ENGINEERING SERVICES, INC.

27 Chatham Center South Dr.
Suite A
Savannah, GA 31405
Phone: (912) 232-6533

Environmental ● Marine ● Civil ● Survey

To: Effingham County
Re: 23-ITB-060: Hodgeville Sanitary Sewer Force Main - Construction
Date: April 8, 2025

Attached are the following documents regarding the wetlands for the referenced project.

- Qualitative Worksheet Summary for Wetland Adverse Impacts
- Wetland Credits Invoice
- Copy of US Army Corps of Engineers Wetland Permit Letter

The invoice for the wetland credits shows the purchase of 6.56 wetland credits for the project. The breakdown of the wetland credits for each impacted wetland area can be seen on the Qualitative Worksheet Summary for Wetland Adverse Impacts exhibit. The additive and deductive bid items that are being applied to the project will now have the force main that will be laid through Wetlands “C” and “D” installed by horizontal directional drill instead of by open cut. The installation by horizontal directional drill will not impact these two wetland areas which will not require the purchase of wetland credits which are included in the 6.56 credits on the attached invoice. Wetland “C” would have required the purchase of 1.20 credits and Wetland “D” would have required the purchase of 4.08 credits for a total of 5.28 credits. When these credits are subtracted from the 6.56 credit total, the new wetland credit purchase will be 1.28 credits. The new wetland credit cost will now be 1.28 x $83,500 = $106,880.

Please contact me with any questions.

Sincerely,
EMC Engineering Services, Inc.

Ben Lockhart P.E., CFM
Sr. Project Manager / Associate

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 C Impact	Slope Wetlands	0.34	Permanent/Reoccurring	0.15	1.20
2	Wetland D Impact	Slope Wetlands	1.13	Permanent/Reoccurring	0.51	4.08
3	Wetland E Impact	Slope Wetlands	0.06	Permanent/Reoccurring	0.03	0.24
4	Wetland F Impact	Slope Wetlands	0.25	Permanent/Reoccurring	0.11	0.88
5	Wetland G Impact	Slope Wetlands	0.05	Permanent/Reoccurring	0.02	0.16
6			0.00	Permanent/Reoccurring	0.00	0.00
7			0.00	Permanent/Reoccurring	0.00	0.00
8			0.00	Permanent/Reoccurring	0.00	0.00
9			0.00	Permanent/Reoccurring	0.00	0.00
10			0.00	Permanent/Reoccurring	0.00	0.00

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	1.83	0.82	6.56
Depressional/Flat Wetlands	0.00	0.00	0.00
Open Water/Ditch/Canal	0.00	0.00	0.00

ML South Augusta, LLC

215 Seventh Street
Augusta, GA 30901
Phone: 706-722-6756 FAX: 706-722-0002

INVOICE

Date: 10/11/24 **Invoice No.** EC 10.11.24

Purch. Effingham Cty Board of Comm.
ATTN: Angela Stanley
804 South Laurel Street
Springfield, GA 31329

Qty	Description	Unit Price	TOTAL
6.56	Wetland Mitigation Credits - Phinizy II Wetland Bank SAS 2023-00406 - Hodgeville Sanitary Forcemain	$ 83,500.00	$ 547,760.00
		TOTAL	**$ 547,760.00**

Notes:

Please remit payment to: ML South Augusta, LLC
215 7th Street
Augusta, GA 30901

**If you have any questions, please call Elliot Grandin at 706-722-6756*

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3604

February 28, 2024

Regulatory Division
SAS-2023-00406

Ms. Angela Stanley
Effingham County Board of Commissioners
804 South Laurel Street
Springfield, Georgia 31329

Dear Ms. Stanley:

I refer to the Pre-Construction Notification, received on May 15, 2023, and supplemental information received on August 16, 2023, and November 6, 2023, submitted on your behalf by Resource and Land Consultants, requesting verification for use of Nationwide Permit (NWP) 58, for impacts to 1.83-acre of wetland for the Hodgeville Sanitary Forcemain associated with the Effingham Wastewater Treatment Plant. The approximately 17.9-acre (4.87-mile) project site begins along Hodgeville Road running north, then east to the proposed Effingham Parkway, crosses Blue Jay Road, and ends at the Effingham Wastewater Treatment Plant located in Rincon, Effingham County, Georgia (centered at approximately Latitude: 32.2590, Longitude: -81.2746). This project has been assigned number SAS-2023-00406, and it is important to reference this number in all communication concerning this matter.

The purpose of the project is to install an 18” force main utilizing open cut installation. As proposed, the project will result in 0.89-acre of temporary impacts associated with trench sidecast fill and 1.83-acres of permanent wetland habitat conversion for the creation the 15’-30’ utility easement. The details of the proposed project are depicted on the enclosed 19-page exhibit entitled: “Hodgeville Sanitary Forcemain,” as prepared by EMC Engineering Services, Inc., dated September 2023.

The three (3) enclosed exhibits entitled, “WETLAND EXHIBIT KEY PLANS,” as prepared by EMC Engineering Services, Inc., dated June 2021, identify the delineation limits of all aquatic resources within the project boundary. The 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. Please note, should this delineation require re-verification, it is subject to change based on site conditions at the time of re-evaluation.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this

request. This delineation and/or jurisdictional 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 U.S. Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

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 13, 2021, Federal Register, Vol. 86, No. 8, Pages 2744-2877 (86 FR) and/or the December 27, 2021, Federal Register, Vol. 86, No. 245, Pages 73522-73583 (86 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 6.56 legacy wetland mitigation credits from the Yam Grandy 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 the Yam Grandy Mitigation Bank, the permittee shall obtain written approval from the Corps prior to purchasing credits from an alternate mitigation source.

c. You shall notify the Corps, in writing, at least 10 days in advance of commencement of work authorized by this permit.

d. Prior to any land disturbing activity on the project site, the permittee shall clearly mark all waters of the United States that are authorized to be impacted (impact-waters). Acceptable forms of marking include high visibility orange construction fencing or flagging at eye level, at intervals of 25 feet or less along the entire jurisdictional boundary. Pin flags or other ground level marking is not acceptable. In addition, the permittee shall clearly mark waters of the United States that are not to be impacted (no-impact-waters), if they are located within 50 feet of any

construction activities. The boundaries of impact-waters and no-impact-waters shall be marked differently, to ensure that these areas are clearly identifiable to equipment operators. All no-impact-waters marking shall be maintained until the entire project has been completed.

e. You shall 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.

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, Eastern indigo snake (*Drymarchon 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 an 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 I of 86 FR for more information.

This verification is valid until the NWP is modified, reissued, or revoked. All existing NWPs are scheduled to expire on March 14, 2026. 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. This would include any lot fills associated with future residences. Any prior approvals would not be a determining factor in deciding 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.

An electronic copy of this letter is being provided to the following party: Brett Searing, Resource and Land Consultants, via email at: bsearing@rlandc.com.

Thank you in advance for completing our on-line Customer Survey Form located at https://regulatory.ops.usace.army.mil/customer-service-survey/. We value your comments and appreciate you taking the time to complete a survey each time you interact with our office.

If you have any questions, please contact me at (678) 429-9498 or Shelby.T.LeMaster@usace.army.mil.

Sincerely,

Shelby LeMaster

Shelby LeMaster
Regulatory Specialist, Management Branch

Enclosures

Regulatory Division

CERTIFICATION OF COMPLIANCE
WITH DEPARTMENT OF THE ARMY
NATIONWIDE PERMIT (58)

PERMIT FILE NUMBER: SAS-2023-00406

PERMITTEE/ADDRESS: Angela Stanley, Effingham County Board of Commissioners, 804 South Laurel Street, Springfield, Georgia 31329

LOCATION OF WORK: The project site begins along Hodgeville Road running north, then east to the proposed Effingham Parkway, crosses Blue Jay Road, and ends at the Effingham Waste Water Treatment Plant located in Rincon, Effingham County, Georgia (centered at approximately Latitude: 32.2590, Longitude: -81.2746).

PROJECT DESCRIPTION: To install an 18” force main utilizing open cut installation.

WATERS OF THE UNITED STATES IMPACTED: Vegetative conversion impacts to 1.83-acre of wetland.

DATE WORK IN WATERS OF UNITED STATES COMPLETED: _____

COMPENSATORY MITIGATION REQUIRED: 6.56 Legacy Wetland Credits

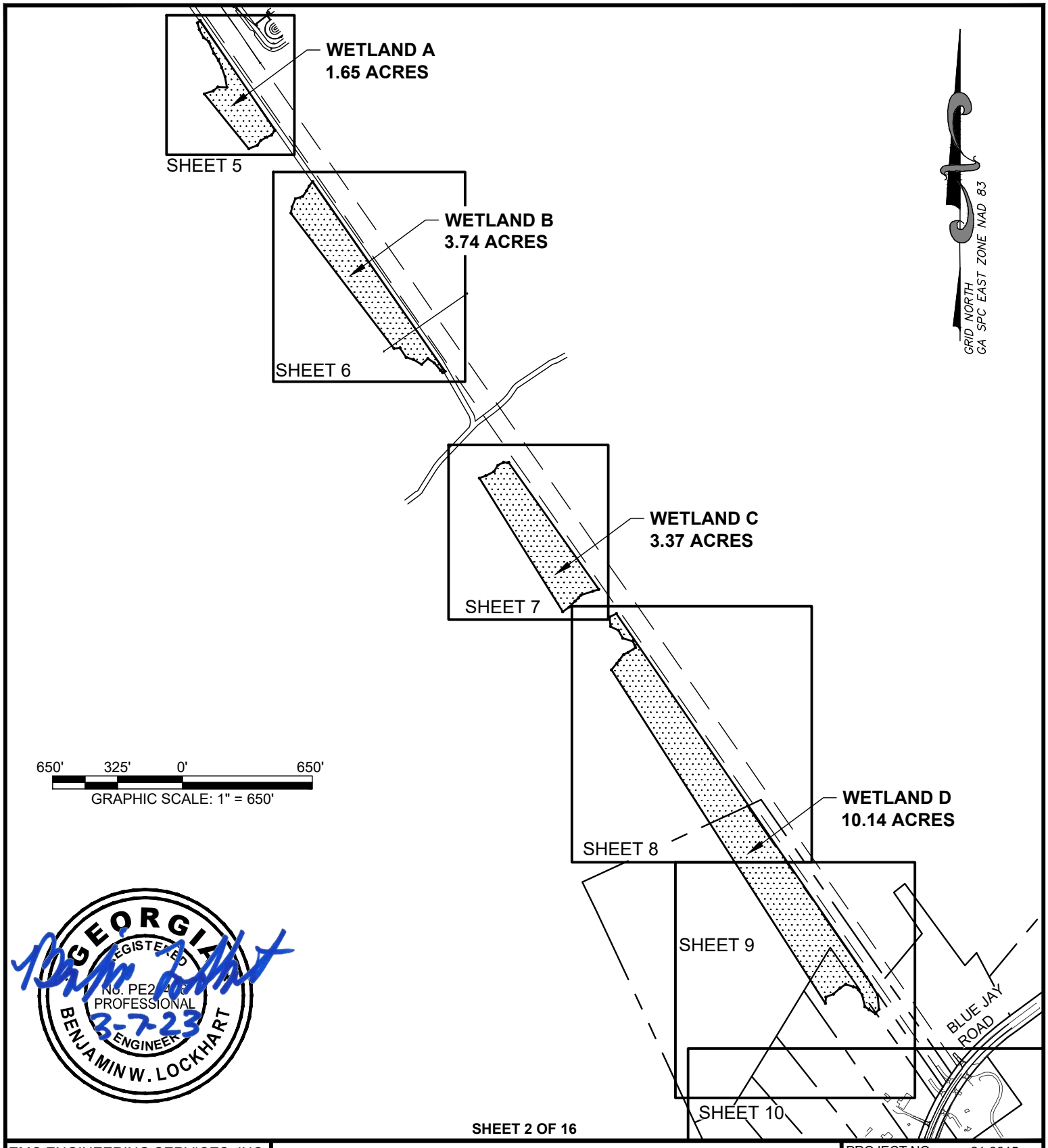
DATE MITIGATION COMPLETED OR PURCHASED (include name of source):

_____

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 13, 2021, Federal Register, Vol. 86, No. 8, Pages 2744-2877 (86 FR) and/or the December 27, 2021, Federal Register, Vol. 86, No. 245, Pages 73522-73583 (86 FR), 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



GEORGIA REGISTERED NO. PE2[illegible] PROFESSIONAL ENGINEER BENJAMIN W. LOCKHART
3-7-23

SHEET 2 OF 16

EMC ENGINEERING SERVICES, INC.
27 Chatham Center South, Suite A
Savannah, GA 31405
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THOMASTON • VALDOSTA

WETLAND EXHIBIT KEY PLANS

HODGEVILLE SANITARY FORCEMAIN

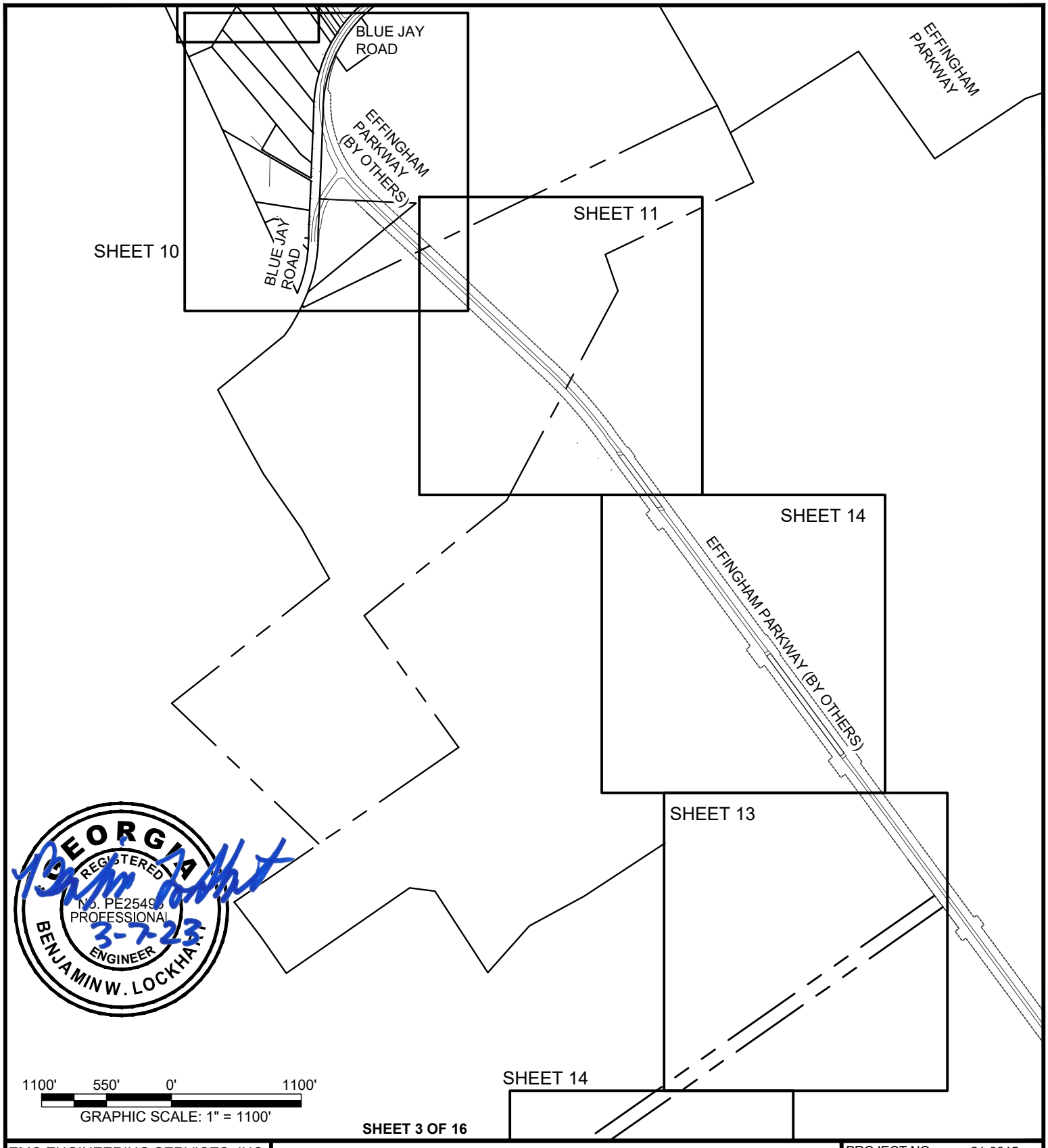
HODGEVILLE ROAD

EFFINGHAM COUNTY, GEORGIA

Prepared for:

EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	EMC
SURVEY DATE:	JULY 2021
CHECKED BY:	BWL
SCALE:	1" = 650'
DATE:	MARCH 2023



GEORGIA
REGISTERED
NO. PE25495
PROFESSIONAL
3-7-23
ENGINEER
BENJAMIN W. LOCKHART

1100' 550' 0' 1100'

GRAPHIC SCALE: 1" = 1100'

SHEET 3 OF 16

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WETLAND EXHIBIT KEY PLANS

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD

EFFINGHAM COUNTY, GEORGIA

Prepared for:

EFFINGHAM BOARD OF COMMISSIONERS

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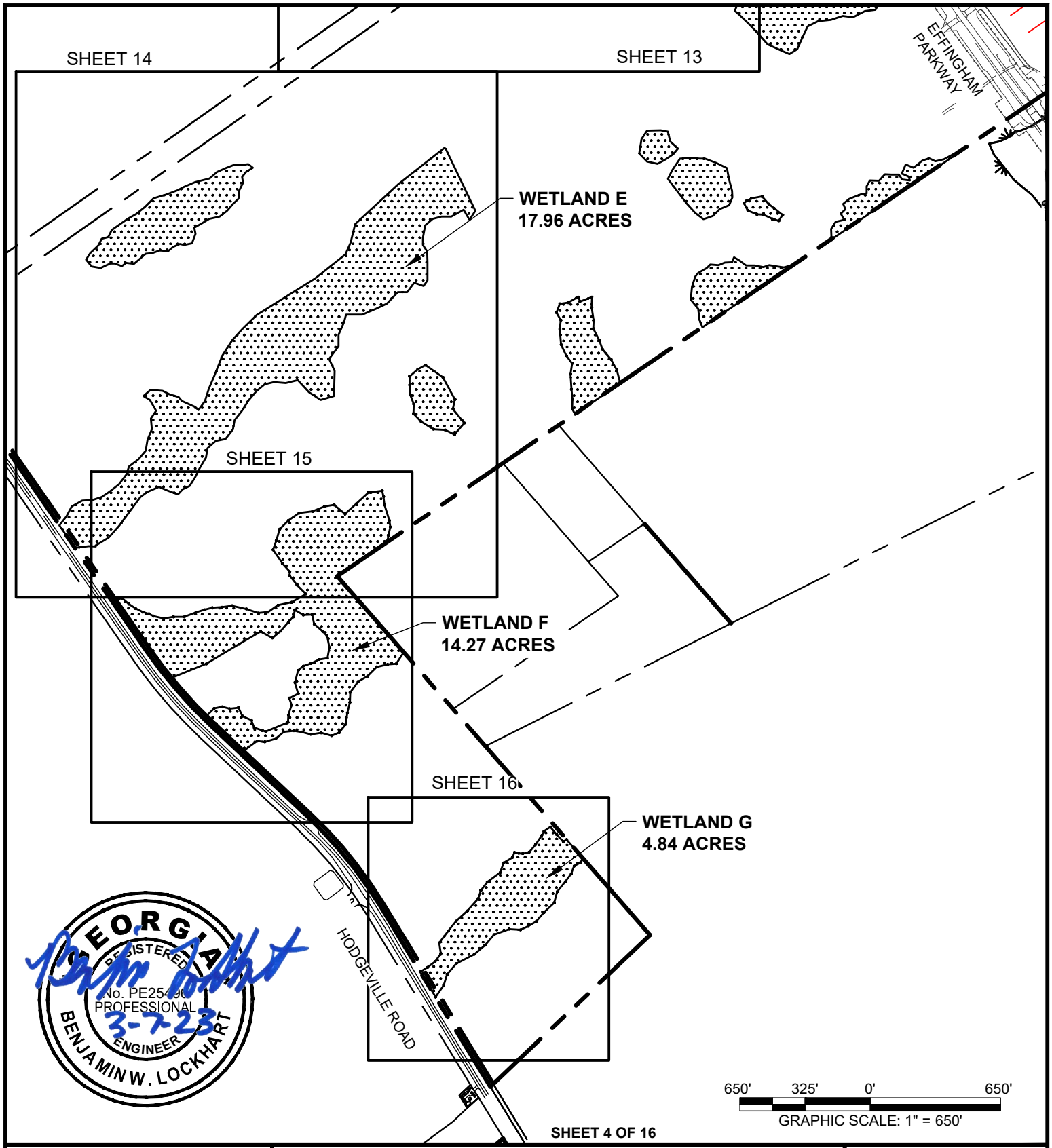

GEORGIA
REGISTERED
No. PE25[illegible]
PROFESSIONAL
ENGINEER
BENJAMIN W. LOCKHART
3-7-23

SHEET 4 OF 16

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WETLAND EXHIBIT KEY PLANS

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD

EFFINGHAM COUNTY, GEORGIA

Prepared for:

EFFINGHAM BOARD OF COMMISSIONERS

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HODGEVILLE LIFT STATION

SHEET 4

SHEET 5

SHEET 6

HODGEVILLE ROAD

EFFINGHAM COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY

SHEET 7

SHEET 8

SHEET 9

SHEET 10

ERNEST W. ZIPPERER

EFFINGHAM COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY

SUE NEASE EXLEY

EFFINGHAM COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY

THOMAS STRICKLAND JR. AND TERRI STRICKLAND

EFFINGHAM PARKWAY

SHEET 11

SHEET 12

SHEET 13

SHEET 14

SHEET 15

SHEET 16

SHEET 17

SHEET 18

SHEET 19

SHEET 20

SHEET 21

WASTEWATER TREATMENT PLANT

GENA B. KOKLOVEN

DUK D. KIM

BRIAN K. KIM AND AMANDA K. KIM

JULIUS H. BRABHAM

JEFFERY ALLEN AUTO

DAVID B. GOND AND THEDRA K. GOND

HAROLD B. WHEELER, JR.

HERMAN WOODS

EFFINGHAM COUNTY POWER, LLC.

EXIST 90' SOUTHERN NATURAL GAS R/W EASEMENT

JOSEPH D. BURNS, JERRY L. BURNS, AND JON G. BURNS

SUE NEASE EXLEY

JOSEPH D. BURNS, JERRY L. BURNS, AND JON G. BURNS

BLUE JAY ROAD

GRID NORTH GA SPC EAST ZONE NAD 83

NO.	REVISION DESCRIPTION	DATE
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GEORGIA REGISTERED NO. PE024486 PROFESSIONAL ENGINEER BENJAMIN W. LOCKHART

PRELIMINARY

700' 350' 0' 700'

GRAPHIC SCALE: 1" = 700'

EMC ENGINEERING SERVICES, INC.

10 Chatham Center South, Suite 100
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CIVIL
MARINE
ENVIRONMENTAL

ALBANY • ATLANTA • AUGUSTA • BRUNSWICK • COLUMBUS
SAVANNAH • STATESBORO • THOMASTON • VALDOSTA • WARNER ROBINS

KEY MAP

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 700'
DATE:	SEPTEMBER 2023

SHEET 3 OF 28

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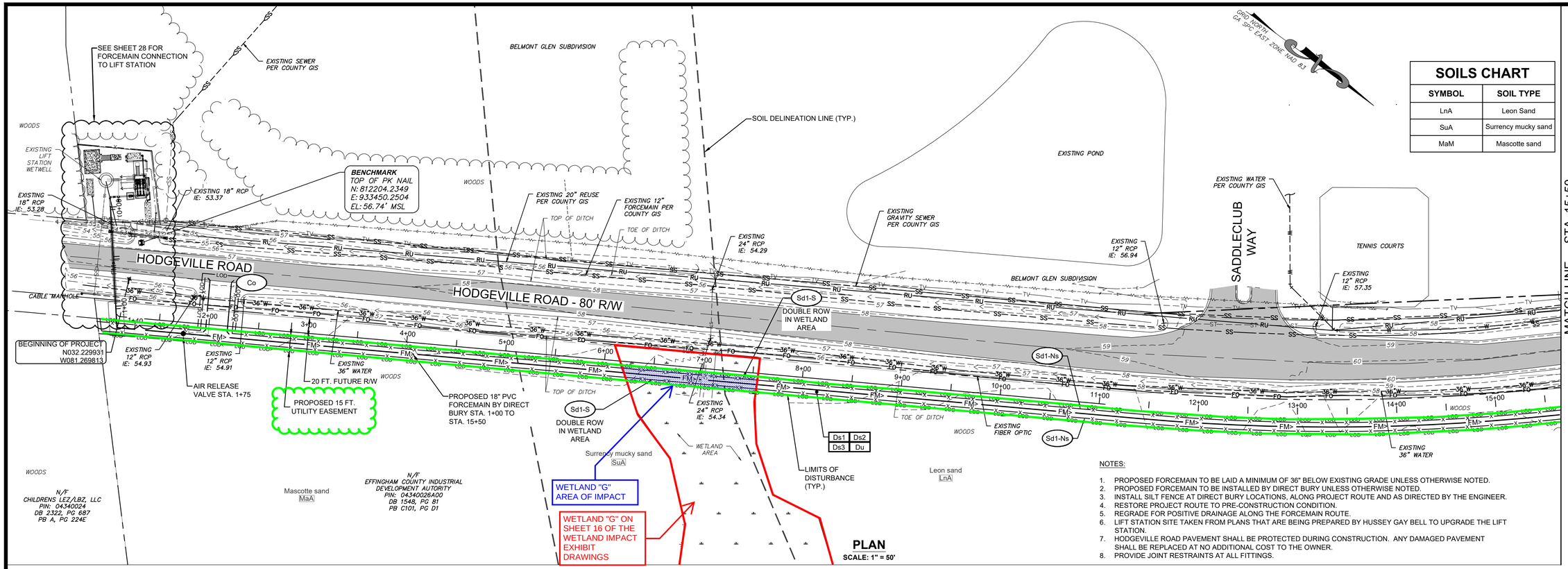


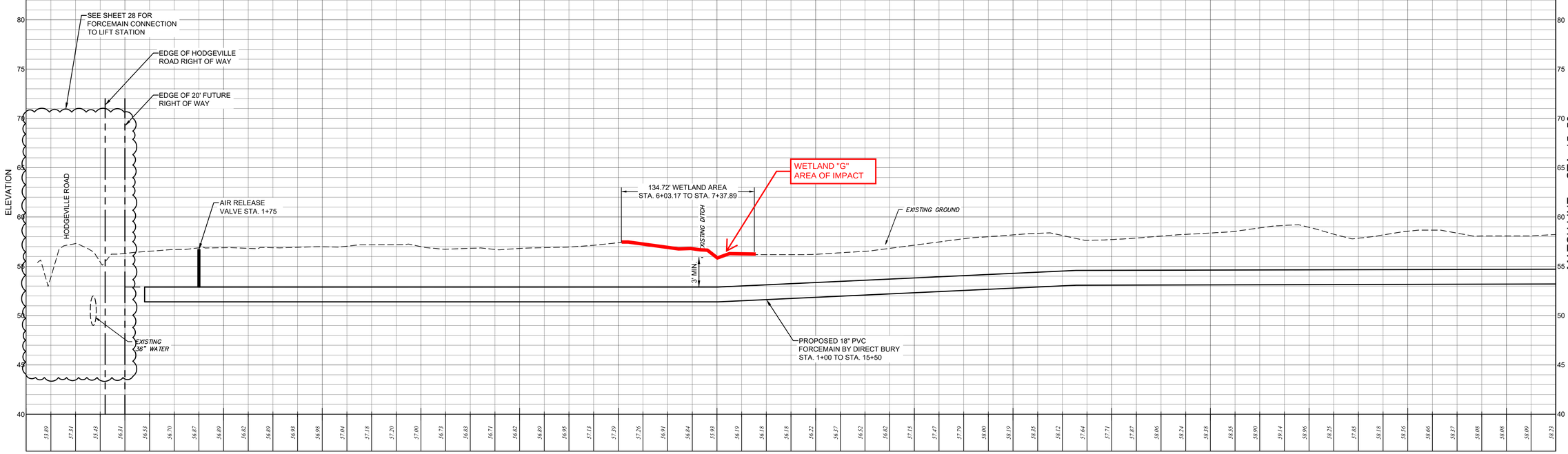
PLAN
SCALE: 1" = 50'

SOILS CHART

SYMBOL	SOIL TYPE
LnA	Leon Sand
SuA	Surrency mucky sand
MaM	Mascotte sand

NOTES:

1. PROPOSED FORCEMAIN TO BE LAID A MINIMUM OF 36" BELOW EXISTING GRADE UNLESS OTHERWISE NOTED.
2. PROPOSED FORCEMAIN TO BE INSTALLED BY DIRECT BURY UNLESS OTHERWISE NOTED.
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. RESTORE PROJECT ROUTE TO PRE-CONSTRUCTION CONDITION.
5. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
6. LIFT STATION SITE TAKEN FROM PLANS THAT ARE BEING PREPARED BY HUSSEY GAY BELL TO UPGRADE THE LIFT STATION.
7. HODGEVILLE ROAD PAVEMENT SHALL BE PROTECTED DURING CONSTRUCTION. ANY DAMAGED PAVEMENT SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
8. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL
CERTIFICATION NUMBER: 0000008917
ISSUED: 4/13/2021 EXPIRES: 4/13/2024

GEORGIA REGISTERED No. PE25496 PROFESSIONAL ENGINEER BENJAMIN W. LOCKHART

PRELIMINARY

50' 25' 0' 50'
GRAPHIC SCALE: 1" = 50'

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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
SCALE:	1" = 50'
CHECKED BY:	BWL
DATE:	SEPTEMBER 2023

SHEET 4 OF 28

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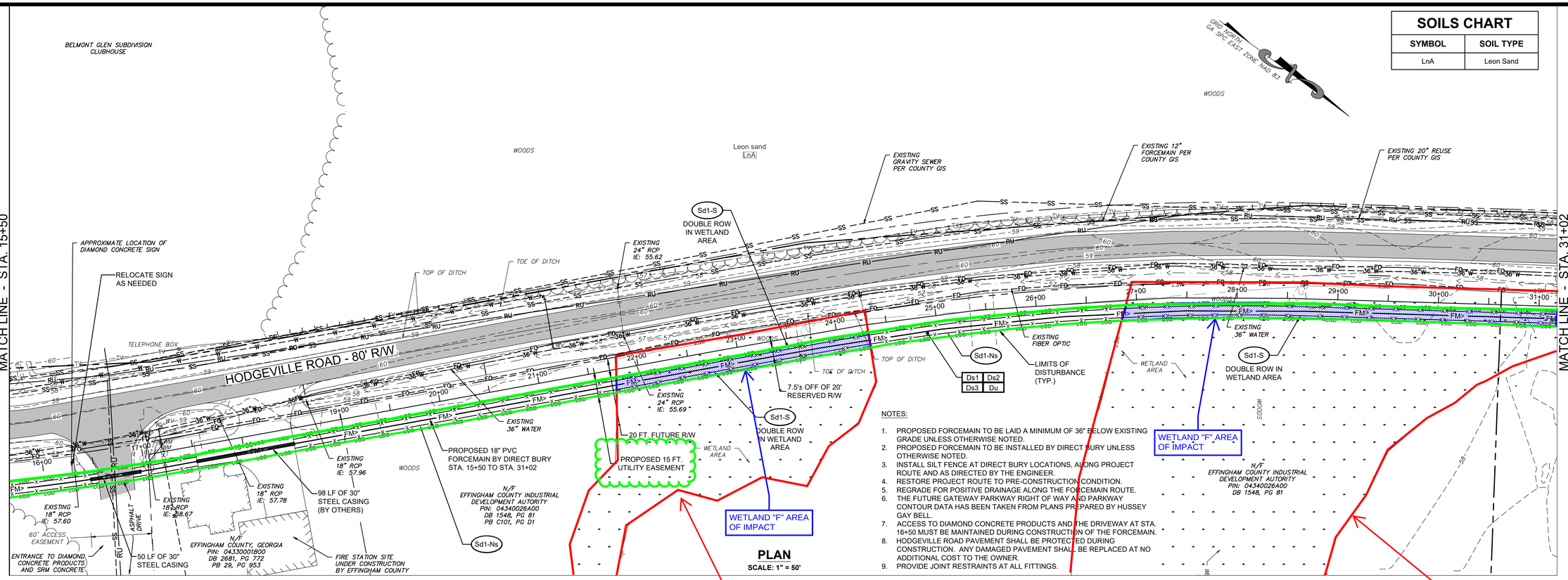
SOILS CHART	
SYMBOL	SOIL TYPE
LnA	Leon Sand



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SCALE: 1" = 50'

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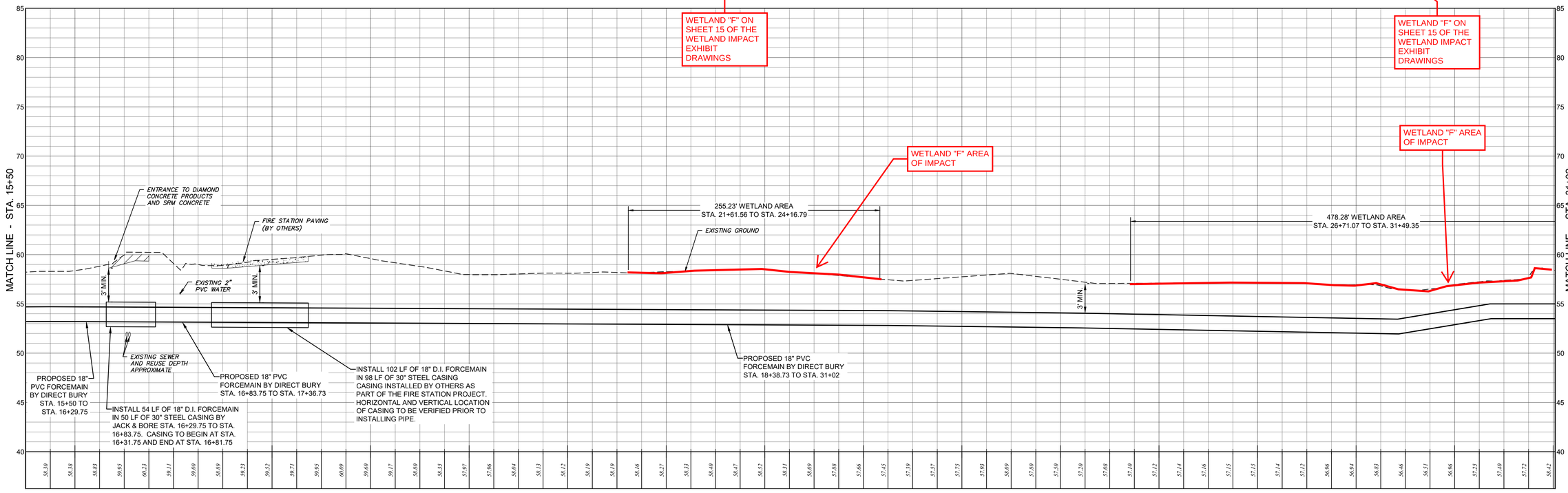
4. RESTORE PROJECT ROUTE TO PRE-CONSTRUCTION CONDITION.
5. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
6. THE FUTURE GATEWAY PARKWAY RIGHT OF WAY AND PARKWAY CONTOUR DATA HAS BEEN TAKEN FROM PLANS PREPARED BY HUSSEY GAY BELL.
7. ACCESS TO DIAMOND CONCRETE PRODUCTS AND THE DRIVEWAY AT STA. 16+50 MUST BE MAINTAINED DURING CONSTRUCTION OF THE FORCEMAIN.
8. HODGEVILLE ROAD PAVEMENT SHALL BE PROTECTED DURING CONSTRUCTION. ANY DAMAGED PAVEMENT SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
9. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.



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1" = 5' VERTICAL

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ISSUED: 4/13/2021 EXPIRES: 4/13/2024

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PRELIMINARY

50' 25' 0' 50'
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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
SCALE:	1" = 50'
CHECKED BY:	BWL
DATE:	SEPTEMBER 2023

SHEET 5 OF 28

O:\2021\21-0015 HODGEVILLE SANITARY FORCE MAIN\DWG\21-0015C_B03.DWG 10/23/2023 12:36 PM

SOILS CHART	
SYMBOL	SOIL TYPE
LnA	Leon Sand
PeA	Pelham loamy sand

GRID NORTH IS GA SPC EAST ZONE: NAD 83

Leon sand
LnA

Pelham loamy sand
PeA

SOIL DELINEATION LINE, TYP.

MATCH LINE - STA. 31+02

MATCH LINE - STA. 45+22

WETLAND "F" AREA OF IMPACT

HODGEVILLE ROAD - 80' R/W

Sd1-S
DOUBLE ROW IN WETLAND AREA

LIMITS OF DISTURBANCE (TYP.)

Sd1-Ns

Ds1 | Ds2
Ds3 | Du

LIMITS OF DISTURBANCE (TYP.)

WETLAND "F" ON SHEET 15 OF THE WETLAND IMPACT EXHIBIT DRAWINGS

WETLAND "E" AREA OF IMPACT

PROPOSED 15 FT. UTILITY EASEMENT

20 FT. FUTURE R/W

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 31+02 TO STA. 45+22

NOTES:

1. PROPOSED FORCEMAIN TO BE LAID A MINIMUM OF 36" BELOW EXISTING GRADE UNLESS OTHERWISE NOTED.
2. PROPOSED FORCEMAIN TO BE INSTALLED BY DIRECT BURY UNLESS OTHERWISE NOTED.
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. THE FUTURE GATEWAY PARKWAY RIGHT OF WAY AND PARKWAY CONTOUR DATA HAS BEEN TAKEN FROM PLANS PREPARED BY HUSSEY GAY BELL.
5. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

PLAN
SCALE: 1" = 50'

WETLAND "F" AREA OF IMPACT

WETLAND "E" ON SHEET 14 OF THE WETLAND IMPACT EXHIBIT DRAWINGS

160.22' WETLAND AREA
STA. 34+66.74 TO STA. 36+26.96

EXISTING GROUND

3' MIN.

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 31+02 TO STA. 45+22

WETLAND "E" AREA OF IMPACT

PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NUMBER: 0000008917
ISSUED: 4/13/2021 EXPIRES: 4/13/2024

GEORGIA REGISTERED PROFESSIONAL ENGINEER
No. PE25496
BENJAMIN W. LOCKHART

PRELIMINARY

50' 25' 0' 50'
GRAPHIC SCALE: 1" = 50'

EMC ENGINEERING SERVICES, INC.
10 Chatham Center South, Suite 100
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CIVIL
MARINE
ENVIRONMENTAL

ALBANY • ATLANTA • AUGUSTA • BRUNSWICK • COLUMBUS
SAVANNAH • STATESBORO • THOMASTON • VALDOSTA • WARNER ROBINS

PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

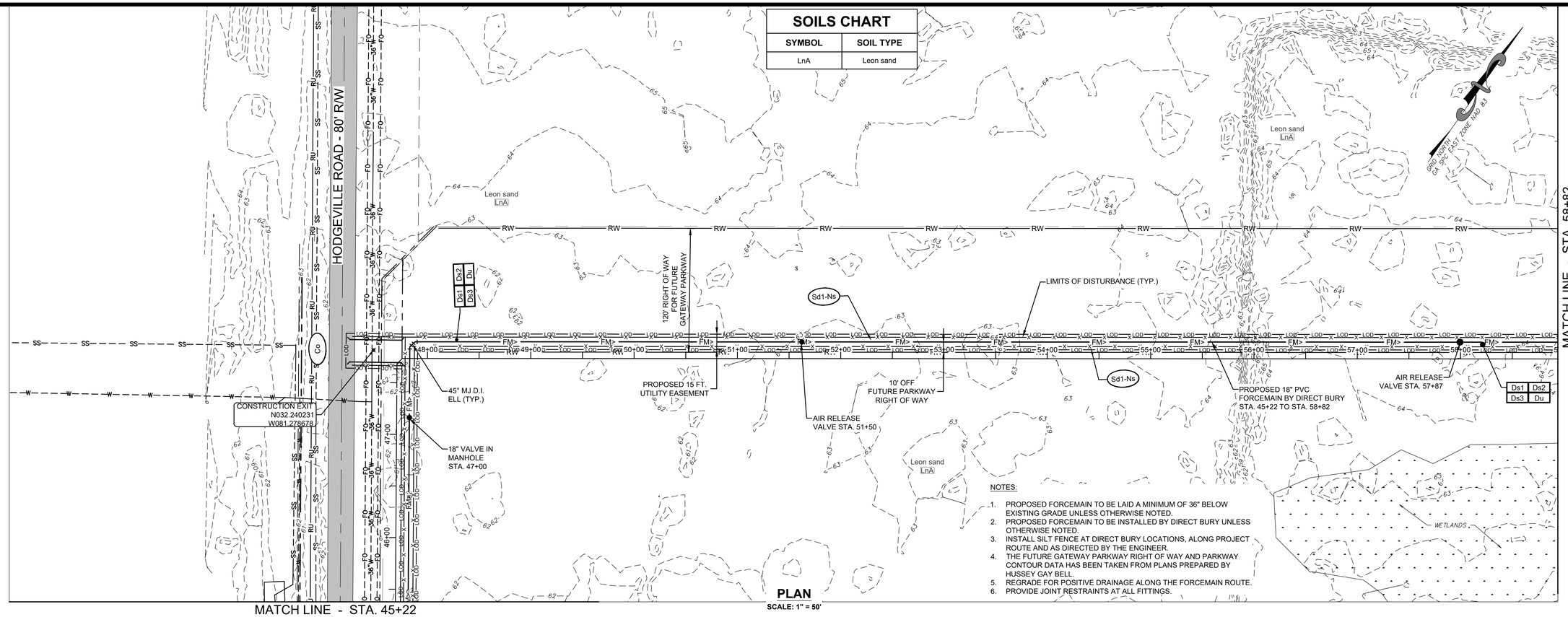
HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET
6
OF 28

O:\2021\21-0015 HODGEVILLE SANITARY FORCE MAIN\DWG\21-0015C_803.DWG 10/23/2023 12:36 PM

SOILS CHART	
SYMBOL	SOIL TYPE
LnA	Leon sand



PLAN
SCALE: 1" = 50'

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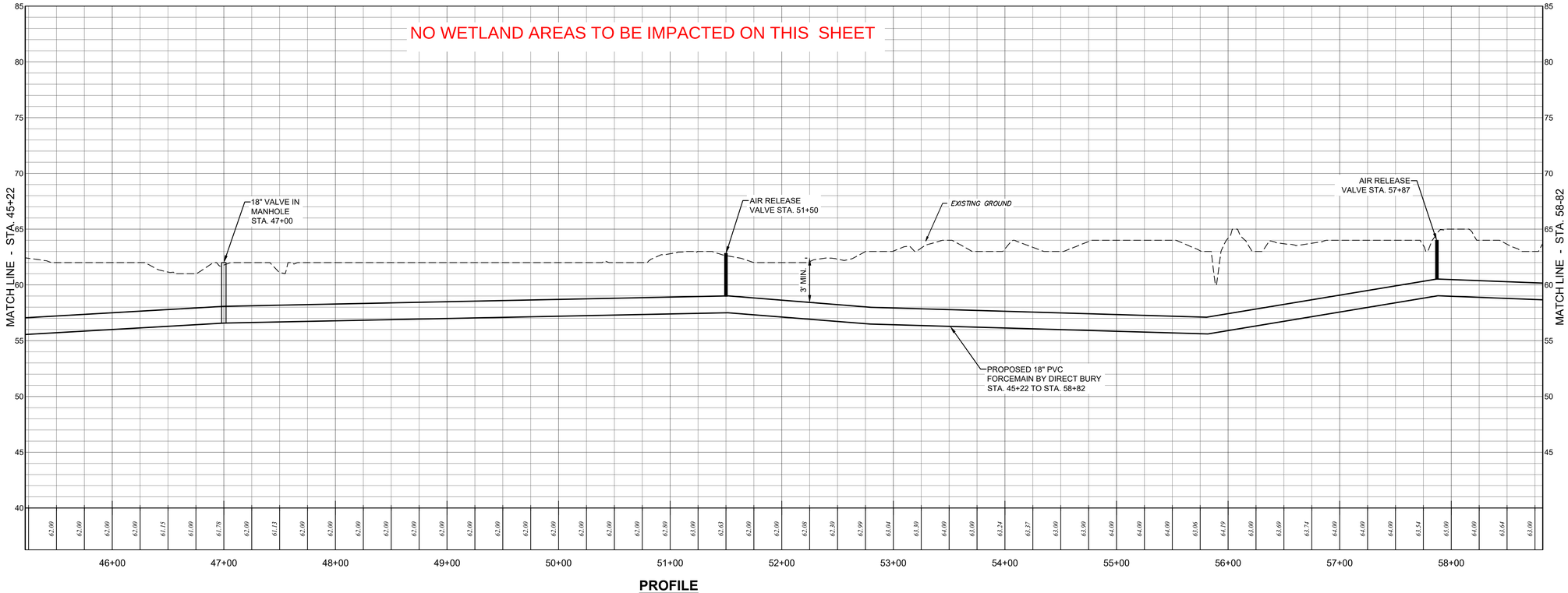
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. THE FUTURE GATEWAY PARKWAY RIGHT OF WAY AND PARKWAY CONTOUR DATA HAS BEEN TAKEN FROM PLANS PREPARED BY HUSSEY GAY BELL.
5. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
6. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

NO WETLAND AREAS TO BE IMPACTED ON THIS SHEET



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NUMBER: 0000008917
ISSUED: 4/13/2021 EXPIRES: 4/13/2024

GEORGIA REGISTERED No. PE25496 PROFESSIONAL ENGINEER BENJAMIN W. LOCKHART

PRELIMINARY

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GRAPHIC SCALE: 1" = 50'

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SAVANNAH • STATESBORO • THOMASTON • VALDOSTA • WARNER ROBINS

PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET 7 OF 28

O:\2021\21-0015 HODGEVILLE SANITARY FORCE MAIN\DWG\21-0015C_B03.DWG 10/23/2023 12:36 PM

SOILS CHART	
SYMBOL	SOIL TYPE
LnA	Leon sand
RgA	Rigdon sand
SuA	Surrency mucky sand

MATCH LINE - STA. 58+82

MATCH LINE - STA. 73+81

Surrency mucky sand SuA

SOIL DELINEATION LINE (TYP.)

Leon sand LnA

Rigdon sand RgA

GRID NORTH
GA SPC EAST ZONE NAD 83

120' RIGHT OF WAY FOR FUTURE GATEWAY PARKWAY

LIMITS OF DISTURBANCE (TYP.)

Sd1-Ns

Ds1 | Ds2
Ds3 | Du

PROPOSED 15 FT. UTILITY EASEMENT

10' OFF FUTURE PARKWAY RIGHT OF WAY

AIR RELEASE VALVE STA. 64+75

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 58+82 TO STA. 73+81

WETLANDS

SOIL DELINEATION LINE (TYP.)

NOTES:

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5. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
6. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

PLAN

SCALE: 1" = 50'

NO WETLAND AREAS TO BE IMPACTED ON THIS SHEET

AIR RELEASE VALVE STA. 64+75

EXISTING GROUND

3' MIN.

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 58+82 TO STA. 73+81

MATCH LINE - STA. 58+82

MATCH LINE - STA. 73+81

63.00 63.00 63.26 64.00 63.00 63.82 63.61 63.00 63.61 63.05 63.00 63.00 63.00 63.00 63.00 63.00 63.00 63.00 62.74 63.00 63.00 63.00 62.47 62.78 62.00 62.00 62.87 63.71 62.00 62.00 62.00 62.19 62.00 62.00 62.31 62.06 62.00 62.00 62.00 62.00 62.00 62.00 62.00 62.00 62.00 62.00 62.00 62.00 62.00 62.00 62.00 62.00 61.21 61.74 61.60 61.75 61.00 61.00 61.00 61.00 61.00 60.46

PROFILE

SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
Level II Certified Design Professional

Certification Number: 0000008917
Issued: 4/13/2021 Expires: 4/13/2024

GEORGIA REGISTERED No. PE25496 PROFESSIONAL ENGINEER BENJAMIN W. LOCKHART

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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET 8 OF 28

O:\2021\21-0015 HODGEVILLE SANITARY FORCE MAIN\DWG\21-0015C_B03.DWG 10/23/2023 12:37 PM

MATCH LINE - STA. 73+81

MATCH LINE - STA. 88+80

SOILS CHART	
SYMBOL	SOIL TYPE
LnA	Leon sand
RgA	Rigdon sand

GRID NORTH GA SPC EAST ZONE NAD 83

Rigdon sand RgA

Leon sand LnA

Sd1-Ns

PROPOSED 15 FT. UTILITY EASEMENT

10' OFF FUTURE PARKWAY RIGHT OF WAY

120' RIGHT OF WAY FOR FUTURE GATEWAY PARKWAY

AIR RELEASE VALVE STA. 88+00

SOIL DELINEATION LINE (TYP.)

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 73+81 TO STA. 88+80

LIMITS OF DISTURBANCE (TYP.)

WETLANDS

NOTES:

1. PROPOSED FORCEMAIN TO BE LAID A MINIMUM OF 36" BELOW EXISTING GRADE UNLESS OTHERWISE NOTED.
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5. EFFINGHAM COUNTY PARKWAY PLANS PROVIDED BY EFFINGHAM COUNTY, WHICH WILL BE CONSTRUCTED BY OTHERS.
6. FORCEMAIN CONSTRUCTION TO BE COORDINATED WITH THE CONSTRUCTION OF THE EFFINGHAM PARKWAY.
7. THE FUTURE GATEWAY PARKWAY RIGHT OF WAY AND PARKWAY CONTOUR DATA HAS BEEN TAKEN FROM PLANS PREPARED BY HUSSEY GAY BELL.
8. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

PLAN

SCALE: 1" = 50'

NO WETLAND AREAS TO BE IMPACTED ON THIS SHEET

BEGIN LAYING FORCEMAIN INSIDE FUTURE EFFINGHAM PARKWAY STA. 79+76.26

EXISTING GROUND

3' MIN.

3' MIN.

AIR RELEASE VALVE STA. 88+00

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 73+81 TO STA. 88+80

MATCH LINE - STA. 73+81

MATCH LINE - STA. 88+80

PROFILE

SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

DATE	REVISION DESCRIPTION	NO.
.	.	.

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NUMBER: 0000008917
ISSUED: 4/13/2021 EXPIRES: 4/13/2024

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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET 9 OF 28

O:\2021\21-0015 HODGEVILLE SANITARY FORCE MAIN\DWG\21-0015C_B03.DWG 10/23/2023 12:37 PM

MATCH LINE - STA. 88+80

MATCH LINE - STA. 100+93

SOILS CHART

SYMBOL	SOIL TYPE
LnA	Leon Sand
MaM	Mascotte sand
RgA	Rigdon sand

LIMITS OF DISTURBANCE (TYP.)

45° MJ D.I. ELL)
STA. 99+04.31
60.25 FT. LT.

10' OFF EFFINGHAM PARKWAY RIGHT OF WAY

Sd1-Ns

N/F
EFFINGHAM COUNTY INDUSTRIAL DEVELOPMENT AUTORITY
PIN: 04340026A00
DB 1548, PG 81

LIMITS OF PARKWAY FILL (TYP.) (BY OTHERS)

EFFINGHAM PKWY (BY OTHERS)

GRID NORTH
GA SPC EAST ZONE NAD 83

IE: 56.50

INSTALL 265 LF OF 16" STEEL CASING AND 8" DUCTILE IRON FORCEMAIN BY DIRECT BURY. SEE SHEET 26.

END OF CASING
STA. 97+09.19
32.85 FT. LT.
I.E. 56.50

18" VALVE IN MANHOLE
STA. 97+07.16
22 FT. LT.

120' RIGHT OF WAY FOR FUTURE GATEWAY PARKWAY

LIMITS OF DISTURBANCE (TYP.)

Ds1 | Ds2
Ds3 | Du

PROPOSED 15 FT. UTILITY EASEMENT

10' OFF FUTURE PARKWAY RIGHT OF WAY

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 88+80 TO STA. 100+93

45° MJ D.I. ELLS (TYP.)

SOIL DELINEATION LINE (TYP.)

Rigdon sand
RgA

Leon sand
LnA

Mascotte sand
MaA

PLAN
SCALE: 1" = 50'

NOTES:

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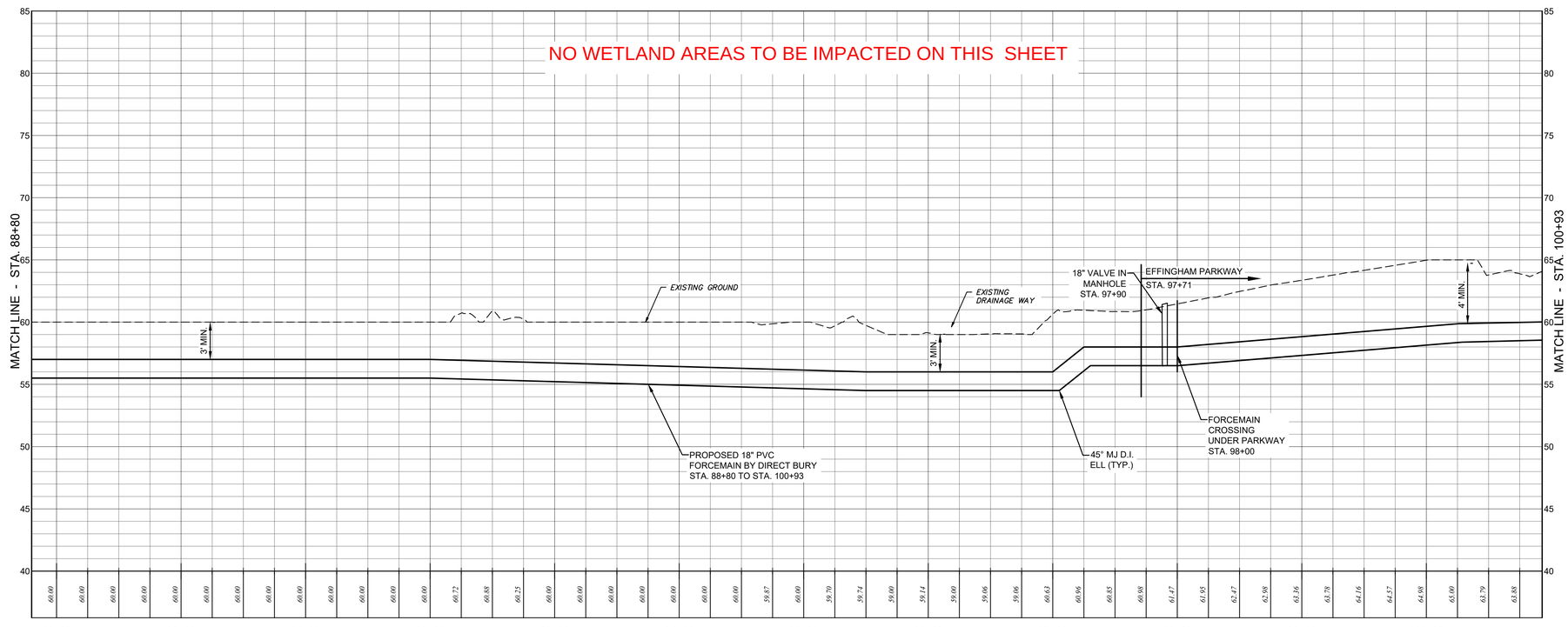
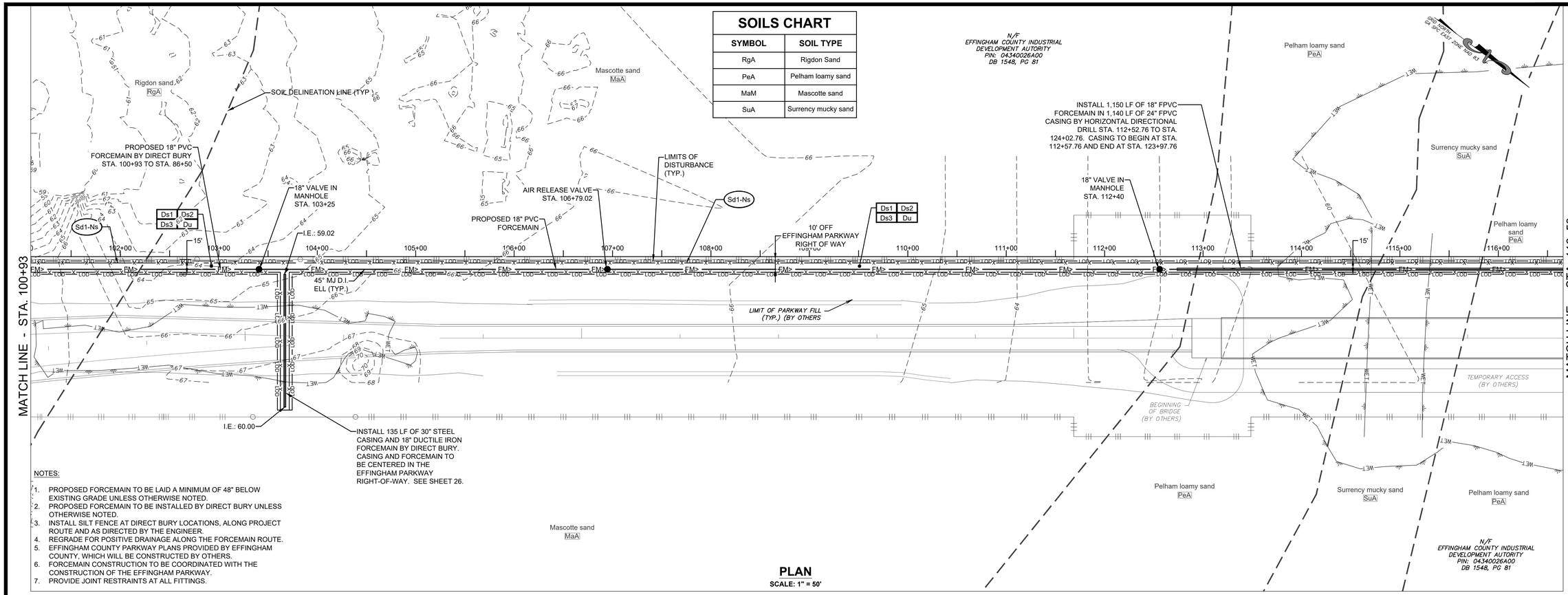
7. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

NO WETLAND AREAS TO BE IMPACTED ON THIS SHEET


MATCH LINE - STA. 88+80
MATCH LINE - STA. 100+93
EXISTING GROUND
EXISTING DRAINAGE WAY
3' MIN.
3' MIN.
4' MIN.
18" VALVE IN MANHOLE STA. 97+90
EFFINGHAM PARKWAY STA. 97+71
PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 88+80 TO STA. 100+93
45° MJ D.I. ELL (TYP.)
FORCEMAIN CROSSING UNDER PARKWAY STA. 98+00
85
80
75
70
65
60
55
50
45
40
89+00
90+00
91+00
92+00
93+00
94+00
95+00
96+00
97+00
98+00
99+00
100+00
60.00 60.00 60.00

SOILS CHART

SYMBOL	SOIL TYPE
RgA	Rigdon Sand
PeA	Pelham loamy sand
MaM	Mascotte sand
SuA	Surrency mucky sand



NOTES:

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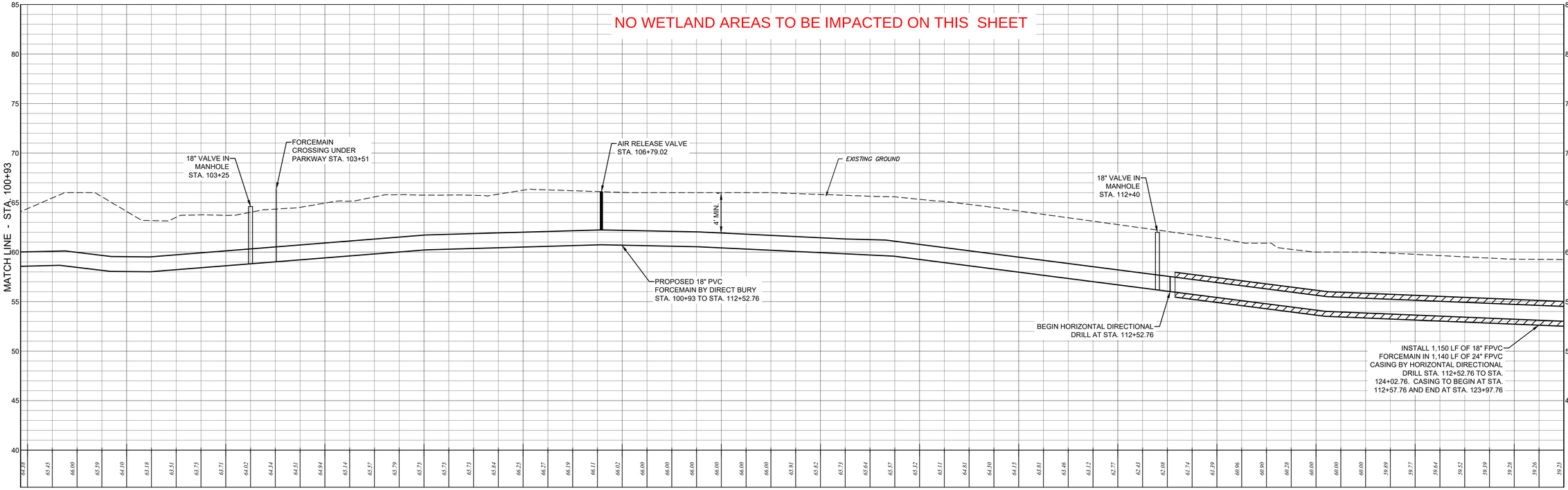
PLAN
SCALE: 1" = 50'

NO WETLAND AREAS TO BE IMPACTED ON THIS SHEET



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL
CERTIFICATION NUMBER: 0000008917
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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

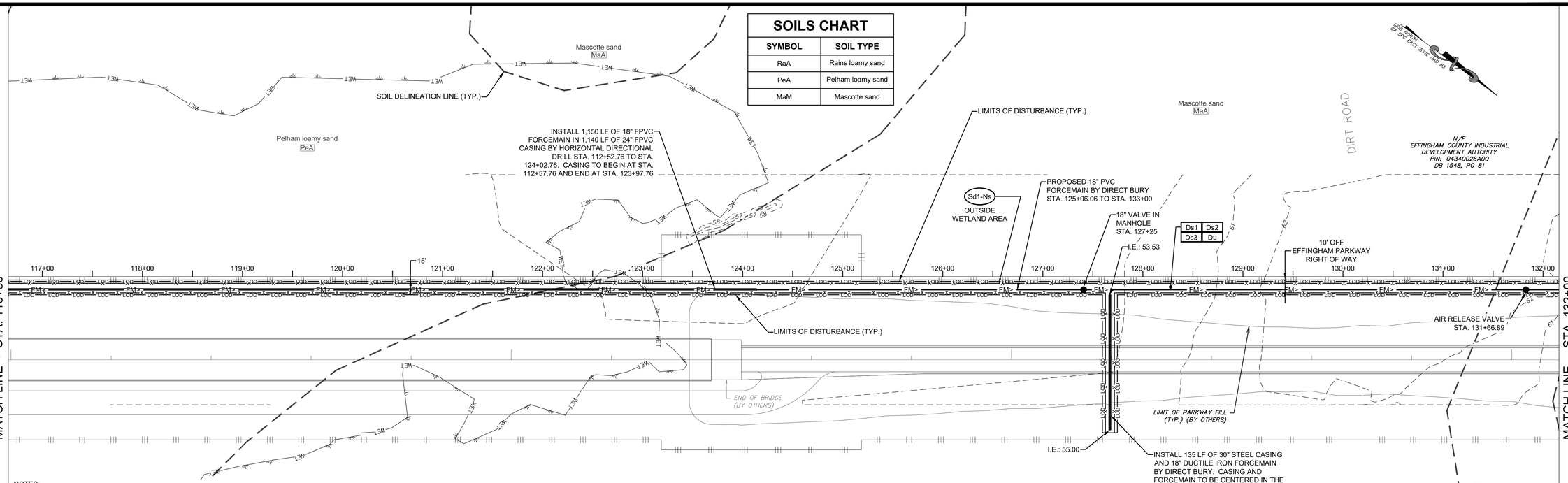
HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
SCALE:	1" = 50'
CHECKED BY:	BWL
DATE:	SEPTEMBER 2023

SHEET 11 OF 28

O:\2021\21-0015 HODGEVILLE SANITARY FORCE MAIN\DWG\21-0015_B03.DWG 10/23/2023 12:37 PM

SOILS CHART	
SYMBOL	SOIL TYPE
RaA	Rains loamy sand
PeA	Pelham loamy sand
MaM	Mascotte sand



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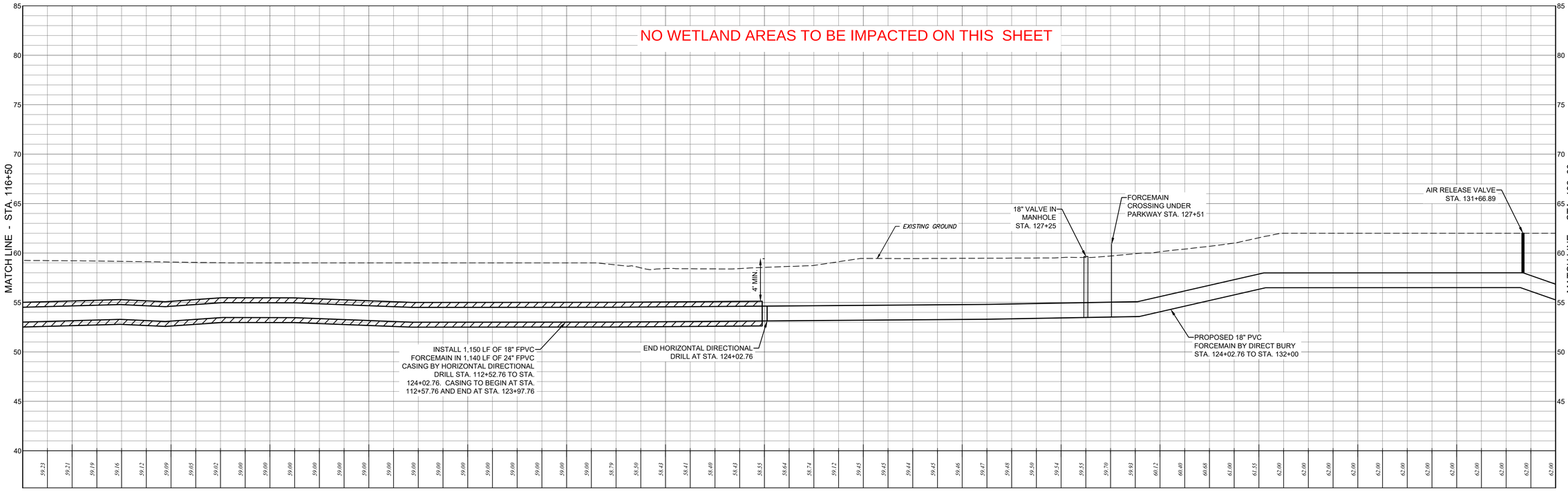
7. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

PLAN
SCALE: 1" = 50'

NO WETLAND AREAS TO BE IMPACTED ON THIS SHEET



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET 12 OF 28

O:\2021\21-0015 HODGEVILLE SANITARY FORCE MAIN\DWG\21-0015C_B03.DWG 10/23/2023 12:37 PM

SOILS CHART	
SYMBOL	SOIL TYPE
RaA	Rains loamy sand
PeA	Pelham loamy sand
MaM	Mascotte sand
SuA	Surrency mucky sand

MATCH LINE - STA. 132+00

MATCH LINE - STA. 147+50

SOIL DELINEATION LINE (TYP.)

Mascotte sand MaA

Rains loamy sand RaA

Surrency mucky sand SuA

N/F
EFFINGHAM COUNTY INDUSTRIAL DEVELOPMENT AUTORITY
PIN: 04340026A00
DB 1548, PG 81

GRID NORTH
04° 30' EAST
2006 NAD 83

DENSE VEGETATION

Sd1-S
DOUBLE ROW IN WETLAND AREA

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 132+00 TO STA. 138+47.77

LIMITS OF DISTURBANCE (TYP.)

18" VALVE IN MANHOLE STA. 138+25

AIR RELEASE VALVE STA. 137+98.48

15'

25' STATE WATER BUFFER

10' OFF EFFINGHAM PARKWAY RIGHT OF WAY

INSTALL 670 LF OF 18" FPVC FORCEMAIN IN 660 LF OF 24" FPVC CASING BY HORIZONTAL DIRECTIONAL DRILL STA. 138+47.77 TO STA. 145+17.77. CASING TO BEGIN AT STA. 138+52.77 AND END AT 145+12.77

NPDES SAMPLING LOCATION

Ds1 | Ds2
Ds3 | Du

Pelham loamy sand PeA

END HORIZONTAL DIRECTIONAL DRILL AT STA. 145+17.77

Sd1-Ns
OUTSIDE WETLAND AREA

LIMITS OF DISTURBANCE (TYP.)

550 FT. REINFORCED CONCRETE BRIDGE (BY OTHERS)

LIMIT OF PARKWAY FILL (TYP.) (BY OTHERS)

BEGIN HORIZONTAL DIRECTIONAL DRILL AT STA. 138+47.77

TEMPORARY ACCESS (BY OTHERS)

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 145+17.77 TO STA. 147+50

BEGINNING OF BRIDGE (BY OTHERS)

END OF BRIDGE (BY OTHERS)

DASHER CREEK STATE WATER

WETLAND AREA

DENSE VEGETATION

Surrency mucky sand SuA

Rains loamy sand RaA

Mascotte sand MaA

US 280

DASHER CREEK LOCATION AND DELINEATION PROVIDED BY OTHERS. DURING THE DESIGN OF THE EFFINGHAM PARKWAY.

PLAN
SCALE: 1" = 50'

NOTES:

1. PROPOSED FORCEMAIN TO BE LAID A MINIMUM OF 48" BELOW EXISTING GRADE UNLESS OTHERWISE NOTED.
2. PROPOSED FORCEMAIN TO BE INSTALLED BY DIRECT BURY UNLESS OTHERWISE NOTED.
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
5. EFFINGHAM COUNTY PARKWAY PLANS PROVIDED BY EFFINGHAM COUNTY, WHICH WILL BE CONSTRUCTED BY OTHERS.
6. FORCEMAIN CONSTRUCTION TO BE COORDINATED WITH THE CONSTRUCTION OF THE EFFINGHAM PARKWAY.
7. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

NO WETLAND AREAS TO BE IMPACTED ON THIS SHEET

AIR RELEASE VALVE STA. 139+21.78

18" VALVE IN MANHOLE STA. 138+25

EXISTING GROUND

DASHER CREEK STATE WATER

4' MIN.

4' MIN.

BEGIN HORIZONTAL DIRECTIONAL DRILL AT STA. 138+47.77

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 132+00 TO STA. 138+47.77

INSTALL 670 LF OF 18" FPVC FORCEMAIN IN 660 LF OF 24" FPVC CASING BY HORIZONTAL DIRECTIONAL DRILL STA. 138+47.77 TO STA. 145+17.77. CASING TO BEGIN AT STA. 138+52.77 AND END AT 145+12.77

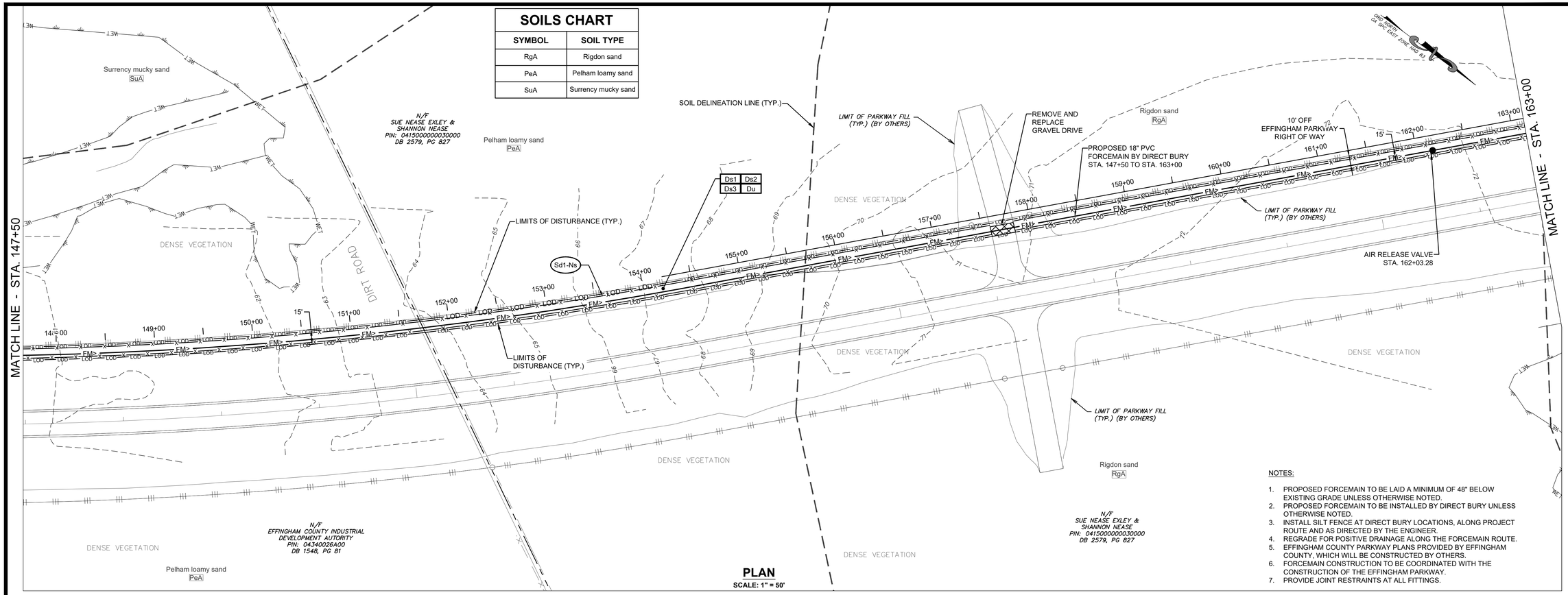
END HORIZONTAL DIRECTIONAL DRILL AT STA. 145+17.77

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 145+17.77 TO STA. 147+50

| 61.66 | 60.81 | 59.52 | 59.05 | 58.61 | 58.00 | 58.34 | 59.04 | 59.56 | 60.00 | 60.39 | 60.87 | 61.00 | 61.17 | 61.29 | 61.40 | 61.53 | 61.65 | 61.73 | 61.82 | 62.00 | 62.00 | 62.00 | 62.00 | 62.00 | 61.90 | 61.49 | 61.04 | 60.22 | 59.31 | 58.38 | 58.00 | 58.00 | 58.00 | 58.00 | 58.00 | 58.00 | 58.00 | 58.58 | 58.28 | 59.00 | 59.00 | 59.00 | 59.00 | 59.00 | 59.04 | 59.26 | 59.49 | 59.71 | 59.93 | 60.00 | 60.00 | 60.00 | 60.00 | 60.00 | 60.00 | 60.00 | 60.00 | 60.02 | 60.13 | 60.19 |
|---|---|---

SOILS CHART

SYMBOL	SOIL TYPE
RgA	Rigdon sand
PeA	Pelham loamy sand
SuA	Surrency mucky sand

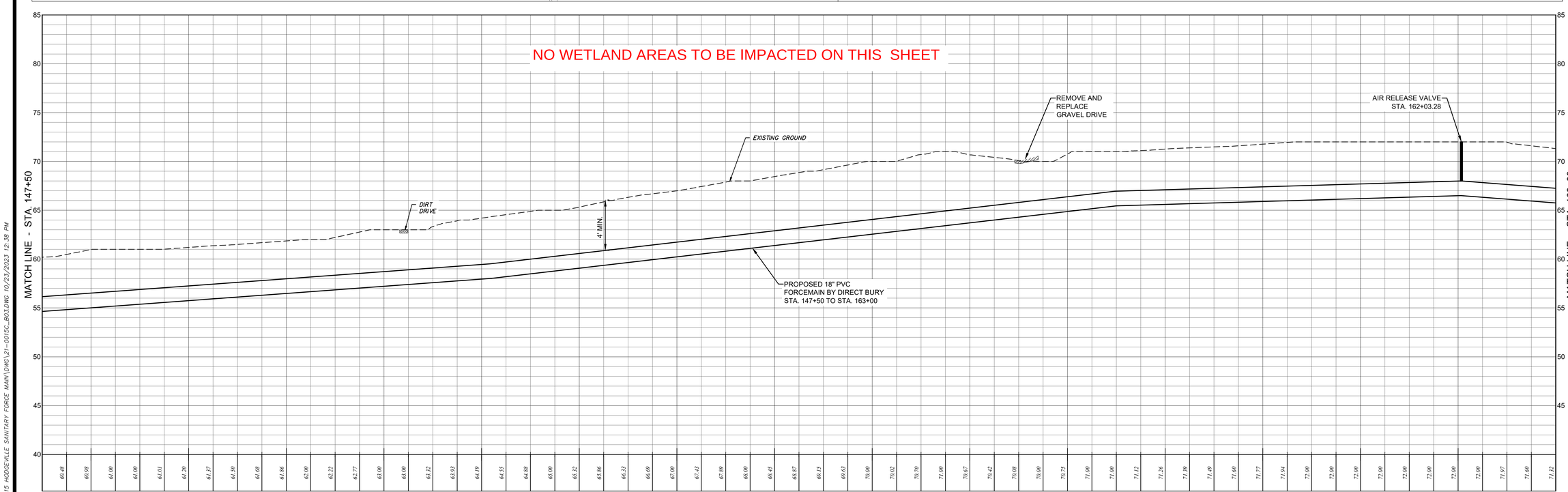


PLAN
SCALE: 1" = 50'

NOTES:

1. PROPOSED FORCEMAIN TO BE LAID A MINIMUM OF 48" BELOW EXISTING GRADE UNLESS OTHERWISE NOTED.
2. PROPOSED FORCEMAIN TO BE INSTALLED BY DIRECT BURY UNLESS OTHERWISE NOTED.
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
5. EFFINGHAM COUNTY PARKWAY PLANS PROVIDED BY EFFINGHAM COUNTY, WHICH WILL BE CONSTRUCTED BY OTHERS.
6. FORCEMAIN CONSTRUCTION TO BE COORDINATED WITH THE CONSTRUCTION OF THE EFFINGHAM PARKWAY.
7. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

NO WETLAND AREAS TO BE IMPACTED ON THIS SHEET



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NUMBER: 0000008917
ISSUED: 4/13/2021 EXPIRES: 4/13/2024

GEORGIA REGISTERED No. PE25496 PROFESSIONAL ENGINEER BENJAMIN W. LOCKHART

PRELIMINARY

50' 25' 0' 50'
GRAPHIC SCALE: 1" = 50'

EMC ENGINEERING SERVICES, INC.
10 Chatham Center South, Suite 100
Savannah, GA 31405
Ph: (912) 232-6533
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CIVIL MARINE ENVIRONMENTAL
ALBANY • ATLANTA • AUGUSTA • BRUNSWICK • COLUMBUS
SAVANNAH • STATESBORO • THOMASTON • VALDOSTA • WARNER ROBINS

PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET
14
OF 28

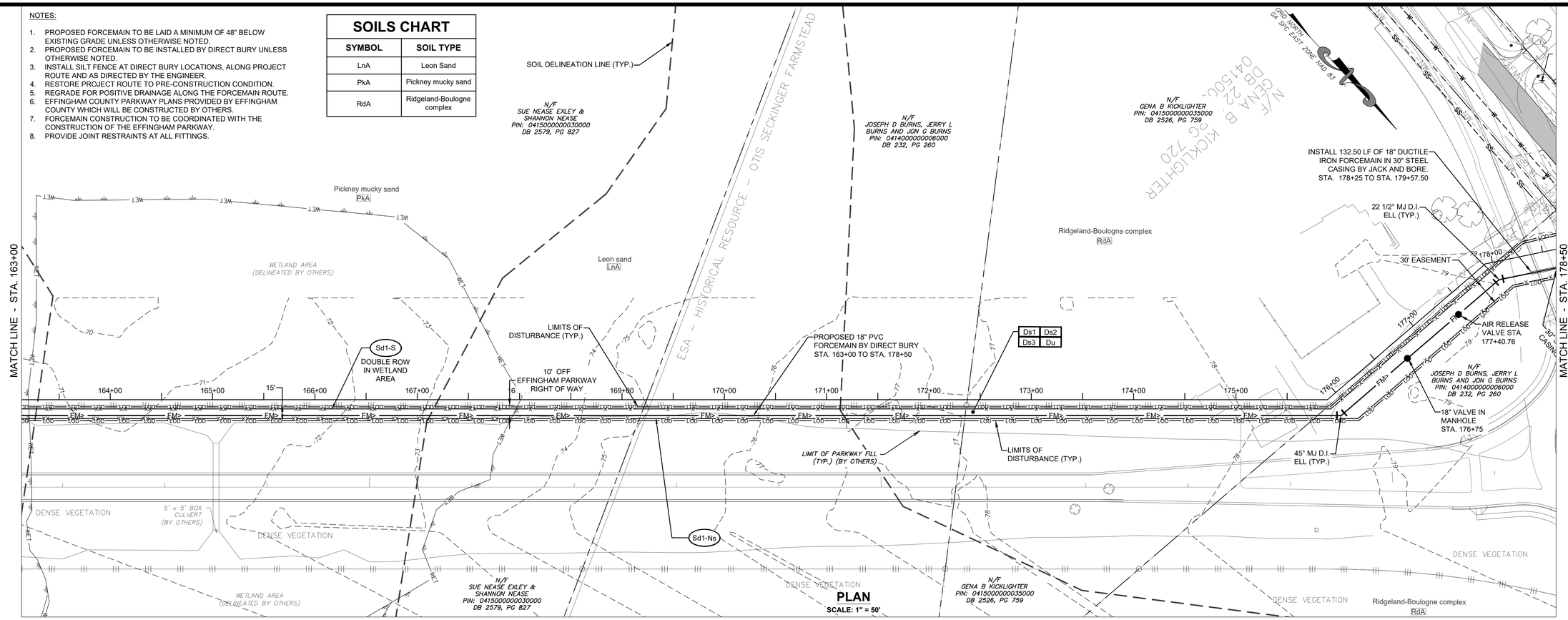
O:\2021\21-0015 HODGEVILLE SANITARY FORCE MAIN\DWG\21-0015C_B03.DWG 10/23/2023 12:38 PM

NOTES:

1. PROPOSED FORCEMAIN TO BE LAID A MINIMUM OF 48" BELOW EXISTING GRADE UNLESS OTHERWISE NOTED.
2. PROPOSED FORCEMAIN TO BE INSTALLED BY DIRECT BURY UNLESS OTHERWISE NOTED.
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. RESTORE PROJECT ROUTE TO PRE-CONSTRUCTION CONDITION.
5. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
6. EFFINGHAM COUNTY PARKWAY PLANS PROVIDED BY EFFINGHAM COUNTY WHICH WILL BE CONSTRUCTED BY OTHERS.
7. FORCEMAIN CONSTRUCTION TO BE COORDINATED WITH THE CONSTRUCTION OF THE EFFINGHAM PARKWAY.
8. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

SOILS CHART

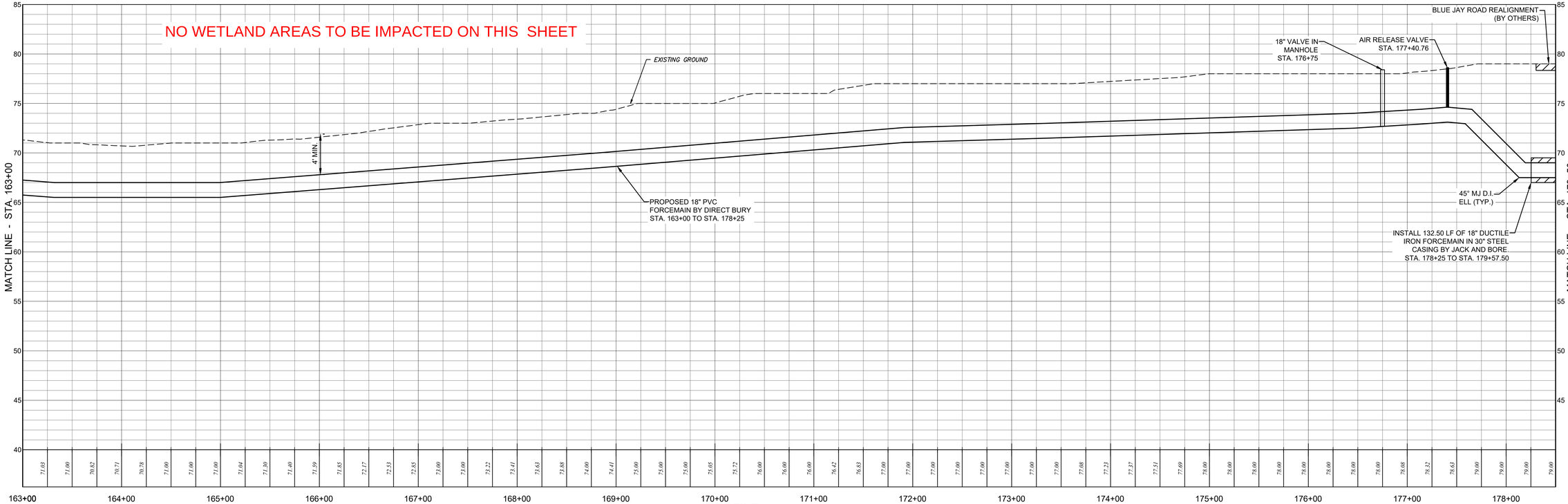
SYMBOL	SOIL TYPE
LnA	Leon Sand
PkA	Pickney mucky sand
RdA	Ridgeland-Boulogne complex



PLAN

SCALE: 1" = 50'

NO WETLAND AREAS TO BE IMPACTED ON THIS SHEET



PROFILE

SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

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GRAPHIC SCALE: 1" = 50'

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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET 15 OF 28

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SOILS CHART	
SYMBOL	SOIL TYPE
LnA	Leon Sand
RdA	Ridgeland-Boulogne complex

GRID NORTH
GA SPC EAST ZONE NAD 83

N/F
QLIN D KING
PIN: 04150000000005A00
DB 232, PG 260

N/F
JOSEPH D BURNS, JERRY L BURNS AND JON G BURNS
PIN: 04140000000006000
DB 232, PG 260

N/F
JULIUS H. BRABHAM
PIN: 04150002
DB 1923, PG 342

N/F
JEFFREY ALLEN KIDD
PIN: 04150001
DB 390, PG 544

N/F
DAVID B. DOWD & SANDRA K DOWD
PIN: 04140011
DB 285, PG 226

N/F
SOUTHERN NATURAL GAS
PIN: 04140000000012PUO

EXISTING 12" RCP IE: 76.95
EXISTING 12" RCP IE: 76.02
EXISTING 4" FORCEMAIN
EXISTING 12" RCP IE: 76.26
45° MJ D.I. ELL (TYP.)
AIR RELEASE VALVE STA. 180+26.70
EXISTING 12" CMP IE: 76.12
REMOVE AND REPLACE GRAVEL DRIVE (TYP.)
EXISTING 12" CMP IE: 76.00
REMOVE AND REPLACE ASPHALT DRIVE (TYP.)
EXISTING 12" RCP IE: 76.83
EXISTING 12" RCP IE: 77.02
EXISTING 15" RCP IE: 77.12
LIMITS OF DISTURBANCE (TYP.)
EXISTING 15" RCP IE: 76.85
PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 178+50 TO STA. 192+00
EXISTING 12" RCP IE: 77.32
EXISTING 12" RCP IE: 76.97
EXISTING 12" RCP IE: 76.38
EXISTING 12" RCP IE: 76.64
5.0' OFF RIGHT OF WAY
EXISTING 12" CMP IE: 76.22
EXISTING 12" RCP IE: 76.94
EXISTING 4" PVC FORCEMAIN
EXISTING 18" RCP IE: 76.41
EXISTING 18" RCP IE: 76.35
CONSTRUCTION EXIT N032.264780 W081.282172
LIMITS OF DISTURBANCE (TYP.)
30" STEEL CASING
EXISTING 24" REUSE
EXISTING 12" FORCEMAIN
EXISTING 36" WATER
Ridgeland-Boulogne complex RdA
Leon sand LnA
MATCH LINE - STA. 178+50
MATCH LINE - STA. 192+00
NO WETLAND AREAS TO BE IMPACTED ON THIS SHEET

NOTES:

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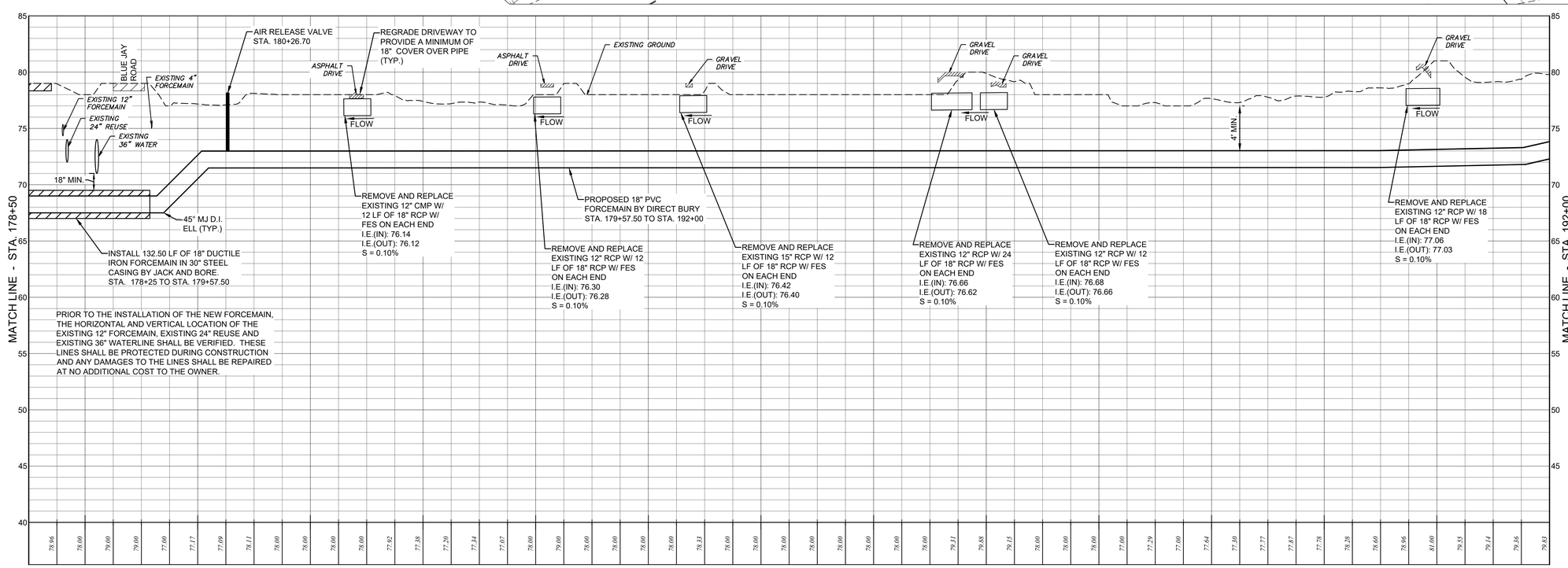
4. RESTORE PROJECT ROUTE TO PRE-CONSTRUCTION CONDITION.
5. REGRADE DITCHES AND SIDE SLOPES FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
6. EFFINGHAM COUNTY PARKWAY PLANS PROVIDED BY EFFINGHAM COUNTY WHICH WILL BE CONSTRUCTED BY OTHERS.
7. FORCEMAIN CONSTRUCTION TO BE COORDINATED WITH THE CONSTRUCTION OF THE EFFINGHAM PARKWAY.
8. ACCESS TO BE MAINTAINED TO ALL RESIDENCES DURING CONSTRUCTION.
9. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

PLAN
SCALE: 1" = 50'



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL
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GEORGIA REGISTERED No. PE25496 PROFESSIONAL ENGINEER BENJAMIN W. LOCKHART

PRELIMINARY

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GRAPHIC SCALE: 1" = 50'

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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET
16
OF 28

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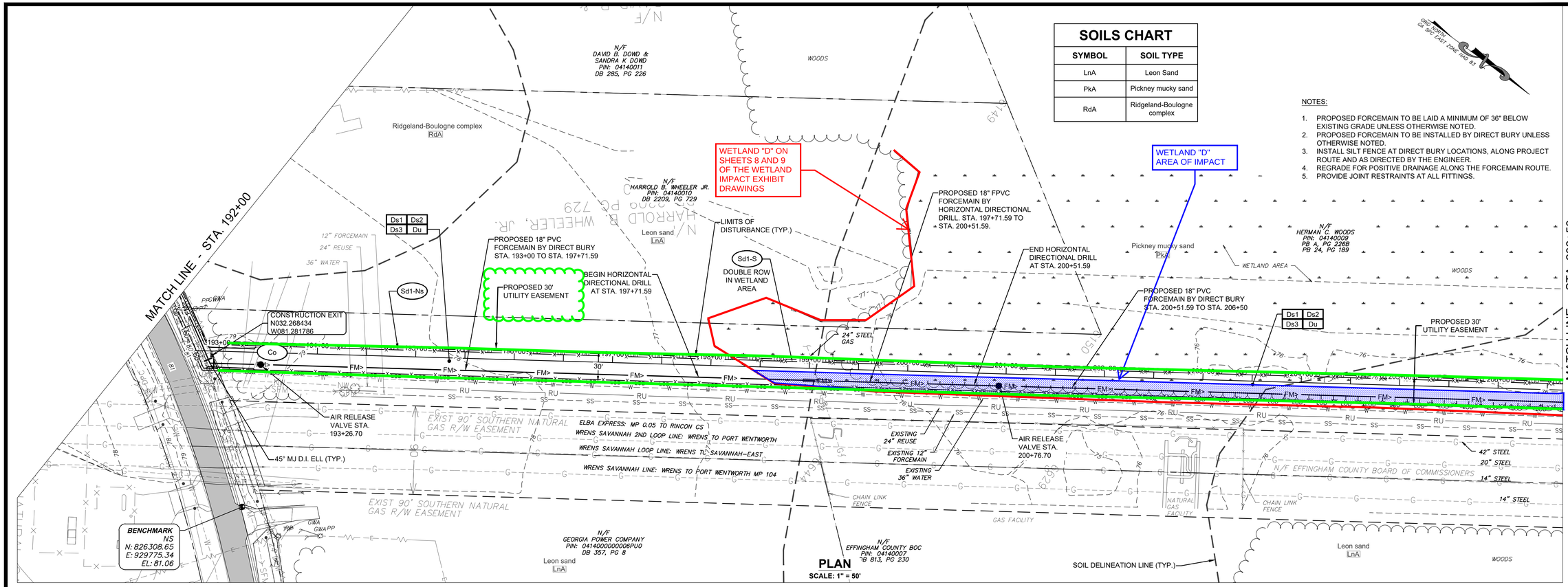
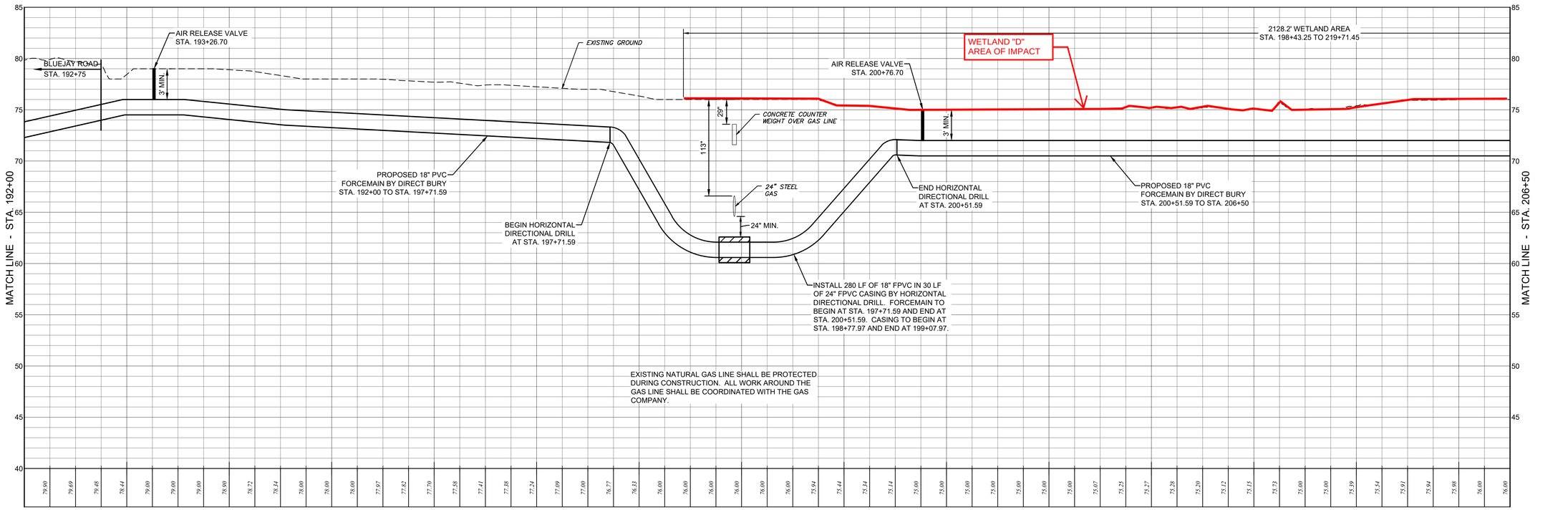


PLAN
SCALE: 1" = 50'

SOILS CHART	
SYMBOL	SOIL TYPE
LnA	Leon Sand
PkA	Pickney mucky sand
RdA	Ridgeland-Boulogne complex

NOTES:

1. PROPOSED FORCEMAIN TO BE LAID A MINIMUM OF 36" BELOW EXISTING GRADE UNLESS OTHERWISE NOTED.
2. PROPOSED FORCEMAIN TO BE INSTALLED BY DIRECT BURY UNLESS OTHERWISE NOTED.
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
5. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL
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GEORGIA REGISTERED No. PE25496 PROFESSIONAL ENGINEER BENJAMIN W. LOCKHART

PRELIMINARY

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GRAPHIC SCALE: 1" = 50'

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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET 17 OF 28

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SOILS CHART

SYMBOL	SOIL TYPE
LnA	Leon Sand
PkA	Pickney mucky sand
RdA	Ridgeland-Boulogne complex

MATCH LINE - STA. 206+50

MATCH LINE - STA. 222+00

Leon sand LnA

WETLAND AREA

N/F OGLETHORPE POWER CORP. PIN: 04140000000002000 DB 2712, PG 459

WOODS

Pickney mucky sand PkA

WETLAND "D" AREA OF IMPACT

LIMITS OF DISTURBANCE (TYP.)

PROPOSED 30' UTILITY EASEMENT

7.5' OFF EASEMENT LINE

Sd1-S DOUBLE ROW IN WETLAND AREA

Ds1 Ds2 Ds3 Du

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 206+50 TO STA. 222+00

Sd1-Ns

Ridgeland-Boulogne complex RdA

GRID NORTH GA SPCS EAST ZONE NAD 83

WETLAND "D" ON SHEETS 8 AND 9 OF THE WETLAND IMPACT EXHIBIT DRAWINGS

42" STEEL

20" STEEL

14" STEEL

14" STEEL

EXISTING 24" REUSE

EXISTING 12" FORCEMAIN

EXISTING 36" WATER

EXIST 90' SOUTHERN NATURAL GAS R/W EASEMENT

ELBA EXPRESS: MP 0.05 TO RINCON CS

WRENS SAVANNAH 2ND LOOP LINE: WRENS TO PORT WENTWORTH

WRENS SAVANNAH LOOP LINE: WRENS TO SAVANNAH-EAST

WRENS SAVANNAH LINE: WRENS TO PORT WENTWORTH MP 104

SOIL DELINEATION LINE (TYP.)

N/F EFFINGHAM COUNTY POWER, LLC COGENTRIX ENERGY POWER PIN: 04140002 DB 2493, PG 752 PB 13, PG 147

NOTES:

1. PROPOSED FORCEMAIN TO BE LAID A MINIMUM OF 36" BELOW EXISTING GRADE UNLESS OTHERWISE NOTED.
2. PROPOSED FORCEMAIN TO BE INSTALLED BY DIRECT BURY UNLESS OTHERWISE NOTED.
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
5. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

PLAN
SCALE: 1" = 50'

2128.2' WETLAND AREA STA. 198+43.25 TO 219+71.45

153.7' WETLAND AREA STA. 220+13.24 TO STA. 221+66.94

EXISTING GROUND

3' MIN.

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 206+50 TO STA. 222+00

WETLAND "D" AREA OF IMPACT

WETLAND "D" AREA OF IMPACT

85 80 75 70 65 60 55 50 45 40

76.00 76.44 76.01 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 75.96 75.96 75.82 75.43 75.27 75.00 75.09 75.00 75.01 75.00 75.00 75.00 75.00 75.00 74.83 74.72 74.61 74.53 74.45 74.37 74.35 74.43 74.56 74.70 74.83 74.97 75.00 75.00 75.00 75.00 75.00 75.00 75.00 75.00 75.00 75.00 75.00 75.00 75.00 75.29 75.66 76.00 76.00 76.00 76.00 76.00 76.00 76.05

207+00 208+00 209+00 210+00 211+00 212+00 213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00

PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NUMBER: 0000008917
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50' 25' 0' 50'
GRAPHIC SCALE: 1" = 50'

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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET 18 OF 28

O:\2021\21-0015 HODGEVILLE SANITARY FORCE MAIN\DWG\21-0015C_B03.DWG 10/23/2023 12:38 PM

SOILS CHART

SYMBOL	SOIL TYPE
LnA	Leon Sand
PkA	Pickney mucky sand
RdA	Ridgeland-Boulogne complex

WETLAND "C" ON SHEET 7 OF THE WETLAND IMPACT EXHIBIT DRAWINGS

WETLAND "C" AREA OF IMPACT

WETLAND "B" ON SHEET 6 OF THE WETLAND IMPACT EXHIBIT DRAWINGS

GRID NORTH GA SPC EAST ZONE NAD 83

MATCH LINE - STA. 222+00

MATCH LINE - STA.237+50

Leon sand LnA

Pickney mucky sand PkA

WETLAND AREA

WOODS

N/F EFFINGHAM COUNTY POWER, LLC COGENTRIX ENERGY POWER PIN: 04140002 DB 2493, PG 752 PB 13, PG 147

Sd1-Ns

Sd1-S

DOUBLE ROW IN WETLAND AREA

Ds1 | Ds2 | Ds3 | Du

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 223+00 TO STA. 238+50

LIMITS OF DISTURBANCE (TYP.)

PROPOSED 30' UTILITY EASEMENT

AIR RELEASE VALVE STA. 233+01.70

MAINTAIN ACCESS ALONG EXISTING GRAVEL DRIVE DURING CONSTRUCTION (TYP.)

REMOVE AND REPLACE GRAVEL DRIVE

REMOVE AND REPLACE GRAVEL DRIVE WITHIN LIMITS OF DISTURBANCE STA. 233+87.44 TO STA. 237+50

7.5' OFF SOUTH SIDE OF GRAVEL ROAD

45° MJ D.I. ELLS, (TYP.)

EXIST 90' SOUTHERN NATURAL GAS R/W EASEMENT

42" STEEL

20" STEEL

14" STEEL

14" STEEL

ELBA EXPRESS: MP 0.05 TO RINCON CS

WRENS SAVANNAH 2ND LOOP LINE: WRENS TO PORT WENTWORTH

WRENS SAVANNAH LOOP LINE: WRENS TO SAVANNAH-EAST

WRENS SAVANNAH LINE: WRENS TO PORT WENTWORTH MP 104

EXISTING 24" REUSE

EXISTING 12" FORCEMAIN

EXISTING 36" WATER

SOIL DELINEATION LINE (TYP.)

GRAVEL DRIVE

Ridgeland-Boulogne complex RdA

EXISTING POND

PLAN
SCALE: 1" = 50'

NOTES:

1. PROPOSED FORCEMAIN TO BE LAID A MINIMUM OF 36" BELOW EXISTING GRADE UNLESS OTHERWISE NOTED.
2. PROPOSED FORCEMAIN TO BE INSTALLED BY DIRECT BURY UNLESS OTHERWISE NOTED.
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
5. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

779.56' WETLAND AREA
STA. 223+19.48 TO STA. 230+99.04

EXISTING GROUND

3' MIN.

AIR RELEASE VALVE STA. 233+01.70

REMOVE AND REPLACE GRAVEL DRIVE

REMOVE AND REPLACE GRAVEL DRIVE WITHIN LIMITS OF DISTURBANCE STA. 233+87.44 TO STA. 237+50

WETLAND "C" AREA OF IMPACT

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 222+00 TO STA. 237+50

MATCH LINE - STA. 222+00

MATCH LINE - STA. 237+50

85 80 75 70 65 60 55 50 45 40

76.06 76.00 76.36 76.61 76.51 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.01 76.35 76.02 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.00 76.70 77.00 77.00 77.00 77.00 77.00 77.00 77.00 77.00 77.01 77.00 77.00 77.00 77.00 77.00 76.91 76.65 76.40 76.21 76.07 76.00 76.00 75.77 75.67 75.59

222+00 223+00 224+00 225+00 226+00 227+00 228+00 229+00 230+00 231+00 232+00 233+00 234+00 235+00 236+00 237+00

PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL
CERTIFICATION NUMBER: 0000008917
ISSUED: 4/13/2021 EXPIRES: 4/13/2024

GEORGIA REGISTERED No. PE25496 PROFESSIONAL ENGINEER BENJAMIN W. LOCKHART

PRELIMINARY

50' 25' 0' 50'
GRAPHIC SCALE: 1" = 50'

EMC ENGINEERING SERVICES, INC.
10 Chatham Center South, Suite 100
Savannah, GA 31405
Ph: (912) 232-6533
Fax: (912) 233-4580
savannah@emc-eng.com
www.emc-eng.com
CIVIL MARINE ENVIRONMENTAL
ALBANY • ATLANTA • AUGUSTA • BRUNSWICK • COLUMBUS
SAVANNAH • STATESBORO • THOMASTON • VALDOSTA • WARNER ROBINS

PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
SCALE:	1" = 50'
CHECKED BY:	BWL
DATE:	SEPTEMBER 2023

SHEET 19 OF 28

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SOILS CHART

SYMBOL	SOIL TYPE
LnA	Leon Sand
RdA	Ridgeland-Boulogne complex

N/F
EFFINGHAM COUNTY POWER, LLC
COGENTRIX ENERGY POWER
PIN: 04140002
DB 2493, PG 752
PB 13, PG 147

APPROXIMATE LOCATION OF PROPERTY LINE

EFFINGHAM COUNTY POWER, LLC.

EFFINGHAM COUNTY BOARD OF COMMISSIONERS

END PROPOSED EASEMENT AT PROPERTY LINE

WETLAND "B" ON SHEET 6 OF THE WETLAND IMPACT EXHIBIT DRAWINGS

LIMITS OF DISTURBANCE (TYP.)

Sd1-S
DOUBLE ROW ALONG WETLAND AREA

Ds1 | Ds2
Ds3 | Du

25.82'

27.05' OFF NATURAL GAS EASEMENT

PROPOSED 18" PVC FORCEMAIN BY DIRECT BURY STA. 237+50 TO STA. 253+00

REMOVE AND REPLACE GRAVEL DRIVE WITHIN LIMITS OF DISTURBANCE STA. 237+50 TO STA. 253+00

MAINTAIN ACCESS ALONG EXISTING GRAVEL DRIVE DURING CONSTRUCTION (TYP.)

WETLAND "A" ON SHEET 5 OF THE WETLAND IMPACT EXHIBIT DRAWINGS

GRID NORTH
GA SPC EAST ZONE NAD 83

LIMITS OF DISTURBANCE (TYP.)

Sd1-Ns

29.83' OFF NATURAL GAS EASEMENT

13.5' LIMITS OF DISTURBANCE

N/F
EFFINGHAM COUNTY BOARD OF COMMISSIONERS
PIN: 041400000001000
DB 945, PG 014

WETLAND AREA

WOODS

MATCH LINE - STA. 237+50

MATCH LINE - STA. 253+00

238+00 239+00 240+00 241+00 242+00 243+00 244+00 245+00 246+00 247+00 248+00 249+00 250+00 251+00 252+00 253+00

EXIST 90' SOUTHERN NATURAL GAS R/W EASEMENT

ELBA EXPRESS: MP 0.05 TO RINCON CS

WRENS SAVANNAH 2ND LOOP LINE: WRENS TO PORT WENTWORTH

WRENS SAVANNAH LOOP LINE: WRENS TO SAVANNAH-EAST

WRENS SAVANNAH LINE: WRENS TO PORT WENTWORTH MP 104

42" STEEL
20" STEEL
14" STEEL
14" STEEL

Leon sand
LnA

Ridgeland-Boulogne complex
RdA

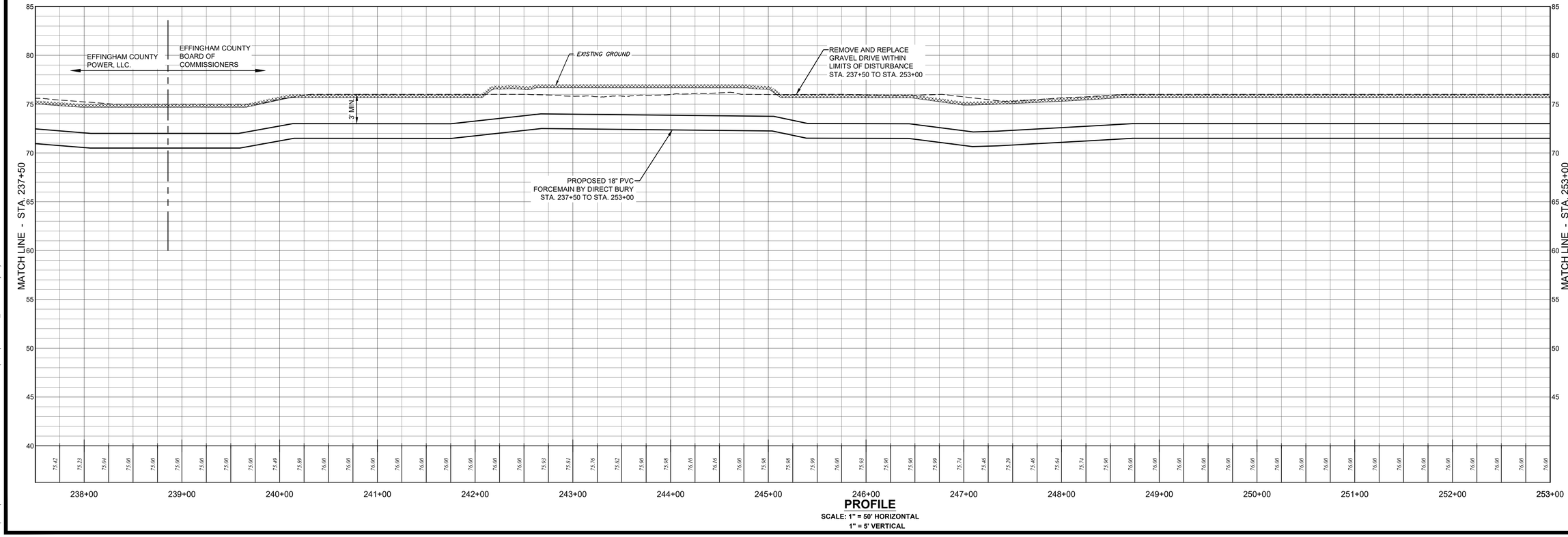
SOIL DELINEATION LINE (TYP.)

EXISTING 24" REUSE
EXISTING 12" FORCEMAIN
EXISTING 36" WATER

NOTES:

1. PROPOSED FORCEMAIN TO BE LAID A MINIMUM OF 36" BELOW EXISTING GRADE UNLESS OTHERWISE NOTED.
2. PROPOSED FORCEMAIN TO BE INSTALLED BY DIRECT BURY UNLESS OTHERWISE NOTED.
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
5. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

PLAN
SCALE: 1" = 50'



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

NO.	REVISION DESCRIPTION	DATE

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PLAN AND PROFILE

HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

PROJECT NO.:	21-0015
DRAWN BY:	CFM
DESIGNED BY:	BWL
SURVEYED BY:	N/A
SURVEY DATE:	N/A
CHECKED BY:	BWL
SCALE:	1" = 50'
DATE:	SEPTEMBER 2023

SHEET
20
OF 28

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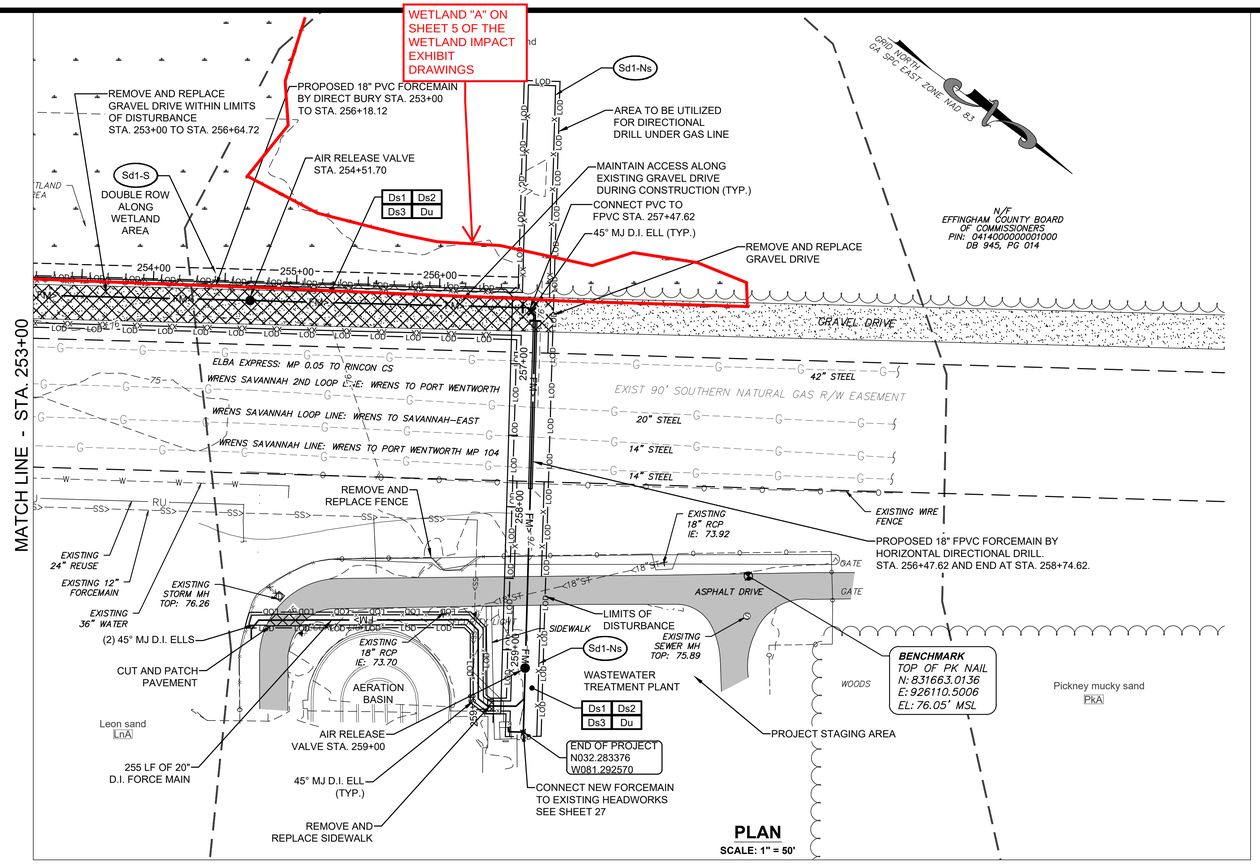
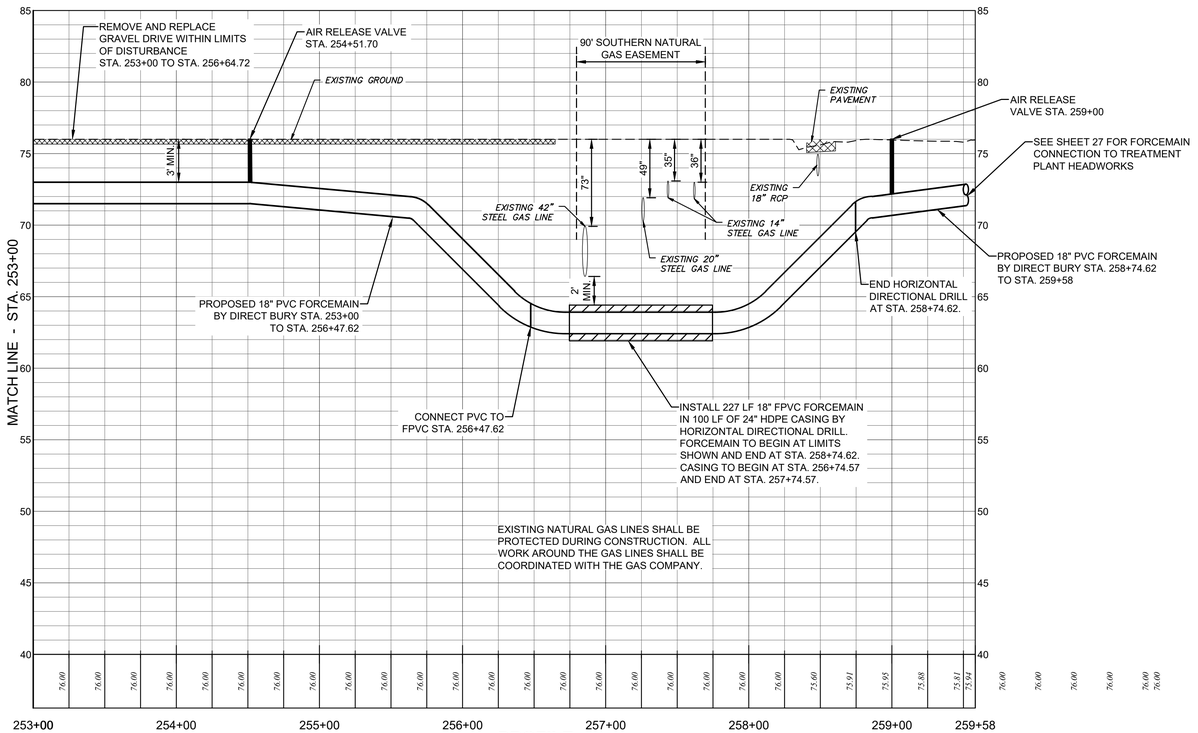
SOILS CHART

SYMBOL	SOIL TYPE
LnA	Leon Sand
PkA	Pickney mucky sand
RgA	Rigdon sand





PROFILE

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1" = 5' VERTICAL

NOTES:

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2. PROPOSED FORCEMAIN TO BE INSTALLED BY DIRECT BURY UNLESS OTHERWISE NOTED.
3. INSTALL SILT FENCE AT DIRECT BURY LOCATIONS, ALONG PROJECT ROUTE AND AS DIRECTED BY THE ENGINEER.
4. COORDINATE NEW FORCEMAIN CROSSING WITH GAS COMPANY.
5. REGRADE FOR POSITIVE DRAINAGE ALONG THE FORCEMAIN ROUTE.
6. PROVIDE JOINT RESTRAINTS AT ALL FITTINGS.

NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Benjamin W Lockhart
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NUMBER: 0000008917
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HODGEVILLE SANITARY FORCEMAIN

HODGEVILLE ROAD
EFFINGHAM COUNTY, GEORGIA
Prepared for:
EFFINGHAM BOARD OF COMMISSIONERS

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SHEET 21 OF 28

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