°19'05" E	35.74'
U107	N 21°16'36" W	38.62'
U108	N 13°04'48" E	22.65'
U109	N 46°34'20" E	35.49'

U110	N 76°19'37" E	49.96'
U111	S 51°46'03" E	63.51'
U112	S 30°43'19" E	29.38'
U113	S 27°16'43" E	75.55'
U114	S 29°31'36" W	31.40'
U115	S 75°49'57" W	70.26'
U116	N 51°16'50" W	55.62'
U117	S 12°13'26" W	52.16'
U118	S 21°18'20" W	37.45'
U119	S 68°56'49" W	43.87'
U120	S 56°05'36" W	38.13'
U121	S 43°34'39" W	28.54'
U122	S 81°48'51" W	43.73'
U123	S 40°08'25" W	42.48'
U124	S 34°19'16" W	61.56'
U125	S 31°36'18" W	46.05'
U126	S 57°12'12" E	55.72'
U127	S 61°44'14" E	59.69'
U128	S 00°40'19" W	38.96'
U129	N 86°52'09" E	41.45'
U130	N 27°05'41" E	47.60'
U131	S 82°18'10" E	60.53'
U132	N 80°25'07" E	38.85'
U133	N 37°17'39" E	26.72'
U134	N 11°26'01" W	40.81'
U135	N 35°29'34" E	52.82'
U136	N 37°35'04" E	55.36'
U137	N 10°55'46" E	57.87'
U138	N 63°22'43" E	66.86'
U139	N 73°26'44" E	46.16'
U140	N 59°52'19" E	58.50'
U141	S 89°30'40" E	70.81'
U142	N 69°18'21" E	37.50'
U143	N 33°25'54" E	59.61'
U144	N 60°20'22" E	54.35'
U145	N 44°26'42" E	51.61'
U146	S 83°24'54" E	50.17'
U147	N 42°37'13" E	45.79'
U148	N 24°18'32" W	49.46'
U149	N 53°06'53" W	41.20'
U150	N 10°04'13" W	45.84'
U151	N 48°50'38" E	38.60'
U152	S 89°59'54" E	34.40'
U153	S 82°36'48" E	52.60'
U154	S 85°53'01" E	36.75'



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 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
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 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

U155	S 32°52'39" E	55.00'
U156	S 32°11'43" E	59.16'
U157	S 32°08'55" E	63.60'
U158	S 29°52'37" E	46.63'
U159	S 20°44'56" E	31.58'
U160	S 56°37'12" E	27.10'
U161	N 26°04'06" E	57.01'
U162	N 27°46'01" E	50.68'
U163	N 01°48'07" W	39.09'
U164	N 31°20'47" E	44.85'
U165	N 36°22'10" W	40.83'
U166	N 50°33'46" W	46.55'
U167	N 43°11'28" W	52.04'
U168	N 09°10'24" E	42.72'
U169	N 75°51'32" E	46.13'
U170	S 18°12'59" E	17.24'
U171	N 82°50'05" E	54.50'
U172	N 23°46'34" E	55.71'
U173	N 17°02'28" E	38.01'
U174	N 02°31'32" W	59.03'
U175	N 38°52'03" E	57.35'
U176	N 74°21'04" E	48.11'
U177	N 46°49'31" E	61.98'
U178	N 22°01'13" E	74.72'
U179	N 71°55'04" E	60.70'
U180	N 75°33'39" E	55.37'
U181	N 65°11'19" E	52.81'
U182	N 54°09'23" E	41.21'
U183	N 57°09'14" E	54.55'
U184	N 74°26'29" E	36.01'
U185	N 26°03'45" E	43.74'
U186	N 18°57'04" W	32.11'
U187	N 35°14'06" E	37.30'
U188	S 87°31'14" E	32.32'
U189	S 85°36'31" E	27.86'
U190	N 67°47'21" E	16.65'
U191	S 30°31'26" E	66.41'
U192	S 23°36'29" E	62.69'
U193	S 24°01'55" E	53.20'
U194	N 80°12'47" E	40.06'
U195	S 07°59'17" E	13.02'
U196	S 05°37'20" E	42.83'
U197	S 55°57'01" E	32.88'
U198	S 10°44'34" E	33.77'
U199	S 23°34'20" E	33.22'

U200	S 35°51'45" E	17.71'
U201	S 43°16'34" E	5.43'
U202	N 57°30'47" E	226.80'
U203	N 55°45'09" E	29.94'
U204	N 62°37'14" E	36.22'
U205	N 04°18'24" W	23.04'
U206	N 24°41'40" E	40.33'
U207	S 87°40'59" E	31.54'
U208	S 67°06'36" E	14.24'
U209	N 58°59'11" E	178.04'
U210	N 56°34'19" E	87.28'
U211	N 63°27'59" E	38.17'
U212	N 08°13'13" W	25.98'
U213	N 11°36'16" E	33.19'
U214	N 22°48'42" E	41.66'
U215	N 38°00'44" E	39.49'
U216	N 08°29'47" E	39.87'
U217	N 00°33'26" W	45.24'
U218	N 08°49'10" W	51.13'
U219	N 21°34'17" E	47.91'
U220	N 14°37'35" W	57.03'
U221	N 27°42'04" E	63.40'
U222	N 18°53'33" E	66.22'
U223	N 09°42'30" E	56.96'
U224	N 33°06'44" E	50.68'
U225	N 30°25'46" E	42.02'
U226	S 75°42'29" E	35.83'
U227	S 14°54'06" E	59.68'
U228	S 08°17'56" E	51.05'
U229	S 32°12'05" W	50.14'
U230	S 64°00'49" W	36.74'
U231	S 06°06'47" W	21.69'
U232	S 26°44'44" E	39.89'
U233	S 52°03'32" E	55.26'
U234	S 47°48'21" E	47.31'
U235	S 20°41'13" E	49.64'
U236	S 05°08'06" W	35.98'
U237	S 69°45'52" E	30.05'
U238	S 38°37'34" E	33.96'

LINE	BEARING	DISTANCE
V1	N 12°15'09" W	29.19'
V2	N 02°58'27" W	47.89'
V3	N 00°44'04" E	34.33'
V4	N 13°13'07" E	48.91'
V5	N 34°11'00" W	32.72'
V6	N 39°19'54" W	54.57'
V7	N 39°31'16" W	53.78'
V8	N 81°35'13" W	48.60'
V9	N 13°32'29" E	31.36'
V10	N 11°20'00" E	47.67'
V11	N 39°12'33" E	19.20'
V12	N 15°22'00" W	50.14'
V13	N 57°43'50" W	39.34'
V14	N 63°46'37" W	50.11'
V15	N 04°39'44" W	38.86'
V16	N 88°34'13" E	45.21'
V17	S 60°41'00" E	28.87'
V18	S 54°01'25" E	41.75'
V19	N 22°53'25" E	24.03'
V20	N 52°50'08" E	56.21'
V21	S 65°18'11" E	37.61'
V22	S 66°40'40" E	67.48'
V23	S 74°45'48" E	54.94'
V24	S 44°34'21" E	40.57'
V25	S 31°44'18" E	74.13'
V26	S 41°42'16" E	63.14'
V27	S 85°08'54" E	36.44'
V28	S 53°22'53" E	42.02'
V29	N 72°32'33" E	52.17'
V30	N 83°48'54" E	51.11'
V31	N 60°54'49" E	45.25'
V32	S 88°40'39" E	42.59'
V33	S 85°06'27" E	54.96'
V34	S 57°31'32" E	51.54'
V35	S 66°24'05" E	38.87'
V36	S 65°15'52" E	44.67'
V37	S 60°29'07" E	44.11'
V38	S 23°28'31" E	54.60'
V39	S 07°03'13" E	50.11'
V40	S 34°56'59" W	45.80'
V41	S 23°27'01" W	48.10'
V42	N 64°40'13" W	50.57'
V43	N 21°51'34" W	49.61'
V44	N 16°34'22" E	37.91'

V45	N 61°58'23" W	46.68'
V46	N 35°40'21" W	44.77'
V47	S 84°32'35" W	56.25'
V48	S 80°59'01" W	33.68'
V49	N 81°04'36" W	35.65'
V50	N 81°57'41" W	45.87'
V51	S 33°29'54" W	40.18'
V52	S 80°52'10" W	43.82'
V53	S 55°51'27" W	80.05'
V54	S 55°35'03" W	111.87'
V55	S 60°10'58" W	171.82'
V56	N 32°13'18" W	6.04'

LINE	BEARING	DISTANCE
W1	S 55°09'59" E	105.24'
W2	S 28°34'29" E	125.68'
W3	S 11°43'37" W	48.82'
W4	S 38°52'34" E	90.66'
W5	S 40°53'50" W	74.83'
W6	N 64°33'57" W	52.02'
W7	N 86°17'26" W	58.69'
W8	N 58°06'41" W	72.73'
W9	N 43°29'24" W	54.82'
W10	N 01°44'55" E	46.89'
W11	N 20°10'46" W	50.18'
W12	N 03°59'15" W	48.66'
W13	N 00°27'01" W	42.76'
W14	N 48°49'40" E	54.26'
W15	N 62°54'20" E	44.14'



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 FOR
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LINE	BEARING	DISTANCE
X1	N 28°34'12" W	31.21'
X2	N 02°14'09" E	47.22'
X3	N 07°06'50" W	49.68'
X4	N 02°45'28" W	75.97'
X5	N 08°11'36" E	53.86'
X6	N 36°40'15" W	48.94'
X7	N 25°23'46" W	60.58'
X8	N 04°35'57" W	77.53'
X9	N 06°21'34" E	45.20'
X10	N 29°57'35" W	43.41'
X11	N 20°56'06" E	47.26'
X12	N 82°45'29" E	42.15'
X13	N 59°45'24" E	48.57'
X14	N 74°46'22" E	10.88'
X15	S 15°01'31" E	21.97'
X16	N 69°45'01" E	63.53'
X17	S 00°09'45" W	52.17'
X18	S 07°30'59" E	64.97'
X19	S 00°28'14" W	40.91'
X20	S 26°19'05" E	62.84'
X21	S 19°31'41" E	48.77'
X22	S 40°33'23" E	66.60'
X23	S 28°43'10" E	61.50'
X24	S 14°34'46" E	68.45'
X25	S 55°40'58" W	272.90'

LINE	BEARING	DISTANCE
Y1	N 36°52'13" W	51.41'
Y2	N 35°30'00" W	39.46'
Y3	N 25°08'52" E	46.14'
Y4	N 34°33'48" E	71.23'
Y5	N 87°27'11" E	61.68'
Y6	S 85°13'07" E	36.64'
Y7	N 87°42'40" E	26.47'
Y8	S 68°12'52" E	60.05'
Y9	S 64°32'30" E	59.09'
Y10	S 10°33'22" E	59.40'
Y11	S 14°41'30" E	58.21'
Y12	S 02°01'43" E	32.35'
Y13	S 22°22'06" W	40.85'
Y14	S 67°32'37" W	51.28'
Y15	S 43°34'40" W	48.35'
Y16	S 71°54'31" W	49.68'
Y17	N 53°09'35" W	51.41'
Y18	N 41°35'03" W	65.26'
Y19	N 38°40'29" W	62.07'

LINE	BEARING	DISTANCE
Z1	N 52°43'01" E	17.39'
Z2	N 61°07'59" E	26.87'
Z3	N 80°51'13" E	53.61'
Z4	S 42°01'56" E	50.80'
Z5	S 51°22'49" E	33.48'
Z6	S 51°52'28" E	53.78'
Z7	S 33°23'43" W	34.78'
Z8	N 75°02'47" W	33.20'
Z9	N 64°36'55" W	50.33'
Z10	N 87°40'35" W	31.45'
Z11	N 65°41'55" W	50.05'
Z12	N 27°20'18" W	41.46'

LINE	BEARING	DISTANCE
2A1	S 77°59'28" W	220.93'
2A2	S 63°12'24" W	138.12'
2A3	S 65°43'04" W	137.52'
2A4	S 69°08'46" W	69.11'
2A5	S 10°36'25" E	9.43'
2A6	S 26°09'20" W	53.07'
2A7	S 62°08'42" W	33.29'
2A8	S 56°53'56" W	44.81'
2A9	S 27°30'10" W	43.31'
2A10	S 13°50'49" W	46.20'
2A11	S 34°59'01" W	43.80'
2A12	S 21°34'54" W	60.09'
2A13	S 13°09'30" W	72.85'
2A14	S 29°21'12" W	89.04'
2A15	S 25°22'42" W	40.19'
2A16	N 59°22'28" W	36.96'
2A17	N 66°03'47" W	51.73'
2A18	N 65°25'35" W	45.25'
2A19	S 84°12'22" W	31.68'
2A20	S 57°17'30" W	25.14'
2A21	S 45°08'18" W	26.63'
2A22	S 24°41'37" E	38.04'
2A23	S 65°05'58" E	34.72'
2A24	N 89°50'02" E	33.78'
2A25	S 05°34'08" E	38.88'
2A26	S 20°51'20" W	57.58'
2A27	S 34°25'24" W	49.63'
2A28	S 30°59'40" W	37.66'
2A29	S 38°39'52" W	59.46'
2A30	N 78°24'43" W	55.16'
2A31	N 14°33'09" W	50.93'
2A32	N 08°00'17" E	44.64'

2A33	N 20°20'23" W	27.02'
2A34	N 83°48'08" W	35.58'
2A35	S 79°24'37" W	32.03'
2A36	S 75°54'01" W	26.32'
2A37	S 18°21'42" W	36.34'
2A38	S 11°27'48" E	40.68'
2A39	S 26°00'27" W	40.13'
2A40	S 59°52'01" W	67.36'
2A41	N 87°22'14" W	43.57'
2A42	N 37°37'42" W	36.17'
2A43	N 56°37'59" W	47.77'
2A44	S 55°26'12" W	86.21'
2A45	S 61°03'29" W	62.29'
2A46	S 46°51'40" W	76.32'
2A47	N 26°40'41" W	37.14'
2A48	N 60°39'36" W	49.36'
2A49	S 45°45'33" W	34.90'
2A50	S 58°00'14" W	39.03'
2A51	S 27°30'28" W	82.49'
2A52	S 05°29'27" W	47.00'
2A53	S 35°42'34" W	47.44'
2A54	S 33°18'45" W	33.20'
2A55	S 39°37'20" W	67.65'
2A56	S 59°23'38" W	62.07'
2A57	N 68°42'24" W	53.89'
2A58	N 07°28'39" W	43.83'
2A59	N 72°56'20" W	14.83'
2A60	S 41°56'56" W	31.26'
2A61	S 60°55'17" W	19.16'
2A62	S 86°27'06" W	100.11'
2A63	S 73°16'54" W	109.22'
2A64	S 67°25'37" W	97.65'
2A65	S 40°40'26" W	39.26'
2A66	S 18°10'40" W	85.62'
2A67	S 17°18'18" E	6.75'
2A68	S 29°03'18" E	54.98'
2A69	S 24°02'27" E	48.31'
2A70	S 15°27'23" E	22.68'
2A71	S 28°12'18" W	20.41'
2A72	S 12°31'44" E	52.56'
2A73	S 80°26'39" W	50.11'
2A74	N 76°48'03" W	45.51'
2A75	S 70°42'42" W	80.63'
2A76	S 51°41'10" W	70.79'
2A77	N 83°04'44" W	48.95'
2A78	S 51°31'17" W	47.22'
2A79	S 57°39'53" W	49.64'

2A80	S 55°56'25" W	37.02'
2A81	S 01°47'19" W	56.55'
2A82	S 49°20'40" W	49.44'
2A83	S 44°44'41" W	34.12'
2A84	S 07°52'30" E	71.37'
2A85	S 02°17'55" W	32.71'
2A86	S 00°24'06" E	49.91'
2A87	S 20°39'26" W	53.97'
2A88	S 84°56'37" W	28.31'
2A89	S 35°20'27" W	66.94'
2A90	N 76°38'18" W	42.58'
2A91	N 66°07'47" W	36.50'
2A92	S 67°38'00" W	52.76'
2A93	S 82°08'43" W	44.77'
2A94	N 89°51'10" W	26.08'
2A95	N 65°13'42" W	68.78'
2A96	S 81°12'02" W	52.99'
2A97	S 63°04'52" W	48.53'
2A98	S 34°31'33" W	67.92'
2A99	N 87°30'06" W	52.40'
2A100	S 42°09'10" W	55.33'
2A101	S 11°36'16" W	60.64'
2A102	S 29°27'10" W	69.46'
2A103	S 27°22'20" W	54.10'
2A104	S 87°45'40" W	38.17'
2A105	S 28°54'41" W	55.47'
2A106	S 81°37'00" W	52.48'
2A107	S 63°17'10" W	66.23'
2A108	N 83°09'03" W	51.66'
2A109	S 71°55'21" W	62.24'
2A110	S 84°13'14" W	64.38'
2A111	S 64°09'08" W	58.56'
2A112	S 24°23'16" W	60.68'
2A113	S 23°46'39" W	63.94'
2A114	S 58°20'30" W	47.09'
2A115	N 66°59'14" W	52.22'
2A116	N 64°24'35" W	66.27'
2A117	N 43°00'28" W	82.58'
2A118	N 42°30'25" W	51.87'
2A119	N 46°21'14" W	67.19'
2A120	N 49°32'11" W	33.26'
2A121	N 25°07'11" E	26.67'
2A122	N 48°46'25" E	64.71'
2A123	N 16°04'36" E	125.84'
2A124	N 50°43'01" E	165.12'
2A125	N 52°42'01" E	83.48'
2A126	N 52°26'06" E	367.13'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2A127	S 49°02'53" E	61.62'
2A128	S 36°24'53" E	52.93'
2A129	S 67°29'28" E	57.52'
2A130	S 07°37'48" E	56.45'
2A131	S 73°25'13" E	64.51'
2A132	N 73°47'44" E	51.69'
2A133	S 60°43'40" E	66.16'
2A134	N 44°28'17" E	82.49'
2A135	N 22°13'41" E	101.87'
2A136	N 55°32'18" E	42.97'
2A137	N 83°22'53" E	49.57'
2A138	S 56°53'57" E	17.21'
2A139	S 64°41'00" E	30.26'
2A140	S 78°37'10" E	43.99'
2A141	S 32°14'43" E	40.94'
2A142	S 56°35'54" E	39.34'
2A143	S 67°32'12" E	45.45'
2A144	S 85°16'35" E	22.44'
2A145	N 70°20'01" E	26.53'
2A146	N 68°49'50" E	39.65'
2A147	N 45°13'36" E	28.79'
2A148	N 10°06'01" E	39.34'
2A149	N 16°58'11" W	31.15'
2A150	N 08°46'27" E	41.10'
2A151	N 49°05'01" E	48.15'
2A152	N 30°01'36" W	33.94'
2A153	N 31°22'48" E	37.72'
2A154	N 11°51'05" E	20.67'
2A155	N 53°14'03" W	18.08'
2A156	N 88°25'55" W	48.86'
2A157	N00°53'17"E	7.81'
2A158	N74°46'16"E	60.76'
2A159	N61°38'55"E	73.72'
2A160	N60°43'33"E	76.87'
2A161	N60°55'39"E	81.59'
2A162	N63°19'04"E	72.45'
2A163	N58°14'35"E	99.84'
2A164	N29°25'51"E	37.77'
2A165	N04°23'36"E	59.02'
2A166	N24°10'22"E	75.43'
2A167	N30°24'01"E	55.00'
2A168	N70°22'30"E	84.22'
2A169	N74°34'24"E	87.19'
2A170	N82°58'24"E	89.82'

2A171	N76°30'16"E	50.23'
2A172	N49°03'29"E	49.97'
2A173	N43°54'15"E	82.93'
2A174	N49°22'52"E	83.42'
2A175	N58°47'45"E	82.21'
2A176	N53°10'25"E	74.21'
2A177	N59°20'55"E	69.87'
2A178	N70°14'27"E	75.91'
2A179	N72°26'56"E	70.34'
2A180	N70°19'04"E	102.20'
2A181	N59°28'10"E	35.90'
2A182	N25°32'51"E	30.77'
2A183	N16°18'45"E	17.99'
2A184	N17°14'08"E	48.96'
2A185	N09°46'59"E	57.16'
2A186	N10°28'18"E	70.86'
2A187	N04°35'46"W	59.23'
2A188	N01°00'15"E	54.15'
2A189	N16°54'36"E	74.11'
2A190	N06°31'15"E	54.59'
2A191	N43°55'16"E	43.19'
2A192	N39°48'39"E	22.68'
2A193	N05°47'07"E	24.52'
2A194	N52°39'42"E	39.30'
2A195	N08°48'58"W	30.90'
2A196	S56°48'24"E	40.95'
2A197	S46°30'23"E	51.51'
2A198	S71°22'05"E	35.94'
2A199	S26°22'46"E	27.06'
2A200	N65°43'22"E	41.67'
2A201	N63°00'48"E	49.06'
2A202	N56°05'58"E	55.93'
2A203	S16°08'15"E	11.59'
2A204	S15°29'12"E	25.69'
2A205	S84°04'56"E	12.47'
2A206	N47°47'08"E	25.30'
2A207	N01°42'44"E	16.67'
2A208	N38°53'34"W	18.16'
2A209	N09°46'31"W	28.48'
2A210	N88°25'05"E	39.60'
2A211	S87°33'04"E	36.89'
2A212	N85°01'06"E	33.61'
2A213	N82°15'05"E	30.86'
2A214	N84°13'22"E	32.90'

2A215	N83°23'12"E	63.49'
2A216	N75°13'41"E	45.45'
2A217	N82°21'19"E	39.19'
2A218	N72°22'18"E	40.26'
2A219	N36°25'43"E	42.51'
2A220	N67°19'12"E	47.50'
2A221	S89°24'04"E	64.96'
2A222	N70°01'54"E	54.22'
2A223	N59°41'17"E	70.60'
2A224	N57°34'15"E	56.82'
2A225	N81°10'44"E	65.99'
2A226	N60°46'36"E	47.37'
2A227	N88°14'53"E	42.52'
2A228	N75°57'35"E	17.79'
2A229	N52°25'45"E	12.28'
2A230	N85°03'10"E	28.06'
2A231	S82°14'07"E	26.46'
2A232	S23°56'59"E	10.10'

LINE	BEARING	DISTANCE
2B1	S 60°18'20" W	96.62'
2B2	S 70°38'09" W	123.85'
2B3	S 80°32'19" W	34.52'
2B4	N 32°38'14" W	66.02'
2B5	N 48°45'03" W	48.62'
2B6	N 11°28'25" W	4.31'
2B7	N 89°29'33" E	307.85'

LINE	BEARING	DISTANCE
2C1	S 83°25'13" W	41.56'
2C2	N 75°49'45" W	41.70'
2C3	S 75°06'10" W	41.73'
2C4	N 51°27'06" W	44.15'
2C5	N 81°32'23" W	44.53'
2C6	N 71°40'58" W	46.43'
2C7	N 73°48'47" W	57.05'
2C8	N 58°53'31" W	43.34'
2C9	N 25°12'53" E	50.10'
2C10	N 76°47'23" E	47.38'
2C11	N 83°39'57" E	58.56'
2C12	N 52°25'10" E	62.30'
2C13	N 78°00'23" E	50.24'
2C14	N 69°00'37" E	60.01'
2C15	N 53°55'50" E	36.84'
2C16	N 61°29'38" E	54.47'
2C17	N 73°38'04" E	60.65'
2C18	S 38°33'01" E	47.35'
2C19	S 35°43'03" E	53.08'
2C20	S 01°14'12" E	57.46'
2C21	S 37°22'43" W	15.39'
2C22	S 23°08'25" E	26.27'
2C23	S 21°34'04" W	84.65'
2C24	S 53°59'52" W	47.33'
2C25	S 59°14'37" W	58.97'
2C26	N 34°55'29" W	38.60'

LINE	BEARING	DISTANCE
2D1	N 24°54'40" W	35.14'
2D2	N 67°28'32" E	55.53'
2D3	S 81°05'47" E	30.97'
2D4	S 28°02'05" W	47.04'
2D5	S 81°22'23" W	45.50'

LINE	BEARING	DISTANCE
2E1	S 50°58'37" W	53.23'
2E2	N 78°01'26" W	43.72'
2E3	N 49°41'40" W	28.99'
2E4	N 35°12'52" W	44.53'
2E5	N 29°02'01" E	43.69'
2E6	N 50°02'45" E	52.26'
2E7	S 85°07'53" E	34.36'
2E8	S 06°39'19" W	44.55'
2E9	S 36°56'44" E	69.17'



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 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

LINE	BEARING	DISTANCE
2F1	N 20°41'07" W	39.79'
2F2	N 06°23'05" W	55.69'
2F3	N 39°15'42" W	58.76'
2F4	N 04°52'57" E	65.35'
2F5	N 17°42'02" E	54.34'
2F6	N 41°37'00" E	23.11'
2F7	N 59°56'03" E	47.64'
2F8	N 44°15'06" E	26.37'
2F9	S 84°41'07" E	40.49'
2F10	N 68°42'32" E	34.99'
2F11	N 86°36'13" E	35.45'
2F12	N 23°04'09" E	26.20'
2F13	S 57°44'40" E	31.92'
2F14	S 54°29'15" E	40.59'
2F15	S 89°50'59" E	42.71'
2F16	S 79°09'34" E	43.96'
2F17	N 71°38'04" E	31.62'
2F18	S 80°10'26" E	40.87'
2F19	S 81°36'29" E	33.31'
2F20	N 73°41'57" E	56.66'
2F21	S 55°40'58" W	559.04'

LINE	BEARING	DISTANCE
2G1	N 18°55'57" E	18.68'
2G2	N 00°53'53" W	38.92'
2G3	N 33°20'57" E	41.94'
2G4	N 75°45'08" E	41.98'
2G5	N 26°32'32" W	34.89'
2G6	N 44°17'59" E	32.00'
2G7	N 22°24'23" W	28.17'
2G8	N 51°22'21" E	37.51'
2G9	N 68°16'04" E	29.67'
2G10	N 67°16'14" E	36.64'
2G11	N 85°32'25" E	25.90'
2G12	N 00°04'25" E	37.35'
2G13	N 30°04'54" E	32.82'
2G14	S 88°43'58" E	46.26'
2G15	N 41°38'52" E	43.58'
2G16	S 84°39'47" E	32.40'
2G17	N 87°51'40" E	36.55'
2G18	S 35°40'08" E	30.14'
2G19	S 82°51'23" E	39.21'
2G20	N 20°28'09" W	19.94'

2G21	N 66°42'48" W	37.72'
2G22	N 23°01'47" E	49.74'
2G23	S 66°26'33" E	42.47'
2G24	N 51°05'00" E	56.53'
2G25	N 70°19'00" E	36.51'
2G26	S 66°13'50" E	34.91'
2G27	N 77°03'03" E	43.13'
2G28	N 61°52'50" E	54.29'
2G29	S 84°52'46" E	13.12'
2G30	S 55°40'58" W	761.26'

LINE	BEARING	DISTANCE
2i1	N78°33'30"E	54.92'
2i2	S49°48'43"E	43.07'
2i3	S55°38'08"E	40.08'
2i4	S63°41'39"E	40.52'
2i5	S74°08'18"E	31.55'
2i6	S64°36'14"E	26.83'
2i7	S76°29'20"E	52.20'
2i8	N79°47'34"E	48.36'
2i9	S89°36'50"E	53.57'
2i10	N68°06'31"E	63.59'
2i11	N74°27'29"E	44.48'
2i12	N73°46'17"E	39.33'
2i13	N87°50'44"E	48.81'
2i14	N81°29'16"E	50.97'
2i15	S77°19'24"E	72.80'
2i16	S70°42'33"E	62.08'
2i17	N84°10'46"E	49.93'
2i18	N55°41'53"E	60.16'
2i19	N77°49'34"E	68.94'
2i20	N60°07'57"E	83.12'
2i21	N45°11'53"W	63.82'
2i22	N38°10'03"W	59.54'
2i23	N00°05'28"E	19.52'
2i24	N40°36'38"W	54.72'
2i25	N34°33'54"W	82.29'
2i26	N19°25'25"E	47.99'
2i27	N16°01'18"E	60.25'
2i28	N45°33'18"E	62.18'
2i29	N55°05'57"E	64.21'
2i30	N82°57'34"E	67.63'
2i31	N67°33'50"E	64.30'
2i32	N80°23'48"E	48.78'

2i33	S50°26'58"E	71.27'
2i34	N47°53'23"E	76.80'
2i35	N46°54'16"E	81.58'
2i36	N82°41'59"E	69.47'
2i37	S12°46'06"E	29.79'
2i38	S05°53'05"E	41.69'
2i39	S17°38'02"E	81.63'
2i40	S07°54'50"E	32.88'
2i41	S13°42'26"W	42.85'
2i42	S05°17'49"W	22.75'
2i43	S34°19'02"E	8.81'
2i44	S55°40'58"W	310.45'
2i45	S41°01'42"E	503.11'
2i46	S32°50'28"W	67.29'
2i47	S84°58'40"W	43.64'
2i48	S77°40'10"W	55.89'
2i49	S44°02'55"W	65.16'
2i50	S60°57'18"W	54.19'
2i51	S36°03'58"W	67.32'
2i52	S01°36'28"W	49.26'
2i53	S13°21'58"W	54.30'
2i54	S08°12'46"W	57.45'
2i55	S37°55'19"W	52.43'
2i56	S67°33'55"W	40.70'
2i57	N75°10'40"W	54.07'
2i58	S82°27'02"W	52.69'
2i59	N75°23'47"W	43.82'
2i60	N81°42'49"W	42.60'
2i61	S85°07'32"W	50.65'
2i62	S49°32'26"W	52.40'
2i63	S73°09'26"W	56.40'
2i64	N84°34'48"W	38.71'
2i65	S55°02'33"W	51.79'
2i66	S51°32'05"W	52.60'
2i67	N46°35'18"W	253.41'
2i68	N48°28'01"E	23.38'
2i69	N44°45'03"E	50.43'
2i70	N79°12'39"E	40.78'
2i71	S75°22'45"E	39.24'
2i72	N82°05'45"E	44.00'
2i73	S25°35'16"E	46.70'
2i74	S65°30'36"E	47.78'
2i75	S20°58'38"E	40.91'
2i76	S70°42'30"E	43.52'

2i77	S74°36'08"E	17.61'
2i78	N67°17'55"E	119.59'
2i79	N03°53'19"E	36.76'
2i80	N17°35'07"E	50.89'
2i81	N17°53'15"W	37.04'
2i82	N63°24'46"E	49.95'
2i83	N16°09'23"W	58.08'
2i84	N14°56'17"E	63.09'
2i85	N51°18'36"E	33.76'
2i86	N70°48'41"E	40.29'
2i87	N63°51'15"E	43.83'
2i88	N81°06'00"E	41.86'
2i89	N11°50'13"E	54.63'
2i90	N12°31'55"W	58.99'
2i91	N43°31'01"W	30.49'
2i92	N49°19'58"W	56.92'
2i93	N11°47'30"W	48.10'
2i94	S87°46'14"W	44.32'
2i95	N58°42'26"W	49.40'
2i96	S12°33'18"W	36.08'
2i97	S42°42'11"W	35.22'
2i98	S40°43'08"W	58.07'
2i99	S50°01'10"W	54.90'
2i100	N61°23'21"W	67.07'
2i101	S59°59'15"W	124.81'
2i102	S58°43'58"W	190.54'
2i103	S68°01'27"W	207.24'
2i104	N36°50'48"W	174.29'
2i105	N34°37'20"W	149.91'
2i106	N34°47'26"W	158.98'

LINE	BEARING	DISTANCE
2J1	S04°41'25"E	28.36'
2J2	S48°46'34"E	22.63'
2J3	S30°10'47"E	41.09'
2J4	S39°37'20"E	45.19'
2J5	S36°07'54"E	41.00'
2J6	S20°13'17"E	36.70'
2J7	S53°57'41"E	57.12'
2J8	S73°15'25"E	54.74'
2J9	S30°11'46"E	33.08'
2J10	S76°59'40"E	58.96'
2J11	S86°15'58"E	61.39'
2J12	S75°55'01"E	75.47'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2J13	S03°42'28"E	47.75'
2J14	S87°09'29"E	58.99'
2J15	N17°38'48"E	56.20'
2J16	N17°14'29"E	50.39'
2J17	N43°19'41"E	64.49'
2J18	N45°57'39"E	40.32'
2J19	N41°29'49"E	37.90'
2J20	N32°33'19"E	11.20'
2J21	N24°24'28"W	135.53'
2J22	N66°58'04"W	11.53'
2J23	N76°01'10"W	31.19'
2J24	N33°33'35"W	59.74'
2J25	N75°16'08"W	48.72'
2J26	N81°55'53"W	45.67'
2J27	S65°07'24"W	33.67'
2J28	S63°14'20"W	47.70'
2J29	S82°54'45"W	42.32'
2J30	N86°53'04"W	45.60'
2J31	N51°41'19"W	37.79'
2J32	N38°10'05"W	32.51'
2J33	N28°09'39"W	38.25'
2J34	N32°03'22"W	31.13'
2J35	N02°42'49"E	28.69'
2J36	N50°03'33"W	24.85'
2J37	S39°56'27"W	225.64'
2J38	S50°03'33"E	24.22'

LINE	BEARING	DISTANCE
2K1	S56°20'56"E	58.14'
2K2	S52°59'28"E	47.31'
2K3	S44°10'07"E	37.91'
2K4	S06°45'06"E	47.99'
2K5	S07°50'29"E	48.94'
2K6	S01°24'45"W	36.07'
2K7	S40°43'56"W	58.03'
2K8	S45°26'12"W	45.01'
2K9	S54°47'57"W	56.69'
2K10	S63°50'59"W	79.75'
2K11	S58°48'21"W	68.27'
2K12	S61°27'04"W	58.30'
2K13	S66°54'21"W	41.04'
2K14	S23°04'04"E	2.93'
2K15	S08°54'50"E	10.41'
2K16	N88°23'55"E	39.90'

2K17	N72°44'23"E	59.91'
2K18	N60°31'27"E	71.84'
2K19	N78°48'50"E	42.65'
2K20	N32°22'39"E	37.63'
2K21	N45°08'20"E	48.12'
2K22	N69°19'11"E	55.59'
2K23	N74°37'24"E	65.46'
2K24	S76°32'37"E	43.95'
2K25	S59°49'19"E	53.70'
2K26	S33°43'06"E	39.97'
2K27	S45°06'53"E	60.34'
2K28	S35°46'37"E	52.99'
2K29	S32°40'12"E	58.70'
2K30	S00°08'39"E	54.41'
2K31	S05°57'41"E	48.40'
2K32	S04°24'05"E	40.63'
2K33	S30°27'15"E	54.93'
2K34	N24°12'34"E	61.65'
2K35	N32°41'54"E	28.43'
2K36	N29°57'29"E	48.98'
2K37	N40°14'43"W	34.40'
2K38	N14°57'13"W	58.21'
2K39	N04°57'00"E	43.48'
2K40	N28°25'54"E	40.01'
2K41	N85°08'07"E	42.09'
2K42	S86°54'40"E	41.70'
2K43	S54°41'44"E	33.17'
2K44	S37°20'15"E	45.27'
2K45	S59°58'44"E	31.71'
2K46	S85°32'18"E	51.07'
2K47	N75°09'27"E	40.55'
2K48	N14°04'31"E	24.64'
2K49	N68°47'12"E	5.00'
2K50	N21°12'48"W	162.85'
2K51	S68°47'12"W	27.51'
2K52	N82°54'18"W	31.34'
2K53	N41°43'12"W	34.37'
2K54	N41°21'34"W	34.17'
2K55	N25°45'19"W	46.48'
2K56	N08°08'41"W	44.63'
2K57	N23°17'45"W	40.27'
2K58	N34°06'54"W	39.52'
2K59	N19°29'11"E	15.98'
2K60	N77°05'41"W	37.85'

2K61	N72°05'53"W	26.10'
2K62	N62°43'49"W	64.90'
2K63	N79°18'51"W	28.24'
2K64	N66°03'32"W	59.36'
2K65	N86°26'44"W	49.49'
2K66	N89°40'10"W	49.92'
2K67	N02°29'41"E	24.01'
2K68	S72°18'48"W	24.96'
2K69	N85°01'55"W	42.23'
2K70	N55°31'52"W	25.92'
2K71	N46°15'52"W	37.33'
2K72	N04°35'35"W	7.46'
2K73	S85°24'25"W	22.09'
2K74	S43°33'02"W	124.55'
2K75	S46°26'58"E	4.06'

LINE	BEARING	DISTANCE
2L1	S86°01'29"E	32.99'
2L2	N10°55'36"E	51.14'
2L3	N05°06'05"E	31.09'
2L4	N72°47'32"E	32.79'
2L5	N07°31'08"E	38.91'
2L6	N03°07'19"W	23.36'
2L7	S82°39'57"W	24.44'
2L8	N84°04'21"W	34.31'
2L9	N32°44'35"W	42.74'
2L10	N73°05'59"W	13.38'
2L11	S64°11'19"W	58.91'
2L12	S21°12'48"E	186.15'
2L13	N68°47'12"E	10.14'

LINE	BEARING	DISTANCE
2M1	S26°06'18"E	32.44'
2M2	S34°00'08"E	38.47'
2M3	S06°15'48"E	28.51'
2M4	S39°00'18"E	36.42'
2M5	S20°43'26"E	37.82'
2M6	S62°37'17"E	49.35'
2M7	S22°16'41"E	41.61'
2M8	S55°05'52"E	31.44'
2M9	S81°36'11"E	36.70'
2M10	S77°29'54"E	37.70'
2M11	S45°49'18"E	56.65'
2M12	S77°12'12"E	44.68'

2M13	S72°10'30"E	53.43'
2M14	S65°56'56"E	56.33'
2M15	S16°01'31"E	32.99'
2M16	S29°41'38"E	38.01'
2M17	S06°16'04"E	44.43'
2M18	S10°53'52"E	38.77'
2M19	S63°16'57"E	3.20'
2M20	S54°47'40"W	25.56'
2M21	N40°08'29"W	41.63'
2M22	S12°31'10"E	25.72'
2M23	S22°50'03"W	31.91'
2M24	S57°09'08"W	40.13'
2M25	S45°32'59"W	39.00'
2M26	S01°20'44"E	36.41'
2M27	S10°10'45"W	29.79'
2M28	S53°09'57"W	36.25'
2M29	S32°27'38"W	50.10'
2M30	S23°50'00"W	51.40'
2M31	S80°55'25"W	37.77'
2M32	S02°27'30"W	50.52'
2M33	S58°11'50"E	29.48'
2M34	S58°17'24"E	49.83'
2M35	N18°56'12"E	36.54'
2M36	N38°43'59"E	40.95'
2M37	N12°19'05"E	29.95'
2M38	N24°17'51"E	28.82'
2M39	N68°53'35"E	40.78'
2M40	N09°01'06"E	40.61'
2M41	N56°16'52"E	63.75'
2M42	N76°22'47"E	50.98'
2M43	N72°23'26"E	50.00'
2M44	S87°26'22"E	47.94'
2M45	N28°01'53"E	34.16'
2M46	S82°00'21"E	63.74'
2M47	N79°54'39"E	42.22'
2M48	S51°51'42"E	23.63'
2M49	S27°58'18"E	44.64'
2M50	S24°09'50"E	51.29'
2M51	S39°17'02"E	60.19'
2M52	S54°43'08"E	43.31'
2M53	N65°55'33"E	31.56'
2M54	S43°47'58"E	26.66'
2M55	S67°04'47"E	36.08'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2M112	N03°40'54"E	51.80'
2M113	N18°15'03"E	39.43'
2M114	N22°40'30"E	15.15'
2M115	N53°41'22"W	436.78'
2M116	S86°30'35"W	45.50'
2M117	S42°52'19"W	38.64'
2M118	S76°41'48"W	43.73'
2M119	S29°23'22"W	40.31'
2M120	N40°00'39"W	39.80'
2M121	N52°53'07"W	65.02'
2M122	N21°42'27"W	36.15'
2M123	N64°34'31"W	30.85'
2M124	N87°24'29"W	42.15'
2M125	N64°52'43"W	69.65'
2M126	N65°22'31"W	48.77'
2M127	N48°52'29"W	46.04'
2M128	N09°12'24"W	27.48'
2M129	N09°26'45"E	39.87'
2M130	N33°52'32"E	40.43'
2M131	N03°41'22"E	37.50'
2M132	N41°08'17"E	8.76'
2M133	N58°46'54"W	91.78'
2M134	S30°02'42"W	5.80'
2M135	S64°02'20"W	47.01'
2M136	S41°53'42"W	33.41'
2M137	N87°39'30"W	44.32'
2M138	N69°12'51"W	51.18'
2M139	N70°31'33"W	43.94'
2M140	N68°35'43"W	65.01'
2M141	N73°11'45"W	53.55'
2M142	S36°32'35"W	39.21'
2M143	S35°47'11"E	45.21'
2M144	S51°08'17"E	50.93'
2M145	S57°37'05"W	46.63'
2M146	S88°20'17"W	70.51'
2M147	S53°28'33"W	52.32'
2M148	S79°40'39"W	47.69'
2M149	N77°23'13"W	40.04'
2M150	N35°16'30"W	42.54'
2M151	N71°30'18"W	39.51'
2M152	N27°57'19"W	43.70'
2M153	N23°35'24"W	58.39'
2M154	N71°17'54"W	56.84'

2M155	S67°52'24"W	45.17'
2M156	S69°31'10"W	50.87'
2M157	S34°31'34"W	31.30'
2M158	S59°37'07"W	41.04'
2M159	N81°39'40"W	49.62'
2M160	N54°34'09"W	44.59'
2M161	N27°27'28"W	42.68'
2M162	N45°20'04"W	50.76'
2M163	N52°14'55"W	44.59'
2M164	N41°50'56"W	46.95'
2M165	N06°43'42"E	42.78'
2M166	S62°01'06"W	218.74'

LINE	BEARING	DISTANCE
201	N05°56'29"W	26.00'
202	N55°17'44"W	50.46'
203	N45°08'40"W	34.23'
204	N02°42'16"W	45.59'
205	N44°46'50"E	42.83'
206	N76°19'53"W	43.78'
207	N03°49'01"E	33.86'
208	N17°57'23"W	46.22'
209	N40°41'38"W	46.45'
2010	S53°46'10"W	45.87'
2011	N40°30'34"W	57.39'
2012	S68°32'55"W	59.64'
2013	N46°34'03"W	60.54'
2014	N53°50'27"W	66.94'
2015	N06°07'33"E	59.03'
2016	N13°35'08"W	33.68'
2017	N00°59'31"W	41.74'
2018	N64°00'39"E	74.74'
2019	S78°19'27"E	7.06'
2020	S57°48'19"E	30.59'
2021	S66°24'29"E	38.00'
2022	S79°44'23"E	24.52'
2023	N48°06'28"E	63.35'
2024	N74°53'16"E	68.48'
2025	S59°47'35"E	44.27'
2026	N64°34'09"E	42.23'
2027	S72°58'06"E	76.65'
2028	S25°42'28"E	74.11'
2029	S25°15'10"W	57.61'

2030	S69°59'23"W	69.09'
2031	S15°45'56"W	42.95'
2032	S14°33'48"E	51.16'
2033	S31°57'12"E	42.68'
2034	S13°39'21"E	42.67'
2035	S36°23'27"E	89.20'
2036	S57°59'09"E	40.06'
2037	S49°34'15"E	5.82'
2038	S40°25'45"W	4.65'
2039	S50°40'25"W	167.62'
2040	N45°02'38"W	2.32'

LINE	BEARING	DISTANCE
2P1	S46°53'47"W	42.16'
2P2	N58°36'44"W	54.37'
2P3	S48°14'45"W	36.09'
2P4	S44°18'44"W	47.47'
2P5	S28°55'20"W	63.30'
2P6	S18°39'15"W	104.50'
2P7	S62°08'08"W	39.38'
2P8	N18°57'19"W	75.14'
2P9	N04°37'49"W	36.37'
2P10	N06°31'39"W	61.90'
2P11	N67°21'15"E	55.84'
2P12	N27°10'47"E	54.52'
2P13	N09°55'10"W	69.66'
2P14	N29°08'05"E	58.17'
2P15	N31°45'45"E	49.73'
2P16	S86°52'13"E	48.68'
2P17	N87°42'15"E	33.13'
2P18	N17°56'59"W	34.05'
2P19	N89°51'22"W	23.91'
2P20	N36°24'15"W	34.06'
2P21	N44°31'32"E	17.16'
2P22	N80°38'32"E	42.15'
2P23	N76°13'07"E	13.17'
2P24	S13°46'53"E	256.61'
2P25	S76°13'07"W	3.16'

LINE	BEARING	DISTANCE
2Q1	N27°45'29"W	22.38'
2Q2	S88°21'54"E	29.20'
2Q3	N79°21'15"E	21.40'
2Q4	N59°11'08"E	748.14'
2Q5	N58°32'45"E	58.66'
2Q6	N38°32'26"E	10.29'
2Q7	N11°31'28"W	42.43'
2Q8	N04°40'07"W	50.31'
2Q9	N06°26'55"W	152.68'
2Q10	S64°57'03"W	44.83'
2Q11	S63°14'42"W	37.10'
2Q12	S72°12'51"W	65.44'
2Q13	S61°14'43"W	52.58'
2Q14	S79°43'52"W	45.25'
2Q15	S84°06'04"W	51.26'
2Q16	S10°16'26"W	22.11'
2Q17	N57°18'31"W	40.35'
2Q18	S79°21'49"W	53.76'
2Q19	S81°42'33"W	492.05'
2Q20	S76°13'07"W	2.43'
2Q21	N13°46'53"W	25.37'
2Q22	N76°13'07"E	4.44'
2Q23	N85°12'38"E	35.15'
2Q24	N83°25'48"E	443.37'
2Q25	N01°59'15"E	26.21'
2Q26	N24°32'26"W	35.99'
2Q27	N53°11'31"W	47.31'
2Q28	N42°31'41"W	70.25'
2Q29	N10°14'06"E	75.31'
2Q30	N14°41'48"E	62.27'
2Q31	N00°39'20"W	63.71'
2Q32	N33°30'01"W	71.23'
2Q33	N21°47'06"W	80.05'
2Q34	N34°21'58"W	9.15'
2Q35	N50°40'25"E	54.48'
2Q36	S39°19'35"E	4.78'
2Q37	N51°14'07"E	67.39'
2Q38	N65°07'48"E	43.69'
2Q39	S48°19'54"E	51.77'
2Q40	S47°25'51"E	82.46'
2Q41	S42°37'53"E	93.76'
2Q42	S73°47'19"E	69.45'



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 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2Q43	N67°04'29"E	90.98'
2Q44	S27°13'53"E	41.72'
2Q45	S08°33'59"E	16.45'
2Q46	S07°33'07"W	59.01'
2Q47	S37°56'05"E	20.06'
2Q48	N84°30'13"W	53.41'
2Q49	S33°34'15"E	44.60'
2Q50	N85°32'10"E	29.49'
2Q51	N85°42'48"E	25.29'
2Q52	N05°47'01"E	21.97'
2Q53	N29°28'33"E	29.62'
2Q54	N24°21'59"E	15.24'
2Q55	N55°33'23"E	23.24'
2Q56	N55°45'00"E	134.37'
2Q57	N18°31'10"E	28.05'
2Q58	N33°26'15"E	31.96'
2Q59	N11°31'12"E	54.95'
2Q60	N41°25'17"E	40.95'
2Q61	N59°39'16"E	44.88'
2Q62	N24°54'33"E	45.73'
2Q63	N10°25'27"E	32.87'
2Q64	N73°42'52"W	36.99'
2Q65	N72°40'31"W	28.41'
2Q66	S69°15'13"W	30.52'
2Q67	S61°32'52"W	45.21'
2Q68	S30°14'04"W	38.23'
2Q69	N72°16'19"W	60.15'
2Q70	N00°01'48"E	63.03'
2Q71	N20°34'33"W	71.01'
2Q72	N33°35'17"W	55.75'
2Q73	N43°25'00"E	42.36'
2Q74	N62°51'32"E	54.01'
2Q75	N87°52'23"E	60.11'
2Q76	N62°06'41"E	59.93'
2Q77	N46°21'10"E	72.64'
2Q78	S68°50'46"E	48.28'
2Q79	N25°55'58"E	33.35'
2Q80	N26°17'41"E	43.40'
2Q81	N53°33'32"E	32.73'
2Q82	N63°16'01"E	44.41'
2Q83	N11°52'44"E	22.35'
2Q84	N22°05'56"W	47.08'
2Q85	N32°19'59"E	83.23'

2Q86	N35°17'21"E	64.55'
2Q87	N36°22'03"E	58.38'
2Q88	S60°59'45"E	38.19'
2Q89	N08°50'18"W	26.28'
2Q90	N06°39'52"E	30.32'
2Q91	N54°01'49"W	44.33'
2Q92	N37°57'41"W	35.06'
2Q93	N34°27'05"E	40.18'
2Q94	N89°28'38"E	71.25'
2Q95	N88°24'00"E	51.86'
2Q96	N85°49'59"E	48.46'
2Q97	N00°20'00"W	79.25'
2Q98	N21°54'53"E	52.08'
2Q99	N26°25'40"E	72.39'
2Q100	N65°06'35"E	66.13'
2Q101	N58°17'22"E	70.18'
2Q102	N12°29'44"E	72.15'
2Q103	N41°01'17"E	57.16'
2Q104	N37°33'15"E	75.37'
2Q105	N67°25'40"E	62.79'
2Q106	N64°35'45"E	68.74'
2Q107	N27°44'04"E	77.74'
2Q108	N28°55'29"E	78.76'
2Q109	N51°21'32"E	47.64'
2Q110	N82°04'22"E	34.77'
2Q111	S49°57'56"E	60.04'
2Q112	S54°21'29"E	58.02'
2Q113	S53°02'31"E	48.55'
2Q114	S58°49'45"E	44.02'
2Q115	S39°22'46"E	69.13'
2Q116	S30°47'32"E	33.71'
2Q117	S67°40'27"E	41.32'
2Q118	N82°40'03"E	56.89'
2Q119	N66°52'53"E	52.29'
2Q120	S29°49'45"E	49.61'
2Q121	S55°23'20"E	49.31'
2Q122	S45°12'18"E	46.85'
2Q123	S51°16'16"E	28.09'
2Q124	S59°49'01"E	50.31'
2Q125	S49°40'48"E	54.14'
2Q126	S65°22'28"E	23.76'
2Q127	N37°42'46"W	34.02'
2Q128	N16°15'55"W	28.62'

2Q129	N56°24'43"E	532.17'
2Q130	N56°24'49"E	376.44'
2Q131	N71°12'09"E	199.47'
2Q132	S27°04'39"E	419.77'
2Q133	S04°34'47"W	43.74'
2Q134	S11°06'06"E	28.40'
2Q135	S34°18'03"W	20.63'
2Q136	S18°56'54"W	33.14'
2Q137	S50°58'46"W	34.18'
2Q138	N51°05'35"W	44.99'
2Q139	N18°21'00"W	31.81'
2Q140	N36°16'22"W	30.26'
2Q141	N29°39'02"W	43.42'
2Q142	N27°49'23"W	33.04'
2Q143	N83°17'46"W	31.48'
2Q144	S66°04'04"W	39.37'
2Q145	S41°16'58"W	37.75'
2Q146	S15°31'27"E	33.14'
2Q147	S41°35'33"W	29.04'
2Q148	S25°59'41"W	28.39'
2Q149	S26°08'55"W	39.63'
2Q150	S10°51'20"W	42.05'
2Q151	S12°07'35"E	34.90'
2Q152	S21°22'38"E	33.32'
2Q153	S27°34'30"E	39.40'
2Q154	S09°56'32"W	44.78'
2Q155	S17°44'40"E	32.56'
2Q156	S36°27'37"E	59.79'
2Q157	S28°38'18"W	36.84'
2Q158	S47°11'55"W	56.97'
2Q159	S66°42'59"W	81.63'
2Q160	S58°36'28"W	67.87'
2Q161	S51°52'30"W	51.19'
2Q162	N69°17'08"W	42.46'
2Q163	N57°30'30"W	38.02'
2Q164	N67°34'36"W	41.13'
2Q165	S64°41'37"W	46.29'
2Q166	N55°49'43"W	56.76'
2Q167	N72°36'49"W	48.13'
2Q168	N02°14'41"E	39.75'
2Q169	N10°02'18"W	46.15'
2Q170	N05°39'58"E	49.94'
2Q171	N31°08'58"E	35.50'

2Q172	N06°19'58"E	50.01'
2Q173	N16°21'55"E	58.60'
2Q174	N04°10'28"E	42.05'
2Q175	N01°32'20"E	41.29'
2Q176	S83°14'06"E	58.38'
2Q177	N49°57'14"E	49.75'
2Q178	N68°35'03"E	53.15'
2Q179	S88°33'48"E	34.98'
2Q180	N79°26'38"E	34.43'
2Q181	N62°19'42"E	37.35'
2Q182	N71°11'05"E	27.63'
2Q183	N27°38'51"E	29.95'
2Q184	N09°35'31"E	38.91'
2Q185	N27°03'28"W	42.94'
2Q186	N58°02'37"W	29.20'
2Q187	N66°33'43"W	32.81'
2Q188	S69°54'55"W	39.36'
2Q189	S61°44'47"W	57.82'
2Q190	N89°47'18"W	44.14'
2Q191	S62°35'52"W	46.92'
2Q192	S38°43'57"W	49.75'
2Q193	S66°14'02"W	48.93'
2Q194	S44°57'08"W	50.90'
2Q195	S04°18'59"W	41.71'
2Q196	S48°01'44"W	43.81'
2Q197	S44°50'04"W	48.49'
2Q198	S05°21'25"E	39.27'
2Q199	S45°44'01"W	37.94'
2Q200	N69°37'48"W	41.18'
2Q201	N40°52'49"E	44.24'
2Q202	N46°03'18"W	41.21'
2Q203	S50°40'58"W	53.24'
2Q204	S54°21'36"W	54.08'
2Q205	S22°16'02"W	43.00'
2Q206	S25°19'36"E	33.50'
2Q207	S27°34'11"E	38.65'
2Q208	S09°14'24"W	47.20'
2Q209	S17°45'49"W	34.51'
2Q210	S34°01'36"W	47.24'
2Q211	S24°19'59"E	29.63'
2Q212	S55°59'52"E	34.48'
2Q213	S33°13'32"W	33.76'
2Q214	S09°25'26"W	29.90'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2Q215	S27°09'43"E	51.99'	2Q258	S54°23'32"E	38.65'	2Q301	S11°06'57"E	43.99'	2Q344	S29°15'13"W	67.18'
2Q216	N75°06'53"E	27.84'	2Q259	S58°33'19"E	36.87'	2Q302	S22°54'07"W	65.48'	2Q345	S40°16'26"E	52.63'
2Q217	S86°29'53"E	49.33'	2Q260	S89°49'26"E	37.11'	2Q303	S40°52'26"W	60.53'	2Q346	S20°38'00"E	69.83'
2Q218	S06°36'10"E	45.81'	2Q261	N61°17'15"E	54.55'	2Q304	S39°13'56"W	45.54'	2Q347	S47°36'57"E	49.04'
2Q219	S12°19'04"W	42.13'	2Q262	S67°08'14"E	50.64'	2Q305	S85°11'18"W	62.02'	2Q348	S08°49'48"E	41.21'
2Q220	S33°15'27"E	43.43'	2Q263	S84°45'33"E	48.85'	2Q306	N44°02'40"W	48.76'	2Q349	S14°54'37"W	47.60'
2Q221	S54°03'40"E	43.07'	2Q264	S36°58'35"E	51.00'	2Q307	N05°20'15"E	54.70'	2Q350	S06°20'32"E	57.56'
2Q222	S87°49'53"E	24.02'	2Q265	S33°22'30"W	31.58'	2Q308	N11°38'27"W	46.71'	2Q351	S30°16'53"E	49.82'
2Q223	S52°25'58"E	47.74'	2Q266	S27°55'07"W	24.55'	2Q309	N67°23'53"W	45.78'	2Q352	S07°12'12"E	75.73'
2Q224	S62°46'48"E	44.24'	2Q267	N86°26'30"W	51.96'	2Q310	S77°40'14"W	50.07'	2Q353	S43°52'27"E	63.23'
2Q225	S18°06'02"E	56.91'	2Q268	S84°08'20"W	34.65'	2Q311	S80°05'19"W	40.23'	2Q354	S20°47'57"E	67.26'
2Q226	N86°10'08"E	32.39'	2Q269	S57°37'55"W	33.20'	2Q312	S54°47'19"W	45.37'	2Q355	S45°27'17"E	40.10'
2Q227	N88°56'43"E	39.93'	2Q270	S56°31'15"W	32.35'	2Q313	N88°34'49"W	60.38'	2Q356	S37°41'34"E	34.13'
2Q228	S80°49'58"E	48.50'	2Q271	S85°03'46"W	49.45'	2Q314	S63°04'56"W	42.51'	2Q357	S06°31'01"E	59.54'
2Q229	N07°23'49"E	37.34'	2Q272	S68°19'21"W	49.42'	2Q315	S66°26'07"W	43.86'	2Q358	S24°31'47"W	43.59'
2Q230	N43°55'20"E	38.98'	2Q273	S57°27'32"W	49.20'	2Q316	S39°33'29"W	45.01'	2Q359	N19°03'16"W	50.20'
2Q231	S83°38'38"E	35.94'	2Q274	S67°49'43"W	42.22'	2Q317	S62°56'55"W	54.20'	2Q360	N40°14'06"W	49.80'
2Q232	N89°27'32"E	25.31'	2Q275	N41°11'36"W	34.52'	2Q318	S60°05'32"W	62.10'	2Q361	N37°57'10"W	37.70'
2Q233	S48°36'56"E	59.52'	2Q276	S79°56'55"W	52.01'	2Q319	S54°04'25"W	35.32'	2Q362	S00°19'52"W	40.50'
2Q234	S49°19'02"E	27.95'	2Q277	S76°56'12"W	59.26'	2Q320	S18°35'39"W	54.05'	2Q363	S16°39'42"W	50.07'
2Q235	S27°23'55"E	26.74'	2Q278	S86°17'08"W	55.83'	2Q321	S25°41'47"W	43.48'	2Q364	S11°23'14"E	37.37'
2Q236	S29°13'56"W	26.49'	2Q279	S45°39'53"W	52.72'	2Q322	N59°04'53"W	0.44'	2Q365	S43°44'11"E	45.95'
2Q237	S23°54'08"E	30.62'	2Q280	S50°17'48"W	44.40'	2Q323	N40°00'00"W	18.20'	2Q366	N79°47'00"E	40.35'
2Q238	N80°52'59"E	11.94'	2Q281	N71°38'36"W	59.42'	2Q324	S86°28'51"W	49.80'	2Q367	N84°35'41"E	55.53'
2Q239	S25°49'35"E	28.37'	2Q282	N51°54'38"W	50.53'	2Q325	N52°16'22"W	56.68'	2Q368	N34°55'52"E	60.13'
2Q240	S19°04'46"E	28.20'	2Q283	S83°39'46"W	50.05'	2Q326	S75°48'04"W	72.90'	2Q369	N65°55'01"E	60.26'
2Q241	S62°15'38"W	43.33'	2Q284	S57°14'57"W	44.40'	2Q327	S70°37'49"W	51.64'	2Q370	N50°43'52"E	55.15'
2Q242	N30°18'44"W	17.85'	2Q285	S46°52'35"W	54.22'	2Q328	S64°20'09"W	42.41'	2Q371	N27°28'19"E	69.54'
2Q243	N30°36'12"E	38.33'	2Q286	S69°55'24"W	46.54'	2Q329	N06°17'56"W	54.72'	2Q372	N22°12'31"W	67.17'
2Q244	N51°02'46"W	41.95'	2Q287	S75°56'24"W	43.12'	2Q330	N24°47'03"E	37.11'	2Q373	N32°48'45"W	92.95'
2Q245	S68°02'41"W	49.50'	2Q288	S89°44'20"W	54.45'	2Q331	N73°38'44"E	46.48'	2Q374	N29°32'01"E	59.68'
2Q246	N79°03'35"W	27.18'	2Q289	N86°46'58"W	40.66'	2Q332	N48°12'55"W	93.38'	2Q375	N23°46'31"E	56.63'
2Q247	N44°57'22"W	27.68'	2Q290	S80°36'21"W	55.78'	2Q333	N33°30'26"W	66.32'	2Q376	N17°39'28"E	51.66'
2Q248	S49°51'25"W	44.75'	2Q291	S73°09'53"W	45.51'	2Q334	N23°58'38"E	55.17'	2Q377	S79°38'17"E	75.48'
2Q249	S66°59'20"W	35.30'	2Q292	S68°01'30"W	40.60'	2Q335	N10°53'34"W	34.66'	2Q378	S64°30'56"E	43.63'
2Q250	S13°59'19"W	36.09'	2Q293	S63°12'30"W	76.35'	2Q336	N42°04'00"W	51.82'	2Q379	N60°05'50"E	12.79'
2Q251	S28°57'09"E	39.11'	2Q294	S64°23'13"W	53.48'	2Q337	N59°17'17"W	32.71'	2Q380	S33°56'10"W	42.33'
2Q252	S42°02'35"E	37.48'	2Q295	S77°23'01"W	32.28'	2Q338	S79°44'42"W	61.87'	2Q381	S19°07'57"E	32.23'
2Q253	S43°50'58"E	46.91'	2Q296	S85°01'32"W	25.15'	2Q339	S38°37'44"W	37.51'	2Q382	S10°49'47"E	34.28'
2Q254	S68°45'37"E	36.83'	2Q297	N75°02'36"W	25.11'	2Q340	S65°41'32"W	41.95'	2Q383	S66°50'46"E	32.63'
2Q255	S69°26'14"E	40.28'	2Q298	S07°33'11"W	34.89'	2Q341	S72°51'09"W	44.05'	2Q384	S80°09'35"E	57.71'
2Q256	S23°17'00"E	43.45'	2Q299	S16°32'44"W	32.28'	2Q342	S63°53'24"W	32.33'	2Q385	S82°05'23"E	30.07'
2Q257	S65°08'17"E	36.38'	2Q300	S04°11'33"W	41.68'	2Q343	S41°37'53"W	37.47'	2Q386	S57°12'23"E	32.00'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2Q387	S27°50'18"E	32.75'
2Q388	S30°43'10"E	37.06'
2Q389	S15°38'52"W	69.16'
2Q390	S62°37'47"W	31.92'
2Q391	S09°47'58"E	97.38'
2Q392	S35°29'03"W	55.78'
2Q393	S68°31'25"W	43.13'
2Q394	S50°16'06"W	39.45'
2Q395	S56°54'00"W	42.20'
2Q396	S35°45'18"W	57.60'
2Q397	N57°12'10"W	49.74'
2Q398	S61°39'01"W	47.60'
2Q399	S78°37'17"W	58.81'
2Q400	S43°03'16"W	42.30'
2Q401	S57°33'50"W	62.83'
2Q402	S51°11'23"W	48.50'
2Q403	S38°26'51"E	48.65'
2Q404	S52°20'31"W	49.54'
2Q405	N41°01'41"W	57.01'
2Q406	S82°28'00"W	46.89'
2Q407	S75°45'52"W	52.77'
2Q408	S82°41'11"W	56.56'
2Q409	S76°50'12"W	41.13'
2Q410	S33°20'17"W	63.67'
2Q411	S32°07'15"W	56.55'
2Q412	S25°05'27"W	35.35'
2Q413	S06°59'57"W	42.94'
2Q414	S62°52'57"E	45.82'
2Q415	S59°10'54"E	39.10'
2Q416	S30°53'01"W	69.87'
2Q417	S39°50'26"W	60.10'
2Q418	S53°07'01"W	60.64'
2Q419	S30°11'18"W	34.94'
2Q420	S66°18'09"W	49.57'
2Q421	S04°40'54"W	79.24'
2Q422	S18°42'31"W	4.34'
2Q423	N71°20'16"W	7.46'
2Q424	N04°58'18"E	4.46'
2Q425	N02°25'01"E	2.61'
2Q426	N05°49'39"E	159.40'
2Q427	N69°38'30"W	4.58'
2Q428	N78°11'32"W	21.26'
2Q429	N07°29'35"W	40.25'

2Q430	N17°16'16"W	36.88'
2Q431	N11°12'00"E	75.37'
2Q432	N15°38'32"W	37.99'
2Q433	N11°29'16"E	59.38'
2Q434	N07°47'36"E	56.89'
2Q435	N37°57'15"E	56.74'
2Q436	N69°41'16"E	39.29'
2Q437	N18°07'56"E	165.21'
2Q438	N20°31'07"W	36.53'
2Q439	N27°41'58"E	38.38'
2Q440	N49°41'28"W	38.51'
2Q441	N76°38'27"W	39.06'
2Q442	S22°43'26"W	1.32'
2Q443	S33°32'48"W	65.86'
2Q444	S55°16'26"W	91.03'
2Q445	S62°17'59"W	226.25'
2Q446	S73°30'35"W	97.06'
2Q447	S65°45'31"W	102.61'
2Q448	N33°24'01"W	8.42'
2Q449	N43°20'42"E	34.84'
2Q450	N75°19'59"E	49.51'
2Q451	N69°23'15"E	62.94'
2Q452	N83°56'11"E	62.36'
2Q453	N42°50'34"E	542.03'
2Q454	N00°22'47"W	33.79'
2Q455	N04°34'13"W	56.74'
2Q456	N15°46'37"W	59.67'
2Q457	N07°52'01"W	48.12'
2Q458	N07°55'20"W	41.31'
2Q459	N23°49'34"W	33.83'
2Q460	S62°59'53"W	21.93'
2Q461	S56°12'44"W	138.52'
2Q462	S38°13'59"W	53.69'
2Q463	S55°53'17"W	38.91'
2Q464	S58°01'30"W	52.14'
2Q465	S56°45'11"W	320.88'
2Q466	S33°48'51"W	43.36'
2Q467	S22°37'13"W	32.17'
2Q468	N85°22'10"W	42.70'
2Q469	N44°46'41"W	35.79'
2Q470	S77°54'23"W	108.83'
2Q471	S62°14'31"W	17.03'

LINE	BEARING	DISTANCE
2R1	S24°30'27"E	25.62'
2R2	S21°02'43"W	26.29'
2R3	S02°34'08"W	39.24'
2R4	S11°02'57"E	52.94'
2R5	S23°47'58"E	63.95'
2R6	S28°51'09"E	43.19'
2R7	S14°19'14"E	58.13'
2R8	S06°08'49"W	18.62'
2R9	N45°12'58"W	56.45'
2R10	S69°31'37"W	92.71'
2R11	N61°12'33"W	58.05'
2R12	S56°37'50"W	60.64'
2R13	S68°01'42"W	48.25'
2R14	N23°12'57"W	90.07'
2R15	N20°33'08"E	49.81'
2R16	N20°37'45"E	55.87'
2R17	N22°45'50"E	39.71'
2R18	N65°20'41"E	59.38'
2R19	N26°52'36"E	36.02'
2R20	N23°01'21"W	32.68'
2R21	N22°03'01"W	39.38'
2R22	N38°47'07"E	47.42'
2R23	N41°07'24"E	24.70'
2R24	S48°52'36"E	62.38'
2R25	S71°17'29"E	58.81'
2R26	S18°42'31"W	11.79'

LINE	BEARING	DISTANCE
2S1	S37°24'36"E	31.72'
2S2	S45°09'25"E	35.61'
2S3	S53°29'42"E	40.37'
2S4	S80°28'02"E	31.89'
2S5	N24°21'10"E	28.51'
2S6	N26°05'20"E	21.41'
2S7	N85°42'09"E	36.98'
2S8	S28°44'13"E	26.66'
2S9	S17°32'18"E	36.72'
2S10	S21°22'21"W	26.13'
2S11	S66°58'02"W	31.84'
2S12	S60°28'31"W	30.02'
2S13	S54°56'00"W	38.18'

2S14	S08°26'00"W	50.46'
2S15	S20°07'55"E	37.18'
2S16	S12°14'47"E	35.41'
2S17	S75°33'35"E	46.32'
2S18	S32°14'43"E	26.81'
2S19	S08°14'35"W	30.22'
2S20	S06°16'02"W	36.28'
2S21	S17°04'24"E	31.30'
2S22	S20°56'07"E	35.18'
2S23	S19°34'11"E	39.58'
2S24	S27°07'12"W	29.41'
2S25	S40°00'29"E	76.15'
2S26	S35°11'19"E	215.97'
2S27	S43°00'46"E	217.58'
2S28	S36°28'41"E	14.39'
2S29	N51°18'02"E	49.59'
2S30	S84°32'04"E	56.13'
2S31	S74°28'31"E	37.10'
2S32	N61°12'26"E	75.30'
2S33	N38°20'03"E	75.65'
2S34	N36°44'26"E	46.88'
2S35	N29°29'19"E	41.25'
2S36	N46°20'55"E	82.56'
2S37	N53°34'16"E	75.96'
2S38	N75°16'28"E	45.12'
2S39	N16°53'22"E	61.97'
2S40	N13°50'33"E	32.79'
2S41	N08°01'32"W	49.37'
2S42	N08°59'17"E	53.32'
2S43	N11°30'36"E	60.73'
2S44	N37°04'09"E	66.95'
2S45	N60°47'46"E	98.68'
2S46	S84°19'06"E	25.93'
2S47	N24°56'47"E	62.02'
2S48	N24°21'36"E	64.59'
2S49	N40°44'51"E	53.42'
2S50	N77°36'52"W	33.27'
2S51	N71°07'12"E	33.56'
2S52	S70°52'55"E	21.14'
2S53	S13°35'54"W	5.36'
2S54	S27°33'17"W	467.83'
2S55	S35°09'29"W	37.33'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
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2S56	S23°41'08"W	7.88'
2S57	S33°55'07"W	264.24'
2S58	S38°48'22"W	222.03'
2S59	S04°47'58"E	23.14'
2S60	S52°29'11"W	41.96'
2S61	S46°13'14"W	31.04'
2S62	S39°03'52"W	53.29'
2S63	S50°38'12"W	43.14'
2S64	S11°25'29"W	22.51'
2S65	S36°29'38"E	53.57'
2S66	S20°07'41"E	50.15'
2S67	S49°33'13"E	53.86'
2S68	S21°26'59"E	69.47'
2S69	S30°05'52"W	26.27'
2S70	S52°10'44"W	39.59'
2S71	S33°40'37"E	108.53'
2S72	S29°15'20"E	94.77'
2S73	S04°57'05"W	33.36'
2S74	N68°52'42"W	387.75'
2S75	N35°41'36"W	1375.59'
2S76	N50°57'56"E	480.93'
2S77	S37°24'36"E	9.08'

LINE	BEARING	DISTANCE
2T1	N84°47'51"E	56.10'
2T2	S30°27'55"E	70.56'
2T3	S21°19'49"E	35.68'
2T4	S87°33'35"E	52.79'
2T5	S27°37'50"E	64.69'
2T6	S27°53'13"E	53.75'
2T7	S03°47'45"E	48.43'
2T8	N63°18'54"W	51.48'
2T9	N64°28'34"W	50.89'
2T10	N36°56'52"W	62.99'
2T11	N47°38'28"W	47.06'
2T12	N74°34'28"W	33.34'
2T13	N28°25'25"W	65.06'
2T14	N30°49'40"E	23.47'
2T15	N00°07'52"W	31.03'

LINE	BEARING	DISTANCE
2U1	N37°17'32"E	69.04'
2U2	S39°49'16"E	55.47'
2U3	S54°14'19"E	41.93'
2U4	S05°59'53"W	46.73'
2U5	S09°33'14"W	54.17'
2U6	S49°56'51"W	57.91'
2U7	N65°38'12"W	30.04'
2U8	N10°40'23"W	139.35'

LINE	BEARING	DISTANCE
2V1	N33°08'25"E	67.39'
2V2	N85°34'17"E	50.86'
2V3	N89°41'47"E	77.75'
2V4	N74°41'42"E	64.51'
2V5	N74°31'45"E	48.83'
2V6	N47°54'52"E	55.03'
2V7	N21°23'32"E	53.18'
2V8	N51°12'11"E	39.51'
2V9	N75°34'53"E	65.83'
2V10	N88°00'47"E	55.58'
2V11	N69°28'14"E	62.02'
2V12	N65°41'19"E	45.71'
2V13	N62°44'38"E	40.48'
2V14	N66°05'51"E	46.06'
2V15	N41°12'35"E	58.11'
2V16	N42°33'25"E	67.43'
2V17	N58°15'18"E	76.60'
2V18	N55°50'10"E	53.50'
2V19	N84°34'24"E	60.05'
2V20	N71°18'10"E	49.58'
2V21	N47°24'32"E	47.11'
2V22	N29°12'13"E	64.75'
2V23	N46°12'58"E	62.87'
2V24	N29°58'51"E	73.86'
2V25	N47°33'59"E	62.30'
2V26	N59°33'55"E	56.04'
2V27	N46°29'16"E	43.63'
2V28	N37°17'59"E	47.57'
2V29	N30°04'29"E	76.46'
2V30	N66°07'06"E	31.67'
2V31	S08°20'02"E	211.37'
2V32	S20°32'15"W	28.67'

2V33	S52°16'20"W	48.32'
2V34	S83°22'12"W	65.87'
2V35	S62°43'53"W	38.53'
2V36	S61°32'10"W	43.58'
2V37	S53°48'10"W	58.60'
2V38	S37°36'25"W	65.21'
2V39	S35°21'32"W	57.04'
2V40	S49°43'20"W	67.61'
2V41	S69°16'56"W	48.44'
2V42	S65°21'30"W	84.18'
2V43	S66°27'55"W	48.40'
2V44	S42°54'34"W	44.22'
2V45	S37°48'55"W	58.86'
2V46	S48°34'30"W	62.38'
2V47	S46°07'58"W	59.98'
2V48	S57°28'43"W	51.69'
2V49	S66°35'36"W	87.50'
2V50	S79°36'47"W	63.65'
2V51	S61°31'11"W	69.63'
2V52	S27°05'15"W	52.71'
2V53	S25°31'16"W	73.18'
2V54	S53°53'49"W	72.59'
2V55	S82°22'50"W	57.99'
2V56	S85°27'22"W	65.56'
2V57	S65°21'08"W	60.46'
2V58	S72°30'24"W	60.43'
2V59	N30°56'58"W	167.97'

LINE	BEARING	DISTANCE
2W1	S24°24'28"E	537.00'
2W2	S73°43'46"W	15.40'
2W3	S83°44'02"W	52.02'
2W4	N89°58'25"W	63.23'
2W5	N51°34'37"W	61.08'
2W6	S55°33'57"W	55.89'
2W7	S63°59'46"W	48.03'
2W8	S48°19'51"W	36.75'
2W9	N75°28'56"W	71.83'
2W10	S61°24'42"W	43.32'
2W11	N59°19'26"W	39.13'
2W12	N28°07'59"W	34.50'
2W13	N31°15'11"W	34.59'
2W14	N68°04'05"W	43.72'

2W15	N03°04'19"E	53.65'
2W16	S70°35'14"W	25.19'
2W17	S65°26'24"W	207.21'
2W18	S80°33'21"W	59.95'
2W19	S78°27'04"W	100.69'
2W20	S66°03'01"W	6.22'
2W21	N23°56'59"W	8.43'
2W22	N66°03'01"E	10.12'
2W23	N68°31'56"E	576.86'
2W24	N09°00'57"W	44.46'
2W25	N29°05'04"E	50.90'
2W26	N20°04'31"E	66.72'
2W27	N28°03'52"E	65.34'
2W28	N37°34'37"E	48.33'
2W29	N30°39'22"E	59.38'
2W30	S87°01'59"E	25.29'
2W31	S24°24'28"E	537.00'

LINE	BEARING	DISTANCE
2X1	N34°06'52"E	39.16'
2X2	N57°25'32"E	32.36'
2X3	N71°11'22"E	39.64'
2X4	N60°37'54"E	50.33'
2X5	S80°21'16"E	56.24'
2X6	N70°10'53"E	38.74'
2X7	S60°19'13"E	64.64'
2X8	S45°02'01"E	60.23'
2X9	S75°04'49"E	57.58'
2X10	N86°22'10"E	48.21'
2X11	N26°20'11"E	52.78'
2X12	N85°05'18"E	32.50'
2X13	S77°24'25"E	43.21'
2X14	S45°50'10"E	52.15'
2X15	S59°57'52"E	41.85'
2X16	S45°22'02"E	60.35'
2X17	N52°03'40"E	45.11'
2X18	N70°16'14"E	51.23'
2X19	N56°35'25"E	51.68'
2X20	N76°04'25"E	56.13'
2X21	N48°51'48"E	50.69'
2X22	N03°14'20"W	63.95'
2X23	N29°10'25"E	50.20'
2X24	S05°57'46"E	28.66'



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2X25	S33°46'42"E	33.86'
2X26	N87°30'59"E	44.33'
2X27	N65°56'13"E	63.50'
2X28	N61°11'43"E	42.72'
2X29	N44°27'47"E	53.50'
2X30	N48°07'40"E	60.30'
2X31	N58°10'53"E	36.38'
2X32	N30°28'20"E	59.90'
2X33	N41°04'10"E	60.39'
2X34	N64°13'01"E	38.11'
2X35	N29°39'58"E	48.02'
2X36	N61°52'04"E	45.51'
2X37	N23°19'58"E	42.53'
2X38	N19°23'27"W	38.44'
2X39	N37°43'29"W	60.49'
2X40	N26°14'03"E	46.30'
2X41	N72°48'37"E	68.70'
2X42	S82°53'11"E	38.52'
2X43	N66°08'13"E	43.79'
2X44	N50°10'50"E	51.64'
2X45	N77°31'51"E	52.81'
2X46	S68°24'38"E	54.25'
2X47	S81°26'04"E	44.01'
2X48	N84°40'34"E	52.58'
2X49	N52°12'57"E	34.51'
2X50	N24°44'00"E	54.67'
2X51	N38°51'39"E	56.17'
2X52	N02°23'41"E	31.88'
2X53	N06°19'29"W	43.07'
2X54	N37°34'49"E	29.58'
2X55	N56°30'13"E	33.24'
2X56	S10°51'12"E	30.03'
2X57	S00°20'10"W	28.30'
2X58	S09°46'32"E	35.83'
2X59	S57°03'02"E	26.76'
2X60	N74°49'50"E	53.35'
2X61	N70°42'34"E	44.03'
2X62	N65°13'20"E	74.90'
2X63	N59°42'07"E	52.27'
2X64	N80°52'26"E	45.07'
2X65	N81°37'53"E	47.04'
2X66	N74°21'13"E	74.06'
2X67	N72°23'47"E	63.56'

2X68	N79°36'53"E	60.16'
2X69	N72°07'50"E	58.65'
2X70	N60°14'14"E	39.08'
2X71	N57°18'06"E	78.80'
2X72	S86°09'30"E	76.45'
2X73	N36°58'40"E	51.82'
2X74	N68°14'17"E	47.69'
2X75	N48°11'11"E	61.37'
2X76	N50°49'14"E	54.53'
2X77	N04°29'27"E	35.38'
2X78	N66°25'26"E	74.49'
2X79	N24°34'45"E	46.49'
2X80	N00°37'32"W	55.42'
2X81	N43°43'42"E	53.53'
2X82	N53°04'45"E	75.09'
2X83	N40°54'44"E	55.08'
2X84	N33°03'59"E	51.29'
2X85	N05°34'22"W	32.98'
2X86	N10°47'39"W	39.22'
2X87	N22°41'03"W	37.49'
2X88	N36°11'20"W	36.43'
2X89	N00°00'31"E	33.81'
2X90	N20°01'41"E	28.79'
2X91	N07°36'29"W	33.97'
2X92	N65°35'21"W	65.45'
2X93	N50°41'33"W	19.08'
2X94	N82°11'24"W	13.72'
2X95	N17°28'26"E	56.12'
2X96	N38°49'20"E	45.21'
2X97	N07°03'52"W	28.69'
2X98	N64°03'08"E	43.45'
2X99	N42°16'33"E	59.71'
2X100	S71°17'37"E	44.91'
2X101	N66°06'27"E	43.53'
2X102	N66°06'27"E	10.71'
2X103	S31°13'29"E	423.11'
2X104	S29°17'01"E	46.02'
2X105	S33°39'38"W	22.59'
2X106	S31°19'10"W	34.26'
2X107	S04°12'17"W	35.87'
2X108	S06°48'14"E	39.87'
2X109	S19°23'51"E	45.39'
2X110	S16°40'34"E	47.78'

2X111	S09°27'42"E	30.68'
2X112	S49°03'50"E	51.16'
2X113	S53°48'31"E	40.68'
2X114	S71°25'39"W	72.36'
2X115	S02°19'05"W	47.07'
2X116	S27°50'35"W	47.24'
2X117	S07°41'24"W	50.17'
2X118	S59°13'39"W	76.79'
2X119	N64°55'31"W	49.04'
2X120	N88°22'47"W	56.13'
2X121	S40°47'55"W	80.21'
2X122	S64°23'50"W	54.69'
2X123	S36°39'16"W	97.18'
2X124	S56°38'45"W	32.98'
2X125	S47°41'32"W	52.57'
2X126	S82°18'16"W	72.76'
2X127	N66°06'11"W	65.53'
2X128	S87°13'33"W	57.87'
2X129	S74°47'29"W	67.21'
2X130	S43°53'45"W	42.35'
2X131	S84°54'44"W	48.91'
2X132	N71°18'26"W	90.61'
2X133	N42°49'01"W	46.93'
2X134	N33°47'08"W	65.19'
2X135	N28°10'08"W	70.90'
2X136	N72°55'57"W	51.45'
2X137	S61°10'20"W	32.32'
2X138	N24°24'28"W	426.81'

LINE	BEARING	DISTANCE
2Y1	N05°10'45"E	55.55'
2Y2	N48°14'52"E	49.54'
2Y3	N74°25'38"E	63.51'
2Y4	S55°57'19"E	31.40'
2Y5	S14°55'59"W	39.54'
2Y6	S64°43'27"W	67.67'
2Y7	S19°12'19"E	20.07'
2Y8	S77°55'07"W	38.71'
2Y9	S46°02'24"W	40.75'
2Y10	S65°39'50"W	29.45'
2Y11	N32°20'33"E	55.38'

LINE	BEARING	DISTANCE
2Z1	S51°39'36"W	128.40'
2Z2	S43°57'39"W	43.98'
2Z3	N61°06'37"W	41.54'
2Z4	N01°01'05"E	44.92'
2Z5	N33°04'59"E	44.46'
2Z6	N45°43'48"E	63.78'
2Z7	N78°47'36"E	51.57'
2Z8	S46°44'23"E	55.81'
2Z9	S37°59'40"E	9.17'

LINE	BEARING	DISTANCE
3A1	N72°08'57"E	43.52'
3A2	N50°54'19"E	71.48'
3A3	N66°41'33"E	9.06'
3A4	S33°24'01"E	15.85'
3A5	S41°12'48"W	12.16'
3A6	S64°44'08"W	65.24'
3A7	S04°20'19"W	59.79'
3A8	N56°48'59"W	30.28'
3A9	N28°38'44"W	35.61'

LINE	BEARING	DISTANCE
3B1	N89°08'36"E	32.10'
3B2	S43°35'57"W	19.67'
3B3	S61°11'28"E	35.86'
3B4	S37°44'09"E	34.82'
3B5	S50°32'58"E	14.61'
3B6	S00°47'18"W	53.28'
3B7	S53°34'36"W	48.26'
3B8	S04°24'55"W	20.00'
3B9	S56°14'46"W	38.80'
3B10	N87°26'50"W	71.24'
3B11	S56°45'59"W	54.20'
3B12	N67°58'24"W	63.09'
3B13	N64°22'02"W	31.97'
3B14	S84°51'40"W	41.80'
3B15	S20°46'01"W	80.66'
3B16	S46°11'35"W	35.42'
3B17	S19°03'49"W	39.20'
3B18	S38°07'22"W	71.37'
3B19	N58°13'29"W	43.01'
3B20	S28°47'23"W	61.81'



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3B21	S22°54'58"W	52.43'	3B64	S16°39'15"W	18.28'	3B107	N86°25'55"E	27.62'	3B150	S66°25'01"E	33.22'
3B22	S30°47'46"W	58.52'	3B65	S70°50'29"W	8.76'	3B108	N66°10'10"E	26.74'	3B151	S84°32'18"E	27.42'
3B23	S20°38'57"W	49.00'	3B66	N70°18'13"W	43.33'	3B109	N55°58'06"E	28.46'	3B152	N86°05'01"E	36.71'
3B24	S44°37'23"W	43.00'	3B67	N43°15'08"W	57.87'	3B110	N63°04'45"E	32.84'	3B153	N88°12'45"E	21.64'
3B25	S28°50'52"W	52.54'	3B68	N31°57'14"W	57.69'	3B111	N30°49'35"E	20.26'	3B154	S83°15'03"E	28.66'
3B26	S18°53'42"W	83.23'	3B69	N80°10'33"W	35.08'	3B112	N08°07'59"W	22.37'	3B155	N44°38'38"E	25.25'
3B27	S37°54'12"W	46.65'	3B70	N31°26'50"W	24.46'	3B113	N30°21'22"E	26.79'	3B156	N40°13'11"W	24.62'
3B28	S25°12'49"W	75.47'	3B71	N36°10'26"W	41.85'	3B114	N35°53'09"E	28.63'	3B157	N31°51'23"E	16.01'
3B29	S30°09'52"W	60.29'	3B72	N17°01'17"E	39.56'	3B115	N52°11'30"E	24.93'	3B158	N21°19'03"E	43.42'
3B30	S36°10'58"E	41.16'	3B73	N07°56'58"E	21.79'	3B116	N53°03'09"E	31.19'	3B159	N80°39'36"E	42.24'
3B31	S42°32'32"E	47.75'	3B74	N32°59'57"E	24.38'	3B117	N11°38'47"E	32.33'	3B160	N84°43'24"E	27.46'
3B32	N86°02'20"W	19.04'	3B75	N26°50'27"W	39.01'	3B118	N53°59'41"E	30.43'	3B161	N45°35'14"E	13.80'
3B33	N43°11'55"W	47.93'	3B76	N23°56'04"W	41.03'	3B119	N23°48'20"W	24.71'	3B162	N59°36'26"W	25.61'
3B34	N48°15'05"W	24.55'	3B77	N20°17'16"W	49.76'	3B120	N05°24'37"E	26.77'	3B163	N25°18'41"E	38.08'
3B35	S31°21'11"W	36.88'	3B78	N18°45'23"W	100.07'	3B121	N34°29'22"W	39.80'	3B164	N05°10'24"E	17.74'
3B36	N64°24'25"W	6.78'	3B79	N51°00'06"E	156.43'	3B122	N32°41'36"W	23.36'	3B165	N18°48'09"E	36.71'
3B37	S34°04'56"W	65.24'	3B80	S38°59'54"E	6.13'	3B123	N77°12'23"W	38.73'	3B166	N59°03'38"E	29.43'
3B38	N35°30'20"W	23.95'	3B81	S08°30'27"W	22.90'	3B124	S54°08'04"W	23.63'	3B167	S70°34'59"E	24.15'
3B39	N15°10'27"W	37.12'	3B82	S64°42'47"W	42.29'	3B125	N70°33'39"W	31.60'	3B168	N36°52'41"E	34.75'
3B40	S80°35'52"W	31.04'	3B83	S12°30'04"E	28.14'	3B126	S75°18'37"W	43.74'	3B169	N34°12'20"E	45.51'
3B41	N85°54'12"W	49.02'	3B84	S40°18'42"E	50.22'	3B127	N69°06'19"W	55.63'	3B170	N00°50'55"W	35.99'
3B42	S03°24'46"E	42.85'	3B85	S20°25'18"W	18.21'	3B128	N62°49'58"W	32.90'	3B171	N19°42'22"W	41.55'
3B43	S60°41'51"E	38.78'	3B86	S15°05'28"W	34.32'	3B129	N05°07'05"E	24.12'	3B172	N40°27'00"W	26.58'
3B44	S80°50'14"W	9.94'	3B87	S08°11'28"E	34.77'	3B130	S77°12'49"W	22.46'	3B173	N25°00'28"W	29.51'
3B45	S65°02'21"W	31.22'	3B88	S43°38'09"E	25.43'	3B131	S49°27'10"W	34.29'	3B174	N09°42'09"W	32.45'
3B46	S82°25'00"W	68.86'	3B89	S05°44'00"E	28.15'	3B132	N39°16'15"W	34.89'	3B175	N18°28'54"W	25.67'
3B47	N86°09'14"W	40.19'	3B90	S18°34'26"E	41.99'	3B133	N67°28'22"E	36.61'	3B176	N43°57'39"W	14.89'
3B48	S81°02'29"W	55.30'	3B91	S40°48'29"W	30.95'	3B134	N45°49'47"E	53.90'	3B177	N01°56'23"W	38.35'
3B49	S69°58'15"W	42.94'	3B92	S54°44'19"W	15.91'	3B135	S74°53'13"E	16.60'	3B178	N46°12'21"W	35.01'
3B50	S41°32'14"W	57.03'	3B93	S30°21'11"E	155.48'	3B136	S35°13'37"E	29.36'	3B179	N62°02'03"W	24.68'
3B51	N89°09'01"W	33.10'	3B94	N33°07'32"E	22.43'	3B137	N86°49'37"E	37.16'	3B180	N64°53'15"W	42.09'
3B52	N72°19'41"W	37.87'	3B95	N20°01'35"W	28.63'	3B138	N55°44'26"E	34.60'	3B181	N15°06'33"W	35.38'
3B53	N49°04'27"W	64.49'	3B96	N67°22'48"E	34.47'	3B139	N10°28'30"E	40.17'	3B182	N45°46'11"W	31.74'
3B54	S55°57'11"W	39.98'	3B97	N27°59'38"E	38.56'	3B140	N87°20'32"W	17.60'	3B183	S38°58'42"W	19.95'
3B55	S69°02'21"W	43.90'	3B98	N18°46'37"W	21.82'	3B141	N45°54'13"E	142.93'	3B184	S30°23'05"W	24.39'
3B56	N69°07'14"W	32.00'	3B99	N22°51'05"E	27.94'	3B142	S35°37'22"E	36.53'	3B185	S68°59'40"E	22.06'
3B57	S71°10'28"W	32.47'	3B100	N16°42'47"E	20.78'	3B143	S23°52'16"E	19.71'	3B186	S61°58'53"E	10.28'
3B58	S55°28'23"W	20.77'	3B101	N63°24'09"E	18.16'	3B144	S34°53'14"E	24.72'	3B187	S15°16'43"W	29.81'
3B59	N77°40'47"W	38.24'	3B102	S85°27'11"E	22.35'	3B145	N88°33'00"E	31.61'	3B188	N62°06'42"W	13.50'
3B60	S31°21'59"W	39.85'	3B103	N75°42'04"E	25.82'	3B146	S66°28'30"E	32.74'	3B189	N39°58'00"W	32.66'
3B61	S59°04'19"W	48.13'	3B104	N75°06'30"E	29.26'	3B147	S68°15'44"E	12.22'	3B190	N62°13'17"W	46.97'
3B62	N83°55'12"W	48.00'	3B105	N86°06'47"E	21.55'	3B148	N84°57'05"E	25.49'	3B191	N27°46'43"E	274.83'
3B63	S66°30'10"W	47.12'	3B106	N70°14'53"E	39.49'	3B149	S77°33'04"E	22.19'	3B192	S62°13'17"E	40.28'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
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 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

3B193	N84°21'56"E	30.79'
3B194	S73°27'40"E	53.11'
3B195	N82°22'16"E	33.16'
3B196	S48°56'59"E	51.21'
3B197	S47°53'41"E	51.86'
3B198	S35°44'55"E	39.97'
3B199	S47°58'07"E	41.60'
3B200	S33°52'49"E	48.39'
3B201	N44°36'59"E	58.71'
3B202	S39°46'07"E	46.43'
3B203	S44°40'59"E	65.84'
3B204	S31°17'39"E	56.78'
3B205	S32°46'33"E	50.10'
3B206	S34°07'12"E	45.07'
3B207	S62°00'58"E	50.34'
3B208	S25°39'47"E	35.57'
3B209	S50°20'57"E	33.12'
3B210	S38°43'55"E	32.69'
3B211	S70°35'41"E	26.80'
3B212	S73°40'16"E	35.45'
3B213	N86°06'15"E	33.69'
3B214	S47°24'28"E	43.11'
3B215	S56°46'04"E	8.43'
3B216	N56°59'29"E	119.67'
3B217	N62°02'25"W	35.72'
3B218	N42°01'51"W	40.13'
3B219	N41°14'21"W	27.88'
3B220	N00°48'53"E	42.13'
3B221	N59°48'46"W	41.76'
3B222	S68°12'02"W	46.46'
3B223	N29°39'09"W	39.13'
3B224	N05°55'47"E	41.15'
3B225	N39°21'46"W	31.54'
3B226	N03°19'04"E	32.60'
3B227	N53°26'01"W	32.20'
3B228	S72°21'34"W	20.59'
3B229	N15°28'19"E	34.17'
3B230	N17°52'19"E	26.75'
3B231	N00°03'48"W	27.99'
3B232	N15°16'05"W	32.51'
3B233	N36°58'56"E	45.32'
3B234	S53°53'32"E	41.92'
3B235	S64°28'47"E	44.61'

3B236	S39°12'14"E	47.77'
3B237	S14°49'54"E	39.20'
3B238	N69°02'48"E	31.75'
3B239	S65°36'09"E	44.96'
3B240	S07°53'43"E	38.23'
3B241	S42°36'41"W	24.69'
3B242	S01°30'02"W	31.89'
3B243	S43°01'05"E	43.30'
3B244	S70°59'31"E	50.94'
3B245	S65°14'37"E	60.70'
3B246	N65°34'46"E	40.14'
3B247	S45°44'04"E	10.59'
3B248	S48°33'44"W	202.05'
3B249	N58°39'33"W	39.51'
3B250	N58°21'42"W	47.48'
3B251	N43°29'48"W	46.12'
3B252	N42°51'53"W	28.62'
3B253	N50°19'07"E	46.15'
3B254	S49°50'08"E	30.51'
3B255	S50°56'01"E	39.44'
3B256	S40°22'24"E	38.51'
3B257	S40°56'18"E	46.06'
3B258	S42°51'39"W	28.22'

LINE	BEARING	DISTANCE
3C1	N26°39'59"W	857.53'
3C2	N68°52'17"E	58.27'
3C3	N63°25'10"E	62.73'
3C4	S87°44'12"E	47.78'
3C5	N45°55'21"E	55.60'
3C6	N46°29'22"E	66.73'
3C7	N49°40'22"E	77.04'
3C8	N51°32'43"E	65.63'
3C9	N68°15'20"E	67.03'
3C10	N61°03'44"E	58.86'
3C11	N67°20'18"E	63.14'
3C12	N46°48'23"E	76.99'
3C13	N42°27'11"E	74.60'
3C14	S74°33'04"E	59.10'
3C15	N84°49'19"E	70.42'
3C16	N43°18'05"E	64.86'
3C17	N67°40'05"E	77.32'
3C18	N83°37'18"E	61.98'

3C19	S85°24'56"E	68.95'
3C20	S85°29'28"E	56.10'
3C21	S84°19'14"E	69.00'
3C22	S26°52'45"E	73.77'
3C23	S56°10'16"E	53.65'
3C24	S55°39'43"E	55.67'
3C25	S81°53'41"E	46.22'
3C26	N84°17'19"E	53.29'
3C27	N62°57'30"E	46.98'
3C28	N57°58'26"E	67.18'
3C29	N61°01'19"E	67.42'
3C30	N73°32'52"E	62.15'
3C31	N57°54'24"E	78.50'
3C32	N73°35'15"E	66.26'
3C33	N58°03'49"E	71.47'
3C34	N29°09'35"E	72.34'
3C35	N47°29'14"E	77.50'
3C36	N29°57'25"E	61.80'
3C37	N56°36'18"E	58.12'
3C38	S26°19'25"E	215.95'
3C39	S05°13'29"E	23.85'
3C40	S47°23'11"W	62.59'
3C41	S21°44'43"W	55.02'
3C42	S62°37'44"W	96.85'
3C43	S80°14'41"W	68.35'
3C44	N65°48'34"W	39.91'
3C45	S77°41'57"W	68.44'
3C46	S16°22'25"W	55.26'
3C47	S53°15'50"W	72.87'
3C48	S49°51'00"W	80.39'
3C49	S41°08'28"W	79.62'
3C50	S43°07'04"W	76.55'
3C51	S61°13'43"W	64.27'
3C52	S41°36'48"W	77.78'
3C53	S22°54'13"W	77.23'
3C54	S39°40'28"W	77.46'
3C55	S54°44'23"W	76.85'
3C56	S60°59'00"W	69.39'
3C57	S60°49'00"W	78.02'
3C58	S52°23'29"W	80.33'
3C59	S41°19'45"W	111.80'
3C60	S66°36'40"W	112.04'
3C61	S60°00'48"W	117.92'

3C62	S29°48'18"W	77.73'
3C63	S11°41'04"E	79.06'
3C64	S47°48'56"W	72.92'
3C65	S63°32'12"W	93.40'
3C66	S70°23'28"W	216.37'
3C67	N39°25'55"E	64.29'
3C68	N56°58'52"E	89.26'
3C69	N64°23'42"E	57.15'
3C70	N71°44'53"E	80.75'
3C71	N50°34'42"E	66.84'
3C72	N64°27'13"E	65.76'
3C73	N72°40'11"E	85.88'
3C74	S04°11'58"W	64.21'
3C75	S05°11'13"E	69.67'
3C76	S13°51'01"E	73.99'
3C77	S72°15'55"W	84.18'
3C78	S25°12'49"W	86.75'
3C79	S35°24'39"W	65.65'
3C80	S12°35'47"W	56.55'
3C81	S50°05'29"W	80.13'
3C82	S51°46'11"W	68.58'
3C83	S43°41'56"W	87.36'
3C84	N67°24'12"W	68.78'
3C85	N36°19'01"W	39.86'
3C86	N03°38'29"W	93.92'
3C87	N26°49'20"E	62.46'
3C88	N55°23'35"W	48.51'
3C89	N32°34'13"W	58.90'
3C90	N27°31'30"E	50.96'

LINE	BEARING	DISTANCE
3D1	S57°43'40"W	47.89'
3D2	S53°26'53"W	57.75'
3D3	S51°01'07"W	55.44'
3D4	S42°50'43"W	32.18'
3D5	S57°31'35"W	46.91'
3D6	N26°19'55"W	190.75'
3D7	N30°58'48"E	49.96'
3D8	N61°52'03"E	49.85'
3D9	N32°03'58"E	71.38'
3D10	N06°49'52"W	40.24'
3D11	N03°51'30"W	61.89'
3D12	N18°10'11"W	89.70'



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 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

3D13	N10°02'16"W	55.26'
3D14	N29°18'11"W	63.87'
3D15	N23°02'03"W	20.82'
3D16	N39°16'15"E	39.20'
3D17	N81°15'10"E	41.01'
3D18	S64°38'16"E	41.94'
3D19	S68°46'13"E	62.63'
3D20	S85°15'57"E	45.98'
3D21	S83°41'58"E	56.09'
3D22	N89°42'23"E	53.28'
3D23	N70°02'38"E	62.33'
3D24	S88°56'40"E	46.46'
3D25	N68°17'13"E	42.35'
3D26	N63°12'53"E	67.21'
3D27	N67°50'12"E	67.67'
3D28	N58°18'33"E	62.16'
3D29	N77°40'40"E	40.65'
3D30	S59°04'28"E	22.46'
3D31	S27°44'13"E	39.06'
3D32	S36°03'08"W	35.62'
3D33	S51°02'57"W	36.15'
3D34	S53°39'57"W	84.20'
3D35	S64°40'41"W	69.78'
3D36	S33°35'26"W	50.33'
3D37	S13°48'23"W	60.67'
3D38	S57°18'02"E	47.67'
3D39	S68°25'10"E	63.19'
3D40	S73°20'08"E	59.33'
3D41	N60°19'16"E	60.87'
3D42	N64°43'02"E	62.98'
3D43	N64°04'01"E	78.65'
3D44	N50°46'01"E	77.25'
3D45	N44°33'03"E	69.01'
3D46	N09°01'16"E	49.18'
3D47	N05°19'23"W	81.66'
3D48	N51°25'32"W	55.35'
3D49	N50°40'54"W	43.68'
3D50	S79°14'21"W	36.11'
3D51	S89°48'57"W	66.24'
3D52	N46°39'23"W	35.40'
3D53	N05°47'38"W	41.55'
3D54	N33°46'21"E	58.72'
3D55	N41°24'36"E	42.02'

3D56	N44°38'34"E	31.20'
3D57	N49°12'23"E	79.08'
3D58	N47°47'02"E	109.23'
3D59	N34°24'55"E	53.08'
3D60	N75°39'16"E	52.22'
3D61	N44°58'29"E	69.19'
3D62	N50°00'30"E	51.71'
3D63	N71°50'57"E	48.32'
3D64	N87°21'06"E	55.51'
3D65	S54°20'35"E	52.94'
3D66	S34°38'26"E	27.00'
3D67	S07°31'04"E	56.73'
3D68	S12°32'39"E	37.07'
3D69	S02°37'08"E	37.66'
3D70	S07°56'57"E	29.70'
3D71	S14°35'50"E	36.46'
3D72	S47°37'51"E	30.20'
3D73	S08°23'12"E	66.03'
3D74	S44°33'02"W	53.08'
3D75	N88°46'07"W	29.31'
3D76	S41°19'31"W	39.21'
3D77	S51°10'29"W	42.87'
3D78	S15°49'12"W	41.80'
3D79	S17°02'06"E	60.28'
3D80	S00°39'03"W	42.34'
3D81	S22°19'37"W	34.42'
3D82	S01°16'48"E	47.77'
3D83	S02°05'56"E	44.86'
3D84	S33°47'25"W	29.51'
3D85	S64°36'06"W	24.18'
3D86	S86°49'35"W	42.77'
3D87	S47°36'59"W	54.49'
3D88	S40°02'39"W	54.99'
3D89	S60°01'10"W	45.79'
3D90	S87°05'19"W	36.52'
3D91	N78°01'43"W	30.70'
3D92	S74°08'02"W	29.77'
3D93	S38°05'35"W	44.05'
3D94	S67°03'59"W	48.46'
3D95	S63°04'41"W	60.95'
3D96	S64°43'57"W	50.49'
3D97	S62°32'59"W	58.50'
3D98	S85°47'04"W	41.48'

3D99	S44°34'02"W	63.85'
3D100	S44°39'13"W	67.14'
3D101	S62°47'30"W	68.30'
3D102	N82°36'10"W	75.22'
3D103	N60°14'44"W	65.20'
3D104	N83°47'58"W	61.94'
3D105	S63°31'21"W	61.19'

LINE	BEARING	DISTANCE
3E1	S41°07'15"W	40.72'
3E2	S58°49'36"W	44.67'
3E3	N64°12'38"W	42.88'
3E4	N16°50'32"W	39.10'
3E5	N07°25'08"W	47.72'
3E6	N37°39'32"W	44.79'
3E7	N14°39'04"W	51.41'
3E8	N03°52'31"W	63.18'
3E9	N04°43'50"E	53.07'
3E10	N32°38'41"E	45.93'
3E11	S25°15'53"E	320.01'

LINE	BEARING	DISTANCE
3F1	N37°23'06"E	22.59'
3F2	N50°05'28"E	67.09'
3F3	N37°58'17"E	37.54'
3F4	N39°03'18"E	45.36'
3F5	N39°38'22"E	68.66'
3F6	N50°53'07"E	67.45'
3F7	N61°52'16"E	40.36'
3F8	N73°09'24"E	62.85'
3F9	N20°23'42"E	63.48'
3F10	N51°37'19"E	97.97'
3F11	N41°17'19"E	75.67'
3F12	N87°43'29"E	48.21'
3F13	N29°07'54"E	59.41'
3F14	N67°43'55"E	56.53'
3F15	N42°11'42"E	70.57'
3F16	N83°46'31"E	54.87'
3F17	N78°09'26"E	48.71'
3F18	N54°46'38"E	55.56'
3F19	N15°53'34"E	36.12'
3F20	N42°35'49"E	37.35'
3F21	N06°52'57"W	44.11'

3F22	N60°45'26"E	47.96'
3F23	N43°59'18"E	88.95'
3F24	N59°23'10"E	64.75'
3F25	N20°43'30"E	55.97'
3F26	N27°12'32"W	87.47'
3F27	N40°01'17"E	37.33'
3F28	N83°08'29"E	35.62'
3F29	N72°55'39"E	33.61'
3F30	N82°07'22"E	40.78'
3F31	N49°15'01"E	47.22'
3F32	S08°18'27"E	155.13'
3F33	N52°36'54"W	192.59'

LINE	BEARING	DISTANCE
3G1	N86°09'38"E	86.38'
3G2	S59°09'31"E	65.05'
3G3	S45°56'00"E	56.18'
3G4	S28°41'03"E	74.53'
3G5	S01°30'50"W	59.01'
3G6	S05°13'20"E	71.27'
3G7	S03°47'03"W	70.14'
3G8	S02°13'59"E	50.10'
3G9	S25°39'57"W	85.61'
3G10	S33°42'13"W	69.44'
3G11	S51°35'36"W	61.31'
3G12	S76°02'17"W	42.68'
3G13	S76°21'02"W	65.13'
3G14	N79°05'36"W	54.48'
3G15	N45°37'07"W	39.16'
3G16	N23°58'30"W	86.47'
3G17	N15°14'26"W	84.35'
3G18	N02°03'46"E	54.09'
3G19	N10°37'17"E	63.13'
3G20	N19°30'46"E	51.61'
3G21	N23°27'41"E	72.64'
3G22	N20°36'43"E	68.83'
3G23	N13°33'18"E	51.74'
3G24	N39°48'38"E	22.33'
3G25	N61°57'48"E	41.16'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

LINE	BEARING	DISTANCE
3H1	N57°13'52"E	48.49'
3H2	S68°08'56"E	34.73'
3H3	S67°04'31"E	47.98'
3H4	S51°57'58"E	57.70'
3H5	S00°30'49"W	60.56'
3H6	S39°00'14"W	45.24'
3H7	S44°13'38"W	61.40'
3H8	S55°50'21"W	54.16'
3H9	N69°37'43"W	55.72'
3H10	N43°56'08"W	54.25'
3H11	N01°16'07"W	62.02'
3H12	N03°26'43"E	61.79'
3H13	N55°10'12"E	50.61'

LINE	BEARING	DISTANCE
3i1	N55°22'00"E	52.40'
3i2	S47°46'28"E	64.55'
3i3	S19°34'37"E	64.57'
3i4	S05°40'40"W	45.88'
3i5	S14°48'15"W	38.21'
3i6	S83°12'30"W	44.61'
3i7	N82°33'33"W	49.20'
3i8	N38°43'46"W	79.95'
3i9	N04°59'33"E	65.62'
3i10	N54°13'47"E	48.23'

LINE	BEARING	DISTANCE
3J1	N76°13'15"W	53.33'
3J2	N43°21'12"W	55.69'
3J3	N08°02'42"E	72.10'
3J4	N34°07'43"E	50.38'
3J5	N88°42'03"E	68.59'
3J6	S80°29'38"E	35.60'
3J7	S13°44'05"E	50.55'
3J8	S46°53'30"E	53.47'
3J9	S40°40'59"W	35.76'
3J10	S55°13'39"W	49.55'
3J11	S61°48'02"W	44.29'

LINE	BEARING	DISTANCE
3K1	N06°06'42"E	44.23'
3K2	N10°23'54"W	98.31'
3K3	N12°30'07"E	60.78'
3K4	N06°59'05"W	62.68'
3K5	N59°42'57"E	41.92'
3K6	S46°44'28"E	86.93'
3K7	S31°30'52"E	40.31'
3K8	S30°34'29"E	70.72'
3K9	S38°27'22"E	31.83'
3K10	S15°27'15"E	31.09'
3K11	S12°57'44"W	61.45'
3K12	S36°50'20"E	47.14'
3K13	S18°41'35"W	60.84'
3K14	S30°13'26"W	56.51'
3K15	S64°23'16"W	48.68'
3K16	N48°41'42"W	42.09'
3K17	N57°32'47"W	38.48'
3K18	N15°26'02"W	55.84'
3K19	N22°56'14"W	53.42'

LINE	BEARING	DISTANCE
3L1	S24°10'15"W	50.21'
3L2	S85°30'04"W	55.32'
3L3	N37°40'16"W	134.98'
3L4	N26°49'56"E	12.76'
3L5	N34°59'48"E	35.76'
3L6	N10°19'15"E	49.73'
3L7	N08°50'19"E	57.99'
3L8	N07°09'20"E	53.31'
3L9	N82°41'51"E	30.30'
3L10	N77°01'07"E	52.64'
3L11	S61°45'34"E	56.61'
3L12	S61°48'50"E	52.04'
3L13	S44°48'12"E	63.44'
3L14	S82°19'55"E	37.34'
3L15	S12°38'09"W	42.10'
3L16	S11°04'46"E	44.30'
3L17	S08°49'55"E	45.90'
3L18	S36°34'27"W	57.61'
3L19	N64°04'47"W	43.24'
3L20	N63°03'25"W	43.37'
3L21	S54°03'59"W	56.57'



WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2015 USACE Expanded Jurisdictional Determination



DEPARTMENT OF THE ARMY
SAVANNAH DISTRICT, CORPS OF ENGINEERS
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3640

REPLY TO
ATTENTION OF:

FEBRUARY 27 2015

Regulatory Division
SAS-2003-20390

Mr. Matthew Morris
Effingham County Development Authority
Post Office Box 1078
Springfield, Georgia 31329

Dear Mr. Morris:

I refer to a letter dated May 1, 2014, and supplemental information received January 2, 2015, submitted on your behalf by Mr. Jeffrey P. Williams, Sligh Environmental Consultants, Inc., requesting a Jurisdictional Determination (JD) for your 2,603.7 acre site located west of U.S. Highway 21 and east and west of and adjacent to McCall Road, approximately two miles south of the City of Rincon, Effingham County, Georgia (Latitude 32.2727, Longitude -81.2367). This project has been assigned number SAS-2003-20390 and it is important that you refer to this number in all communication concerning this matter.

We have completed an expanded preliminary JD for the site pursuant to the March 4, 2009, Public Notice entitled, "Characterization of Jurisdictional Determinations: Purpose, Application and Documentation Requirements as Defined by the Savannah District, US Army Corps of Engineers." I have enclosed a "JD Check Sheet" that summarizes the JD, delineation verification and appeals process.

The wetlands/other waters on the subject property, with exceptions of wetlands "4A", "4C", "4D", "4E", "4F", "4G", "4H", "4I", "4J", "4K", "4L", "4M", "4Q", "4R", "4V", "4W", "4Y", "5A", "5B", "5C", "5D", "5E", "5F", and "5G", may be waters of the United States and therefore within the jurisdiction of Section 404 of the Clean Water Act (33 United States Code (U.S.C.) 1344). The placement of dredged or fill material into any waterways and/or their adjacent wetlands, mechanized land clearing, or excavation of those wetlands would require prior Department of the Army authorization pursuant to Section 404. Please note: this preliminary JD and any U.S. Army Corps of Engineers approved survey and/or GPS delineation, can be used for the purpose of supporting a future permit application.

The wetlands "4A", "4C", "4D", "4E", "4F", "4G", "4H", "4I", "4J", "4K", "4L", "4M", "4Q", "4R", "4V", "4W", "4Y", "5A", "5B", "5C", "5D", "5E", "5F", and "5G", on the subject property were determined to be isolated, non-jurisdictional, and Department of the Army

authorization, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), is not required for dredge and/or fill activities in these areas.

If you intend to sell property that is part of a project that requires Department of the Army Authorization, it may be subject to the Interstate Land Sales Full Disclosure Act. The Property Report required by Housing and Urban Development Regulation must state whether, or not a permit for the development has been applied for, issued or denied by the U.S. Army Corps of Engineers (Part 320.3(h) of Title 33 of the Code of Federal Regulations).

This communication does not convey any property rights, either in real estate or material, or any exclusive privileges. It does not authorize any injury to property, invasion of rights, or any infringement of federal, state or local laws, or regulations. It does not obviate your requirement to obtain state or local assent required by law for the development of this property. If the information you have submitted, and on which the U.S. Army Corps of Engineers has based its determination is later found to be in error, this decision may be revoked.

A copy of this letter is being provided to the following party: Mr. Jeffrey P. Williams, Sligh Environmental Consultants, Inc., 31 Park of Commerce Way, Suite 200B, Savannah, Georgia 31405.

Thank you in advance for completing our on-line Customer Survey Form located at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. We value your comments and appreciate your taking the time to complete a survey each time you interact with our office.

If you have any questions, please call Shaun Blocker, Project Manager, Coastal Branch, at 912-652-5086.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kelly C. Finch', with a large, stylized loop at the end.

Kelly C. Finch
Chief, Coastal Branch

Enclosures



DEPARTMENT OF THE ARMY
SAVANNAH DISTRICT, CORPS OF ENGINEERS
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3640

REPLY TO
ATTENTION OF:

JURISDICTION DELINEATION CHECK SHEET
CORPS FILE NUMBER: SAS-2003-20390
DATE: February 20, 2015

1. SECTION 1 - PRELIMINARY JURISDICTIONAL DETERMINATIONS

a. JURISDICTIONAL DETERMINATION (JD). A "preliminary JD" form was completed for the site in accordance with the March 4, 2009, Public Notice entitled, "Characterization of Jurisdictional Determinations: Purpose, Application and Documentation Requirements as Defined by the Savannah District, US Army Corps of Engineers." The form details whether streams, wetlands and/or other waters present on the site may be subject to the jurisdiction of the U.S. Army Corps of Engineers. In summary, the Corps has determined the following with regard to waters present on the site:

_____ There may be navigable waters of the United States within Rivers and Harbors Act (RHA) jurisdiction present.

_____ There may be waters of the United States within Clean Water Act (CWA) jurisdiction present.

b. DELINEATION VERIFICATION. With regard to the location and extent of potentially jurisdictional areas present on the site, the Corps has made the following determinations:

_____ Wetlands were delineated in accordance with criteria contained in the 1987 "Corps of Engineers Wetland Delineation Manual," as amended by the most recent regional supplements to the manual.

_____ Drawings submitted with a Pre-Construction Notification (or other application) depict the approximate location/boundaries of all potentially jurisdictional waters on the project site. The Corps has verified the accuracy of the depicted boundaries of potentially jurisdictional waters in only the immediate vicinity of waters to be impacted. A complete jurisdictional delineation request, including a jurisdictional waters survey, would be required in order for the Corps to consider final verification of all other jurisdictional boundaries on the project site.

_____ The drawing entitled "_____" dated _____ is an acceptable sketch of the approximate location/boundaries of all the potentially jurisdictional waters in the project area. This sketch can be used for initial real estate planning; projects with temporary impacts to waters; projects involving minor amounts of fill in waters; or work only subject to our jurisdiction pursuant to Section 10 of the RHA of 1899. A complete

jurisdictional delineation request, including a jurisdictional waters survey, would be required in order for the Corps to consider final verification of all other jurisdictional boundaries on the project site.

c. APPEALS OF PRELIMINARY JDs: The preliminary JD is a "non-binding" written indication that there may be waters of the United States on a parcel. Preliminary JDs are advisory in nature and may not be appealed (See 33 Code of Federal Regulations (CFR) 331.2)." If you are not in agreement with this preliminary JD, then you may request an approved JD for your project site or review area.

2. SECTION - EXPANDED PRELIMINARY JDs:

a. EXPANDED PRELIMINARY JD. An "expanded preliminary JD" form was completed for the site in accordance with the March 4, 2009, Public Notice entitled, "Characterization of Jurisdictional Determinations: Purpose, Application and Documentation Requirements as Defined by the Savannah District, US Army Corps of Engineers." The form details whether streams, wetlands and/or other waters present on the site may be subject to the jurisdiction of the Corps. In summary, the Corps has determined the following with regard to waters present on the site:

_____ There may be navigable waters of the United States within RHA jurisdiction present.

☒ There may be waters of the United States within CWA jurisdiction present.

b. DELINEATION VERIFICATION. With regard to the location and extent of potentially jurisdictional areas present on the site, the Corps has made the following determinations:

☒ Wetlands were delineated in accordance with criteria contained in the 1987 "Corps of Engineers Wetland Delineation Manual," as amended by the most recent regional supplements to the manual.

_____ The Global Positioning System (GPS) delineation entitled "_____", dated _____, is an accurate delineation of the location/boundaries of all the potentially jurisdictional waters on the site. If you have not already done so, I recommend that you place a statement on this delineation to the effect that, **"WETLANDS AND OTHER WATERS SHOWN ON THIS DRAWING ARE POTENTIALLY UNDER THE JURISDICTION OF THE CORPS AS SHOWN IN THE CORPS FILE NUMBER SAS-2003-20390. OWNERS MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE WATERS WITHOUT PROPER AUTHORIZATION."** This delineation will remain valid for a period of 5 years unless new information warrants revision prior to that date.

X The survey entitled "Jurisdictional Wetland Exhibit, Portion of the Former B.L. & M.H. Rahn Tract, also known as the Rincon Research Tract, 9TH G.M. District, Effingham County, Georgia for Effingham County Industrial Authority, Sheet 1 of 42 through Sheet 42 of 42", dated December 18, 2014, and signed by Registered Land Surveyor James M. Sims, Registration Number 2280, is an accurate delineation of the location/boundaries of all the potentially jurisdictional waters on the site. If you have not already done so, I recommend that you place a statement on the final surveyed property plat to the effect that, **"WETLANDS AND OTHER WATERS SHOWN ON THIS DRAWING ARE POTENTIALLY UNDER THE JURISDICTION OF THE CORPS AS SHOWN IN THE CORPS FILE NUMBER SAS-2003-20390. OWNERS MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE WATERS WITHOUT PROPER AUTHORIZATION."** This delineation will remain valid for a period of 5-years unless new information warrants revision prior to that date.

c. APPEALS OF PRELIMINARY JDs: The expanded preliminary JD is a "non-binding" written indication that there may be waters of the United States on a parcel. expanded preliminary JDs are advisory in nature and may not be appealed (See 33 CFR. 331.2)." If you are not in agreement with this expanded preliminary JD, then you may request an approved JD for your project site or review area.

3. SECTION 3 - APPROVED JDs: As defined in Regulatory Guidance Letter 08-02, an approved JD is an official Savannah District determination that jurisdictional "waters of the United States" or "navigable waters of the United States," or both, are either present or absent on a particular site. An approved JD precisely identifies the limits of those waters on the project site determined to be jurisdictional under the CWA and/or the RHA.

a. APPROVED JD. An "approved JD" form was completed for the site pursuant to the June 5, 2007, "US Army Corps of Engineers JD Form Instructional Guidebook." The form details whether streams, wetlands and/or other waters present on the site are subject to the jurisdiction of the Corps. In summary, the Corps has determined the following with regard to waters present on the site:

 There are navigable waters of the United States within RHA jurisdiction present.

 There are waters of the United States within CWA jurisdiction present.

 X There are non-jurisdictional waters of the United States located in the project area.

 There are no jurisdictional waters of the United States located in the project area.

b. APPROVED DETERMINATION - ISOLATED, NON-JURISDICTIONAL WATERS. If Appendix E of the March 4, 2009, Public Notice entitled, "Characterization of Jurisdictional Determinations: Purpose, Application and Documentation Requirements as Defined by the Savannah District, US Army Corps of Engineers" was submitted, you have requested that the Corps verify the presence of isolated, non-jurisdictional waters located at the project site or within the review area. The completed Appendix E form is available at <http://www.sas.usace.army.mil/Missions/Regulatory/JurisdictionalDetermination/PostedApprovedJDs.aspx>, under the above listed file number. You may also request that a printed copy of the form be mailed to you. This isolated, non-JD will remain valid for a period of 5-years unless new information warrants revision prior to that date. In summary, the Corps has determined the following with regard to isolated, non-jurisdictional waters that are present on the site:

 X Wetlands were delineated in accordance with criteria contained in the 1987 "Corps of Engineers Wetland Delineation Manual," as amended by the most recent regional supplements to the manual.

 X There are isolated non-jurisdictional waters present that are not subject to CWA jurisdiction. Specifically, wetland(s) "4A", "4C", "4D", "4E", "4F", "4G", "4H", "4I", "4J", "4K", "4L", "4M", "4Q", "4R", "4V", "4W", "4Y", "5A", "5B", "5C", "5D", "5E", "5F", and "5G", as identified on the attached survey entitled "Isolated Non-Jurisdictional Wetland Exhibit, Portion of the Former B.L. & M.H. Rahn Tract, also known as the Rincon Research Tract, 9TH G.M. District, Effingham County, Georgia for Effingham County Industrial Authority, Sheet 1 of 29 through Sheet 29 of 29", dated December 18, 2014, and signed by Registered Land Surveyor James M. Sims, Registration Number 2280, is/are isolated, non-jurisdictional wetlands. Department of the Army authorization, pursuant to Section 404 of the Clean Water Act (33 United States Code 1344), is not required for dredge and/or fill activities in these areas.

c. APPROVED DETERMINATION. (other than isolated, non-jurisdictional waters): If Appendix B of the March 4, 2009, Public Notice entitled, "Characterization of Jurisdictional Determinations: Purpose, Application and Documentation Requirements as Defined by the Savannah District, US Army Corps of Engineers" was submitted, you have requested that the Corps verify the presence of jurisdictional waters located at the project site or within the review area. The completed Appendix B form is available at <http://www.sas.usace.army.mil/Missions/Regulatory/JurisdictionalDetermination/PostedApprovedJDs.aspx>, under the above listed file number. You may also request that a printed copy of the form be mailed to you. This JD will remain valid for a period of 5-years unless new information warrants revision prior to that date. In summary, the Corps has determined the following with regard to isolated, non-jurisdictional waters that are present on the site:

_____ Wetlands were delineated in accordance with criteria contained in the 1987 "Corps of Engineers Wetland Delineation Manual," as amended by the most recent regional supplements to the manual.

_____ The Global Positioning System (GPS) delineation entitled "_____", dated _____, is an accurate delineation of all the jurisdictional boundaries on the site. If you have not already done so, I recommend that you place a statement on this delineation to the effect that, **"JURISDICTIONAL WETLANDS AND OTHER WATERS SHOWN ON THIS DRAWING ARE UNDER THE JURISDICTION OF THE CORPS AS SHOWN IN THE CORPS FILE NUMBER SAS-2003-20390. OWNERS MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE JURISDICTIONAL AREAS WITHOUT PROPER AUTHORIZATION."** This approved JD will remain valid for a period of 5-years unless new information warrants revision prior to that date.

_____ The survey entitled "_____", dated _____, and signed by Registered Land Surveyor _____, is an accurate delineation of all the jurisdictional boundaries on the site. If you have not already done so, I recommend that you place a statement on the final surveyed property plat to the effect that, **"JURISDICTIONAL WETLANDS AND OTHER WATERS SHOWN ON THIS DRAWING ARE UNDER THE JURISDICTION OF THE CORPS AS SHOWN IN CORPS FILE NUMBER SAS-2003-20390. OWNERS MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE JURISDICTIONAL AREAS WITHOUT PROPER AUTHORIZATION."** This approved JD will remain valid for a period of 5-years unless new information warrants revision prior to that date.

d. APPEALS FOR APPROVED JDs: You may request an administrative appeal for any approved geographic JD under the Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Administrative Appeal Options and Process (NAP) and Request for Appeal (RFA) Form.

If you request to appeal this/these determination(s) you must submit a completed RFA form to the South Atlantic Division Office at the following address:

U.S. Army Corps of Engineers, South Atlantic Division
Attention: CESAD-PDS-O, Administrative Appeal Review Officer
60 Forsyth Street, Room 10M15
Atlanta, Georgia 30303-8801

In order for a RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR, part 331.5, and that it has been received by the Division Office within 60 days of the date of this form. It is not necessary to submit an RFA form to the Division Office if you do not object to this JD.

4. SECTION 4 - APPLIES TO ALL OF THE ABOVE.

- U.S. DEPARTMENT OF AGRICULTURE (USDA) PROGRAM PARTICIPANTS.

This delineation/determination has been conducted to identify the limits of the Corps CWA jurisdiction for this site. This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

Attachments:

- ☒ Verified Survey of Jurisdictional Streams, Wetlands and/or Other Waters
- ☐ Verified GPS Delineation of Jurisdictional Streams, Wetlands and/or Other Waters
- ☐ Drawing of Approximate Location of Streams, Wetlands and/or Other Waters
- ☐ Approved JD Form(s)
- ☒ NAP and RFA Form


Shaun L. Blocker
Project Manager, Coastal Branch

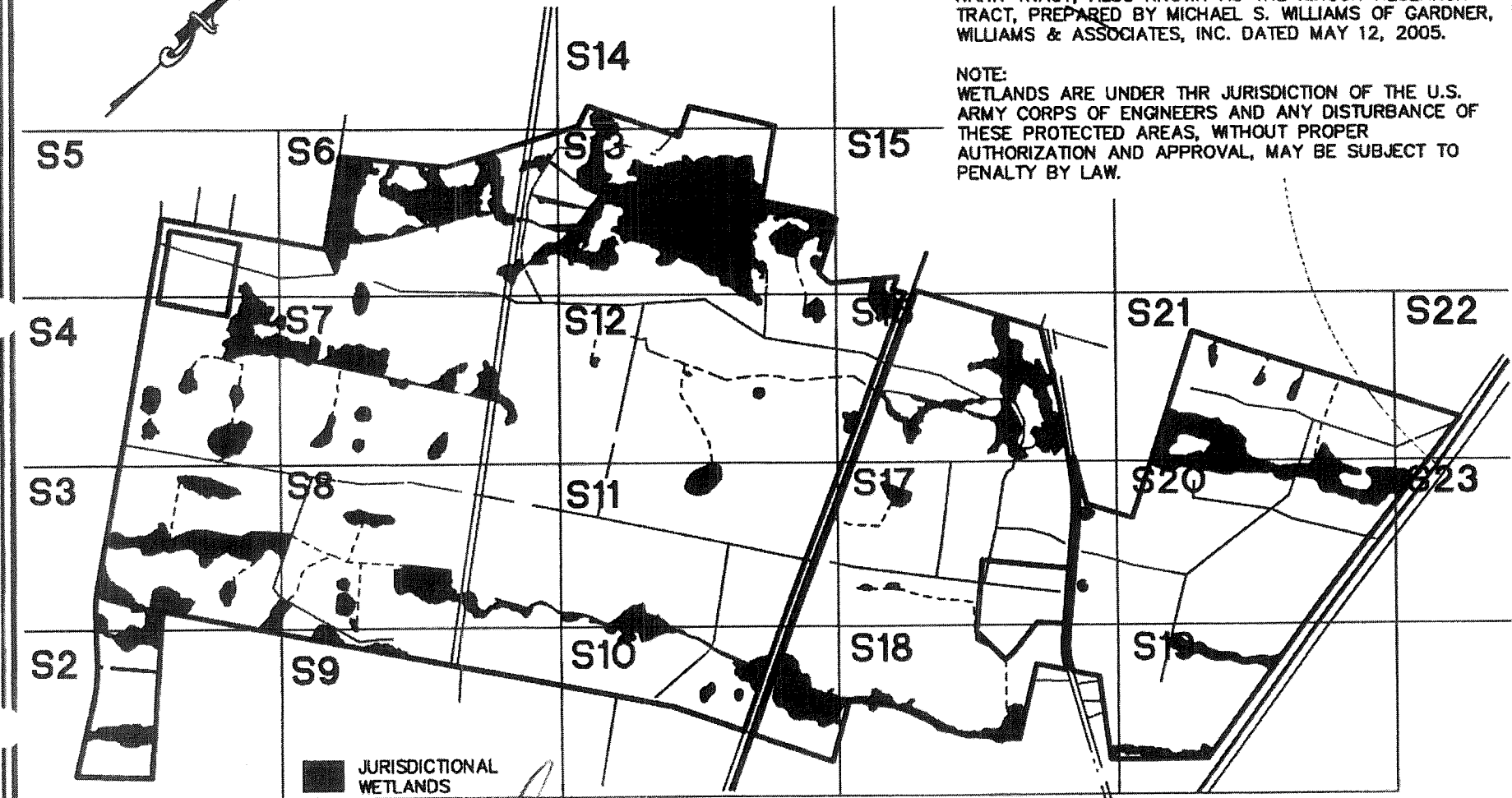
2/20/2015
DATE

REFERENCE:

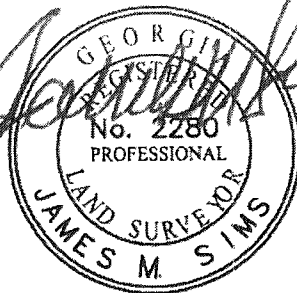
JURISDICTIONAL WETLAND EXHIBIT OF THE B.L. & M.H. RAHN TRACT, ALSO KNOWN AS THE RINCON RESEARCH TRACT, PREPARED BY MICHAEL S. WILLIAMS OF GARDNER, WILLIAMS & ASSOCIATES, INC. DATED MAY 12, 2005.

NOTE:

WETLANDS ARE UNDER THE JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS AND ANY DISTURBANCE OF THESE PROTECTED AREAS, WITHOUT PROPER AUTHORIZATION AND APPROVAL, MAY BE SUBJECT TO PENALTY BY LAW.



HBB
A Bell Company



TOTAL PROJECT AREA
2,603.7 ACRES

TOTAL
WETLAND AREA
374.17 ACRES

JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
ALSO KNOWN AS THE RINCON RESEARCH TRACT, 9TH
G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

DATE: DECEMBER 18, 2014 SHEET 1 OF 42

JURISDICTIONAL WETLANDS AREA SCHEDULE

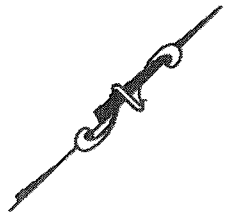
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M-2.45 AC.	N-5.17 AC.	P-1.81 AC.
Q-0.70 AC.		
R-1.25 AC.	S-0.85 AC.	T-1.44 AC.
U-24.74 AC.	V-4.15 AC.	W-1.32 AC.
X-2.29 AC.	Y-1.54 AC.	Z-0.27 AC.
2A-19.59 AC.	2B-1.08 AC.	2C-1.94 AC.
2D-0.06 AC.	2E-0.24 AC.	2F-1.86 AC.
2G-1.30 AC.	2I-14.27 AC.	2J-3.97 AC.
2K-5.17 AC.	2L-0.41 AC.	2M-17.68 AC.
2N-4.68 AC.	2O-2.93 AC.	2P-1.19 AC.
2Q-99.25 AC.	2R-1.56 AC.	2S-15.29 AC.
2T-0.51 AC.	2U-0.34 AC.	2V-4.88 AC.
2W-3.33 AC.	2X-20.81 AC.	2Y-0.22 AC.
2Z-0.31 AC.	3A-0.06 AC.	3B-21.05 AC.
3C-22.69 AC.	3D-14.07 AC.	3E-0.62 AC.
3F-3.82 AC.	3G-3.87 AC.	3H-0.82 AC.
3I-0.51 AC.	3J-0.52 AC.	3K-1.31 AC.
3L-1.54 AC.	4B-1.74 AC.	4N-0.85 AC.
4P-0.38 AC.	4S-0.40 AC.	4T-0.49 AC.
4U-0.89 AC.	4X-0.64 AC.	4Z-0.39 AC.



TOTAL PROJECT
AREA
2,603.7 ACRES

TOTAL
WETLAND AREA
374.17 ACRES

JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
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G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



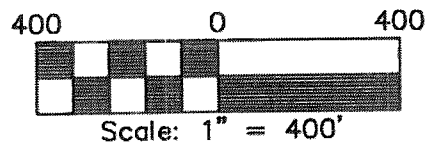
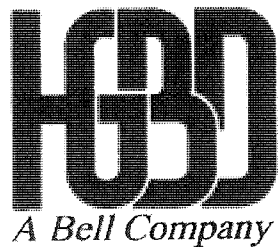
HODGEVILLE ROAD
80' R/W

DIAMOND CONCRETE
PRODUCTS HOLDINGS, LLC
PIN# 434-26A

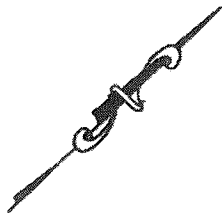
NOW OR FORMERLY
E.W. ZIPPERER
PIN# 434-26

NOW OR FORMERLY
E.W. ZIPPERER
PIN# 434-26

NOW OR FORMERLY
L.E. ZIPPERER
PIN# 434-24



JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



HODGEVILLE ROAD
80' R/W

DITCH B

AREA K

3.86 ACRES

N:816801.30
E:932246.12

AREA W

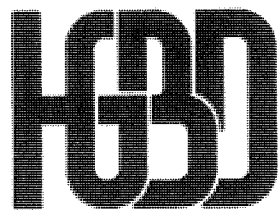
1.32 ACRES

N:815559.85
E:933140.19

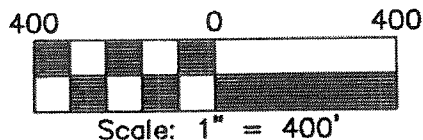
DITCH A

AREA X
2.29 ACRES

PIN# 434-26A

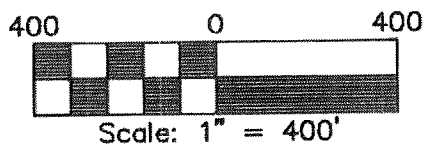
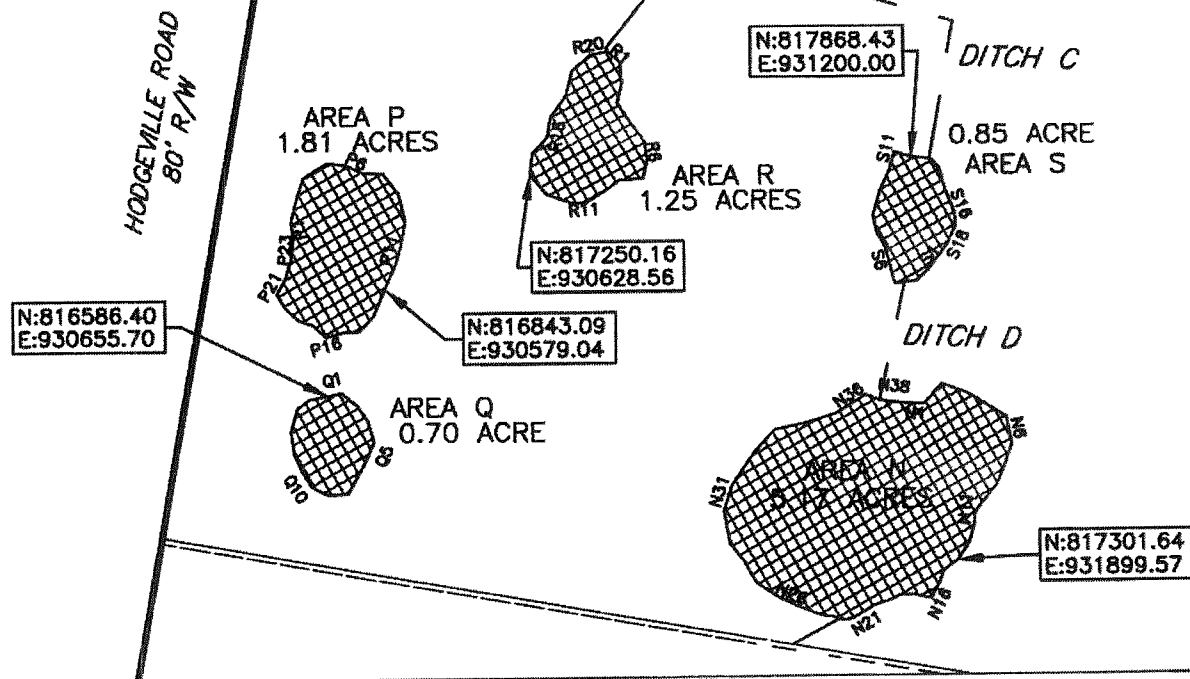
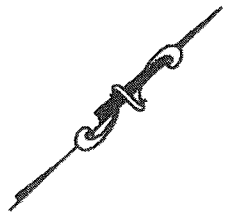


A Bell Company

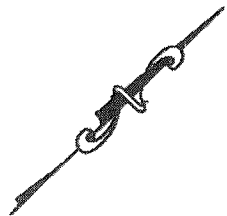


JURISDICTIONAL WETLAND EXHIBIT
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EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 3 OF 42



JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



NOW OR FORMERLY
L. JEFFERS, SR.
PIN# 415-17

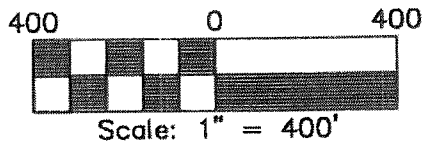
NOW OR FORMERLY
A.W. NEWKIRK &
C.H. TURNBULL
PIN# 415-20

NOW OR FORMERLY
L.M. NEASE &
S.N. EXLEY
PIN# 415-36

HODGEVILLE ROAD
80' R/W

EFFINGHAM COUNTY
BOARD OF EDUCATION
PIN# 416-22

AREA U
24.74 ACRES



JURISDICTIONAL WETLAND EXHIBIT
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EFFINGHAM COUNTY, GEORGIA
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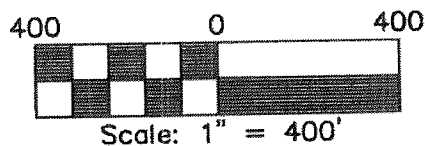
N:821683.90
E:932760.82

AREA 4B
1.74 ACRES +/-

AREA 2P
1.19 ACRES

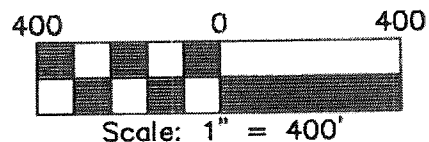
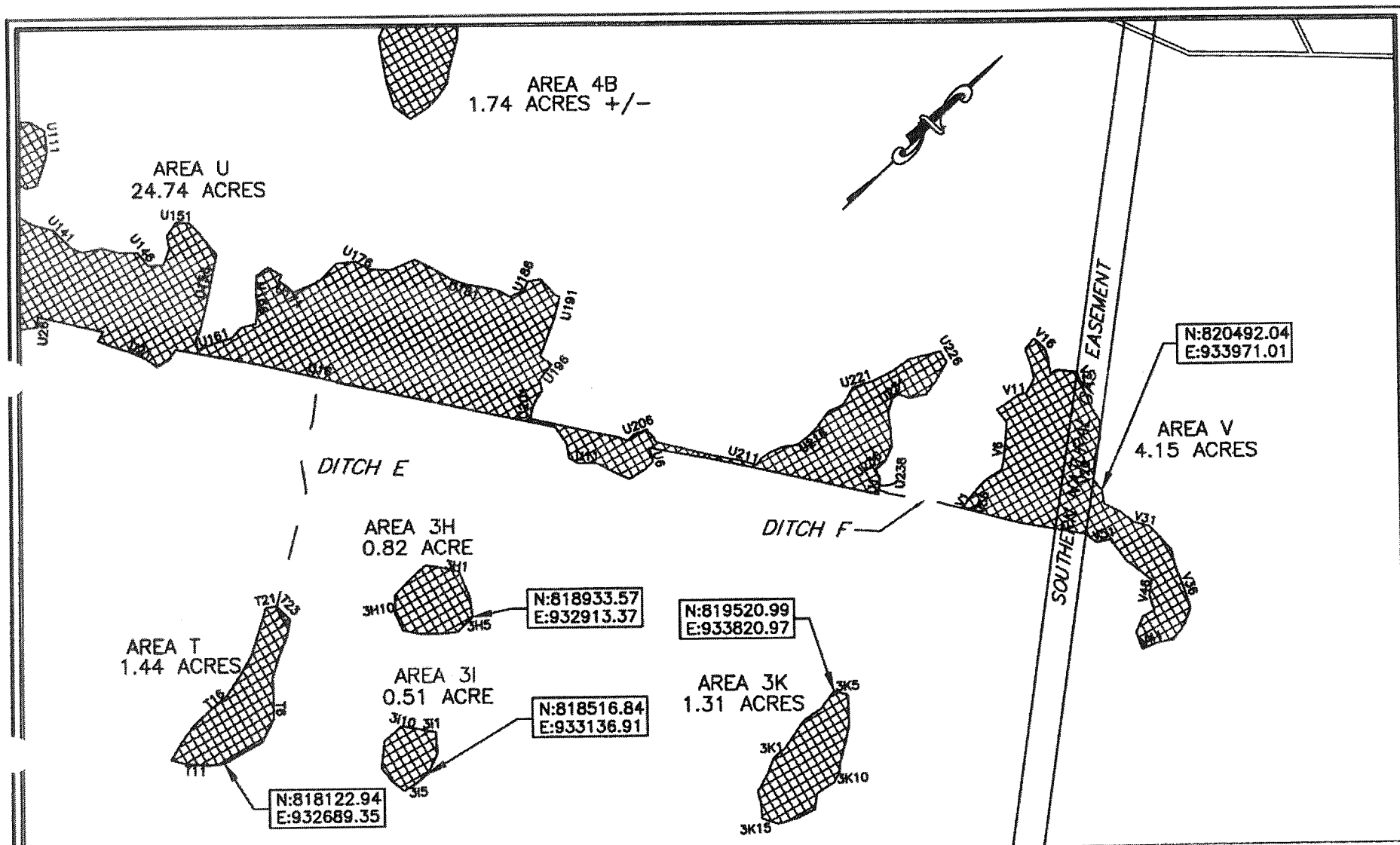
AREA 3A
0.06 ACRE

AREA 2R
1.56 ACRES



PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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JURISDICTIONAL WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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 EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

EARTH ROAD (TYP.)

AREA M
2.45 ACRES

N:818104.19
E:934177.57

DITCH J

DITCH G

DITCH H

DITCH J

DITCH I

AREA 3J
0.52 ACRE

N:816831.89
E:934470.19

AREA Y
1.54 ACRES

N:816642.65
E:934878.96

AREA 2F
1.86 ACRES

AREA Z
0.27 ACRE

SOUTHERN NATURAL GAS EASEMENT

HCB
A Bell Company

400 0 400
Scale: 1" = 400'

JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 8 OF 42

AREA 2F
1.86 ACRES

AREA 2G
1.30 ACRES

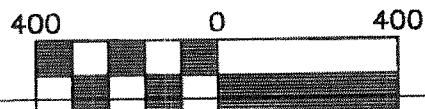
SOUTHERN NATURAL GAS EASEMENT

NOW OR FORMERLY
E.W. ZIPPERER
PIN# 434-26

NOW OR FORMERLY
T.S. STRICKLAND JR
PIN# 434-1



A Bell Company

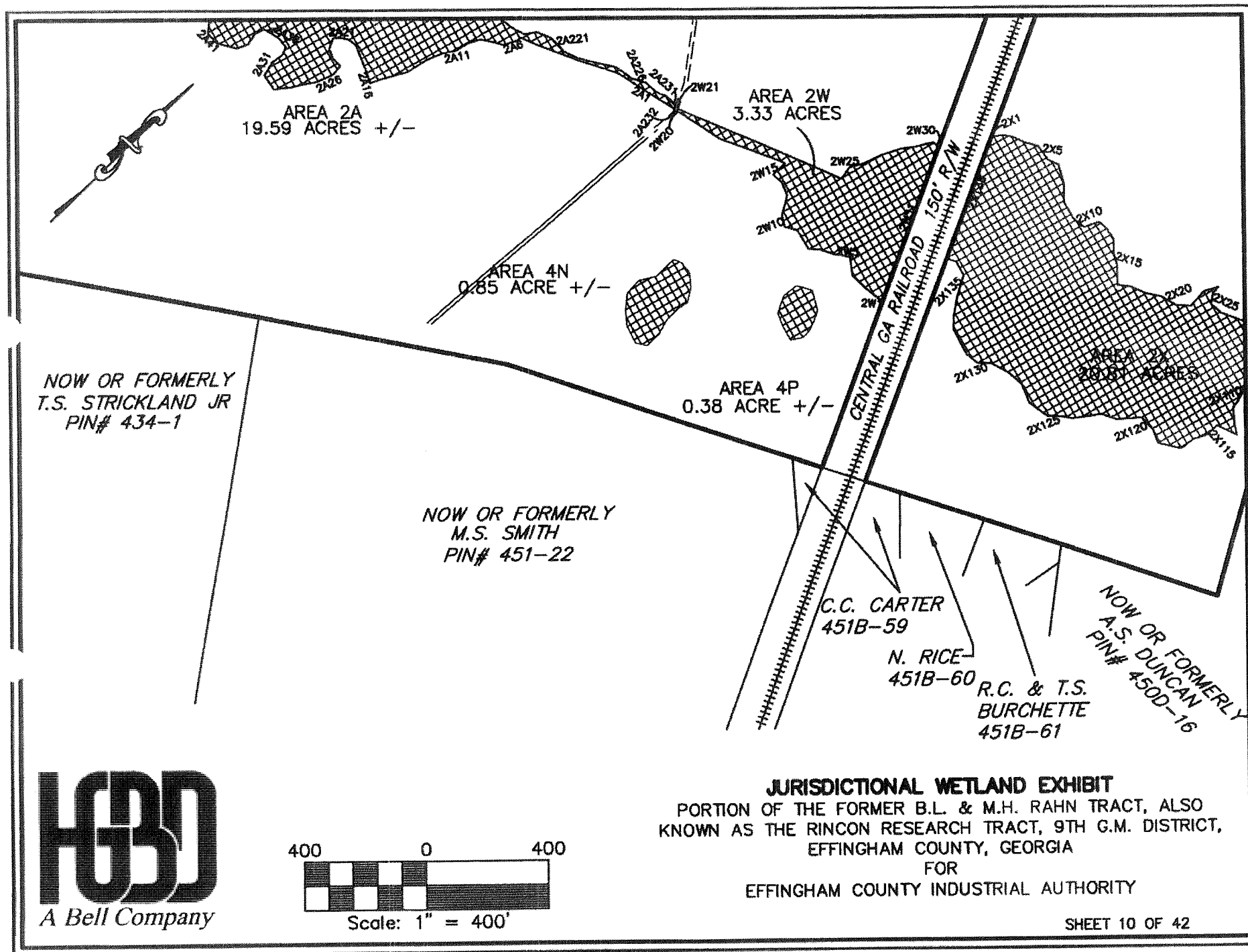


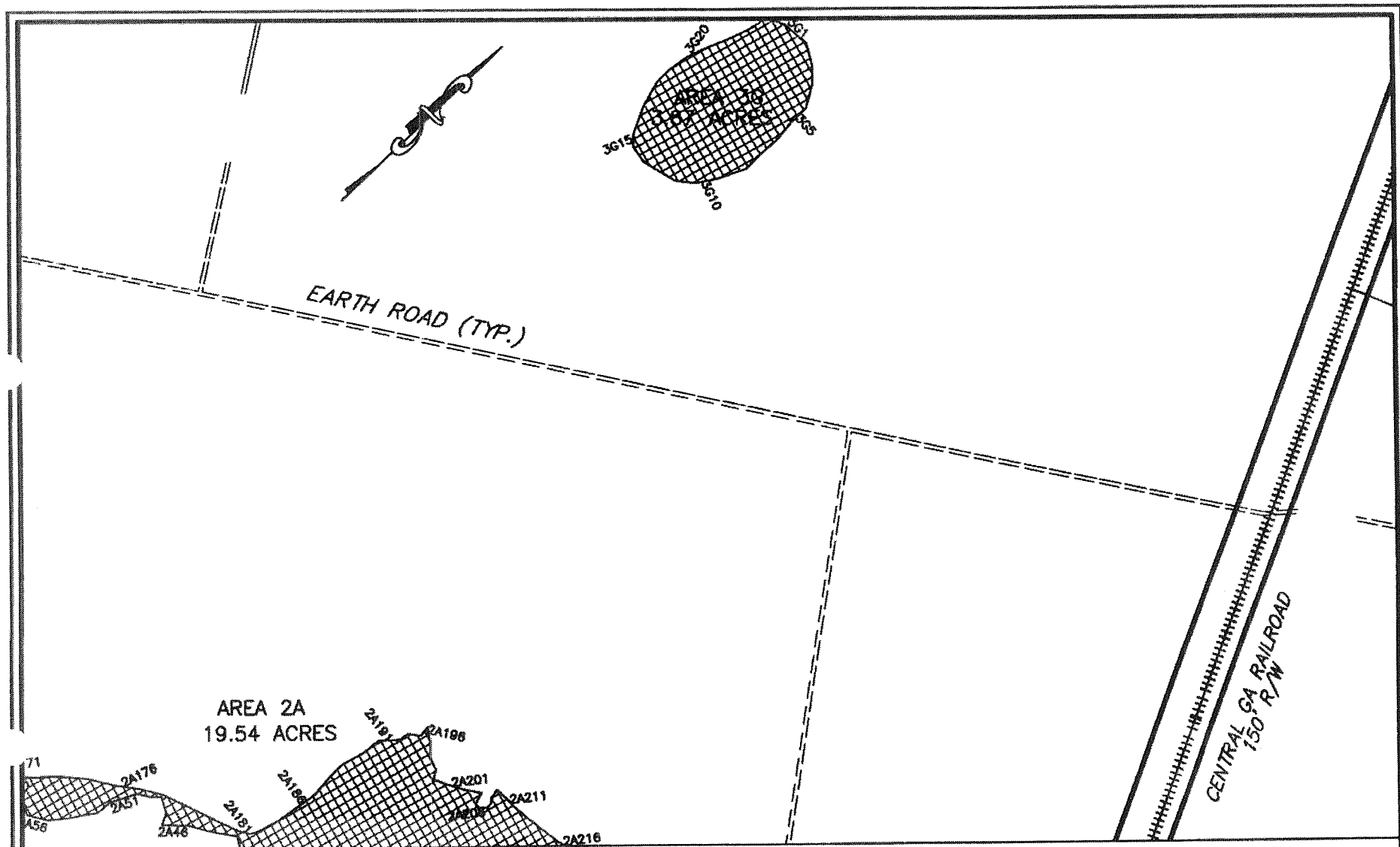
Scale: 1" = 400'

JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 9 OF 42



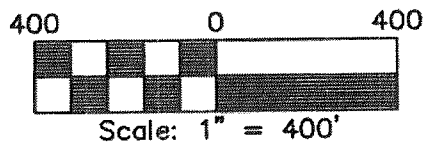
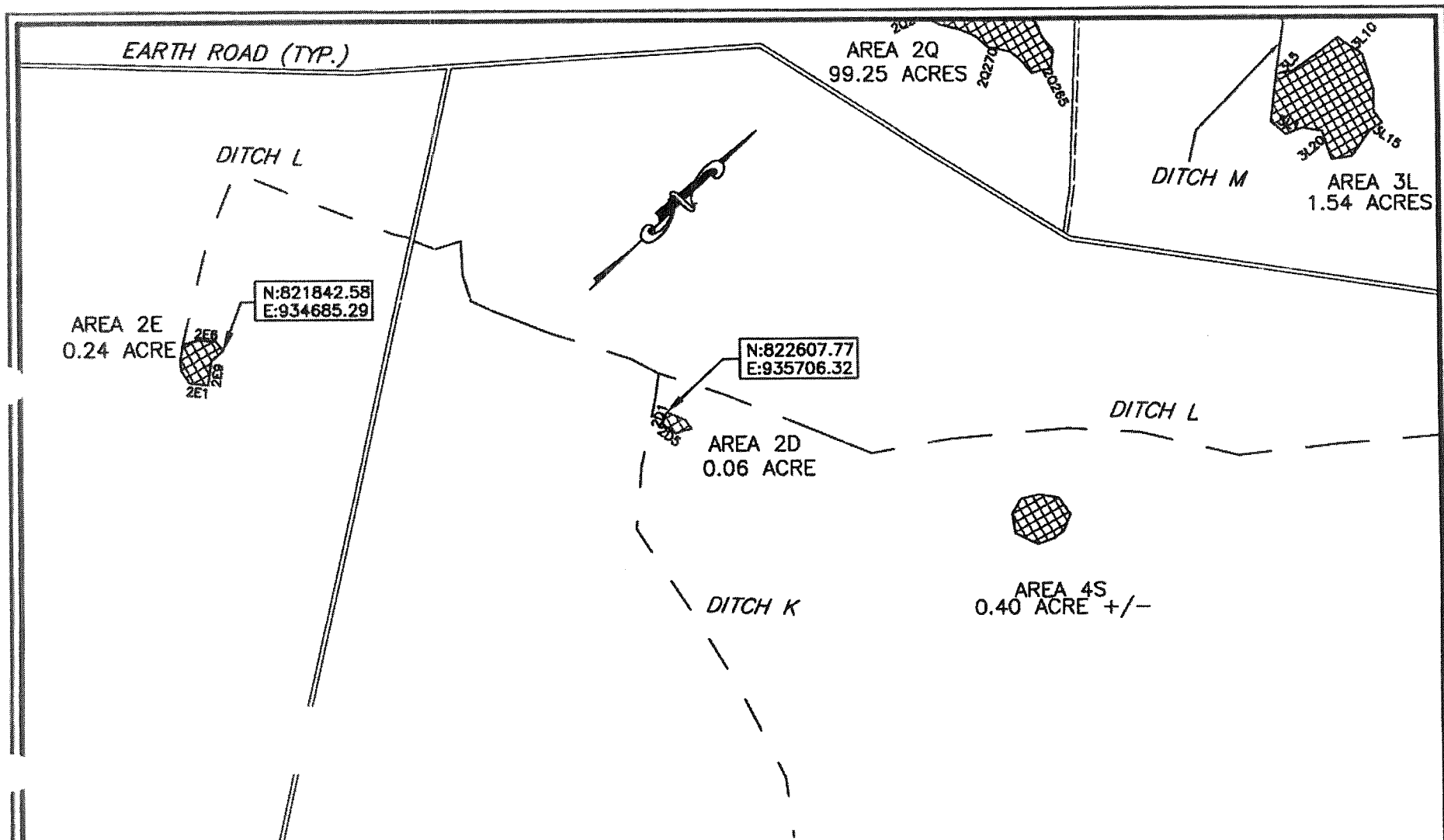


HCB
A Bell Company

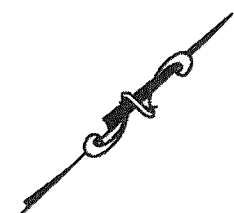
400 0 400
Scale: 1" = 400'

JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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SHEET 11 OF 42



JURISDICTIONAL WETLAND EXHIBIT
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 KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
 EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



NOW OR FORMERLY
L.M. NEASE &
S.N. EXLEY
PIN# 415-30

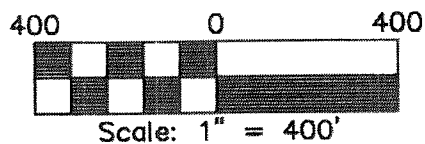
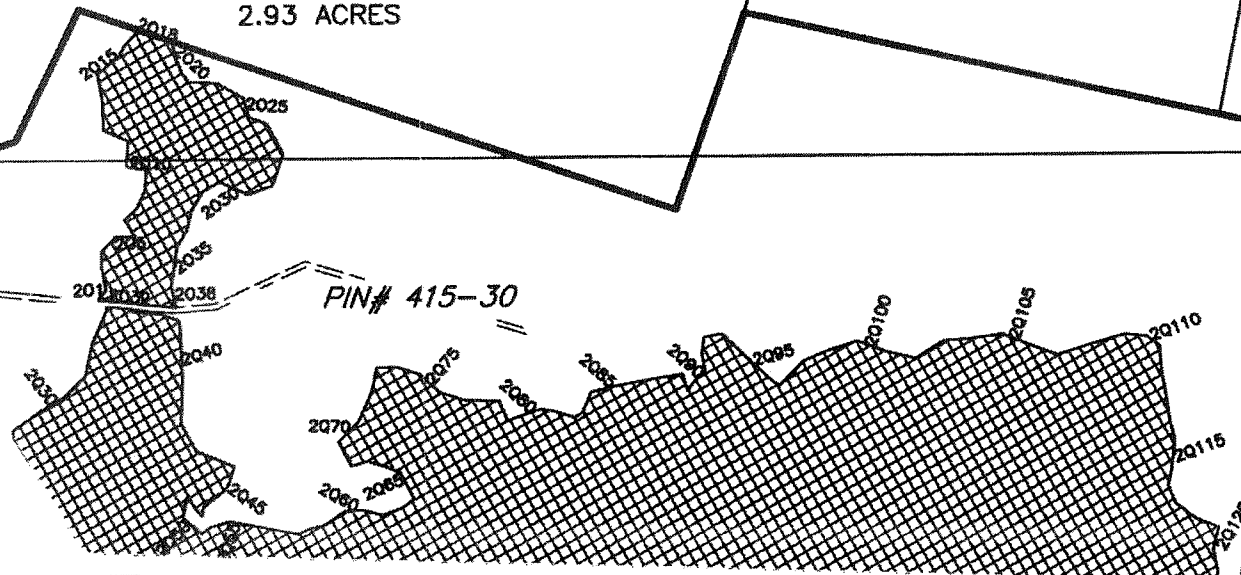
AREA 20
2.93 ACRES

NOW OR FORMERLY
CERTUSBANK, NA
PIN# 414-13

NOW OR FORMERLY
L.Z. & S.W. JAUDON
PIN# 432-40

NOW OR FORMERLY
J.A. & S.V. ZIPPERER
PIN# 432-42

PIN# 415-30



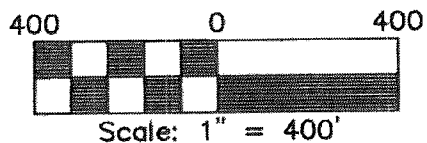
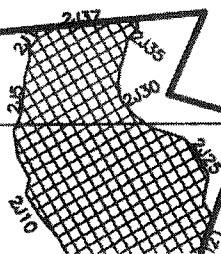
JURISDICTIONAL WETLAND EXHIBIT
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EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

NOW OR FORMERLY
J.N. KESSLER
PIN# 432-47

CENTRAL GA RAILROAD
150' R/W

NOW OR FORMERLY
J.N. KESSLER
PIN# 432-47

3.97 ACRES
AREA 2J



JURISDICTIONAL WETLAND EXHIBIT
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EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

NOW OR FORMERLY
C.W. KESSLER &
F.M. DURKINS
PIN# 432-68

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# 432-69

MCCALL ROAD 80' R/W

CENTRAL GA RAILROAD
150' R/W

DITCH L

AREA 4U
0.89 ACRE
+/-

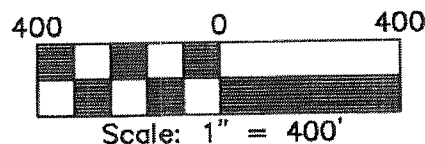
AREA 2N
4.68 ACRES

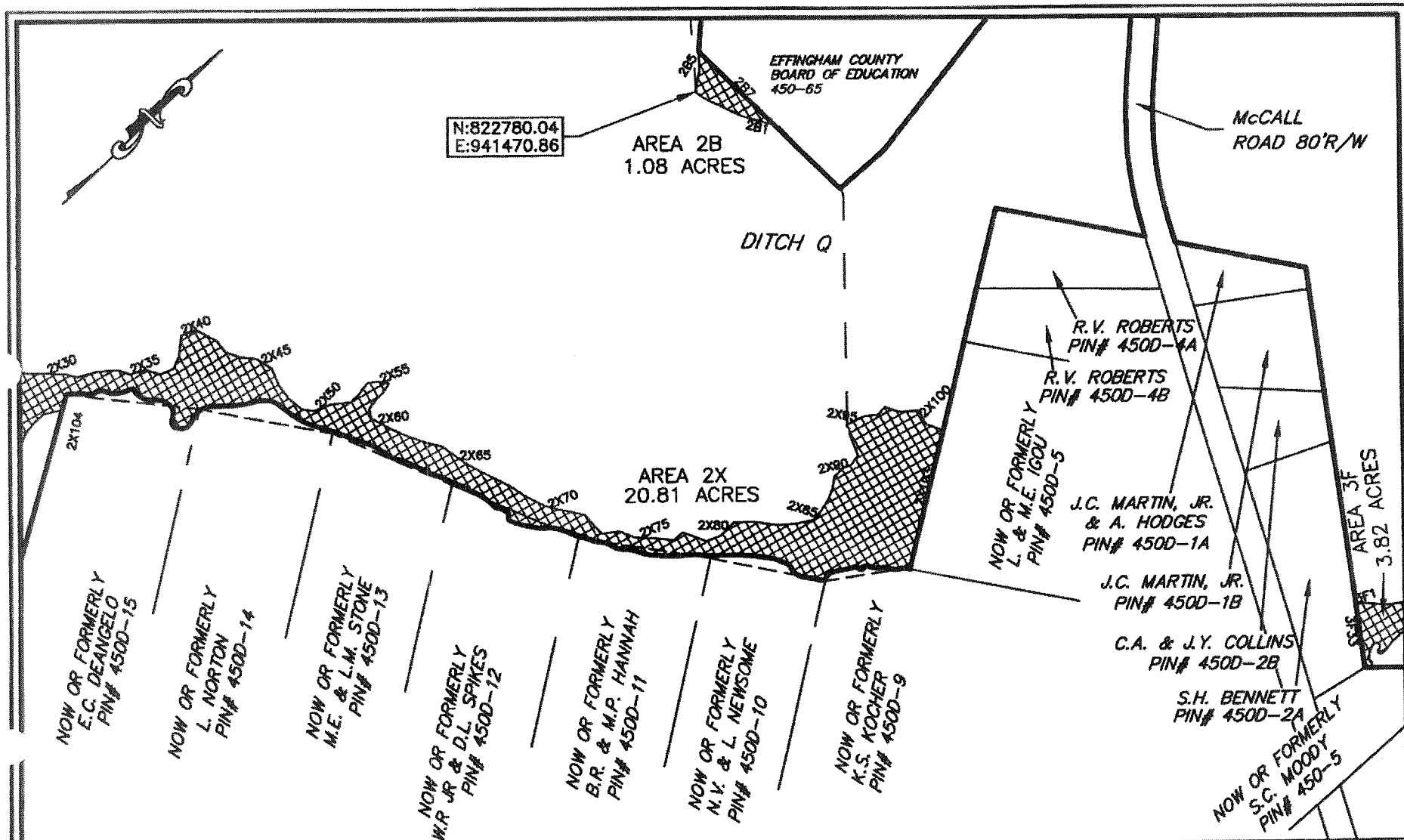
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E:939662.42

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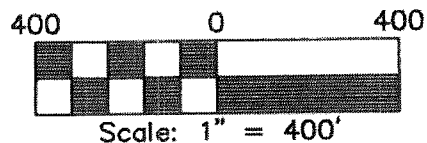
JURISDICTIONAL WETLAND EXHIBIT
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EFFINGHAM COUNTY, GEORGIA
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HCB
A Bell Company





HBD
A Bell Company



JURISDICTIONAL WETLAND EXHIBIT
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FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

N:824839.32
E:943451.00

AREA 2V
4.88 ACRES

2V5 2V10 2V15 2V20 2V25 2V30
2V55 2V60 2V65 2V70 2V75 2V80

N:824105.02
E:945023.25

AREA 3F
3.82 ACRES

3F5 3F10 3F15 3F20 3F25 3F30
450-5

SEABOARD COASTLINE RAILROAD 300' R/W

NOW OR FORMERLY
I.R. McCLENDON
PIN# 450-4

NOW OR FORMERLY
G.A. MARTINEZ &
S.M. LAREDO
PIN# 450-4A & 4B

NOW OR FORMERLY
W.C. & S. SMITH
PIN# 450-1

HCB
A Bell Company

400 0 400
Scale: 1" = 400'

JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 19 OF 42

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# 432-69

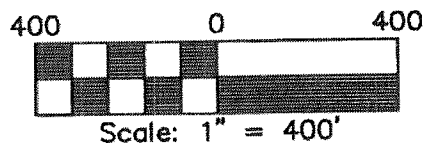
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E:941437.21

N:827904.36
E:943271.69

EARTH ROAD (TYP.)

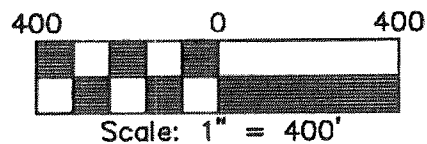
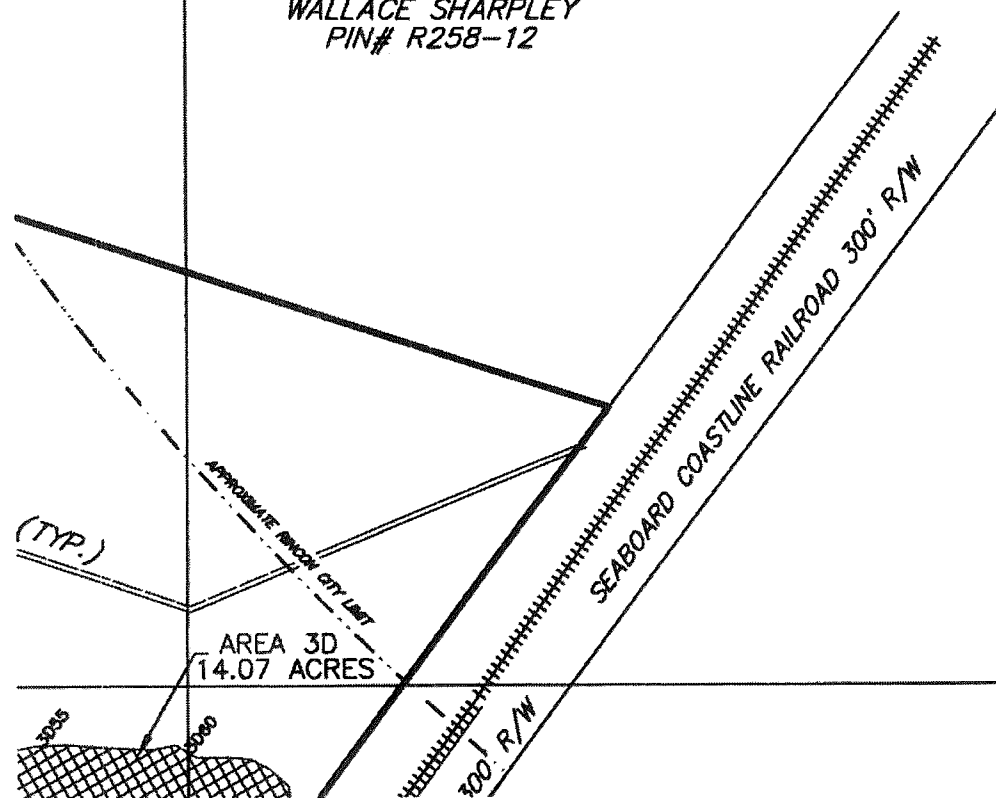
EARTH ROAD (TYP.)

SEABOARD COASTLINE RAILROAD 300' R/W

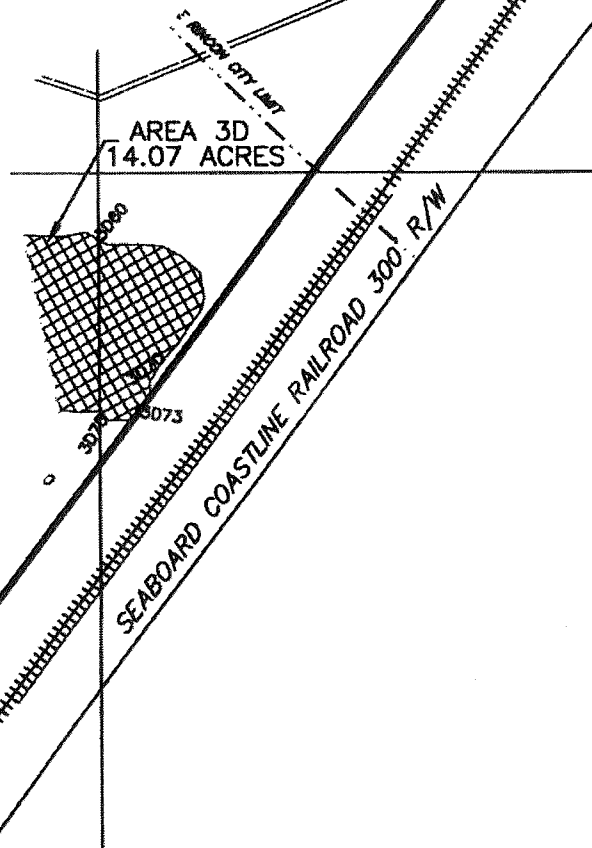
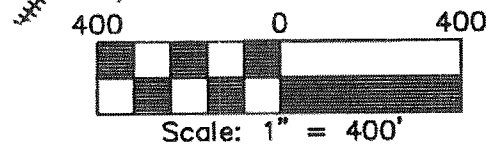
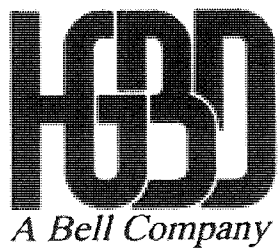


JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# R258-12



JURISDICTIONAL WETLAND EXHIBIT
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PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

LINE	BEARING	DISTANCE
B1	N 58°19'43" E	43.08'
B2	N 52°32'24" E	46.83'
B3	N 35°32'37" E	49.69'
B4	N 08°22'36" W	53.61'
B5	N 36°56'07" E	74.97'
B6	N 38°54'13" E	62.88'
B7	N 48°05'28" E	74.82'
B8	N 40°57'25" E	82.24'
B9	N 18°28'11" E	43.17'
B10	N 37°24'33" E	52.60'
B11	N 53°40'57" E	79.46'
B12	N 20°38'47" E	51.76'
B13	N 57°33'57" E	51.16'
B14	N 22°10'17" E	27.05'
B15	S 79°35'33" E	21.37'
B16	S 85°34'51" E	20.10'
B17	N 79°18'36" E	32.29'
B18	N 39°33'31" E	50.19'
B19	N 34°36'25" E	54.48'
B20	N 29°05'20" E	24.26'
B21	N 55°59'58" E	37.99'
B22	S 40°02'33" E	49.38'
B23	S 42°48'54" E	48.14'
B24	N 57°52'11" E	19.60'
B25	S 41°01'42" E	119.89'
B26	S 19°56'21" W	24.17'
B27	S 59°30'42" W	37.90'
B28	S 21°07'26" W	41.56'
B29	S 36°44'56" W	48.94'
B30	S 39°16'52" W	64.46'
B31	S 14°48'06" W	56.71'
B32	S 46°27'47" W	71.50'
B33	S 40°33'13" W	57.39'
B34	S 58°48'19" W	48.15'
B35	S 64°54'08" W	42.43'
B36	N 85°30'58" W	56.29'
B37	S 69°42'16" W	80.34'
B38	S 40°31'10" W	69.75'
B39	S 48°50'08" W	69.53'
B40	S 62°39'17" W	101.63'
B41	S 40°07'19" W	70.04'
B42	S 16°06'08" W	56.64'
B43	S 34°23'26" W	71.77'
B44	N 31°21'27" W	146.94'

LINE	BEARING	DISTANCE
G1	N 86°23'40" W	23.09'
G2	S 11°45'28" E	33.67'
G3	S 41°47'59" W	86.97'
G4	S 61°20'13" W	52.82'
G5	N 60°23'26" W	33.22'
G6	N 54°49'12" W	39.73'
G7	N 28°52'36" W	39.29'
G8	N 04°39'55" W	59.37'
G9	N 09°45'48" E	66.48'
G10	N 36°56'31" E	37.00'
G11	N 28°31'26" E	49.85'
G12	N 35°16'52" E	89.06'
G13	S 23°11'07" E	243.07'

LINE	BEARING	DISTANCE
J1	S 25°41'06" E	343.62'
J2	S 34°02'50" W	53.82'
J3	N 28°55'23" W	57.76'
J4	S 60°54'57" W	72.12'
J5	N 88°45'37" W	48.39'
J6	S 74°38'01" W	46.11'
J7	S 48°38'46" W	48.39'
J8	S 10°27'38" W	63.90'
J9	S 00°14'21" W	35.71'
J10	S 32°51'29" E	38.66'
J11	S 02°40'10" E	53.31'
J12	S 00°14'02" W	90.86'
J13	S 35°31'53" W	34.31'
J14	N 70°23'41" W	49.71'
J15	S 35°42'06" W	58.36'
J16	S 89°48'56" W	48.13'
J17	S 42°50'20" W	77.30'
J18	S 64°54'28" W	60.60'
J19	S 67°02'09" W	74.83'
J20	S 89°36'40" W	62.20'
J21	S 13°56'38" W	39.10'
J22	S 22°57'35" W	68.51'
J23	S 01°10'48" W	55.80'
J24	S 35°34'11" W	78.54'
J25	S 23°43'58" E	65.54'
J26	S 01°35'54" W	124.87'
J27	S 72°56'45" W	68.11'
J28	N 56°29'45" W	71.68'
J29	N 42°46'44" W	81.24'
J30	S 76°05'27" W	61.01'
J31	N 85°20'34" W	58.99'
J32	S 77°10'21" W	48.40'

LINE	BEARING	DISTANCE
J33	S 49°16'26" W	55.12'
J34	S 40°25'57" W	58.83'
J35	S 32°15'40" W	62.82'
J36	S 39°02'51" W	58.08'
J37	S 09°36'44" W	46.57'
J38	S 37°59'59" W	61.91'
J39	S 77°56'16" W	48.25'
J40	S 49°50'21" W	54.24'
J41	S 09°47'07" W	48.69'
J42	S 30°14'24" W	64.16'
J43	S 25°46'26" W	47.13'
J44	S 33°49'02" W	52.04'
J45	S 63°45'19" W	38.15'
J46	S 42°55'26" W	35.12'
J47	N 69°48'57" W	51.74'
J48	N 67°29'49" W	49.52'
J49	S 67°48'23" W	65.33'
J50	S 51°33'45" W	40.58'
J51	S 36°30'31" W	180.52'
J52	S 42°02'29" W	77.34'
J53	S 58°35'32" W	75.64'
J54	S 20°56'21" E	5.60'
J55	N 87°12'58" W	36.71'
J56	S 83°03'04" W	66.45'
J57	N 34°42'32" W	137.05'
J58	N 37°54'24" E	56.96'
J59	N 29°04'52" E	55.41'
J60	N 60°05'31" E	59.08'
J61	N 85°56'24" E	53.30'
J62	N 71°49'28" E	47.61'
J63	N 55°12'27" E	48.83'
J64	N 51°53'41" E	58.84'
J65	N 37°15'46" E	57.53'
J66	N 19°21'29" E	45.95'
J67	N 53°03'08" E	59.54'
J68	N 39°04'30" E	54.61'
J69	N 10°55'24" E	57.28'
J70	N 22°10'59" E	54.74'
J71	N 05°56'14" W	54.22'
J72	N 34°06'59" E	47.29'
J73	N 29°45'51" W	60.76'
J74	N 58°48'34" W	37.85'
J75	N 48°51'32" E	47.45'
J76	S 84°33'06" E	59.52'
J77	S 63°39'09" E	40.38'
J78	S 74°03'30" E	45.63'
J79	S 39°31'47" E	25.99'
J80	S 65°53'05" E	70.85'

LINE	BEARING	DISTANCE
J81	S 49°44'49" E	23.55'
J82	N 35°24'24" E	55.41'
J83	N 17°12'56" E	64.65'
J84	N 23°27'58" E	70.90'
J85	N 22°11'35" E	95.31'
J86	N 36°21'06" W	3.71'
J87	N 33°17'54" E	101.71'
J88	N 41°41'57" E	74.79'
J89	N 45°29'21" E	100.36'
J90	N 58°05'05" E	343.91'
J91	N 51°20'29" E	182.50'
J92	N 23°54'41" E	63.41'
J93	N 14°17'11" E	96.27'
J94	N 47°07'31" E	292.87'
J95	N 51°45'17" E	292.62'
J96	S 50°14'56" E	7.66'

LINE	BEARING	DISTANCE
K1	S 08°50'39" E	31.11'
K2	S 28°10'21" W	42.92'
K3	S 04°17'16" W	40.97'
K4	S 46°08'23" W	36.15'
K5	S 39°45'54" W	46.46'
K6	S 52°47'35" W	47.09'
K7	S 77°37'42" W	53.13'
K8	S 58°56'44" W	44.76'
K9	S 60°45'35" W	43.10'
K10	S 12°17'16" E	32.40'
K11	S 20°35'17" W	50.02'
K12	S 79°16'53" W	39.73'
K13	N 77°57'21" W	20.77'
K14	S 67°40'40" W	37.01'
K15	S 48°46'31" W	33.87'
K16	N 84°03'04" W	44.25'
K17	S 68°50'44" W	36.51'
K18	S 85°13'01" W	33.90'
K19	S 47°35'00" W	37.96'
K20	S 49°41'47" W	40.37'
K21	N 81°21'00" W	38.09'
K22	S 52°03'20" W	28.24'
K23	N 69°54'43" W	38.52'
K24	N 88°15'06" W	22.49'
K25	S 64°15'41" W	49.21'
K26	S 52°39'28" W	3.35'
K27	N 79°37'40" W	46.64'
K28	N 38°02'48" W	43.14'
K29	N 32°18'25" E	38.77'
K30	N 46°56'00" E	56.84'



JURISDICTIONAL WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

K31	N 23°33'50" E	36.67'
K32	N 78°17'12" E	33.76'
K33	N 27°51'15" E	40.35'
K34	N 54°17'57" E	39.59'
K35	N 53°40'08" E	59.27'
K36	N 62°00'01" E	47.30'
K37	N 50°22'53" E	57.01'
K38	N 45°04'52" E	59.47'
K39	N 73°45'26" E	38.15'
K40	N 74°17'20" E	24.75'
K41	N 69°28'38" E	63.67'
K42	N 61°53'34" E	35.56'
K43	N 66°03'19" E	60.62'
K44	N 76°08'05" E	74.37'
K45	N 49°43'05" E	49.22'
K46	N 65°02'30" E	48.80'
K47	N 69°00'41" E	44.32'
K48	S 88°28'24" E	40.36'
K49	N 83°31'39" E	30.16'
K50	S 51°55'47" E	29.56'
K51	S 57°30'01" W	40.34'
K52	S 41°22'48" W	30.46'

LINE	BEARING	DISTANCE
M1	S 48°49'34" W	69.26'
M2	S 23°53'10" W	68.07'
M3	S 06°08'52" W	41.21'
M4	S 46°00'20" W	58.98'
M5	S 89°12'02" W	49.45'
M6	S 65°43'23" W	61.55'
M7	S 51°53'44" W	62.87'
M8	S 34°54'23" W	31.91'
M9	S 25°30'06" W	61.86'
M10	S 51°50'40" W	38.43'
M11	S 70°41'03" W	63.30'
M12	N 81°45'48" W	54.10'
M13	N 89°21'43" W	41.94'
M14	N 79°13'05" W	29.92'
M15	N 14°29'30" W	41.76'
M16	N 19°23'52" E	43.90'
M17	N 41°01'37" E	44.24'
M18	N 49°41'51" E	45.30'
M19	N 25°39'51" E	36.52'
M20	N 10°29'57" E	38.20'
M21	N 78°27'16" E	33.84'
M22	N 62°48'29" E	61.67'

M23	N 64°30'20" E	53.54'
M24	N 57°12'37" E	69.23'
M25	N 57°50'47" E	57.11'
M26	N 50°15'08" E	69.88'
M27	N 44°02'45" E	67.81'
M28	N 50°12'08" E	45.64'
M29	N 77°38'00" E	69.56'
M30	S 74°24'17" E	44.61'
M31	S 08°48'22" E	50.06'
M32	S 41°43'23" W	69.98'

LINE	BEARING	DISTANCE
N1	N 47°40'19" E	43.78'
N2	N 03°53'46" W	59.45'
N3	N 65°32'29" E	62.54'
N4	N 77°29'24" E	47.24'
N5	N 76°40'18" E	52.62'
N6	S 55°45'30" E	62.15'
N7	S 26°08'17" E	54.14'
N8	S 20°30'57" E	44.31'
N9	S 04°34'57" E	45.15'
N10	S 07°10'22" E	30.29'
N11	S 40°45'48" E	26.78'
N12	S 28°59'23" E	40.76'
N13	S 10°14'55" E	46.40'
N14	S 10°15'23" W	38.17'
N15	S 23°35'07" E	33.38'
N16	S 16°27'20" E	33.72'
N17	S 57°08'05" W	40.10'
N18	S 44°31'48" W	28.70'
N19	S 18°46'40" W	25.61'
N20	S 26°48'16" W	37.04'
N21	S 14°06'20" W	56.04'
N22	S 35°59'25" W	19.47'
N23	S 61°42'55" W	22.08'
N24	S 54°24'55" W	27.14'
N25	S 65°47'18" W	56.91'
N26	S 70°29'04" W	49.80'
N27	S 80°05'06" W	55.21'
N28	N 75°14'04" W	55.36'
N29	N 83°58'07" W	47.38'
N30	N 54°25'32" W	74.26'
N31	N 28°18'56" W	58.34'
N32	N 10°17'05" W	86.44'
N33	N 03°22'18" W	68.25'
N34	N 33°07'41" E	77.42'

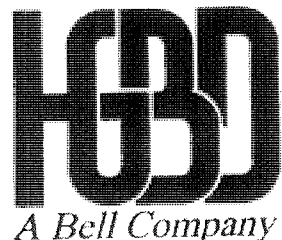
N35	N 27°25'32" E	64.91'
N36	N 12°41'46" E	75.07'
N37	N 66°28'42" E	38.22'
N38	N 51°41'52" E	52.44'

LINE	BEARING	DISTANCE
P1	N 53°22'22" W	35.12'
P2	N 31°01'54" W	48.72'
P3	N 27°38'20" W	55.62'
P4	N 13°30'13" E	62.20'
P5	N 51°44'16" E	45.06'
P6	N 72°31'57" E	37.42'
P7	N 46°37'30" E	45.48'
P8	S 81°46'18" E	57.34'
P9	S 57°55'43" E	62.74'
P10	S 34°47'33" E	58.85'
P11	S 28°12'29" E	43.79'
P12	S 20°40'29" E	56.47'
P13	S 22°02'16" E	65.56'
P14	S 01°09'09" E	48.59'
P15	S 44°36'50" W	32.94'
P16	S 28°47'16" W	42.17'
P17	S 89°42'02" W	39.62'
P18	S 62°08'04" W	31.45'
P19	S 86°45'22" W	46.50'
P20	N 75°05'35" W	32.66'
P21	N 15°51'58" W	38.38'
P22	N 25°24'56" W	44.14'
P23	N 38°45'08" W	49.43'

LINE	BEARING	DISTANCE
Q1	N 31°05'35" E	30.62'
Q2	N 85°38'55" E	47.07'
Q3	S 79°11'54" E	39.89'
Q4	S 60°54'48" E	49.02'
Q5	S 21°45'10" E	38.50'
Q6	S 17°03'45" E	35.89'
Q7	S 15°28'36" E	54.00'
Q8	S 43°37'42" W	46.47'
Q9	S 71°08'09" W	36.06'
Q10	N 78°16'29" W	39.85'
Q11	N 68°47'19" W	45.67'
Q12	N 53°16'57" W	50.21'
Q13	N 27°55'03" W	52.06'
Q14	N 07°07'39" E	34.17'
Q15	N 35°08'24" E	42.02'

LINE	BEARING	DISTANCE
R1	N 86°18'51" E	35.37'
R2	S 49°53'59" E	46.48'
R3	S 31°59'45" E	45.88'
R4	S 76°39'40" E	41.18'
R5	S 80°39'54" E	64.20'
R6	S 51°39'47" E	46.15'
R7	S 30°39'53" E	38.54'
R8	S 41°14'49" W	53.09'
R9	S 08°00'41" W	40.36'
R10	S 12°39'10" W	47.18'
R11	S 41°19'40" W	32.30'
R12	S 64°48'12" W	60.02'
R13	N 83°28'46" W	57.03'
R14	N 39°14'39" W	47.94'
R15	N 02°07'21" W	49.63'
R16	N 34°39'43" W	45.14'
R17	N 10°28'28" W	60.40'
R18	N 30°16'50" W	56.54'
R19	N 04°25'25" E	54.38'
R20	N 35°05'43" E	38.19'

LINE	BEARING	DISTANCE
S1	S 07°01'37" E	64.84'
S2	S 00°01'08" W	36.22'
S3	S 37°47'27" W	27.85'
S4	S 40°45'32" W	20.92'
S5	N 59°21'16" W	38.69'
S6	N 58°52'15" W	43.87'
S7	N 74°14'18" W	38.88'
S8	N 56°43'45" W	38.79'
S9	N 28°57'09" W	57.56'
S10	N 20°21'46" W	51.28'
S11	N 29°18'18" W	42.37'
S12	N 63°36'51" E	36.56'
S13	N 51°05'14" E	48.11'
S14	S 85°03'28" E	29.20'
S15	S 60°17'53" E	51.15'
S16	S 67°02'59" E	51.15'
S17	S 49°38'57" E	31.50'
S18	S 19°03'22" E	51.03'



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 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

LINE	BEARING	DISTANCE
T1	S 89°41'20" E	42.17'
T2	S 33°48'43" E	48.07'
T3	S 22°31'49" E	66.22'
T4	S 27°59'56" E	63.18'
T5	S 47°52'13" E	53.62'
T6	S 45°07'21" E	60.92'
T7	S 17°00'48" E	78.03'
T8	S 16°50'35" W	67.82'
T9	S 15°51'55" W	58.81'
T10	S 38°20'36" W	48.56'
T11	S 48°41'03" W	62.04'
T12	S 60°14'43" W	47.61'
T13	N 15°12'38" W	57.16'
T14	N 08°31'53" W	57.12'
T15	N 02°35'34" E	73.61'
T16	N 06°25'24" E	62.41'
T17	N 10°40'07" W	76.31'
T18	N 14°29'47" W	61.74'
T19	N 26°53'11" W	63.21'
T20	N 28°00'59" W	79.12'
T21	N 35°02'08" E	33.89'
T22	S 74°17'05" E	8.18'
T23	N 84°15'17" E	5.92'

LINE	BEARING	DISTANCE
U1	S 37°04'53" E	14.37'
U2	S 57°56'41" W	91.21'
U3	S 58°10'32" W	261.57'
U4	S 57°24'06" W	136.93'
U5	S 55°54'32" W	176.89'
U6	S 59°39'55" E	42.48'
U7	S 01°12'48" W	30.18'
U8	S 11°55'11" W	56.84'
U9	S 68°59'48" W	50.54'
U10	S 73°45'49" W	56.28'
U11	S 45°22'59" W	53.61'
U12	S 74°27'52" W	32.05'
U13	N 53°18'49" W	44.48'
U14	N 79°10'46" W	58.20'
U15	S 57°05'19" W	550.08'
U16	S 57°41'34" W	340.03'
U17	S 55°16'03" W	247.41'
U18	S 09°59'34" E	34.75'
U19	S 15°05'07" W	39.00'

U20	S 79°28'03" W	41.18'
U21	S 67°48'06" W	50.00'
U22	S 62°01'59" W	45.61'
U23	S 66°08'59" W	53.35'
U24	N 15°55'16" W	30.79'
U25	S 58°03'11" W	194.96'
U26	S 41°07'15" E	29.37'
U27	S 38°53'49" W	43.34'
U28	S 65°02'54" W	50.11'
U29	S 72°54'11" W	43.54'
U30	N 64°29'28" W	23.54'
U31	S 35°30'36" W	53.08'
U32	S 33°24'09" W	52.68'
U33	S 44°02'53" W	43.50'
U34	S 55°50'24" W	47.62'
U35	S 53°09'42" W	56.55'
U36	S 67°53'29" W	40.79'
U37	S 34°14'06" W	59.74'
U38	S 33°53'09" W	47.27'
U39	S 49°33'07" W	39.23'
U40	S 29°36'34" W	56.61'
U41	S 37°52'54" W	58.69'
U42	S 12°16'15" W	59.85'
U43	S 31°20'01" W	69.16'
U44	S 45°19'14" W	42.96'
U45	N 84°25'59" W	43.54'
U46	N 14°52'10" W	22.53'
U47	N 15°42'32" W	23.76'
U48	N 11°31'49" W	27.54'
U49	N 23°41'36" W	62.84'
U50	N 57°17'01" W	35.65'
U51	S 52°56'34" W	25.27'
U52	S 75°29'49" W	41.38'
U53	N 18°34'51" W	54.97'
U54	N 28°20'27" E	46.04'
U55	N 04°15'44" E	33.10'
U56	N 27°38'06" E	42.44'
U57	N 49°42'37" W	47.23'
U58	N 64°07'10" W	43.99'
U59	S 72°51'43" W	44.25'
U60	N 14°32'57" W	59.38'
U61	N 27°46'48" W	46.78'
U62	N 30°52'36" W	68.38'
U63	N 11°05'30" E	35.83'
U64	N 01°42'04" W	61.78'

U65	N 27°47'24" E	32.21'
U66	N 32°31'56" W	42.78'
U67	N 32°56'14" W	35.71'
U68	N 23°45'51" W	43.82'
U69	N 15°18'30" W	42.01'
U70	N 23°32'14" W	36.29'
U71	N 55°07'03" W	37.64'
U72	N 34°16'55" W	40.72'
U73	N 60°23'19" W	44.46'
U74	S 78°15'31" W	30.63'
U75	S 53°09'47" W	19.40'
U76	N 26°46'38" W	46.35'
U77	N 49°18'29" W	33.22'
U78	N 56°20'36" E	41.27'
U79	N 06°26'22" W	49.02'
U80	N 07°42'31" E	28.70'
U81	S 70°11'48" E	50.21'
U82	S 89°35'25" E	33.55'
U83	S 86°47'40" E	28.86'
U84	S 64°16'19" E	32.94'
U85	S 26°15'41" E	36.96'
U86	N 62°35'33" E	39.87'
U87	N 81°49'39" E	40.00'
U88	S 83°51'40" E	36.85'
U89	S 72°53'08" E	33.77'
U90	N 73°06'48" E	27.70'
U91	N 68°49'25" E	27.86'
U92	N 68°09'27" E	37.95'
U93	S 83°43'49" E	24.70'
U94	S 60°26'18" E	39.18'
U95	N 60°27'35" E	39.86'
U96	N 29°21'16" E	38.41'
U97	N 73°51'41" E	49.14'
U98	S 41°22'38" E	9.32'
U99	S 28°25'45" E	50.03'
U100	S 18°13'57" E	43.79'
U101	S 00°42'21" W	45.62'
U102	S 28°07'06" E	69.49'
U103	N 78°24'29" E	39.70'
U104	N 27°22'12" E	40.55'
U105	N 11°07'20" E	45.59'
U106	N 08°18'05" E	35.74'
U107	N 21°16'36" W	38.62'
U108	N 13°04'48" E	22.65'
U109	N 46°34'20" E	35.48'

U110	N 76°19'37" E	49.96'
U111	S 51°46'03" E	63.51'
U112	S 30°43'19" E	29.38'
U113	S 27°16'43" E	75.55'
U114	S 29°31'36" W	31.40'
U115	S 75°49'57" W	70.26'
U116	N 51°16'50" W	55.62'
U117	S 12°13'26" W	52.16'
U118	S 21°18'20" W	37.45'
U119	S 68°56'49" W	43.87'
U120	S 56°05'36" W	38.13'
U121	S 43°34'39" W	28.54'
U122	S 81°48'51" W	43.73'
U123	S 40°08'25" W	42.48'
U124	S 34°19'16" W	61.56'
U125	S 31°38'18" W	46.05'
U126	S 57°12'12" E	55.72'
U127	S 61°44'14" E	59.69'
U128	S 00°40'19" W	38.96'
U129	N 86°52'09" E	41.45'
U130	N 27°05'41" E	47.60'
U131	S 62°18'10" E	60.53'
U132	N 80°25'07" E	38.85'
U133	N 37°17'39" E	26.72'
U134	N 11°26'01" W	40.81'
U135	N 35°29'34" E	52.82'
U136	N 37°35'04" E	55.36'
U137	N 10°55'48" E	57.87'
U138	N 63°22'43" E	66.86'
U139	N 73°26'44" E	46.16'
U140	N 59°52'19" E	58.50'
U141	S 89°30'40" E	70.81'
U142	N 68°18'21" E	37.50'
U143	N 33°25'54" E	59.61'
U144	N 60°20'22" E	54.35'
U145	N 44°28'42" E	51.61'
U146	S 83°24'54" E	50.17'
U147	N 42°37'13" E	45.79'
U148	N 24°18'32" W	49.46'
U149	N 53°06'53" W	41.20'
U150	N 10°04'13" W	45.84'
U151	N 48°50'38" E	38.60'
U152	S 89°59'54" E	34.40'
U153	S 82°36'48" E	52.60'
U154	S 85°53'01" E	36.75'



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 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

U155	S 32°52'39" E	55.00'
U156	S 32°11'43" E	59.16'
U157	S 32°08'55" E	63.60'
U158	S 29°52'37" E	46.63'
U159	S 20°44'56" E	31.58'
U160	S 56°37'12" E	27.10'
U161	N 26°04'06" E	57.01'
U162	N 27°46'01" E	50.68'
U163	N 01°48'07" W	39.09'
U164	N 31°20'47" E	44.85'
U165	N 36°22'10" W	40.83'
U166	N 50°33'46" W	46.55'
U167	N 43°11'28" W	52.04'
U168	N 09°10'24" E	42.72'
U169	N 75°51'32" E	46.13'
U170	S 18°12'59" E	17.24'
U171	N 82°50'05" E	54.50'
U172	N 23°46'34" E	55.71'
U173	N 17°02'28" E	38.01'
U174	N 02°31'32" W	59.03'
U175	N 38°52'03" E	57.35'
U176	N 74°21'04" E	48.11'
U177	N 46°49'31" E	61.98'
U178	N 22°01'13" E	74.72'
U179	N 71°55'04" E	60.70'
U180	N 75°33'39" E	55.37'
U181	N 65°11'19" E	52.81'
U182	N 54°09'23" E	41.21'
U183	N 57°09'14" E	54.55'
U184	N 74°26'29" E	36.01'
U185	N 26°03'45" E	43.74'
U186	N 18°57'04" W	32.11'
U187	N 35°14'06" E	37.30'
U188	S 87°31'14" E	32.32'
U189	S 85°36'31" E	27.86'
U190	N 67°47'21" E	16.65'
U191	S 30°31'26" E	66.41'
U192	S 23°36'29" E	62.89'
U193	S 24°01'55" E	53.20'
U194	N 80°12'47" E	40.06'
U195	S 07°59'17" E	13.02'
U196	S 05°37'20" E	42.83'
U197	S 55°57'01" E	32.88'
U198	S 10°44'34" E	33.77'
U199	S 23°34'20" E	33.22'

U200	S 35°51'45" E	17.71'
U201	S 43°16'34" E	5.43'
U202	N 57°30'47" E	226.80'
U203	N 55°45'09" E	29.94'
U204	N 82°37'14" E	36.22'
U205	N 04°18'24" W	23.04'
U206	N 24°41'40" E	40.33'
U207	S 87°40'59" E	31.54'
U208	S 67°08'36" E	14.24'
U209	N 58°59'11" E	178.04'
U210	N 56°34'19" E	87.28'
U211	N 63°27'59" E	38.17'
U212	N 08°13'13" W	25.98'
U213	N 11°36'16" E	33.19'
U214	N 22°48'42" E	41.86'
U215	N 38°00'44" E	39.49'
U216	N 08°29'47" E	39.87'
U217	N 00°33'26" W	45.24'
U218	N 08°49'10" W	51.13'
U219	N 21°34'17" E	47.91'
U220	N 14°37'35" W	57.03'
U221	N 27°42'04" E	83.40'
U222	N 18°53'33" E	66.22'
U223	N 09°42'30" E	56.96'
U224	N 33°06'44" E	50.68'
U225	N 30°25'46" E	42.02'
U226	S 75°42'29" E	35.83'
U227	S 14°54'06" E	59.68'
U228	S 08°17'56" E	51.05'
U229	S 32°12'05" W	50.14'
U230	S 64°00'49" W	36.74'
U231	S 06°06'47" W	21.69'
U232	S 26°44'44" E	39.89'
U233	S 52°03'32" E	55.26'
U234	S 47°48'21" E	47.31'
U235	S 20°41'13" E	49.64'
U236	S 05°08'06" W	35.98'
U237	S 69°45'52" E	30.05'
U238	S 38°37'34" E	33.96'

LINE	BEARING	DISTANCE
V1	N 12°15'09" W	29.19'
V2	N 02°58'27" W	47.89'
V3	N 00°44'04" E	34.33'
V4	N 13°13'07" E	48.91'
V5	N 34°11'00" W	32.72'
V6	N 39°19'54" W	54.57'
V7	N 39°31'16" W	53.78'
V8	N 81°35'13" W	48.60'
V9	N 13°32'29" E	31.36'
V10	N 11°20'00" E	47.67'
V11	N 39°12'33" E	19.20'
V12	N 15°22'00" W	50.14'
V13	N 57°43'50" W	39.34'
V14	N 63°46'37" W	50.11'
V15	N 04°39'44" W	38.86'
V16	N 88°34'13" E	45.21'
V17	S 60°41'00" E	28.87'
V18	S 54°01'25" E	41.75'
V19	N 22°53'25" E	24.03'
V20	N 52°50'08" E	56.21'
V21	S 65°18'11" E	37.61'
V22	S 86°40'40" E	67.48'
V23	S 74°45'48" E	54.94'
V24	S 44°34'21" E	40.57'
V25	S 31°44'18" E	74.13'
V26	S 41°42'16" E	63.14'
V27	S 85°08'54" E	36.44'
V28	S 53°22'53" E	42.02'
V29	N 72°32'33" E	52.17'
V30	N 83°48'54" E	51.11'
V31	N 60°54'49" E	45.25'
V32	S 88°40'39" E	42.59'
V33	S 85°06'27" E	54.96'
V34	S 57°31'32" E	51.54'
V35	S 66°24'05" E	38.87'
V36	S 65°15'52" E	44.87'
V37	S 60°29'07" E	44.11'
V38	S 23°28'31" E	54.60'
V39	S 07°03'13" E	50.11'
V40	S 34°56'59" W	45.80'
V41	S 23°27'01" W	48.10'
V42	N 64°40'13" W	50.57'
V43	N 21°51'34" W	49.61'
V44	N 16°34'22" E	37.91'

V45	N 61°58'23" W	46.68'
V46	N 35°40'21" W	44.77'
V47	S 84°32'35" W	56.25'
V48	S 80°59'01" W	33.68'
V49	N 81°04'36" W	35.65'
V50	N 81°57'41" W	45.87'
V51	S 33°28'54" W	40.18'
V52	S 80°52'10" W	43.82'
V53	S 55°51'27" W	80.05'
V54	S 55°35'03" W	111.87'
V55	S 60°10'58" W	171.82'
V56	N 32°13'16" W	6.04'

LINE	BEARING	DISTANCE
W1	S 55°09'59" E	105.24'
W2	S 26°34'29" E	125.66'
W3	S 11°43'37" W	48.82'
W4	S 36°52'34" E	90.66'
W5	S 40°53'50" W	74.83'
W6	N 64°33'57" W	52.02'
W7	N 86°17'26" W	58.69'
W8	N 58°06'41" W	72.73'
W9	N 43°29'24" W	54.82'
W10	N 01°44'55" E	46.89'
W11	N 20°10'46" W	50.18'
W12	N 03°59'15" W	48.66'
W13	N 00°27'01" W	42.76'
W14	N 48°49'40" E	54.26'
W15	N 62°54'20" E	44.14'



JURISDICTIONAL WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

LINE	BEARING	DISTANCE
X1	N 28°34'12" W	31.21'
X2	N 02°14'09" E	47.22'
X3	N 07°08'50" W	49.88'
X4	N 02°45'28" W	75.97'
X5	N 08°11'36" E	53.86'
X6	N 36°40'15" W	48.94'
X7	N 25°23'46" W	60.58'
X8	N 04°35'57" W	77.53'
X9	N 06°21'34" E	45.20'
X10	N 29°57'35" W	43.41'
X11	N 20°56'08" E	47.26'
X12	N 82°45'29" E	42.15'
X13	N 58°45'24" E	48.57'
X14	N 74°46'22" E	10.88'
X15	S 15°01'31" E	21.87'
X16	N 69°45'01" E	63.53'
X17	S 00°08'45" W	52.17'
X18	S 07°30'59" E	64.87'
X19	S 00°28'14" W	40.91'
X20	S 26°19'05" E	62.84'
X21	S 19°31'41" E	48.77'
X22	S 40°33'23" E	66.60'
X23	S 26°43'10" E	61.50'
X24	S 14°34'48" E	68.45'
X25	S 55°40'58" W	272.90'

LINE	BEARING	DISTANCE
Y1	N 36°52'13" W	51.41'
Y2	N 35°30'00" W	39.46'
Y3	N 25°08'52" E	46.14'
Y4	N 34°33'48" E	71.23'
Y5	N 87°27'11" E	61.68'
Y6	S 85°13'07" E	36.64'
Y7	N 87°42'40" E	26.47'
Y8	S 66°12'52" E	60.05'
Y9	S 64°32'30" E	59.09'
Y10	S 10°33'22" E	59.40'
Y11	S 14°41'30" E	56.21'
Y12	S 02°01'43" E	32.35'
Y13	S 22°22'06" W	40.85'
Y14	S 67°32'37" W	51.28'
Y15	S 43°34'40" W	48.35'
Y16	S 71°54'31" W	49.68'
Y17	N 53°09'35" W	51.41'
Y18	N 41°35'03" W	65.26'
Y19	N 38°40'29" W	62.07'

LINE	BEARING	DISTANCE
Z1	N 52°43'01" E	17.39'
Z2	N 61°07'59" E	26.87'
Z3	N 80°51'13" E	53.61'
Z4	S 42°01'56" E	50.80'
Z5	S 51°22'49" E	33.48'
Z6	S 51°52'28" E	53.78'
Z7	S 33°23'43" W	34.78'
Z8	N 75°02'47" W	33.20'
Z9	N 64°36'55" W	50.33'
Z10	N 87°40'35" W	31.45'
Z11	N 65°41'55" W	50.05'
Z12	N 27°20'18" W	41.46'

LINE	BEARING	DISTANCE
2A1	S 77°59'28" W	220.93'
2A2	S 63°12'24" W	138.12'
2A3	S 65°43'04" W	137.52'
2A4	S 89°08'46" W	69.11'
2A5	S 10°36'25" E	9.43'
2A6	S 26°09'20" W	53.07'
2A7	S 82°08'42" W	33.29'
2A8	S 56°53'58" W	44.81'
2A9	S 27°30'10" W	43.31'
2A10	S 13°50'49" W	46.20'
2A11	S 34°59'01" W	43.80'
2A12	S 21°34'54" W	60.09'
2A13	S 13°09'30" W	72.85'
2A14	S 29°21'12" W	89.04'
2A15	S 25°22'42" W	40.19'
2A16	N 59°22'28" W	36.96'
2A17	N 86°03'47" W	51.73'
2A18	N 65°25'35" W	45.25'
2A19	S 84°12'22" W	31.68'
2A20	S 57°17'30" W	25.14'
2A21	S 45°08'18" W	26.63'
2A22	S 24°41'37" E	36.04'
2A23	S 65°05'58" E	34.72'
2A24	N 89°50'02" E	33.78'
2A25	S 05°34'08" E	38.88'
2A26	S 20°51'20" W	57.58'
2A27	S 34°25'24" W	49.63'
2A28	S 30°59'40" W	37.86'
2A29	S 36°39'52" W	59.46'
2A30	N 78°24'43" W	55.16'
2A31	N 14°33'09" W	50.93'
2A32	N 08°00'17" E	44.64'

LINE	BEARING	DISTANCE
2A33	N 20°20'23" W	27.02'
2A34	N 83°48'08" W	35.58'
2A35	S 79°24'37" W	32.03'
2A36	S 75°54'01" W	26.32'
2A37	S 18°21'42" W	36.34'
2A38	S 11°27'48" E	40.68'
2A39	S 26°00'27" W	40.13'
2A40	S 59°52'01" W	67.36'
2A41	N 87°22'14" W	43.57'
2A42	N 37°37'42" W	36.17'
2A43	N 56°37'59" W	47.77'
2A44	S 55°26'12" W	86.21'
2A45	S 61°03'29" W	62.29'
2A46	S 46°51'40" W	76.32'
2A47	N 26°40'41" W	37.14'
2A48	N 60°39'36" W	49.36'
2A49	S 45°45'33" W	34.80'
2A50	S 56°00'14" W	39.03'
2A51	S 27°30'28" W	62.49'
2A52	S 05°29'27" W	47.00'
2A53	S 35°42'34" W	47.44'
2A54	S 33°18'45" W	33.20'
2A55	S 39°37'20" W	67.65'
2A56	S 59°23'38" W	62.07'
2A57	N 68°42'24" W	53.89'
2A58	N 07°28'39" W	43.83'
2A59	N 72°56'20" W	14.83'
2A60	S 41°56'56" W	31.26'
2A61	S 60°55'17" W	19.16'
2A62	S 86°27'06" W	100.11'
2A63	S 73°16'54" W	109.22'
2A64	S 67°25'37" W	97.65'
2A65	S 40°40'26" W	39.26'
2A66	S 18°10'40" W	85.62'
2A67	S 17°18'18" E	6.75'
2A68	S 29°03'18" E	54.98'
2A69	S 24°02'27" E	48.31'
2A70	S 15°27'23" E	22.68'
2A71	S 28°12'18" W	20.41'
2A72	S 12°31'44" E	52.56'
2A73	S 80°26'39" W	50.11'
2A74	N 76°48'03" W	45.51'
2A75	S 70°42'42" W	80.63'
2A76	S 51°41'10" W	70.79'
2A77	N 83°04'44" W	48.95'
2A78	S 51°31'17" W	47.22'
2A79	S 57°39'53" W	49.64'

LINE	BEARING	DISTANCE
2A80	S 55°56'25" W	37.02'
2A81	S 01°47'19" W	56.55'
2A82	S 49°20'40" W	49.44'
2A83	S 44°44'41" W	34.12'
2A84	S 07°52'30" E	71.37'
2A85	S 02°17'55" W	32.71'
2A86	S 00°24'08" E	49.91'
2A87	S 20°39'26" W	53.97'
2A88	S 84°56'37" W	28.31'
2A89	S 35°20'27" W	66.94'
2A90	N 76°38'18" W	42.58'
2A91	N 66°07'47" W	36.50'
2A92	S 67°38'00" W	52.76'
2A93	S 82°08'43" W	44.77'
2A94	N 89°51'10" W	26.08'
2A95	N 65°13'42" W	68.78'
2A96	S 81°12'02" W	52.99'
2A97	S 63°04'52" W	48.53'
2A98	S 34°31'33" W	67.92'
2A99	N 87°30'06" W	52.40'
2A100	S 42°09'10" W	55.33'
2A101	S 11°36'16" W	60.64'
2A102	S 28°27'10" W	69.46'
2A103	S 27°22'20" W	54.10'
2A104	S 87°45'40" W	38.17'
2A105	S 28°54'41" W	55.47'
2A106	S 81°37'00" W	52.48'
2A107	S 63°17'10" W	66.23'
2A108	N 83°09'03" W	51.66'
2A109	S 71°55'21" W	62.24'
2A110	S 84°13'14" W	64.38'
2A111	S 64°09'08" W	58.56'
2A112	S 24°23'16" W	60.68'
2A113	S 23°46'39" W	63.94'
2A114	S 58°20'30" W	47.09'
2A115	N 66°59'14" W	52.22'
2A116	N 64°24'35" W	66.27'
2A117	N 43°00'28" W	82.56'
2A118	N 42°30'25" W	51.87'
2A119	N 46°21'14" W	67.19'
2A120	N 49°32'11" W	33.26'
2A121	N 25°07'11" E	26.67'
2A122	N 48°46'25" E	64.71'
2A123	N 16°04'36" E	125.84'
2A124	N 50°43'01" E	165.12'
2A125	N 52°42'01" E	83.48'
2A126	N 52°26'08" E	367.13'

JURISDICTIONAL WETLAND EXHIBIT

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9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
FOR

EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 28 OF 42

2A127	S 49°02'53" E	61.62'
2A128	S 36°24'53" E	52.93'
2A129	S 67°29'28" E	57.52'
2A130	S 07°37'48" E	56.45'
2A131	S 73°25'13" E	64.51'
2A132	N 73°47'44" E	51.69'
2A133	S 60°43'40" E	66.16'
2A134	N 44°28'17" E	82.49'
2A135	N 22°13'41" E	101.87'
2A136	N 55°32'18" E	42.97'
2A137	N 83°22'53" E	49.57'
2A138	S 56°53'57" E	17.21'
2A139	S 64°41'00" E	30.28'
2A140	S 78°37'10" E	43.99'
2A141	S 32°14'43" E	40.94'
2A142	S 56°35'54" E	39.34'
2A143	S 67°32'12" E	45.45'
2A144	S 85°16'35" E	22.44'
2A145	N 70°20'01" E	26.53'
2A146	N 68°49'50" E	39.65'
2A147	N 45°13'36" E	28.79'
2A148	N 10°06'01" E	39.34'
2A149	N 16°58'11" W	31.15'
2A150	N 08°46'27" E	41.10'
2A151	N 48°05'01" E	48.15'
2A152	N 30°01'36" W	33.94'
2A153	N 31°22'48" E	37.72'
2A154	N 11°51'05" E	20.67'
2A155	N 53°14'03" W	18.08'
2A156	N 88°25'55" W	48.86'
2A157	N00°53'17" E	7.81'
2A158	N74°48'16" E	60.76'
2A159	N61°38'55" E	73.72'
2A160	N60°43'33" E	76.87'
2A161	N60°55'39" E	81.59'
2A162	N63°19'04" E	72.45'
2A163	N58°14'35" E	99.84'
2A164	N28°25'51" E	37.77'
2A165	N04°23'36" E	59.02'
2A166	N24°10'22" E	75.43'
2A167	N30°24'01" E	55.00'
2A168	N70°22'30" E	84.22'
2A169	N74°34'24" E	87.19'
2A170	N82°58'24" E	89.82'

2A171	N76°30'16" E	50.23'
2A172	N49°03'29" E	49.97'
2A173	N43°54'15" E	82.93'
2A174	N49°22'52" E	83.42'
2A175	N58°47'45" E	82.21'
2A176	N53°10'25" E	74.21'
2A177	N59°20'55" E	69.87'
2A178	N70°14'27" E	75.91'
2A179	N72°26'56" E	70.34'
2A180	N70°19'04" E	102.20'
2A181	N59°28'10" E	35.90'
2A182	N25°32'51" E	30.77'
2A183	N16°18'45" E	17.99'
2A184	N17°14'08" E	48.98'
2A185	N09°46'59" E	57.16'
2A186	N10°28'18" E	70.86'
2A187	N04°35'46" W	59.23'
2A188	N01°00'15" E	54.15'
2A189	N16°54'36" E	74.11'
2A190	N08°31'15" E	54.59'
2A191	N43°55'18" E	43.19'
2A192	N39°48'39" E	22.68'
2A193	N05°47'07" E	24.52'
2A194	N52°39'42" E	39.30'
2A195	N08°48'58" W	30.90'
2A196	S56°48'24" E	40.95'
2A197	S46°30'23" E	51.51'
2A198	S71°22'05" E	35.94'
2A199	S26°22'46" E	27.06'
2A200	N65°43'22" E	41.67'
2A201	N63°00'48" E	49.06'
2A202	N56°05'58" E	55.93'
2A203	S16°08'15" E	11.59'
2A204	S15°29'12" E	25.69'
2A205	S84°04'58" E	12.47'
2A206	N47°47'08" E	25.30'
2A207	N01°42'44" E	16.67'
2A208	N36°53'34" W	18.16'
2A209	N09°46'31" W	28.48'
2A210	N88°25'05" E	39.60'
2A211	S87°33'04" E	36.89'
2A212	N85°01'06" E	33.61'
2A213	N82°15'05" E	30.86'
2A214	N84°13'22" E	32.90'

2A215	N83°23'12" E	63.48'
2A216	N75°13'41" E	45.45'
2A217	N82°21'19" E	39.19'
2A218	N72°22'18" E	40.26'
2A219	N36°25'43" E	42.51'
2A220	N67°19'12" E	47.50'
2A221	S89°24'04" E	64.96'
2A222	N70°01'54" E	54.22'
2A223	N59°41'17" E	70.60'
2A224	N57°34'15" E	56.82'
2A225	N81°10'44" E	65.99'
2A226	N60°46'36" E	47.37'
2A227	N88°14'53" E	42.52'
2A228	N75°57'35" E	17.79'
2A229	N52°25'45" E	12.28'
2A230	N85°03'10" E	28.06'
2A231	S82°14'07" E	26.46'
2A232	S23°56'59" E	10.10'

LINE	BEARING	DISTANCE
2B1	S 60°18'20" W	96.62'
2B2	S 70°38'08" W	123.85'
2B3	S 80°32'19" W	34.52'
2B4	N 32°38'14" W	66.02'
2B5	N 48°45'03" W	48.62'
2B6	N 11°28'25" W	4.31'
2B7	N 89°29'33" E	307.85'

LINE	BEARING	DISTANCE
2C1	S 63°25'13" W	41.58'
2C2	N 75°49'45" W	41.70'
2C3	S 75°06'10" W	41.73'
2C4	N 51°27'08" W	44.15'
2C5	N 81°32'23" W	44.53'
2C6	N 71°40'58" W	46.43'
2C7	N 73°48'47" W	57.05'
2C8	N 56°53'31" W	43.34'
2C9	N 25°12'53" E	50.10'
2C10	N 76°47'23" E	47.38'
2C11	N 83°39'57" E	56.56'
2C12	N 52°25'10" E	62.30'
2C13	N 78°00'23" E	50.24'
2C14	N 69°00'37" E	60.01'
2C15	N 53°55'50" E	36.84'
2C16	N 61°29'38" E	54.47'
2C17	N 73°38'04" E	60.65'
2C18	S 38°33'01" E	47.35'
2C19	S 35°43'03" E	53.08'
2C20	S 01°14'12" E	57.48'
2C21	S 37°22'43" W	15.39'
2C22	S 23°08'25" E	26.27'
2C23	S 21°34'04" W	84.65'
2C24	S 53°59'52" W	47.33'
2C25	S 59°14'37" W	56.97'
2C26	N 34°55'28" W	38.60'

LINE	BEARING	DISTANCE
2D1	N 24°54'40" W	35.14'
2D2	N 67°28'32" E	55.53'
2D3	S 81°05'47" E	30.97'
2D4	S 28°02'05" W	47.04'
2D5	S 81°22'23" W	45.50'

LINE	BEARING	DISTANCE
2E1	S 50°58'37" W	53.23'
2E2	N 78°01'26" W	43.72'
2E3	N 49°41'40" W	26.99'
2E4	N 35°12'52" W	44.53'
2E5	N 29°02'01" E	43.69'
2E6	N 50°02'45" E	52.26'
2E7	S 85°07'53" E	34.38'
2E8	S 06°39'19" W	44.55'
2E9	S 36°56'44" E	69.17'



JURISDICTIONAL WETLAND EXHIBIT
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 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

LINE	BEARING	DISTANCE
2F1	N 20°41'07" W	39.79'
2F2	N 06°23'05" W	55.69'
2F3	N 39°15'42" W	58.76'
2F4	N 04°52'57" E	65.35'
2F5	N 17°42'02" E	54.34'
2F6	N 41°37'00" E	23.11'
2F7	N 59°56'03" E	47.84'
2F8	N 44°15'06" E	26.37'
2F9	S 84°41'07" E	40.49'
2F10	N 68°42'32" E	34.99'
2F11	N 86°36'13" E	35.45'
2F12	N 23°04'09" E	26.20'
2F13	S 57°44'40" E	31.92'
2F14	S 54°29'15" E	40.59'
2F15	S 89°50'59" E	42.71'
2F16	S 78°09'34" E	43.96'
2F17	N 71°38'04" E	31.62'
2F18	S 80°10'26" E	40.87'
2F19	S 81°36'29" E	33.31'
2F20	N 73°41'57" E	56.66'
2F21	S 55°40'58" W	559.04'

LINE	BEARING	DISTANCE
2G1	N 18°55'57" E	18.68'
2G2	N 00°53'53" W	38.92'
2G3	N 33°20'57" E	41.94'
2G4	N 75°45'08" E	41.98'
2G5	N 26°32'32" W	34.89'
2G6	N 44°17'59" E	32.00'
2G7	N 22°24'23" W	28.17'
2G8	N 51°22'21" E	37.51'
2G9	N 68°16'04" E	29.67'
2G10	N 67°16'14" E	36.64'
2G11	N 85°32'25" E	25.90'
2G12	N 00°04'25" E	37.35'
2G13	N 30°04'54" E	32.82'
2G14	S 88°43'58" E	46.26'
2G15	N 41°38'52" E	43.58'
2G16	S 84°39'47" E	32.40'
2G17	N 87°51'40" E	36.55'
2G18	S 35°40'08" E	30.14'
2G19	S 82°51'23" E	39.21'
2G20	N 20°28'09" W	19.94'

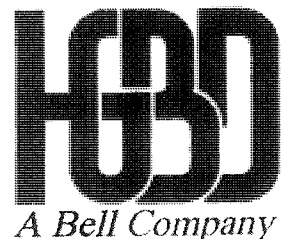
2G21	N 66°42'46" W	37.72'
2G22	N 23°01'47" E	49.74'
2G23	S 86°26'33" E	42.47'
2G24	N 51°05'00" E	56.53'
2G25	N 70°19'00" E	36.51'
2G26	S 66°13'50" E	34.91'
2G27	N 77°03'03" E	43.13'
2G28	N 61°52'50" E	54.29'
2G29	S 84°52'46" E	13.12'
2G30	S 55°40'58" W	781.26'

LINE	BEARING	DISTANCE
2I1	N78°33'30"E	54.92'
2I2	S49°48'43"E	43.07'
2I3	S55°38'08"E	40.08'
2I4	S63°41'39"E	40.52'
2I5	S74°08'18"E	31.55'
2I6	S64°36'14"E	26.83'
2I7	S76°29'20"E	52.20'
2I8	N79°47'34"E	48.36'
2I9	S89°36'50"E	53.57'
2I10	N68°06'31"E	63.59'
2I11	N74°27'29"E	44.48'
2I12	N73°46'17"E	39.33'
2I13	N87°50'44"E	48.81'
2I14	N81°29'16"E	50.97'
2I15	S77°19'24"E	72.80'
2I16	S70°42'33"E	62.08'
2I17	N84°10'46"E	49.93'
2I18	N55°41'53"E	60.16'
2I19	N77°49'34"E	68.94'
2I20	N60°07'57"E	83.12'
2I21	N45°11'53"W	63.82'
2I22	N38°10'03"W	59.54'
2I23	N00°05'28"E	19.52'
2I24	N40°36'38"W	54.72'
2I25	N34°33'54"W	82.29'
2I26	N19°25'25"E	47.99'
2I27	N16°01'18"E	60.25'
2I28	N45°33'16"E	62.18'
2I29	N55°05'57"E	64.21'
2I30	N82°57'34"E	67.63'
2I31	N67°33'50"E	64.30'
2I32	N60°23'48"E	48.78'

2I33	S50°26'56"E	71.27'
2I34	N47°53'23"E	76.80'
2I35	N46°54'16"E	81.58'
2I36	N82°41'59"E	69.47'
2I37	S12°46'06"E	28.79'
2I38	S05°53'05"E	41.69'
2I39	S17°38'02"E	81.63'
2I40	S07°54'50"E	32.88'
2I41	S13°42'28"W	42.85'
2I42	S05°17'49"W	22.75'
2I43	S34°19'02"E	8.81'
2I44	S55°40'58"W	310.45'
2I45	S41°01'42"E	503.11'
2I46	S32°50'28"W	67.29'
2I47	S84°58'40"W	43.64'
2I48	S77°40'10"W	55.89'
2I49	S44°02'55"W	65.16'
2I50	S80°57'18"W	54.19'
2I51	S36°03'56"W	67.32'
2I52	S01°36'28"W	49.26'
2I53	S13°21'58"W	54.30'
2I54	S08°12'46"W	57.45'
2I55	S37°55'19"W	52.43'
2I56	S67°33'55"W	40.70'
2I57	N75°10'40"W	54.07'
2I58	S82°27'02"W	52.69'
2I59	N75°23'47"W	43.82'
2I60	N81°42'49"W	42.60'
2I61	S85°07'32"W	50.65'
2I62	S49°32'26"W	52.40'
2I63	S73°09'26"W	56.40'
2I64	N84°34'48"W	38.71'
2I65	S55°02'33"W	51.79'
2I66	S51°32'05"W	52.80'
2I67	N46°35'18"W	253.41'
2I68	N48°28'01"E	23.38'
2I69	N44°45'03"E	50.43'
2I70	N79°12'39"E	40.78'
2I71	S75°22'45"E	39.24'
2I72	N82°05'45"E	44.00'
2I73	S25°35'16"E	46.70'
2I74	S65°30'36"E	47.78'
2I75	S20°58'38"E	40.91'
2I76	S70°42'30"E	43.52'

2I77	S74°36'08"E	17.61'
2I78	N67°17'55"E	119.59'
2I79	N03°53'19"E	36.76'
2I80	N17°35'07"E	50.89'
2I81	N17°53'15"W	37.04'
2I82	N63°24'46"E	49.95'
2I83	N16°09'23"W	58.08'
2I84	N14°56'17"E	63.08'
2I85	N51°18'36"E	33.76'
2I86	N70°48'41"E	40.28'
2I87	N63°51'15"E	43.83'
2I88	N81°08'00"E	41.86'
2I89	N11°50'13"E	54.63'
2I90	N12°31'55"W	58.99'
2I91	N43°31'01"W	30.49'
2I92	N49°19'58"W	56.92'
2I93	N11°47'30"W	48.10'
2I94	S87°46'14"W	44.32'
2I95	N56°42'26"W	49.40'
2I96	S12°33'18"W	36.08'
2I97	S42°42'11"W	35.22'
2I98	S40°43'08"W	58.07'
2I99	S50°01'10"W	54.90'
2I100	N61°23'21"W	67.07'
2I101	S59°59'15"W	124.81'
2I102	S58°43'58"W	190.54'
2I103	S68°01'27"W	207.24'
2I104	N36°50'48"W	174.28'
2I105	N34°37'20"W	149.91'
2I106	N34°47'28"W	158.98'

LINE	BEARING	DISTANCE
2J1	S04°41'25"E	28.36'
2J2	S48°46'34"E	22.63'
2J3	S30°10'47"E	41.09'
2J4	S39°37'20"E	45.19'
2J5	S36°07'54"E	41.00'
2J6	S20°13'17"E	36.70'
2J7	S53°57'41"E	57.12'
2J8	S73°15'25"E	54.74'
2J9	S30°11'46"E	33.08'
2J10	S76°59'40"E	58.96'
2J11	S86°15'58"E	61.39'
2J12	S75°55'01"E	75.47'



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2J13	S03°42'28"E	47.75'
2J14	S87°09'29"E	58.99'
2J15	N17°38'48"E	58.20'
2J16	N17°14'29"E	50.39'
2J17	N43°19'41"E	64.49'
2J18	N45°57'39"E	40.32'
2J19	N41°29'49"E	37.90'
2J20	N32°33'19"E	11.20'
2J21	N24°24'28"W	135.53'
2J22	N66°58'04"W	11.53'
2J23	N76°01'10"W	31.19'
2J24	N33°33'35"W	59.74'
2J25	N75°16'08"W	48.72'
2J26	N81°55'53"W	45.67'
2J27	S65°07'24"W	33.67'
2J28	S63°14'20"W	47.70'
2J29	S82°54'45"W	42.32'
2J30	N86°53'04"W	45.60'
2J31	N51°41'19"W	37.79'
2J32	N38°10'05"W	32.51'
2J33	N28°08'39"W	38.25'
2J34	N32°03'22"W	31.13'
2J35	N02°42'49"E	28.69'
2J36	N50°03'33"W	24.85'
2J37	S39°56'27"W	225.64'
2J38	S50°03'33"E	24.22'

LINE	BEARING	DISTANCE
2K1	S56°20'56"E	58.14'
2K2	S52°58'28"E	47.31'
2K3	S44°10'07"E	37.91'
2K4	S06°45'06"E	47.99'
2K5	S07°50'29"E	48.94'
2K6	S01°24'45"W	36.07'
2K7	S40°43'56"W	58.03'
2K8	S45°26'12"W	45.01'
2K9	S54°47'57"W	56.69'
2K10	S63°50'59"W	79.75'
2K11	S58°48'21"W	68.27'
2K12	S61°27'04"W	58.30'
2K13	S66°54'21"W	41.04'
2K14	S23°04'04"E	2.93'
2K15	S08°54'50"E	10.41'
2K16	N88°23'55"E	39.90'

2K17	N72°44'23"E	59.91'
2K18	N60°31'27"E	71.84'
2K19	N78°48'50"E	42.65'
2K20	N32°22'38"E	37.63'
2K21	N45°08'20"E	48.12'
2K22	N68°19'11"E	55.59'
2K23	N74°37'24"E	65.46'
2K24	S76°32'37"E	43.95'
2K25	S56°49'19"E	53.70'
2K26	S33°43'08"E	39.97'
2K27	S45°06'53"E	60.34'
2K28	S35°48'37"E	52.99'
2K29	S32°40'12"E	58.70'
2K30	S00°08'38"E	54.41'
2K31	S05°57'41"E	48.40'
2K32	S04°24'05"E	40.63'
2K33	S30°27'15"E	54.93'
2K34	N24°12'34"E	61.65'
2K35	N32°41'54"E	28.43'
2K36	N29°57'29"E	48.98'
2K37	N40°14'43"W	34.40'
2K38	N14°57'13"W	58.21'
2K39	N04°57'00"E	43.48'
2K40	N28°25'54"E	40.01'
2K41	N85°08'07"E	42.09'
2K42	S86°54'40"E	41.70'
2K43	S54°41'44"E	33.17'
2K44	S37°20'15"E	45.27'
2K45	S59°58'44"E	31.71'
2K46	S85°32'18"E	51.07'
2K47	N75°09'27"E	40.55'
2K48	N14°04'31"E	24.64'
2K49	N66°47'12"E	5.00'
2K50	N21°12'48"W	162.85'
2K51	S88°47'12"W	27.51'
2K52	N82°54'18"W	31.34'
2K53	N41°43'12"W	34.37'
2K54	N41°21'34"W	34.17'
2K55	N25°45'19"W	46.48'
2K56	N08°08'41"W	44.63'
2K57	N23°17'45"W	40.27'
2K58	N34°06'54"W	39.52'
2K59	N19°29'11"E	15.98'
2K60	N77°05'41"W	37.85'

2K61	N72°05'53"W	26.10'
2K62	N62°43'49"W	64.90'
2K63	N79°18'51"W	28.24'
2K64	N66°03'32"W	59.36'
2K65	N86°26'44"W	49.49'
2K66	N89°40'10"W	49.92'
2K67	N02°29'41"E	24.01'
2K68	S72°18'48"W	24.96'
2K69	N55°01'55"W	42.23'
2K70	N55°31'52"W	25.92'
2K71	N46°15'52"W	37.33'
2K72	N04°35'35"W	7.46'
2K73	S85°24'25"W	22.09'
2K74	S43°33'02"W	124.55'
2K75	S46°26'58"E	4.06'

LINE	BEARING	DISTANCE
2L1	S86°01'29"E	32.99'
2L2	N10°55'36"E	51.14'
2L3	N05°06'05"E	31.09'
2L4	N72°47'32"E	32.79'
2L5	N07°31'08"E	38.91'
2L6	N03°07'19"W	23.36'
2L7	S82°39'57"W	24.44'
2L8	N84°04'21"W	34.31'
2L9	N32°44'35"W	42.74'
2L10	N73°05'59"W	13.38'
2L11	S64°11'19"W	58.91'
2L12	S21°12'48"E	186.15'
2L13	N68°47'12"E	10.14'

LINE	BEARING	DISTANCE
2M1	S26°08'18"E	32.44'
2M2	S34°00'08"E	36.47'
2M3	S06°15'48"E	28.51'
2M4	S39°00'18"E	36.42'
2M5	S20°43'26"E	37.82'
2M6	S62°37'17"E	49.35'
2M7	S22°16'41"E	41.61'
2M8	S55°05'52"E	31.44'
2M9	S81°36'11"E	36.70'
2M10	S77°29'54"E	37.70'
2M11	S45°48'18"E	56.65'
2M12	S77°12'12"E	44.68'

2M13	S72°10'30"E	53.43'
2M14	S65°56'56"E	56.33'
2M15	S16°01'31"E	32.99'
2M16	S29°41'38"E	38.01'
2M17	S06°16'04"E	44.43'
2M18	S10°53'52"E	38.77'
2M19	S63°16'57"E	3.20'
2M20	S54°47'40"W	25.56'
2M21	N40°08'29"W	41.63'
2M22	S12°31'10"E	25.72'
2M23	S22°50'03"W	31.91'
2M24	S57°09'08"W	40.13'
2M25	S45°32'59"W	39.00'
2M26	S01°20'44"E	36.41'
2M27	S10°10'45"W	29.79'
2M28	S53°08'57"W	36.25'
2M29	S32°27'38"W	50.10'
2M30	S23°50'00"W	51.40'
2M31	S80°55'25"W	37.77'
2M32	S02°27'30"W	50.52'
2M33	S58°11'50"E	29.48'
2M34	S58°17'24"E	49.63'
2M35	N18°56'12"E	36.54'
2M36	N38°43'59"E	40.95'
2M37	N12°19'08"E	29.95'
2M38	N24°17'51"E	28.82'
2M39	N68°53'35"E	40.78'
2M40	N09°01'06"E	40.61'
2M41	N56°16'52"E	63.75'
2M42	N76°22'47"E	50.98'
2M43	N72°23'28"E	50.00'
2M44	S87°26'22"E	47.94'
2M45	N28°01'53"E	34.16'
2M46	S82°00'21"E	63.74'
2M47	N79°54'39"E	42.22'
2M48	S51°51'42"E	23.63'
2M49	S27°58'18"E	44.64'
2M50	S24°09'50"E	51.29'
2M51	S39°17'02"E	60.19'
2M52	S54°43'08"E	43.31'
2M53	N65°55'33"E	31.56'
2M54	S43°47'58"E	26.66'
2M55	S67°04'47"E	36.08'



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LINE	BEARING	DISTANCE
2N1	N51°37'40"E	16.00'
2N2	N24°25'23"E	48.03'
2N3	S70°38'34"E	6.64'
2N4	S81°44'17"E	17.88'
2N5	S66°00'07"E	54.01'
2N6	N89°43'14"E	48.58'
2N7	S79°31'09"E	38.28'
2N8	S59°08'10"E	30.77'
2N9	S63°09'58"E	34.48'
2N10	S70°07'43"E	54.11'
2N11	N88°17'15"E	37.41'
2N12	N81°39'11"E	33.05'
2N13	N66°15'09"E	48.25'
2N14	S54°34'59"E	34.52'
2N15	N73°38'24"E	37.10'
2N16	N47°19'53"E	53.42'
2N17	N75°32'06"E	32.73'
2N18	S46°38'59"E	32.74'
2N19	N38°18'35"E	28.18'
2N20	N08°47'35"E	42.10'
2N21	N15°00'11"W	36.47'
2N22	N14°35'00"E	44.80'
2N23	N05°18'03"W	31.82'
2N24	N09°07'52"W	55.74'
2N25	N59°54'42"W	41.65'
2N26	N54°48'40"E	37.84'
2N27	N56°00'31"E	26.52'
2N28	N00°03'57"E	48.80'
2N29	N13°35'51"E	28.08'
2N30	N71°42'52"W	44.16'
2N31	S59°36'33"W	37.57'
2N32	S59°22'38"W	47.54'
2N33	S49°48'20"W	42.26'
2N34	S68°14'06"W	48.16'
2N35	S82°39'35"W	36.94'
2N36	N58°18'17"W	28.66'
2N37	N59°20'14"E	466.02'
2N38	N02°03'00"W	50.13'
2N39	N48°39'20"E	52.88'
2N40	N36°39'55"E	47.70'
2N41	N44°56'53"E	46.78'
2N42	N59°08'31"E	61.86'

2N43	N65°48'48"E	54.32'
2N44	N09°19'06"E	48.26'
2N45	N84°31'55"E	46.19'
2N46	N40°12'53"W	34.01'
2N47	N46°04'42"E	45.57'
2N48	N49°07'33"E	35.63'
2N49	N46°46'27"E	54.70'
2N50	N50°29'49"E	34.96'
2N51	N05°30'23"W	53.61'
2N52	N68°44'59"E	82.47'
2N53	S01°05'01"W	45.90'
2N54	S18°22'56"W	71.40'
2N55	S75°53'08"W	58.28'
2N56	S45°19'31"W	50.68'
2N57	S04°53'28"W	37.78'
2N58	S36°44'48"W	45.51'
2N59	S43°01'42"W	33.85'
2N60	S16°14'52"W	34.54'
2N61	S21°37'13"E	47.75'
2N62	S80°06'30"W	51.28'
2N63	S38°13'32"W	44.97'
2N64	S19°20'10"W	20.81'
2N65	N65°05'45"E	71.33'
2N66	S84°00'08"E	17.89'
2N67	S55°02'41"E	30.59'
2N68	S56°47'10"W	41.65'
2N69	S73°00'12"W	40.05'
2N70	S47°26'01"W	65.25'
2N71	S68°32'31"W	67.89'
2N72	S68°11'18"W	36.67'
2N73	S70°16'39"W	55.91'
2N74	S06°02'54"E	42.98'
2N75	N74°24'51"W	54.08'
2N76	S19°05'39"E	32.54'
2N77	S26°13'06"W	74.88'
2N78	S27°21'39"W	60.70'
2N79	S17°03'24"E	44.92'
2N80	S36°21'20"W	33.69'
2N81	S26°23'46"E	49.29'
2N82	S16°46'49"E	33.22'
2N83	S47°19'13"E	46.53'
2N84	S28°34'25"W	49.25'
2N85	S16°21'25"E	52.48'

2N86	S84°29'35"E	30.66'
2N87	S81°16'49"E	59.40'
2N88	S09°51'57"E	46.47'
2N89	S15°25'22"W	51.56'
2N90	S17°08'09"E	49.17'
2N91	S14°17'22"E	36.45'
2N92	S19°34'12"E	43.18'
2N93	S46°27'57"W	21.86'
2N94	S62°18'26"W	41.65'
2N95	N48°56'27"W	50.45'
2N96	N65°43'14"W	52.57'
2N97	N78°46'56"W	43.83'
2N98	N55°37'28"W	53.74'
2N99	N40°15'36"W	40.25'
2N100	N51°06'08"W	46.12'
2N101	N72°25'28"W	39.24'
2N102	S45°37'55"W	52.84'
2N103	S74°13'12"W	33.16'
2N104	S77°02'50"W	35.73'
2N105	N69°20'51"W	50.26'
2N106	S54°57'12"W	43.19'
2N107	N67°04'56"W	35.00'
2N108	N76°17'34"W	44.83'
2N109	N57°05'51"W	56.56'
2N110	N47°46'33"W	55.00'
2N111	N72°06'48"W	50.43'
2N112	N86°34'57"W	37.91'
2N113	S48°06'40"W	45.93'
2N114	S38°46'32"W	32.52'
2N115	N24°24'28"W	63.60'
2M56	S46°26'58"E	8.25'
2M57	N43°33'02"E	77.24'
2M58	N85°24'25"E	98.02'
2M59	N04°35'35"W	11.86'
2M60	N53°58'53"W	32.68'
2M61	N27°09'37"W	36.46'
2M62	N28°42'01"W	51.14'
2M63	N01°10'39"W	47.78'
2M64	N37°04'28"W	41.64'
2M65	N22°56'05"W	41.11'
2M66	N16°25'40"W	37.32'
2M67	N27°19'29"E	39.03'
2M68	N67°05'44"E	37.31'

2M69	S79°17'59"E	32.58'
2M70	N74°34'18"E	40.40'
2M71	N76°38'28"E	47.41'
2M72	S63°57'52"E	35.43'
2M73	S46°52'09"E	59.99'
2M74	S81°13'43"E	44.49'
2M75	N68°05'00"E	38.95'
2M76	N83°30'38"E	34.27'
2M77	S28°20'04"E	41.50'
2M78	S46°09'23"E	37.14'
2M79	S73°00'29"E	42.84'
2M80	S44°23'32"E	46.80'
2M81	S70°19'31"E	53.89'
2M82	S65°06'07"E	42.29'
2M83	S71°25'15"E	45.82'
2M84	S25°49'49"E	36.52'
2M85	S37°02'05"W	34.48'
2M86	S58°32'55"E	26.93'
2M87	S61°05'11"E	41.58'
2M88	S33°22'11"W	51.34'
2M89	S63°41'44"W	44.04'
2M90	S61°18'48"W	33.89'
2M91	S07°06'44"E	50.92'
2M92	S18°24'02"E	42.08'
2M93	S83°25'27"E	45.57'
2M94	S82°23'50"E	47.75'
2M95	N57°09'38"E	27.26'
2M96	S31°58'32"E	48.12'
2M97	S47°07'32"E	43.15'
2M98	S78°15'33"E	35.25'
2M99	N83°53'02"E	63.88'
2M100	S73°04'40"E	51.02'
2M101	N51°09'17"E	34.04'
2M102	N45°09'51"E	48.60'
2M103	N42°49'35"W	23.66'
2M104	N47°35'15"W	35.99'
2M105	N53°59'53"E	47.08'
2M106	S60°03'38"E	48.06'
2M107	N83°21'57"E	31.91'
2M108	S53°55'09"E	34.80'
2M109	N04°52'09"W	38.64'
2M110	N00°43'28"E	47.37'
2M111	N07°53'45"W	38.79'



JURISDICTIONAL WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2M112	N03°40'54"E	51.80'
2M113	N18°15'03"E	39.43'
2M114	N22°40'30"E	15.15'
2M115	N53°41'22"W	436.78'
2M116	S86°30'35"W	45.50'
2M117	S42°52'19"W	38.64'
2M118	S76°41'48"W	43.73'
2M119	S29°23'22"W	40.31'
2M120	N40°00'39"W	39.80'
2M121	N52°53'07"W	65.02'
2M122	N21°42'27"W	36.15'
2M123	N64°34'31"W	30.85'
2M124	N87°24'29"W	42.15'
2M125	N64°52'43"W	69.85'
2M126	N65°22'31"W	48.77'
2M127	N48°52'29"W	46.04'
2M128	N08°12'24"W	27.48'
2M129	N09°26'45"E	39.87'
2M130	N33°52'32"E	40.43'
2M131	N03°41'22"E	37.50'
2M132	N41°08'17"E	8.76'
2M133	N58°46'54"W	91.78'
2M134	S30°02'42"W	5.80'
2M135	S64°02'20"W	47.01'
2M136	S41°53'42"W	33.41'
2M137	N87°39'30"W	44.32'
2M138	N69°12'51"W	51.18'
2M139	N70°31'33"W	43.94'
2M140	N68°35'43"W	65.01'
2M141	N73°11'45"W	53.55'
2M142	S36°32'35"W	39.21'
2M143	S35°47'11"E	45.21'
2M144	S51°08'17"E	50.93'
2M145	S57°37'05"W	46.63'
2M146	S86°20'17"W	70.51'
2M147	S53°28'33"W	52.32'
2M148	S79°40'39"W	47.69'
2M149	N77°23'13"W	40.04'
2M150	N35°16'30"W	42.54'
2M151	N71°30'18"W	39.51'
2M152	N27°57'19"W	43.70'
2M153	N23°35'24"W	58.39'
2M154	N71°17'54"W	56.84'

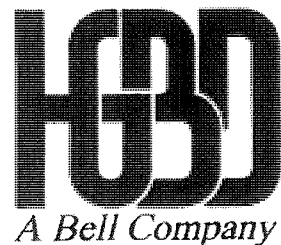
2M155	S67°52'24"W	45.17'
2M156	S69°31'10"W	50.87'
2M157	S34°31'34"W	31.30'
2M158	S59°37'07"W	41.04'
2M159	N81°39'40"W	49.62'
2M160	N54°34'09"W	44.59'
2M161	N27°27'28"W	42.88'
2M162	N45°20'04"W	50.76'
2M163	N52°14'55"W	44.59'
2M164	N41°50'56"W	46.95'
2M165	N06°43'42"E	42.78'
2M166	S62°01'06"W	218.74'

LINE	BEARING	DISTANCE
201	N05°56'29"W	26.00'
202	N55°17'44"W	50.48'
203	N45°08'40"W	34.23'
204	N02°42'16"W	45.59'
205	N44°46'50"E	42.83'
206	N76°19'53"W	43.78'
207	N03°49'01"E	33.86'
208	N17°57'23"W	48.22'
209	N40°41'38"W	46.45'
2010	S53°46'10"W	45.87'
2011	N40°30'34"W	57.39'
2012	S68°32'55"W	59.64'
2013	N46°34'03"W	60.54'
2014	N53°50'27"W	66.94'
2015	N06°07'33"E	59.03'
2016	N13°35'08"W	33.68'
2017	N00°59'31"W	41.74'
2018	N64°00'39"E	74.74'
2019	S78°19'27"E	7.06'
2020	S57°48'19"E	30.59'
2021	S66°24'29"E	38.00'
2022	S79°44'23"E	24.52'
2023	N48°06'28"E	63.35'
2024	N74°53'16"E	68.48'
2025	S59°47'35"E	44.27'
2026	N64°34'09"E	42.23'
2027	S72°58'06"E	76.65'
2028	S25°42'28"E	74.11'
2029	S25°15'10"W	57.61'

2030	S69°59'23"W	69.09'
2031	S15°45'56"W	42.95'
2032	S14°33'48"E	51.16'
2033	S31°57'12"E	42.68'
2034	S13°39'21"E	42.67'
2035	S36°23'27"E	89.20'
2036	S57°59'09"E	40.06'
2037	S49°34'15"E	5.82'
2038	S40°25'45"W	4.65'
2039	S50°40'25"W	167.62'
2040	N45°02'38"W	2.32'

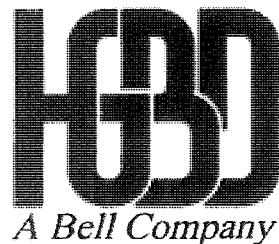
LINE	BEARING	DISTANCE
2P1	S46°53'47"W	42.16'
2P2	N58°36'44"W	54.37'
2P3	S48°14'45"W	36.09'
2P4	S44°18'44"W	47.47'
2P5	S28°55'20"W	63.30'
2P6	S18°39'15"W	104.50'
2P7	S62°08'08"W	39.38'
2P8	N18°57'19"W	75.14'
2P9	N04°37'49"W	36.37'
2P10	N06°31'39"W	61.90'
2P11	N67°21'15"E	55.84'
2P12	N27°10'47"E	54.52'
2P13	N09°55'10"W	69.66'
2P14	N29°08'05"E	58.17'
2P15	N31°45'45"E	49.73'
2P16	S86°52'13"E	48.68'
2P17	N87°42'15"E	33.13'
2P18	N17°56'59"W	34.05'
2P19	N89°51'22"W	23.91'
2P20	N36°24'15"W	34.06'
2P21	N44°31'32"E	17.16'
2P22	N80°38'32"E	42.15'
2P23	N76°13'07"E	13.17'
2P24	S13°46'53"E	256.61'
2P25	S76°13'07"W	3.16'

LINE	BEARING	DISTANCE
2Q1	N27°45'29"W	22.38'
2Q2	S86°21'54"E	29.20'
2Q3	N79°21'15"E	21.40'
2Q4	N59°11'08"E	748.14'
2Q5	N58°32'45"E	58.66'
2Q6	N38°32'28"E	10.29'
2Q7	N11°31'28"W	42.43'
2Q8	N04°40'07"W	50.31'
2Q9	N06°26'55"W	152.68'
2Q10	S64°57'03"W	44.83'
2Q11	S63°14'42"W	37.10'
2Q12	S72°12'51"W	65.44'
2Q13	S61°14'43"W	52.58'
2Q14	S79°43'52"W	45.25'
2Q15	S84°06'04"W	51.26'
2Q16	S10°16'26"W	22.11'
2Q17	N57°18'31"W	40.35'
2Q18	S79°21'49"W	53.76'
2Q19	S81°42'33"W	492.05'
2Q20	S76°13'07"W	2.43'
2Q21	N13°46'53"W	25.37'
2Q22	N76°13'07"E	4.44'
2Q23	N85°12'38"E	35.15'
2Q24	N83°25'48"E	443.37'
2Q25	N01°59'15"E	26.21'
2Q26	N24°32'26"W	35.99'
2Q27	N53°11'31"W	47.31'
2Q28	N42°31'41"W	70.25'
2Q29	N10°14'06"E	75.31'
2Q30	N14°41'48"E	62.27'
2Q31	N00°39'20"W	63.71'
2Q32	N33°30'01"W	71.23'
2Q33	N21°47'06"W	80.05'
2Q34	N34°21'58"W	9.15'
2Q35	N50°40'25"E	54.48'
2Q36	S39°19'35"E	4.78'
2Q37	N51°14'07"E	67.39'
2Q38	N65°07'48"E	43.69'
2Q39	S48°19'54"E	51.77'
2Q40	S47°25'51"E	82.46'
2Q41	S42°37'53"E	93.76'
2Q42	S73°47'19"E	69.45'



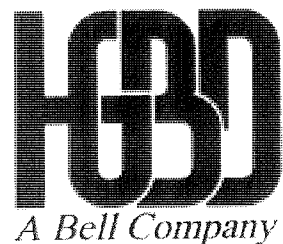
JURISDICTIONAL WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2Q43	N67°04'29"E	90.98'	2Q86	N35°17'21"E	64.55'	2Q129	N56°24'43"E	532.17'	2Q172	N06°19'58"E	50.01'
2Q44	S27°13'53"E	41.72'	2Q87	N36°22'03"E	58.38'	2Q130	N56°24'49"E	376.44'	2Q173	N16°21'55"E	58.60'
2Q45	S08°33'59"E	16.45'	2Q88	S60°59'45"E	38.19'	2Q131	N71°12'09"E	199.47'	2Q174	N04°10'28"E	42.05'
2Q46	S07°33'07"W	59.01'	2Q89	N08°50'18"W	26.28'	2Q132	S27°04'39"E	419.77'	2Q175	N01°32'20"E	41.29'
2Q47	S37°56'05"E	20.06'	2Q90	N06°38'52"E	30.32'	2Q133	S04°34'47"W	43.74'	2Q176	S83°14'06"E	58.38'
2Q48	N84°30'13"W	53.41'	2Q91	N54°01'49"W	44.33'	2Q134	S11°06'06"E	28.40'	2Q177	N49°57'14"E	49.75'
2Q49	S33°34'15"E	44.60'	2Q92	N37°57'41"W	35.06'	2Q135	S34°18'03"W	20.63'	2Q178	N68°35'03"E	53.15'
2Q50	N85°32'10"E	29.49'	2Q93	N34°27'05"E	40.18'	2Q136	S18°56'54"W	33.14'	2Q179	S88°33'48"E	34.68'
2Q51	N85°42'48"E	25.29'	2Q94	N89°28'38"E	71.25'	2Q137	S50°58'46"W	34.18'	2Q180	N79°26'38"E	34.43'
2Q52	N05°47'01"E	21.97'	2Q95	N88°24'00"E	51.86'	2Q138	N51°05'35"W	44.89'	2Q181	N62°19'42"E	37.35'
2Q53	N29°28'33"E	29.62'	2Q96	N85°49'59"E	48.46'	2Q139	N18°21'00"W	31.81'	2Q182	N71°11'05"E	27.63'
2Q54	N24°21'59"E	15.24'	2Q97	N00°20'00"W	79.25'	2Q140	N36°16'22"W	30.26'	2Q183	N27°38'51"E	29.95'
2Q55	N55°33'23"E	23.24'	2Q98	N21°54'53"E	52.08'	2Q141	N29°39'02"W	43.42'	2Q184	N09°35'31"E	38.91'
2Q56	N55°45'00"E	134.37'	2Q99	N26°25'40"E	72.39'	2Q142	N27°49'23"W	33.04'	2Q185	N27°03'28"W	42.94'
2Q57	N18°31'10"E	28.05'	2Q100	N65°06'35"E	66.13'	2Q143	N83°17'46"W	31.48'	2Q186	N58°02'37"W	29.20'
2Q58	N35°28'15"E	31.96'	2Q101	N58°17'22"E	70.18'	2Q144	S66°04'04"W	39.37'	2Q187	N66°33'43"W	32.81'
2Q59	N11°31'12"E	54.95'	2Q102	N12°29'44"E	72.15'	2Q145	S41°16'58"W	37.75'	2Q188	S89°54'55"W	39.36'
2Q60	N41°25'17"E	40.95'	2Q103	N41°01'17"E	57.16'	2Q146	S15°31'27"E	33.14'	2Q189	S81°44'47"W	57.82'
2Q61	N59°39'16"E	44.88'	2Q104	N37°33'15"E	75.37'	2Q147	S41°35'33"W	29.04'	2Q190	N89°47'18"W	44.14'
2Q62	N24°54'33"E	45.73'	2Q105	N67°25'40"E	62.79'	2Q148	S25°59'41"W	28.39'	2Q191	S62°35'52"W	46.92'
2Q63	N10°25'27"E	32.87'	2Q106	N64°35'45"E	68.74'	2Q149	S26°08'55"W	39.63'	2Q192	S38°43'57"W	49.75'
2Q64	N73°42'52"W	36.99'	2Q107	N27°44'04"E	77.74'	2Q150	S10°51'20"W	42.05'	2Q193	S66°14'02"W	48.83'
2Q65	N72°40'31"W	28.41'	2Q108	N28°55'29"E	78.76'	2Q151	S12°07'35"E	34.90'	2Q194	S44°57'08"W	50.80'
2Q66	S69°15'13"W	30.52'	2Q109	N51°21'32"E	47.84'	2Q152	S21°22'38"E	33.32'	2Q195	S04°18'59"W	41.71'
2Q67	S61°32'52"W	45.21'	2Q110	N62°04'22"E	34.77'	2Q153	S27°34'30"E	39.40'	2Q196	S48°01'44"W	43.81'
2Q68	S30°14'04"W	38.23'	2Q111	S49°57'56"E	60.04'	2Q154	S09°58'32"W	44.78'	2Q197	S44°50'04"W	48.49'
2Q69	N72°16'19"W	60.15'	2Q112	S54°21'29"E	58.02'	2Q155	S17°44'40"E	32.56'	2Q198	S05°21'25"E	39.27'
2Q70	N00°01'48"E	63.03'	2Q113	S53°02'31"E	48.55'	2Q156	S36°27'37"E	59.79'	2Q199	S45°44'01"W	37.94'
2Q71	N20°34'33"W	71.01'	2Q114	S58°49'45"E	44.02'	2Q157	S28°38'18"W	36.84'	2Q200	N69°37'48"W	41.18'
2Q72	N33°35'17"W	55.75'	2Q115	S38°22'46"E	69.13'	2Q158	S47°11'55"W	56.97'	2Q201	N40°52'49"E	44.24'
2Q73	N43°25'00"E	42.36'	2Q116	S30°47'32"E	33.71'	2Q159	S66°42'59"W	81.63'	2Q202	N46°03'18"W	41.21'
2Q74	N62°51'32"E	54.01'	2Q117	S67°40'27"E	41.32'	2Q160	S58°36'28"W	67.87'	2Q203	S50°40'58"W	53.24'
2Q75	N87°52'23"E	60.11'	2Q118	N82°40'03"E	56.89'	2Q161	S51°52'30"W	51.19'	2Q204	S54°21'36"W	54.08'
2Q76	N62°06'41"E	59.93'	2Q119	N66°52'53"E	52.29'	2Q162	N69°17'08"W	42.48'	2Q205	S22°16'02"W	43.00'
2Q77	N46°21'10"E	72.64'	2Q120	S29°49'45"E	49.61'	2Q163	N57°30'30"W	38.02'	2Q206	S25°19'36"E	33.50'
2Q78	S88°50'46"E	48.28'	2Q121	S55°23'20"E	49.31'	2Q164	N67°34'36"W	41.13'	2Q207	S27°34'11"E	38.65'
2Q79	N25°55'58"E	33.35'	2Q122	S45°12'18"E	46.85'	2Q165	S64°41'37"W	46.29'	2Q208	S09°14'24"W	47.20'
2Q80	N26°17'41"E	43.40'	2Q123	S51°16'16"E	28.09'	2Q166	N55°49'43"W	56.78'	2Q209	S17°45'49"W	34.51'
2Q81	N53°33'32"E	32.73'	2Q124	S59°49'01"E	50.31'	2Q167	N72°36'49"W	48.13'	2Q210	S34°01'36"W	47.24'
2Q82	N63°16'01"E	44.41'	2Q125	S48°40'48"E	54.14'	2Q168	N02°14'41"E	39.75'	2Q211	S24°19'59"E	29.63'
2Q83	N11°52'44"E	22.35'	2Q126	S65°22'28"E	23.76'	2Q169	N10°02'18"W	46.15'	2Q212	S55°59'52"E	34.48'
2Q84	N22°05'56"W	47.08'	2Q127	N37°42'46"W	34.02'	2Q170	N05°39'58"E	49.94'	2Q213	S33°13'32"W	33.76'
2Q85	N32°19'59"E	83.23'	2Q128	N16°15'55"W	28.62'	2Q171	N31°08'58"E	35.50'	2Q214	S09°25'26"W	29.90'



JURISDICTIONAL WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

20215	S27°09'43"E	51.89'	20256	S54°23'32"E	38.65'	20301	S11°06'57"E	43.99'	20344	S28°15'13"W	67.18'
20216	N75°06'53"E	27.84'	20259	S58°33'19"E	36.87'	20302	S22°54'07"W	65.48'	20345	S40°16'26"E	52.63'
20217	S86°29'53"E	49.33'	20260	S89°49'26"E	37.11'	20303	S40°52'26"W	60.53'	20346	S20°38'00"E	69.83'
20218	S06°36'10"E	45.81'	20261	N61°17'15"E	54.55'	20304	S39°13'58"W	45.54'	20347	S47°38'57"E	49.04'
20219	S12°19'04"W	42.13'	20262	S67°08'14"E	50.64'	20305	S85°11'18"W	62.02'	20348	S08°49'48"E	41.21'
20220	S33°15'27"E	43.43'	20263	S84°45'33"E	48.85'	20306	N44°02'40"W	48.76'	20349	S14°54'37"W	47.80'
20221	S54°03'40"E	43.07'	20264	S36°58'35"E	51.00'	20307	N05°20'15"E	54.70'	20350	S06°20'32"E	57.56'
20222	S87°49'53"E	24.02'	20265	S33°22'30"W	31.58'	20308	N11°38'27"W	46.71'	20351	S30°16'53"E	49.82'
20223	S52°25'58"E	47.74'	20266	S27°55'07"W	24.55'	20309	N67°23'53"W	45.78'	20352	S07°12'12"E	75.73'
20224	S62°46'48"E	44.24'	20267	N86°26'30"W	51.96'	20310	S77°40'14"W	50.07'	20353	S43°52'27"E	63.23'
20225	S18°06'02"E	56.91'	20268	S84°08'20"W	34.65'	20311	S80°05'19"W	40.23'	20354	S20°47'57"E	67.26'
20226	N86°10'08"E	32.39'	20269	S57°37'55"W	33.20'	20312	S54°47'19"W	45.37'	20355	S45°27'17"E	40.10'
20227	N88°56'43"E	39.93'	20270	S56°31'15"W	32.35'	20313	N88°34'49"W	60.36'	20356	S37°41'34"E	34.13'
20228	S80°48'58"E	48.50'	20271	S85°03'48"W	49.45'	20314	S63°04'58"W	42.51'	20357	S06°31'01"E	59.54'
20229	N07°23'49"E	37.34'	20272	S68°19'21"W	49.42'	20315	S66°26'07"W	43.86'	20358	S24°31'47"W	43.59'
20230	N43°55'20"E	38.98'	20273	S57°27'32"W	49.20'	20316	S39°33'29"W	45.01'	20359	N19°03'16"W	50.20'
20231	S83°38'38"E	35.94'	20274	S67°48'43"W	42.22'	20317	S62°56'55"W	54.20'	20360	N40°14'08"W	49.80'
20232	N89°27'32"E	25.31'	20275	N41°11'36"W	34.52'	20318	S60°05'32"W	62.10'	20361	N37°57'10"W	37.70'
20233	S46°38'58"E	59.52'	20276	S79°56'55"W	52.01'	20319	S54°04'25"W	35.32'	20362	S00°19'52"W	40.50'
20234	S49°19'02"E	27.95'	20277	S76°56'12"W	59.26'	20320	S18°35'39"W	54.05'	20363	S16°38'42"W	50.07'
20235	S27°23'55"E	26.74'	20278	S86°17'08"W	55.83'	20321	S25°41'47"W	43.48'	20364	S11°23'14"E	37.37'
20236	S28°13'56"W	26.48'	20279	S45°39'53"W	52.72'	20322	N59°04'53"W	0.44'	20365	S43°44'11"E	45.95'
20237	S23°54'08"E	30.62'	20280	S50°17'48"W	44.40'	20323	N40°00'00"W	18.20'	20366	N79°47'00"E	40.35'
20238	N80°52'59"E	11.94'	20281	N71°38'36"W	59.42'	20324	S86°28'51"W	49.80'	20367	N84°35'41"E	55.53'
20239	S25°49'35"E	28.37'	20282	N51°54'38"W	50.53'	20325	N52°16'22"W	56.68'	20368	N34°55'52"E	60.13'
20240	S19°04'46"E	28.20'	20283	S83°39'46"W	50.05'	20326	S75°48'04"W	72.90'	20369	N65°55'01"E	60.26'
20241	S62°15'38"W	43.33'	20284	S57°14'57"W	44.40'	20327	S70°37'49"W	51.64'	20370	N50°43'52"E	55.15'
20242	N30°18'44"W	17.85'	20285	S46°52'35"W	54.22'	20328	S84°20'09"W	42.41'	20371	N27°28'19"E	69.54'
20243	N30°38'12"E	38.33'	20286	S69°55'24"W	46.54'	20329	N06°17'56"W	54.72'	20372	N22°12'31"W	67.17'
20244	N51°02'46"W	41.95'	20287	S75°56'24"W	43.12'	20330	N24°47'03"E	37.11'	20373	N32°48'45"W	92.95'
20245	S68°02'41"W	49.50'	20288	S89°44'20"W	54.45'	20331	N73°38'44"E	46.48'	20374	N29°32'01"E	59.68'
20246	N79°03'35"W	27.18'	20289	N86°46'58"W	40.86'	20332	N48°12'55"W	93.38'	20375	N23°46'31"E	56.63'
20247	N44°57'22"W	27.68'	20290	S80°36'21"W	55.78'	20333	N33°30'26"W	66.32'	20376	N17°39'28"E	51.66'
20248	S48°51'25"W	44.75'	20291	S73°09'53"W	45.51'	20334	N23°58'38"E	55.17'	20377	S79°38'17"E	75.48'
20249	S66°59'20"W	35.30'	20292	S68°01'30"W	40.80'	20335	N10°53'34"W	34.66'	20378	S64°30'56"E	43.63'
20250	S13°59'19"W	36.09'	20293	S63°12'30"W	76.35'	20336	N42°04'00"W	51.82'	20379	N60°05'50"E	12.79'
20251	S28°57'09"E	39.11'	20294	S64°23'13"W	53.46'	20337	N59°17'17"W	32.71'	20380	S33°56'10"W	42.33'
20252	S42°02'35"E	37.48'	20295	S77°23'01"W	32.28'	20338	S78°44'42"W	61.87'	20381	S19°07'57"E	32.23'
20253	S43°50'58"E	46.91'	20296	S85°01'32"W	25.15'	20339	S38°37'44"W	37.51'	20382	S10°49'47"E	34.28'
20254	S68°45'37"E	36.63'	20297	N75°02'36"W	25.11'	20340	S65°41'32"W	41.95'	20383	S86°50'46"E	32.63'
20255	S69°28'14"E	40.28'	20298	S07°33'11"W	34.89'	20341	S72°51'09"W	44.05'	20384	S80°09'35"E	57.71'
20256	S23°17'00"E	43.45'	20299	S16°32'44"W	32.28'	20342	S63°53'24"W	32.33'	20385	S82°05'23"E	30.07'
20257	S85°08'17"E	36.38'	20300	S04°11'33"W	41.68'	20343	S41°37'53"W	37.47'	20386	S57°12'23"E	32.00'



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 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

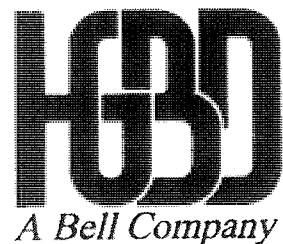
2Q387	S27°50'18"E	32.75'
2Q388	S30°43'10"E	37.06'
2Q389	S15°38'52"W	69.16'
2Q390	S62°37'47"W	31.92'
2Q391	S09°47'58"E	97.38'
2Q392	S35°29'03"W	55.78'
2Q393	S66°31'25"W	43.13'
2Q394	S50°16'06"W	39.45'
2Q395	S56°54'00"W	42.20'
2Q396	S35°45'18"W	57.60'
2Q397	N57°12'10"W	49.74'
2Q398	S61°39'01"W	47.60'
2Q399	S78°37'17"W	58.81'
2Q400	S43°03'16"W	42.30'
2Q401	S57°33'50"W	62.83'
2Q402	S51°11'23"W	48.50'
2Q403	S38°26'51"E	48.65'
2Q404	S52°20'31"W	49.54'
2Q405	N41°01'41"W	57.01'
2Q406	S82°28'00"W	46.89'
2Q407	S78°45'52"W	52.77'
2Q408	S82°41'11"W	56.56'
2Q409	S76°50'12"W	41.13'
2Q410	S33°20'17"W	63.67'
2Q411	S32°07'15"W	56.55'
2Q412	S25°05'27"W	35.35'
2Q413	S06°59'57"W	42.94'
2Q414	S62°52'57"E	45.82'
2Q415	S59°10'54"E	39.10'
2Q416	S30°53'01"W	69.87'
2Q417	S38°50'26"W	60.10'
2Q418	S53°07'01"W	60.64'
2Q419	S30°11'18"W	34.94'
2Q420	S66°18'09"W	49.57'
2Q421	S04°40'54"W	79.24'
2Q422	S18°42'31"W	4.34'
2Q423	N71°20'16"W	7.46'
2Q424	N04°58'18"E	4.46'
2Q425	N02°25'01"E	2.61'
2Q426	N05°49'39"E	159.40'
2Q427	N69°36'30"W	4.58'
2Q428	N78°11'32"W	21.26'
2Q429	N07°29'35"W	40.25'

2Q430	N17°16'16"W	36.86'
2Q431	N11°12'00"E	75.37'
2Q432	N15°38'32"W	37.99'
2Q433	N11°29'16"E	59.38'
2Q434	N07°47'36"E	58.89'
2Q435	N37°57'15"E	56.74'
2Q436	N69°41'18"E	39.29'
2Q437	N18°07'56"E	165.21'
2Q438	N20°31'07"W	38.53'
2Q439	N27°41'58"E	38.38'
2Q440	N49°41'28"W	38.51'
2Q441	N76°38'27"W	39.06'
2Q442	S22°43'26"W	1.32'
2Q443	S33°32'48"W	65.86'
2Q444	S55°16'26"W	91.03'
2Q445	S62°17'59"W	226.25'
2Q446	S73°30'35"W	97.06'
2Q447	S65°45'31"W	102.61'
2Q448	N33°24'01"W	8.42'
2Q449	N43°20'42"E	34.84'
2Q450	N75°19'59"E	49.51'
2Q451	N69°23'15"E	62.94'
2Q452	N83°56'11"E	62.36'
2Q453	N42°50'34"E	542.03'
2Q454	N00°22'47"W	33.79'
2Q455	N04°34'13"W	56.74'
2Q456	N16°46'37"W	59.67'
2Q457	N07°52'01"W	48.12'
2Q458	N07°55'20"W	41.31'
2Q459	N23°49'34"W	33.83'
2Q460	S62°59'53"W	21.93'
2Q461	S56°12'44"W	138.52'
2Q462	S38°13'59"W	53.69'
2Q463	S55°53'17"W	38.91'
2Q464	S58°01'30"W	52.14'
2Q465	S56°45'11"W	320.88'
2Q466	S33°48'51"W	43.36'
2Q467	S22°37'13"W	32.17'
2Q468	N85°22'10"W	42.70'
2Q469	N44°46'41"W	35.79'
2Q470	S77°54'23"W	108.83'
2Q471	S62°14'31"W	17.03'

LINE	BEARING	DISTANCE
2R1	S24°30'27"E	25.62'
2R2	S21°02'43"W	26.29'
2R3	S02°34'08"W	39.24'
2R4	S11°02'57"E	52.94'
2R5	S23°47'58"E	63.95'
2R6	S26°51'09"E	43.19'
2R7	S14°19'14"E	56.13'
2R8	S06°08'49"W	18.62'
2R9	N45°12'58"W	56.45'
2R10	S69°31'37"W	92.71'
2R11	N61°12'33"W	58.05'
2R12	S56°37'50"W	60.64'
2R13	S68°01'42"W	48.25'
2R14	N23°12'57"W	90.07'
2R15	N20°33'08"E	49.81'
2R16	N20°37'45"E	55.87'
2R17	N22°45'50"E	39.71'
2R18	N65°20'41"E	59.38'
2R19	N26°52'36"E	36.02'
2R20	N23°01'21"W	32.68'
2R21	N22°03'01"W	39.38'
2R22	N36°47'07"E	47.42'
2R23	N41°07'24"E	24.70'
2R24	S48°52'36"E	62.38'
2R25	S71°17'29"E	58.81'
2R26	S18°42'31"W	11.79'

LINE	BEARING	DISTANCE
2S1	S37°24'36"E	31.72'
2S2	S45°09'25"E	35.61'
2S3	S53°29'42"E	40.37'
2S4	S80°28'02"E	31.89'
2S5	N24°21'10"E	28.51'
2S6	N26°05'20"E	21.41'
2S7	N85°42'09"E	36.98'
2S8	S28°44'13"E	26.66'
2S9	S17°32'18"E	36.72'
2S10	S21°22'21"W	26.13'
2S11	S66°58'02"W	31.84'
2S12	S60°28'31"W	30.02'
2S13	S54°56'00"W	38.18'

2S14	S08°26'00"W	50.46'
2S15	S20°07'55"E	37.18'
2S16	S12°14'47"E	35.41'
2S17	S75°33'35"E	46.32'
2S18	S32°14'43"E	26.81'
2S19	S08°14'35"W	30.22'
2S20	S06°16'02"W	36.28'
2S21	S17°04'24"E	31.30'
2S22	S20°56'07"E	35.16'
2S23	S18°34'11"E	39.58'
2S24	S27°07'12"W	29.41'
2S25	S40°00'29"E	76.15'
2S26	S35°11'19"E	215.97'
2S27	S43°00'46"E	217.58'
2S28	S36°28'41"E	14.39'
2S29	N51°18'02"E	49.59'
2S30	S84°32'04"E	56.13'
2S31	S74°28'31"E	37.10'
2S32	N61°12'26"E	75.30'
2S33	N38°20'03"E	75.65'
2S34	N36°44'26"E	46.88'
2S35	N29°29'19"E	41.25'
2S36	N46°20'55"E	82.56'
2S37	N53°34'16"E	75.96'
2S38	N75°16'28"E	45.12'
2S39	N16°53'22"E	61.97'
2S40	N13°50'33"E	32.79'
2S41	N08°01'32"W	49.37'
2S42	N08°59'17"E	53.32'
2S43	N11°30'36"E	60.73'
2S44	N37°04'09"E	66.95'
2S45	N60°47'46"E	98.68'
2S46	S84°19'06"E	25.83'
2S47	N24°56'47"E	62.02'
2S48	N24°21'36"E	64.59'
2S49	N40°44'51"E	53.42'
2S50	N77°36'52"W	33.27'
2S51	N71°07'12"E	33.56'
2S52	S70°52'55"E	21.14'
2S53	S13°35'54"W	5.36'
2S54	S27°33'17"W	467.83'
2S55	S35°09'29"W	37.33'



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 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2S56	S23°41'08"W	7.88'
2S57	S33°55'07"W	264.24'
2S58	S38°48'22"W	222.03'
2S59	S04°47'58"E	23.14'
2S60	S52°29'11"W	41.96'
2S61	S46°13'14"W	31.04'
2S62	S39°03'52"W	53.29'
2S63	S50°38'12"W	43.14'
2S64	S11°25'29"W	22.51'
2S65	S36°28'38"E	53.57'
2S66	S20°07'41"E	50.15'
2S67	S49°33'13"E	53.86'
2S68	S21°26'59"E	69.47'
2S69	S30°05'52"W	26.27'
2S70	S52°10'44"W	39.59'
2S71	S33°40'37"E	106.53'
2S72	S29°15'20"E	94.77'
2S73	S04°57'05"W	33.36'
2S74	N68°52'42"W	387.75'
2S75	N35°41'36"W	1375.59'
2S76	N50°57'56"E	480.93'
2S77	S37°24'36"E	9.08'

LINE	BEARING	DISTANCE
2T1	N84°47'51"E	56.10'
2T2	S30°27'55"E	70.56'
2T3	S21°19'49"E	35.68'
2T4	S87°33'35"E	52.79'
2T5	S27°37'50"E	64.69'
2T6	S27°53'13"E	53.75'
2T7	S03°47'45"E	48.43'
2T8	N63°18'54"W	51.48'
2T9	N64°28'34"W	50.89'
2T10	N36°56'52"W	62.99'
2T11	N47°38'28"W	47.06'
2T12	N74°34'28"W	33.34'
2T13	N28°25'25"W	65.06'
2T14	N30°49'40"E	23.47'
2T15	N00°07'52"W	31.03'

LINE	BEARING	DISTANCE
2U1	N37°17'32"E	69.04'
2U2	S39°49'16"E	55.47'
2U3	S54°14'19"E	41.93'
2U4	S05°59'53"W	46.73'
2U5	S09°33'14"W	54.17'
2U6	S49°56'51"W	57.91'
2U7	N65°38'12"W	30.04'
2U8	N10°40'23"W	139.35'

LINE	BEARING	DISTANCE
2V1	N33°08'25"E	67.39'
2V2	N85°34'17"E	50.86'
2V3	N89°41'47"E	77.78'
2V4	N74°41'42"E	64.51'
2V5	N74°31'45"E	48.83'
2V6	N47°54'52"E	55.03'
2V7	N21°23'32"E	53.18'
2V8	N51°12'11"E	39.51'
2V9	N75°34'53"E	65.83'
2V10	N88°00'47"E	55.58'
2V11	N69°28'14"E	62.02'
2V12	N65°41'19"E	45.71'
2V13	N62°44'38"E	40.48'
2V14	N66°05'51"E	46.06'
2V15	N41°12'35"E	58.11'
2V16	N42°33'25"E	67.43'
2V17	N58°15'18"E	76.80'
2V18	N55°50'10"E	53.50'
2V19	N64°34'24"E	60.05'
2V20	N71°18'10"E	49.58'
2V21	N47°24'32"E	47.11'
2V22	N29°12'13"E	64.75'
2V23	N46°12'58"E	62.87'
2V24	N29°58'51"E	73.86'
2V25	N47°33'59"E	62.30'
2V26	N59°33'55"E	56.04'
2V27	N46°29'16"E	43.63'
2V28	N37°17'59"E	47.57'
2V29	N30°04'29"E	76.46'
2V30	N66°07'06"E	31.67'
2V31	S08°20'02"E	211.37'
2V32	S20°32'15"W	28.67'

2V33	S52°16'20"W	48.32'
2V34	S83°22'12"W	65.87'
2V35	S62°43'53"W	38.53'
2V36	S61°32'10"W	43.58'
2V37	S53°48'10"W	58.60'
2V38	S37°36'25"W	65.21'
2V39	S35°21'32"W	57.04'
2V40	S49°43'20"W	67.81'
2V41	S69°16'56"W	48.44'
2V42	S65°21'30"W	84.16'
2V43	S66°27'55"W	48.40'
2V44	S42°54'34"W	44.22'
2V45	S37°48'55"W	56.86'
2V46	S48°34'30"W	62.38'
2V47	S45°07'58"W	59.98'
2V48	S57°28'43"W	51.69'
2V49	S66°35'36"W	87.50'
2V50	S78°36'47"W	63.65'
2V51	S61°31'11"W	69.63'
2V52	S27°05'15"W	52.71'
2V53	S25°31'16"W	73.18'
2V54	S53°53'49"W	72.59'
2V55	S82°22'50"W	57.99'
2V56	S85°27'22"W	65.56'
2V57	S65°21'08"W	60.46'
2V58	S72°30'24"W	60.43'
2V59	N30°56'58"W	167.97'

LINE	BEARING	DISTANCE
2W1	S24°24'28"E	537.00'
2W2	S73°43'46"W	15.40'
2W3	S83°44'02"W	52.02'
2W4	N89°58'25"W	63.23'
2W5	N51°34'37"W	61.08'
2W6	S55°33'57"W	55.89'
2W7	S63°58'46"W	48.03'
2W8	S48°19'51"W	36.75'
2W9	N75°28'56"W	71.83'
2W10	S61°24'42"W	43.32'
2W11	N59°19'28"W	39.13'
2W12	N28°07'59"W	34.50'
2W13	N31°15'11"W	34.59'
2W14	N68°04'05"W	43.72'

2W15	N03°04'19"E	53.85'
2W16	S70°35'14"W	25.19'
2W17	S65°28'24"W	207.21'
2W18	S80°33'21"W	59.95'
2W19	S78°27'04"W	100.69'
2W20	S66°03'01"W	6.22'
2W21	N23°56'59"W	8.43'
2W22	N66°03'01"E	10.12'
2W23	N68°31'56"E	576.86'
2W24	N09°00'57"W	44.46'
2W25	N29°05'04"E	50.90'
2W26	N20°04'31"E	66.72'
2W27	N28°03'52"E	65.34'
2W28	N37°34'37"E	48.33'
2W29	N30°39'22"E	59.38'
2W30	S87°01'59"E	25.29'
2W31	S24°24'28"E	537.00'

LINE	BEARING	DISTANCE
2X1	N34°06'52"E	39.16'
2X2	N57°25'32"E	32.36'
2X3	N71°11'22"E	39.64'
2X4	N60°37'54"E	50.33'
2X5	S80°21'16"E	56.24'
2X6	N70°10'53"E	38.74'
2X7	S60°19'13"E	64.64'
2X8	S45°02'01"E	60.23'
2X9	S75°04'49"E	57.58'
2X10	N66°22'10"E	48.21'
2X11	N26°20'11"E	52.78'
2X12	N85°05'18"E	32.50'
2X13	S77°24'25"E	43.21'
2X14	S45°50'10"E	52.15'
2X15	S59°57'52"E	41.85'
2X16	S45°22'02"E	60.35'
2X17	N52°03'40"E	45.11'
2X18	N70°16'14"E	51.23'
2X19	N56°35'25"E	51.68'
2X20	N76°04'25"E	56.13'
2X21	N48°51'48"E	50.69'
2X22	N03°14'20"W	63.95'
2X23	N29°10'25"E	50.20'
2X24	S05°57'46"E	28.66'



JURISDICTIONAL WETLAND EXHIBIT
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 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

2X25	S33°46'42"E	33.86'
2X26	N87°30'59"E	44.33'
2X27	N85°56'13"E	63.50'
2X28	N61°11'43"E	42.72'
2X29	N44°27'47"E	53.50'
2X30	N48°07'40"E	60.30'
2X31	N56°10'53"E	36.36'
2X32	N30°28'20"E	59.90'
2X33	N41°04'10"E	60.39'
2X34	N64°13'01"E	38.11'
2X35	N29°39'58"E	48.02'
2X36	N61°52'04"E	45.51'
2X37	N23°19'58"E	42.53'
2X38	N19°23'27"W	38.44'
2X39	N37°43'29"W	60.49'
2X40	N26°14'03"E	46.30'
2X41	N72°48'37"E	68.70'
2X42	S82°53'11"E	38.52'
2X43	N66°08'13"E	43.79'
2X44	N50°10'50"E	51.64'
2X45	N77°31'51"E	52.81'
2X46	S68°24'38"E	54.25'
2X47	S81°26'04"E	44.01'
2X48	N84°40'34"E	52.58'
2X49	N52°12'57"E	34.51'
2X50	N24°44'00"E	54.67'
2X51	N38°51'39"E	56.17'
2X52	N02°23'41"E	31.88'
2X53	N08°18'29"W	43.07'
2X54	N37°34'49"E	29.58'
2X55	N56°30'13"E	33.24'
2X56	S10°51'12"E	30.03'
2X57	S00°20'10"W	28.30'
2X58	S09°46'32"E	35.83'
2X59	S57°03'02"E	26.76'
2X60	N74°49'50"E	53.35'
2X61	N70°42'34"E	44.03'
2X62	N85°13'20"E	74.90'
2X63	N58°42'07"E	52.27'
2X64	N60°52'26"E	45.07'
2X65	N61°37'53"E	47.04'
2X66	N74°21'13"E	74.08'
2X67	N72°23'47"E	63.56'

2X68	N79°36'53"E	60.16'
2X69	N72°07'50"E	58.65'
2X70	N60°14'14"E	39.08'
2X71	N57°18'06"E	78.60'
2X72	S86°09'30"E	76.45'
2X73	N36°58'40"E	51.82'
2X74	N68°14'17"E	47.69'
2X75	N48°11'11"E	61.37'
2X76	N50°49'14"E	54.53'
2X77	N04°29'27"E	35.38'
2X78	N86°25'26"E	74.49'
2X79	N24°34'45"E	46.49'
2X80	N00°37'32"W	55.42'
2X81	N43°43'42"E	53.53'
2X82	N53°04'45"E	75.09'
2X83	N40°54'44"E	55.08'
2X84	N33°03'59"E	51.29'
2X85	N05°34'22"W	32.98'
2X86	N10°47'39"W	39.22'
2X87	N22°41'03"W	37.49'
2X88	N36°11'20"W	36.43'
2X89	N00°00'31"E	33.81'
2X90	N20°01'41"E	28.79'
2X91	N07°36'29"W	33.97'
2X92	N65°35'21"W	65.45'
2X93	N50°41'33"W	19.08'
2X94	N82°11'24"W	13.72'
2X95	N17°28'26"E	56.12'
2X96	N38°49'20"E	45.21'
2X97	N07°03'52"W	26.69'
2X98	N64°03'08"E	43.45'
2X99	N42°16'33"E	58.71'
2X100	S71°17'37"E	44.91'
2X101	N68°06'27"E	43.53'
2X102	N66°06'27"E	10.71'
2X103	S31°13'29"E	423.11'
2X104	S29°17'01"E	46.02'
2X105	S33°39'36"W	22.59'
2X106	S31°19'10"W	34.26'
2X107	S04°12'17"W	35.87'
2X108	S06°48'14"E	39.87'
2X109	S19°23'51"E	45.39'
2X110	S16°40'34"E	47.78'

2X111	S09°27'42"E	30.68'
2X112	S49°03'50"E	51.16'
2X113	S53°48'31"E	40.68'
2X114	S71°25'39"W	72.36'
2X115	S02°19'05"W	47.07'
2X116	S27°50'35"W	47.24'
2X117	S07°41'24"W	50.17'
2X118	S59°13'39"W	78.79'
2X119	N64°55'31"W	49.04'
2X120	N88°22'47"W	56.13'
2X121	S40°47'55"W	80.21'
2X122	S64°23'50"W	54.69'
2X123	S36°38'16"W	97.18'
2X124	S56°38'45"W	32.98'
2X125	S47°41'32"W	52.57'
2X126	S82°18'16"W	72.76'
2X127	N86°06'11"W	65.53'
2X128	S87°13'33"W	57.87'
2X129	S74°47'29"W	67.21'
2X130	S43°53'45"W	42.35'
2X131	S84°54'44"W	48.91'
2X132	N71°18'26"W	90.61'
2X133	N42°49'01"W	46.93'
2X134	N33°47'08"W	65.19'
2X135	N28°10'08"W	70.90'
2X136	N72°55'57"W	51.45'
2X137	S61°10'20"W	32.32'
2X138	N24°24'28"W	426.81'

LINE	BEARING	DISTANCE
2Y1	N05°10'45"E	55.55'
2Y2	N48°14'52"E	49.54'
2Y3	N74°25'38"E	63.51'
2Y4	S55°57'19"E	31.40'
2Y5	S14°55'59"W	39.54'
2Y6	S64°43'27"W	67.67'
2Y7	S19°12'19"E	20.07'
2Y8	S77°55'07"W	38.71'
2Y9	S46°02'24"W	40.75'
2Y10	S65°39'50"W	29.45'
2Y11	N32°20'33"E	55.38'

LINE	BEARING	DISTANCE
2Z1	S51°39'38"W	128.40'
2Z2	S43°57'39"W	43.98'
2Z3	N61°08'37"W	41.54'
2Z4	N01°01'05"E	44.92'
2Z5	N33°04'59"E	44.46'
2Z6	N45°43'48"E	63.78'
2Z7	N78°47'36"E	51.57'
2Z8	S46°44'23"E	55.81'
2Z9	S37°59'40"E	9.17'

LINE	BEARING	DISTANCE
3A1	N72°08'57"E	43.52'
3A2	N50°54'19"E	71.48'
3A3	N66°41'33"E	9.06'
3A4	S33°24'01"E	15.85'
3A5	S41°12'48"W	12.16'
3A6	S64°44'08"W	65.24'
3A7	S04°20'18"W	59.79'
3A8	N56°48'59"W	30.28'
3A9	N28°38'44"W	35.61'

LINE	BEARING	DISTANCE
3B1	N89°08'36"E	32.10'
3B2	S43°35'57"W	19.67'
3B3	S61°11'28"E	35.86'
3B4	S37°44'09"E	34.82'
3B5	S50°32'58"E	14.61'
3B6	S00°47'18"W	53.28'
3B7	S53°34'36"W	48.26'
3B8	S04°24'55"W	20.00'
3B9	S56°14'46"W	38.80'
3B10	N87°26'50"W	71.24'
3B11	S56°45'59"W	54.20'
3B12	N67°58'24"W	63.09'
3B13	N64°22'02"W	31.97'
3B14	S84°51'40"W	41.80'
3B15	S20°46'01"W	80.66'
3B16	S46°11'35"W	35.42'
3B17	S19°03'49"W	39.20'
3B18	S38°07'22"W	71.37'
3B19	N56°13'29"W	43.01'
3B20	S28°47'23"W	61.81'



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3821	S22°54'58"W	52.43'	3864	S16°39'15"W	18.28'	38107	N86°25'55"E	27.62'	38150	S66°25'01"E	33.22'
3822	S30°47'46"W	58.52'	3865	S70°50'29"W	8.76'	38108	N66°10'10"E	26.74'	38151	S84°32'18"E	27.42'
3823	S20°38'57"W	49.00'	3866	N70°18'13"W	43.33'	38109	N55°58'06"E	28.46'	38152	N86°05'01"E	36.71'
3824	S44°37'23"W	43.00'	3867	N43°15'08"W	57.87'	38110	N63°04'45"E	32.84'	38153	N86°12'45"E	21.64'
3825	S28°50'52"W	52.54'	3868	N31°57'14"W	57.69'	38111	N30°49'35"E	20.26'	38154	S83°15'03"E	28.66'
3826	S18°53'42"W	83.23'	3869	N80°10'33"W	35.08'	38112	N08°07'59"W	22.37'	38155	N44°38'38"E	25.25'
3827	S37°54'12"W	46.65'	3870	N31°26'50"W	24.46'	38113	N30°21'22"E	26.79'	38156	N40°13'11"W	24.62'
3828	S25°12'49"W	75.47'	3871	N36°10'26"W	41.85'	38114	N35°53'09"E	28.63'	38157	N31°51'23"E	16.01'
3829	S30°09'52"W	60.29'	3872	N17°01'17"E	39.56'	38115	N52°11'30"E	24.93'	38158	N21°19'03"E	43.42'
3830	S36°10'58"E	41.16'	3873	N07°56'58"E	21.79'	38116	N53°03'09"E	31.19'	38159	N80°39'36"E	42.24'
3831	S42°32'32"E	47.75'	3874	N32°59'57"E	24.38'	38117	N11°38'47"E	32.33'	38160	N84°43'24"E	27.46'
3832	N86°02'20"W	19.04'	3875	N26°50'27"W	39.01'	38118	N53°59'41"E	30.43'	38161	N45°35'14"E	13.80'
3833	N43°11'55"W	47.93'	3876	N23°56'04"W	41.03'	38119	N23°48'20"W	24.71'	38162	N59°36'28"W	25.61'
3834	N46°15'05"W	24.55'	3877	N20°17'16"W	49.76'	38120	N05°24'57"E	26.77'	38163	N25°18'41"E	38.08'
3835	S31°21'11"W	36.88'	3878	N18°45'23"W	100.07'	38121	N34°29'22"W	39.80'	38164	N05°10'24"E	17.74'
3836	N64°24'25"W	6.78'	3878	N18°45'23"W	100.07'	38122	N32°41'36"W	23.36'	38165	N18°48'09"E	36.71'
3837	S34°04'56"W	65.24'	3879	N51°00'06"E	156.43'	38123	N77°12'23"W	38.73'	38166	N59°03'38"E	29.43'
3838	N35°30'20"W	23.95'	3880	S36°59'54"E	6.13'	38124	S54°08'04"W	23.63'	38167	S70°34'59"E	24.15'
3839	N15°10'27"W	37.12'	3881	S08°30'27"W	22.90'	38125	N70°33'39"W	31.60'	38168	N36°52'41"E	34.75'
3840	S80°35'52"W	31.04'	3882	S84°42'47"W	42.29'	38126	S75°18'37"W	43.74'	38169	N34°12'20"E	45.51'
3841	N85°54'12"W	49.02'	3883	S12°30'04"E	28.14'	38127	N69°08'19"W	55.63'	38170	N00°50'55"W	35.99'
3842	S03°24'46"E	42.85'	3884	S40°18'42"E	50.22'	38128	N62°49'58"W	32.90'	38171	N19°42'22"W	41.55'
3843	S60°41'51"E	38.78'	3885	S20°25'18"W	18.21'	38129	N05°07'05"E	24.12'	38172	N40°27'00"W	26.58'
3844	S80°50'14"W	9.94'	3886	S15°05'28"W	34.32'	38130	S77°12'49"W	22.46'	38173	N25°00'28"W	29.51'
3845	S65°02'21"W	31.22'	3887	S08°11'28"E	34.77'	38131	S49°27'10"W	34.29'	38174	N09°42'09"W	32.45'
3846	S82°25'00"W	68.86'	3888	S43°38'09"E	25.43'	38132	N39°16'15"W	34.89'	38175	N18°28'54"W	25.67'
3847	N86°09'14"W	40.19'	3889	S05°44'00"E	28.15'	38133	N67°28'22"E	36.61'	38176	N43°57'39"W	14.89'
3848	S81°02'29"W	55.30'	3890	S18°34'26"E	41.99'	38134	N45°49'47"E	53.90'	38177	N01°56'23"W	38.35'
3849	S69°58'15"W	42.94'	3891	S40°48'29"W	30.95'	38135	S74°53'13"E	16.60'	38178	N46°12'21"W	35.01'
3850	S41°32'14"W	57.03'	3892	S54°44'19"W	15.91'	38136	S35°13'57"E	29.36'	38179	N62°02'03"W	24.68'
3851	N89°09'01"W	33.10'	3893	S30°21'11"E	155.48'	38137	N86°48'37"E	37.16'	38180	N64°53'15"W	42.09'
3852	N72°19'41"W	37.87'	3894	N33°07'32"E	22.43'	38138	N55°44'26"E	34.60'	38181	N15°06'33"W	35.38'
3853	N49°04'27"W	64.49'	3895	N20°01'35"W	28.63'	38139	N10°28'30"E	40.17'	38182	N45°48'11"W	31.74'
3854	S55°57'11"W	39.98'	3896	N67°22'48"E	34.47'	38140	N87°20'32"W	17.60'	38183	S38°58'42"W	19.95'
3855	S69°02'21"W	43.90'	3897	N27°59'38"E	38.56'	38141	N45°54'13"E	142.93'	38184	S30°23'05"W	24.39'
3856	N69°07'14"W	32.00'	3898	N18°46'37"W	21.82'	38142	S35°37'22"E	36.53'	38185	S68°59'40"E	22.06'
3857	S71°10'28"W	32.47'	3899	N22°51'05"E	27.94'	38143	S23°52'16"E	19.71'	38186	S81°58'53"E	10.28'
3858	S55°28'23"W	20.77'	38100	N16°42'47"E	20.78'	38144	S34°33'14"E	24.72'	38187	S15°16'43"W	28.81'
3859	N77°40'47"W	38.24'	38101	N63°24'09"E	18.16'	38145	N88°33'00"E	31.61'	38188	N62°06'42"W	13.50'
3860	S31°21'59"W	39.85'	38102	S65°27'11"E	22.35'	38146	S66°28'30"E	32.74'	38189	N39°58'00"W	32.66'
3861	S59°04'19"W	48.13'	38103	N75°42'04"E	25.82'	38147	S68°15'44"E	12.22'	38190	N62°13'17"W	46.97'
3862	N83°55'12"W	48.00'	38104	N75°08'30"E	29.26'	38148	N84°57'05"E	25.49'	38191	N27°48'43"E	274.83'
3863	S66°30'10"W	47.12'	38105	N86°08'47"E	21.55'	38149	S77°33'04"E	22.19'	38192	S62°13'17"E	40.28'
			38106	N70°14'53"E	39.49'						



JURISDICTIONAL WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

38193	N84°21'56"E	30.79'
38194	S73°27'40"E	53.11'
38195	N82°22'16"E	33.16'
38196	S48°56'59"E	51.21'
38197	S47°53'41"E	51.86'
38198	S35°44'55"E	39.07'
38199	S47°58'07"E	41.80'
38200	S33°52'49"E	48.39'
38201	N44°36'59"E	58.71'
38202	S39°46'07"E	46.43'
38203	S44°40'59"E	65.84'
38204	S31°17'39"E	56.78'
38205	S32°46'33"E	50.10'
38206	S34°07'12"E	45.07'
38207	S62°00'58"E	50.34'
38208	S25°39'47"E	35.57'
38209	S50°20'57"E	33.12'
38210	S38°43'55"E	32.69'
38211	S70°35'41"E	26.80'
38212	S73°40'16"E	35.45'
38213	N86°08'15"E	33.89'
38214	S47°24'28"E	43.11'
38215	S56°46'04"E	8.43'
38216	N56°59'29"E	119.67'
38217	N62°02'25"W	35.72'
38218	N42°01'51"W	40.13'
38219	N41°14'21"W	27.86'
38220	N00°48'53"E	42.13'
38221	N59°48'46"W	41.76'
38222	S66°12'02"W	46.46'
38223	N29°39'09"W	39.13'
38224	N05°55'47"E	41.15'
38225	N39°21'46"W	31.54'
38226	N03°19'04"E	32.60'
38227	N53°26'01"W	32.20'
38228	S72°21'34"W	20.59'
38229	N15°28'19"E	34.17'
38230	N17°52'19"E	26.75'
38231	N00°03'48"W	27.99'
38232	N15°16'05"W	32.51'
38233	N36°58'56"E	45.32'
38234	S53°53'32"E	41.92'
38235	S64°28'47"E	44.61'

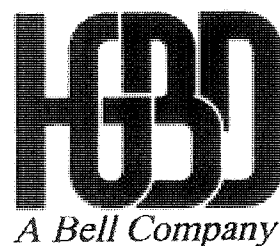
38236	S39°12'14"E	47.77'
38237	S14°49'54"E	39.20'
38238	N69°02'48"E	31.75'
38239	S65°36'09"E	44.96'
38240	S07°53'43"E	38.23'
38241	S42°36'41"W	24.69'
38242	S01°30'02"W	31.89'
38243	S43°01'05"E	43.30'
38244	S70°59'31"E	50.94'
38245	S65°14'37"E	60.70'
38246	N65°34'46"E	40.14'
38247	S45°44'04"E	10.59'
38248	S48°33'44"W	202.05'
38249	N58°39'33"W	39.51'
38250	N58°21'42"W	47.48'
38251	N43°29'48"W	48.12'
38252	N42°51'53"W	28.62'
38253	N50°19'07"E	48.15'
38254	S49°50'08"E	30.51'
38255	S50°56'01"E	39.44'
38256	S40°22'24"E	38.51'
38257	S40°56'18"E	46.06'
38258	S42°51'39"W	28.22'

LINE	BEARING	DISTANCE
3C1	N26°39'59"W	857.53'
3C2	N68°52'17"E	58.27'
3C3	N63°25'10"E	62.73'
3C4	S87°44'12"E	47.78'
3C5	N45°55'21"E	55.60'
3C6	N46°29'22"E	66.73'
3C7	N49°40'22"E	77.04'
3C8	N51°32'43"E	65.83'
3C9	N68°15'20"E	67.03'
3C10	N61°03'44"E	58.86'
3C11	N67°20'18"E	63.14'
3C12	N46°48'23"E	76.99'
3C13	N42°27'11"E	74.60'
3C14	S74°33'04"E	59.10'
3C15	N84°49'19"E	70.42'
3C16	N43°18'05"E	64.86'
3C17	N67°40'05"E	77.32'
3C18	N83°37'18"E	61.98'

3C19	S85°24'56"E	68.95'
3C20	S85°29'28"E	56.10'
3C21	S84°19'14"E	69.00'
3C22	S26°52'45"E	73.77'
3C23	S56°10'16"E	53.65'
3C24	S55°39'43"E	55.67'
3C25	S81°53'41"E	46.22'
3C26	N84°17'19"E	53.29'
3C27	N62°57'30"E	46.98'
3C28	N57°58'26"E	67.18'
3C29	N61°01'19"E	67.42'
3C30	N73°32'52"E	62.15'
3C31	N57°54'24"E	78.50'
3C32	N73°35'15"E	66.28'
3C33	N58°03'49"E	71.47'
3C34	N29°09'35"E	72.34'
3C35	N47°29'14"E	77.50'
3C36	N29°57'25"E	61.80'
3C37	N56°36'18"E	58.12'
3C38	S26°19'25"E	215.95'
3C39	S05°13'29"E	23.85'
3C40	S47°23'11"W	62.59'
3C41	S21°44'43"W	55.02'
3C42	S62°37'44"W	96.85'
3C43	S80°14'41"W	68.35'
3C44	N65°48'34"W	39.91'
3C45	S77°41'57"W	66.44'
3C46	S16°22'25"W	55.26'
3C47	S53°15'50"W	72.87'
3C48	S49°51'00"W	80.39'
3C49	S41°08'28"W	79.62'
3C50	S43°07'04"W	76.55'
3C51	S61°13'43"W	64.27'
3C52	S41°36'48"W	77.78'
3C53	S22°54'13"W	77.23'
3C54	S39°40'28"W	77.46'
3C55	S54°44'23"W	76.85'
3C56	S60°59'00"W	69.39'
3C57	S60°49'00"W	78.02'
3C58	S52°23'29"W	80.33'
3C59	S41°19'45"W	111.80'
3C60	S66°36'40"W	112.04'
3C61	S60°00'48"W	117.92'

3C62	S29°48'18"W	77.73'
3C63	S11°41'04"E	79.06'
3C64	S47°48'56"W	72.92'
3C65	S63°32'12"W	93.40'
3C66	S70°23'28"W	216.37'
3C67	N39°25'55"E	64.29'
3C68	N56°58'52"E	89.26'
3C69	N64°23'42"E	57.15'
3C70	N71°44'53"E	80.75'
3C71	N50°34'42"E	66.64'
3C72	N64°27'13"E	65.76'
3C73	N72°40'11"E	85.88'
3C74	S04°11'58"W	64.21'
3C75	S05°11'13"E	69.67'
3C76	S13°51'01"E	73.99'
3C77	S72°15'55"W	84.18'
3C78	S25°12'49"W	86.75'
3C79	S35°24'39"W	65.65'
3C80	S12°35'47"W	56.55'
3C81	S50°05'28"W	80.13'
3C82	S51°46'11"W	68.58'
3C83	S43°41'58"W	87.36'
3C84	N67°24'12"W	68.78'
3C85	N36°19'01"W	39.86'
3C86	N03°38'29"W	93.92'
3C87	N26°49'20"E	62.46'
3C88	N55°23'35"W	48.51'
3C89	N32°34'13"W	58.90'
3C90	N27°31'30"E	50.96'

LINE	BEARING	DISTANCE
3D1	S57°43'40"W	47.89'
3D2	S53°26'53"W	57.75'
3D3	S51°01'07"W	55.44'
3D4	S42°50'43"W	32.18'
3D5	S57°31'35"W	48.91'
3D6	N26°19'55"W	190.75'
3D7	N30°56'46"E	49.96'
3D8	N61°52'03"E	49.85'
3D9	N32°03'58"E	71.38'
3D10	N06°49'52"W	40.24'
3D11	N03°51'30"W	61.89'
3D12	N18°10'11"W	89.70'



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 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

3013	N10°02'16"W	55.28'
3014	N29°18'11"W	63.87'
3015	N23°02'03"W	20.82'
3016	N39°16'15"E	39.20'
3017	N81°15'10"E	41.01'
3018	S64°38'16"E	41.94'
3019	S68°46'13"E	62.63'
3020	S65°15'57"E	45.98'
3021	S83°41'58"E	58.09'
3022	N89°42'23"E	53.28'
3023	N70°02'38"E	62.33'
3024	S88°56'40"E	46.48'
3025	N66°17'13"E	42.35'
3026	N63°12'53"E	67.21'
3027	N67°50'12"E	67.67'
3028	N58°18'33"E	62.16'
3029	N77°40'40"E	40.65'
3030	S59°04'28"E	22.46'
3031	S27°44'13"E	39.08'
3032	S36°03'08"W	35.82'
3033	S51°02'57"W	36.15'
3034	S53°39'57"W	84.20'
3035	S64°40'41"W	69.78'
3036	S33°35'26"W	50.33'
3037	S13°48'23"W	60.67'
3038	S57°18'02"E	47.67'
3039	S68°25'10"E	63.19'
3040	S73°20'08"E	59.33'
3041	N60°18'16"E	60.87'
3042	N64°43'02"E	62.98'
3043	N64°04'01"E	76.65'
3044	N50°46'01"E	77.25'
3045	N44°33'03"E	69.01'
3046	N09°01'16"E	49.18'
3047	N05°19'23"W	81.66'
3048	N51°25'32"W	55.35'
3049	N50°40'54"W	43.68'
3050	S79°14'21"W	36.11'
3051	S89°48'57"W	66.24'
3052	N46°39'23"W	35.40'
3053	N05°47'38"W	41.55'
3054	N33°46'21"E	58.72'
3055	N41°24'36"E	42.02'

3056	N44°38'34"E	31.20'
3057	N49°12'23"E	79.08'
3058	N47°47'02"E	109.23'
3059	N34°24'55"E	53.08'
3060	N75°39'16"E	52.22'
3061	N44°58'29"E	69.19'
3062	N50°00'30"E	51.71'
3063	N71°50'57"E	48.32'
3064	N87°21'06"E	55.51'
3065	S54°20'35"E	52.94'
3066	S34°38'26"E	27.00'
3067	S07°31'04"E	56.73'
3068	S12°32'39"E	37.07'
3069	S02°37'08"E	37.66'
3070	S07°56'57"E	29.70'
3071	S14°35'50"E	36.46'
3072	S47°37'51"E	30.20'
3073	S08°23'12"E	66.03'
3074	S44°33'02"W	53.08'
3075	N88°46'07"W	29.31'
3076	S41°19'31"W	39.21'
3077	S51°10'29"W	42.87'
3078	S15°49'12"W	41.80'
3079	S17°02'06"E	60.28'
3080	S00°39'03"W	42.34'
3081	S22°19'37"W	34.42'
3082	S01°16'48"E	47.77'
3083	S02°05'56"E	44.86'
3084	S33°47'25"W	29.51'
3085	S64°36'08"W	24.18'
3086	S86°49'35"W	42.77'
3087	S47°36'59"W	54.49'
3088	S40°02'39"W	54.99'
3089	S60°01'10"W	45.79'
3090	S87°05'19"W	36.52'
3091	N78°01'43"W	30.70'
3092	S74°08'02"W	29.77'
3093	S38°05'35"W	44.05'
3094	S67°03'59"W	48.46'
3095	S63°04'41"W	60.95'
3096	S64°43'57"W	50.49'
3097	S62°32'59"W	58.50'
3098	S85°47'04"W	41.48'

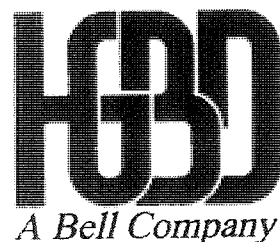
3099	S44°34'02"W	63.85'
30100	S44°39'13"W	67.14'
30101	S62°47'30"W	68.30'
30102	N82°36'10"W	75.22'
30103	N60°14'44"W	65.20'
30104	N83°47'58"W	61.94'
30105	S63°31'21"W	61.19'

LINE	BEARING	DISTANCE
3E1	S41°07'15"W	40.72'
3E2	S58°49'38"W	44.67'
3E3	N64°12'38"W	42.88'
3E4	N16°50'32"W	39.10'
3E5	N07°25'08"W	47.72'
3E6	N37°39'32"W	44.79'
3E7	N14°39'04"W	51.41'
3E8	N03°52'31"W	63.18'
3E9	N04°43'50"E	53.07'
3E10	N32°38'41"E	45.93'
3E11	S25°15'53"E	320.01'

LINE	BEARING	DISTANCE
3F1	N37°23'06"E	22.59'
3F2	N50°05'28"E	67.09'
3F3	N37°58'17"E	37.54'
3F4	N39°03'18"E	45.36'
3F5	N39°38'22"E	68.66'
3F6	N50°53'07"E	67.45'
3F7	N61°52'16"E	40.36'
3F8	N73°09'24"E	62.85'
3F9	N20°23'42"E	63.48'
3F10	N51°37'19"E	97.97'
3F11	N41°17'19"E	75.67'
3F12	N87°43'29"E	48.21'
3F13	N29°07'54"E	59.41'
3F14	N67°43'55"E	58.53'
3F15	N42°11'42"E	70.57'
3F16	N83°46'31"E	54.87'
3F17	N78°09'26"E	48.71'
3F18	N54°46'36"E	55.56'
3F19	N15°53'34"E	36.12'
3F20	N42°35'49"E	37.35'
3F21	N06°52'57"W	44.11'

3F22	N60°45'26"E	47.98'
3F23	N43°59'18"E	88.95'
3F24	N59°23'10"E	64.75'
3F25	N20°43'30"E	55.97'
3F26	N27°12'32"W	87.47'
3F27	N40°01'17"E	37.33'
3F28	N83°08'29"E	35.62'
3F29	N72°55'39"E	33.61'
3F30	N62°07'22"E	40.78'
3F31	N49°15'01"E	47.22'
3F32	S08°18'27"E	155.13'
3F33	N52°36'54"W	192.59'

LINE	BEARING	DISTANCE
3G1	N86°09'38"E	86.38'
3G2	S58°09'31"E	65.05'
3G3	S45°56'00"E	56.18'
3G4	S28°41'03"E	74.53'
3G5	S01°30'50"W	59.01'
3G6	S05°13'20"E	71.27'
3G7	S03°47'03"W	70.14'
3G8	S02°13'59"E	50.10'
3G9	S25°38'57"W	85.61'
3G10	S33°42'13"W	69.44'
3G11	S51°35'36"W	61.31'
3G12	S76°02'17"W	42.68'
3G13	S76°21'02"W	65.13'
3G14	N79°05'36"W	54.48'
3G15	N45°37'07"W	39.16'
3G16	N23°56'30"W	86.47'
3G17	N15°14'26"W	84.35'
3G18	N02°03'46"E	54.09'
3G19	N10°37'17"E	63.13'
3G20	N19°30'46"E	51.61'
3G21	N23°27'41"E	72.64'
3G22	N20°36'43"E	68.83'
3G23	N13°33'18"E	51.74'
3G24	N39°48'38"E	22.33'
3G25	N61°57'48"E	41.16'



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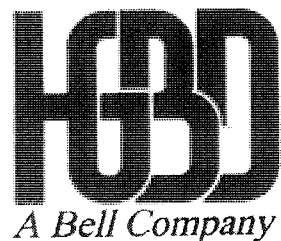
LINE	BEARING	DISTANCE
3H1	N57°13'52"E	48.48'
3H2	S68°08'56"E	34.73'
3H3	S67°04'31"E	47.98'
3H4	S51°57'58"E	57.70'
3H5	S00°30'49"W	60.56'
3H6	S39°00'14"W	45.24'
3H7	S44°13'38"W	61.40'
3H8	S55°50'21"W	54.16'
3H9	N69°37'43"W	55.72'
3H10	N43°56'08"W	54.25'
3H11	N01°16'07"W	62.02'
3H12	N03°26'43"E	61.79'
3H13	N55°10'12"E	50.61'

LINE	BEARING	DISTANCE
3I1	N55°22'00"E	52.40'
3I2	S47°46'28"E	64.55'
3I3	S19°34'37"E	64.57'
3I4	S05°40'40"W	45.88'
3I5	S14°48'15"W	38.21'
3I6	S83°12'30"W	44.61'
3I7	N82°33'33"W	49.20'
3I8	N38°43'46"W	79.95'
3I9	N04°59'33"E	65.62'
3I10	N54°13'47"E	48.23'

LINE	BEARING	DISTANCE
3J1	N76°13'15"W	53.33'
3J2	N43°21'12"W	55.69'
3J3	N08°02'42"E	72.10'
3J4	N34°07'43"E	50.38'
3J5	N88°42'03"E	68.59'
3J6	S80°29'38"E	35.60'
3J7	S13°44'05"E	50.55'
3J8	S46°53'30"E	53.47'
3J9	S40°40'59"W	35.76'
3J10	S55°13'39"W	49.55'
3J11	S61°48'02"W	44.29'

LINE	BEARING	DISTANCE
3K1	N06°06'42"E	44.23'
3K2	N10°23'54"W	98.31'
3K3	N12°30'07"E	60.78'
3K4	N06°59'05"W	62.68'
3K5	N59°42'57"E	41.92'
3K6	S46°44'28"E	86.93'
3K7	S31°30'52"E	40.31'
3K8	S30°34'29"E	70.72'
3K9	S38°27'22"E	31.83'
3K10	S15°27'15"E	31.09'
3K11	S12°57'44"W	61.45'
3K12	S36°50'20"E	47.14'
3K13	S18°41'35"W	60.84'
3K14	S30°13'26"W	56.51'
3K15	S64°23'18"W	48.68'
3K16	N48°41'42"W	42.09'
3K17	N57°32'47"W	38.48'
3K18	N15°26'02"W	55.84'
3K19	N22°56'14"W	53.42'

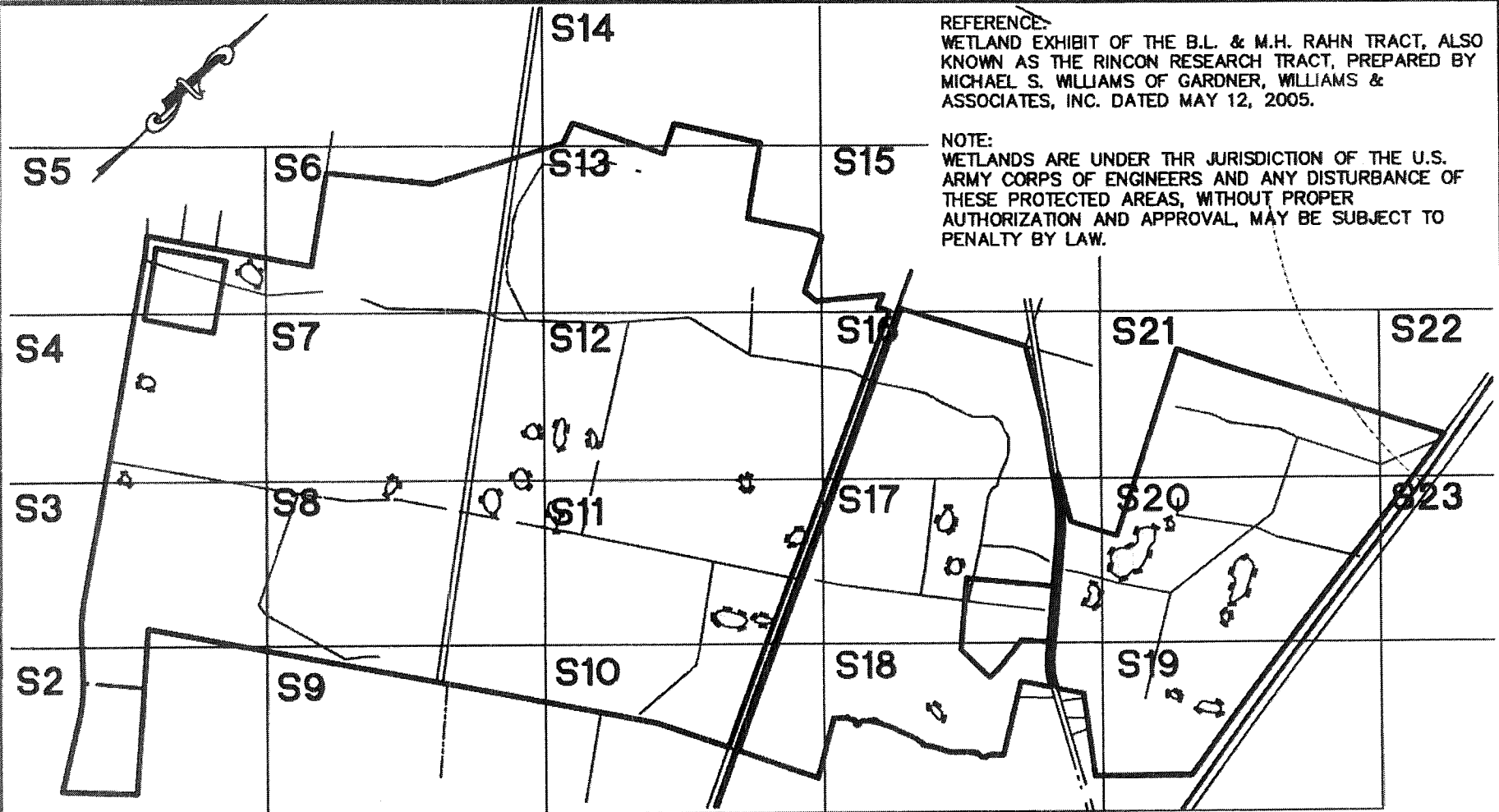
LINE	BEARING	DISTANCE
3L1	S24°10'15"W	50.21'
3L2	S85°30'04"W	55.32'
3L3	N37°40'16"W	134.98'
3L4	N26°49'56"E	12.76'
3L5	N34°59'48"E	35.76'
3L6	N10°19'15"E	49.73'
3L7	N08°50'19"E	57.99'
3L8	N07°09'20"E	53.31'
3L9	N82°41'51"E	30.30'
3L10	N77°01'07"E	52.64'
3L11	S61°45'34"E	56.61'
3L12	S61°46'50"E	62.04'
3L13	S44°48'12"E	63.44'
3L14	S82°19'55"E	37.34'
3L15	S12°38'09"W	42.10'
3L16	S11°04'46"E	44.30'
3L17	S08°49'55"E	45.90'
3L18	S36°34'27"W	57.61'
3L19	N64°04'47"W	43.24'
3L20	N63°03'25"W	43.37'
3L21	S54°03'59"W	56.57'



JURISDICTIONAL WETLAND EXHIBIT
 PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
 ALSO KNOWN AS THE RINCON RESEARCH TRACT,
 9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
 FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

REFERENCE:
WETLAND EXHIBIT OF THE B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, PREPARED BY
MICHAEL S. WILLIAMS OF GARDNER, WILLIAMS &
ASSOCIATES, INC. DATED MAY 12, 2005.

NOTE:
WETLANDS ARE UNDER THE JURISDICTION OF THE U.S.
ARMY CORPS OF ENGINEERS AND ANY DISTURBANCE OF
THESE PROTECTED AREAS, WITHOUT PROPER
AUTHORIZATION AND APPROVAL, MAY BE SUBJECT TO
PENALTY BY LAW.



AREA SCHEDULE

4A-1.60 AC.	4F-0.72 AC.	4K-0.44 AC.	4V-1.25 AC.	5C-0.96 AC.
4C-0.69 AC.	4G-1.14 AC.	4L-1.91 AC.	4W-0.71 AC.	5D-0.29 AC.
4D-0.34 AC.	4H-1.55 AC.	4M-0.50 AC.	4Y-1.01 AC.	5E-3.26 AC.
4E-0.69 AC.	4J-1.19 AC.	4Q-0.86 AC.	5A-0.48 AC.	5F-0.19 AC.
		4R-0.43 AC.	5B-0.25 AC.	5G-5.83 AC.

ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
ALSO KNOWN AS THE RINCON RESEARCH TRACT, 9TH
G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
FOR

EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

DATE: DECEMBER 18, 2014 SHEET 1 OF 29

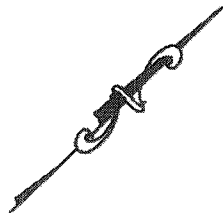
□ ISOLATED NON-JURISDICTIONAL
WETLANDS

TOTAL PROJECT AREA
2,603.7 ACRES

TOTAL
WETLAND AREA
27.04 ACRES

HCB
A Bell Company





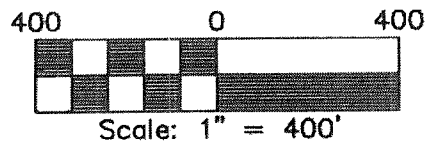
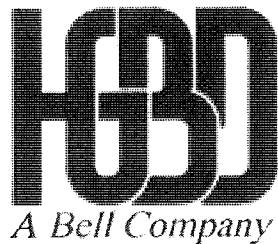
HODGEVILLE ROAD
80' R/W

DIAMOND CONCRETE
PRODUCTS HOLDINGS, LLC
PIN# 434-26A

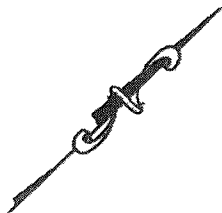
NOW OR FORMERLY
E.W. ZIPPERER
PIN# 434-26

NOW OR FORMERLY
E.W. ZIPPERER
PIN# 434-26

NOW OR FORMERLY
L.E. ZIPPERER
PIN# 434-24



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

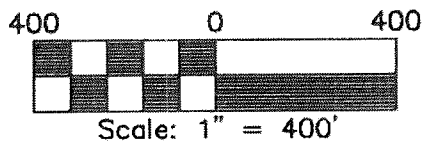


HODGEVILLE ROAD
80' R/W

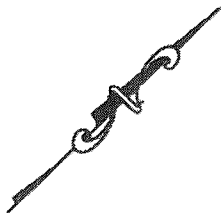
0° 132'

AREA 4D
0.34 ACRES
+/-

PIN# 434-26A



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

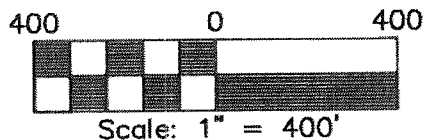


HODGEVILLE ROAD
80' R/W

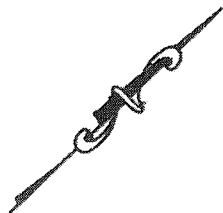
AREA 4C
0.69 ACRES +/-
L27
L25
L22
N=817298.433
E=930317.941

N=816093.292
E=930892.113

L29
AREA 4D
0.34 ACRES
+/-



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



NOW OR FORMERLY

L. JEFFERS, SR.
PIN# 415-17

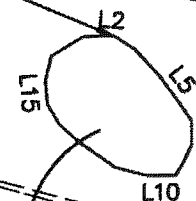
NOW OR FORMERLY
A.W. NEWKIRK &
C.H. TURNBULL
PIN# 415-20

NOW OR FORMERLY
L.M. NEASE &
S.N. EXLEY
PIN# 415-36

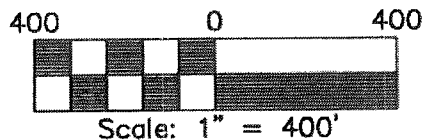
N=819584.087
E=936075.486

HODGEVILLE ROAD
80' R/W

EFFINGHAM COUNTY
BOARD OF EDUCATION
PIN# 416-22

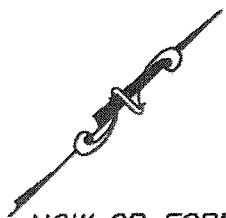


AREA 4A
1.60 ACRES +/-



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

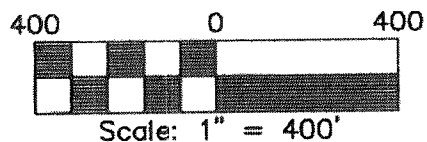


NOW OR FORMERLY
L.M. NEASE &
S.N. EXLEY
PIN# 415-36

NOW OR FORMERLY
L.M. NEASE &
S.N. EXLEY
PIN# 415-36

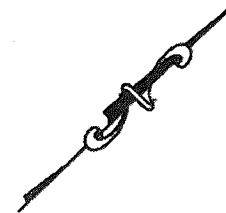
SOUTHERN NATURAL GAS EASEMENT

HCB
A Bell Company



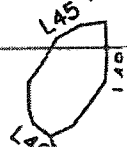
ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 6 OF 29

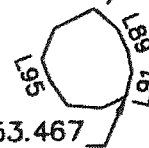


SOUTHERN NATURAL GAS EASEMENT

AREA 4E
0.69 AC. +/-



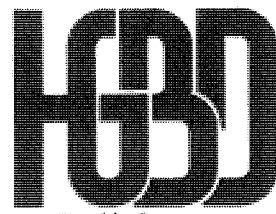
AREA 4F
0.72 ACRES +/-



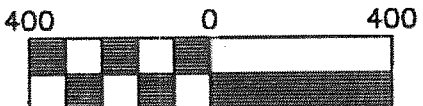
N=820753.467
E=934818.538

N=820264.356
E=935057.674

AREA 4G
1.14 ACRES +/-



A Bell Company



Scale: 1" = 400'

ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

EARTH ROAD (TYP.)

AREA 4E
0.69 ACRES +/-

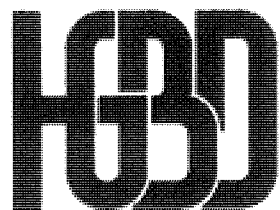
N=819771.322
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AREA 4G
1.14 ACRES +/-

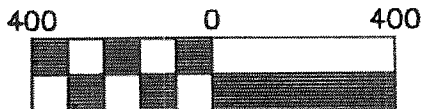
N=818627.730
E=933858.822

AREA 4H
1.55 ACRES +/-

SOUTHERN NATURAL GAS EASEMENT



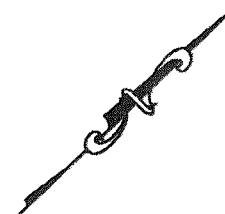
A Bell Company



Scale: 1" = 400'

ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA

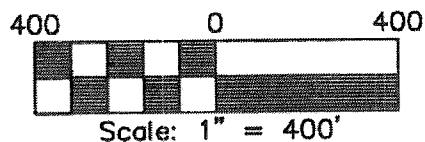
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



SOUTHERN NATURAL GAS EASEMENT

NOW OR FORMERLY
E.W. ZIPPERER
PIN# 434-26

NOW OR FORMERLY
T.S. STRICKLAND JR
PIN# 434-1



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

SHEET 9 OF 29

NOW OR FORMERLY
T.S. STRICKLAND JR
PIN# 434-1

NOW OR FORMERLY
M.S. SMITH
PIN# 451-22

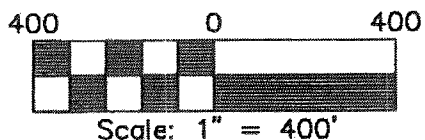
C.C. CARTER
451B-59

N. RICE
451B-60

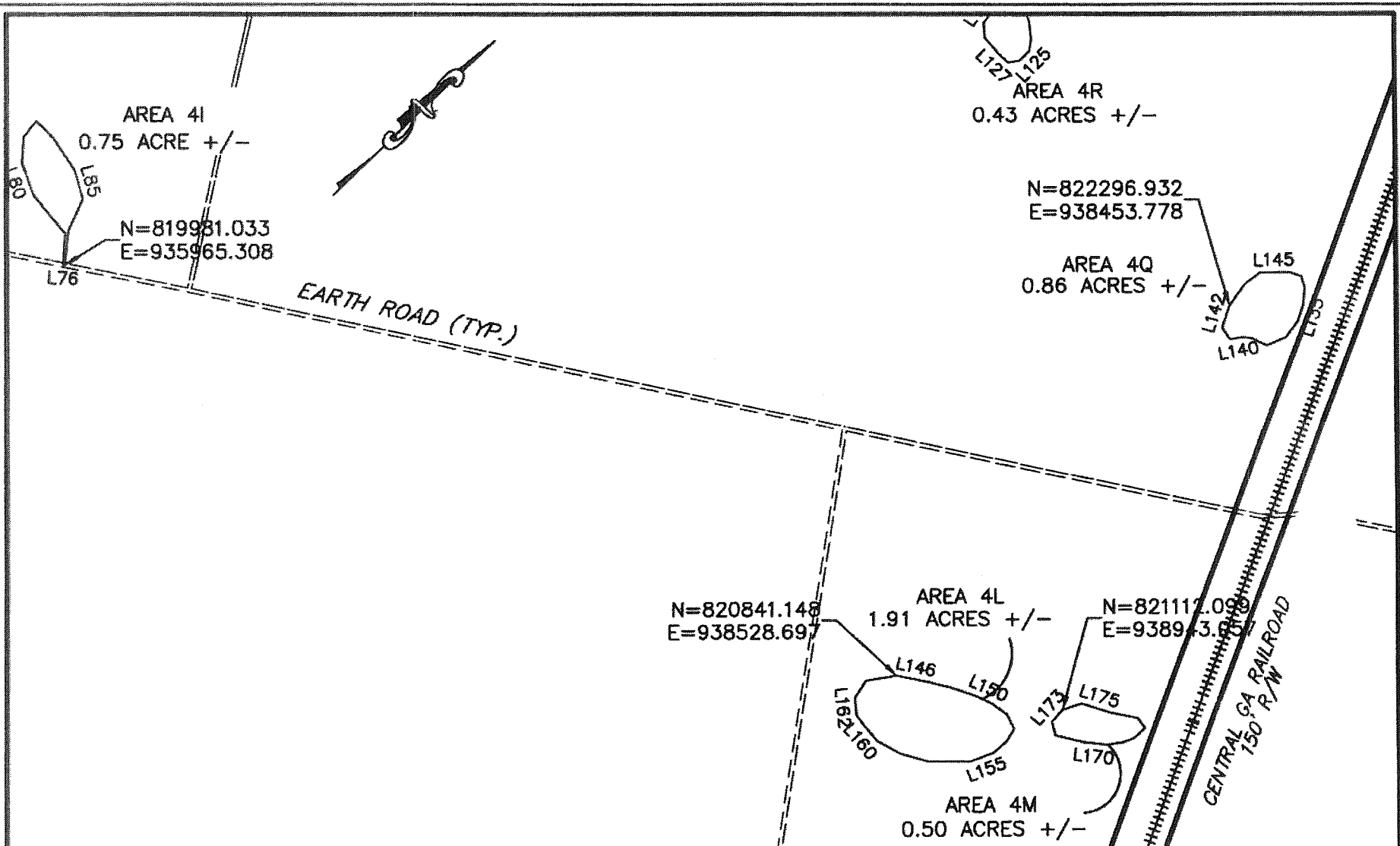
R.C. & T.S.
BURCHETTE
451B-61

NOW OR FORMERLY
A.S. DUNCAN
PIN# 450D-16

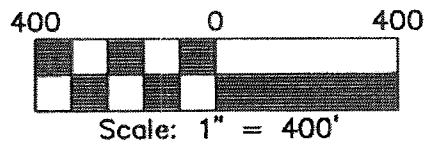
CENTRAL GA RAILROAD 150' R/W



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

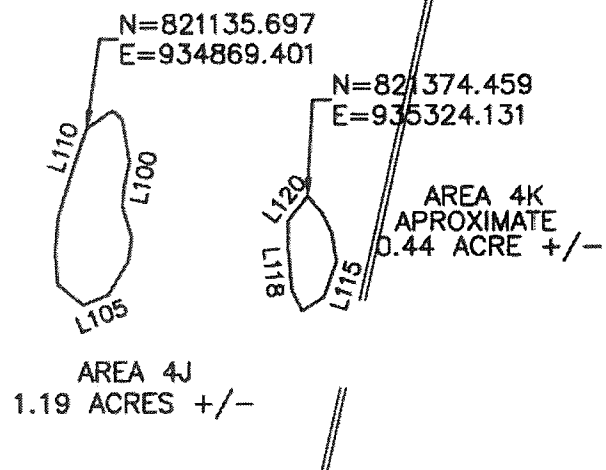


HCB
A Bell Company

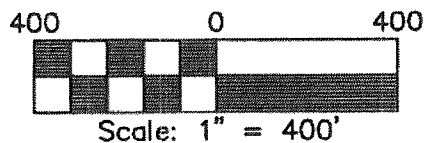
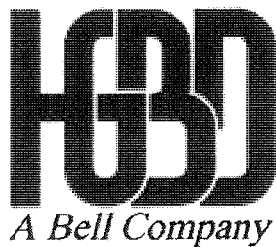


ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

EARTH ROAD (TYP.)



N=822436.575
E=937356.996



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

PIN# 415-30

NOW OR FORMERLY
J.A. & S.V. ZIPPERER
PIN# 432-42

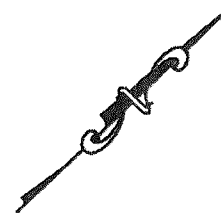
NOW OR FORMERLY
K. & C. ZIPPERER
PIN# 432-43

PIN# 432-45

PIN# 432-47



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

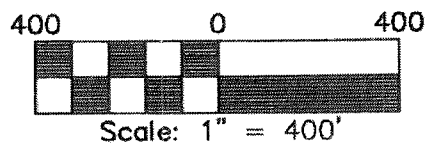
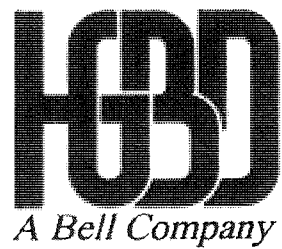


NOW OR FORMERLY
L.M. NEASE &
S.N. EXLEY
PIN# 415-30

NOW OR FORMERLY
CERTUSBANK, NA
PIN# 414-13

NOW OR FORMERLY
L.Z. & S.W. JAUDON
PIN# 432-40

NOW OR FORMERLY
J.A. & S.V. ZIPPERER
PIN# 432-42



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

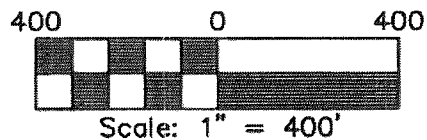
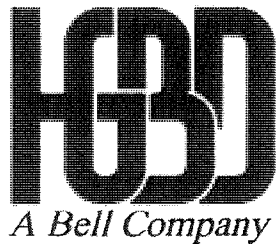
NOW OR FORMERLY
O. ZIPPERER
PIN# 432-45

NOW OR FORMERLY
J.N. KESSLER
PIN# 432-47

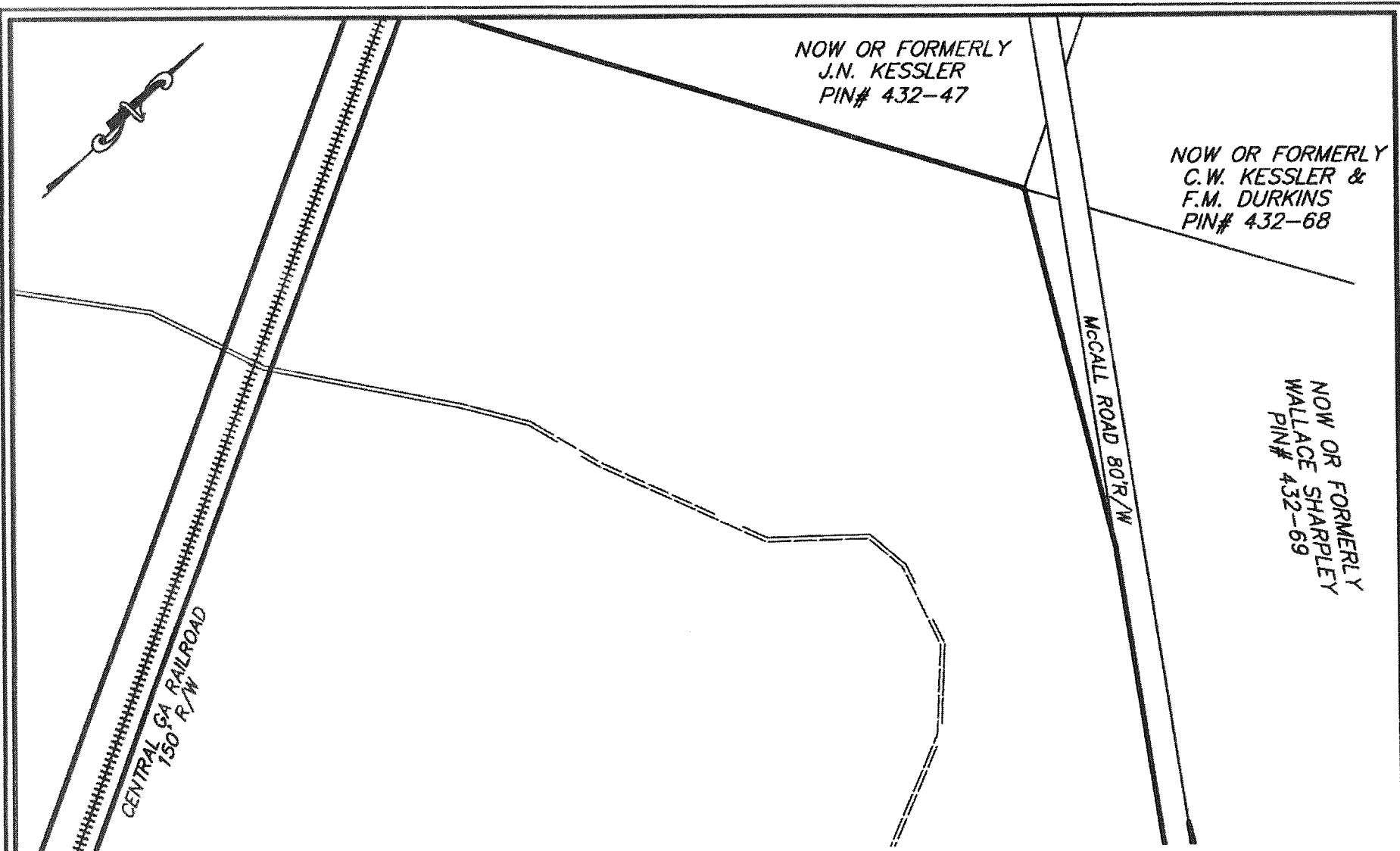
CENTRAL GA RAILROAD
150' R/W

NOW OR FORMERLY
J.N. KESSLER
PIN# 432-47

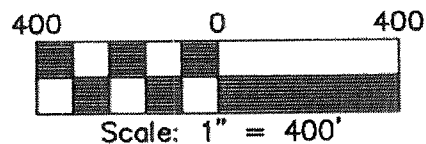
NOW OR FORMERLY
J.N. KESSLER



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA
FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



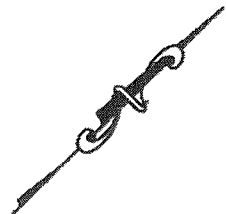
HCB
A Bell Company



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

CENTRAL GA RAILROAD
150' R/W



AREA 4V
1.25 ACRES +/-

N=824229.608
E=939820.657

L200
L210
L203
L205

N=823710.084
E=940380.762

L198
L190
L195

AREA 4W
0.71 ACRE +/-

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# 432-69

McCALL ROAD, 80' R/W

AREA 4Y
1.01 ACRES +/-

L215
L230
L225

N=824621.668
E=942209.868

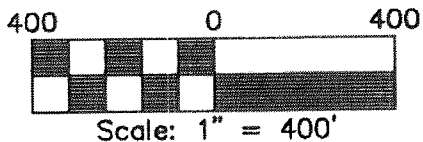
EARTH ROAD (TYP.)

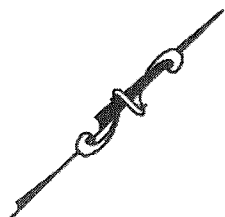
EFFINGHAM COUNTY
BOARD OF EDUCATION
450-65

ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
KNOWN AS THE RINCON RESEARCH TRACT, 9TH G.M. DISTRICT,
EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

HCB
A Bell Company





EFFINGHAM COUNTY
BOARD OF EDUCATION
450-65

IPS

IPS

McCALL
ROAD 80'R/W

1/2"IPF

N=821977.115
E=941654.403

AREA 5A
0.48 ACRE +/-

L185
L186
L180

R.V. ROBERTS
PIN# 450D-4A

R.V. ROBERTS
PIN# 450D-4B

NOW OR FORMERLY
L. & M.E. IGOU
PIN# 450D-5

J.C. MARTIN, JR.
& A. HODGES
PIN# 450D-1A

J.C. MARTIN, JR.
PIN# 450D-1B

C.A. & J.Y. COLLINS
PIN# 450D-2B

S.H. BENNETT
PIN# 450D-2A

NOW OR FORMERLY
S.C. MOODY
PIN# 450-5

NOW OR FORMERLY
E.C. DEANGELO
PIN# 450D-15

NOW OR FORMERLY
L. NORTON
PIN# 450D-14

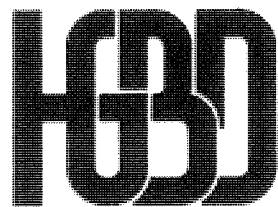
NOW OR FORMERLY
M.E. & L.M. STONE
PIN# 450D-13

NOW OR FORMERLY
W.R. JR. & D.L. SPIKES
PIN# 450D-12

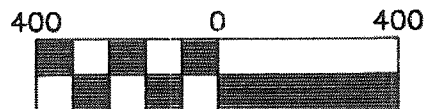
NOW OR FORMERLY
B.R. & M.P. HANNAH
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NOW OR FORMERLY
N.V. & L. NEWSOME
PIN# 450D-10

NOW OR FORMERLY
K.S. KOCHER
PIN# 450D-9



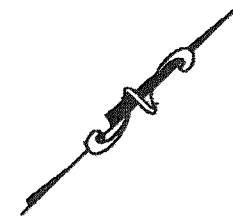
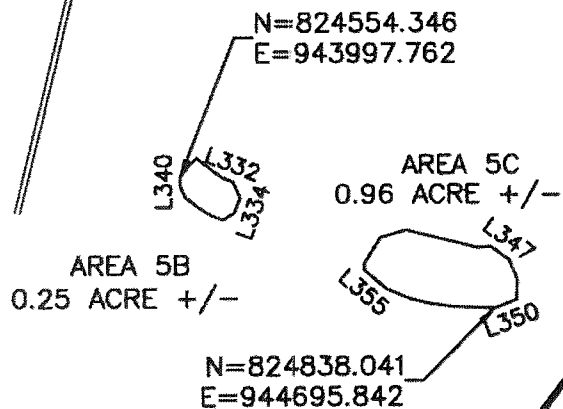
A Bell Company



Scale: 1" = 400'

ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



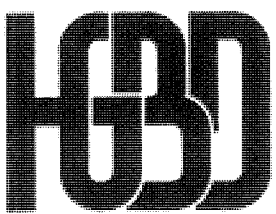
SEABOARD COASTLINE RAILROAD 300' R/W

PIN# 450-5

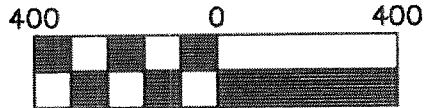
NOW OR FORMERLY
I.R. McCLENDON
PIN# 450-4

NOW OR FORMERLY
C.A. MARTINEZ &
S.M. LAREDO
PIN# 450-4A & 4B

NOW OR FORMERLY
W.C. & S. SMITH
PIN# 450-1



A Bell Company



Scale: 1" = 400'

ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
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 EFFINGHAM COUNTY, GEORGIA

FOR
 EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# 432-69

N=826336.815
E=942205.495

L289
L286

AREA 5F
0.19 ACRE +/-

L280
L275
L270
L265
L255
L250
L260

N=825731.800
E=942361.024

AREA 5G
5.83 ACRES +/-

EARTH ROAD (TYP.)

EARTH ROAD (TYP.)

N=826758.775
E=943413.116

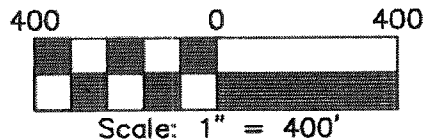
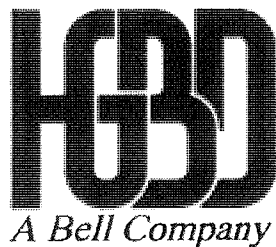
AREA 5E
3.26 ACRES +/-

L290
L315
L310
L300

N=825990.513
E=943753.974

L305
L330
L322
L325

AREA 5D
0.29 ACRE +/-



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
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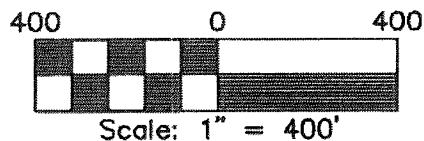
NOW OR FORMERLY
WALLACE SHARPLEY
PIN# 432-69

5/8" RBF

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# R258-12

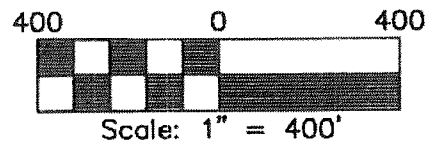
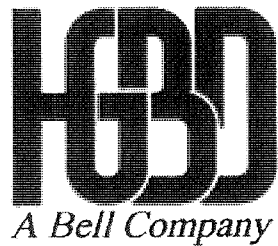
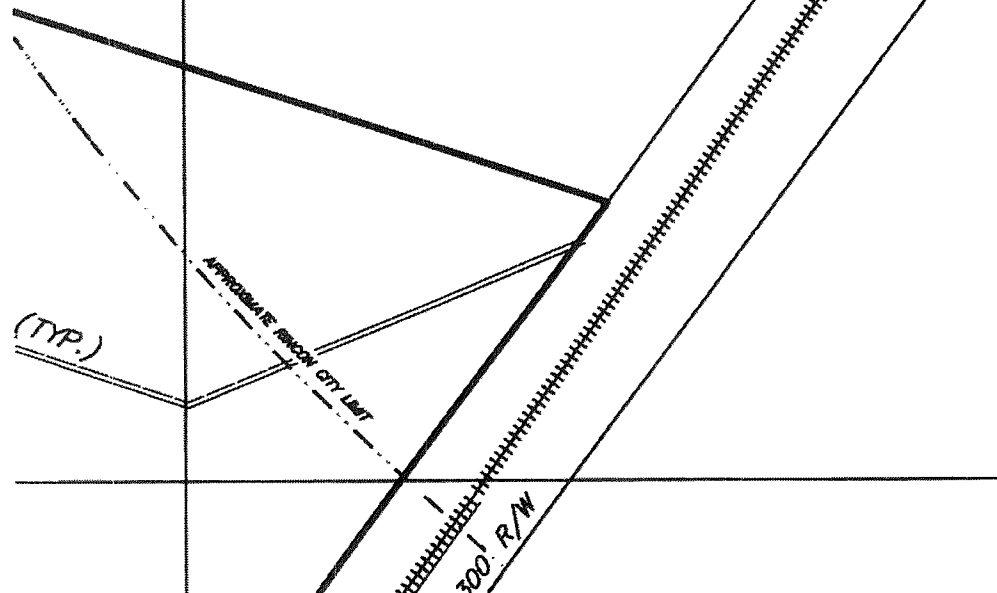
APPROXIMATE RINCON CITY LINE

EARTH ROAD (TYP.)



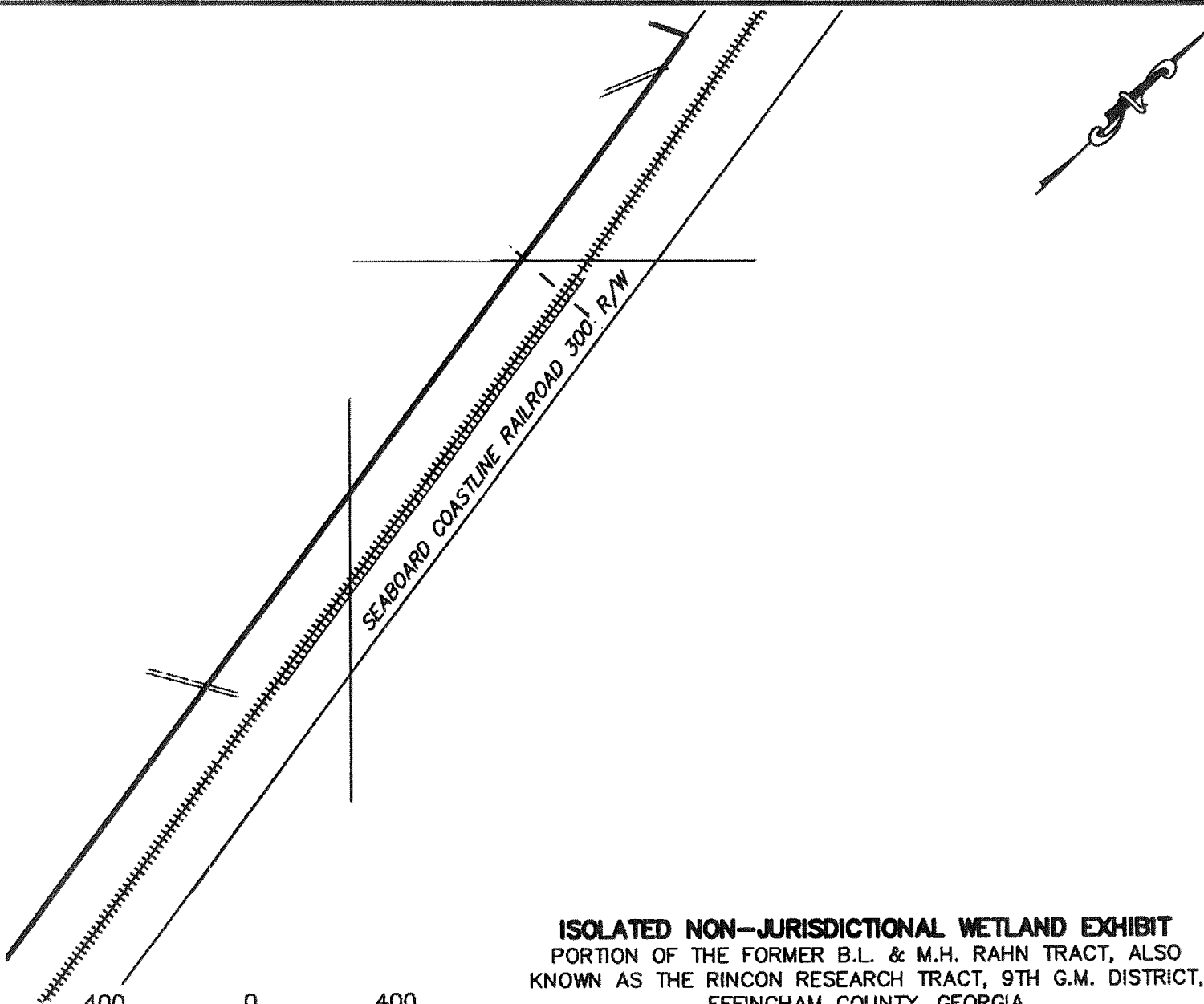
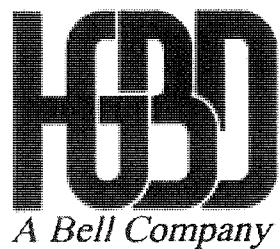
ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
PORTION OF THE FORMER B.L. & M.H. RAHN TRACT, ALSO
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EFFINGHAM COUNTY, GEORGIA
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EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

NOW OR FORMERLY
WALLACE SHARPLEY
PIN# R258-12



ISOLATED NON-JURISDICTIONAL WETLAND EXHIBIT
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EFFINGHAM COUNTY, GEORGIA

FOR
EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L1	N42°44'27"E	53.05'
L2	N49°34'19"E	16.73'
L3	N78°04'03"E	54.62'
L4	S87°31'43"E	79.39'
L5	S80°53'42"E	76.08'
L6	S79°50'18"E	45.80'
L7	S45°37'21"E	51.51'
L8	S20°03'45"E	38.63'
L9	S13°09'05"E	39.51'
L10	S45°42'35"W	65.16'
L11	S58°59'54"W	72.02'
L12	S80°07'53"W	93.34'
L13	S87°24'09"W	62.17'
L14	N76°00'06"W	50.93'
L15	N48°48'09"W	54.62'
L16	N31°12'06"W	54.75'
L17	N14°30'05"E	82.12'
L18	N80°37'53"E	75.22'
L19	S73°16'06"E	47.93'
L20	S56°55'57"E	30.93'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L21	S0°37'21"E	60.05'
L22	S39°36'50"W	48.70'
L23	S27°59'17"W	71.66'
L24	S79°54'55"W	69.57'
L25	N50°49'01"W	44.67'
L26	N38°46'47"W	50.91'
L27	N3°46'34"E	74.57'
L28	N44°22'39"E	68.75'
L29	N39°10'59"E	55.65'
L30	N84°36'50"E	85.79'
L31	S34°18'45"E	51.38'
L32	S0°37'21"E	57.00'
L33	S44°22'39"W	40.30'
L34	S89°22'39"W	35.62'
L35	N66°39'36"W	70.17'
L36	N23°49'16"W	54.26'
L37	S9°24'01"E	60.36'
L38	S7°00'51"E	62.32'
L39	S20°04'09"W	54.81'
L40	S83°18'47"W	47.97'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L41	N61°31'02"W	32.66'
L42	N44°42'40"W	60.16'
L43	N8°25'28"W	50.56'
L44	N14°24'24"W	63.19'
L45	N15°27'02"E	60.47'
L46	N38°13'57"E	57.23'
L47	S47°25'14"E	80.75'
L48	S39°01'00"E	51.08'
L49	N77°16'58"E	49.23'
L50	S73°41'42"E	82.66'
L51	S53°45'10"E	85.96'
L52	S41°32'13"E	68.25'
L53	S14°00'54"E	74.22'
L54	S7°30'27"W	48.63'
L55	S33°04'03"W	49.59'
L56	S74°26'46"W	53.38'
L57	N87°02'46"W	55.12'
L58	N65°36'20"W	56.91'
L59	N59°39'32"W	60.15'
L60	N37°29'33"W	51.57'

WETLAND EXHIBIT

PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
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9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
FOR

EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L61	N29°13'59"W	43.08'
L62	N15°33'14"W	53.38'
L63	N0°37'21"W	44.70'
L64	N40°48'04"E	77.95'
L65	N46°13'30"E	75.41'
L66	S78°05'38"E	63.40'
L67	S67°25'26"E	78.56'
L68	S58°51'47"E	84.92'
L69	S5°23'11"E	82.81'
L70	S29°07'20"W	83.16'
L71	S79°30'42"W	80.27'
L72	N64°03'27"W	38.44'
L73	N57°35'55"W	82.02'
L74	N39°42'59"W	70.88'
L75	N0°37'21"W	89.40'
L76	S47°45'40"W	5.30'
L77	N40°13'36"W	88.97'
L78	N85°43'16"W	62.50'
L79	N84°14'00"W	82.85'
L80	N64°43'40"W	96.27'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L81	N41°43'53"W	76.40'
L82	N6°25'34"W	58.15'
L83	N88°54'22"E	70.72'
L84	S78°23'29"E	112.93'
L85	S60°58'52"E	85.36'
L86	S19°57'17"E	97.81'
L87	S37°55'35"E	99.56'
L88	N86°30'54"E	68.85'
L89	S68°49'16"E	55.55'
L90	S54°35'43"E	46.77'
L91	S30°22'03"E	55.44'
L92	S19°56'00"W	58.75'
L93	S49°54'18"W	75.72'
L94	N78°44'02"W	66.76'
L95	N65°50'51"W	49.23'
L96	N22°25'27"W	74.06'
L97	N17°48'44"E	97.86'
L98	N89°22'38"E	30.94'
L99	S54°35'43"E	93.53'
L100	S32°13'49"E	52.48'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L101	S39°54'43"E	48.87'
L102	S61°34'05"E	70.80'
L103	S37°29'33"E	51.57'
L104	S14°07'06"E	88.40'
L105	S23°00'24"W	60.05'
L106	S83°56'13"W	72.53'
L107	N49°26'12"W	73.10'
L108	N40°05'42"W	75.72'
L109	N28°05'49"W	96.89'
L110	N26°23'31"W	110.72'
L111	N10°41'14"E	70.13'
L112	S86°32'13"E	48.26'
L113	S70°58'08"E	51.11'
L114	S54°22'08"E	63.96'
L115	S25°04'00"E	83.09'
L116	S13°24'49"W	56.71'
L117	N70°58'08"W	51.11'
L118	N50°31'18"W	85.41'
L119	N45°37'22"W	68.08'
L120	N6°20'00"W	69.11'

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9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA

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LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L121	N72°40'41"E	29.85'
L122	S62°43'32"E	55.00'
L123	S50°23'11"E	48.70'
L124	S35°36'53"E	34.91'
L125	S0°37'22"E	40.03'
L126	S34°22'10"W	34.91'
L127	S89°22'38"W	42.89'
L128	N84°54'44"W	57.48'
L129	N48°20'56"W	42.51'
L130	N11°24'25"W	61.13'
L131	N28°25'55"E	58.88'
L132	N62°48'44"E	38.36'
L133	S62°00'44"E	35.83'
L134	S38°46'48"E	50.91'
L135	S27°11'16"E	51.15'
L136	S9°09'13"E	57.83'
L137	S21°10'43"W	61.60'
L138	S72°01'24"W	47.93'
L139	S53°50'23"W	24.60'
L140	S35°24'17"W	38.89'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L141	N78°31'41"W	40.94'
L142	N27°11'16"W	70.34'
L143	N9°02'59"W	78.05'
L144	N8°21'00"E	55.00'
L145	N44°22'38"E	80.88'
L146	N56°54'22"E	102.17'
L147	N62°48'44"E	8.76'
L148	N58°47'53"E	50.06'
L149	N63°28'15"E	76.23'
L150	N70°17'02"E	53.90'
L151	N81°14'50"E	55.41'
L152	S70°38'22"E	45.86'
L153	S14°00'55"E	42.29'
L154	S5°57'33"W	51.27'
L155	S24°29'32"W	69.24'
L156	S44°22'38"W	66.49'
L157	S45°42'34"W	59.58'
L158	S60°59'04"W	82.40'
L159	S73°13'59"W	77.50'
L160	N84°54'43"W	59.06'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L161	N81°09'37"W	35.75'
L162	N50°15'29"W	51.42'
L163	N11°55'57"W	59.94'
L164	N35°29'48"E	89.73'
L165	S81°09'37"E	35.75'
L166	S0°37'22"E	17.63'
L167	S3°27'47"W	27.50'
L168	S25°56'33"W	35.04'
L169	S37°15'08"W	44.67'
L170	S51°30'09"W	67.01'
L171	S58°38'31"W	84.33'
L172	N59°11'35"W	41.33'
L173	N3°00'31"W	47.06'
L174	N27°40'41"E	57.85'
L175	N62°48'44"E	87.61'
L176	N56°28'20"E	79.34'
L177	S83°11'29"E	66.33'
L178	S80°19'04"E	31.97'
L179	S41°48'31"E	60.79'
L180	S27°11'16"E	25.58'

WETLAND EXHIBIT

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LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L181	S34°54'54"W	24.60'
L182	S52°30'27"W	28.60'
L183	N83°20'52"W	135.49'
L184	N61°34'05"W	58.88'
L185	N52°44'52"W	32.60'
L186	N19°21'37"E	33.47'
L187	N50°43'03"E	18.31'
L188	N80°37'52"E	75.22'
L189	N85°17'30"E	44.98'
L190	S58°00'13"E	95.12'
L191	S37°29'34"E	64.10'
L192	S2°33'25"W	57.77'
L193	S38°02'13"W	41.04'
L194	S70°05'14"W	67.91'
L195	N69°46'06"W	72.02'
L196	N42°15'23"W	38.59'
L197	N4°26'13"W	48.18'
L198	N20°36'21"W	37.51'
L199	N26°55'48"E	83.14'
L200	N48°11'29"E	34.07'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L201	S79°50'19"E	68.51'
L202	S56°55'58"E	92.44'
L203	S37°29'34"E	80.12'
L204	S18°08'54"E	63.85'
L205	S13°24'48"W	52.85'
L206	S24°50'26"W	74.54'
L207	S70°05'14"W	67.91'
L208	N58°37'03"W	60.47'
L209	N38°46'48"W	57.06'
L210	N22°25'27"W	69.03'
L211	N4°11'57"W	51.38'
L212	N15°33'15"W	49.75'
L213	N19°03'28"W	20.27'
L214	N6°58'19"E	48.50'
L215	N63°26'06"E	29.50'
L216	N65°55'05"E	41.42'
L217	N76°12'17"E	34.61'
L218	S63°08'54"E	40.40'
L219	S47°18'27"E	34.49'
L220	S23°38'54"E	31.16'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L221	S65°36'21"E	23.73'
L222	S50°49'02"E	44.79'
L223	S24°27'42"E	33.70'
L224	S1°56'23"E	62.39'
L225	S5°37'09"W	46.16'
L226	S29°21'32"W	43.04'
L227	S47°44'37"W	25.90'
L228	S72°16'28"W	39.00'
L229	N57°43'03"W	29.03'
L230	N18°39'26"W	32.42'
L231	N8°13'08"E	32.65'
L232	N35°07'53"W	27.84'
L233	N43°53'14"W	33.47'
L234	N5°23'11"W	34.53'
L235	N52°44'52"W	16.35'
L236	N87°02'47"W	22.99'
L237	N75°22'04"W	24.52'
L238	N48°29'07"W	40.61'
L239	N20°36'21"W	16.78'
L240	N3°17'09"W	30.86'

WETLAND EXHIBIT

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LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L241	N8°50'22"E	8.72'
L242	N22°52'33"E	17.98'
L243	N34°04'20"E	57.44'
L244	N59°18'31"E	79.76'
L245	N79°54'53"E	44.19'
L246	S38°11'29"E	59.58'
L247	S45°37'22"E	107.89'
L248	S2°06'12"W	76.37'
L249	S16°34'06"E	79.34'
L250	S30°09'42"E	125.26'
L251	S19°03'28"E	57.44'
L252	S14°39'33"E	59.91'
L253	S8°13'03"E	54.97'
L254	S4°34'18"W	40.13'
L255	S34°54'53"W	31.25'
L256	S41°00'38"W	43.74'
L257	S2°33'25"W	65.49'
L258	S11°55'58"E	37.05'
L259	S25°56'32"W	48.74'
L260	S31°08'12"W	89.72'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L261	S64°56'00"W	43.89'
L262	S84°36'49"W	43.74'
L263	S89°22'38"W	54.49'
L264	N72°11'16"W	22.98'
L265	N33°05'39"W	94.73'
L266	N52°44'52"W	41.42'
L267	N84°16'58"W	32.90'
L268	N48°59'22"W	43.74'
L269	N19°03'28"W	57.44'
L270	N10°05'07"W	44.19'
L271	N13°24'48"E	44.93'
L272	N20°24'53"E	50.60'
L273	N46°52'00"E	59.14'
L274	N48°11'28"E	77.23'
L275	N17°48'43"E	45.95'
L276	N7°08'32"E	80.66'
L277	N5°49'02"W	40.13'
L278	N48°38'08"W	48.87'
L279	N45°37'22"W	71.92'
L280	N24°15'08"W	63.44'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L281	N24°43'24"E	76.37'
L282	N85°33'47"E	54.61'
L283	S52°44'53"E	41.42'
L284	S24°35'07"E	35.78'
L285	S53°50'22"W	31.25'
L286	S44°22'38"W	30.82'
L287	N79°18'47"W	55.57'
L288	N17°43'32"W	49.41'
L289	N21°10'43"E	39.13'
L290	N20°24'53"E	64.77'
L291	N78°35'34"E	49.70'
L292	S88°08'00"E	53.53'
L293	S64°03'28"E	57.19'
L294	S33°05'39"E	60.63'
L295	S26°15'50"E	64.48'
L296	S32°53'55"E	52.25'
L297	S27°11'17"E	57.19'
L298	S26°23'32"E	74.87'
L299	S27°11'17"E	67.59'
L300	S24°51'02"E	50.99'

WETLAND EXHIBIT

PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
ALSO KNOWN AS THE RINCON RESEARCH TRACT,
9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
FOR

EFFINGHAM COUNTY INDUSTRIAL AUTHORITY



LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L301	S6°20'01"E	46.73'
L302	S15°38'14"W	58.13'
L303	S8°07'24"W	61.16'
L304	S24°43'24"W	48.88'
L305	S46°21'07"W	47.71'
L306	N58°37'03"W	43.87'
L307	N27°11'17"W	57.19'
L308	N19°03'28"W	44.12'
L309	N38°01'42"W	49.76'
L310	N21°28'38"W	52.25'
L311	N19°03'28"W	44.12'
L312	N49°48'28"W	67.59'
L313	S89°22'38"W	46.50'
L314	N45°37'22"W	46.03'
L315	N28°10'33"W	60.32'
L316	N31°35'12"W	54.23'
L317	N35°50'26"W	48.38'
L318	N4°26'13"W	69.91'
L319	N19°21'37"E	27.21'
L320	N69°23'38"E	54.43'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L321	S79°18'47"E	47.42'
L322	S52°44'52"E	53.02'
L323	S33°31'41"E	47.08'
L324	S3°29'07"E	46.56'
L325	S81°46'57"W	35.18'
L326	S89°22'38"W	53.48'
L327	N60°52'41"W	37.49'
L328	N8°13'03"W	35.18'
L329	N12°22'18"E	31.02'
L330	N4°34'18"E	25.68'
L331	N0°37'22"W	23.25'
L332	N66°10'43"E	27.67'
L333	S68°49'17"E	39.13'
L334	S24°35'07"E	35.78'
L335	S13°24'48"W	29.96'
L336	S66°10'43"W	27.67'
L337	S75°20'27"W	29.96'
L338	S84°10'58"W	40.13'
L339	N67°25'27"W	27.67'
L340	N45°37'22"W	20.55'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L341	N7°44'52"W	29.29'
L342	N0°37'22"W	25.43'
L343	N83°22'05"E	69.40'
L344	N59°07'15"E	50.47'
L345	N58°24'48"E	42.36'
L346	N39°10'58"E	28.37'
L347	N81°14'49"E	51.37'
L348	S68°00'11"E	47.23'
L349	S42°15'23"E	43.74'
L350	S24°09'08"W	52.01'
L351	S47°23'24"W	97.75'
L352	S53°20'59"W	49.41'
L353	S58°24'48"W	42.36'
L354	S67°34'33"W	58.69'
L355	S86°00'39"W	61.86'
L356	N45°37'22"W	15.41'
L357	N13°09'06"W	66.98'
L358	N29°07'19"E	58.58'
L359	N58°54'42"E	71.65'



WETLAND EXHIBIT

PORTION OF THE FORMER B.L. & M.H. RAHN TRACT,
ALSO KNOWN AS THE RINCON RESEARCH TRACT,
9TH G.M. DISTRICT, EFFINGHAM COUNTY, GEORGIA
FOR

EFFINGHAM COUNTY INDUSTRIAL AUTHORITY

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Mr. Matthew Morris – Effingham
County Industrial Development Authority

File Number: SAS-2003-20390

Date: February 20, 2015

Attached is:

See Section below

☐ INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)

A

☐ PROFFERED PERMIT (Standard Permit or Letter of permission)

B

☐ PERMIT DENIAL

C

☒ APPROVED JURISDICTIONAL DETERMINATION

D

☒ PRELIMINARY JURISDICTIONAL DETERMINATION

E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit.

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. The division engineer must receive this form within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Shaun Blocker
U.S. Army Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31401-3640
912-652-5086

If you only have questions regarding the appeal process you may also contact:

Administrative Appeal Review Officer
CESAD-PDS-O
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 10M15
Atlanta, Georgia 30303-8801

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

**2020 Nationwide Permit 14
Verification Letter**



**DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3604**

JANUARY 2, 2020

Regulatory Division
SAS-2003-20390

Mr. Reagan Shanley
Savannah Industrial Development, LLC
252 Clayton Street
Denver, Colorado 80206

Dear Mr. Shanley:

I refer to the Pre-Construction Notification submitted on your behalf by Mr. Jeffrey Williams of Sligh Environmental Consultants, Inc. requesting verification for use of Nationwide Permit (NWP) No. 14 for impacts to 2.5 acres of wetland for the construction of an access road and railroad crossings associated with the development of the Savannah Gateway Industrial Hub. The project site is located west of U.S. Highway 21, northeast and adjacent to Hodgeville Road, near Rincon, Effingham County, Georgia (Latitude 32.2534, Longitude -81.2589). This project has been assigned number SAS-2003-20390 and it is important that you refer to this number in all communication concerning this matter.

We have completed coordination with other federal and state agencies as described in Part C (32)(d) of our NWP Program, published in the January 6, 2017, Federal Register, Vol. 82, No. 4, Pages 1860-2008 (82 FR). The NWPs and Savannah District's Regional Conditions for NWPs can be found on our website at <http://www.sas.usace.army.mil/Missions/Regulatory/Permitting/GeneralPermits/NationwidePermits.aspx>. During our coordination procedure, no adverse comments regarding the proposed work were received.

As a result of our evaluation of your project, we have determined that the proposed activity is authorized as described in Part B of the NWP Program. Your use of this NWP is valid only if:

a. The activity is conducted in accordance with the information submitted and meets the conditions applicable to the NWP, as described at Part C of the NWP Program and the Savannah District's Regional Conditions for NWPs.

b. Prior to the commencement of any permitted work in aquatic resources, the permittee shall purchase 10 wetland mitigation credits from AA Shaw Wetland Mitigation Bank and submit documentation of this credit purchase to the U.S. Army Corps of Engineers. The credit purchase documentation must reference the Corps file number assigned to the permitted project. If all or a portion of the required credits are not available from AA Shaw Wetland Mitigation Bank, the permittee shall obtain written approval from the Corps prior to purchasing credits from an alternate mitigation bank.

c. The project shall be constructed in accordance with the attached plan entitled "Wetland Impact Exhibits for OmniTrax", (Sheets 1-8) dated November 5, 2019.

d. You shall obtain and comply with all appropriate federal, state, and local authorizations required for this type of activity. A stream buffer variance may be required from the Georgia Department of Natural Resources, Environmental Protection Division (Georgia EPD), as defined in the Georgia Erosion and Sedimentation Control Act of 1975, as amended. Information concerning variances can be obtained at the Georgia EPD's website at www.epd.georgia.gov, or by calling (404) 463-1511.

e. All work conducted under this permit shall be located, outlined, designed, constructed and operated in accordance with the minimal requirements of the Georgia Erosion and Sedimentation Control Act of 1975, as amended. Utilization of plans and specifications contained in the "Manual for Erosion and Sediment Control," (Latest Edition), published by the Georgia Soil and Water Conservation Commission, will aid in achieving compliance with the aforementioned minimal requirements.

f. You shall install and maintain erosion and sediment control measures in upland areas of the project site, in accordance with the Georgia Erosion and Sedimentation Control Act of 1975, as amended, to minimize the introduction of sediment into and the erosion of streams, wetlands and other waters of the United States. This permit does not authorize installation of check-dams, weirs, riprap, bulkheads or other erosion control measures in streams, wetlands or other waters of the United States. Authorization would be required from the U.S. Army Corps of Engineers prior to installing any erosion control measures in waters of the United States.

g. You shall install and maintain erosion and sediment control measures for all fill material that is authorized to be discharged in streams, wetlands and other waters of the United States, in accordance with the Georgia Erosion and Sedimentation Control Act of 1975, as amended, and permanently stabilize fill areas at the earliest practicable date.

h. You shall notify the Corps, in writing, at least 10 days in advance of commencement of work authorized by this permit.

i. You fill out and sign the enclosed certification and return it to our office within 30 days of completion of the activity authorized by this permit.

j. You shall avoid the remaining 371 acres of wetland located on-site. These natural wetland areas were avoided as part of the permit application review process and therefore will not be disturbed by any dredging, filling, mechanized land clearing, agricultural activities, or other construction work whatsoever. The Corps reserves the right to deny review of any requests for future impacts to these natural wetland and/or stream areas.

This proposal was reviewed in accordance with Section 7 of the Endangered Species Act. Based on the information we have available, we have determined that the project may affect, but is not likely to adversely affect the red cockaded (*Picoides borealis*) and Eastern Indigo snake (*Drymarchon corais couperi*) and would have no effect on any other threatened or endangered species nor any critical habitat for such species. Authorization of an activity by a NWP does not authorize the "take" of threatened or endangered species. In the absence of separate authorization, both lethal and non-lethal "takes" of protected species are in violation of the Endangered Species Act. See Part (C) of 82 FR for more information.

This verification is valid until the NWP is modified, reissued or revoked. All of the existing NWPs are scheduled to expire on March 18, 2022. It is incumbent upon you to remain informed of changes to the NWPs. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

This authorization should not be construed to mean that any future projects requiring Department of the Army authorization would necessarily be authorized. Any new proposal, whether associated with this project or not, would be evaluated on a case-by-case basis. Any prior approvals would not be a determining factor in making a decision on any future request.

Revisions to your proposal may invalidate this authorization. In the event changes to this project are contemplated, I recommend that you coordinate with us prior to proceeding with the work.

This communication does not relieve you of any obligation or responsibility for complying with the provisions of any other laws or regulations of other federal, state or local authorities. It does not affect your liability for any damages or claims that may arise as a result of the work. It does not convey any property rights, either in real estate or material, or any exclusive privileges. It also does not affect your liability for any interference with existing or proposed federal projects. If the information you have submitted and on which the Corps bases its determination/decision of authorization under the NWP is later found to be in error, this determination may be subject to modification, suspension, or revocation.

A copy of this letter is being provided to the following party: Mr. Jeff Williams, Sligh Environmental Consultants, Inc.

Thank you in advance for completing our on-line Customer Survey Form located at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. We value your comments and appreciate your taking the time to complete a survey each time you have interaction with our office.

If you have any questions, please call me at (912) 652-5550.

Sincerely,

Sarah E. Wise
Team Lead, Coastal Branch

Enclosures

Regulatory Division

CERTIFICATION OF COMPLIANCE
WITH
DEPARTMENT OF THE ARMY
NATIONWIDE PERMIT 14

PERMIT FILE NUMBER: SAS-2003-20390

PERMITTEE/ADDRESS: Mr. Reagan Shanley, Savannah Industrial Development, LLC, 252 Clayton Street, Denver, Colorado 80206

LOCATION OF WORK: The project site is located west of U.S. Highway 21, northeast and adjacent to Hodgeville Road, near Rincon, Effingham County, Georgia (Latitude 32.2534, Longitude -81.2589).

PROJECT DESCRIPTION: To impact 2.5 acres of wetland for the construction of an access road and railroad crossings associated with the development of the Savannah Gateway Industrial Hub.

ACRES AND/OR LINEAR FEET OF WATERS OF THE UNITED STATES IMPACTED:
2.5 acres of wetland

DATE WORK IN WATERS OF UNITED STATES COMPLETED: _____

COMPENSATORY MITIGATION REQUIRED: 10 wetland credits

DATE MITIGATION COMPLETED OR PURCHASED (include name of bank):

I understand that the permitted activity is subject to a U.S. Army Corps of Engineers' Compliance Inspection. If I fail to comply with the permit conditions at Part C of the Nationwide Permit Program, published in the January 6, 2017, Federal Register, Vol. 82, No.4, Pages 1860-2008, it may be subject to suspension, modification or revocation.

I hereby certify that the work authorized by the above referenced permit as well as any required mitigation (if applicable) has been completed in accordance with the terms and conditions of the said permit.

Signature of Permittee

Date



PROJECT AREA:.....2,603.7 AC.
UPLAND AREA:.....2,202.5 AC.
JURISDICTIONAL WETLAND.....374.2 AC.
WETLAND IMPACTS.....25 AC

WETLAND IMPACT EXHIBITS
for
OMNITRAX
INDEX SHEET

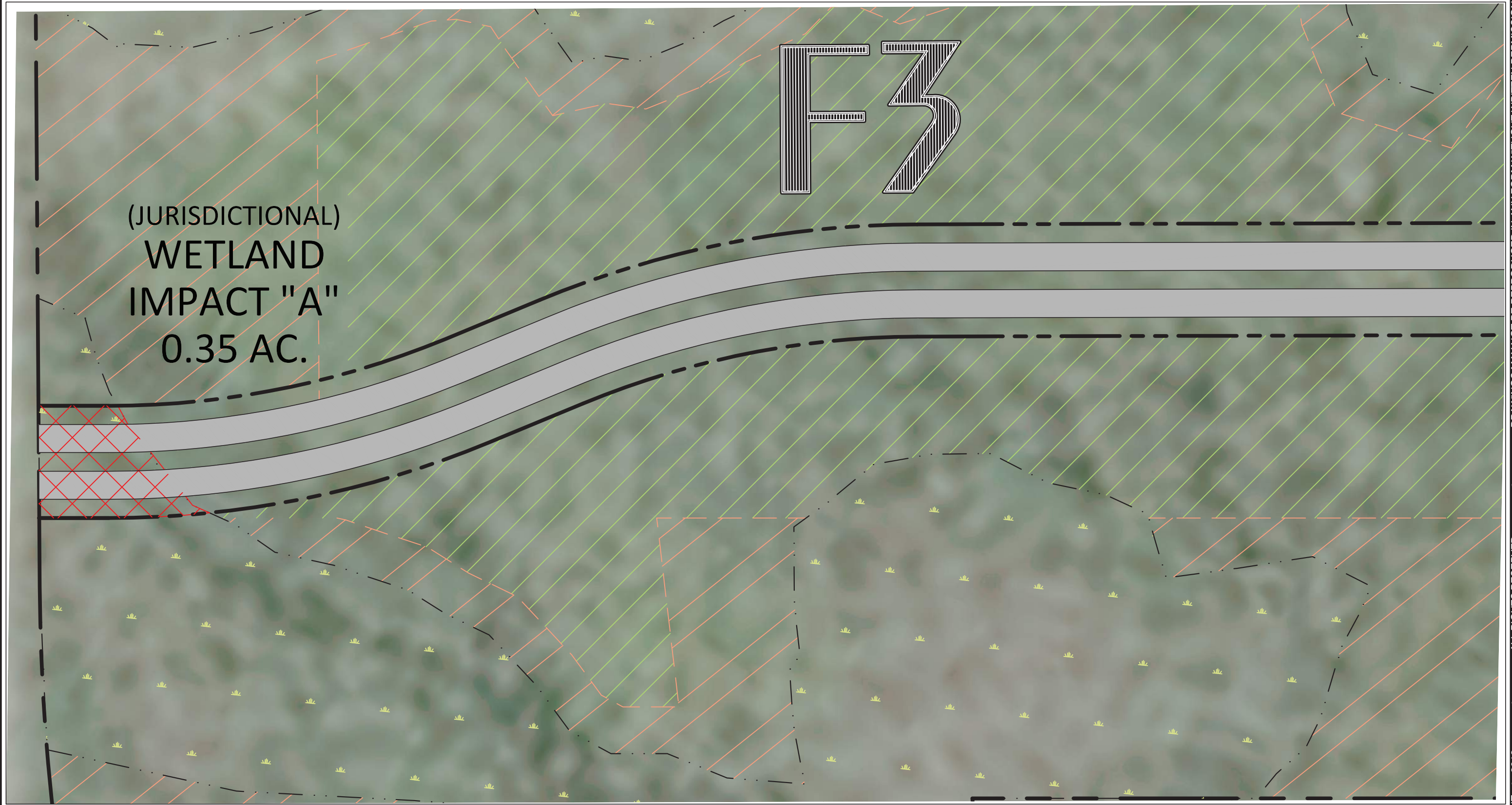
DATE: NOVEMBER 05, 2019

SCALE: 1"=1200'

HUSSEY GAY BELL
— Established 1958 —
329 COMMERCIAL DRIVE, SAVANNAH, GA 31406 / T:912.354.4626

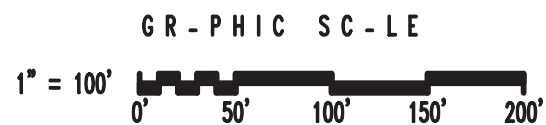


REVISIONS:	
rev00	
SHEET:	
1	OF 8



(JURISDICTIONAL)
WETLAND
IMPACT "A"
0.35 AC.

F3



WETLAND IMPACT EXHIBITS
for
OMNITRAX
SHEET 2

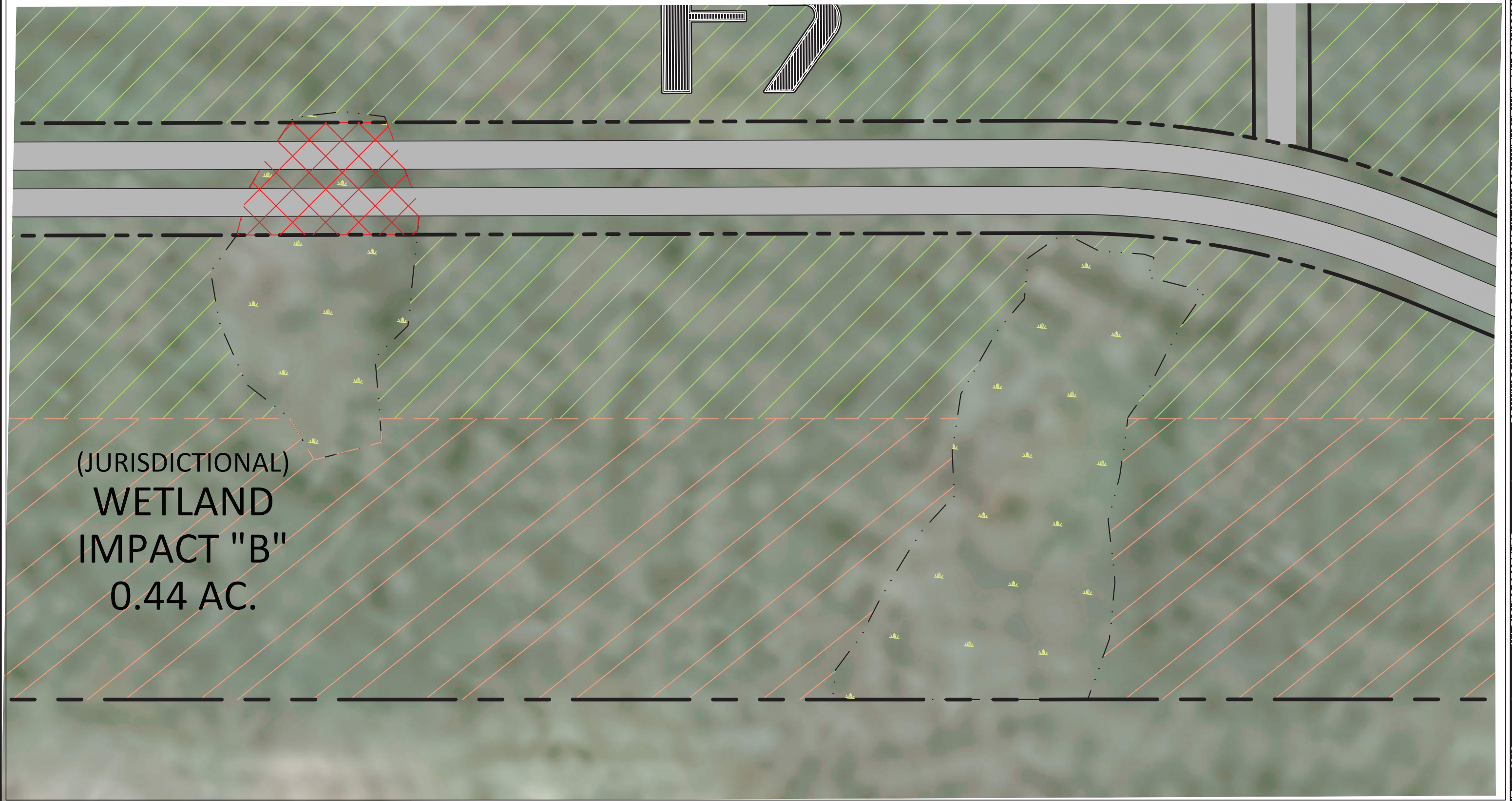
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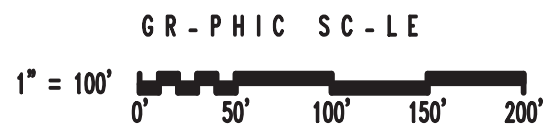
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— Established 1958 —
329 COMMERCIAL DRIVE, SAVANNAH, GA 31406 / T:912.354.4626



REVISIONS: 00		
rev 00		
SHEET:		
2	OF	8



(JURISDICTIONAL)
WETLAND
IMPACT "B"
0.44 AC.



WETLAND IMPACT EXHIBITS
for
OMNITRAX
SHEET 3

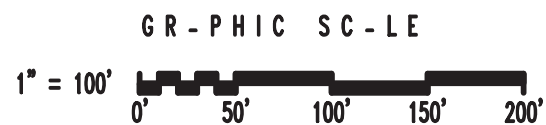
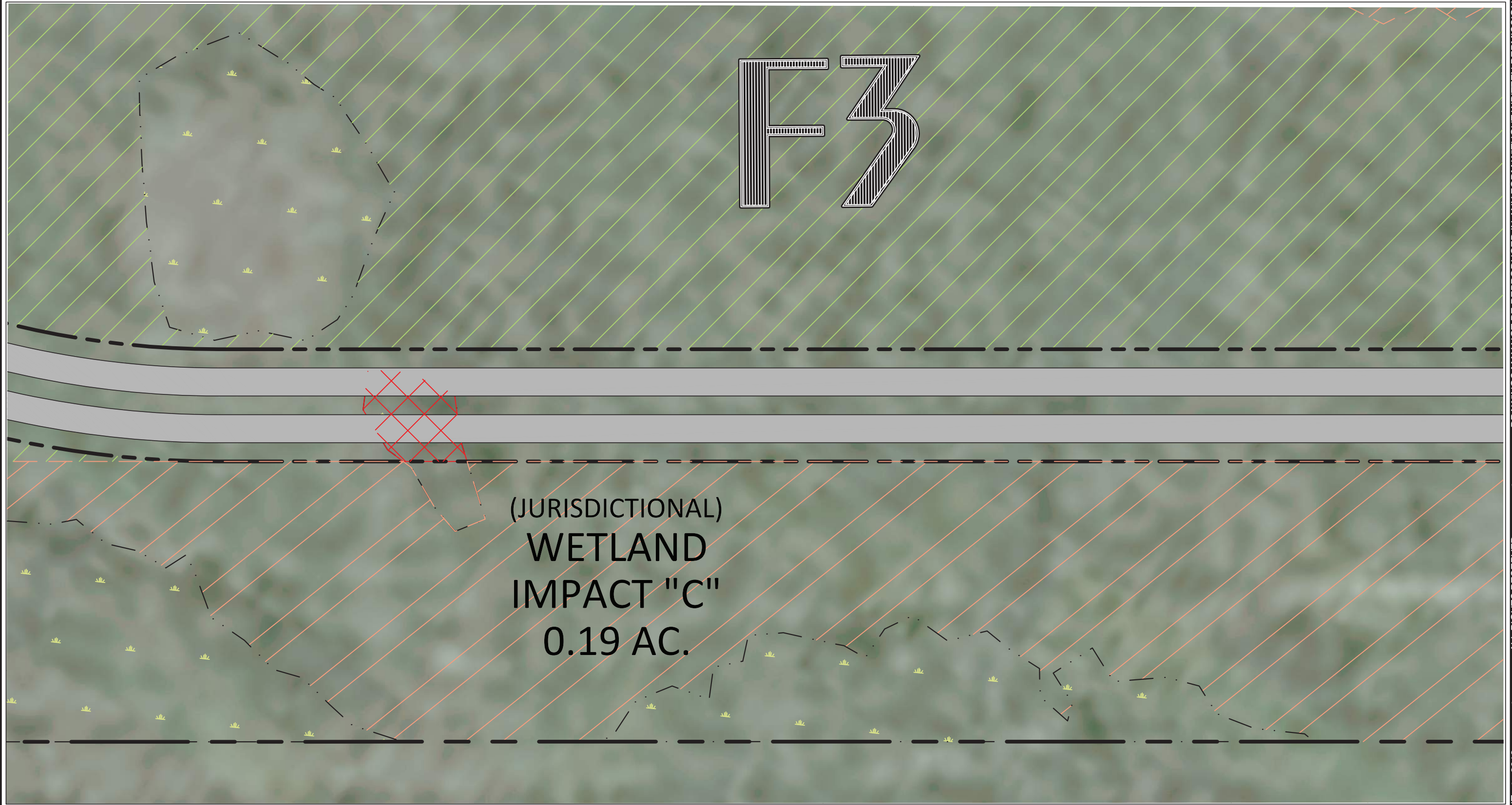
DATE: NOVEMBER 05, 2019

SCALE: 1" = 100'

HUSSEY GAY BELL
— Established 1958 —
329 COMMERCIAL DRIVE, SAVANNAH, GA 31406 / T:912.354.4626



REVISIONS: 00		
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SHEET:		
3	OF	8



WETLAND IMPACT EXHIBITS
for
OMNITRAX
SHEET 4

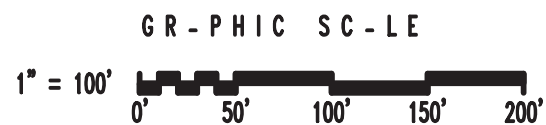
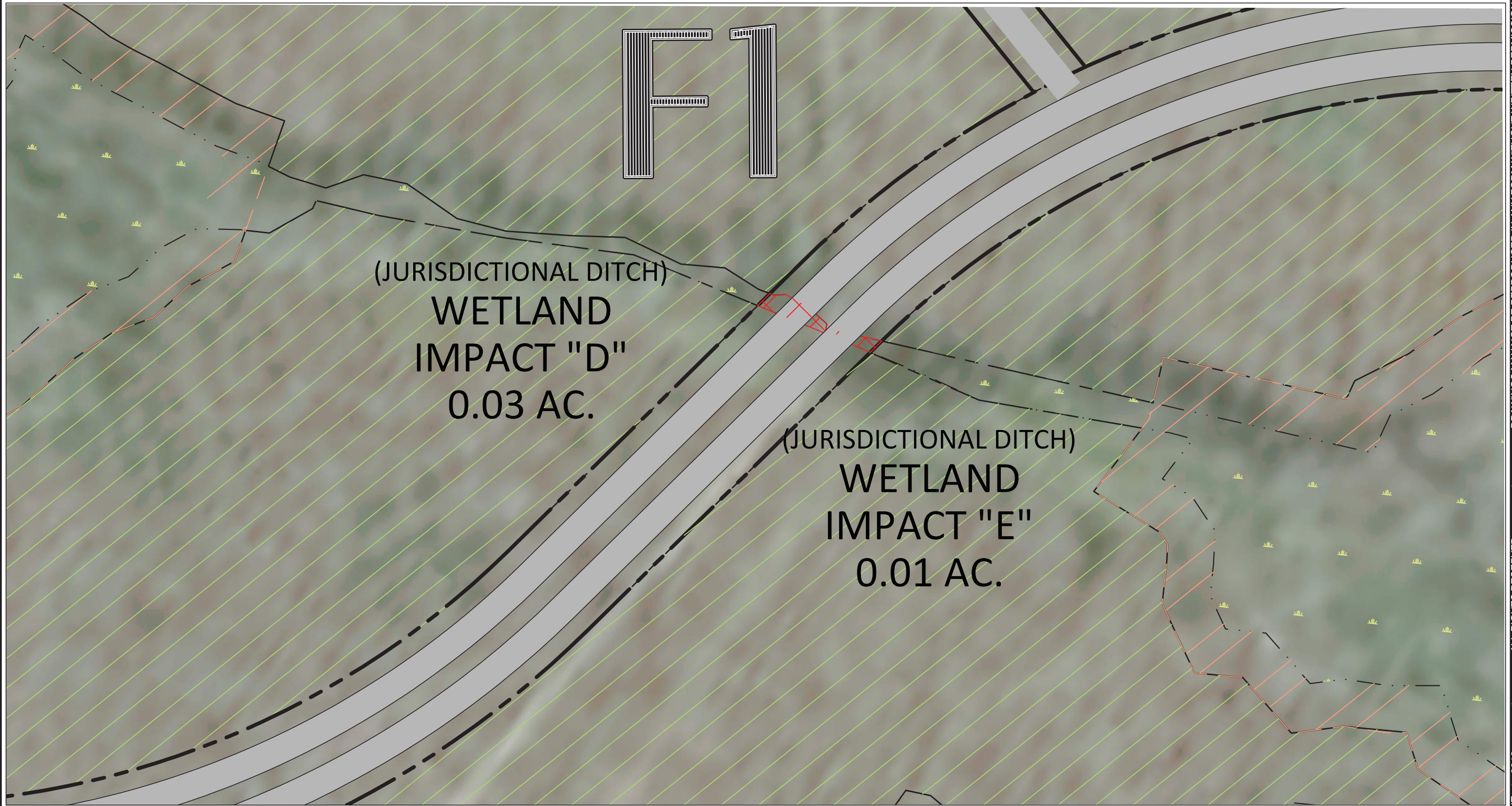
DATE: NOVEMBER 05, 2019

SCALE: 1" = 100'

HUSSEY GAY BELL
— Established 1958 —
329 COMMERCIAL DRIVE, SAVANNAH, GA 31406 / T:912.354.4626



REVISIONS: 00		
rev 00		
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4	OF	8



WETLAND IMPACT EXHIBITS
for
OMNITRAX
SHEET 5

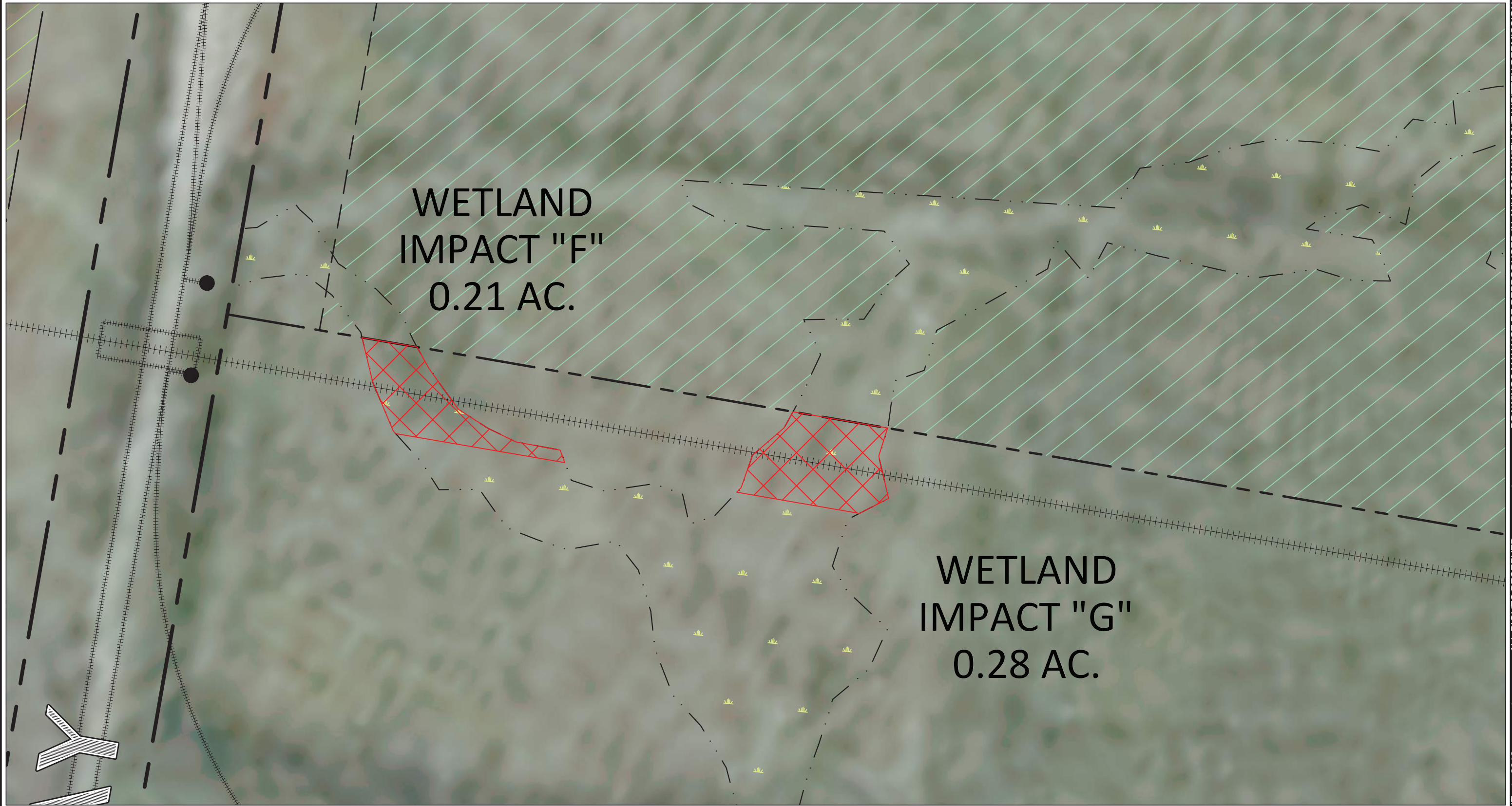
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HUSSEY GAY BELL
— Established 1958 —
329 COMMERCIAL DRIVE, SAVANNAH, GA 31406 / T:912.354.4626

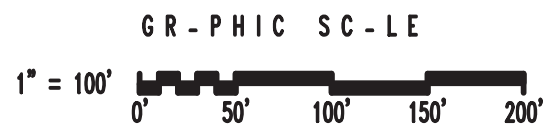


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SHEET:		
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WETLAND
IMPACT "F"
0.21 AC.

WETLAND
IMPACT "G"
0.28 AC.



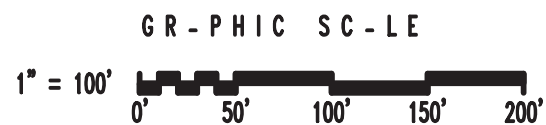
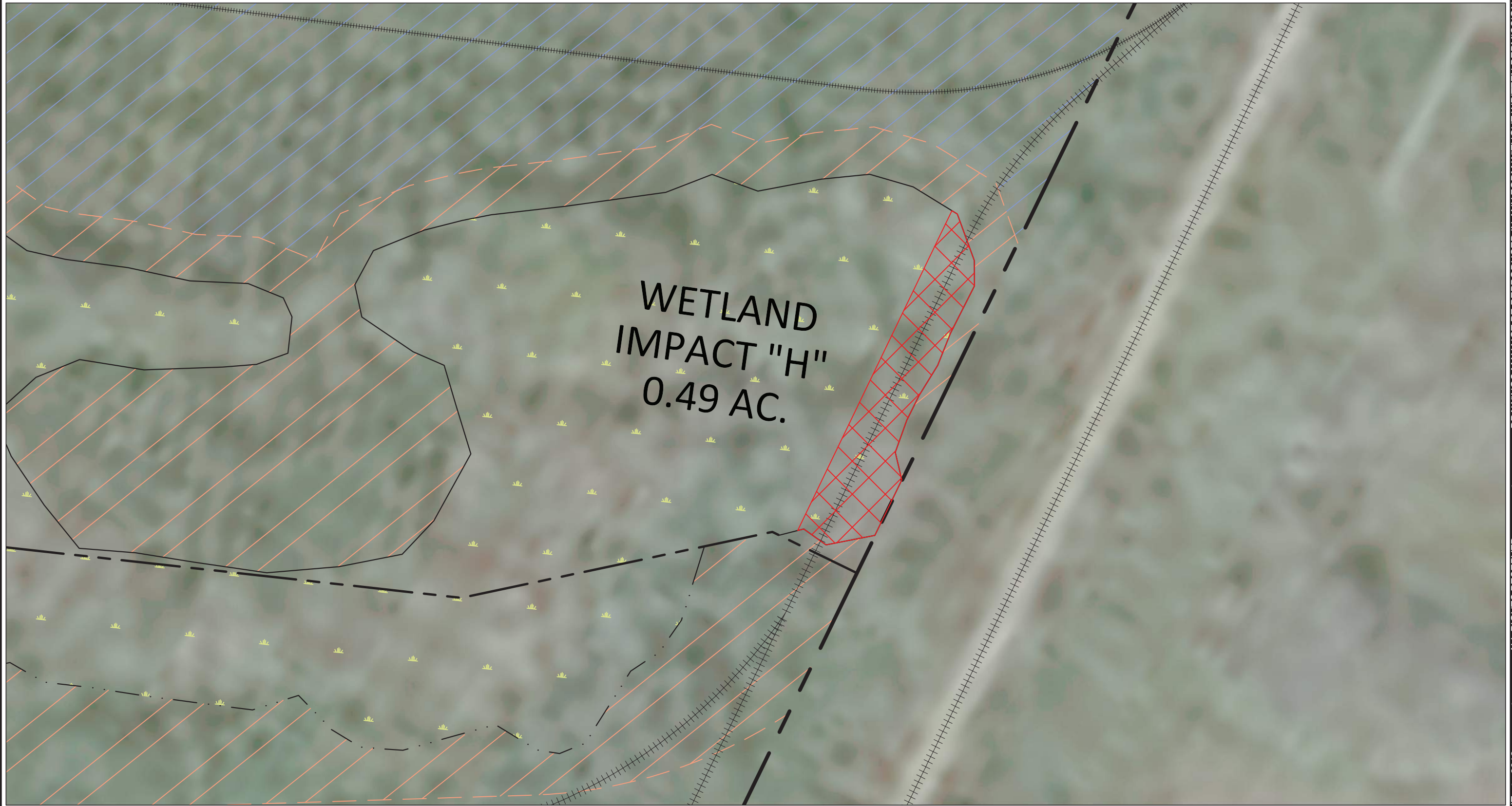
WETLAND IMPACT EXHIBITS
for
OMNITRAX
SHEET 6
DATE: NOVEMBER 05, 2019

SCALE: 1" = 100'

HUSSEY GAY BELL
Established 1958
329 COMMERCIAL DRIVE, SAVANNAH, GA 31406 / T:912.354.4626



REVISIONS:		
rev00		
SHEET:		
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WETLAND IMPACT EXHIBITS
for
OMNITRAX
SHEET 7

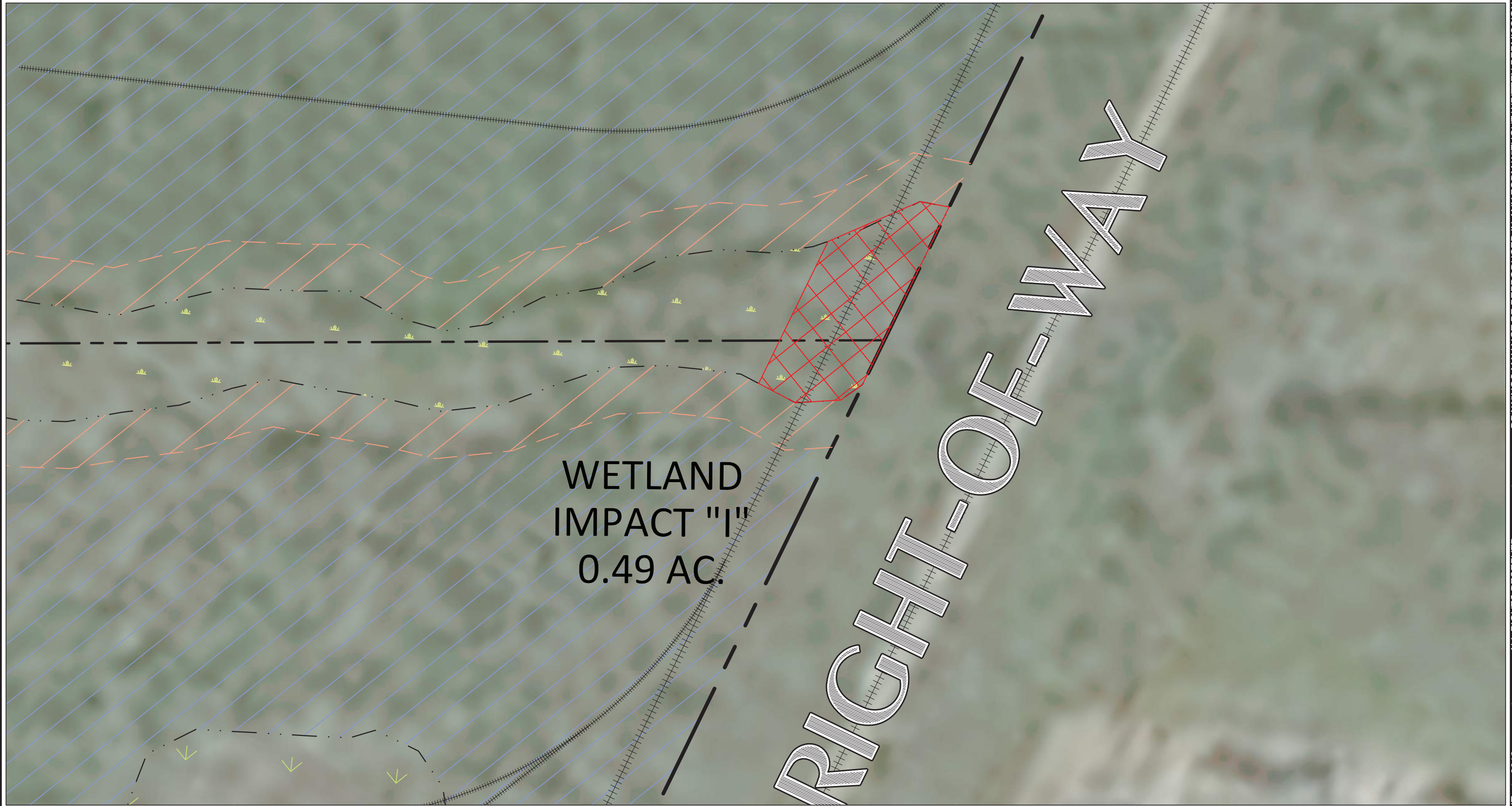
DATE: NOVEMBER 05, 2019

SCALE: 1" = 100'

HUSSEY GAY BELL
— *Established 1958* —
329 COMMERCIAL DRIVE, SAVANNAH, GA 31406 / T:912.354.4626

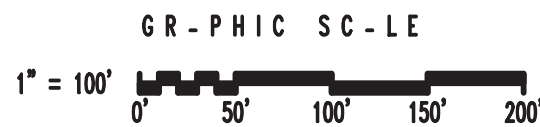


REVISIONS:		
rev00		
SHEET:		
7	OF	8



WETLAND
IMPACT "I"
0.49 AC.

RIGHT-OF-WAY



WETLAND IMPACTS EXHIBITS
for
OMNITRAX
SHEET 8

DATE: NOVEMBER 05, 2019

SCALE: 1" = 100'

HUSSEY GAY BELL
Established 1958

329 COMMERCIAL DRIVE, SAVANNAH, GA 31406 / T:912.354.4626



REVISIONS:		
rev00		
SHEET:		
8	OF	8

SGIH Nationwide Permit Application



February 6, 2020

U.S. Army Corps of Engineers
Savannah District, Regulatory Division
ATTN: CESAS-RD
100 West Oglethorpe Avenue
Savannah, Georgia 31401-3604

RE: Application for Section 404 Nationwide Permit #14 for Track Improvements for the Savannah Gateway Industrial Hub in Effingham County

On behalf of the Savannah Industrial Development, LLC (c/o Omnitrax, Inc.), HDR Inc. (HDR) is requesting authorization under Section 404 of the Clean Water Act under Nationwide Permit (NWP) 14 for the discharge of fill material to waters of the United States (waters of the U.S.) for the above referenced project. The project meets all NWP 14 requirements, including applicable general conditions, regional conditions, and 401 water quality certification provisions.¹ A Pre-Construction Notification Form is included in Attachment A.

Background and Related Permitting

In 2016, Omnitrax, Inc. and Effingham County Industrial Development Authority entered into a development agreement for the Savannah Gateway Industrial Hub (SGIH). The development agreement for the SGIH property grants Omnitrax, Inc. master developer rights. Omnitrax, Inc. and the Broe Real Estate Group are both subsidiaries of The Broe Group. Omnitrax, Inc. is responsible for the rail aspect of the project, while Broe Real Estate Group is responsible for the land development portion of the project. Savannah Industrial Development, LLC, owned by Omnitrax, Inc. was formed as the legal entity for the full development of the SGIH.

Once constructed, the SGIH master plan development will be a world class industrial park and logistics hub offering large scale industrial zoned properties to manufactures, processing facilities, and distributors that seek direct railroad and highway access to the Port of Savannah and other major US markets. The property was selected due to its large size, close proximity to the Port of Savannah, and the ability to connect to two Class 1 railroads – Norfolk Southern Corporation (NS) and CSX Transportation (CSX). In addition, the site is a certified Georgia Ready for Accelerated Development property by the Georgia Department of Economic Development.

To prepare the site for future tenants and provide the basic infrastructure at the site, Omnitrax, Inc. is proposing to construct a main road, railroad intermodal area, and railroad spurs for the SGIH. The improvements that occur within the property boundary of the SGIH are described in a separate permit submitted to the US Army Corps of Engineers (USACE) under Permit No. SAS-2003-20390 and issued

¹ Regarding General Condition 20, HDR, Inc.'s review indicates that the project will have no effect to historic properties listed, or eligible for listing in, the National Register of Historic Places. Pursuant to 54 U.S.C.A. § 302105 of the National Historic Preservation Act (NHPA), NS would object to listing of operating rail property such as this bridge as eligible under the NHPA.



on January 2, 2020. That permit is currently in process with the USACE Savannah District. Details of that proposal are not described further in this document.

As stated in the project description for SAS-2003-20390, the rail improvements within the NS and CSX right-of-ways (ROW) was not included due to the need for additional coordination with the property owners – NS and CSX. This permit submittal is specific to the track improvements required for the SGIH that occur within the CSX ROW.

Project Location

The project, for this permit submittal, is located entirely within the CSX ROW on the east side of the SGIH property boundary, respectively (Attachment B, Figure 1). The Area of Potential Effect includes approximately 5.39 acres located in near the Town of Rincon in Effingham County, Georgia. The approximate center of the CSX ROW improvements are at approximately latitude 32.268706 and longitude -81.232617.

Project Description

The purpose of the proposed project is to provide a rail connection from the SGIH to the CSX main line that runs north and south on the east side of the SGIH property boundary. The project plan sheets are in Attachment C.

A lead track (Lead Track 1) is proposed from the CSX main line into the SGIH. The additional lead track will begin just north of the existing bridge over Wetland M, and will continue for approximately 650 feet north before departing the CSX ROW and heading westward into the SGIH property. Adjacent to Lead Track 1 will be a new access road for rail maintenance and inspection activities. The access road will be approximately 12 feet wide and comprised of compacted ballast material. In addition to Lead Track 1, a 320 foot long and 10 feet wide ballast walkway will be constructed from Lead Track 1 south to Wetland M. The walkway is necessary for bridge inspection and maintenance. Lead Track 1 transitions to Lead Track 2 within the SGIH property (see Permit No. SAS-2005-20390) and continues westward to the NS ROW.

Construction of the new lead tracks will require grading and clearing to remove existing vegetation. Once graded, subballast and then a ballast layer will be placed to form the rail bed (approximately 24 feet wide). The rail ties and rails will then be placed to form the tracks. Lead Track 1 will result in permanent impacts to wetlands. Construction access will require the temporary placement of fill material in wetlands. Staging areas for construction have been located in upland areas. All construction activities will be performed using best management practices (BMPs) (e.g. silt fencing, check dams, etc.) to avoid and minimize siltation and runoff, and to protect the water quality of the downstream wetland areas.

Resource Status

Wetlands and Waterways – A delineation of the study area was completed on August 14 and December 10, 2019, and January 16, 2020 using the routine method described in the USACE 1987 Wetland Delineation Manual, USACE Post-Rapanos guidance, and the USACE Atlantic and Gulf Coastal Plain Regional Supplement. The delineation of the study area identified two freshwater wetlands (Table 1). The Preliminary Jurisdictional Determination and delineation data sheets are in Attachment D.

Of the waters of the US identified in the field, only one (Wetland M) will be impacted as a result of the project.

Threatened and Endangered Species – The United States Fish and Wildlife Services’ (USFWS) Information, Planning, and Conservation (IPaC) System was reviewed for federally protected species from Effingham County. The USFWS database listed four federally protected species listed in Table 3 and Attachment E. A site visit was performed to identify potential habitat and possible individuals of federally protected species listed in Table 2 on August 14 and December 10, 2019. Large mature trees in the wetland and adjacent forested areas may provide potential nesting habitat for bald eagles. However, no bald eagles were observed during the field investigations. Suitable habitat for Red-cockaded woodpecker and pondberry may be present in the Project Area (Action Area). Suitable habitat for the remaining species was not present in the Project Area. An evaluation of the effects to these species from the project are described in Table 2.

TABLE 2. THREATENED AND ENDANGERED SPECIES IN THE PROJECT AREA (ACTION AREA)

Species Name	Federal Status	Critical Habitat Present in the Project Area	Effect Determination
Red-Cockaded Woodpecker (<i>Picoides borealis</i>)	Endangered	No critical habitat has been designated for this species	No effect. Nesting habitat generally requires trees 80-120 years old, while stands older than 30 years provide suitable foraging habitat. Mature forested areas may provide suitable habitat in the project area. Trees would be removed outside the breeding season, therefore this project may affect, but not likely to adversely affect Red-Cockaded Woodpecker.
Wood Stork (<i>Mycteria Americana</i>)	Threatened	No critical habitat has been designated for this species	No effect. This species is found in flooded swamp areas and coastal marshes. As no suitable habitat is present in the project area, this species is assumed to not be present. Therefore this project would have no effect on wood stork.
Eastern Indigo Snake (<i>Drymarchon corais couperi</i>)	Threatened	No critical habitat has been designated for this species	No effect. This species requires dry sandy soils and is found in pine and mixed hardwood forests. As no suitable habitat is present in the project area, this species is assumed to not be present. Therefore this project would have no effect on eastern indigo snake.
Frosted Flatwoods Salamander (<i>Ambystoma cingulatum</i>)	Threatened	There is final critical habitat for this species, but the project location is outside the critical habitat	No effect. Inhabits upland sandy, open longleaf pine forests. The project location is outside the critical habitat. As no suitable habitat is present in the project area, this species is assumed to not be present. Therefore this project would have no effect on frosted flatwoods salamander.
Pondberry (<i>Lindera melissifolia</i>)	Endangered	No critical habitat has been designated for this species	No effect. Pondberry prefers wetland habitats that include the margins of sinks, ponds and other depressions in the more coastal areas. Wetlands in the Action Area could provide suitable habitat for this species. No individuals were observed during the field investigations. Therefore this project may affect, but not likely to adversely affect pondberry.

Cultural Resources – In 2004, a cultural resources survey was completed for the SGIH property including the CSXT ROW. The 2004 study evaluated five historic resources located within/adjacent to the current Study Area, including the Seaboard Coast Line Railroad (now under CXST ownership), the Central of Georgia Railroad (now under NS ownership), Holly Hill Cemetery, Site 9EF259, and Site 9EF260. These locations were revisited on December 14, 2019 and results were consistent with the 2004 findings. Based on the 2004 study, these resources were deemed not eligible for listing in the National Register of Historic Places. A cultural resources memorandum summarizing the 2004 study as well as the 2019 investigations is in Attachment F.



Summary of Impacts

Table 3 summarizes the impacts to Waters of the U.S., including wetlands, as a result of the proposed project. The access road and Lead Track 1 will result in a total of 0.07 acres of permanent impacts to wetlands. No permanent impacts to streams or stream buffers will occur. Construction access will result in a total of 0.05 acres of temporary impacts to wetlands. No temporary impacts to streams or stream buffers will occur. Following construction, these areas will be restored and vegetated. Tree clearing will also be minimized to the extent practicable and conducted in accordance with the Migratory Bird Treaty Act.

As shown in Attachment G, the 0.07 acres of permanent wetland impacts and 0.05 acres of temporary wetland impacts will require 0.48 grandfathered wetland mitigation credits. Prior to construction, the applicant proposes to purchase the wetland mitigation credits from the AA Shaw Wetland Mitigation Bank which services the project area.

TABLE 3. SUMMARY OF IMPACTS TO WATERS OF THE US

Waters Name	Name	Activity	Resource Type	Permanent Loss	Impact Duration	Amount Type	Amount Units	Proposed Amount
Wetland M	Track Improvements	Discharge of fill material	Non-tidal wetland	Yes	Permanent	Fill Area	Acres	0.07
Wetland M	Construction Access	Discharge of fill material	Non-tidal wetland	No	Temporary	Fill Area	Acres	0.05

Permit Compliance

The bridge replacement project will comply with the General and Regional Conditions of Nationwide Permit 14 for transportation activities in the State of Georgia.

Discharge of dredged or fill material will occur within waters of the U.S. for the construction of this project totaling 0.07 acres of permanent wetland impacts and 0.05 acres of temporary wetland impacts. Prior to construction, the applicant proposes to purchase 0.48 grandfathered wetland mitigation credits from the AA Shaw Wetland Mitigation Bank.

There are no historic properties listed or eligible for listing in the NRHP therefore the applicant has complied with the provisions of Section 106 of the NHPA. If any previously unknown historic or archeological remains are discovered while constructing the authorized project the construction would immediately cease and USACE would be notified.

The authorized project would not jeopardize the continued existence of a threatened or endangered species or destroy or adversely modify critical habitat for protected species.

Requested Action

On behalf of the applicant, we request written verification from USACE that the proposed activity can be performed under NWP 14.



Thank you for your time and for your expeditious handling of this request. Please contact me directly at any time at (513) 984-7524 or by email at Leandra.cleveland@hdrinc.com if any additional documentation is required.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lh L Clll'.

Leandra Cleveland, PWS
HDR, Inc.

Attachments:

- A. USACE Pre-Construction Notification Form
- B. Project Figures
- C. Conceptual Plans
- D. Preliminary Jurisdictional Determination
- E. USFWS IPaC Report
- F. Cultural Resource Report
- G. Mitigation Banking Credits



Attachment A. USACE Pre-Construction Notification Form

**U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
2017 PRE-CONSTRUCTION NOTIFICATION (PCN)
FOR USE OF CERTAIN NATIONWIDE PERMITS (NWP)**

USE OF NWP NUMBER 14 **Date** 02/06/2020

APPLICANT/PROPERTY OWNER Savannah Industrial Development, LLC, Mr. Reagan Shanley

Phone(hm/bus) 303-398-4575 FAX E-Mail

Address 252 Clayton Street City Denver State CO Zip Code 80206

AGENT/CONSULTANT Leandra Cleveland, HDR

Phone(hm/bus) 360-901-1410 FAX E-Mail leandra.cleveland@hdrinc.com

Address 9987 Carver Road Suite 200 City Cincinnati State OH Zip Code 45292

PROJECT LOCATION/ADDRESS West of GA Hwy 21, near the Town of Rincon

City Rincon County Effingham Subdivision N/A Lot N/A

Latitude 32.253488 Longitude -81.258915 Hydrologic Map Cataloging Unit 03060109

Nearest Named Stream, River or Other Waterbody Sweigoffer Creek and Dasher Creek

EXISTING SITE CONDITIONS See attached project description

PROJECT DESCRIPTION See attached project description

MEASURES TAKEN TO AVOIDANCE/MINIMIZE IMPACTS TO WATER OF U.S.

See attached project description

PROJECT AREA AND IMPACT INFORMATION

	PROJECT AREA		IMPACTS TO US WATERS	
	ACRES	LINEAR FEET	ACRES	LINEAR FEET
TOTAL PROJECT AREA	5.39	N/A	N/A	N/A
UPLAND	4.23	N/A	N/A	N/A
WETLAND	1.16	N/A	0.12	N/A
OPEN WATER	0	N/A	NA	N/A
PERENNIAL STREAM	0	0	NA	NA
INTERMITTENT STREAM	0	0	NA	NA
EPHEMERAL STREAM	0	0	NA	NA
MAN-MADE DITCHES	0	0	NA	NA

MAPS, DRAWINGS AND OTHER INFORMATION. Include information to address answers provided.

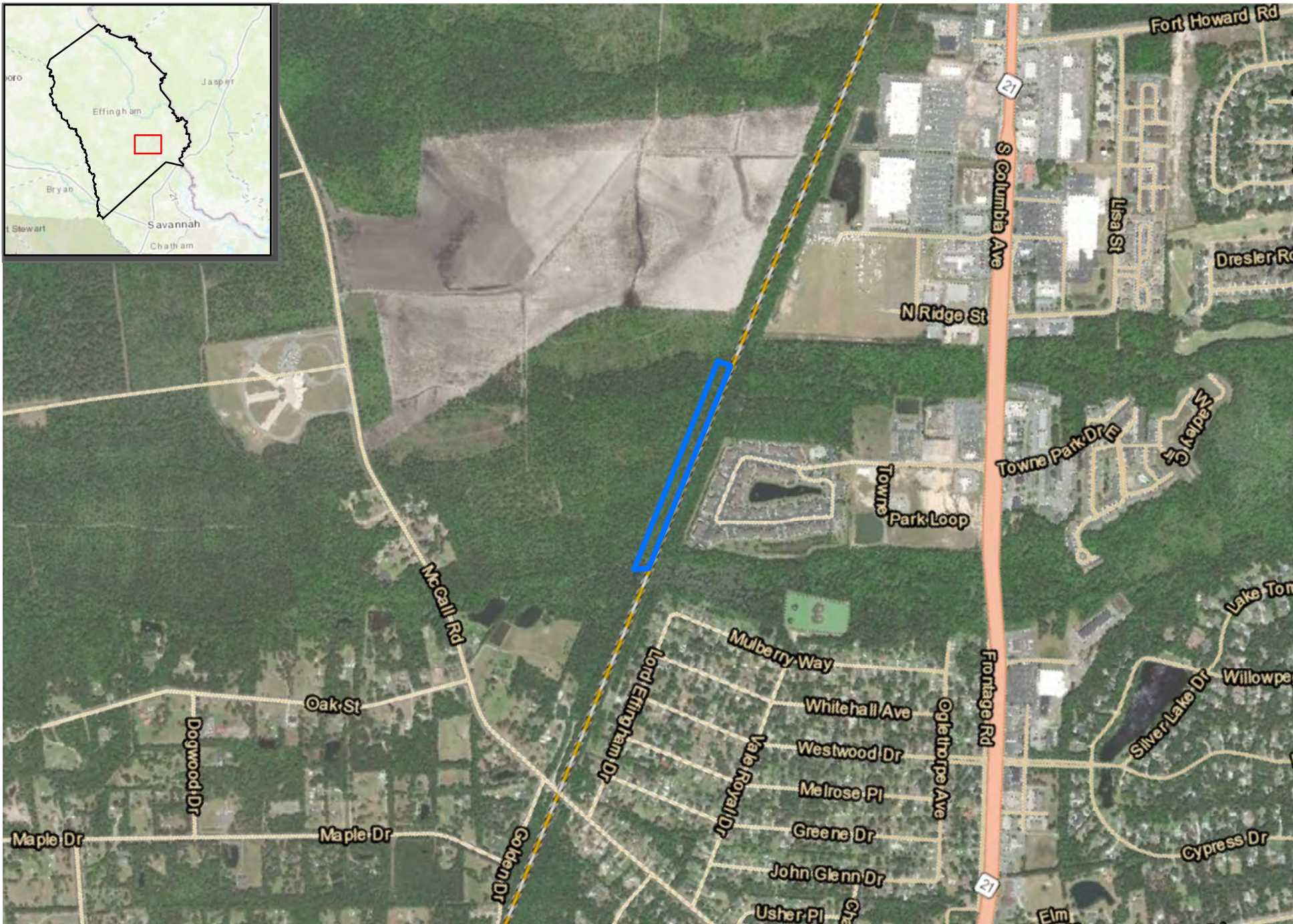
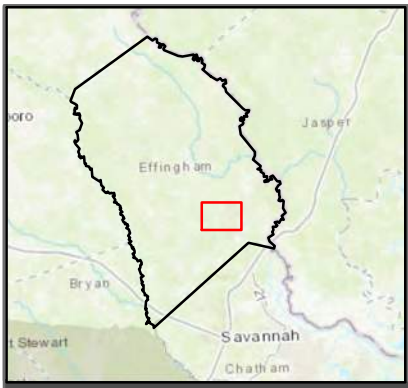
1. PCN submitted to the Georgia EPD? (RC A and Appendix A) Yes ☒ No ☐
2. PCN submitted to the Georgia CRD? (RC A and Appendix A) Yes ☒ No ☐
3. Is the project on or adjacent to a state water, where buffer variance is required? Yes ☐ No ☐
4. Is the project within 10 miles of a 303(d) listed stream? Yes ☒ No ☐
5. Is the project located in or adjacent to a trout stream? Yes ☐ No ☒
6. Is there a water quality management plan for the project site? Yes ☒ No ☐
7. Is a copy of the FWS Initial Project Scoping (IPaC) attached to the PCN? (GC 18) Yes ☒ No ☐
<http://ecos.fws.gov/ipac>
8. Are oysters located within the project area? Yes ☐ No ☒
9. Are cultural resources located on or near the project site? (GC 20(c)) Yes ☒ No ☐
<http://www.nr.nps.gov/>
10. Is compensatory mitigation required? (GC 32(b)(6), GC 23 & RCs H.1–H.5) Yes ☒ No ☐
11. Are culverts proposed in streams or wetlands? (RC C.4 and E.1-8) Yes ☒ No ☐
12. Is in-stream/wetland storm water management proposed? (RC C.5) Yes ☐ No ☒
13. Is the project phased, with future wetland/stream impacts planned? Yes ☒ No ☐
14. Have authorized wetland/stream impacts occurred on the project site? Yes ☐ No ☒
15. Have unauthorized wetland/stream impacts occurred on the project site? Yes ☐ No ☒
16. Is the project located within 5 miles of an airport? Yes ☐ No ☒

IMPORTANT NOTES:

1. For a PCN to be complete for processing, information required at NWP General Condition (GC) 32(b) and Savannah District 2017 NWP Regional Conditions C must be included.
2. All maps and drawings that are attached to this PCN must be submitted on 8 ½ X 11-inch paper. Supplemental maps and drawings larger than 8 ½ X 11 may also be submitted for clarity.

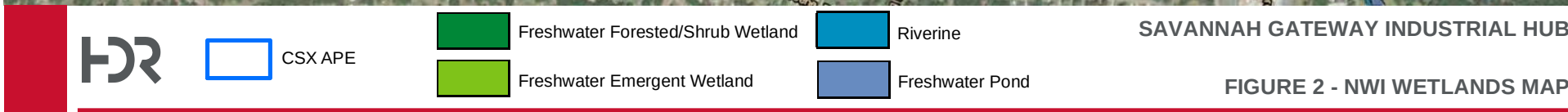


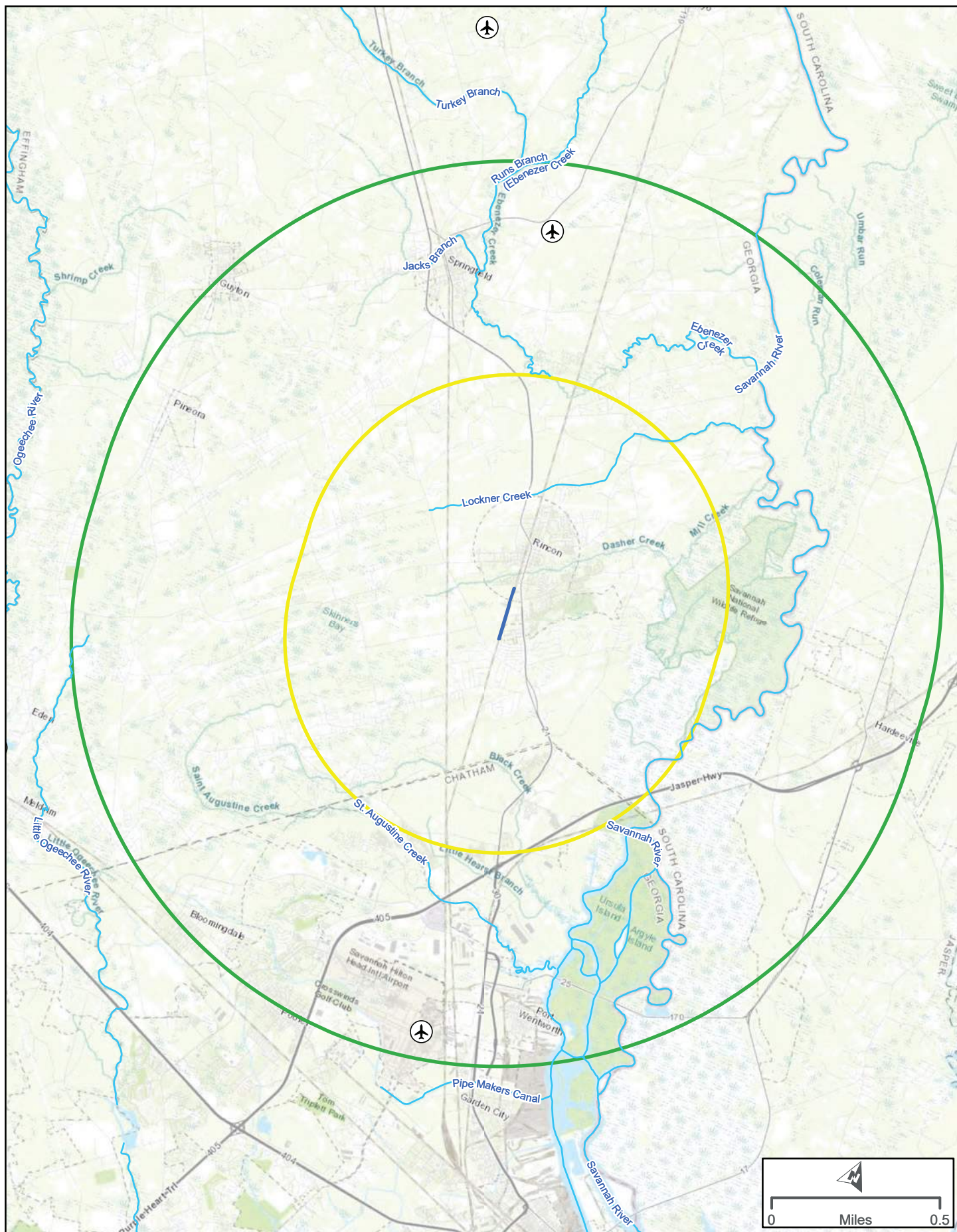
Attachment B. Project Figures



SAVANNAH GATEWAY INDUSTRIAL HUB

FIGURE 1 - PROJECT LOCATION MAP





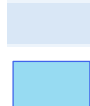
- 5 Mile Buffer
- 10 Mile Buffer
- CSX APE
- 305b / 303d Listed Streams
- ✈ Airports

SAVANNAH GATEWAY INDUSTRIAL HUB

FIGURE 3 - AIRPORTS AND 305B / 303D LISTED STREAMS



CSX APE



Zone AE (100 Year Floodplain)

Zone X (0.2 PCT Annual Flood Chance)

Streams

0 Miles 0.5



SAVANNAH GATEWAY INDUSTRIAL HUB

FIGURE 4 - FEMA FLOODPLAIN MAP
(PANEL 13103C0288E)

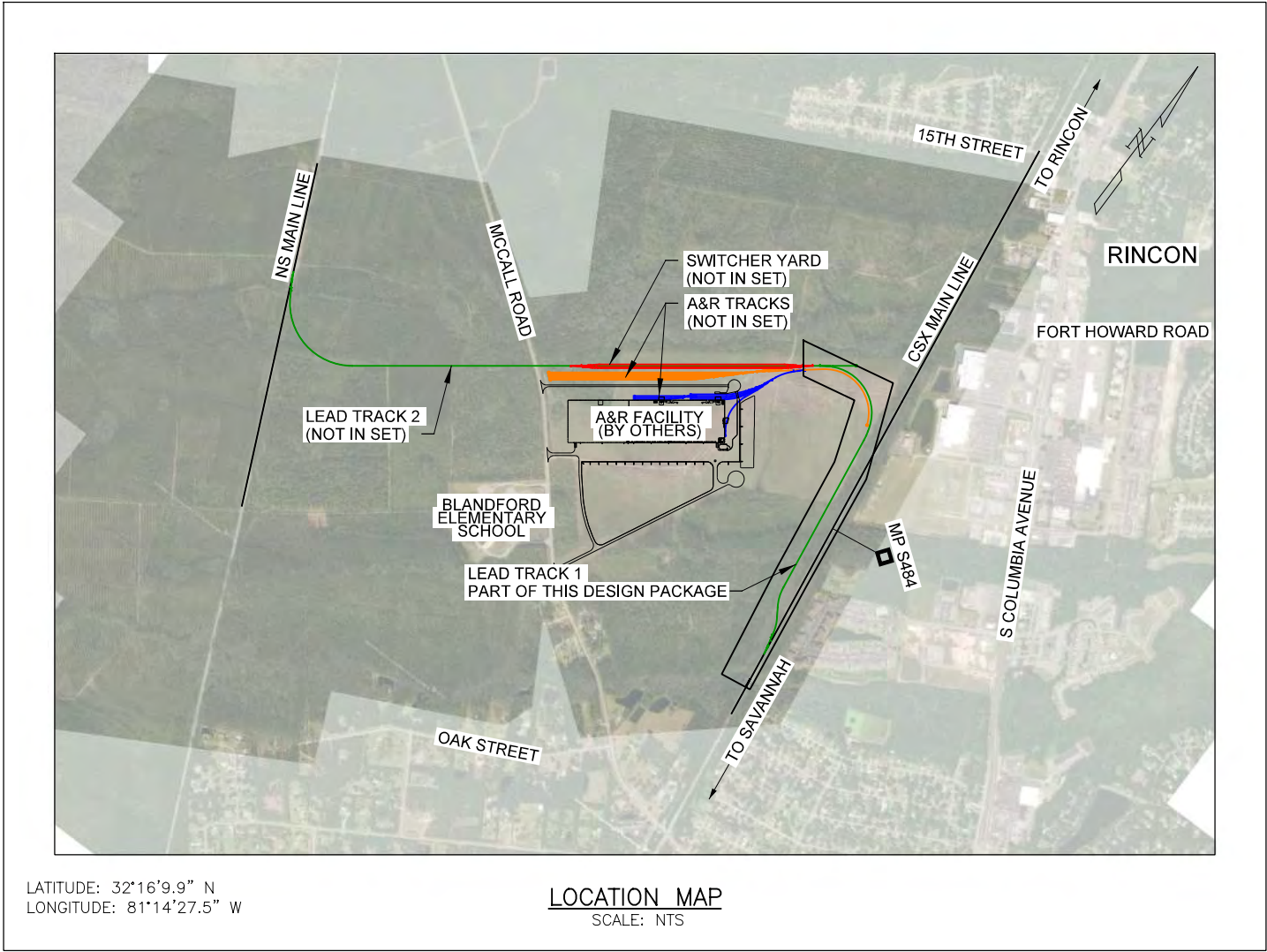


Attachment C. Conceptual Plans

CSXT AT MP S484
SAVANNAH GATEWAY INDUSTRIAL HUB
RINCON, GEORGIA
SUBDIVISION COLUMBIA
CSX LEAD TRACK



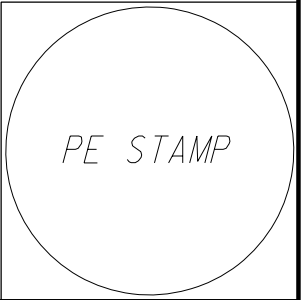
GEORGIA MAP
SCALE: NTS



INDEX OF SHEETS	
SHEET	DESCRIPTION
1	COVER SHEET AND SHEET INDEX
2	ABBREVIATIONS, LEGEND AND GENERAL NOTES
3	MASTER PLAN
4	TRACK ALIGNMENT TABLES
5 to 8	LEAD TRACK 1 PLAN AND PROFILES
9	TRACK TYPICAL SECTIONS & DETAILS
10 to 11	DRAINAGE CULVERTS PLAN AND PROFILES
12	EROSION CONTROL PLAN
13	EROSION CONTROL DETAILS
14	LEAD TRACK 1 CROSS SECTIONS

- FOR APPROVAL -
NOT FOR CONSTRUCTION
STAMP TO BE REPLACED WITH FOR
CONSTRUCTION UPON CSX APPROVAL

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ABBREVIATIONS

CL	CENTER LINE
CL PT	CLEAR POINT
CONC	CONCRETE
CSX/CSXT	CSX TRANSPORTATION
CTRS	CENTERS
D, ° ^	DEGREE (S)
DIA.	DIAMETER
DSPD	DOUBLE SWITCH POINT DERAIL
DWG	DRAWING
E	EAST
EL	ELEVATION
EOT	END OF TRACK
EXIST.	EXISTING
^, FOOT,	FEET OR MINUTE (S)
^, INCH,	INCHES OR SECOND (S)
HP	HIGH POINT
HTTO	HAND THROWN TURNOUT
L	LENGTH
Lc	CHORDED LENGTH OF CURVE
LF	LINEAL FEET
LH	LEFT HAND
LP	LOW POINT
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NTS	NOT TO SCALE
NO	NUMBER
NS	NORFOLK SOUTHERN RAILWAY COMPANY
PC	POINT OF CURVE
PI	POINT OF INTERSECTION
PITO	POINT OF INTERSECTION OF TURNOUT
P/L	PROPERTY LINE
POB	POINT OF BEGINNING
POTO	POWER OPERATED TURNOUT
PT	POINT OF TANGENT
PROP.	PROPOSED
PTSW	POINT OF SWITCH
R	RADIUS
RH	RIGHT HAND
RR	RAILROAD
ROW	RIGHT OF WAY
S	SOUTH
SIL	SAVANNAH INDUSTRIAL LOGISTICS LLC
STA.	STATION
STD	STANDARD
SY	SWITCHER YARD TRACK
T	TANGENT
TC	TRACK CENTERS
TF	TRACK FEET
TO	TURNOUT
TOR	TOP OF RAIL
TRK	TRACK
TYP	TYPICAL
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT
W	WEST
X-ING	CROSSING

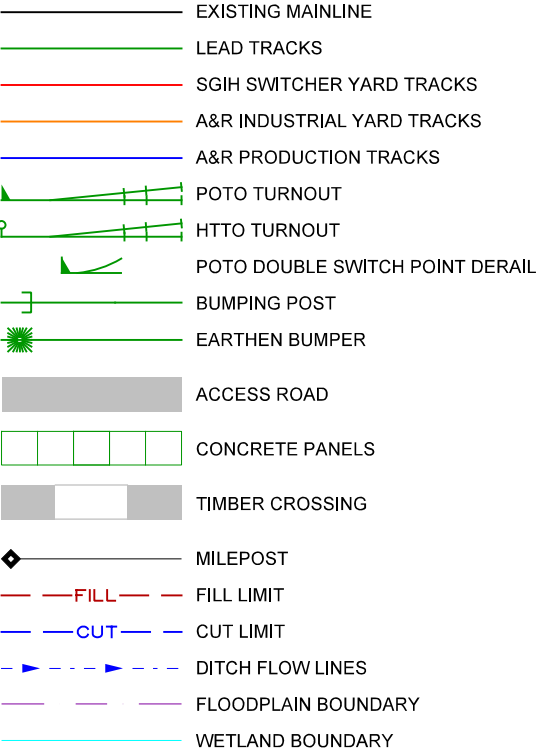
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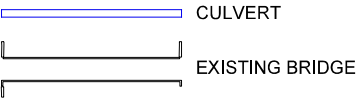
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LEGEND

TRACK



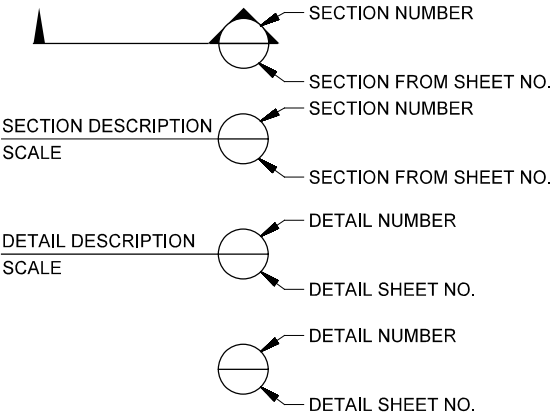
STRUCTURES



PROPERTY



EROSION CONTROL

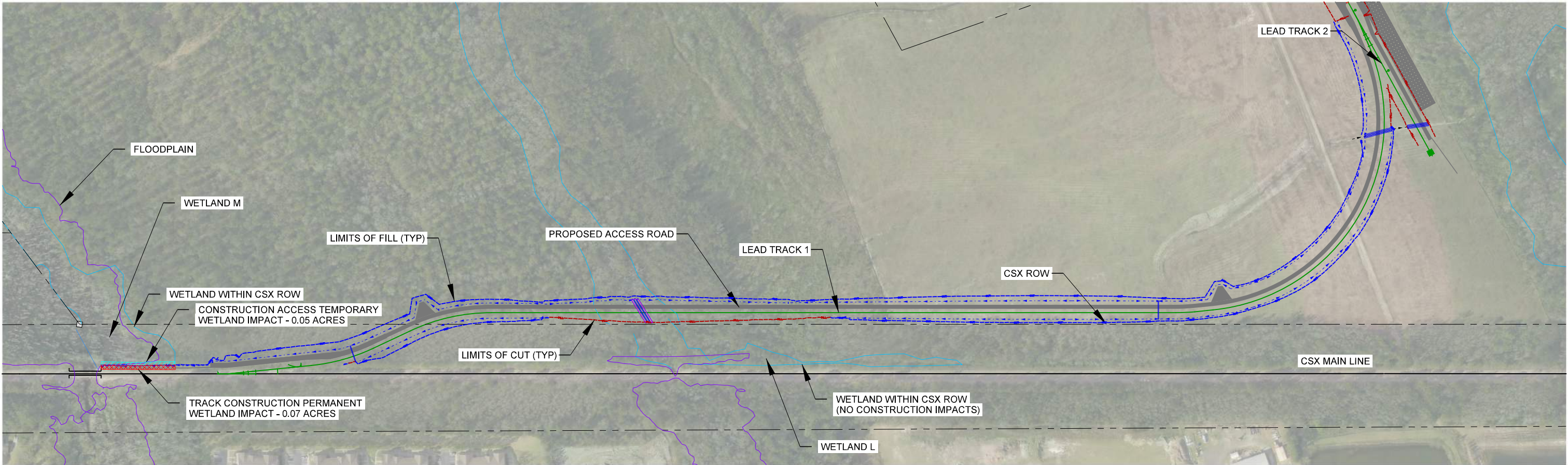


GENERAL NOTES

- GENERAL NOTES APPLY TO ALL SHEETS EXCEPT WHERE MORE SPECIFIC REQUIREMENTS ARE PROVIDED ON INDIVIDUAL SHEETS.
- PROJECT DRAWINGS, SPECIFICATIONS, GENERAL CONDITIONS, CONTRACT(S) AND OTHER DOCUMENTS ISSUED AS PART OF THIS PROJECT REPRESENT THE COMPLETE PROJECT REQUIREMENTS. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE COMPLETE SET OF DOCUMENTS. THE REQUIREMENTS OF INDIVIDUAL PROJECT DOCUMENTS DO NOT REPRESENT THE COMPLETE PROJECT REQUIREMENTS AND SHALL NOT BE APPLIED INDEPENDENTLY.
- CONTRACTOR SHALL MAINTAIN CONTROL OF EQUIPMENT, PERSONNEL, MATERIALS AND DEBRIS WITHIN THE CONSTRUCTION LIMITS OF THE PROJECT, PREVENT DISTURBANCE OF ANY AREA OUTSIDE OF THE CONSTRUCTION LIMITS, AND PREVENT THE TRACKING OF MUD, WEEDS AND DEBRIS TO OTHER AREAS AND ON PUBLIC ROADS, TO THE SATISFACTION OF RAILROAD THROUGHOUT PERFORMANCE OF THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL EXISTING ITEMS WITHIN OR ADJACENT TO THE WORK OR THAT THE ITEMS CURRENT CONDITION MAY BE DISTURBED BY THE WORK. IF NECESSARY, CONTRACTOR SHALL SEEK WRITTEN CLARIFICATION FROM RAILROAD.
- CONTRACTORS SHALL NOTIFY GEORGIA ONE-CALL AT 800-282-7411 48 HOURS PRIOR TO ANY EXCAVATION. THE ONE-CALL NOTES AND AUTHORIZATION SHALL BE KEPT AT THE JOB SITE.
- NO WORK WHATSOEVER SHALL COMMENCE WITHOUT FIRST NOTIFYING CSX RAILROAD AND SAVANNAH GATEWAY INDUSTRIAL HUB CONSTRUCTION MANAGEMENT A MINIMUM OF FIVE (5) WORKING DAYS IN ADVANCE.
- RAIL CONTRACTOR SHALL COORDINATE ALL ON-SITE ACTIVITIES: CONSTRUCTION; STAGING; ACCESS; DELIVERIES; FIELD OFFICE; ETC., WITH A&R CONSTRUCTION DOCUMENTS (FACILITY) CONSTRUCTION CONTRACTOR.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND CITY LAWS AND ORDINANCES AS WELL AS REGULATIONS OF THE DEPARTMENT OF INDUSTRIAL RELATIONS, FRA, OSHA, NPDES AND INDUSTRIAL ACCIDENT COMMISSION RELATED TO SAFETY AND CHARACTER OF THE WORK, EQUIPMENT AND LABOR PERSONNEL.
- PROTECT IN PLACE (BY ANY MEANS NECESSARY) THE EXISTING, CONSTRUCTED AND UNDER CONSTRUCTION SURFACING, STRUCTURES, UTILITIES, DRAINAGE, GRADING ITEMS AT THE OWNER'S DISCRETION. RAIL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REPAIR AT THEIR OWN EXPENSE FOR ANY DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY THE RAIL CONTRACTOR TO EXISTING, CONSTRUCTED AND UNDER CONSTRUCTION SURFACING, STRUCTURES, UTILITIES, DRAINAGE, GRADING AT THE OWNER'S DISCRETION.
- RAIL CONTRACTOR SHALL COORDINATE ANY WORK ACTIVITY WITHIN THE SAVANNAH GATEWAY INDUSTRIAL HUB PROPERTY AND WITH RAILROAD A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO ENTERING THE PROPERTY.
- RAIL CONTRACTOR SHALL COORDINATE WORK WHICH AFFECTS ADJACENT PROPERTY OWNERS AND A&R CONTRACTOR WORK THROUGH RAILROAD. ANY QUESTIONS OR AGREEMENTS BETWEEN RAIL CONTRACTOR AND ADJACENT PROPERTY OWNERS OR FACILITY CONTRACTOR SHALL BE MADE IN WRITING. A COPY OF SUCH AGREEMENT SHALL BE PROVIDED TO SAVANNAH GATEWAY INDUSTRIAL HUB.
- PROPERTY LINES AND RIGHT-OF-WAY LINES SHOWN ON THE PLANS ARE TAKEN FROM THE FACILITY CONSTRUCTION DOCUMENTS AND ARE PROVIDED FOR REFERENCE ONLY.
- MATCH LINES FOR TRACK SHEETS ARE BASED ON THE PROPOSED STATIONING UNLESS OTHERWISE SPECIFIED.
- ALL NEW TRACK AND TURNOUTS TO BE A MINIMUM 115# RAIL ON TIMBER TIES.
- RAIL CONTRACTOR SHALL MAINTAIN AT LEAST ONE ACCESS TO ALL AFFECTED PROPERTIES, THE SITE PROPERTY, ALL WORK AREAS AND ANY RAIL OPERATION AREAS. IF NECESSARY, MULTIPHASE CONSTRUCTION SHALL BE UTILIZED AND COORDINATED WITH RAILROAD.
- CONTRACTOR SHALL ENSURE THAT ONE COPY OF THE APPROVED PLANS AND SPECIFICATIONS ARE ONSITE AT ALL TIMES. FURTHER, THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ALL SUBCONTRACTORS WITH THE APPROVED PLANS AND SPECIFICATIONS AND VERIFYING THAT ALL CONSTRUCTION IS IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL CONTACT SAVANNAH GATEWAY INDUSTRIAL HUB FOR CLARIFICATIONS OR DISCREPANCIES ON ANY INFORMATION SHOWN IN THE CONTRACT DOCUMENTS PRIOR TO CONSTRUCTION.
- RAIL CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS FOR ALL RAIL CONTRACTOR EXECUTED IMPROVEMENTS.
- NO FIELD CHANGES WILL BE PERMITTED WITHOUT DIRECT WRITTEN AUTHORIZATION FROM SAVANNAH GATEWAY INDUSTRIAL HUB.
- ENVIRONMENTAL AND EROSION CONTROL PLANNING, EXECUTION AND PERMITTING ARE UNDER THE FACILITY CONTRACTOR CONTROL FOR THE WORK AREA. THIS INCLUDES THE STORM WATER MANAGEMENT PLAN (SWMP) AND LOCAL JURISDICTION REQUIREMENTS. RAIL CONTRACTOR SHALL NOT DISTURB OR REMOVE ANY ENVIRONMENTAL OR EROSION CONTROL MEASURES INSTALLED BY THE FACILITY CONTRACTOR UNLESS APPROVED IN WRITING AND MODIFICATION OF THE CONTROL MEASURES INSTALLED PRIOR TO DISTURBANCE OR REMOVAL.
- RAIL CONTRACTOR SHALL COORDINATE WITH, AND ASSIST, THE FACILITY CONTRACTOR WITH INSPECTION AND MAINTENANCE OF EROSION CONTROL MEASURES WITHIN THE AREA OF RAIL CONSTRUCTION, STAGING, STORAGE, FIELD OFFICE AND OTHER AREAS UTILIZED BY THE RAIL CONTRACTOR.
- RAIL CONTRACTOR SHALL COORDINATE WITH, AND ASSIST, THE FACILITY CONTRACTOR IN MAINTAINING AND CLEANING, TO THE SATISFACTION OF SAVANNAH GATEWAY INDUSTRIAL HUB, EFFINGHAM COUNTY, ALL PUBLIC AND PRIVATE ACCESS AND SERVICE ROADS USED DURING CONSTRUCTION.
- RAIL CONTRACTOR SHALL PROVIDE WATER ONSITE AND UTILIZE AS REQUIRED TO MINIMIZE DUST GENERATION DURING, AND FOR THE ACTIVITIES OF THE RAIL CONTRACTOR CONSTRUCTION EFFORTS.
- ANY CHEMICAL OR HAZARDOUS MATERIAL SPILLS SHALL BE IMMEDIATELY REPORTED TO THE GDPH, THE RAILROAD, THE FACILITY CONTRACTOR AND THE SWMP PERMITTING AGENCY. RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, THE GDPH, THE FACILITY CONTRACTOR AND THE SWMP PERMITTING AGENCY. SPILLS THAT POSE AN IMMEDIATE RISK TO HUMAN LIFE SHALL BE REPORTED TO 911. FAILURE TO REPORT AND CLEAN UP ANY SPILL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER.
- PREPARATION OF THE SUBGRADE FOR BENEATH RAIL CONSTRUCTION WILL BE PROVIDED BY OTHERS PRIOR TO RAIL CONSTRUCTION UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS.
- FOR AREAS OF RAIL CONTRACTOR EARTHWORK, RAIL CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING STABLE EXCAVATIONS AND TEMPORARY SLOPES AND FOR SATISFYING ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS. TEMPORARY EXCAVATIONS SHALL PROVIDE, AT A MINIMUM, REQUIREMENTS OR DETAILS OF THE CONSTRUCTION PLANS AND SPECIFICATIONS AND BY STANDARD ENGINEERING PRACTICE. TEMPORARY CONSTRUCTION SLOPES SHALL BE SLOPED, SHORED, SHEETED, AND/OR BRACED IN ACCORDANCE WITH THE STABILITY REQUIREMENTS OR APPLICABLE REGULATIONS, AND SHALL BE NO STEEPER THAN THE SLOPES SHOWN OR SPECIFIED WITHIN THE PROJECT DOCUMENTS.
- ALL SOIL STOCKPILES SHALL BE PROTECTED FROM SEDIMENT TRANSPORT BY APPROPRIATE EROSION CONTROL BMPS AND IN ACCORDANCE WITH THE FACILITY CONTRACTOR'S SWMP.
- CONSTRUCTION OF DRAINAGE IMPROVEMENTS WILL BE PROVIDED BY OTHERS PRIOR TO RAIL CONSTRUCTION UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS.
- RAIL CONTRACTOR SHALL PROTECT IN PLACE THE CONSTRUCTED STORM DRAINAGE DITCHES, SWALES, STORM SEWER, AND APPURTENANCES. IF RAIL CONTRACTOR DISTURBED OR DAMAGES STORM DRAINAGE IMPROVEMENTS SHALL BE REPAIRED BY THE RAIL CONTRACTOR TO THE FACILITY CONTRACTOR'S SATISFACTION AT THE RAIL CONTRACTORS EXPENSE.
- RAIL CONTRACTOR SHALL COORDINATE WITH FACILITY CONTRACTOR ON THE LOCATION OF ALL PROPOSED UTILITIES TO ASSURE COMPLIANCE WITH RAILROAD STANDARDS.
- RAIL CONTRACTOR SHALL PROTECT IN PLACE THE CONSTRUCTED UTILITIES AND APPURTENANCES. RAIL CONTRACTOR DISTURBED OR DAMAGED UTILITY IMPROVEMENTS SHALL BE REPAIRED BY THE RAIL CONTRACTOR TO THE FACILITY CONTRACTOR'S SATISFACTION AT THE RAIL CONTRACTORS EXPENSE.
- ALL AREAS TO RECEIVE PAVEMENT SHALL BE SCARIFIED TO A MINIMUM DEPTH OF TWELVE (12) INCHES, MOISTURE TREATED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS.
- BEFORE PLACING PAVEMENT MATERIALS, THE AREAS SHALL BE PROOF-ROLLED WITH A FULL DUMP TRUCK OR SIMILAR EQUIPMENT. IF PUMPING OCCURS, REWORK THE AREA IN CONFORMANCE WITH THE DIRECTION OF THE RAILROAD. REWORK AND PROOF-ROLL THE AREA UNTIL PUMPING DOES NOT OCCUR. ALL REWORK SHALL BE INCIDENTAL TO SUBGRADE PREPARATION.

PE STAMP

						Information confidential all plans, drawings, specifications, and/or information furnished herewith shall remain the property of the CSX Transportation and shall be held confidential and shall not be used for any purpose not provided for in agreements with the CSX Transportation.	DESIGNED BY J. WILKERT	CSX TRANSPORTATION, INC. ENGINEERING DEPARTMENT DESIGN & CONSTRUCTION  HDR ENGINEERING, INC. 1670 BROADWAY, SUITE 3400 DENVER, CO 80202 (303) 764-1520	VAL. SEC.	CONTRACT NO. C - XXXX		SAVANNAH GATEWAY INDUSTRIAL HUB ABBREVIATIONS, LEGEND AND GENERAL NOTES CSX MP S484 EFFINGHAM COUNTY, GEORGIA
					DRAWN BY B. HAN		DRAWING NO.					
					CHECKED BY E. BAYLEY		REVISION 0		SHEET NO. 2 OF 14			
					APPROVED BY C. BEASLEY		SCALE AS SHOWN					
					DATE NOVEMBER 22, 2019							
REV	DATE	DESCRIPTION			BY	SUB	APP					



LEGEND

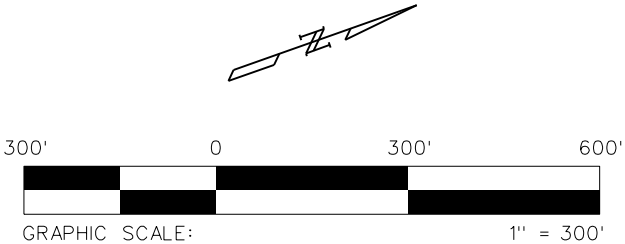


PERMANENT
WETLAND IMPACT AREA



TEMPORARY
WETLAND IMPACT

- FOR APPROVAL -
NOT FOR CONSTRUCTION
STAMP TO BE REPLACED WITH FOR
CONSTRUCTION UPON CSX APPROVAL



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Attachment D. Preliminary Jurisdictional Determination



February 5, 2020

U.S. Army Corps of Engineers
Savannah District, Regulatory Division
ATTN: CESAS-RD
100 West Oglethorpe Avenue
Savannah, Georgia 31401-3604

RE: Preliminary Jurisdictional Determination Request for Track Improvements for the Savannah Gateway Industrial Hub in Effingham County

Savannah Industrial Development, LLC (c/o Omnitrax, Inc.) has authorized HDR Engineering, Inc. (HDR) as its agent to submit the enclosed preliminary jurisdictional determination (PJD) request for the track improvements for the Savannah Gateway Industrial Hub (SGIH). The Study Area includes approximately 5.39 acres located near the Town of Rincon in Effingham County, Georgia (Figure 1). The Study Area includes the CSX Transportation (CSX) right-of-way (ROW) adjacent to the SGIH property. The following presents a summary of delineated waters identified within the Study Area during HDR's field survey efforts.

Previous Delineations and Jurisdictional Determinations

The SGIH property, which is located between the NS and CSX ROWs was delineated in 2005 and a jurisdictional determination from the USACE Savannah District was issued on May 19, 2005 (SAS-2003-20390). The waters of the U.S. were again verified and delineated for the SGIH property in a jurisdictional determination issued on February 27, 2015 (SAS-2003-20390). While these previous delineations and jurisdictional determinations are outside of the Study Area for this report, the adjacent wetland boundaries and waters identified on the SGIH were used in the desktop and field review of waters of the U.S. in the Study Area.

Methods

On August 14 and December 10, 2019, and January 16, 2020, HDR staff reviewed the Study Area for waters of the U.S. under Section 404 of the Clean Water Act, which was also examined according to the methodology described in the USACE 1987 Wetland Delineation Manual, USACE Post-Rapanos guidance, and the USACE Atlantic and Gulf Coastal Plain Regional Supplement. Prior to undertaking fieldwork, HDR scientists conducted a desktop review of the Study Area utilizing a number of resources including aerial imagery, Natural Resources Conservation Service (NRCS) soils maps, U.S. Geological Survey (USGS) topographic maps, and U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps (Figures 2 through 5).



Descriptions of Wetlands and Waters

The Study Area contains two freshwater wetlands (Table 1). Attached to this submittal are figures, data forms, and photographs representative of on-site waters and adjacent upland areas.

TABLE 1. SUMMARY OF ON-SITE WATERS OF THE U.S.

Site Number or Name	Latitude	Longitude	Cowardin Class	Size of Resource in Project Study Area (acres)	Class of Aquatic Resource
Wetland L (CSX ROW)	32.267204°	-81.232539°	PFO1B	0.48	non Section 10, non-tidal
Wetland M (CSX ROW)	32.262340°	-81.231857°	PFO1B	0.68	non Section 10, non-tidal

Table Notes:

PFO1B = Palustrine, forested, broad-leaved deciduous, seasonally saturated

Requested Action

On behalf of the applicant, we request a preliminary jurisdictional determination for the features identified within the Study Area.

Thank you for your time and for your expeditious handling of this request. Please contact me directly at any time at (513) 984-7524 or by email at Leandra.cleveland@hdrinc.com if any additional documentation is required.

Sincerely,

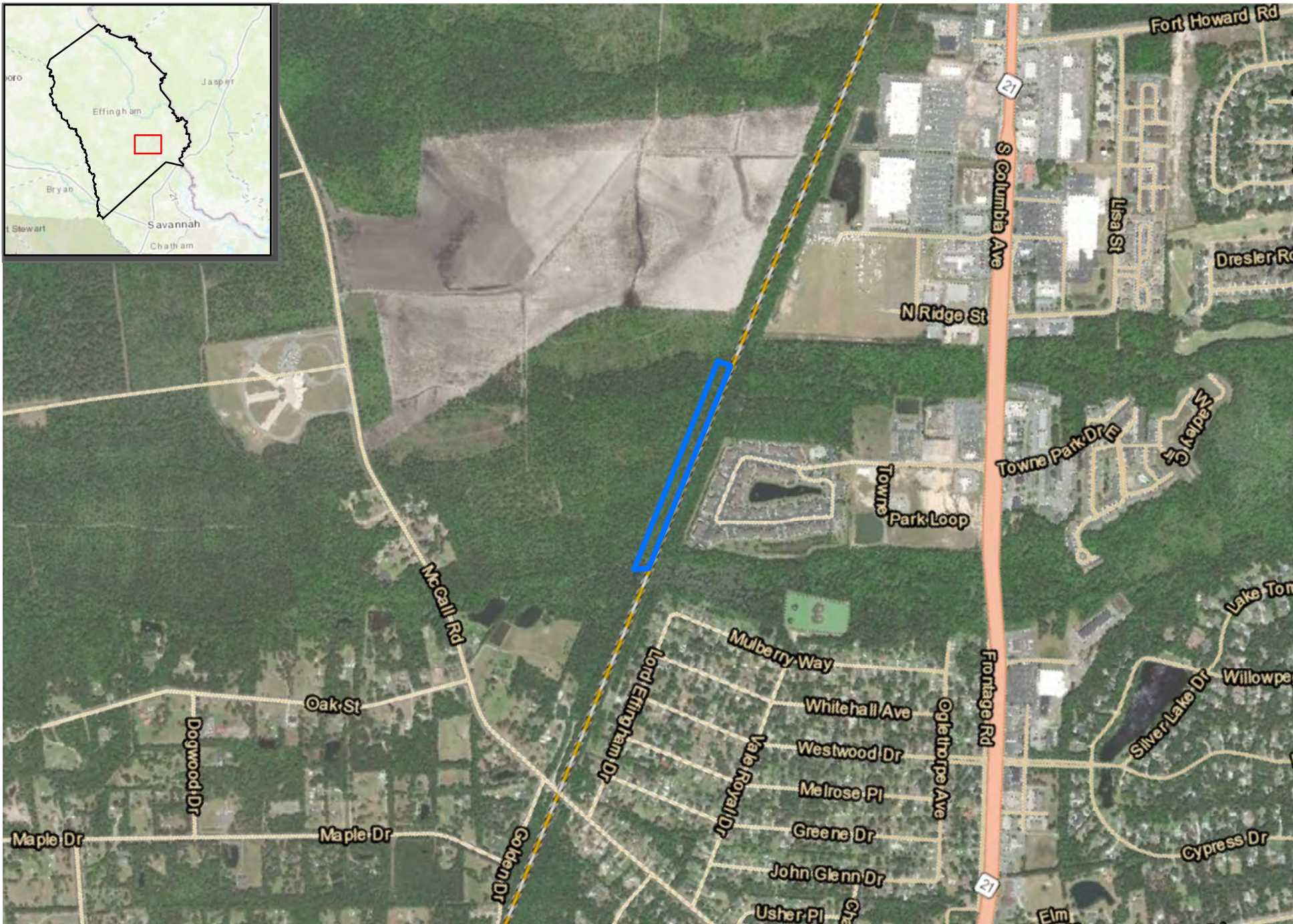
Leandra Cleveland, PWS
HDR Engineering, Inc.

Attachments:

- A. Figures
- B. Delineation Data Sheets
- C. Representative Photographs



Attachment A. Figures





CSX APE



Miles

0
0.5

SAVANNAH GATEWAY INDUSTRIAL HUB

FIGURE 1 - PROJECT LOCATION MAP





CSX APE



Soils



Streams

0

Miles

0.5

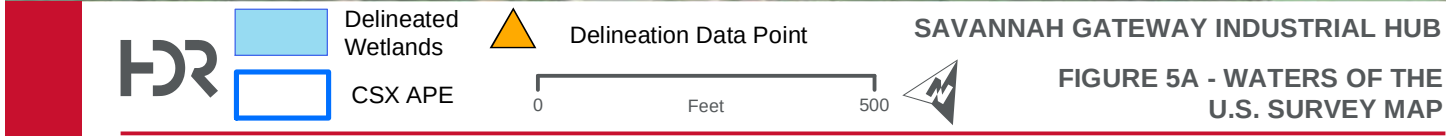
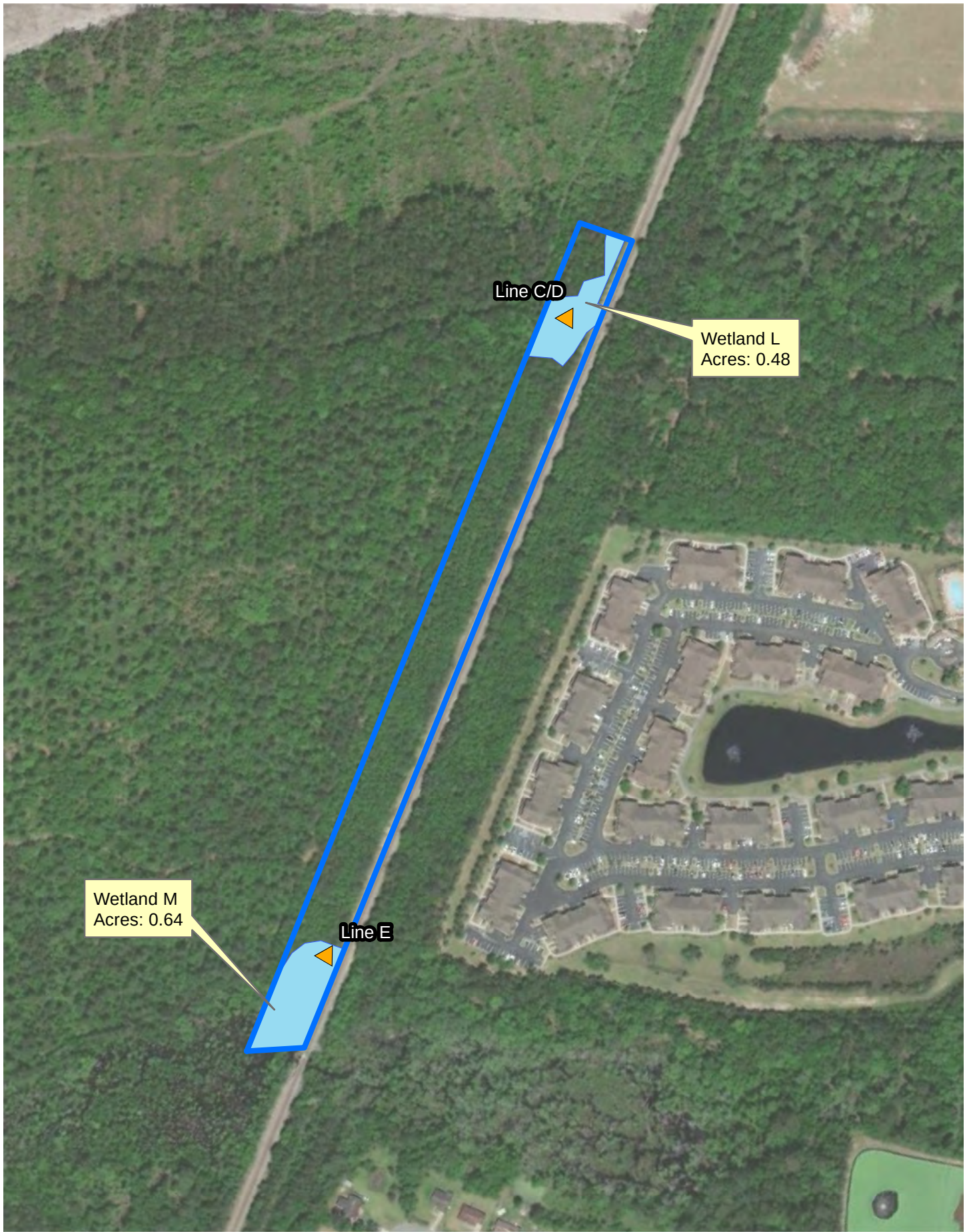


SAVANNAH GATEWAY INDUSTRIAL HUB

FIGURE 3 - USDA SOILS MAP



FIGURE 4 - FEMA FLOODPLAIN MAP
(PANEL 13103C0288E)





Attachment B. Delineation Datasheets

WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region

Project/Site: Savannah Gateway Industrial Hub City/County: Rincon/Effingham Sampling Date: 08-13-19
Applicant/Owner: Omnitrax State: GA Sampling Point: Line A
Investigator(s): Jordan Myers Section, Township, Range: _____
Landform (hillside, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 32.279991 Long: -81.234758 Datum: NAD 83
Soil Map Unit Name: Pelham loamy sand, 0 to 2 percent slopes NWI classification: PFO1B
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators</u> (minimum of one is required; check all that apply) <u>X</u> Surface Water (A1) _____ Aquatic Fauna (B13) <u>X</u> High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) <u>X</u> Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) <u>X</u> Water-Stained Leaves (B9)		<u>Secondary Indicators</u> (minimum of two required) _____ Surface Soil Cracks (B6) <u>X</u> Sparsely Vegetated Concave Surface (B8) <u>X</u> Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) <u>X</u> Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T,U)
Field Observations: Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>6</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: Line A

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer rubrum</u>	<u>95</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>95</u> =Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>125</u></td> <td>x 3 = <u>375</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>135</u> (A)</td> <td><u>395</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.93</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>125</u>	x 3 = <u>375</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>135</u> (A)	<u>395</u> (B)	Prevalence Index = B/A = <u>2.93</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>10</u>	x 2 = <u>20</u>																			
FAC species <u>125</u>	x 3 = <u>375</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>135</u> (A)	<u>395</u> (B)																			
Prevalence Index = B/A = <u>2.93</u>																				
50% of total cover: <u>48</u> 20% of total cover: <u>19</u>																				
Sapling/Shrub Stratum (Plot size: <u>30</u>)																				
1. <u>Acer rubrum</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>30</u> =Total Cover																				
50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																				
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>Echinochloa crus-galli</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Osmunda cinnomomea</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>10</u> =Total Cover																				
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																				
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				

Remarks: (If observed, list morphological adaptations below.)

Unidentified carex species was present (5% cover). Species was likely FAC or wetter but not included in calculations as species could not be identified.

Hydrophytic Vegetation Present?

 Yes X No _____

SOIL

Sampling Point: Line A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	2.5Y 2.5/1	100					Sandy	Texture included clay elements
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils³:			
☒ Histosol (A1)			☐ Thin Dark Surface (S9) (LRR S, T, U)			☐ 1 cm Muck (A9) (LRR O)		
☐ Histic Epipedon (A2)			☐ Barrier Islands 1 cm Muck (S12)			☐ 2 cm Muck (A10) (LRR S)		
☐ Black Histic (A3)			(MLRA 153B, 153D)			☐ Coast Prairie Redox (A16)		
☒ Hydrogen Sulfide (A4)			☐ Loamy Mucky Mineral (F1) (LRR O)			(outside MLRA 150A)		
☐ Stratified Layers (A5)			☐ Loamy Gleyed Matrix (F2)			☐ Reduced Vertic (F18)		
☐ Organic Bodies (A6) (LRR, P, T, U)			☐ Depleted Matrix (F3)			(outside MLRA 150A, 150B)		
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)			☐ Redox Dark Surface (F6)			☐ Piedmont Floodplain Soils (F19) (LRR P, T)		
☐ Muck Presence (A8) (LRR U)			☐ Depleted Dark Surface (F7)			☐ Anomalous Bright Floodplain Soils (F20)		
☐ 1 cm Muck (A9) (LRR P, T)			☐ Redox Depressions (F8)			(MLRA 153B)		
☐ Depleted Below Dark Surface (A11)			☐ Marl (F10) (LRR U)			☐ Red Parent Material (F21)		
☐ Thick Dark Surface (A12)			☐ Depleted Ochric (F11) (MLRA 151)			☐ Very Shallow Dark Surface (F22)		
☐ Coast Prairie Redox (A16) (MLRA 150A)			☐ Iron-Manganese Masses (F12) (LRR O, P, T)			(outside MLRA 138, 152A in FL, 154)		
☐ Sandy Mucky Mineral (S1) (LRR O, S)			☐ Umbric Surface (F13) (LRR P, T, U)			☐ Barrier Islands Low Chroma Matrix (TS7)		
☐ Sandy Gleyed Matrix (S4)			☐ Delta Ochric (F17) (MLRA 151)			(MLRA 153B, 153D)		
☐ Sandy Redox (S5)			☐ Reduced Vertic (F18) (MLRA 150A, 150B)			☐ Other (Explain in Remarks)		
☐ Stripped Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 149A)					
☒ Dark Surface (S7) (LRR P, S, T, U)			☐ Anomalous Bright Floodplain Soils (F20)					
☐ Polyvalue Below Surface (S8)			(MLRA 149A, 153C, 153D)					
(LRR S, T, U)			☐ Very Shallow Dark Surface (F22)					
			(MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____					Hydric Soil Present? Yes ☒ No ☐			
Remarks: This data sheet is revised from Atlantic and Gulf Coastal Plain Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.2, 2018. Top layer of organic duff, thick root mat. Medium quality maple hummock.								

Project/Site:	Savannah Gateway Industrial Hub		City/County:	Rincon/Effingham		Sampling Date:	08-13-19		
Applicant/Owner:	Omnitrax			State:	GA		Sampling Point:	Line B	
Investigator(s):	Jordan Myers			Section, Township, Range:					
Landform (hillside, terrace, etc.):	N/A		Local relief (concave, convex, none):	none		Slope (%):	0		
Subregion (LRR or MLRA):	LRR T, MLRA 153A		Lat:	32.275150		Long:	-81.233921		
			Datum:	NAD 83					
Soil Map Unit Name:	Pelham loamy sand, 0 to 2 percent slopes				NWI classification:	PFO1B			
Are climatic / hydrologic conditions on the site typical for this time of year?				Yes	X		No		
				(If no, explain in Remarks.)					
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed?				Are "Normal Circumstances" present?		Yes	X		
						No			
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic?				(If needed, explain any answers in Remarks.)					

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> X </u>	No <u> </u>
Hydric Soil Present?	Yes <u> X </u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u> X </u>	No <u> </u>			
Remarks:					

Wetland Hydrology Indicators:				Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)					
☒ Surface Water (A1)	☐ Aquatic Fauna (B13)	☐ Surface Soil Cracks (B6)			
☒ High Water Table (A2)	☐ Marl Deposits (B15) (LRR U)	☐ Sparsely Vegetated Concave Surface (B8)			
☒ Saturation (A3)	☒ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)			
☐ Water Marks (B1)	☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Moss Trim Lines (B16)			
☐ Sediment Deposits (B2)	☐ Presence of Reduced Iron (C4)	☐ Dry-Season Water Table (C2)			
☐ Drift Deposits (B3)	☐ Recent Iron Reduction in Tilled Soils (C6)	☒ Crayfish Burrows (C8)			
☐ Algal Mat or Crust (B4)	☐ Thin Muck Surface (C7)	☐ Saturation Visible on Aerial Imagery (C9)			
☐ Iron Deposits (B5)	☐ Other (Explain in Remarks)	☐ Geomorphic Position (D2)			
☐ Inundation Visible on Aerial Imagery (B7)		☐ Shallow Aquitard (D3)			
☐ Water-Stained Leaves (B9)		☐ FAC-Neutral Test (D5)			
		☐ Sphagnum Moss (D8) (LRR T,U)			
Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): 3 Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? Yes ☒ No ☐ Depth (inches): 0 (includes capillary fringe)				Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks: Hydrology comes from adjacent 24-inch culvert under rail line. Flow is minimal. Wetland has areas of water marks and saturation, some areas with surface water, and areas between with burrows and moss.					

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: Line B

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer rubrum</u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>135</u></td> <td>x 3 = <u>405</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>175</u> (A)</td> <td><u>485</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.77</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>135</u>	x 3 = <u>405</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>175</u> (A)	<u>485</u> (B)	Prevalence Index = B/A = <u>2.77</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>135</u>	x 3 = <u>405</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>175</u> (A)	<u>485</u> (B)																			
Prevalence Index = B/A = <u>2.77</u>																				
2. <u>Persea palustris</u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
3. <u>Pinus taeda</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Nyssa sylvatica</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>90</u> =Total Cover																				
50% of total cover: <u>45</u>		20% of total cover: <u>18</u>																		
Sapling/Shrub Stratum (Plot size: <u>30</u>)																				
1. <u>Acer rubrum</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Morella cerifera</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Persea palustris</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
4. <u>Viburnum nudum</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
5. <u>Rubus argutus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>65</u> =Total Cover																				
50% of total cover: <u>33</u>		20% of total cover: <u>13</u>																		
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>Juncus effusus</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>																
2. <u>Osmunda cinnomomea</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>20</u> =Total Cover																				
50% of total cover: <u>10</u>		20% of total cover: <u>4</u>																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ =Total Cover																				
50% of total cover: _____		20% of total cover: _____																		

Remarks: (If observed, list morphological adaptations below.)
 Unidentified Carex species (15% cover) and Rhynchospora species (2%) are present. Species likely FAC or wetter but not included in calculations as species could not be identified.

SOIL

Sampling Point: Line B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	2.5Y 2.5/1	100					Sandy	Texture included clay elements
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils³:			
☒ Histosol (A1)					☐ Thin Dark Surface (S9) (LRR S, T, U)			
☐ Histic Epipedon (A2)					☐ Barrier Islands 1 cm Muck (S12)			
☐ Black Histic (A3)					(MLRA 153B, 153D)			
☒ Hydrogen Sulfide (A4)					☐ Loamy Mucky Mineral (F1) (LRR O)			
☐ Stratified Layers (A5)					☐ Loamy Gleyed Matrix (F2)			
☐ Organic Bodies (A6) (LRR, P, T, U)					☐ Depleted Matrix (F3)			
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)					☐ Redox Dark Surface (F6)			
☐ Muck Presence (A8) (LRR U)					☐ Depleted Dark Surface (F7)			
☐ 1 cm Muck (A9) (LRR P, T)					☐ Redox Depressions (F8)			
☐ Depleted Below Dark Surface (A11)					☐ Marl (F10) (LRR U)			
☐ Thick Dark Surface (A12)					☐ Depleted Ochric (F11) (MLRA 151)			
☐ Coast Prairie Redox (A16) (MLRA 150A)					☐ Iron-Manganese Masses (F12) (LRR O, P, T)			
☐ Sandy Mucky Mineral (S1) (LRR O, S)					☐ Umbric Surface (F13) (LRR P, T, U)			
☐ Sandy Gleyed Matrix (S4)					☐ Delta Ochric (F17) (MLRA 151)			
☐ Sandy Redox (S5)					☐ Reduced Vertic (F18) (MLRA 150A, 150B)			
☐ Stripped Matrix (S6)					☐ Piedmont Floodplain Soils (F19) (MLRA 149A)			
☒ Dark Surface (S7) (LRR P, S, T, U)					☐ Anomalous Bright Floodplain Soils (F20)			
☐ Polyvalue Below Surface (S8)					(MLRA 149A, 153C, 153D)			
(LRR S, T, U)					☐ Very Shallow Dark Surface (F22)			
					(MLRA 138, 152A in FL, 154)			
					³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____					Hydric Soil Present? Yes ☒ No ☐			
Remarks: This data sheet is revised from Atlantic and Gulf Coastal Plain Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.2, 2018. Saturated and greasy-sand soil with sulfuric odor. Soils profiles varied throughout but this was most typical.								

WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region

Project/Site: Savannah Gateway Industrial Hub City/County: Rincon/Effingham Sampling Date: 08-13-19
Applicant/Owner: Omnitrax State: GA Sampling Point: Line C-D
Investigator(s): Jordan Myers Section, Township, Range: _____
Landform (hillside, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 32.266769 Long: -81.232674 Datum: NAD 83
Soil Map Unit Name: Surrency mucky sand, 0 to 1 percent slopes, frequently flooded NWI classification: PFO1B
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: 	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u>X</u> Surface Water (A1) _____ Aquatic Fauna (B13) <u>X</u> High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) <u>X</u> Hydrogen Sulfide Odor (C1) <u>X</u> Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) <u>X</u> Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)		<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) <u>X</u> Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) <u>X</u> Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T,U)
Field Observations: Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 		
Remarks: Hydrology comes from adjacent 24-inch culvert under rail line. Flow is minimal. Wetland has areas of water marks and saturation, some areas with surface water, and areas between with burrows and moss.		

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: Line C-D

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer rubrum</u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>155</u></td> <td>x 3 = <u>465</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>190</u> (A)</td> <td><u>515</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.71</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>155</u>	x 3 = <u>465</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>190</u> (A)	<u>515</u> (B)	Prevalence Index = B/A = <u>2.71</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>20</u>	x 1 = <u>20</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>155</u>	x 3 = <u>465</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>190</u> (A)	<u>515</u> (B)																			
Prevalence Index = B/A = <u>2.71</u>																				
2. <u>Nyssa sylvatica</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
3. <u>Pinus taeda</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>80</u> =Total Cover																				
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>																		
Sapling/Shrub Stratum (Plot size: <u>30</u>)																				
1. <u>Acer rubrum</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Morella cerifera</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Pinus taeda</u>	<u>10</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Salix nigra</u>	<u>10</u>	<u>No</u>	<u>OBL</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>80</u> =Total Cover																				
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>																		
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>Juncus effusus</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>																
2. <u>Osmunda cinnomomea</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Osmunda regalis</u>	<u>10</u>	<u>Yes</u>	<u>OBL</u>																	
4. <u>Rubus argutus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>30</u> =Total Cover																				
50% of total cover: <u>15</u>		20% of total cover: <u>6</u>																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ =Total Cover																				
50% of total cover: _____		20% of total cover: _____																		

Remarks: (If observed, list morphological adaptations below.)
 Unidentified Carex species (10% cover) was present. Species likely FAC or wetter but not included in calculations as species could not be identified.

SOIL

Sampling Point: Line C-D

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	2.5Y 2.5/1	100					Loamy/Clayey	Texture included sand elements
4-8	2.5Y 4/3	100					Loamy/Clayey	Texture included sand elements
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils³:	
☒ Histosol (A1)			☐ Thin Dark Surface (S9) (LRR S, T, U)				☐ 1 cm Muck (A9) (LRR O)	
☐ Histic Epipedon (A2)			☐ Barrier Islands 1 cm Muck (S12)				☐ 2 cm Muck (A10) (LRR S)	
☐ Black Histic (A3)			☐ (MLRA 153B, 153D)				☐ Coast Prairie Redox (A16)	
☒ Hydrogen Sulfide (A4)			☐ Loamy Mucky Mineral (F1) (LRR O)				☐ (outside MLRA 150A)	
☐ Stratified Layers (A5)			☐ Loamy Gleyed Matrix (F2)				☐ Reduced Vertic (F18)	
☐ Organic Bodies (A6) (LRR, P, T, U)			☐ Depleted Matrix (F3)				☐ (outside MLRA 150A, 150B)	
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)			☐ Redox Dark Surface (F6)				☐ Piedmont Floodplain Soils (F19) (LRR P, T)	
☐ Muck Presence (A8) (LRR U)			☐ Depleted Dark Surface (F7)				☐ Anomalous Bright Floodplain Soils (F20)	
☐ 1 cm Muck (A9) (LRR P, T)			☐ Redox Depressions (F8)				☐ (MLRA 153B)	
☐ Depleted Below Dark Surface (A11)			☐ Marl (F10) (LRR U)				☐ Red Parent Material (F21)	
☐ Thick Dark Surface (A12)			☐ Depleted Ochric (F11) (MLRA 151)				☐ Very Shallow Dark Surface (F22)	
☐ Coast Prairie Redox (A16) (MLRA 150A)			☐ Iron-Manganese Masses (F12) (LRR O, P, T)				☐ (outside MLRA 138, 152A in FL, 154)	
☐ Sandy Mucky Mineral (S1) (LRR O, S)			☐ Umbric Surface (F13) (LRR P, T, U)				☐ Barrier Islands Low Chroma Matrix (TS7)	
☐ Sandy Gleyed Matrix (S4)			☐ Delta Ochric (F17) (MLRA 151)				☐ (MLRA 153B, 153D)	
☐ Sandy Redox (S5)			☐ Reduced Vertic (F18) (MLRA 150A, 150B)				☐ Other (Explain in Remarks)	
☐ Stripped Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 149A)					
☐ Dark Surface (S7) (LRR P, S, T, U)			☐ Anomalous Bright Floodplain Soils (F20)					
☐ Polyvalue Below Surface (S8) (LRR S, T, U)			☐ (MLRA 149A, 153C, 153D)					
			☐ Very Shallow Dark Surface (F22) (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes ☒ No ☐	
Remarks: This data sheet is revised from Atlantic and Gulf Coastal Plain Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.2, 2018. Saturated muck soil with sulfidic odor.								

WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region

Project/Site: Savannah Gateway Industrial Hub City/County: Rincon/Effingham Sampling Date: 08-13-19
Applicant/Owner: Omnitrax State: GA Sampling Point: Line E
Investigator(s): Jordan Myers Section, Township, Range: _____
Landform (hillside, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 32.262650 Long: -81.231889 Datum: NAD 83
Soil Map Unit Name: Pelham loamy sand, 0 to 2 percent slopes NWI classification: PFO1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: 	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u>X</u> Surface Water (A1) _____ Aquatic Fauna (B13) <u>X</u> High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) <u>X</u> Hydrogen Sulfide Odor (C1) <u>X</u> Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) <u>X</u> Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)		<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T,U)
Field Observations: Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 		
Remarks: Data point taken away from inundated area, but part of larger wetland system associated with Sweigoffer Creek. No main channel was observed in the creek, as it functions as more of a large wetland system.		

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: Line E

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer rubrum</u>	40	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. <u>Nyssa sylvatica</u>	10	No	FAC																	
3. <u>Ulmus rubra</u>	30	Yes	FAC																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
80 =Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>140</u></td> <td>x 3 = <u>420</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>155</u> (A)</td> <td><u>450</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.90</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>140</u>	x 3 = <u>420</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>155</u> (A)	<u>450</u> (B)	Prevalence Index = B/A = <u>2.90</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>140</u>	x 3 = <u>420</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>155</u> (A)	<u>450</u> (B)																			
Prevalence Index = B/A = <u>2.90</u>																				
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>																				
Sapling/Shrub Stratum (Plot size: <u>30</u>)																				
1. <u>Acer rubrum</u>	40	Yes	FAC																	
2. <u>Morella cerifera</u>	20	Yes	FAC																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
60 =Total Cover																				
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																				
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>Juncus effusus</u>	15	Yes	FACW	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation ☒ <u>2</u> - Dominance Test is >50% ☒ <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
15 =Total Cover																				
50% of total cover: <u>8</u> 20% of total cover: <u>3</u>																				
Woody Vine Stratum (Plot size: <u> </u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
=Total Cover																				
50% of total cover: <u> </u> 20% of total cover: <u> </u>																				
Remarks: (If observed, list morphological adaptations below.) Unidentified Carex species (10% cover) was present. Species likely FAC or wetter but not included in calculations as species could not be identified.																				

SOIL

Sampling Point: Line E

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	2.5Y 2.5/1	100					Loamy/Clayey	Texture included sand elements
4-12	2.5Y 4/3	100					Loamy/Clayey	Texture included sand elements
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☒ Histosol (A1) ☐ Thin Dark Surface (S9) (LRR S, T, U) ☐ Histic Epipedon (A2) ☐ Barrier Islands 1 cm Muck (S12) ☐ Black Histic (A3) (MLRA 153B, 153D) ☒ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1) (LRR O) ☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2) ☐ Organic Bodies (A6) (LRR, P, T, U) ☐ Depleted Matrix (F3) ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Redox Dark Surface (F6) ☐ Muck Presence (A8) (LRR U) ☐ Depleted Dark Surface (F7) ☐ 1 cm Muck (A9) (LRR P, T) ☐ Redox Depressions (F8) ☐ Depleted Below Dark Surface (A11) ☐ Marl (F10) (LRR U) ☐ Thick Dark Surface (A12) ☐ Depleted Ochric (F11) (MLRA 151) ☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Iron-Manganese Masses (F12) (LRR O, P, T) ☐ Sandy Mucky Mineral (S1) (LRR O, S) ☐ Umbric Surface (F13) (LRR P, T, U) ☐ Sandy Gleyed Matrix (S4) ☐ Delta Ochric (F17) (MLRA 151) ☐ Sandy Redox (S5) ☐ Reduced Vertic (F18) (MLRA 150A, 150B) ☐ Stripped Matrix (S6) ☐ Piedmont Floodplain Soils (F19) (MLRA 149A) ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Anomalous Bright Floodplain Soils (F20) ☐ Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D) ☐ (LRR S, T, U) ☐ Very Shallow Dark Surface (F22) (MLRA 138, 152A in FL, 154) Indicators for Problematic Hydric Soils³: ☐ 1 cm Muck (A9) (LRR O) ☐ 2 cm Muck (A10) (LRR S) ☐ Coast Prairie Redox (A16) (outside MLRA 150A) ☐ Reduced Vertic (F18) (outside MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (LRR P, T) ☐ Anomalous Bright Floodplain Soils (F20) (MLRA 153B) ☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (F22) (outside MLRA 138, 152A in FL, 154) ☐ Barrier Islands Low Chroma Matrix (TS7) (MLRA 153B, 153D) ☐ Other (Explain in Remarks)								
Restrictive Layer (if observed): Type: _____ Depth (inches): _____ Hydric Soil Present? Yes ☒ No ☐								
Remarks: This data sheet is revised from Atlantic and Gulf Coastal Plain Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.2, 2018.								



Attachment C. Representative Photographs



Photograph 1. Wetland L located in the CSX ROW



Photograph 2. Area shown as Sweigoffer Creek on USGS mapping within the CSX ROW. Area deemed wetland (Wetland M) and not a stream.



Attachment E. USFWS IPaC Report



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601
Phone: (706) 613-9493 Fax: (706) 613-6059



In Reply Refer To:
Consultation Code: 04EG1000-2020-SLI-0717
Event Code: 04EG1000-2020-E-01324
Project Name: SGIH CSX ROW

December 19, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

This list identifies threatened, endangered, proposed and candidate species, as well as critical habitat, that may be affected by your proposed project. This list may change before your project is completed. Under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation.

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*). Projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html).

Wind energy projects should follow the wind energy guidelines <http://www.fws.gov/windenergy/> for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts of communication towers on migratory birds can be found under the "Bird Hazards" tab at: www.fws.gov/migratorybirds.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Georgia Ecological Services Field Office

355 East Hancock Avenue

Room 320

Athens, GA 30601

(706) 613-9493

Project Summary

Consultation Code: 04EG1000-2020-SLI-0717

Event Code: 04EG1000-2020-E-01324

Project Name: SGIH CSX ROW

Project Type: TRANSPORTATION

Project Description: Rail improvements

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/32.271421473336254N81.23312473297119W>



Counties: Effingham, GA

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered

Reptiles

NAME	STATUS
Eastern Indigo Snake <i>Drymarchon corais couperi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened
Gopher Tortoise <i>Gopherus polyphemus</i> Population: eastern No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6994	Candidate

Amphibians

NAME	STATUS
Frosted Flatwoods Salamander <i>Ambystoma cingulatum</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4981	Threatened

Flowering Plants

NAME	STATUS
Pondberry <i>Lindera melissifolia</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1279	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



Attachment F. Section 106 Consultation Information

Memo

Date:	Tuesday, December 31, 2019
Project:	Savannah Gateway Industrial Hub
To:	USACE, Savannah District
From:	Josh Fletcher, RPA
Subject:	Cultural Resources Review

The current wetlands permit application for the Savannah Gateway Industrial Hub Project in Effingham County, Georgia includes two segments of rail lines (Areas of Potential Effect [APE]); one along CSX Transportation and one along Norfolk Southern Railway. Both APEs are located within what was known as the Rincon Research Tract, a 3,239-acre tract surveyed for cultural resources by R.S. Webb & Associates in 2004 (Gantt et al. 2004) (Figure 1). These segments require no additional cultural resources survey. One small segment of a proposed train operator path extends approximately 40 feet south of the Rincon Research Tract, adjacent to the western side of the CSX Transportation rail line. The path, which will extend 18 feet west from the centerline of the track and then graded to match into the existing ballast, will be within the railroad right-of-way (ROW), which has been heavily disturbed by railroad construction and maintenance. Therefore, the likelihood of intact subsurface archaeological deposits is very low, and no archaeological survey is recommended.

During the previous cultural resources survey of the Rincon Research Tract, Gantt et al. (2004) evaluated five historic resources located within/adjacent to the current APEs, including the Seaboard Coast Line Railroad (now under CXS ownership), the Central of Georgia Railroad (now under Norfolk Southern ownership), Holly Hill Cemetery, Site 9EF259, and Site 9EF260. Each resource is summarized below.

Seaboard Coast Line Railroad. Gantt et al. (2004: 89-93) stated “The railroad is a standard gauge construction, resting on a slightly elevated gravel bed. As is typical for railroads in daily use, the rails and ties are periodically replaced, and the gravel beds are refurbished. The railroad was first built in 1894 as part of a second route between Savannah and Charleston. Starting out as the South Bound Railroad, the route became the Seaboard Air Line in the early to middle 20th century, and later the Seaboard Coast Line (The Bicentennial Committee 1976). The railroad is now under CSX ownership. Although the railroad is a historic route, the portion that runs through the project area has no significant engineering, design, or material elements that would meet NRHP criteria. The section of the Seaboard Coast Line Railroad within the tract is recommended ineligible for the NRHP.”

Central of Georgia Railroad. Gantt et al. (2004: 93) stated “The railroad is a standard gauge construction resting on an elevated gravel bed. Like the Seaboard Coast Line to the east, the railroad is used daily.

The rails and ties are periodically replaced and the gravel beds are maintained. The first route of the Central of Georgia in the area ran west of the project tract through Guyton and Pineora, bypassing the county seat of Springfield. In 1907 a railroad company was established by George Matthew Brinson to rectify this situation. Brinson's Railway was laid from Savannah, through the project area to Springfield (Turner 1999). By the mid 20th century, the railroad was owned by Central of Georgia. The railroad is a historic route, but the portion that runs through the project area has no significant engineering, design, or material elements that would meet NRHP criteria. The section of the Central of Georgia Railroad within the tract is recommended ineligible for the NRHP."

Hickory Hill Cemetery. Gantt et al. (2004) also revisited the Hickory Hill Cemetery, located to the north of the Norfolk Southern Railway APE, just west of the Norfolk Southern Railway. Gantt et al. (2004) noted that the cemetery had been previously recorded by the Historic Effingham Society (Freeman and Renfro 2002) as an African-American cemetery dating from the late 19th to late 20th century. The cemetery, which is bound to the east and north by a chain link fence, measures approximately 150 feet along the eastern boundary, 186 feet along the northern boundary, 186 feet along the western boundary, and 181 feet along the southern boundary. The grassy cemetery is bound to the west and south by wooded areas; no additional graves are evident in these areas. The cemetery is accessed by an unpaved road that leads to the area from McCall Road, located to the east of the study area.

During the previous cultural resources survey, Gantt et al. (2004: 97) noted approximately 40 marked graves in a 50- by 60-meter (164 by 197 feet) area within a chain link fence. Figure 2 presents a portion of a parcel map presented by Gantt et al. (2004: 96). Investigators noted formally engraved and informally marked concrete and stone headstones, as well as wooden markers. One recent grave was noted, and the funeral director who handled the cemetery burials indicated that at that time, the most recent burial dated to 2002. Table 1 presents a partial list of individuals interred in the cemetery, as recorded by the Historic Effingham Society (Freeman and Renfro 2002, in Gantt et al. 2004: 97).

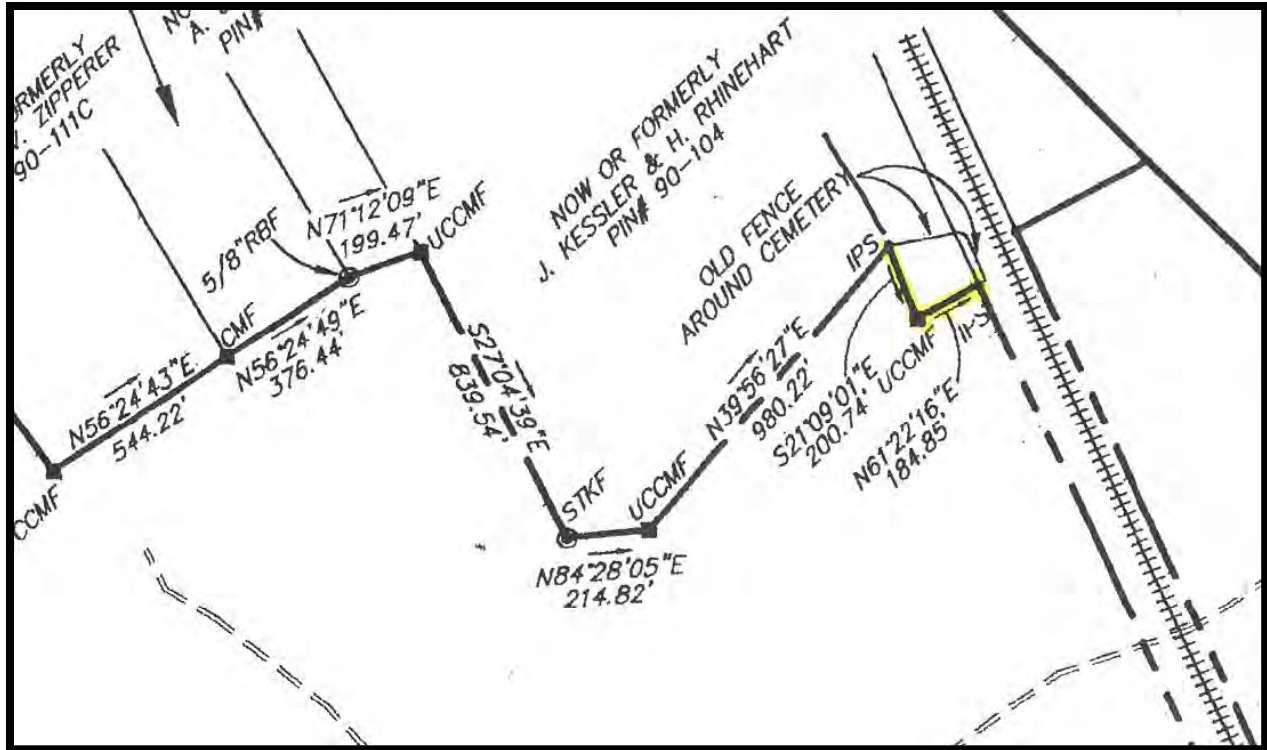


Figure 2. Parcel map showing cemetery location (from Gantt et al. 2004: 96).

Table 1. Individuals Interred in Hickory Hill Cemetery (Freeman and Renfro 2002, in Gantt et al. 2004: 97).

Name	Notes	Birth	Death
Beneny, J. Ruth		1938	1978
Brown, Jessie		1898	1935
Ervin, Arinetta H.		1887	1983
Giles, Mr. Randolph		1902	1968
Gordon, Georgia Y.		1913	1988
Holmes, Daisy		1895	1910
Holmes, Hattie		Oct. 10, 1864	Oct. 20, 1943
Holmes, Samuel		July 10, 1863	June 10, 1915
James, Lilly		1895	1920
Peyton, Georgianna		Aug. 16, 1853	Nov. 16, 1945
Roberts, Allen Edward		Jan. 22, 1910	Jan. 3, 1964
Roberts, Bob		June 30, 1872	Jan. 3, 1944
Roberts, Rosa V.		1884	1970
Small, Samuel E.		Feb. 2, 1881	June 1, 1965
Smith, Elizabeth T.		1917	1983
Sperry, Floria		Jan. 15, 1987	March 4, 1945
Young, James M.		Oct. 28, 1932	Aug. 24, 1957
Young, Mrs. M.	Age 68 years		Jan. 8, 1944
Young, Mary Bell Peyton		Feb. 10, 1884	May 31, 1968
Young, Miss Pernal	Age 22 years		Aug. 12, 1941

According to Gantt et al. (2004: 97), “Based on the archival and survey data, Hickory Hill Cemetery is not eligible for the NRHP because it is not associated with specific events or significant individuals, and the headstones are not architecturally or artistically distinctive. However, the cemetery is protected under the Abandoned Cemeteries and Burial Grounds law [Official Code of Georgia (OCGA), Title 36, Chapter 72: 1-11].”

During the current investigations, investigators mapped the boundaries of the cemetery, as well as the locations of some key graves, including those closest to the eastern boundary of the cemetery and the extent of the graves to the south, west, and north (Figure 3). The eastern fence line of the cemetery is located approximately 45 feet to the west of the rail line. The closest grave to the eastern fence line is located approximately nine feet west of the fence (approximately 54 feet west of the rail line).

During the current investigations, investigators noted approximately 47 marked graves, with the most recent dating to 2013. The earliest marked grave noted by investigators dates to 1910, and most marked graves date from 1930-2000. There is still ample room for additional burials in the southwestern portion of the cemetery, as most graves are clustered in the eastern and northern portions of the cemetery. As Gantt et al. (2004) reported, the grave markers are generally stone or concrete ledgers or headstones, with one grave marked by upright wooden markers. Figures 4-7 present typical views of the cemetery. Some additional individuals not noted by Freeman and Renfro (2002) include Julia Ann Busby, Slemming Edwards, James Gordon, Anita Howard, Carrie Howard, Jack Howard,

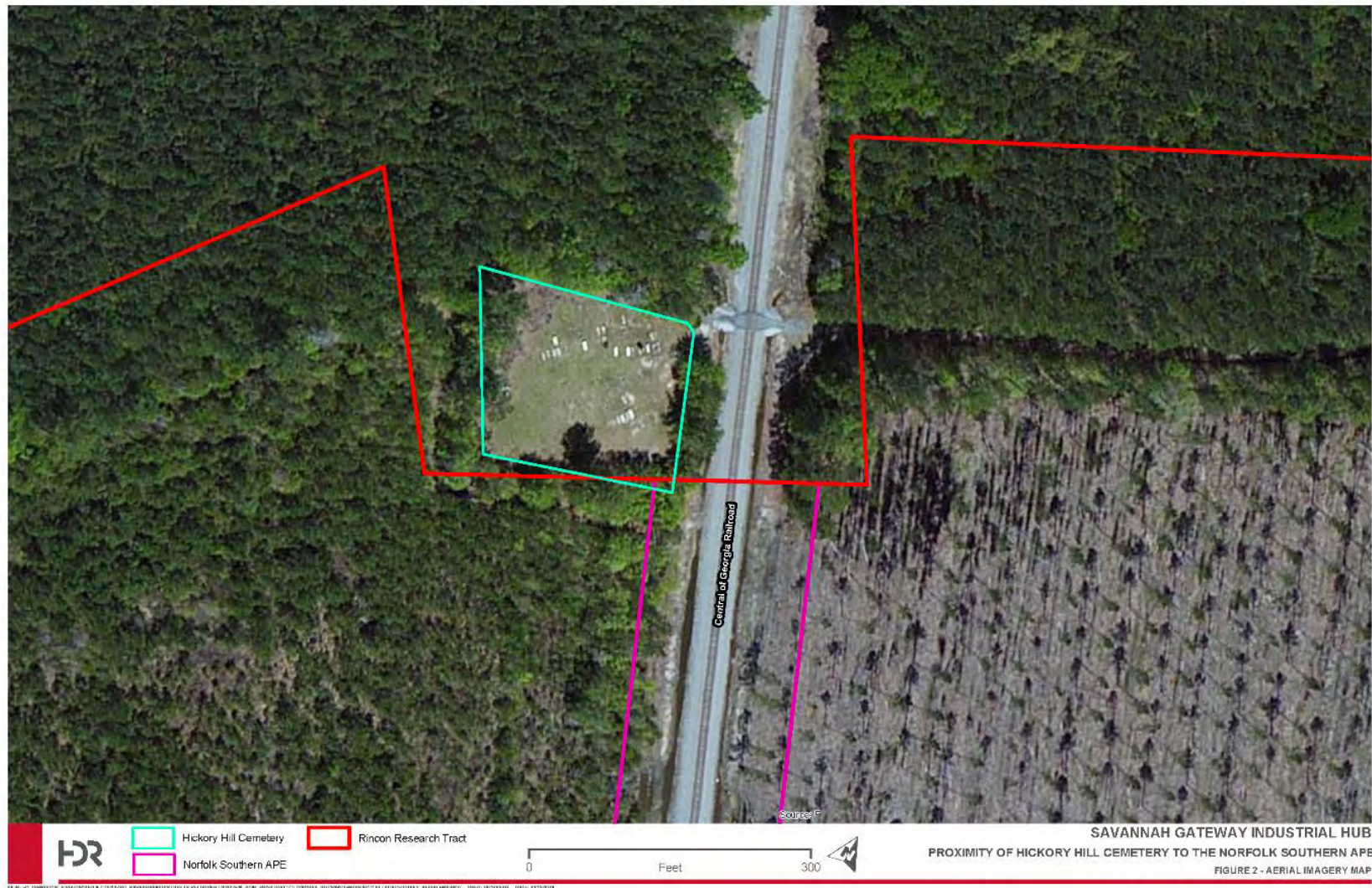


Figure 3. Plan of Hickory Hill Cemetery on an aerial photograph.



Figure 4. View of the cemetery from the railroad tracks, looking southwest.



Figure 5. View of the easternmost graves, looking north.



Figure 6. View of graves in the central portion of the cemetery, looking northwest.



Figure 7. View of wooden markers in the north-central portion of the cemetery, looking northwest.

Albert Jaudon, Mother Frances Jones, Aretha Howard Joyner, Rosetta Lanier, Orrie Lynn, Wilbert Robertson, Cora Williams, Melvin Williams, and David Young. The remaining discernible graves have either broken or illegible headstones.

As indicated on the parcel map in Figure 2, it appears that the eastern fence line intrudes slightly into Norfolk Southern Railway ROW. However, all proposed project activities will take place approximately 1,215 feet south of the fenced boundary of the cemetery. Access to the cemetery will continue to be afforded by the unpaved road leading from McCall Road.

Site 9EF259. Site 9EF259, located in the eastern portion of the Rincon Research Tract and west of the CSX Transportation APE (see Figure 1), is a small, sparse prehistoric lithic and ceramic scatter. The site is not eligible for listing in the NRHP (Gantt et al. 2004: 65).

Site 9EF260. Site 9EF260, located in the eastern portion of the Rincon Research Tract and west of the CSX Transportation APE (see Figure 1), is a small, sparse prehistoric lithic and ceramic scatter. The site is not eligible for listing in the NRHP (Gantt et al. 2004: 65).

It is recommended that the Savannah Gateway Industrial Hub Project will not require additional cultural resources survey. If you have any questions or need additional information, please do not hesitate to reach me by phone (843-414-3738) or email (joshua.fletcher@hdrinc.com).

Sincerely,

A handwritten signature in black ink that reads "Josh Fletcher". The signature is written in a cursive, flowing style.

Josh Fletcher, RPA

References Cited

Freeman, A., and B. F. Renfro (Editors). 2002. *Effingham County Cemeteries 1734 to 2001, Effingham County, Georgia*. Historic Effingham Society Incorporated. Springfield, Georgia.

Gantt, Mary Elizabeth, Jonathan Bloom, Neil Bowen, Ken Styer, and Suzanne DeRosa. 2004. *Phase I Cultural Resources Survey, Rincon Research Tract, International Paper Corporation, Effingham County, Georgia*. Prepared by R.S. Webb & Associates, Holly Springs, Georgia. Prepared for International Paper Realty Corporation, Savannah, Georgia.

The Bicentennial Committee (compiler). 1976. *The History of Effingham County, Georgia: 1733-1976*. Walker, Evans and Cogswell Company, Charleston.

Turner, N. V. 1999. *Mr. George Brinson's Railroad to Springfield, Georgia: The "Brinson Railway", A Brief History*. Ms. On file at the Rincon, Georgia Library.



Attachment G. Mitigation Banking Credits

Qualitative Worksheet Summary For Wetland Adverse Impacts						
Worksheet Number	Name of Wetland	Wetland Type	Acres of Impact (ac.)	Impact Duration	2018 Credits	Grandfathered Credits
1	Wetland M (temporary)	Depressional/Flat Wetlands	0.05	Less than 1 Year	0.02	0.16
2	Wetland M (permanent)	Depressional/Flat Wetlands	0.07	Permanent/Reoccurring	0.04	0.32
3			0.00	Choose Duration	Credits Owed	Grandfathered Credits Owed
4			0.00	Choose Duration	Credits Owed	Grandfathered Credits Owed
5			0.00	Choose Duration	Credits Owed	Grandfathered Credits Owed
6			0.00	Choose Duration	Credits Owed	Grandfathered Credits Owed
7			0.00	Choose Duration	Credits Owed	Grandfathered Credits Owed
8			0.00	Choose Duration	Credits Owed	Grandfathered Credits Owed
9			0.00	Choose Duration	Credits Owed	Grandfathered Credits Owed
10			0.00	Choose Duration	Credits Owed	Grandfathered Credits Owed
Summary of Credits Owed						
Wetland Type	Acres of Impact (ac.)	2018 Credits	Grandfathered Credits			
Freshwater Tidal Wetlands	0.00	0.00	0.00			
Saltwater Tidal Wetlands	0.00	0.00	0.00			
Riverine/Lacustrine Fringe Wetlands	0.00	0.00	0.00			
Slope Wetlands	0.00	0.00	0.00			
Depressional/Flat Wetlands	0.12	0.06	0.48			
Open Water/Ditch/Canal	0.00	0.00	0.00			

Worksheet 1: Qualitative Worksheet for Wetland Adverse Impacts

Project Name:	Savannah Gateway Industrial Hub
Impact Wetland Name:	Wetland M (temporary)
Acres of Impact (Acres):	0.05
Wetland Type:	Depressional/Flat Wetlands
Date:	December 30, 2019

Impact Factors

	<u>Index Description</u>	<u>Index Value</u>
1. Wetland Qualitative Functional Capacity Score (<u>WQFC</u>)	Low	0.50
2. Impact Category Description (<u>Impact Category</u>)	Discharge of Fill	1.00
3. Product of WQFC and Impact (<u>WQFC Impact</u>) =		0.50
4. Duration of Impact (<u>Duration</u>)	Less than 1 Year	0.75
5. Product of WQFC Impact and Duration (<u>Total WQFC Impact</u>) =		0.38
6. Product of Total WQFC Impact and Acres (<u>Total 2018 Wetland Credits Owed</u>) =		0.02
7. Conversion of Total 2018 Wetland Compensation to Grandfathered Credits (<u>Grandfathered Wetland Credits Owed</u>) =		0.16

Legend

Green Cells = User must manually input information.
 Orange Cells = User must select the index choice from the drop-down list.
 Grey Cells = The calculation of these cells is automated.

Worksheet 2: Qualitative Worksheet for Wetland Adverse Impacts

Project Name:	Savannah Gateway Industrial Hub
Impact Wetland Name:	Wetland M (permanent)
Acres of Impact (Acres):	0.07
Wetland Type:	Depressional/Flat Wetlands
Date:	December 31, 2019

Impact Factors

	<u>Index Description</u>	<u>Index Value</u>
1. Wetland Qualitative Functional Capacity Score (<u>WQFC</u>)	Low	0.50
2. Impact Category Description (<u>Impact Category</u>)	Discharge of Fill	1.00
3. Product of WQFC and Impact (<u>WQFC Impact</u>) =		0.50
4. Duration of Impact (<u>Duration</u>)	Permanent/Reoccurring	1.00
5. Product of WQFC Impact and Duration (<u>Total WQFC Impact</u>) =		0.50
6. Product of Total WQFC Impact and Acres (<u>Total 2018 Wetland Credits Owed</u>) =		0.04
7. Conversion of Total 2018 Wetland Compensation to Grandfathered Credits (<u>Grandfathered Wetland Credits Owed</u>) =		0.32

Legend

Green Cells = User must manually input information.
Orange Cells = User must select the index choice from the drop-down list.
Grey Cells = The calculation of these cells is automated.

NON-RIVERINE WETLAND QUALITATIVE ASSESSMENT		
Project Name:	SGIH	
Impact Wetland Name:	Wetland M	
Wetland Type:	Depression	
WAA Center Coordinates:		
Date:	12/30/2019	
Water Storage -1		
Answer	Questions	
Yes	Are there above grade fills or structures obstructing hydrologic flows into or out of the wetland, or are there drainage structures, ditches, or man-made impoundments within 100 feet of the assessment area and within the catchment that are hydrologically affecting the wetland? (Y/N)	
No	Is the contributing drainage basin at least 50 percent forested? (Y/N)	
FUNCTION SCORE	Low	
BioGeoChemical Cycling - 2		
Answer	Questions	
No	Is there large woody debris (LWD) in the wetland? (Y/N)	
Yes	Has the vegetative community been adversely altered within the last 20 years? (Y/N)	
FUNCTION SCORE	Low	
Maintain Characteristic Wetland Community - 3		
Answer	Questions	
Yes	Has the vegetative community been adversely altered within the last 20 years? (Y/N)	
No	Is there greater than 10 percent invasive cover (i.e., cumulative absolute cover across all strata)? (Y/N)	
FUNCTION SCORE	Moderate	
Maintain Faunal Habitat - 4		
Answer	Questions	
Yes	Has the vegetative community been adversely altered within the last 20 years? (Y/N)	
No	Is there woody debris in the wetland? (Y/N)	
No	Is the contributing drainage basin at least 50 percent forested? (Y/N)	
FUNCTION SCORE	Low	
WETLAND QUALITATIVE FUNCTIONAL CAPACITY SCORE		
	Low	
Legend		
Green Cell = User must manually input information.		
Orange Cells = User must select the choice from the drop-down list.		
Grey Cells = The calculation of these cells is automated.		
Dark Grey Cells = These cells do not require input. The corresponding value is populated from the user input to a previous question.		

Army Corps Memorandum for Record

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Memorandum Documenting General Permit Verification

- 1.0 Introduction and overview:** Information about the proposal subject to one or more of the Corps regulatory authorities is provided in Section 1, detailed evaluation of the activity is found in Sections 2 through 4 and findings are documented in Section 5 of this memorandum. Further, summary information about the activity including the administrative history of actions taken during project evaluation is attached (ORM2 summary) and incorporated into this memorandum.
- 1.1 Applicant name: Mr. Reagan Shanley, Savannah Industrial Development, LLC, 252 Clayton Street, Denver, Colorado 80206.
- 1.2 Activity location: The project site is located entirely within the CSX ROW on the east side of the SGIH property boundary, near Rincon, Effingham County, Georgia (Latitude 32.2687, Longitude -81.2326).
- 1.3 Description of activity requiring verification: To impact a total of 0.17 acre of wetland for the construction of a lead track, maintenance access road and a ballast walkway that will service the proposed Savannah Gateway Industrial Hub (SGIH). Specifically, Lead Track 1 is proposed from the CSX main line into the SGIH. The additional lead track will begin just north of the existing bridge over Wetland M, and will continue for approximately 650 feet north before departing the CSX ROW and heading westward into the SGIH property. Adjacent to Lead Track 1 will be a new access road for rail maintenance and inspection activities. The access road will be approximately 12 feet wide and comprised of compacted ballast material. In addition to Lead Track 1, a 320 foot long and 10 feet wide ballast walkway will be constructed from Lead Track 1 south to Wetland M. The walkway is necessary for bridge inspection and maintenance. Lead Track 1 transitions to Lead Track 2 within the SGIH property (see Permit No. SAS-2003-20390) and continues westward to the NS ROW. The above construction would result in the permanent fill of 0.07 acre of wetland and the temporary fill of 0.05 acre of wetland for construction access.

In addition, a culvert extended as part of another project (SAS-2003-20390) requires stabilization at the culvert outfall which is located in the CSX ROW. The placement of riprap rock will occur in Wetland L resulting in the permanent fill of 0.02 acre of wetland and the temporary fill of 0.03 acre of wetland to provide access to the work area.

Construction of the new lead tracks will require grading and clearing to remove existing vegetation. Once graded, subballast and then a ballast layer will be placed to form the rail bed (approximately 24 feet wide). The rail ties and rails will then be placed to form the tracks. Lead Track 1 will result in permanent impacts to 0.09 acre of wetland; whereas construction access will require the temporary fill of 0.09 acre of wetland. Staging areas for construction have been located in upland areas. All construction activities will be performed using best management practices (BMPs) (e.g. silt fencing, check dams, etc.) to avoid and minimize siltation and runoff, and to protect the water quality of the downstream wetland areas.

1.4 Permit authority: Section 404 of the Clean Water Act (33 USC 1344)

1.5 Applicable Permit: Nationwide Permit (NWP) 14

1.6 Activity requires written waiver? No

2.0 Evaluation of the Pre-Construction Notification

2.1 Direct and indirect effects caused by the GP activity: The purpose of the project is to provide a rail connection from the SGIH to the CSX main line that runs north and south on the east side of the SGIH property boundary. The project would consist of the construction of a lead track, maintenance access road and a ballast walkway that will service the proposed SGIH. As a result, direct effects associated with the project include permanent impacts to 0.09 acre of wetland and temporary impacts to 0.08 acre of wetland. Within the project footprint, there would be a loss of wildlife habitat, decreased water infiltration, increased surface runoff, and reduced groundwater recharge. In addition, the project would result in the mortality of non-motile aquatic organisms within the footprint of construction activities.

Indirect effects may include minor siltation and/or turbidity to adjoining waterways and wetlands and localized flooding. In addition, tree removal in forested wetlands may result in different habitat conditions as a result of increased sunlight availability to the forest floor. Increased rail capacity could result in increased train traffic, resulting in increased noise and potential disturbance from human activity.

2.2 Site specific factors: The project site is located entirely within the CSX ROW on the east side of the SGIH property boundary, near Rincon, Effingham County, Georgia (Latitude 32.2687, Longitude -81.2326). The 5.39 acre project site contains 1.16 acres of non-tidal wetland and 4.23 acres of upland. The wetland and upland habitats found within the project area are typical for Effingham County and the Coastal Plain of Georgia. The purpose of the project is to provide rail access to a future industrial facility. A&R Logistics recently announced that they have selected the SGIH as their new headquarters to expand their distribution capacity on the east coast with a lease of 1 million square feet which will be the project's first tenant.

2.3 Coordination

2.3.1 Was the PCN coordinated with other agencies? Yes . No comments were received.

2.3.2 Was the PCN coordinated with other business lines of the Corps? Yes. No comments received.

2.4 Mitigation

2.4.1 Provide brief description of how the activity has been designed on-site to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site: Total avoidance was not feasible due to the project purpose, size, location and amount of aquatic resources on-site. However, the applicant was able to avoid approximately 1.04 acres of wetland. Regarding minimization measures, the applicant would employ best management practices during construction to ensure that exposed soils do not migrate into downstream and/or adjacent aquatic resources.

2.4.2 Is compensatory mitigation required for unavoidable impacts to jurisdictional aquatic resources to reduce the individual and cumulative adverse environmental effects to a minimal level? Yes

Provide rationale: Mitigation is required because the loss of waters associated with the activity is greater than 0.10 acre.

2.4.3 Type and location of compensatory mitigation

Is the impact in the service area of an approved mitigation bank? Yes

If yes, does the mitigation bank have appropriate number and resource type of credits available? Yes

Is the impact in the service area of an approved in-lieu fee program? No

Selected compensatory mitigation type/location(s): See Table 1

Table 1: Mitigation Type and Location	
Mitigation bank credits	X
In-lieu fee program credits	
Permittee-responsible mitigation under a watershed approach	
Permittee-responsible mitigation, on-site and in-kind	
Permittee-responsible mitigation, off-site and/or out of kind	

Does the selected compensatory mitigation option deviate from the order of the options presented in §332.3(b)(2)-(6)? No

- 2.4.4 Amount of compensatory mitigation: The applicant proposes to purchase .64 grandfathered credits from AA Shaw Wetland Mitigation Bank.

Rationale for required compensatory mitigation amount: Savannah District Standard Operating Procedures for compensatory mitigation.

3.0 Compliance with Other Laws, Policies and Requirements

3.1 Section 7(a)(2) of the Endangered Species Act (ESA)

- 3.1.1 ESA action area: The action area includes those areas comprising waters of the United States that will be directly affected by the proposed work or structures.
- 3.1.2 Has another federal agency been identified as the lead agency for complying with Section 7 of the ESA with the Corps designated as a cooperating agency and has that consultation been completed? No
- 3.1.3 Are there listed species or designated critical habitat that may be present or in the vicinity of the Corps' action area? Yes

Effect determination(s), including no effect, for all known species/habitat, and basis for determination(s): According to the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) statement, the following species may occur in the project vicinity: red cockaded (*Picoides borealis*), Eastern Indigo snake (*Drymarchon corais couperi*); the frosted flatwoods salamander (*Ambystoma cingulatum*) and pondberry (*Lindera melissifolia*).

Regarding the red cockaded woodpecker, aerial photographs indicate that the project area may be a part of a pine forest >100 acres in size and potentially consists of mature pine trees. However, based on aerial imagery and information in the PCN, the mature pine forest does not have an open understory, with few or no midstory or canopy hardwood trees. Therefore, per the EDGES, the Corps has determined that the proposed project may affect, but is not likely to adversely affect this species.

Regarding the Eastern Indigo snake, the site contains moderately suitable soils for the gopher tortoise. However, the agent did not observe any gopher tortoise burrows on-site. Therefore, per the EDGES, the Corps has determined that the proposed project may affect, but is not likely to adversely affect this species.

Regarding the frosted flatwoods salamander, the project would not impact longleaf pine flatwoods or slash pine flatwoods. Therefore, per the EDGES, the Corps has determined that the proposed project would have no effect to this species.

Regarding pondberry, the plant typically occurs in shallow depression ponds in wetland habitats with hydric soils, along margins of cypress ponds, and in seasonally wet, low areas among bottomland hardwoods. Although this habitat is located on the site, the species was not observed by the agent in the permit action area. Therefore the Corps has determined that there will be no effect on the species.

3.1.4 Consultation with either the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service was initiated and completed as required, for any determinations other than “no effect” (see the attached ORM2 Summary sheet for begin date, end date and closure method of the consultation). Based on a review of the information above, the Corps has determined that it has fulfilled its responsibilities under Section 7(a) (2) of the ESA. The documentation of the consultation is incorporated by reference.

3.2 **Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Stevens Act), Essential Fish Habitat (EFH)** N/A, there is no essential fish habitat located within the project area.

3.2.1 Has another federal agency been identified as the lead agency for complying with the EFH provisions of the Magnuson-Stevens Act with the Corps designated as a cooperating agency and has that consultation been completed? No

3.2.2 Did the proposed project require review under the Magnuson-Stevens Act? No. The project site is not tidally influenced.

3.2.3 If yes, EFH species or complexes considered: N/A

3.2.4 Consultation with the National Marine Fisheries Service was initiated and completed as required (see the attached ORM2 Summary sheet for begin date, end date and closure method of the consultation). Based on review of the above information, the Corps has concluded that it has fulfilled its responsibilities under the EFH provisions of the Magnuson-Stevens Act.

3.3 **Section 106 of the National Historic Preservation Act (Section 106)**

3.3.1 Section 106 permit area: The permit area includes those areas comprising waters of the United States that will be directly affected by the proposed work or structures. Activities outside of waters of the U.S. are not included because all three tests identified in 33 CFR 325, Appendix C(g)(1) have not been met.

Final description of the permit area: The permit area includes those areas comprising waters of the United States that will be directly affected by the proposed work or structures (i.e. 0.17 acre of wetland).

- 3.3.2 Has another federal agency been identified as the lead federal agency for complying with Section 106 of the National Historic Preservation Act with the Corps designated as a cooperating agency and has that consultation been completed?
No

- 3.3.3 Known historic properties? Yes.

Effect determination and basis for that determination: No effect. As proposed, the project would construct a lead tract that would tie into the existing Seaboard Coast Line Railroad. The railroad is a standard gauge construction, resting on a slightly elevated gravel bed. As is typical for railroads in daily use, the rails and ties are periodically replaced, and the gravel beds are refurbished. The railroad was first built in 1894 as part of a second route between Savannah and Charleston. Starting out as the South Bound Railroad, the route became the Seaboard Air Line in the early to middle 20th century, and later the Seaboard Coast Line (The Bicentennial Committee 1976). The railroad is now under CSX ownership.

The Seaboard Coast Line has been previously identified as eligible for listing on the Register. The railroad line will not be removed and will retain its original use. The construction of a lead tract will introduce new visual and potentially audible impacts however, these would be in character with the resource. As a result, this action would not cause an adverse effect to the historic property as it will not diminish aspects of integrity such as material, location, workmanship, design and association.

On March 6, 2020, the project was coordinated the resource agencies, including the GA SHPO. To date, the GA SHPO has not provided any comments on the proposed project.

- 3.3.4 Consultation was initiated and completed with the appropriate agencies, tribes and/or other parties for any determinations other than “no potential to cause effects.” (see the attached ORM2 Summary sheet for begin date, end date and closure method of the consultation) Based on a review of the information above, the Corps has determined that it has fulfilled its responsibilities under Section 106 of the NHPA. Compliance documentation incorporated by reference.

3.4 Tribal Trust Responsibilities

- 3.4.1 Was government-to-government consultation conducted with Federally-recognized Tribe(s)? No

Provide a description of any consultation(s) conducted including results and how concerns were addressed. The Corps has determined that it has fulfilled its tribal trust responsibilities.

- 3.4.2 Other Tribal including any discussion of Tribal Treaty rights? N/A

3.5 Section 401 of the Clean Water Act – Water Quality Certification (WQC)

- 3.5.1 Is a Section 401 WQC required, and if so, has the certification been issued, waived or presumed? A general WQC has been issued for this permit.

3.6 Coastal Zone Management Act (CZMA)

- 3.6.1 Is a CZMA consistency concurrence required, and if so, has the concurrence been issued, waived or presumed? A general CZMA consistency concurrence has been issued for this permit.

3.7 Wild and Scenic Rivers Act

- 3.7.1 Is the project located in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system? No

If yes, summarize coordination and the determination on whether activity will adversely affect the Wild and Scenic River designation or study status. The Corps has determined that it has fulfilled its responsibilities under the Wild and Scenic Rivers Act.

3.8 Effects on Corps Civil Works Projects (33 USC 408)

- 3.8.1 Does the applicant also require permission under Section 14 of the Rivers and Harbors Act (33 USC 408) because the activity, in whole or in part, would alter, occupy, or use a Corps Civil Works project? No, there are no Corps Civil Works project(s) in or near the vicinity of the proposal.

If yes, provide date decision was made and whether permission was granted or denied: N/A

3.9 Other (as needed): N/A

4.0 Special Conditions

- 4.1 Are special conditions required to ensure minimal effects, protect the public interest and/or ensure compliance of the activity with any of the laws above? Yes

If no, provide rationale: The terms and conditions of the general permit are sufficient to ensure no more than minimal adverse effects, and no conditions are needed for compliance with other laws or to protect the public interest.

- 4.2 Required special condition(s)

Special condition:

a. The activity is conducted in accordance with the information submitted and meets the conditions applicable to the NWP, as described at Part C of the NWP Program and the Savannah District's Regional Conditions for NWPs.

b. Prior to the commencement of any permitted work in aquatic resources, the permittee shall purchase .64 wetland mitigation credits from AA Shaw Wetland Mitigation Bank and submit documentation of this credit purchase to the U.S. Army Corps of Engineers. The credit purchase documentation must reference the Corps file number assigned to the permitted project. If all or a portion of the required credits are not available from AA Shaw Wetland Mitigation Bank, the permittee shall obtain written approval from the Corps prior to purchasing credits from an alternate mitigation bank.

c. The project shall be constructed in accordance with the attached plan entitled "Savannah Gateway Industrial Hub, Erosion Control Plan", dated March 12, 2020.

d. You shall obtain and comply with all appropriate federal, state, and local authorizations required for this type of activity. A stream buffer variance may be required from the Georgia Department of Natural Resources, Environmental Protection Division (Georgia EPD), as defined in the Georgia Erosion and Sedimentation Control Act of 1975, as amended. Information concerning variances can be obtained at the Georgia EPD's website at www.epd.georgia.gov, or by calling (404) 463-1511.

e. All work conducted under this permit shall be located, outlined, designed, constructed and operated in accordance with the minimal requirements of the Georgia Erosion and Sedimentation Control Act of 1975, as amended. Utilization of plans and specifications contained in the "Manual for Erosion and Sediment Control," (Latest Edition), published by the Georgia Soil and Water Conservation Commission, will aid in achieving compliance with the aforementioned minimal requirements.

f. You shall install and maintain erosion and sediment control measures in upland areas of the project site, in accordance with the Georgia Erosion and Sedimentation Control Act of 1975, as amended, to minimize the introduction of sediment into and the erosion of streams, wetlands and other waters of the United States. This permit does not authorize installation of check-dams, weirs, riprap, bulkheads or other erosion control measures in streams, wetlands or other waters of the United States. Authorization would be required from the U.S. Army Corps of Engineers prior to installing any erosion control measures in waters of the United States.

g. You shall install and maintain erosion and sediment control measures for all fill material that is authorized to be discharged in streams, wetlands and other waters of the United States, in accordance with the Georgia Erosion and Sedimentation Control Act of 1975, as amended, and permanently stabilize fill areas at the earliest practicable date.

- h. You shall notify the Corps, in writing, at least 10 days in advance of commencement of work authorized by this permit.
- i. You fill out and sign the enclosed certification and return it to our office within 30 days of completion of the activity authorized by this permit.
- j. You shall avoid the remaining 1.04 acres of wetland located on-site. These natural wetland areas were avoided as part of the permit application review process and therefore will not be disturbed by any dredging, filling, mechanized land clearing, agricultural activities, or other construction work whatsoever. The Corps reserves the right to deny review of any requests for future impacts to these natural wetland and/or stream areas.

Rationale: The above special conditions are included to ensure compliance with the NWP program and ESA to ensure the proposed activity would result in minimal impacts to the aquatic environment, bot individually and cumulatively.

5.0 Determination

- 5.1 Waiver request conclusion, if required or select N/A: N/A
- 5.2 The activity, with the required mitigation, will result in no more than minimal individual and cumulative adverse effects on the aquatic environment and will not be contrary to the public interest, provided the permittee complies with the special conditions identified above. ,
- 5.3 This activity, as described, complies with all terms and conditions of the permit identified in Section 1.5.

PREPARED & APPROVED BY:

Sarah E. Wise
Team Lead, Coastal Branch

Date:_____

Appendix E - Protected Species

Georgia Ecological Services Field Office Species List



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601-2523
Phone: (706) 460-7161 Fax: (706) 613-6059



In Reply Refer To:

03/11/2025 18:39:25 UTC

Project Code: 2024-0096725

Project Name: Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction
Exemption & Docket No. FD 36723

Subject: List of threatened and endangered species that may occur in your proposed project
location or may be affected by your proposed project

To Whom It May Concern:

Thank you for requesting information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act as amended (16 USC 701-715), Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Bald and Golden Eagle Protection Act as amended (16 USC 668-668c). We provide the following guidance for determining which federally imperiled species may occur within your project area and to recommend conservation measures to consider for your project if you determine those species or designated critical habitats may be affected by the project activities.

FEDERALLY-LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Attached is a list of endangered, threatened, and proposed species that may occur in your project area. Your project area may not necessarily include all or any of these species. Under the ESA, it is the responsibility of the Federal action agency, their designated non-Federal representative, or a project proponent to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally listed threatened or endangered fish or wildlife species without the appropriate permit. If you need additional guidance to inform your effect determination, please contact the Service.

If you determine that your proposed action may affect federally listed species, please consult with the Service. Through the consultation (for projects seeking Federal funding or permitting) or technical assistance (for non-Federal projects) process, we will work with you to evaluate information contained in a biological assessment or equivalent documents that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a) (1)(B) of the ESA (also known as a Habitat Conservation Plan) may be necessary to exempt "take" of federally listed threatened or endangered fish or wildlife species when it cannot be avoided. For more information regarding formal consultation and HCPs, please see the Service's [Section 7 Consultation Library](#) and [Habitat Conservation Plans Library](#).

Action Area. The scope of ESA compliance includes direct and indirect effects of project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations). The "action area" is the spatial extent of an action's direct and indirect modifications or impacts to the land, water, or air (50 CFR 402.02). Large projects may have effects to land, water, or air outside the immediate footprint of the project, and these areas should be included as part of the action area. Effects to land, water, or air outside of a project footprint could include things like lighting, dust, smoke, and noise. To obtain a complete list of species, the action area should be uploaded or drawn in IPaC rather than just the project footprint. Please note that a lead federal agency may consider an action area that excludes portions of the project footprint. In these cases, further coordination with our office may be required to ensure compliance with the ESA. It is the responsibility of the project proponent to coordinate with the lead federal agency to understand the action and action area being reviewed as part of ESA Section 7 consultation.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. An updated list may be requested through IPaC.

HOW TO SUBMIT A PROJECT REVIEW PACKAGE

IF YOUR ACTION MAY AFFECT ANY FEDERALLY LISTED SPECIES AND YOU WOULD LIKE TECHNICAL ASSISTANCE FROM OUR OFFICE, PLEASE SEND US A COMPLETE PROJECT REVIEW PACKAGE. A STEP-BY-STEP GUIDE IS AVAILABLE BELOW AND SUPPLEMENTAL GUIDANCE IS AVAILABLE AT THE GEORGIA ECOLOGICAL SERVICES [PROJECT PLANNING AND REVIEW](https://www.fws.gov/office/georgia-ecological-services/project-planning-review) PAGE ([HTTPS://WWW.FWS.GOV/OFFICE/GEORGIA-ECOLOGICAL-SERVICES/PROJECT-PLANNING-REVIEW](https://www.fws.gov/office/georgia-ecological-services/project-planning-review)).

REQUESTS FOR THREATENED AND ENDANGERED SPECIES PROJECT REVIEWS MUST BE SUBMITTED TO OUR OFFICE USING THE PROCESS DESCRIBED BELOW. ALL STEPS MUST BE COMPLETED TO ENSURE YOUR

PROJECT IS REVIEWED BY A BIOLOGIST IN OUR OFFICE AND YOU RECEIVE A TIMELY RESPONSE.

STEP 1. REQUEST AN OFFICIAL SPECIES LIST FOR YOUR PROJECT THROUGH IPAC. YOU HAVE JUST COMPLETED THIS STEP.

STEP 2. COMPLETE APPLICABLE DETERMINATION KEYS (DKEY'S, FOR SHORT)

STEP 3. SEND YOUR COMPLETE PROJECT REVIEW PACKAGE TO GAES_ASSISTANCE@FWS.GOV FOR REVIEW IF NO DKEY IS APPLICABLE OR CERTAIN PROJECT COMPONENTS HAVE NOT BEEN ADDRESSED (I.E. A SPECIES RETURNED BY IPAC DOES NOT HAVE A DKEY). A COMPLETE PROJECT REVIEW PACKAGE SHOULD INCLUDE:

- 1. A DESCRIPTION OF THE PROPOSED ACTION, INCLUDING ANY MEASURES INTENDED TO AVOID, MINIMIZE, OR OFFSET EFFECTS OF THE ACTION. THE DESCRIPTION SHALL PROVIDE SUFFICIENT DETAIL TO ASSESS THE EFFECTS OF THE ACTION ON LISTED SPECIES AND CRITICAL HABITAT, SUCH AS THE PURPOSE OF THE ACTION; DURATION AND TIMING OF THE ACTION; LOCATION (LATITUDE AND LONGITUDE); SPECIFIC ACTIVITIES INVOLVING DISTURBANCE TO LAND, WATER, AND AIR, AND HOW THEY WILL BE CARRIED OUT; CURRENT DESCRIPTION OF AREAS TO BE AFFECTED DIRECTLY OR INDIRECTLY BY THE ACTION; AND MAPS, DRAWINGS, OR SIMILAR SCHEMATICS OF THE ACTION. PLEASE SUBMIT ALL AREAS OF A PROJECT AS ONE SINGLE SUBMISSION AND DO NOT SEPARATE INTO SMALLER COMPONENTS/SUBMISSIONS.**
- 2. AN UPDATED OFFICIAL SPECIES LIST AND DETERMINATION KEY RESULTS**
- 3. BIOLOGICAL ASSESSMENTS (MAY INCLUDE HABITAT ASSESSMENTS AND INFORMATION ON THE PRESENCE OF LISTED SPECIES IN THE ACTION AREA);**
- 4. DESCRIPTION OF EFFECTS OF THE ACTION ON SPECIES IN THE ACTION AREA AND, IF RELEVANT, EFFECT DETERMINATIONS FOR SPECIES AND CRITICAL HABITAT;**
- 5. CONSERVATION MEASURES AND ANY OTHER AVAILABLE INFORMATION RELATED TO THE NATURE AND SCOPE OF THE PROPOSED ACTION RELEVANT TO ITS EFFECTS ON LISTED SPECIES OR DESIGNATED CRITICAL HABITAT (E.G., MANAGEMENT PLANS RELATED TO STORMWATER, VEGETATION, EROSION AND SEDIMENT PLANS). VISIT THE [GEORGIA CONSERVATION PLANNING TOOLBOX \(HTTPS://WWW.FWS.GOV/STORY/CONSERVATION-TOOLS-GEORGIA\)](https://www.fws.gov/story/conservation-tools-georgia) FOR INFORMATION ABOUT CONSERVATION MEASURES.**

6. IN THE EMAIL SUBJECT LINE, USE THE FOLLOWING FORMAT TO INCLUDE THE PROJECT CODE FROM YOUR IPAC SPECIES LIST AND THE COUNTY IN WHICH THE PROJECT IS LOCATED (EXAMPLE: PROJECT CODE: 2023-0049730 GWINNETT CO.). FOR GEORGIA DEPARTMENT OF TRANSPORTATION RELATED PROJECTS, PLEASE WORK WITH THE OFFICE OF ENVIRONMENTAL SERVICES ECOLOGIST TO DETERMINE THE APPROPRIATE USFWS TRANSPORTATION LIAISON.

THE GEORGIA ECOLOGICAL SERVICES FIELD OFFICE WILL SEND A RESPONSE EMAIL WITHIN APPROXIMATELY 30 DAYS OF RECEIPT WITH TECHNICAL ASSISTANCE OR FURTHER RECOMMENDATIONS FOR SPECIFIC SPECIES.

WETLANDS AND FLOODPLAINS

UNDER EXECUTIVE ORDERS 11988 AND 11990, FEDERAL AGENCIES ARE REQUIRED TO MINIMIZE THE DESTRUCTION, LOSS, OR DEGRADATION OF WETLANDS AND FLOODPLAINS, AND PRESERVE AND ENHANCE THEIR NATURAL AND BENEFICIAL VALUES. THESE HABITATS SHOULD BE CONSERVED THROUGH AVOIDANCE, OR MITIGATED TO ENSURE THAT THERE WOULD BE NO NET LOSS OF WETLANDS FUNCTION AND VALUE. WE ENCOURAGE YOU TO USE THE NATIONAL WETLAND INVENTORY (NWI) MAPS IN CONJUNCTION WITH GROUND-TRUTHING TO IDENTIFY WETLANDS OCCURRING IN YOUR PROJECT AREA. THE SERVICE'S [NWI PROGRAM WEBSITE \(HTTPS://WWW.FWS.GOV/PROGRAM/NATIONAL-WETLANDS-INVENTORY\)](https://www.fws.gov/program/national-wetlands-inventory) INTEGRATES DIGITAL MAP DATA WITH OTHER RESOURCE INFORMATION. WE ALSO RECOMMEND YOU CONTACT THE U.S. ARMY CORPS OF ENGINEERS FOR PERMITTING REQUIREMENTS UNDER SECTION 404 OF THE CLEAN WATER ACT IF YOUR PROPOSED ACTION COULD IMPACT FLOODPLAINS OR WETLANDS.

MIGRATORY BIRDS

THE MBTA PROHIBITS THE TAKING OF MIGRATORY BIRDS, NESTS, AND EGGS, EXCEPT AS PERMITTED BY THE SERVICE'S [MIGRATORY BIRDS PROGRAM \(HTTPS://FWS.GOV/PROGRAM/MIGRATORY-BIRDS\)](https://fws.gov/program/migratory-birds). TO MINIMIZE THE LIKELIHOOD OF ADVERSE IMPACTS TO MIGRATORY BIRDS, WE RECOMMEND CONSTRUCTION ACTIVITIES OCCUR OUTSIDE THE GENERAL BIRD NESTING SEASON FROM MARCH THROUGH AUGUST, OR THAT AREAS PROPOSED FOR CONSTRUCTION DURING THE NESTING SEASON BE SURVEYED, AND WHEN OCCUPIED, AVOIDED UNTIL THE YOUNG HAVE FLEDGED.

WE RECOMMEND REVIEW OF BIRDS OF CONSERVATION CONCERN TO FULLY EVALUATE THE EFFECTS TO THE BIRDS AT YOUR SITE. THIS LIST IDENTIFIES BIRDS THAT ARE POTENTIALLY THREATENED BY DISTURBANCE AND CONSTRUCTION. IT CAN BE FOUND AT THE SERVICE'S [MIGRATORY BIRDS](#)

CONSERVATION LIBRARY COLLECTION ([HTTPS://FWS.GOV/LIBRARY/ COLLECTIONS/MIGRATORY-BIRD-CONSERVATION-DOCUMENTS](https://fws.gov/library/collections/migratory-bird-conservation-documents)).

INFORMATION RELATED TO BEST PRACTICES AND MIGRATORY BIRDS CAN BE FOUND AT THE SERVICE'S **AVOIDING AND MINIMIZING INCIDENTAL TAKE OF MIGRATORY BIRDS LIBRARY COLLECTION ([HTTPS://FWS.GOV/LIBRARY/ COLLECTIONS/AVOIDING-AND-MINIMIZING-INCIDENTAL-TAKE-MIGRATORY-BIRDS](https://fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds))**.

BALD AND GOLDEN EAGLES

THE BALD EAGLE (*HALIAEETUS LEUCOCEPHALUS*) WAS DELISTED UNDER THE ESA ON AUGUST 9, 2007. BOTH THE BALD EAGLE AND GOLDEN EAGLE (*AQUILA CHRYSAETOS*) ARE STILL PROTECTED UNDER THE MIGRATORY BIRD TREATY ACT (MBTA) AND BALD AND GOLDEN EAGLE PROTECTION ACT (BGEPA). THE BGEPA AFFORDS BOTH EAGLES PROTECTION IN ADDITION TO THAT PROVIDED BY THE MBTA, IN PARTICULAR, BY MAKING IT UNLAWFUL TO “DISTURB” EAGLES. UNDER THE BGEPA, THE SERVICE MAY ISSUE LIMITED PERMITS TO INCIDENTALLY “TAKE” EAGLES (E.G., INJURY, INTERFERING WITH NORMAL BREEDING, FEEDING, OR SHELTERING BEHAVIOR NEST ABANDONMENT). FOR INFORMATION ON BALD AND GOLDEN EAGLE MANAGEMENT GUIDELINES, WE RECOMMEND YOU REVIEW INFORMATION PROVIDED AT THE SERVICE'S **BALD AND GOLDEN EAGLE MANAGEMENT LIBRARY COLLECTION**.

NATIVE BATS

IF YOUR SPECIES LIST INCLUDES INDIANA BAT (*MYOTIS SODALIS*), NORTHERN LONG-EARED BAT (*M. SEPTENTRIONALIS*), OR TRICOLORED BAT (*PERIMYOTIS SUBFLAVUS*) AND THE PROJECT IS EXPECTED TO IMPACT FORESTED HABITAT, TREE CLEARING SHOULD OCCUR OUTSIDE OF THE PERIODS WHEN BATS MAY BE PRESENT AND MOST VULNERABLE. FEDERALLY LISTED BATS COULD BE ACTIVELY PRESENT IN FORESTED LANDSCAPES FROM SPRING THROUGH FALL OF ANY YEAR. IN MUCH OF GEORGIA, OUR WINTERS ARE MILD ENOUGH THAT TRICOLORED BATS ARE LIKELY ACTIVE ON THE LANDSCAPE TO SOME EXTENT YEAR-ROUND. PUPS ARE INCAPABLE OF FLIGHT AND VULNERABLE TO DISTURBANCE FROM THE SPRING TO SUMMER. OUR RECOMMENDED SEASONAL CLEARING RESTRICTION WINDOWS DEPEND ON SPECIES AND REGION IN GEORGIA. PLEASE REACH OUT TO US FOR GUIDANCE.

INDIANA, NORTHERN LONG-EARED, TRICOLORED, AND GRAY (*M. GRISCESENS*) BATS ARE ALL KNOWN TO UTILIZE BRIDGES AND CULVERTS IN GEORGIA. IF YOUR PROJECT INCLUDES MAINTENANCE, CONSTRUCTION, OR ANY OTHER MODIFICATION OR DEMOLITION TO TRANSPORTATION STRUCTURES, A QUALIFIED INDIVIDUAL SHOULD COMPLETE A SURVEY OF THESE STRUCTURES FOR BATS AND SUBMIT YOUR FINDINGS VIA THE

“GADNR BATS IN BRIDGES” FORM IN THE SURVEY123 APP, FREE ON APPLE AND ANDROID DEVICES. PLEASE INCLUDE THESE FINDINGS IN ANY BIOLOGICAL ASSESSMENT(S) OR OTHER DOCUMENTATION THAT IS SUBMITTED TO OUR OFFICE FOR TECHNICAL ASSISTANCE OR CONSULTATION.

ADDITIONAL INFORMATION CAN BE FOUND AT GEORGIA ECOLOGICAL SERVICES' [CONSERVATION PLANNING TOOLBOX](#) AND [BAT CONSERVATION IN GEORGIA](#) PAGES.

MONARCH BUTTERFLY

ON DECEMBER 20, 2020, THE SERVICE DETERMINED THAT LISTING THE MONARCH BUTTERFLY (*DANAUS PLEXIPPUS*) UNDER THE ENDANGERED SPECIES ACT IS WARRANTED BUT PRECLUDED AT THIS TIME BY HIGHER PRIORITY LISTING ACTIONS. WITH THIS FINDING, THE MONARCH BUTTERFLY BECOMES A CANDIDATE FOR LISTING. THE SERVICE WILL REVIEW ITS STATUS EACH YEAR UNTIL WE ARE ABLE TO BEGIN DEVELOPING A PROPOSAL TO LIST THE MONARCH.

AS IT IS A CANDIDATE FOR LISTING, THE SERVICE WELCOMES CONSERVATION MEASURES FOR THIS SPECIES. RECOMMENDED, AND VOLUNTARY, CONSERVATION MEASURES FOR PROJECTS IN GEORGIA CAN BE FOUND AT THE [MONARCH CONSERVATION IN GEORGIA](#) PAGE.

EASTERN INDIGO SNAKE

OUR OFFICE HAS PUBLISHED GUIDANCE DOCUMENTS TO ASSIST PROJECT PROPONENTS IN AVOIDING AND MINIMIZING POTENTIAL IMPACT TO THE EASTERN INDIGO SNAKE. THE [VISUAL ENCOUNTER SURVEY PROTOCOL FOR THE EASTERN INDIGO SNAKE \(*DRYMARCHON COUPERI*\) IN GEORGIA](#) IS RECOMMENDED FOR PROJECT PROPONENTS OR THEIR DESIGNEES TO EVALUATE THE POSSIBLE PRESENCE OF THE EASTERN INDIGO SNAKE AT A PROPOSED PROJECT SITE. THE [STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE \(*DRYMARCHON COUPERI*\)](#) INCLUDE EDUCATIONAL MATERIALS AND TRAINING THAT CAN HELP PROTECT THE SPECIES BY MAKING STAFF WORKING ON A PROJECT SITE AWARE OF THEIR PRESENCE AND TRAITS. IN GEORGIA, INDIGO SNAKES ARE CLOSELY ASSOCIATED WITH THE STATE-LISTED GOPHER TORTOISE (*GOPHERUS POLYPHEMUS*), A REPTILE THAT EXCAVATES EXTENSIVE UNDERGROUND BURROWS THAT PROVIDE THE SNAKE SHELTER FROM WINTER COLD AND SUMMER DESICCATION.

SOLAR ENERGY DEVELOPMENT

THE [RECOMMENDED PRACTICES FOR THE RESPONSIBLE SITING AND DESIGN OF SOLAR DEVELOPMENT IN GEORGIA, VERSION 2.0](#) (PUBLISHED IN MAY 2024)

ARE INTENDED TO PROVIDE VOLUNTARY GUIDANCE TO SUPPORT CONSIDERATION OF NATURAL RESOURCES DURING THE DEVELOPMENT OF PHOTOVOLTAIC SOLAR IN GEORGIA. FURTHERMORE, THE [GEORGIA LOW IMPACT SOLAR SITING TOOL \(LISST\)](#) IS ALSO AVAILABLE AS A MAP LAYER IN IPAC (FIND IT IN THE "LAYERS" BOX > "ENVIRONMENTAL DATA") TO PROVIDE PROJECT MANAGERS WITH THE DATA TO IDENTIFY AREAS THAT MAY BE PREFERRED FOR LOW-IMPACT DEVELOPMENT. THE TOOL SEEKS TO SUPPORT THE ACCELERATION OF LARGE-SCALE SOLAR DEVELOPMENT IN AREAS WITH LESS IMPACT TO THE ENVIRONMENT.

STATE AGENCY COORDINATION

ADDITIONAL INFORMATION THAT ADDRESSES AT-RISK OR HIGH PRIORITY NATURAL RESOURCES CAN BE FOUND IN THE STATE WILDLIFE ACTION PLAN ([HTTPS://GEORGIAWILDLIFE.COM/WILDLIFEACTIONPLAN](https://georgiawildlife.com/wildlifeactionplan)), AT GEORGIA DEPARTMENT OF NATURAL RESOURCES, WILDLIFE RESOURCES DIVISION BIODIVERSITY PORTAL ([HTTPS://GEORGIAWILDLIFE.COM/CONSERVATION/SPECIES-OF-CONCERN](https://georgiawildlife.com/conservation/species-of-concern)), GEORGIA'S NATURAL, ARCHAEOLOGICAL, AND HISTORIC RESOURCES GIS PORTAL ([HTTPS://WWW.GNAHRGIS.ORG/GNAHRGIS/INDEX.DO](https://www.gnahrgis.org/gnahrgis/index.do)) PAGES.

THANK YOU FOR YOUR CONCERN FOR ENDANGERED AND THREATENED SPECIES. WE APPRECIATE YOUR EFFORTS TO IDENTIFY AND AVOID IMPACTS TO LISTED AND SENSITIVE SPECIES IN YOUR PROJECT AREA. FOR FURTHER CONSULTATION ON YOUR PROPOSED ACTIVITY, PLEASE EMAIL GAES_ASSISTANCE@FWS.GOV AND REFERENCE THE PROJECT COUNTY AND YOUR SERVICE PROJECT TRACKING NUMBER.

THIS LETTER CONSTITUTES GEORGIA ECOLOGICAL SERVICES' GENERAL COMMENTS UNDER THE AUTHORITY OF THE ENDANGERED SPECIES ACT.

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Georgia Ecological Services Field Office

355 East Hancock Avenue

Room 320

Athens, GA 30601-2523

(706) 460-7161

PROJECT SUMMARY

Project Code: 2024-0096725

Project Name: Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction Exemption & Docket No. FD 36723

Project Type: Railroad - Maintenance/Modification

Project Description: Savannah Industrial Logistics, LLC (SIL) filed for after-the-fact authority to construct a rail line (the Line) in Docket No. FD 36723, and Savannah Industrial Transportation, LLC (SIT), an affiliate of SIL, filed for after-the-fact authority to lease and operate the same Line in Docket No. 36723 (Sub-No. 1).²⁰ The Line, which is located in an industrial park near Rincon, in Effingham County, Georgia, has no mileposts and extends from a connection with Norfolk Southern Railway Company (NSR) near NSR milepost 16.6 to a connection with CSX Transportation, Inc. (CSXT), near CSXT milepost S484.0, a distance of approximately 11,404 feet.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@32.26727955,-81.24339588447006,14z>



Counties: Effingham County, Georgia

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Eastern Indigo Snake <i>Drymarchon couperi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Pondberry <i>Lindera melissifolia</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1279	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper

Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

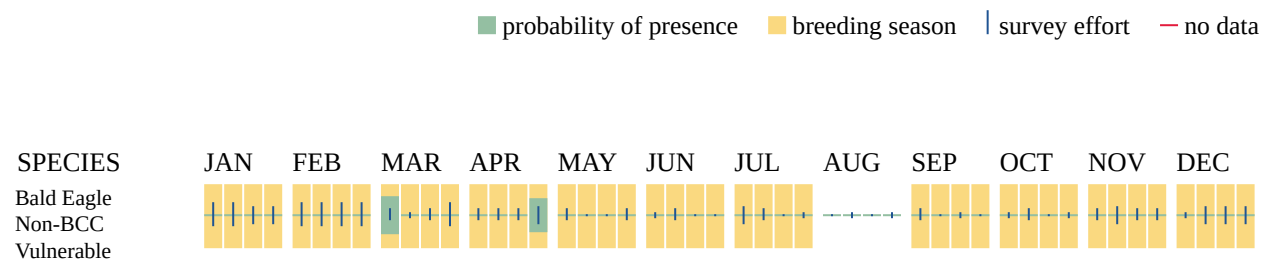
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory

birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Brown-headed Nuthatch <i>Sitta pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9427	Breeds Mar 1 to Jul 15
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Chuck-will's-widow <i>Antrostomus carolinensis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9604	Breeds May 10 to Jul 10
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20
Least Tern <i>Sternula antillarum antillarum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11919	Breeds Apr 25 to Sep 5

NAME	BREEDING SEASON
Painted Bunting <i>Passerina ciris</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9511	Breeds Apr 25 to Aug 15
Prairie Warbler <i>Setophaga discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

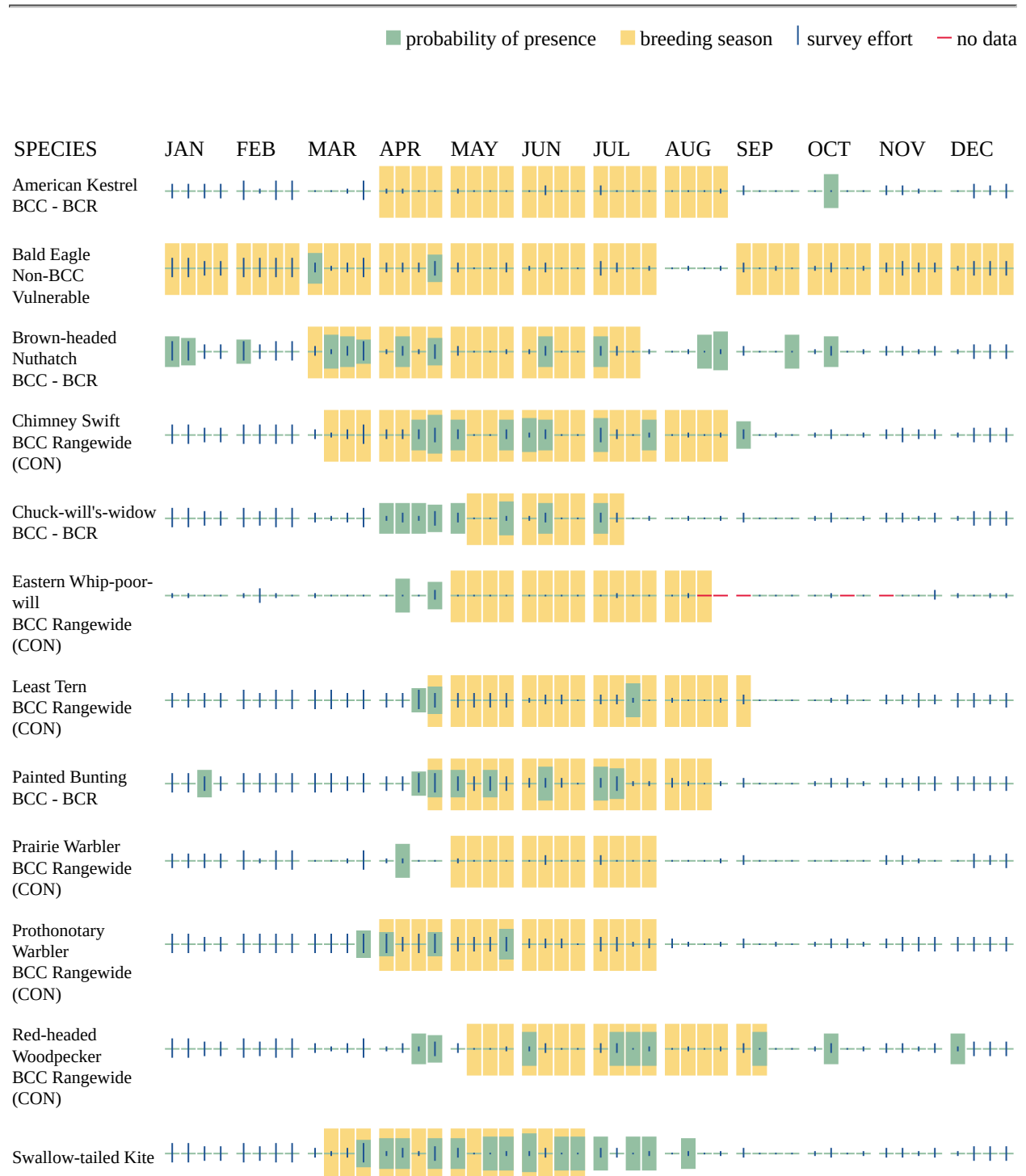
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

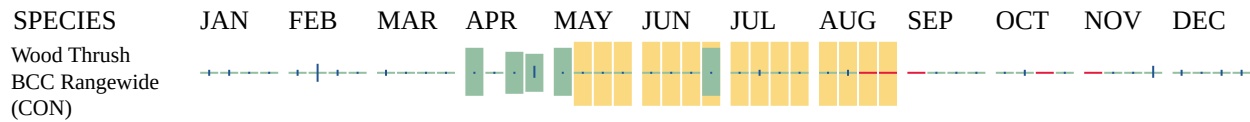
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



BCC Rangewide
(CON)



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1/3B
- PFO1/4Ad
- PSS1B
- PFO1A

RIVERINE

- R2UBH

IPAC USER CONTACT INFORMATION

Agency: Surface Transportation Board
Name: Russell Chandler
Address: 1441 Main Street
Address Line 2: Suite 1000
City: Columbia
State: SC
Zip: 29201
Email: chandlertr@cdmsmith.com
Phone: 8033605197

USFWS Determination Key



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601-2523
Phone: (706) 460-7161 Fax: (706) 613-6059

In Reply Refer To:

03/11/2025 18:59:22 UTC

Project code: 2024-0096725

Project Name: Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction
Exemption & Docket No. FD 36723

Federal Nexus: yes

Federal Action Agency (if applicable): Surface Transportation Board

Subject: Record of project representative's no effect determination for 'Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction Exemption & Docket No. FD 36723'

Dear Russell Chandler:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on March 11, 2025, for 'Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction Exemption & Docket No. FD 36723' (here forward, Project). This project has been assigned Project Code 2024-0096725 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the **Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey)**, invalidates this letter. *Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.*

Determination for the Northern Long-Eared Bat and/or Tricolored Bat

Based upon your IPaC submission and a standing analysis, your project has reached the following effect determinations:

Species	Listing Status	Determination
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Eastern Indigo Snake *Drymarchon couperi* Threatened
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Pondberry *Lindera melissifolia* Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the species covered by this key. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Georgia Ecological Services Field Office and reference Project Code 2024-0096725 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction Exemption & Docket No. FD 36723

2. Description

The following description was provided for the project 'Docket No. FD 36723, Savannah Industrial Logistics, LLC–Construction Exemption & Docket No. FD 36723':

Savannah Industrial Logistics, LLC (SIL) filed for after-the-fact authority to construct a rail line (the Line) in Docket No. FD 36723, and Savannah Industrial Transportation, LLC (SIT), an affiliate of SIL, filed for after-the-fact authority to lease and operate the same Line in Docket No. 36723 (Sub-No. 1).²⁰ The Line, which is located in an industrial park near Rincon, in Effingham County, Georgia, has no mileposts and extends from a connection with Norfolk Southern Railway Company (NSR) near NSR milepost 16.6 to a connection with CSX Transportation, Inc. (CSXT), near CSXT milepost S484.0, a distance of approximately 11,404 feet.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@32.26727955,-81.24339588447006,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the species covered by this determination key. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

Yes

4. Your project overlaps with an area where northern long-eared bats or tricolored bats may be present and roosting in trees year-round.

Do you understand that your project may impact bats roosting in trees at any time during the year?

Yes

5. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

6. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

7. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

8. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

9. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

10. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

11. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

12. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

13. Does the action area contain (1) talus or (2) anthropogenic or naturally formed rock shelters or crevices in rocky outcrops, rock faces or cliffs?

No

14. Will the action cause effects to a bridge?

Note: Covered bridges should be considered as bridges in this question.

No

15. Will the action result in effects to a culvert or tunnel at any time of year?

No

16. Are trees present within 1000 feet of the action area?

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

17. Does the action include the intentional exclusion of bats from a building or structure?

Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

18. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats**?

No

19. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic permanently or temporarily on one or more existing roads?

Note: For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

21. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

22. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

Note: For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

23. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

24. Will the action include drilling or blasting?

No

25. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

No

26. Will the proposed action involve the use of herbicides or other pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

No

27. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

28. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

29. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

No

30. Will the proposed action result in the use of prescribed fire?

Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

No

31. Does the action area intersect the tricolored bat species list area?

Automatically answered

Yes

32. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

33. Your project overlaps with an area where tricolored bats may be present and roosting in trees year-round.

Has a presence/probable absence survey for the tricolored bat following the Service's [Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area? If unsure, answer "No."

No

34. Your project overlaps with an area where tricolored bats may be present and roosting in trees year-round.

Is suitable tricolored bat habitat present within 1000 feet of project activities? Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer "Yes." Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

35. Do you have any documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Surface Transportation Board
Name: Russell Chandler
Address: 1441 Main Street
Address Line 2: Suite 1000
City: Columbia
State: SC
Zip: 29201
Email: chandlertr@cdmsmith.com
Phone: 8033605197

Agency Responses

5/9/2024	EI-33569	FD_36723	Bill Wikoff - f&w biologist	US Fish & Wildlife Service - Ecological Services Field Office	The project is not expected to impact ESA listed species. This comment also applies to Docket No. FD 36723 (Sub-No. 1) which I was not able to successfully enter above in the Docket No. field.	Athens, GA
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[Show Less](#)

From: [Cown, Jeff](#)
To: [Belvin, Michael L.](#)
Cc: [Stevens, Karen](#); [Morehead, Madison R.](#)
Subject: RE: Savannah Industrial Logistics, LLC and Savannah Industrial Transportation, LLC – After-the-Fact Rail Line Construction, Lease, and Operation (Docket Nos. FD 36723 and FD 36723 (Sub-No. 1X)) – Request for Comment
Date: Tuesday, May 21, 2024 10:29:18 AM
Attachments: 

You don't often get email from jeff.cown@dnr.ga.gov. [Learn why this is important](#)

Michael,

I forwarded to my folks and they didn't have any comments.

Jeff

Jeff Cown
 Director
Environmental Protection Division
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A division of the
GEORGIA DEPARTMENT OF NATURAL RESOURCES



From: Belvin, Michael L. <belvinml@cdmsmith.com>
Sent: Monday, May 6, 2024 3:06 PM
To: Cown, Jeff <Jeff.Cown@dnr.ga.gov>
Cc: Stevens, Karen <Karen.Stevens@stb.gov>; Morehead, Madison R. <moreheadmr@cdmsmith.com>
Subject: Savannah Industrial Logistics, LLC and Savannah Industrial Transportation, LLC – After-the-Fact Rail Line Construction, Lease, and Operation (Docket Nos. FD 36723 and FD 36723 (Sub-No. 1X)) – Request for Comment

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

On behalf of the Surface Transportation Board's (Board) Office of Environmental Analysis (OEA), CDM Smith (OEA's third party contractor) is sending the attached letter (attached) to inform you of an after-the-fact rail line construction, lease, and operation located in an industrial park near Rincon, Georgia. OEA is currently gathering information about the project and is requesting your input. If you have any questions, please contact Karen Stevens at 202-345-0304 or by email at Karen.Stevens@stb.gov.

Protected Plants and Animals within Effingham County

Scientific Name	Common Name	GA Prot	US Prot	GRank	Rnd GRa	SRank	Rnd SRa	SwapSta	ES_ID	Element Cc	Group	Georgia Habitat Summary	EO Cour	Export Date
Acipenser brevirostrum	Shortnose Sturgeon	E	LE	G3	G3	S2	S2	Yes	20255	AFCAA0101	Animal	Estuaries; lower end of large rivers in deep pools with soft substrates	10	August 27, 2024
Acipenser oxyrinchus oxyrinchus	Atlantic Sturgeon	E	LE	G3T3	T3	S3	S3	Yes	16563	AFCAA0104	Animal	Estuaries; lower end of large rivers in deep pools with soft substrates; spawn as far inland as Macon, GA on the Ocmulgee River	7	August 27, 2024
Alasmidonta arcuata	Altamaha Arcmussel	T	null	G2	G2	S3	S3	Yes	17962	IMBIV0201	Animal	Large Rivers and reservoirs on gently sloping banks with soft and fine sediments. Often under overhanging willows	20	August 27, 2024
Ambystoma cingulatum	Frosted Flatwoods Salamander	T	LT	G2	G2	S1	S1	Yes	20948	AAAAA010	Animal	Pine flatwoods; moist savannas; isolated cypress/gum ponds	53	August 27, 2024
Carex dasycarpa	Velvet Sedge	R	null	G4?	G4	S3	S3	No	15939	PMCYP033	Plant	Evergreen hammocks; mesic hardwood forests	25	August 27, 2024
Clemmys guttata	Spotted Turtle	U	null	G5	G5	S3	S3	Yes	15915	ARAAD020	Animal	Heavily vegetated swamps, marshes, bogs, small ponds, and tidally influence freshwater wetlands; nest and possibly hibernate in swamps	135	August 27, 2024
Cordulegaster sayi	Say's Spiketail	T	null	G3	G3	S2S3	S2	Yes	16581	IIODO0308	Animal	Trickling hillside seepage swamps in deciduous forest with scrub-oak sandhills nearby	30	August 27, 2024
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	ER	null	G3G4	G3	S3	S3	Yes	17702	AMACC080	Animal	Pine forests; hardwood forests; caves; abandoned buildings; bridges; bottomland hardwood forests and cypress-gum swamps	47	August 27, 2024
Drymarchon couperi	Eastern Indigo Snake	T	LT	G3	G3	S2	S2	Yes	19291	ARADB110	Animal	Sandhills; pine flatwoods; dry hammocks; summer habitat includes wetlands	149	August 27, 2024
Dryobates borealis	Red-cockaded Woodpecker	E	LE	G3	G3	S2	S2	Yes	18726	ABNYF070	Animal	Open pine woods; pine savannas	76	August 27, 2024
Elanoides forficatus	Swallow-tailed Kite	R	null	G5	G5	S2	S2	Yes	20225	ABNKC040	Animal	River swamps; marshes, open pine and bottomland forest with super canopy pines.	56	August 27, 2024
Elliptio arcuata	Delicate Spike	E	null	G2G3Q	G2	S2	S2	Yes	22336	IMBIV1404	Animal	Creeks and rivers with moderate current; mainly in crevices and under large rocks in silt deposits	69	August 27, 2024
Epidendrum magnoliae	Greenfly Orchid	U	null	G4	G4	S3	S3	No	22327	PMORC100	Plant	Epiphytic on limbs of evergreen hardwoods; also in crevices of Altamaha Grit outcrops	86	August 27, 2024
Gopherus polyphemus	Gopher Tortoise	T	Null	G3	G3	S3	S3	Yes	20476	ARAAF010	Animal	Sandhills; dry hammocks; longleaf pine-turkey oak woods; old fields	331	August 27, 2024
Heterodon simus	Southern Hognose Snake	T	null	G2	G2	S1S2	S1	Yes	20606	ARADB170	Animal	Sandhills; fallow fields; longleaf pine-turkey oak	67	August 27, 2024
Lindera melissifolia	Pondberry	E	LE	G3	G3	S2	S2	Yes	16447	PDLAU070	Plant	Pond margins and wet savannas	24	August 27, 2024
Lithobates capito	Gopher Frog	R	null	G2G3	G2	S2S3	S2	Yes	21226	AAABH012	Animal	Sandhills; dry pine flatwoods; breed in isolated wetlands	68	August 27, 2024
Litsea aestivalis	Pond Spice	R	null	G3?	G3	S2	S2	Yes	19918	PDLAU080	Plant	Cypress ponds; swamp margins	79	August 27, 2024
Moxostoma robustum	Robust Redhorse	E	null	G1	G1	S1	S1	Yes	15895	AFCJC1015	Animal	Medium to large rivers, shallow riffles to deep flowing water; moderately swift current	32	August 27, 2024
Sarracenia flava	Yellow Flytrap	U	null	G5?	G5	S3S4	S3	No	18445	PDSAR020	Plant	Wet savannas, pitcherplant bogs	148	August 27, 2024
Sarracenia minor var. minor	Hooded Pitcherplant	U	null	G4T4	T4	S4	S4	No	33691	PDSAR020	Plant	Wet savannas, pitcherplant bogs	222	August 27, 2024
Stewartia malacodendron	Silky Camellia	R	null	G4	G4	S2	S2	Yes	19740	PDTHC060	Plant	Along streams on lower slopes of beech-magnolia or beech-basswood-Florida maple forests	43	August 27, 2024
Trichechus manatus	West Indian Manatee	E	LT	G2G3	G2	S2	S2	Yes	18397	AMAKA010	Animal	Estuaries; tidal rivers, nearshore ocean waters	1	August 27, 2024

**Species of Greatest
Conservation Need within
Effingham County**

Scientific Name	Common NGA Prot	US Prot	GRank	Rnd GRank	SRank	Rnd SRank	SEO Track	ES_ID	Element Cc Group	Georgia HaEO Count	Export Date
Acipenser brevirostrum	Shortnose: E	LE	G3	G3	S2	S2	Yes	20255	AFCAA010: Animal	Estuaries; f 10	August 27,
Acipenser oxyrinchus oxyrinchus	Atlantic St: E	LE	G3T3	T3	S3	S3	Yes	16563	AFCAA010: Animal	Estuaries; f 17	August 27,
Alasmidonta arcuata	Altamaha: T	null	G2	G2	S3	S3	Yes	17962	IMBIV0201: Animal	Large River 20	August 27,
Ambystoma cingulatum	Frosted Fla: T	LT	G2	G2	S1	S1	Yes	20948	AAAAA010: Animal	Pine flatw: c 53	August 27,
Carex calcifugens	Lime-flee: in null	null	G3	G3	S2?	S2	Yes	33655	PMCYP03K: Plant	Rich bluff: f 6	August 27,
Chologaster cornuta	Swampfish: null	null	G5	G5	S2S3	S2	Yes	19011	AFCLA0202: Animal	Blackwater 14	August 27,
Clemmys guttata	Spotted Tu: U	null	G5	G5	S3	S3	Yes	15915	ARAAD020: Animal	Heavily veg: 135	August 27,
Cordulegaster sayi	Say's Spike: T	null	G3	G3	S2S3	S2	Yes	16581	IIOO0308: Animal	Trickling hi: 30	August 27,
Coreopsis rosea	Pink Tickse: null	null	G3	G3	S1	S1	Yes	20663	PDAST2L01: Plant	Banks of bl: 3	August 27,
Corynorhinus rafinesquii	Rafinesque: R	null	G3G4	G3	S3	S3	Yes	17702	AMACC08C: Animal	Pine forest 47	August 27,
Crotalus adamanteus	Eastern Dia: null	null	G3	G3	S4	S4	Yes	17176	ARADE020: Animal	Early succe: 256	August 27,
Cyclocosmia torreyi	Torreyi Tr: null	null	GNR	GNR	SU	SU	Yes	34992	ILARA0601: Animal	Hardwood: 6	August 27,
Drymarchon couperi	Eastern Inc: T	LT	G3	G3	S2	S2	Yes	19291	ARADB110: Animal	Sandhills; f 149	August 27,
Dryobates borealis	Red-cockat: E	LE	G3	G3	S2	S2	Yes	18726	ABNYF070: Animal	Open pine: 76	August 27,
Elanoides forficatus	Swallow-ta: R	null	G5	G5	S2	S2	Yes	20225	ABNKC040: Animal	River swan 56	August 27,
Elliptio arcuata	Delicate Sp: E	null	G2G3Q	G2	S2	S2	Yes	22336	IMBIV1404: Animal	Creeks and 69	August 27,
Elliptio fraterna	Brother Spi: null	null	G1G2	G1	S1	S1	Yes	18381	IMBIV1414: Animal	Large river: 5	August 27,
Euphyes berryi	Berry's Ski: null	null	G2	G2	S2S3	S2	Yes	19397	IILEP77070: Animal	freshwater 5	August 27,
Gopherus polyphemus	Gopher Toi: T	Null	G3	G3	S3	S3	Yes	20476	ARAAF010: Animal	Sandhills; c 331	August 27,
Heterodon simus	Southern H: T	null	G2	G2	S1S2	S1	Yes	20606	ARADB170: Animal	Sandhills; f 67	August 27,
Lachnocaulon beyrichianum	Southern B: null	null	G4	G4	S1?	S1	Yes	20938	PMERI020: Plant	Flatwoods: 6	August 27,
Lampsilis cariosa	Yellow Lam: null	null	G3G4	G3	S3	S3	Yes	17108	IMBIV2105: Animal	Large strea: 16	August 27,
Lasiurus intermedius	Northern Y: null	null	G5	G5	S3	S3	Yes	21705	AMACC05C: Animal	Wooded ar: 17	August 27,
Lindera melissifolia	Pondberry: E	LE	G3	G3	S2	S2	Yes	16447	PDLAU070: Plant	Pond marg: 24	August 27,
Lithobates capito	Gopher Frc: R	null	G2G3	G2	S2S3	S2	Yes	21226	AAABH012: Animal	Sandhills; c 68	August 27,
Litsea aestivalis	Pond Spice: R	null	G3?	G3	S2	S2	Yes	19918	PDLAU080: Plant	Cypress po: 79	August 27,
Moxostoma robustum	Robust Rec: E	null	G1	G1	S1	S1	Yes	15895	AFCJC1015: Animal	Medium to 32	August 27,
Necturus punctatus	Dwarf Wat: null	null	G5	G5	S2S3	S2	Yes	19116	AAAAE010: Animal	Sluggish str: 10	August 27,
Passerina ciris	Painted Bu: null	null	G5	G5	S2S3	S2	Yes	16074	ABPBX640: Animal	Thickets, w 39	August 27,
Pituophis melanoleucus mugitus	Florida Pini: null	null	G4T3	T3	S3	S3	Yes	19630	ARADB260: Animal	Sandhills; s 105	August 27,
Scutellaria mellichampii	Mellichamp: null	null	G3	G3	S2	S2	Yes	15605	PDLAM1U: Plant	Sandy deci: 27	August 27,
Stewartia malacodendron	Silky Came: R	null	G4	G4	S2	S2	Yes	19740	PDTHC060: Plant	Along strez: 43	August 27,
Trichechus manatus	West India: E	LT	G2G3	G2	S2	S2	Yes	18397	AMAKA01C: Animal	Estuaries; t 1	August 27,

Protected Species Report

Habitat Assessment for Threatened and Endangered Species Effingham Industrial Development Authority/Research Forest Tract Effingham County, Georgia

I. INTRODUCTION

A. Purpose

Environmental Services, Inc., (ESI) was contracted to perform a due diligence assessment for protected species and habitat essential to these species within the above-referenced property. The primary purpose of the assessment was to determine whether habitat suitable for any species currently listed or proposed for listing as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), or Georgia Department of Natural Resources (GADNR) was present on or near the property. Because protected species may not be present or observed during our field investigations, observations were made for the habitats that exist in an attempt to determine if listed species could utilize the site during other times of the year.

B. Project Location

There are three tracts that make up the approximately 2,577-acre Effingham County Industrial Development Authority Research Forest Tract. The three tracts are combined and referred to as the *property* in this report. The western tract is located adjacent to and east of Hodgeville Road. The central tract is located west of McCall Road and east of a Norfolk Southern Railway line. The eastern tract is located east of McCall Road and west of a CSX Railway line. The property is located south of the City of Rincon in Effingham County (Figure 1). Coordinates for the approximate center of the property are Latitude 32.2577 and Longitude -81.2586. The property is currently accessed from the west from Hodgeville Road and from the east by McCall Road.

II. SITE OVERVIEW

A. Existing Conditions and Habitats

ESI personnel conducted vehicular and pedestrian assessments of the project study area. Four general habitats were found on the property: Planted Pine Uplands, Mixed Pine/Hardwood Uplands, Hardwood Wetlands, and Maintained Gas Easement. These areas were identified and investigated by ESI to assist in determining the potential for habitation by any listed species. The following habitats, along with the associated flora, were observed on the property.

Planted Pine Uplands

A majority of the central and eastern portions of the property are characterized as Planted Pine Plantation uplands that range in age from early successional to mature merchantable timber. According to the timber map provided to ESI from the client, a majority of the pine stands were planted between 1978 and 2001. A majority of the property, inclusive of these uplands, contains somewhat poorly drained to poorly drained soils in pines of various ages and growth cycles. These upland vegetative communities are dominated by loblolly pine (*Pinus taeda*), slash pine (*Pinus elliottii*), longleaf pine (*Pinus palustris*), wax myrtle (*Myrica cerifera*), gallberry (*Ilex glabra*), privet (*Ligustrum vulgare*), dog fennel (*Eupatorium capillifolium*), broom-sedge (*Andropogon virinicus*), bracken fern (*Pteridium aquilinum*), with a minor component of saw palmetto (*Serenoa repens*).

Mixed Pine/Harwood Uplands

Portions of the southwestern, southern, and eastern areas of the property contain Mixed Pine/Hardwood Uplands. These areas are located on somewhat poorly drained to poorly drained soils. Some of these have been timbered or cleared recently. These communities consist of loblolly pine, slash pine, longleaf pine, white oak (*Quercus alba*), sweetgum (*Liquidambar styraciflua*), wax myrtle, gallberry, and bracken fern.

Hardwood Wetlands

As illustrated on Figure 7 by orange lines and hatching, approximately 366-acres (14%) of the ±2,577-acre subject parcel consist of freshwater, jurisdictional wetlands. These wetland systems are forested, located on hydric soils, and appear to be seasonally flooded. These wetland plant communities were dominated by various grasses, ferns, tree saplings, and low shrubs. These wetland vegetative communities consist of pond cypress (*Taxodium ascendens*), black gum (*Nyssa sylvatica*), sweet bay (*Magnolia virginiana*), red maple (*Acer rubrum*), sweetgum, rusty lyonia (*Lyonia ferruginea*), fetterbush (*Leucothoe racemosa*), giant cane (*Arundinaria gigantea*), and cinnamon fern (*Osmunda cinnamomea*).

Maintained Gas Easement

A portion of the western section of the property contains a gas line easement that runs north to south. This easement is regularly mowed and maintained, as evident by the grassed and early successional areas throughout the easement. The gas easement contains both upland and wetland areas that are maintained on a regular basis. This easement is characterized by maintained and mowed grasses and shrubs, and contains no distinct vegetative communities.

III. ASSESSMENT METHODOLOGY

The methodologies used to determine the presence or likelihood for occurrence of listed species within the project site includes a review of existing literature, coordination with wildlife regulatory agencies, and field assessment of habitat types. As of the date of this report, all of the agency responses have been received.

A. Field Studies

ESI staff conducted a several habitat assessments of the property from August thru October 2011. These site studies consisted of vehicular and pedestrian surveys at representative locations across the property to identify available habitat types. Major community types were identified, and observations concerning dominant vegetation, condition, and habitat quality were noted during the investigation. All representative wetland and upland areas within the project study area were investigated.

B. Literature Review and Agency Coordination

In addition to our field investigation and subsequent review of available printed material for current listed species, ESI also provided notice of our investigation to USFWS, NMFS, and GADNR. Through these notifications, we requested that the agencies provide us with any information regarding the known presence of any listed endangered / threatened species on or within the vicinity of the project area. Appendix A contains copies of the wildlife regulatory agency coordination letters and the subsequent responses. At the time of submittal ESI has received responses from all three agencies. The response from USFWS indicates that none of

their federally listed species or critical habitats are known to occur within the property limits. The USFWS response also indicates that there has been a known occurrence of a federally listed species (Flatwoods salamander) within the vicinity (1.6 miles) of the property and critical habitat for the flatwoods salamander is within 7 miles of the project area. The GADNR response indicates that there are no records of high priority species occurring within the project limits, however there is one known occurrence of a federally listed species within the vicinity (2.5 miles) of the project area. The NMFS simply provided the list of Endangered and Threatened Species and Critical Habitats under their designated purview. This list does not involve species that have habitat ranges known to exist within the property limits.

IV. LISTED SPECIES

For the purposes of this report, it should be noted that protection of listed species is provided by the Endangered Species Act for both private and public lands, regardless of permitting needs. For species listed by the State of Georgia as rare, unusual, or threatened and endangered under the Endangered Wildlife Act, the state's jurisdiction is limited to the capture, killing, selling, and protection of suitable habitat of protected species on public land. The GADNR is charged with administering the rules and regulations of the Endangered Wildlife Act. Coordination will be necessary with the GADNR for any disturbance to those species listed by the State of Georgia. For plants listed by the state as rare, unusual, or in danger of extinction under the Wildflower Preservation Act, jurisdiction is also limited to those species found on public land. This legislation only protects State listed plants from collection, transport, and sale from public lands. Species of Management Concern (SMC) are being evaluated to determine population trends and threats. Although these SMC have no federal listing, they may currently be listed by the state or may be listed in the future.

Listed species that are federally and/or state classified as Threatened or Endangered with a documented range encompassing Effingham County are compiled in the following Table 1. Several of the species listed as potentially occurring in Effingham County are not anticipated to occur within the project site due to habitat requirements and distribution. Species known to occupy habitats similar to those found on or near the project site are listed below Table 2, along with a brief description and statement about their potential for occurrence:

Table 1. Listed Species for Effingham County, Georgia. (USFWS list Updated May 2004).

Common Name	Scientific Name	Federal Status	State Status	Habitat Requirements	Available Habitat
Bird					
Red-cockaded woodpecker	<i>Picoides borealis</i>	E	E	Nest in mature pines with low understory vegetation; forage in pines and pine hardwood stands > 30 years of age, preferably > 10" dbh	Yes
Wood stork	<i>Mycteria Americana</i>	E	E	Primarily feed in fresh and brackish wetlands and nest in cypress or other wooded swamps	No
Reptile					

Common Name	Scientific Name	Federal Status	State Status	Habitat Requirements	Available Habitat
Eastern indigo snake	<i>Drymarchon corais couperi</i>	T	T	During Winter, den in xeric sandridge habitat and forage in creek bottoms, upland forests, and ag fields. During warmer months frequent streams, swamps, and flatwoods	Yes
Gopher tortoise	<i>Gopherus polyphemus</i>	--	T	Well-drained sandy soils in forest and grassy areas; associated with pine overstory, open understory with grass and forb groundcover, and sunny areas for nesting	Yes
Amphibian					
Flatwoods Salamander	<i>Ambystoma cingulatum</i>	T	T	Adults are found in open mesic pine/wiregrass flatwoods dominated by longleaf or slash pine and maintained by frequent fire. During breeding period, move to isolated, small, shallow depressions that dry completely on cyclic basis.	No
Fish					
Shortnose sturgeon	<i>Acipenser brevirostrum</i>	E	E	Atlantic seaboard rivers	No
Plant					
Dwarf witch-alder	<i>Fothergilla gardenii</i>	--	T	Low, flat, swampy areas especially shrub-dominated margins of upland swamps, Carolina Bays, pitcherplant bogs, wet savannahs, and Atlantic white cedar swamps	Yes
Pondberry	<i>Lindera melissifolia</i>	E	E	Shallow depression ponds of sandhills, margins of cypress ponds, and in seasonally wet low areas among bottomland hardwoods	Yes
Pondspice	<i>Litsea aestivalis</i>	--	T	Margins of swamps, cypress ponds, and sandhill depression ponds and in hardwood swamps	Yes

NOTES:

E - Endangered. A taxon which is in danger of extinction throughout all or a significant portion of its range.

T - Threatened. A species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range

Table 2. Species with Common Habitats as is Present on the Property.

Species	Federal Status	State Status	Potential Habitat Present	Project Potential for Impacts	Biological Opinion
Bird					
Red-cockaded woodpecker <i>Picoides borealis</i>	E	E	Yes	None	No Effect
Wood Stork <i>Mycteria americana</i>	E	E	No	None	No Effect
Reptile					
Eastern indigo snake¹ <i>Drymarchon corais couperi</i>	T	T	Yes	Low ¹	May Affect, Not Likely to Adversely Affect
Gopher tortoise <i>Gopherus polyphemus</i>	No Federal Status	T	Yes	High	No Effect
Amphibian					
Flatwoods salamander <i>Ambystoma cingulatum</i>	T	T	No	None	No Effect
Fish					
Shortnose sturgeon² <i>Acipenser brevirostrum</i>	E	E	No	None	No Effect
Plant					
Dwarf witch-alder¹ <i>Fothergilla gardenii</i>	No Federal Status	T	Yes	Low	May Affect, Not Likely to Adversely Affect
Pondberry¹ <i>Lindera melissifolia</i>	E	E	Yes	Low	May Affect, Not Likely to Adversely Affect
Pondspice¹ <i>Litsea aestivalis</i>	No Federal Status	T	Yes	Low	May Affect, Not Likely to Adversely Affect

¹ Low was assigned to all those species that could not be completely eliminated as being potentially utilizing the property in some regard. In this case all of these species were assigned a Biological Opinion of May Affect – Not Likely to Adversely Affect.

² Species that are not applicable to this project site due to habitat requirements and distribution, and are therefore not individually discussed in the following text.

A. Animals

Red-cockaded woodpecker (*Picoides borealis*)

This State and Federally Endangered woodpecker inhabits old growth, open pine forests, and makes its cavities in live pine trees of sufficient age to produce heartwood, a sapless component in the bole of the tree. Additionally, the birds prefer to forage in pines older than 30 years of age, and occupy a foraging range of over 100-acres (Lennartz and Henry 1985, Henry 1989).

Habitat Present: YES

No red-cockaded woodpeckers or evidence of habitation was found within the project study area during the habitat assessment. There are a few isolated pine stand areas that do contain trees of adequate density, age and size required as suitable foraging or nesting habitat. However, due to the isolation of these stands, there did not appear to be trees of adequate size within the vicinity of these mature stands that would create a continuous habitat for this species. This project should not affect habitats commonly utilized by red-cockaded woodpecker populations.

Wood stork (*Mycteria americana*)

The State and Federally Endangered wood stork occupies swamps and wetlands, usually nesting in cypress or mangrove swamps and feeding in freshwater or brackish wetlands. Wood storks are large, long-legged wading birds that feed on small fish. The potential for sporadic roosting habitation exists throughout coastal Georgia.

Habitat Present: NO

No wood storks or evidence thereof was observed during the habitat evaluation that was conducted on the project study area. Suitable foraging habitat that has an adequate hydrologic regime does not exist within the project site. The wood stork could use the project study area for roosting or for foraging purposes; however, given the fact that this site does not offer any unique habitat for this species, the likelihood of the project negatively affecting this species is low.

Eastern indigo snake (*Drymarchon corais couperi*)

This species is Federally listed as Endangered, and the indigo snake seems to be strongly associated with high, dry, well-drained sandy soils, closely paralleling the sandhill habitat preferred by the gopher tortoise. During warmer months, indigos also frequent streams and swamps, and individuals are occasionally found in flatwoods. Gopher tortoise burrows and other subterranean cavities are commonly used as dens and for egg laying. The eastern indigo snake is a large, docile, non-poisonous snake growing to a maximum length of about 8 feet. The color in both young and adults is shiny bluish-black, including the belly, with some red or cream coloring about the chin and sides of the head.

Habitat Present: YES

No eastern indigo snakes or evidence thereof was observed within the project site. Potentially suitable habitat, consisting of well-drained sandy areas, swamps, and flatwood areas do exist within the project study area; however, no gopher tortoise burrows were identified during the field investigation. The borders of the three tracts that include railroad lines and roads, create a significant hindrance to the potential use of the project site by the eastern indigo snake. The USFWS recommends field surveys be undertaken during winter months when this species' home range is far less than non-winter months. While we were not able to conduct this survey during

the recommended survey period, no evidence of this species was observed within the project area. However, given the summer habitat description including swamps, which are present on the property, completely excluding this species is not possible. The eastern indigo snake could use the wetlands within the property; however, given the fact that there are no confirmed sightings of the eastern indigo within or in the vicinity of the subject project area, the likelihood of this site being used by the eastern indigo is low.

Gopher tortoise (*Gopherus polyphemus*)

Listed as a State Threatened species, the gopher tortoise typically occurs in well-drained, sandy soils in relatively open grassy areas with a sparse pine overstory. Gopher tortoises dig burrows, typically ranging in size from 20 to 30 feet long and from six to eight feet deep, with their shovel-like front legs. The burrows are found in dry places such as sandhills, flatwoods, prairies and coastal dunes or in human-made environments such as pastures, grassy roadsides and old fields. The gopher tortoise is a keystone species, meaning its extinction would result in measurable changes to the ecosystem in which it occurs. Specifically, other animals, such as gopher frogs, several species of snakes and several small mammals, depend on tortoise burrows. For the gopher tortoise to thrive, the animal generally needs three things: well-drained sandy soil (for digging burrows), plenty of low plant growth (for food) and open, sunny areas (for nesting and basking).

In 2009, the U.S. Fish and Wildlife Service (USFWS) announced a 90-day finding that the Gopher tortoise may warrant federal protection as a threatened or endangered species. The decision was based following an initial review of a petition seeking to protect the gopher tortoise. The petitions finding does not mean that USFWS has decided it is appropriate to give the gopher tortoise in the eastern portion of its range federal protection under the Endangered Species Act. Rather, this finding is the first step in a long process that triggers a more thorough review of all the biological information available. This process has been ongoing and a determination will likely be made in approximately 3 months of the drafting of this report. Based on the status review, USFWS will make one of three possible determinations in approximately 11 months:

- 1) Listing the gopher tortoise is not warranted, in which case no further action will be taken.
- 2) Listing the gopher tortoise as threatened or endangered is warranted. In this case, FWS will publish a proposal to list, solicit independent scientific peer review of the proposal, seek input from the public, and consider the input before a final decision about listing the species is made. In general, there is a one-year period between the time a species is proposed and the final decision.
- 3) Listing the gopher tortoise is warranted but precluded by other, higher priority activities. This means the species is added to the Federal list of candidate species, and the proposal to list is deferred while FWS works on listing proposals for other species that are at greater risk. A warranted but precluded finding requires subsequent annual reviews of the finding until such time as either a listing proposal is published, or a not warranted finding is made based on new information.

Based on conversations with USFWS representatives and internal ESI staff due diligence, the most likely determination will be number 3 due to current FWS budgetary constraints and

manpower allocations that were necessary in the past year for other higher priority projects. ESI will forward any information concerning the above-mentioned determination once it is announced.

Habitat Present: YES

No tortoise burrows were observed by ESI personnel within the project study area during the field work (Figure 7). Suitable habitat consisting of well-drained sandy areas, were only found to exist within the eastern portion of the project study area. Due to the fact that no burrows were found and only a small portion of the property containing suitable habitat, the likelihood of the project negatively affecting this species is low.

B. Plants

Dwarf witch-alder (*Fothergilla gardenii*)

The Dwarf witch-alder plant is a State Threatened Species in Effingham County. It is found in low swampy areas, shrub-dominated margins of upland swamps, Carolina bays, wet savannah areas, pitcher plant bogs, and Atlantic white-cedar swamps. The Dwarf witch-alder plant is a small multi-branched shrub that grows to 3.3 feet in height. This shrub produces white, bottle-brush inflorescence flower spikes that flower in spring and has alternate, ovate-bladed leaves. This shrub produces a two seeded capsule fruit that is fused along the flower spike.

Habitat Present: YES

No Dwarf witch-alder plants were observed within the project study area during the habitat assessment. Potentially suitable habitat, consisting of shrub-dominated margins of swamps and low swampy areas, do exist on the project site. Due to its lack of federal protection, no surveys are necessary for this species. The proposed project may affect undocumented populations of Dwarf witch-alder plants but is unlikely to adversely affect the existence of the species. Because this project is considered public land, this plant is protected from collection, transport, and sale from the project area.

Pondberry (*Lindera melissifolia*)

The Federal and State endangered Pondberry plant is a perennial, deciduous shrub that grows 1 1/2 to 6 1/2 feet tall. This shrub produces pale yellow flowers in February or March before its leaves emerge. Pondberry leaves are long, oval, untoothed and droop from the branches with a slightly hairy lower surface of the leaf. Pondberry produces bright red elliptical fruits during late summer; fruits mature during the fall. It is typically found in shallow depression ponds of sandhills, margins of cypress ponds, and in seasonally wet low areas among bottomland hardwoods.

Habitat Present: YES

No Pondberry or evidence thereof were observed during the habitat evaluation that was conducted within the project study area. Suitable habitat that has an adequate hydrologic regime does exist within the project site. This is primarily due to the generic habitat description used for Pondberry that in essence, does not allow for a no effect determination for this species throughout its range in coastal Georgia. The seasonally wet low areas among bottomland hardwoods that exist on the *property* did not contain any evidence of Pondberry. The Pondberry plant could possibly grow within wetlands located within the property; however, given the fact

that there are no confirmed sightings of Pondberry on the property, the likelihood of this site containing this species is low.

Pondspice (*Litsea aestivalis*)

The Pondspice plant is a State Threatened Species in Effingham County. It is found along the margins of swamps, cypress ponds, and within sandhill depression ponds, and in hardwood swamps. Pondspice is a tall shrub or can be considered a small tree, growing to 16.5 feet in height. This shrub has numerous branches with alternate, deciduous, and aromatic leaves. Pondspice produces flowers in late winter and early spring that are yellow and are borne in clusters. The fruit is a fleshy, bright red, single-seeded drupe that has its own slender stalk that are borne in clusters.

Habitat Present: YES

No Pondspice plants were observed within the project study area during the habitat assessment. Potentially suitable habitat, consisting of margins of hardwood swamps do exist on the project site. Due to its lack of federal protection, no surveys are necessary for this species. The proposed project may affect undocumented populations of Pondspice, but is unlikely to adversely affect the existence of the species. Because this project is considered public land, this plant is protected from collection, transport, and sale from the project area.

V. CRITICAL HABITAT

The project site was reviewed for the presence of areas designated as critical habitat for protected species by the USFWS. "Critical habitat" is a term in the Endangered Species Act referring to specific areas that contain physical or biological features essential to the conservation of a threatened or endangered species. The USFWS 31 August 2011 response letter does state that Critical Habitat has been designated for the frosted flatwoods salamander seven miles to the east of the property, across the Savannah River in South Carolina. However, no species with associated critical habitat designations are documented to have a range encompassing Effingham County. Therefore, areas designated as critical habitat for listed species will not be affected by the proposed project, and no designated critical habitat exists within the site.

VI. CONCLUSION

Based on visual surveys of the property, document search, and knowledge of the habitat ranges of threatened and endangered species in this area, it is the *opinion* of ESI that the potential for any of the listed species to occur on this property is low. No federally protected species, or evidence thereof was noted by ESI during the habitat evaluation field assessments.

A small amount of potentially suitable habitat for federally protected species is present for the red-cockaded woodpecker, the eastern indigo snake, and the pondberry plant. This determination is based largely upon the extremely broad descriptions of the habitats favored by these species, which preclude ESI from eliminating areas as potential habitat. Please be aware that although potentially suitable habitat for the species discussed is either low or very low, we cannot guarantee that listed species are not using this site currently or could not do so in the future.

Additional Species Information

Below is additional information on species.

Red-cockaded woodpecker – the study area may have contained suitable habitat for red-cockaded woodpecker prior to construction of the Line. The red-cockaded woodpecker inhabits old growth, open pine forests, and makes its cavities in live pine trees of sufficient age to produce heartwood, a sapless component in the bole of the tree. Additionally, the birds prefer to forage in pines older than 30 years of age and occupy a foraging range of over 100 acres. According to the US Army Corps of Engineers (USACE),¹ prior to construction of the Line, aerial photographs indicated that the study area may have been part of a pine forest greater than 100 acres in size and potentially consisted of mature pine trees. However, studies conducted by Effingham County determined that the mature pine forest did not have an open understory prior to construction of the Line and contained few or no midstory or canopy hardwood trees.² Post construction, there is no suitable habitat for the red-cockaded woodpecker present in the study area.

Frosted flatwood salamander – these salamanders are ephemeral pond breeding amphibians that have aquatic larval stages and terrestrial juvenile and adult stages. Frosted flatwood salamanders inhabit long-leaf pine-wire grass dominated flatwoods. While long-leaf pine and slash pine flatwoods may have been present prior to construction of the Line, the area was a research forest prior to its establishment, and these pine species were managed for timber production. Therefore, the area would not have supported frosted flatwoods salamanders prior to construction of the Line. Post construction, there is no suitable habitat for the frosted flatwood salamander present in the study area.

Eastern indigo snake – the study area may have contained potentially suitable habitat for the eastern indigo snake prior to construction of the Line, but no suitable habitat is currently present. Prior to construction of the Line, the eastern indigo snake may have used the wetlands within the property, especially during summer months, when the snakes are commonly found in wet, swampy areas. However, the eastern indigo snake in Georgia is closely associated with the gopher tortoise (*Gopherus polyphemus*), a reptile that excavates extensive underground burrows, which provide the snake shelter from winter cold and protection from dehydration in the summer heat. The gopher tortoise is associated with open pine and other upland ecosystems where adequate sunlight reaches the forest floor, with sufficient warmth for basking and incubation of eggs, and regular disturbance, such as prescribe fire, stimulates growth of herbaceous plants. No gopher tortoise burrows were identified during the field investigations conducted by Effingham

¹ USACE Savannah District Regulatory Division, Permit File Number SAS-2003-20390 Memorandum for Record: Department of the Army Memorandum Documenting General Permit Verification, July 15, 2020.

² Habitat Assessment for Threatened and Endangered Species, Effingham Industrial Development Authority/Research Forest Tract, Effingham County, Georgia.

County prior to construction of the Line.³ Given the fact that there were no confirmed sightings of the gopher tortoise or Eastern indigo snake within or in the vicinity of the study area during previous studies, the Board's Office of Environmental Analysis (OEA) determined that the Eastern indigo was not likely to have been present prior to construction of the Line.

Pondberry – the study area did not contain suitable habitat for pondberry before construction of the Line, nor does it currently. The species prefers pond margins and wet savannas, neither of which occur in the study area.

Tricolored bat – these bats commonly roost in the mid- to upper canopy of trees, within clusters of dead leaves, and in Spanish moss of understory trees. They often roost in trees near areas of mixed agricultural use during the summer, although they will also roost in heavily forested areas without agricultural use. In the winter, they are often found in places where the temperature stays constant, such as caves, rock crevices, mines, bridges, and culverts. Tricolored bats are known to forage near trees, as well as forest perimeters and along waterways. Tricolored bats may use trees found in the forested areas along the edges of and adjacent to the study area for roosting. Tricolored bats may also use the open areas and stormwater ponds in the study area for feeding and foraging. Thus, the study area may have contained suitable habitat for the tricolored bat both prior to construction of the Line and currently.

Monarch butterfly – US Fish and Wildlife Service (USFWS) proposed the monarch butterfly to be listed as threatened under the Endangered Species Act (ESA) on December 10, 2024. The study area contains potentially suitable habitat for monarch butterflies. The monarch butterfly is known to use fields, roadside areas, open areas, wet areas or urban gardens where milkweed and flowering plants can be found. Adult monarchs feed on the nectar of many flowers during breeding and migration, but they lay eggs on milkweed plants because it is the only food the caterpillars can eat. Potentially suitable habitat is present in the maintained right-of-way adjacent to the Class I rail lines and McCall Road, as well as in the open and maintained areas adjacent to the Line. However, OEA does not know the flora composition of these areas. There may be flowering plants in the areas, and the presence of milkweed cannot be confirmed or ruled out.

Table 1 provides additional information on migratory bird species.

³ Habitat Assessment for Threatened and Endangered Species, Effingham Industrial Development Authority/Research Forest Tract, Effingham County, Georgia.

Table 1. Migratory Bird Species Documented in USFWS IPaC

Scientific Name	Common Name	Habitat requirements
<i>Sitta pusilla</i>	Brown-headed nuthatch	Brown-headed Nuthatches occur in Southeastern pine forests in areas with loblolly, shortleaf, longleaf, and slash pine trees. They are most common in open and mature pine forests and are less common in mixed pine-hardwood stands.
<i>Chaetura pelagica</i>	Chimney swift	Chimney Swifts forage mostly over open terrain but also over forests, ponds, and residential areas. During migration they forage in flocks over forests and open areas and roost in chimneys at night. Chimney Swifts breed in urban and suburban habitats across the eastern half of the United States and southern Canada.
<i>Antrostomus carolinensis</i>	Chuck-will's-widow	Chuck-will's-widows breed in pine, oak-hickory, and other forests of the Southeast and Mid-Atlantic states. They tend to live in more open areas.
<i>Antrostomus vociferus</i>	Eastern whip-poor-will	Eastern Whip-poor-wills breed in dry deciduous or evergreen-deciduous forest with little or no underbrush, close to open areas. The forest types they use include pine-oak with juniper, pine plantations, pine flatwoods, northern hardwood forests, low-elevation white pine, oak, aspen, birch, and scrubby woodlands with pitch pine, scrub oak, and hickory. They seem to avoid large tracts of uninterrupted forest with dense canopy.
<i>Passerina ciris</i>	Painted bunting	Painted Buntings breed in semi-open habitats with scattered shrubs or trees. Birds from the south-central U.S. breeding population use abandoned farms, strips of woodland between overgrown fields, brushy roadsides or streamsides, and patches of grasses, weeds, and wildflowers. Individuals of the coastal Southeast population breed in scrub communities, wooded back dunes, palmetto thickets, edges of maritime hammocks, hedges, yards, fallow fields, and old citrus groves.
<i>Setophaga discolor</i>	Prairie warbler	The Prairie Warbler breeds in shrubby habitats with open canopies, ranging from pine forests, scrub oak barrens, regenerating forests, and borders of forest and prairie.

<i>Protonotaria citrea</i>	Prothonotary warbler	Prothonotary Warblers breed in flooded bottomland forests, wooded swamps, and forests near lakes and streams. They tend to avoid forest patches smaller than about 250 acres or forest borders less than 100 feet wide.
<i>Melanerpes erythrocephalus</i>	Red-headed woodpecker	Red-headed Woodpeckers breed in pine and pine/oak forests, deciduous woodlands with oak or beech, groves of dead or dying trees, river bottoms, burned areas, recent clearings, beaver swamps, orchards, parks, farmland, grasslands with scattered trees, forest edges, and roadsides.

Appendix F - References

Appendix F

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