

LETTER OF TRANSMITTAL

TO:

Merkel Bros. Construction, Inc.
Marvin Sledge Underground Utilities, LLC
Ware Excavating, Inc.
Passons Underground Utilities, LLC
Wilamut Construction Co. LLC

Norris Brothers Excavating, LLC
Wright Brothers
HL Management Service, LLC

Morgan Contracting, Inc.
Brown Bros., Inc.
Dirt Guys, Inc.
Nitzschke Communications, inc.

Baker Construction Co., LLC.
Allied Underground
Bulba Builders, LLC
Bush Construction
Midsouth Utility Group, Inc.
Iron Horse Builds
REV Construction, Inc.
Classic City Mechanical, Inc.
Middle Tennessee Contractors
Precision Construction Solutions, LLC

The Blue Book
Dodge Data & Analytics
Builders Exchange of Tennessee
Associated General Contractors
ConstructConnect
North America Procurement Council (NAPC)

Calhoun-Charleston Utility District

pneas@mbctn.biz
marvin@msuullc.com
wareexcavating2@gmail.com
passonsunderground@yahoo.com
info@wilamutconstruction.com;
kurt@wilamutconstruction.com
patriciadelight@norrisbrosexexcavating.com
jwhitehead@wbcci.com
sarah@hlconstructionsite.com
melissa@hlconstructionsite.com
estimating@morgan1.com
mbrockbbi@gmail.com
codyharrington28@gmail.com
holly@ncitn.com; daryl@ncitn.com
bobby@ncitn.com
Albaker.bcc@gmail.com
monty@alliedug.com
bulbabuilders@gmail.com
novelbond@bushconst.com
lori@midsouthutilitygroupinc.com
mark@ironhorsebuilds.com
mtucker@revconstructioninc.com
classiccity@windstream.net
taylor@mtc.build
pcslc2011@gmail.com

emcveigh@mail.thebluebook.com
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heather@bxtn.org
planroom@agcetn.org
gwen.perew@constructconnect.com
francejenn@napc.me

tylerccud@gmail.com

FROM: Philip Schofield, P.E.

DATE: September 8, 2026

PROJ. NO.: C25004

SUBJECT: Addendum No. 3
Calhoun-Charleston Utility District
Highway 163 Waterline Extension

PAGES: 31 pages to follow

**PLEASE
RESPOND**



**TO CONFIRM RECEIPT OF THIS ADDENDUM NO. 3
PLEASE SIGN AND EMAIL TO CTI**

vvisco@ctiengr.com

Company _____

Signature _____

Title _____

Date _____

ID 912694

ADDENDUM NO. 3

CONTRACT DOCUMENTS, SPECIFICATIONS, AND DRAWINGS

CALHOUN-CHARLESTON UTILITY DISTRICT

HIGHWAY 163 WATERLINE EXTENSION

The following changes and clarifications shall be made to the Contract Documents, Specifications, and Drawings.

I. CONTRACT DOCUMENTS

A. Section 00 42 00 – Bid Schedule.

DELETE Pages 00 42 00-1.1 through 00 42 00-2.1 and REPLACE with the attached pages **00 42 00-1.2 through 00 42 00-2.2.**

II. DRAWINGS

A. DELETE Plan Sheets C002 through C006 and REPLACE with the attached Drawings:

1. Drawing C002 Plan View Sheet 1 revision 1
2. Drawing C003 Plan View Sheet 2 revision 1
3. Drawing C004 Plan View Sheet 3 revision 1
4. Drawing C005 Plan View Sheet 4 revision 1
5. Drawing C006 Plan View Sheet 5 revision 1

III. APPENDIX

A. ADD Appendix A

Add the following State of Tennessee Department of Transportation
Permit No. UO-2007084914-2026 2026-586 pages 1-22

IV. CLARIFICATION

- A.** The 1-inch air release valve shown on the Contract Drawings may be either APCO or A.R.I. Both are acceptable for this project. The specified 0-150 psi working pressure range shall not preclude the use of an APCO valve having a published working pressure range of 11-150 psi or an A.R.I. valve having a published working pressure range suitable for the application.

Date: September 8, 2026

Calhoun-Charleston Utility District
/s/ Tyler Richesin, General Manager

BID SCHEDULE FOR UNIT PRICE

HIGHWAY 163 WATERLINE

CALHOUN-CHARLESTON UTILITY DISTRICT CALHOUN, TENNESSEE

Note: Unless otherwise stated, all bid items shall be a complete installation as specified and/or shown on the drawings.

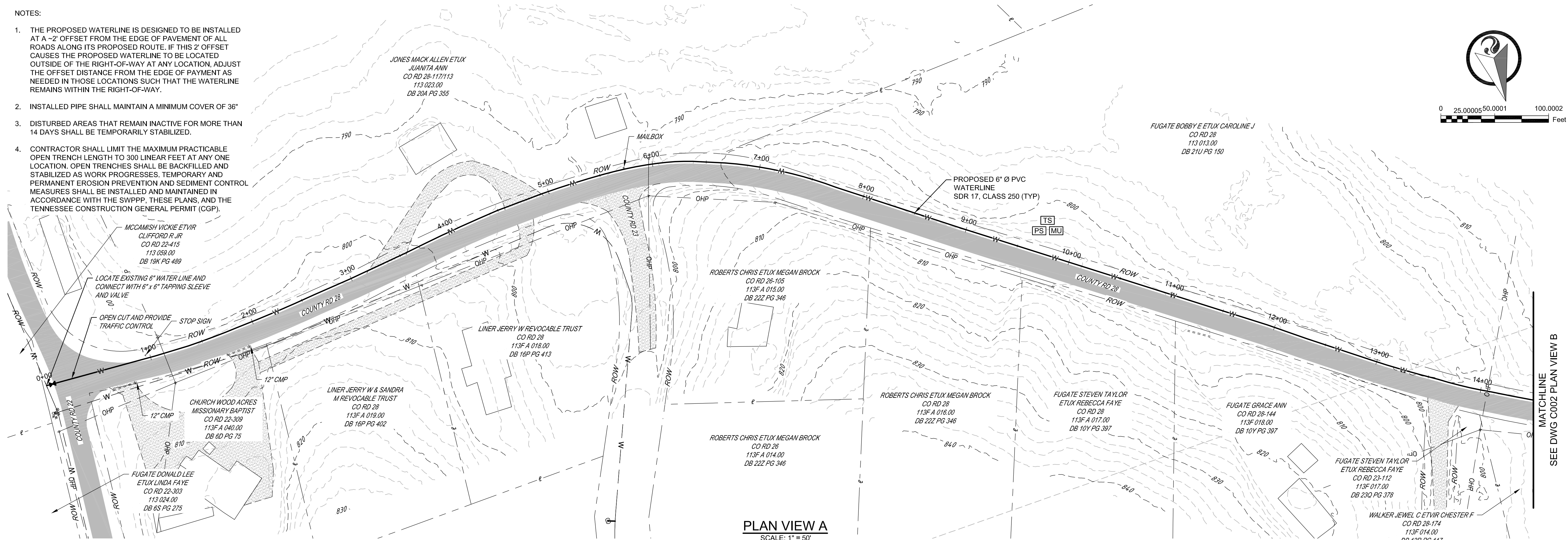
SCHEDULE I

Item No.	Description	Unit	Est. No. of Units	Unit Price	Item Total
00 66 13	Performance and Payment Bonds (Maximum 2% of Schedule I)	LS	1		\$
00 72 00	Mobilization (Maximum 2.5% of Schedule I), Including Equipment and Material Handling, Locating and Excavating (Pot-holing) the Existing Utilities, Project Layout and Staking	LS	1		\$
01 22 00a	Traffic Control Devices for Traffic Control in Accordance with the local County Requirements, MUTCD, and Tennessee Department of Transportation as stated on the TDOT Permit per Addendum 3 for this Project.	LS	1		\$
03 30 00	Cast-in-Place Concrete , Complete in Place as Specified and/or Shown on the Drawings				
03 30 00a	Cast-In-Place Concrete - 3,000 PSI Class B for Thrust Blocks, Pipe Encasement, and Pipe Protection for Open Cut Trenches in Paved Areas	CY	15		\$
31 00 00	Earthwork - Site Clearing				
31 00 00a	Clearing and Grubbing Along Highway 163 , Including Stripping Topsoil and Stockpiling, Hedge, Brush, and Tree Removal and Disposal	LF	4,000		\$
31 00 00b	Large Tree Removal (Greater than 18-inch diameter) Along CR 28 and not in Clearing and Grubbing Area	EA	4		\$
31 20 00	Earthwork - Crushed Stone Bedding and Backfill				
31 20 00a	Crushed Stone Backfill in Trench for Water Lines in Asphalt Streets, Pavement Shoulders, Parking Lots, and Gravel, Asphalt, or Concrete Driveways as Shown on the Plans or as Directed by the Engineer from Top of Bedding to Finished Grade	LF	8,500		\$
31 20 00b	Crushed Rock Bedding Material , in Excess of that Required for Earth or Rock Trench Bedding	CY	100		\$
31 20 00c	Compacted Crushed Base Stone (GAB) for Gravel, Asphalt, and Concrete Driveways and Parking Areas , Including Stone Placement, Compaction, and Fine Grading for Roads, Parking Lots, Driveways, and Transitions to Existing Driveways	Tons	100		\$
31 20 00d	Final Grading and Cleanup (Not Including Grassing and Mulch)				
31 20 00d1	Final Grading and Cleanup , Including Re-grading Areas Disturb and Existing Ditches to Match Existing Grade and to Allow Proper Drainage, Rock and Debris Removal	LF	13,300		\$
31 20 00d2	Mailbox Removal, Re-setting, or Replacement , Including New Mailbox if Necessary, Complete-in-Place	EA	6		\$
31 25 00	Sedimentation and Erosion Control - Including all Labor, Equipment, and Materials				
31 25 00a	Straw Wattles / Tubes , Including Overlap and Staking	LF	400		\$
31 25 00b	Straw Matting for Slope or Ditch Stabilization, Including Staples	SY	1,000		\$
31 25 00c	Topsoil , Fine Sifted Topsoil (Purchased and Imported to Project Site) Approved by the Engineer, not Including On-Site Soil	CY	100		\$
31 25 00d	Type 3 (6" to 12") Rip Rap Stone with Filter Fabric for Slope Protection, Ditch Check Dams, Inlet Protection, or other Erosion Control Devices	Tons	220		\$
31 25 00e	Water Quality Monitoring and Sampling , Including installation and maintenance of site job box with rain gauge, NOI and NOT document preparation and document binder	Month	3		\$
31 25 00f	Water Quality Inspections , Including weekly inspections, post rain event inspections, monthly inspections, and reports on EGS standard forms	Month	3		\$
32 10 00	New and Replacement Paving - Including Materials				
32 10 00a	Heavy Duty Asphalt Pavement Replacement for Roads, Trench-Width with 2.5" of Binder, TDOT Grading "B-M2" and 1.5" of TDOT Surface, Grading "E", Including Saw-cutting	Tons	25		\$
32 10 00b	Replace or Relocate and Re-Set Traffic Signs , Including Coordination with the County Road Department	Each	2		\$

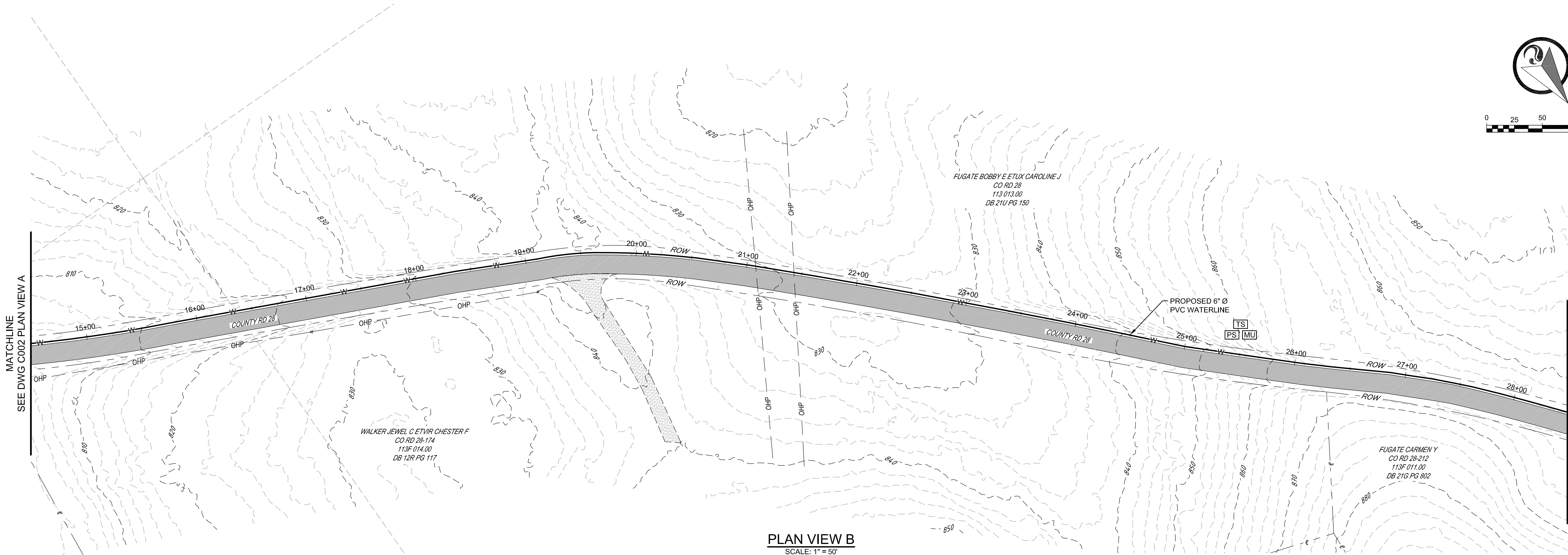
Item No.	Description	Unit	Est. No. of Units	Unit Price	Item Total
32 92 19	Seeding and Mulching - Including Materials				
32 92 19a	Temporary Seeding and Mulching (Ds2)	LF	13,300		\$
32 92 19b	Permanent Seeding And Mulch (Ds3) , Including Topsoil placement, Seed Fertilizer, Limestone, and Mulch	LF	13,300		\$
33 05 23.14	Horizontal Direction Drilling				
33 05 23-14a	6-Inch SDR 9 HDPE by Directional Drilling Method , Including All Labor, Equipment, and Materials	LF	600		\$
33 11 00	Polyvinyl Chloride (PVC) Pressure Pipe				
33 11 00a	6-inch SDR17, Class 250 PVC Pipe in Trench	LF	12,800		\$
33 11 00b	Connections to Existing Lines				
33 11 00b1	Connection to an Existing 6-Inch Water Line , Including 6-Inch Tapping Sleeve and Valve Installation and Testing, Excavation, Stone Bedding, Backfill, and Site Cleanup for Complete Installation	EA	1		\$
33 11 00b2	Connection of 6-Inch PVC to 6-Inch HDPE , Including Fusible MJ Adaptors and Associated Fittings As Needed for Complete Connection	EA	4		\$
40 05 13.53	Installation of 6-Inch Fittings and Gaskets, Including Labor, Equipment, and Materials				
40 05 13.53a	6-Inch MJ 11 1/4-Degree Bend	EA	6		\$
40 05 13.53b	6-Inch MJ 22 1/2-Degree Bend	EA	3		\$
40 05 13.53c	6-Inch MJ 45-Degree Bend	EA	1		\$
40 05 13.53d	6-Inch Mechanical Joint Restrained Joints (Mega Lugs)	EA	30		\$
40 05 13.53e	6-Inch Bell Restrained Joints / Gaskets	EA	12		\$
40 05 13.53f	6-in MJ Sleeve	EA	2		\$
40 05 13.53g	6-Inch x 6-Inch MJ Anchor Tee	EA	2		\$
40 05 13.53h	6-inch MJ Misc. Fittings Not Itemized	LBS	1,000		\$
40 05 23	Valves - Including Labor, Equipment, and Materials				
40 05 23a	Furnish and Install 6-Inch Gate Valve , Including Valve Box & Cover, Concrete Support Block, Thrust Block, and Valve Box Extensions	EA	6		\$
40 05 23b	Furnish and Install Blow-off Assembly , Including all Fittings for Complete Installation	EA	2		\$
40 05 23c	Furnish and Install Air Release Valve Assembly , Including all Fittings for Complete Installation	EA	3		\$
TOTAL SCHEDULE I				\$	
Notes: 1. Bidders shall submit a bid on a unit price basis. 2. Contract will be awarded (if it is awarded) to the responsible and responsive bidder submitting the lowest bid. 3. Contractor certifies that he has reviewed the Drawings and Specifications and that all work not specifically listed in the Bid Schedule is included in the prices for various items listed in the Bid Schedule.					
BIDDER		DATE			
BY		(Signature) TITLE			
ADDRESS					
CITY		STATE	ZIP CODE		
PHONE		FAX	E-MAIL		

NOTES:

1. THE PROPOSED WATERLINE IS DESIGNED TO BE INSTALLED AT A 2'-0" OFFSET FROM THE EDGE OF PAVEMENT OF ALL ROADS ALONG ITS PROPOSED ROUTE. IF THIS 2' OFFSET CAUSES THE PROPOSED WATERLINE TO BE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AT ANY LOCATION, ADJUST THE OFFSET DISTANCE FROM THE EDGE OF PAYMENT AS NEEDED IN THOSE LOCATIONS SUCH THAT THE WATERLINE REMAINS WITHIN THE RIGHT-OF-WAY.
2. INSTALLED PIPE SHALL MAINTAIN A MINIMUM COVER OF 36"
3. DISTURBED AREAS THAT REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY STABILIZED.
4. CONTRACTOR SHALL LIMIT THE MAXIMUM PRACTICABLE OPEN TRENCH LENGTH TO 300 LINEAR FEET AT ANY ONE LOCATION. OPEN TRENCHES SHALL BE BACKFILLED AND STABILIZED AS WORK PROGRESSES. TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE SWPPP. THESE PLANS, AND THE TENNESSEE CONSTRUCTION GENERAL PERMIT (CGP).



PLAN VIEW A
SCALE: 1" = 50'



PLAN VIEW B
SCALE: 1" = 50'

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NO.	DATE	BY	APPROVED	REVISIONS
				DESCRIPTIONS
1	8/26	JRB	JRB	SWPPP REVISIONS

DESIGN	JRB
DRAWN	WEP
CHECKED	ZWR
APPROVED	JRB

CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE
PLAN VIEW
SHEET 1

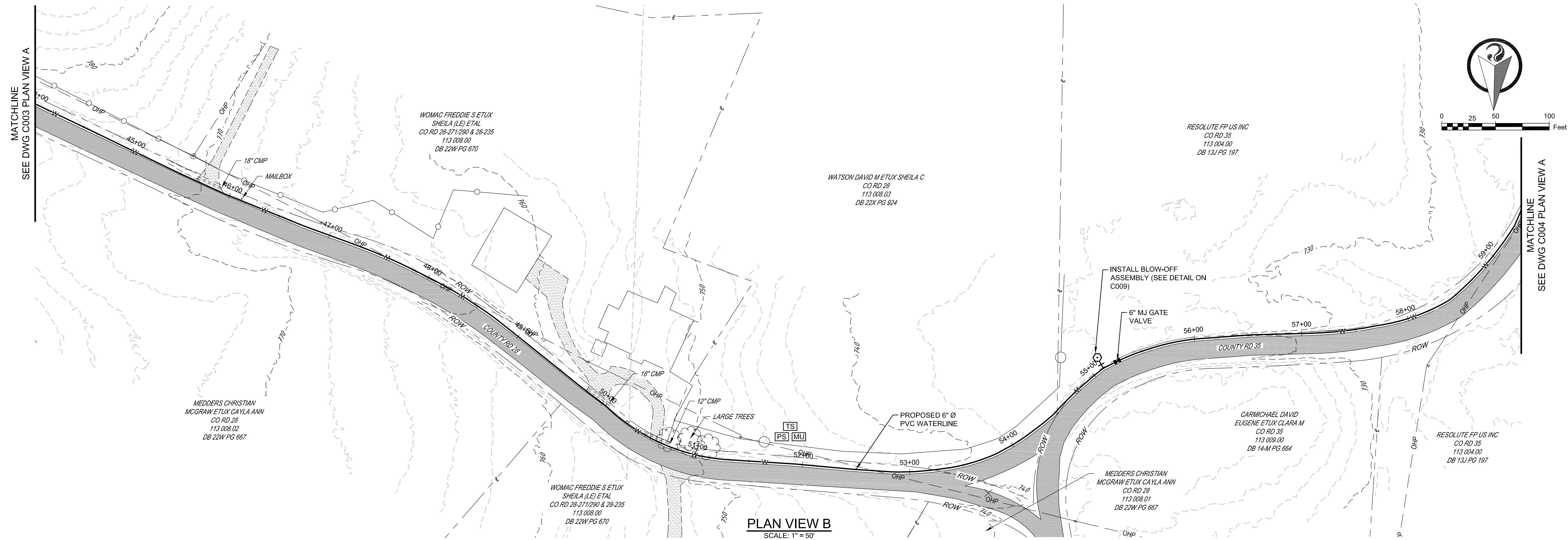
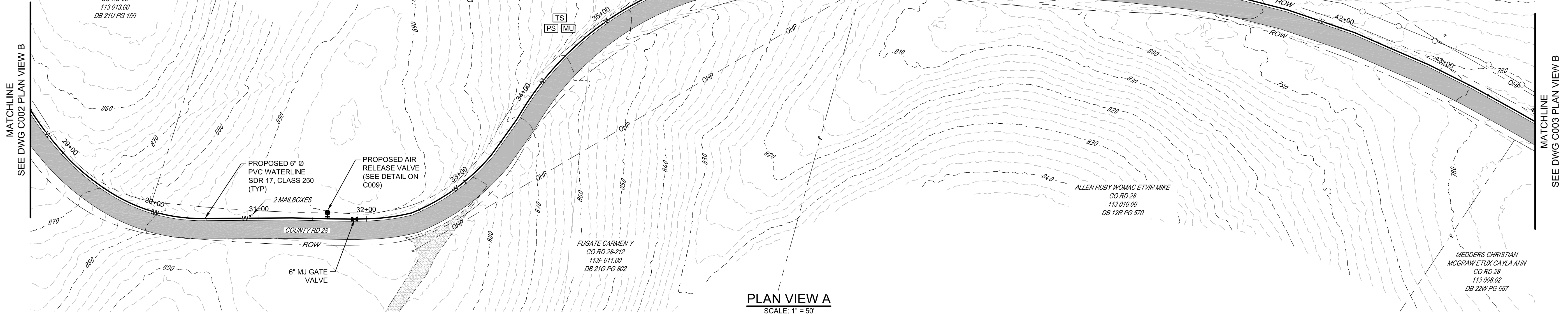
CTI ENGINEERS
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613



JOB NO.
C250004
ISSUE DATE
06/27/2025
DRAWING NO.
C002

NOTES:

1. THE PROPOSED WATERLINE IS DESIGNED TO BE INSTALLED AT A 2'-0" OFFSET FROM THE EDGE OF PAVEMENT OF ALL ROADS ALONG ITS PROPOSED ROUTE. IF THIS 2' OFFSET CAUSES THE PROPOSED WATERLINE TO BE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AT ANY LOCATION, ADJUST THE OFFSET DISTANCE FROM THE EDGE OF PAYMENT AS NEEDED IN THOSE LOCATIONS SUCH THAT THE WATERLINE REMAINS WITHIN THE RIGHT-OF-WAY.
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DESIGNED BY: JRB	
DRAWN BY: JRB	
CHECKED BY: JRB	
APPROVED BY: JRB	
DATE: 8/26	
NO. 1	
DESCRIPTIONS: SWPPP REVISIONS	
REVISIONS	
DATE	
BY	
APPROVED BY	
JOB NO. C25004	
ISSUE DATE 06/27/2025	
DRAWING NO. C003	

CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE
PLAN VIEW
SHEET 2

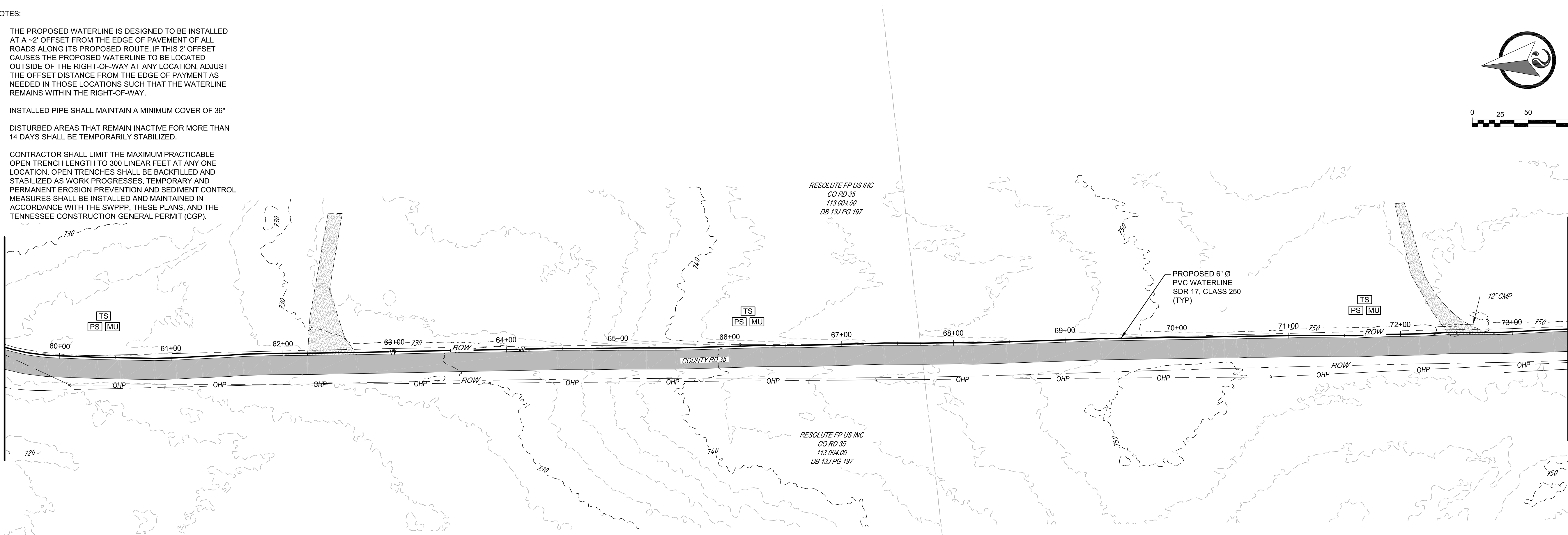
CTI ENGINEERS
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613

JASON BELA
REGISTERED ENGINEER
STATE OF TENNESSEE
123456789

NOTES:

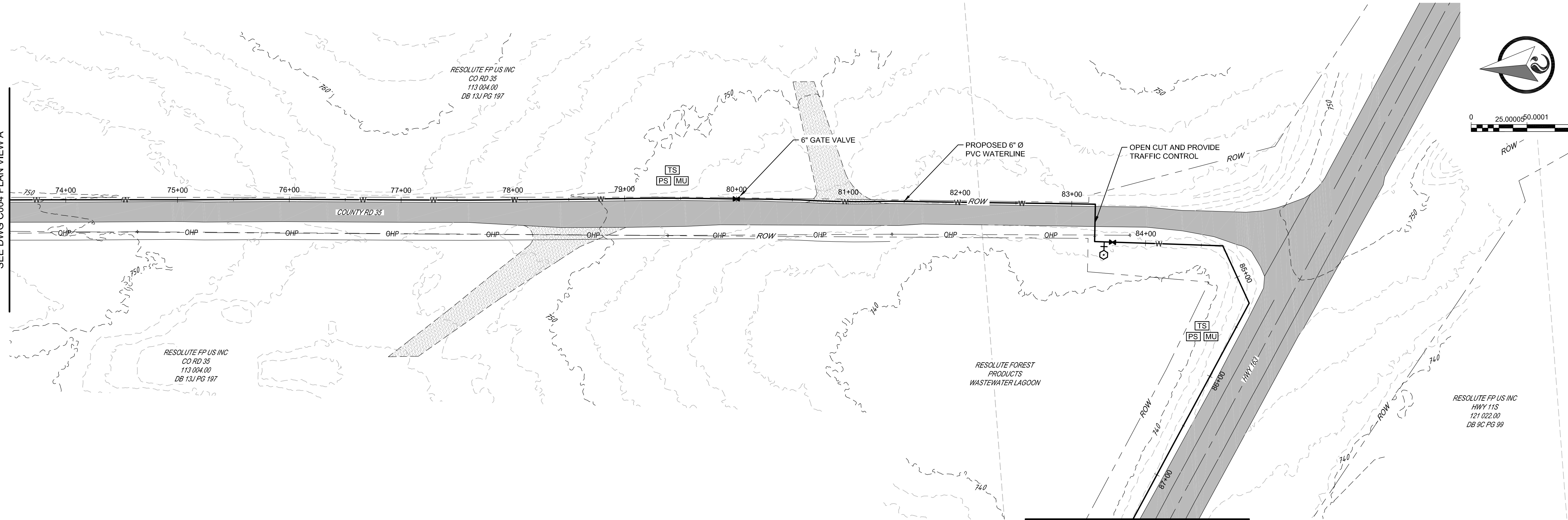
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MATCHLINE
SEE DWG C003 PLAN VIEW B



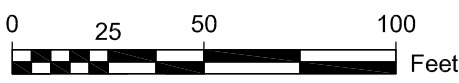
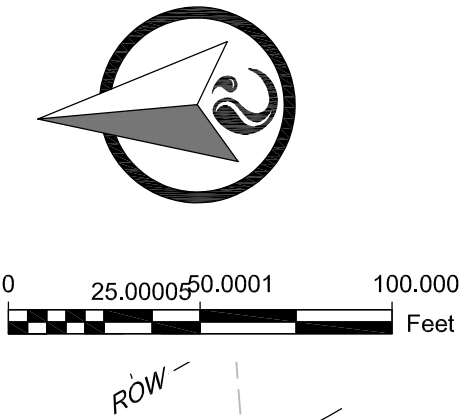
PLAN VIEW A
SCALE: 1" = 50'

MATCHLINE
SEE DWG C004 PLAN VIEW A



PLAN VIEW B
SCALE: 1" = 50'

MATCHLINE
SEE DWG C005 PLAN VIEW A



MATCHLINE
SEE DWG C004 PLAN VIEW B

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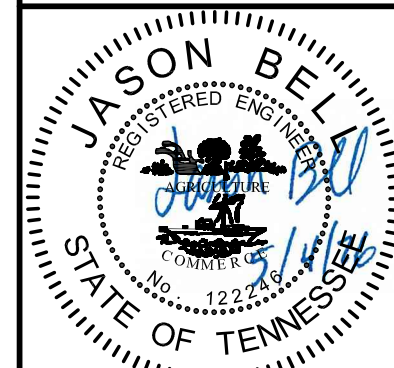
NO.	DESCRIPTIONS	REVISIONS		
		DATE	BY	APP'D
1	SWPPP REVISIONS	8/26	JRB	JRB

DESIGN	JRB
DRAWN	WEP
CHECKED	ZWR
APPROVED	JRB

CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE

PLAN VIEW
SHEET 3

CTI ENGINEERS
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CHATTANOOGA, TN 37402
423-267-7613

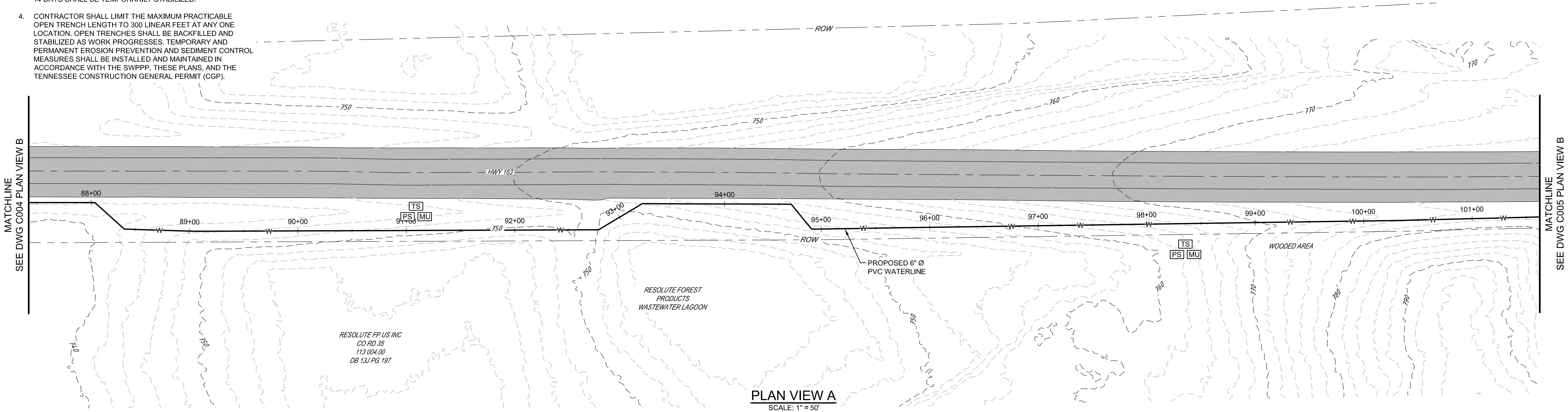
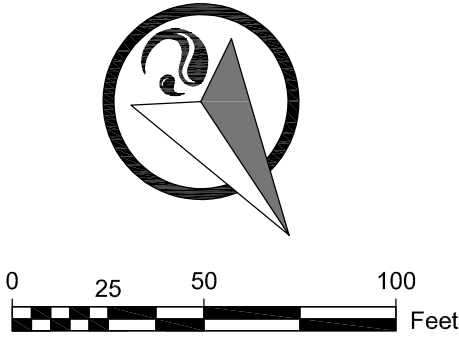


JOB NO. C25004
ISSUE DATE 06/27/2025
DRAWING NO. C004

NOTES:

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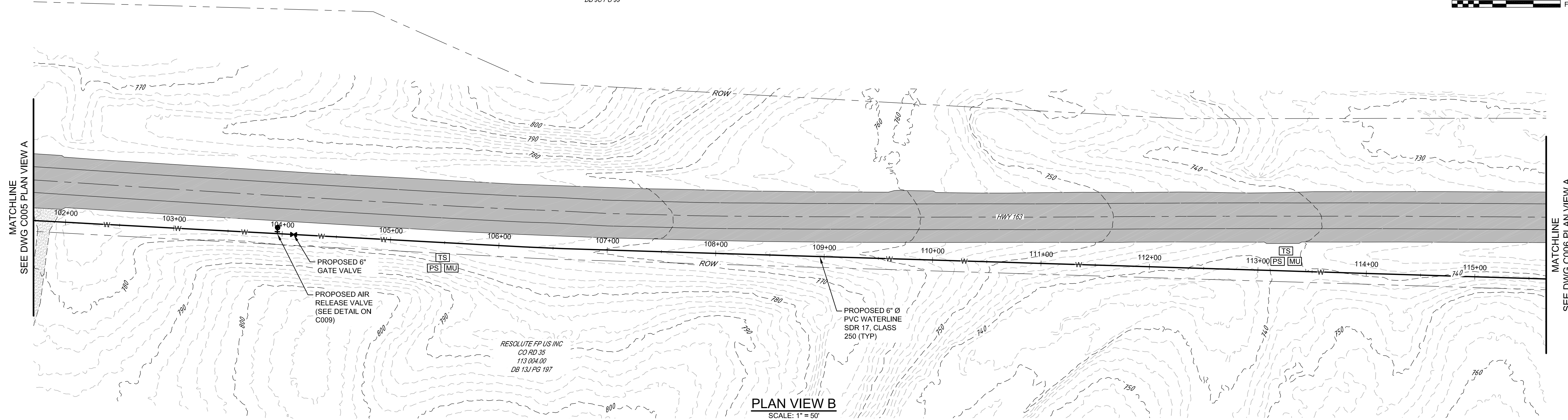
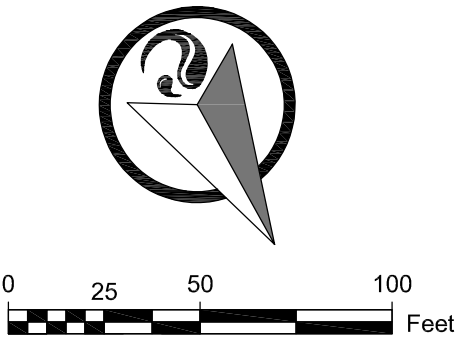
RESOLUTE FP US INC
HWY 11S
121 022.00
DB 9C PG 99



RESOLUTE FP US INC
CO RD 35
113 004.00
DB 13J PG 197

PLAN VIEW A
SCALE: 1" = 50'

RESOLUTE FP US INC
HWY 11S
121 022.00
DB 9C PG 99



RESOLUTE FP US INC
CO RD 35
113 004.00
DB 13J PG 197

PLAN VIEW B
SCALE: 1" = 50'

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JRB	JRB	NO.	DESCRIPTIONS	DATE	BY
		1	SWPPP REVISIONS	8/26	JRB

JRB	JRB	JRB	JRB	JRB	JRB
DRAWN	CHECKED	APPROVED			
WEP	ZWR				

CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE
PLAN VIEW
SHEET 4

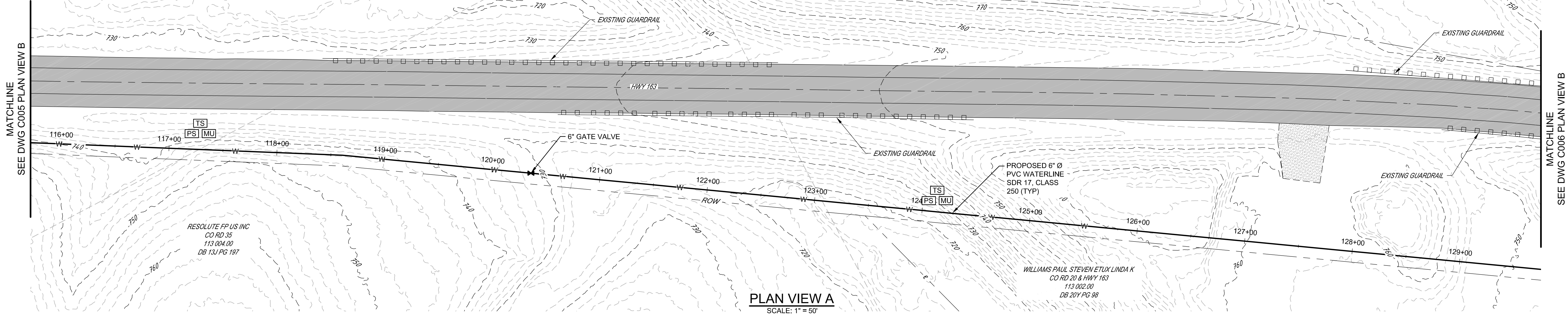
CTI ENGINEERS
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613



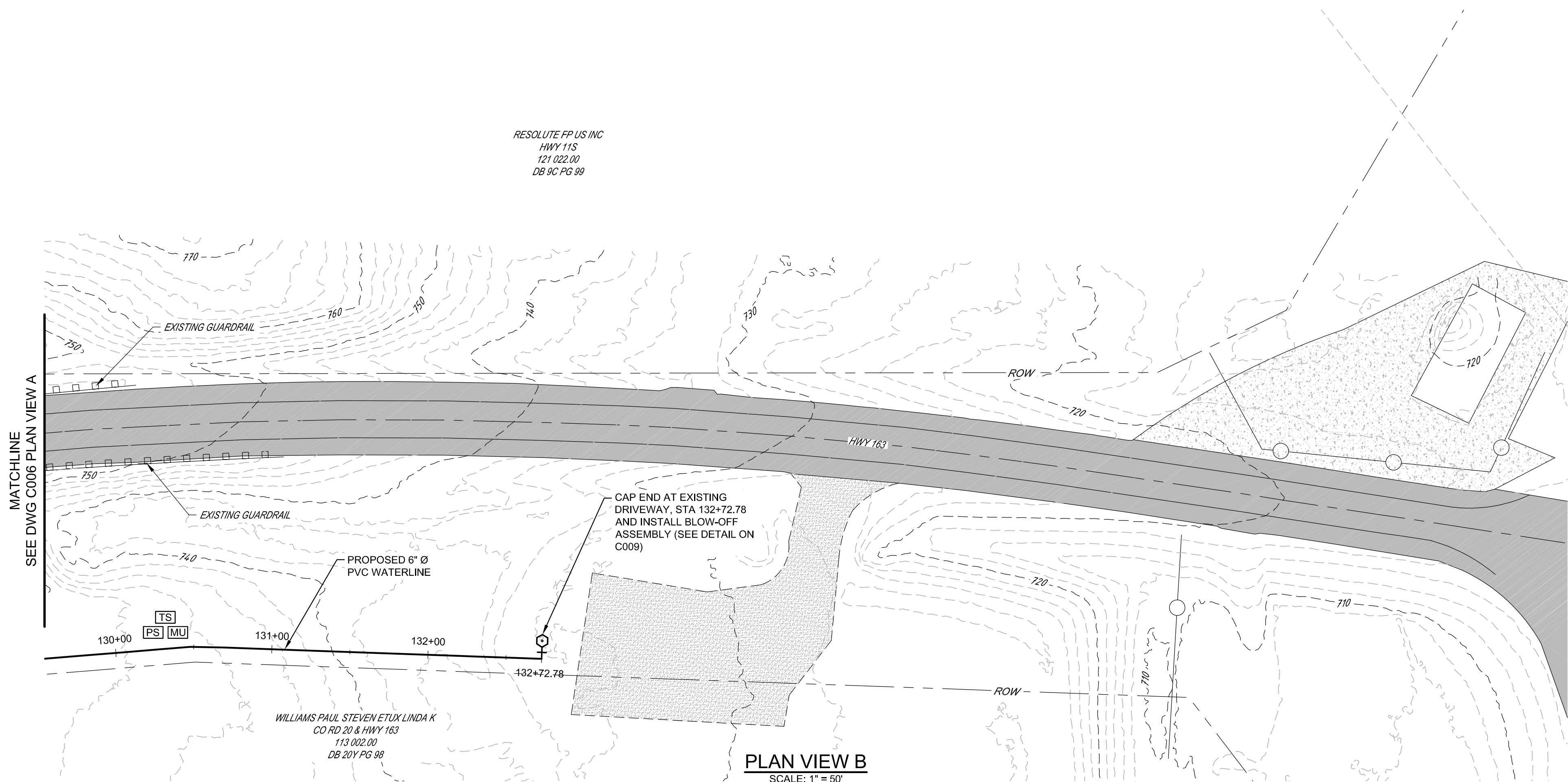
JOB NO. C25004
ISSUE DATE 06/27/2025
DRAWING NO. C005

NOTES:

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PLAN VIEW A
SCALE: 1" = 50'



PLAN VIEW B
SCALE: 1" = 50'

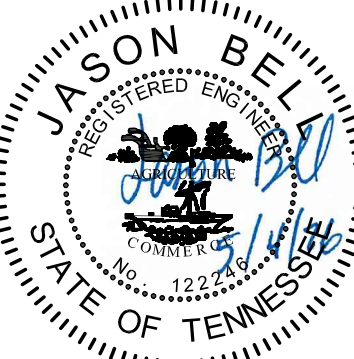
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NO.	DESIGN	REVISIONS			DATE	BY	APPD
		DESCRIPTIONS	SWPPP	REVISIONS			
1	JRB	WEP			8/26	JRB	JRB
		CHECKED					
		ZWR					
		APPROVED					
	JRB						

CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE
PLAN VIEW
SHEET 5



CTI ENGINEERS
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613



JASON B. BELL
REGISTERED ENGINEER
STATE OF TENNESSEE
12222

JOB NO.
C25004

ISSUE DATE
06/27/2025

DRAWING NO.
C006

APPENDIX A

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

PERMIT NO. UO-2007084914-2026 2026-586



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
REGION 2 TRAFFIC OPERATIONS & PERMITTING OFFICE
7512 VOLKSWAGEN DRIVE
CHATTANOOGA, TENNESSEE 37416
(423) 892-3430

WILL REID, P.E.
COMMISSIONER

BILL LEE
GOVERNOR

Authorization Date: SEPTEMBER 01, 2026

Tyler Richesin
Calhoun-Charleston Utility District
PO Box 93
Calhoun, TN 37309

*****Utility is responsible for compliance of ALL attached conditions*****

PERMIT NO.: UO-2007084914-2026 2026-586 BOND: \$50,000.00
DESCRIPTION: Installation of 6" water distribution line along SR 163

Route	Begin LM	Ending LM	County	Start Long/Lat	End Long/Lat
163	0.22	1.14	McMinn	-84.779426, 35.322221	-84.765792, 35.315289

Dear Tyler Richesin:

Enclosed is an approved drawing covering the installation of the above referenced facilities. This permit was approved **09/01/2026**. The performance of this work will be covered under terms of the enclosed permit or general agreement between the utility and the Department of Transportation and the attached Permit Notes.

Please make sure your work forces have a copy of this approved drawing on hand at all times while working on the state rights-of-way. The attached notes are approval conditions to this permit and drawings.

In accordance with the State's Rules and Regulations, the Utility shall provide appropriate signing at all times during the construction and maintenance of facilities; therefore, signs must be in place before construction begins.

Please notify the District Utility Inspector at least three working days prior to the proposed date to begin work, of the date construction will begin in order to determine if a preconstruction conference is needed and to arrange proper inspection.

DISTRICT UTILITY CONTACT:

Name: R2 Permit Office
Address: 7512 Volkswagen Drive Chattanooga TN 37416
Phone: (629) 395-4412
Fax:
Cell

The Utility must notify the District Utility Inspector upon completion of the installation in order that a final inspection can be made to facilitate the release of the bond. This permit expires one year from date of issuance.

Regards,

A handwritten signature in blue ink, appearing to read 'Elizabeth Sutherland', with a stylized, cursive script.

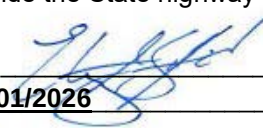
Elizabeth Sutherland
TDOT Region 2 Utility Office
7500 Volkswagen Chattanooga TN 37421

Enclosure:

CC: R2 Permit Office

Conditions:

- 1 Note: The permit proprietor will be responsible for the repair of any damage to the roadway or TDOT appurtenances caused by utility construction.
Comments:
- 2 Note: The Permit Proprietor is to ensure that all Parties associated with this project complies with all “Rules and Regulations for Accommodating Utilities within Highway Rights-of-Ways.”
Comments:
- 3 Note: All installations and repairs are to be installed in compliance to TDOT’S “Rules and Regulations for Accommodating Utilities within Highway Rights-of Ways”.
Comments:
- 4 Note: The Permit Proprietor is responsible for all erosion and sediment control required for the Utility installation
Comments:
- 5 Note: The T.D.O.T. inspector must be notified at least three (3) days before the commencement of the work to arrange proper inspection to ensure a valid permit.
Comments: **Utility shall coordinate with the Permit Office, TDOT.R2.permits@tn.gov, to schedule inspections, the lane closure, and provide a lane closure request 15 days prior to start of work if needed.**
- 6 Note: T.D.O.T. approved drawings and permit must be present at the job site while work is in progress.
Comments:
- 7 Tennessee811. Dial 811 for Utility locates
Comments:
- 8 **Note: Flaggers and workers in work zones shall wear Safety apparel meeting the requirements of ISEA “American National Standard for High Visibility Apparel” Refer to the latest edition of the “MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.” (MUTCD), Section 6E.02**
Comments:
- 9 **Note: Delineator cones or barrels required along with the proper signage to close shoulders or lanes for Work-Zones or Buffer-Zones according to the latest edition of the “MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.” (MUTCD)**
Comments:
- 10 **Note: Signing and Traffic Control Must be in conformance with the latest edition of the “MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.” (MUTCD)**
Comments:
- 11 **Note: Machinery, materials and workers are not to be located in the roadway, shoulders or in the clear zones without proper traffic control measures in compliance with the MUTCD requirements.**
Comments:
- 12 **Note: Stay Out Of Wetlands.**
Comments:
- 13 Note: All logs, stumps, and other construction related debris must be removed from the Right-of-Ways.
Comments:
- 14 **Note: The highway shoulder must not be disturbed.**
Comments:

- 15 **Note: The highway slopes must not be disturbed.**
Comments:
- 16 Note: Rule 1680-6-1-.06,(f) Pedestals, fire hydrants, markers, or other above Ground utility appurtenances installed as a part of Underground utility facilities shall be located at or as near the highway Right-of-Way lines as practical. In all cases they must be outside the Clear-Zone.
Comments:
- 17 Note: Underground Pneumatic Piercing tools (Hammerhead Mole, Hole-Hog, etc...,) shall not be used for boring under State Routes.
Comments:
- 18 Note: All casings and conduits installed under State Routes shall meet or exceed the minimum AASHTO requirements.
Comments:
- 19 Note: All steel casings must have continuous welds around every joint.
Comments:
- 20 **Note: The Utility installation must be installed with 36" or more of cover where installed within 5 feet of the drainage ditch.**
Comments:
- 21 **Note: Buried installation shall not go over culverts or other TDOT structures.**
Comments:
- 22 Note: All side roads must be bored where installation is within the state Right-of-Way.
Comments:
- 23 Note: The Pipeline or Transmission line shall be identified by a permanent marker at the Right-of-Way lines or as near thereto as possible.
Comments:
- 24 Note: Applicant is responsible for identifying, surveying, and staking the State highway right-of-way boundary in the above-described work area, and for maintaining said staking for the duration of the installation of Applicant's facilities. Applicant is responsible for acquiring all utility rights-of-way or easements outside the State highway right-of-way as may be needed to perform the installation and maintenance of its facilities, and is responsible for any damages caused by trespass or installation or maintenance of facilities outside the State highway right-of-way.
Comments:
- 25 APPROVED AS NOTED BY:  TDOT REGION 2 UTILITY
DEPARTMENT DATE: 09/01/2026
Comments:
- 26 **Note: Prior to commencing work under this agreement, the Utility shall have adequate and appropriate general liability insurance providing liability coverage in an amount not less than \$1,000,000 dollars per occurrence and \$300,000 per claimant.**
Comments:



Application and Utility Use and Occupancy Agreement

Agreement No.	_____
State Route No.	_____
Project No.	_____
County	_____
Type of Surety	_____
Bond / Check No.	_____

Application is hereby made by Name: Calhoun-Charleston Utility District ("Applicant")
Address: 144 Main Street, Calhoun, Tennessee 37309
for permission to install and maintain the following described utility facilities on the right-of-way of
State Highway No. 163 in McMinn County, Tennessee,
Description: Install approximately 4,825 linear feet of 6-inch public water distribution main within the State Route 163 right-of-way, including valves, fittings, air release assemblies, blow-offs, and related appurtenances.
At the following described location: State Route 163 between County Road 35 and Interstate 75, McMinn County, Tennessee, as shown on the attached plans.:
GPS = Start N 35.315134° W 84.765679° , End N 35.322580° W 84.780075°
Log Mile = Start LM 1.20 End LM 0.29
in accordance with the attached plans and subject to *RULES AND REGULATIONS FOR ACCOMMODATING UTILITIES WITHIN HIGHWAY RIGHTS-OF-WAY* hereto issued by the Tennessee Department of Transportation ("TDOT"), and made a part hereof by reference thereto, and particularly to those provisions shown on this agreement and any special provisions set forth herein.
Special Provisions: _____

- A) Applicant is to deliver a **bond**, in a form acceptable to TDOT, in the sum of \$ _____ to guarantee installation of facilities consistent with provisions of this Agreement and maintenance of the State highway right-of-way for a period of _____ months after acceptance of the condition of the State highway right-of-way by an authorized representative of TDOT.
- OR**
- B) An active, fully executed **General Agreement** is in effect for Applicant, dated: April 19, 1992

This agreement is to be strictly construed and no work other than that specifically described above is authorized.

The applicant, in applying for this agreement, agrees to the following:

1. Applicant shall design, install and maintain its facilities in accordance with *RULES AND REGULATIONS FOR ACCOMMODATING UTILITIES WITHIN HIGHWAY RIGHTS-OF-WAY* hereto issued by TDOT.
2. Applicant, before commencing any work or installing any facilities, shall submit plans to TDOT's regional utility office showing the location, type, and scope of all work to be done or appliances to be installed in order that the Regional Utilities Coordinator may recommend approval of the proposed work.
3. Applicant is responsible for any damages caused by any negligence on its part, including but not limited to the improper placing of or failure to display construction signs, danger signs, and other required signing, and shall bear any expense proximately caused by its operation on the State highway right-of-way.
4. Applicant is responsible for identifying, surveying, and staking the State highway right-of-way boundary in the above-described work area, and for maintaining said staking for the duration of the installation of Applicant's facilities.
5. Applicant is responsible for acquiring all utility rights-of-way or easements outside the State highway right-of-way as may be needed to perform the installation and maintenance of its facilities, and is responsible for any damages caused by trespass or installation or maintenance of facilities outside the State highway right-of-way.
6. Applicant shall pay the salary and expenses of any inspector(s) that TDOT may see fit to place upon the work while such inspector(s) is/are assigned to this work. TDOT, before incurring any expenses expected to be charged to the Applicant, shall advise the Applicant in writing of this fact.
7. Applicant shall replace or repair any portion of the pavement, shoulders, bridges, private driveways or any part of said highway which may be disturbed or damaged. Replacements and repairs shall be made in accordance with the *TDOT Standard Specifications for Road and Bridge Construction* and any additional instructions which may be issued by TDOT. Applicant agrees that TDOT may accomplish further replacements or repairs if those made by the Applicant are not satisfactory, in which event the Applicant will reimburse TDOT for the cost of such other replacements or repairs. Except in cases of emergency, TDOT shall notify the Applicant of the nature and extent of such further replacements or repairs to be accomplished prior to undertaking the work.
8. If at any future time it should become necessary in the maintenance, construction, or reconstruction of said highway to have Applicant's facilities removed in order that said highway may be properly maintained, constructed or reconstructed, or in the event said facilities should, at any time, interfere with the use of said highway, the Applicant agrees, upon being requested so to do by TDOT, to remove said facilities as promptly as the magnitude of the work to be accomplished will permit, at its own expense and without cost to TDOT, unless any requested removal should be contrary to any law of the State. The relocation of the Applicant's facilities shall be accomplished in accordance with the provisions of Tennessee Code Annotated, Title 54, Chapter 5, Part 8, Relocation of Utilities. If the Applicant fails to remove and relocate its facilities promptly and timely in accordance with the plan and schedule approved, or as directed, by TDOT pursuant to these

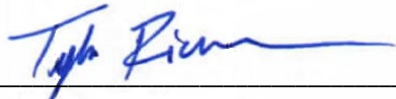
provisions, the Applicant understands and agrees that it shall be subject to any or all of the following remedies in accordance with T.C.A. § 54-5-854:

- a. TDOT's contractor may undertake the highway construction project without liability to the Applicant for damages to the Applicant's facilities;
- b. The Applicant shall be liable to TDOT's contractor for damages resulting from the failure, including without limitation the contractor's delay damages; and
- c. The Applicant shall be liable for any civil penalty assessed by TDOT for each calendar day the Applicant fails to complete the relocation of its facilities within the required schedule.

Neither the actions of TDOT nor those of its contractor after the Applicant's failure to remove and relocate its facilities in accordance with the required schedule shall constitute a waiver of any of these statutory remedies.

- 9. Applicant shall be responsible for any conflicts with other utilities or appurtenances that are on the highway right-of-way and shall notify the respective owner(s) of any conflicts and secure the owners permission for any alterations.
- 10. Applicant hereby indemnifies and holds harmless TDOT, its employees, officers and agents, from and against any and all claims, liabilities, losses, and causes of action which may arise, accrue, or result to any person, firm, corporation, or other entity which may be injured or damaged as a result of acts, omissions, or negligence on the part of the Applicant, its employees, its contractors, or any person acting for or on its or their behalf in the performance any activities relating to this Agreement. Applicant shall be liable for the reasonable cost of attorneys for TDOT in the event such services are necessitated to enforce the terms of this Agreement or otherwise enforce the obligations of the Applicant to TDOT.
In the event of any such suit or claim, the Applicant shall give TDOT immediate notice thereof and shall provide all assistance required by TDOT in TDOT's defense. TDOT shall give the Applicant written notice of any such claim or suit, and the Applicant shall have full right and obligation to conduct its own defense thereof. Nothing contained herein shall be deemed to accord to the Applicant, through its attorney(s), the right to represent TDOT in any legal matter, such rights being governed by Tennessee Code Annotated, Section 8-6-106.
- 11. TDOT does not grant the Applicant any right, title or claim on any State highway right-of-way, and in granting this permission to go upon the State highway right-of-way, TDOT does not in any way assume the maintenance of the Applicant's facility.
- 12. Applicant may be required by law to obtain one or more environmental permits prior to installing its facilities. Determining which permits are necessary and obtaining those permits are the sole responsibility of the Applicant. Contact information for the regulatory agencies is available from TDOT upon request. The activities of the Applicant in installing its facilities pursuant to this Agreement are not covered under any permit associated with TDOT construction activities.
- 13. Applicant agrees that if the total area of disturbed land associated with the installation of its facilities is planned to exceed, or does at any time actually exceed, one (1) acre, Applicant shall obtain coverage under a *National Pollutant Discharge Elimination System General Permit For Discharges Of Stormwater Associated With Construction Activities*.
- 14. Applicant agrees that during all phases of work permitted herein, it shall implement and maintain appropriate Erosion Prevention and Sediment Control measures, as described in the TDOT *Standard Specifications for Road and Bridge Construction* and/or the Tennessee Department of Environment and Conservation *Erosion and Sediment Control Handbook*.
- 15. The Utility agrees that it shall comply with all State and Federal laws, rules, regulations, and permit terms and conditions applicable to the installation and maintenance of the Applicant's facilities.
- 16. This agreement shall become void if work is not commenced within a year from the date of execution of this Agreement.

Applicant

By:  8/31/2026
Signature Date
General Manager
Title
Calhoun-Charleston Utility District
144 Main Street
Calhoun, TN 37309

**State of Tennessee Department of
Transportation**

By: _____
Regional Utility Coordinator Date
By: _____
Regional Engineering Director Date



1122 Riverfront Parkway
Chattanooga, TN 37402
423-267-7613
www.ctiengr.com

August 31, 2026

Tennessee Department of Transportation
Region 2 Utilities Office

Subject: Transmittal – Utility Use and Occupancy Permit Application
State Route 163 Waterline Extension
McMinn County, Tennessee

To Whom It May Concern:

Enclosed for your review and approval is the Utility Use and Occupancy Permit Application for the Calhoun-Charleston Utility District's proposed installation of a public water distribution main within the State Route 163 right-of-way in McMinn County, Tennessee.

The enclosed documents include:

1. Utility Use and Occupancy Permit Application
2. Justification Letter for Revised Waterline Alignment
3. Letter of Authorization from Calhoun-Charleston Utility District
4. Construction Plans

Please contact me at **(423) 267-7613** or pschofield@ctiengr.com if you require any additional information or supporting documentation to complete your review.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Philip R. Schofield", is written over a horizontal line.

Philip R. Schofield, P.E.
Senior Project Manager

cc: Tyler Richesin, General Manager
Jason Bell, PE, Project Manager



1122 Riverfront Parkway
Chattanooga, TN 37402
423-267-7613
www.ctiengr.com

August 31, 2026

Tennessee Department of Transportation
Region 2 Utilities Office

Re: Highway 163 Waterline Extension - Justification Letter
Calhoun-Charleston Utility District
TDOT Utility Permit No. 2026-586

To Whom It May Concern:

The purpose of this letter is to request approval to shift the proposed 6-inch waterline alignment closer to the edge of the State Route 163 pavement within the existing TDOT right-of-way.

During final design, it was determined that relocating the waterline closer to the roadway will avoid the adjacent Resolute Forest Products wastewater lagoons. The revised alignment minimizes environmental disturbance by keeping construction within an area previously disturbed by roadway construction and maintenance activities.

The revised alignment remains within the existing TDOT right-of-way and maintains the required depth of cover and horizontal separation from the pavement edge. The relocation does not adversely affect roadway operations, drainage facilities, or existing utilities.

The proposed alignment represents the most practical location for the utility installation while meeting the design requirements of both the Calhoun-Charleston Utility District and the Tennessee Department of Transportation.

We respectfully request TDOT's approval of the revised alignment as shown on the enclosed permit drawings. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Philip R. Schofield", is written over a horizontal line.

Philip R. Schofield, P.E.
Senior Project Manager

CALHOUN-CHARLESTON



UTILITY DISTRICT

**144 South Main Street
Calhoun, TN 37309
423-336-3571**

August 31, 2026

Tennessee Department of Transportation
Region 2 Utilities Office

Re: Utility Use and Occupancy Permit Application
State Route 163 – Highway 163 Waterline Extension
McMinn County, Tennessee

Dear Utility Coordinator:

Enclosed for your review and approval is the Utility Use and Occupancy Permit Application for the proposed installation of a public water distribution main within the State Route 163 right-of-way in McMinn County, Tennessee.

The proposed work consists of the installation of approximately 4,825 linear feet of 6-inch waterline within the State Route 163 right-of-way, together with associated valves, fittings, fire hydrants, air release assemblies, blow-offs, and related appurtenances, as shown on the enclosed construction plans.

The following documents are enclosed for your review:

- Utility Use and Occupancy Permit Application
- Construction Plans

Please contact Philip Schofield, PE, CTI Engineers, Inc., at (423) 267-7613 or by email at pschofield@ctiengr.com if additional information is required.

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tyler Richesin".

Tyler Richesin
General Manager

Pipeline Encroachments

The following information is required to accompany all plans for pipeline encroachments.

	Carrier Pipe	Casing Pipe
1. Contents to be handled	<u>Potable Water</u>	<u>N/A</u>
2. Outside Diameter	<u>6.625 inches</u>	<u>N/A</u>
3. Nominal Diameter	<u>6 inches</u>	<u>N/A</u>
4. Pipe material	<u>PVC</u>	<u>N/A</u>
5. Pipe Specification and grade	<u>SDR 17, Class 250</u>	<u>N/A</u>
6. Wall thickness	<u>0.390 inches</u>	<u>N/A</u>
7. Design Pressure	<u>250 psi</u>	<u>N/A</u>
8. Actual Working Pressure	<u>150 psi</u>	<u>N/A</u>
9. Type of joint	<u>Rubber Gasket Push-On Joint</u>	<u>N/A</u>
10. Coating	<u>None</u>	<u>N/A</u>
11. Method of installation	<u>Open Cut Trench</u>	<u>N/A</u>
12. Protection at end of casing	<u>N/A</u>	<u>N/A</u>
	Both Ends <u>N/A</u> One end <u>N/A</u> Type <u>N/A</u>	
13. Cover: Finished grade to top of casing or carrier	<u>36-inches minimum</u>	
Bottom of ditch or toe of slope to top of carrier to casing	<u>36-inches minimum</u>	
14. Cathodic protection	<u>None</u>	
15. Size and height of casing vent	<u>N/A – No Casing</u>	
16. Distance from casing vent to edge of nearest traffic lane	<u>N/A – No Casing</u>	

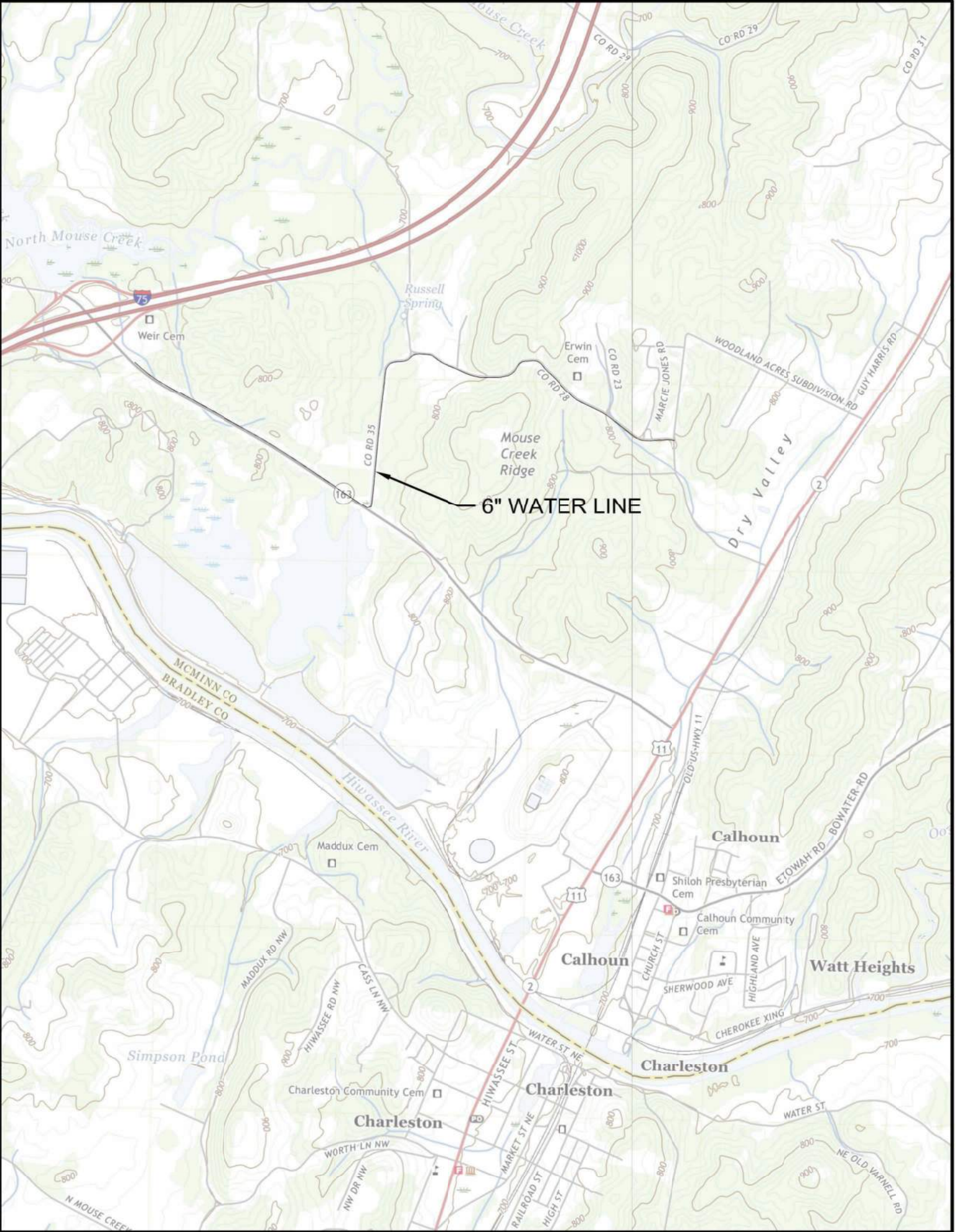
CTI PROJECT: C25004 (Calhoun Charleston Utility Dis) Hwy 163 Waterline DRAWING: _C25004 TITLE (859172x5/7/26 4:16PM), LAYOUT: G001
DATE OF PRINT: 5/7/2026 4:16 PM

CALHOUN-CHARLESTON UTILITY DISTRICT

HWY 163 WATERLINE

DRAWING INDEX

<u>TITLE</u>	<u>DRAWING NO.</u>
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GENERAL NOTES	G002
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PLAN VIEW SHEET 1	C002
PLAN VIEW SHEET 2	C003
PLAN VIEW SHEET 3	C004
PLAN VIEW SHEET 4	C005
PLAN VIEW SHEET 5	C006
TYPICAL DETAILS SHEET 1	C007
TYPICAL DETAILS SHEET 2	C008
TYPICAL DETAILS SHEET 3	C009
EROSION CONTROL DETAILS	ES001



LOCATION MAP
SCALE: 1"= 1200'




JASON BELL, PE
TENNESSEE LICENSE NO. 122246

5/4/26
DATE



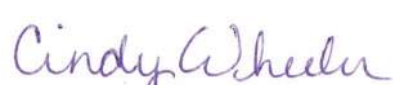
DW20251271

APPROVED FOR CONSTRUCTION

THE DOCUMENT BEARING THIS STAMP HAS BEEN RECEIVED AND REVIEWED BY THE

TENNESSEE DEPT. OF ENVIRONMENT & CONSERVATION
DIVISION OF WATER RESOURCES

AND IS HEREBY APPROVED FOR CONSTRUCTION BY THE COMMISSIONER


07/28/2026

THIS APPROVAL SHALL NOT BE CONSTRUED AS CREATING A PRESUMPTION
OF CORRECT OPERATION OR AS WARRANTING BY THE COMMISSIONER THAT
THE APPROVED FACILITIES WILL REACH THE DESIGNED GOALS.

APPROVAL EXPIRES ONE YEAR FROM ABOVE DATE

PROJECT INFORMATION

PROJECT:
HWY 163 WATERLINE
CALHOUN-CHARLESTON UTILITY DISTRICT

CONTACT INFORMATION

OWNER:
CALHOUN-CHARLESTON UTILITY DISTRICT
144 MAIN STREET
CALHOUN, TN 37309

OWNER'S REPRESENTATIVE:
TYLER RICHESIN, GENERAL MANAGER
CALHOUN-CHARLESTON UTILITY DISTRICT
PO BOX 93
CALHOUN, TN 37309
TEL: (423) 336-3571
EMAIL: tylercud@gmail.com

CONSTRUCTION MANAGER:
TO BE DETERMINED

CIVIL ENGINEER:
JASON BELL, P.E.
CTI ENGINEERS, INC.
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TENNESSEE 37402
TEL 423-267-7613
FAX: 423-267-0603

LIDAR/GIS:
SKYVIEW IMAGING, LLC
CHATTANOOGA, TENNESSEE

UTILITY INFORMATION:

- LOCATIONS OF UTILITIES, PUBLIC AND/OR PRIVATE, ARE APPROXIMATE ONLY, AND THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD. IT IS POSSIBLE THAT SOME EXISTING FACILITIES ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING ALL UNDERGROUND UTILITY FACILITIES LOCATED AND MARKED PRIOR TO THE BEGINNING OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTACTING ALL AFFECTED UTILITY OWNERS PRIOR TO SUBMITTING HIS BID SO THAT HE MAY DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS SHALL HAVE UPON THE SCHEDULING OF WORK FOR THE PROJECT. SOME UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS, WHILE SOME WORK MAY BE REQUIRED AROUND UTILITY FACILITIES THAT SHALL REMAIN IN PLACE. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION FOR ANY DELAYS OR INCONVENIENCE CAUSED BY UTILITY ADJUSTMENTS.
- THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY OWNERS PRIOR TO INTERRUPTING ANY GAS, WATER, OR SEWER SERVICES. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY CUSTOMERS AT LEAST 24 HOURS BEFORE INTERRUPTING THE CUSTOMERS' SERVICE. WHERE INDIVIDUAL SERVICES ARE TO BE DISCONTINUED FOR MORE THAN 4 HOURS, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR PROVIDING TEMPORARY SERVICE SATISFACTORY TO THE AFFECTED CUSTOMER. THE REPAIR OR REPLACEMENT OF UTILITY COMPONENTS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF THE UTILITY OWNER. NO SEPARATE PAYMENT SHALL BE MADE FOR THESE ACTIVITIES, AND COMPENSATION, THEREFORE, SHALL BE INCLUDED IN THE CONTRACT PRICES FOR OTHER ITEMS.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. SHOULD SPECIAL EQUIPMENT BE REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR SHALL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FROM FURNISHING SPECIAL EQUIPMENT SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- ANY EXISTING STORM SEWER DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AS RAPIDLY AS POSSIBLE AND THEN BE INSPECTED BY ITS RESPECTIVE OWNER. THE ENGINEER SHALL DETERMINE IF DAMAGE IS THE RESULT OF THE CONTRACTOR'S NEGLIGENCE OR OF AN UNAVOIDABLE CAUSE.
- THE UNDERGROUND UTILITIES SHOWN ON THE SURVEY HAVE BEEN LOCATED FROM FIELD INFORMATION, EXISTING DRAWINGS, OR BOTH, UNLESS NOTED OTHERWISE. NEITHER THE ENGINEER NOR THE SURVEYOR WARRANTS THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.
- UNLESS NOTED OTHERWISE, NEITHER THE ENGINEER NOR THE SURVEYOR WARRANTS THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
- UNLESS NOTED OTHERWISE, NEITHER THE ENGINEER NOR THE SURVEYOR HAS PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

DRAWING INFORMATION

THE FOLLOWING ARE APPLICABLE TO ALL CIVIL DOCUMENTS:

- THE ISSUED PROJECT DRAWINGS ARE ONE COMPONENT OF THE CONSTRUCTION CONTRACT DOCUMENTS AND IN CONJUNCTION WITH THE GENERAL SPECIFICATIONS, DETAILS AND APPLICABLE CODES AND REGULATIONS ARE INTENDED TO COVER A COMPLETE PROJECT, READY TO USE. ALL ITEMS NECESSARY FOR A COMPLETE AND WORKABLE JOB SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. CONTACT THE ENGINEER TO OBTAIN A COPY OF THE GENERAL SPECIFICATIONS.
- WHERE A DETAIL SECTION, TYPICAL SECTION, OR A NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS, UNLESS NOTED OTHERWISE ON THE PLANS.

CONTRACTOR RESPONSIBILITIES

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR:

- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS INCLUDING UTILITIES (INVERTS, CONNECTIONS, MATERIALS, ETC.) AND DIMENSIONS WITHIN THE LIMITS OF WORK PRIOR TO THE START OF CONSTRUCTION
- THE CONTRACTOR IS RESPONSIBLE FOR ALL NOTIFICATIONS AND LIAISONS WITH UTILITY COMPANIES DURING THE PROCESS OF LOCATING, RELOCATING, AND TYING INTO PUBLIC UTILITIES.
- PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THESE LIMITS SHALL BE ESTABLISHED ACCORDING TO THE PROCEDURES ESTABLISHED BY THE GOVERNING AUTHORITY. THE LOCATION OF AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE SHALL OCCUR INSIDE THE APPROVED LIMITS OF DISTURBANCE.

DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR:

- THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER FOR ANY DEVIATIONS FROM THESE PLANS. DEVIATIONS FROM THESE PLANS AND ANY ASSOCIATED SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER MAY CAUSE THE WORK TO BE UNACCEPTABLE
- THE CONTRACTOR SHALL USE MATERIALS AND EMPLOY CONSTRUCTION METHODS IN ORDER TO COMPLY WITH THE DRAWINGS AND ANY ASSOCIATED SPECIFICATIONS. WHERE A CONFLICT OCCURS, THE STRICTEST DESIGN SHALL GOVERN. THE ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., DOES NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL INFORM THE ENGINEER *IN WRITING* OF ANY SPECIFIC DEVIATIONS AND OBTAIN THE ENGINEER'S WRITTEN APPROVAL OF THE SPECIFIC DEVIATION *PRIOR TO THE CONSTRUCTION OF THE DEVIATION*.

- IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- ALL CONSTRUCTION MUST CONFORM TO THE STANDARDS, SPECIFICATIONS, AND CODES OF THE GOVERNING MUNICIPALITIES.
- CONSTRUCTION SHALL MEET ALL STANDARDS SET FORTH IN THE AMERICANS WITH DISABILITIES ACT.
- IF THE CONTRACTOR DAMAGES ANY EXISTING UTILITIES DURING CONSTRUCTION, HE SHALL, AT HIS OWN EXPENSE, REPLACE OR REPAIR THE UTILITIES TO THE ORIGINAL CONDITION AND QUALITY AS APPROVED BY THE OWNER AND REPRESENTATIVE OF THE APPROPRIATE UTILITY COMPANY.
- IF THE CONTRACTOR DAMAGES ANY EXISTING SITE FEATURES DURING CONSTRUCTION, HE SHALL AT HIS OWN EXPENSE, REPLACE OR REPAIR THE FEATURES TO ORIGINAL CONDITION AND QUALITY AS APPROVED BY THE OWNER OR THEIR DESIGNATED REPRESENTATIVE.
- SUFFICIENT BARRICADES, LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL METHODS IN ACCORDANCE WITH GOVERNING ORDINANCES MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC. SAID CONTROL DEVICES SHALL BE PER THE MANUAL OF TRAFFIC CONTROL DEVICES, M.U.T.C.D., CURRENT EDITION, AND SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION.
- TRAFFIC CONTROLS AND OTHER WARNING DEVICES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY WORK ON CITY, COUNTY, OR TENNESSEE DEPARTMENT OF TRANSPORTATION ROADS. THEY SHALL BE MAINTAINED THROUGH OUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL THE CONCLUSION OF ALL WORK.
- ALL WARNING DEVICES SHALL BE EITHER TYPE I BARRICADES OR DRUMS WITH WARNING LIGHTS ON EVERY OTHER DEVICE. THEY SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION, AND THE STANDARDS OF THE GOVERNING AUTHORITY FOR COLOR, SIZE, REFLECTIVITY, HEIGHT, AND PLACEMENT.
- FIRE DEPARTMENT ACCESS SHALL BE MAINTAINED AT ALL TIMES.
- CONTRACTOR SHALL SHORE AND BRACE ALL EARTH, FORMS, CONCRETE, STEEL, WOOD, AND MASONRY TO RESIST GRAVITY, EARTH, WIND, THERMAL, CONSTRUCTION, AND MISCELLANEOUS LOADS DURING CONSTRUCTION.
- ON-SITE BURIAL OF DEBRIS IS PROHIBITED.
- UNLESS OTHERWISE NOTED THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL FABRICATED MATERIALS TO THE ENGINEER FOR REVIEW. DESIGN DOCUMENTS SHALL NOT BE REPRODUCED AS SHOP DRAWINGS.
- IN CASE OF UNFORESEEN CONSTRUCTION COMPLICATIONS OR DISCREPANCIES, THE CONTRACTOR IS TO IMMEDIATELY NOTIFY THE ENGINEER *IN WRITING*.
- ALL REQUIRED TESTING REPORTS SHALL BE AVAILABLE AT THE JOB SITE.
- AS-BUILT DRAWINGS OF ROADWAYS, STORM DRAINS, SANITARY SEWER AND WATER LINES, FIELD APPROVAL BY THE ENGINEER, AND ALL APPLICABLE BONDS ARE REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE OWNER.
- UNLESS OTHERWISE NOTED ON THE DRAWINGS OR SPECIFICATIONS, ALL FILL AREAS MUST BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR.
- CONTRACTOR SHALL MAINTAIN CONTINUOUS UTILITY SERVICE TO ALL EXISTING BUILDINGS THROUGHOUT CONSTRUCTION UNLESS APPROVAL FOR SERVICE INTERRUPTION IS OBTAINED FROM THE OWNERS IN ADVANCE.

TRAFFIC

- THE CONTRACTOR SHALL MAINTAIN ALL BUSINESS, VEHICULAR, AND PEDESTRIAN ENTRANCES.
- PRIOR TO CLOSING THE ROAD TO THROUGH TRAFFIC, THE CONTRACTOR SHALL NOTIFY ALL AFFECTED LOCAL AGENCIES ABOUT THE PROPOSED ROAD CLOSURE. THOSE TO BE CONTACTED SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: FIRE DEPARTMENT, POLICE DEPARTMENT, SHERIFF'S DEPARTMENT, POST OFFICE, TRAFFIC ENGINEER'S OFFICE, AND THE BOARD OF EDUCATION.

DEMOLITION INFORMATION

NOTIFICATIONS:

- THE CONTRACTOR SHALL NOTIFY THE OWNER AND COUNTY/CITY INSPECTOR(S) 24 HOURS PRIOR TO ANY DEMOLITION OR CONSTRUCTION.

DISPOSAL GUIDELINES:

- ONLY ITEMS SPECIFICALLY NOTED TO BE DEMOLISHED SHALL BE REMOVED FROM THE SITE.
- REMOVE EXISTING PAVED AREAS AS SHOWN INCLUDING DRIVEWAYS, SIDEWALKS, PARKING AREAS, SERVICE AREAS, EQUIPMENT PADS, AND ALL MISCELLANEOUS PAVING.
- ALL DEBRIS RESULTING FROM DEMOLITION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY BY THE CONTRACTOR. BACKFILL ALL TRENCHES AND EXCAVATIONS RESULTING FROM DEMOLITION.
- ALL DEMOLISHED MATERIAL BECOMES THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED.

TREE PROTECTION GUIDELINES:

- PROTECT ALL EXISTING TREES AND ALL ITEMS TO BE TURNED OVER TO THE OWNER DURING DEMOLITION. TAKE ALL NECESSARY PRECAUTIONS AND PROTECTIVE MEASURES. ANY EXISTING ITEMS TO BE TURNED OVER TO THE OWNER WHICH ARE DAMAGED DURING DEMOLITION SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. TREES WHICH ARE DAMAGED WILL BE REPLACED OR REIMBURSED AT A RATE TO BE DETERMINED BY THE OWNER.

UTILITIES:

- PRIOR TO REMOVING OR ABANDONING ANY UTILITY THE CONTRACTOR SHALL VERIFY THAT NO SERVICE WILL BE TERMINATED. THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY TERMINATION NOT SHOWN ON THE PLANS.
- ALL ABANDONED WATER LINES, STORM SEWER PIPE, SANITARY SEWER PIPES, GAS LINES, OR ANY OTHER ABANDONED UNDERGROUND UTILITY SHALL BE COMPLETELY REMOVED UNLESS NOTED OTHERWISE.

GRADING:

- GRADING AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 31 2000 OF THE SPECIFICATIONS. ANY EXCAVATIONS IN THESE AREAS SHALL BE BACKFILLED TO THE GRADES AS SHOWN ON THE PLANS.

GRADING AND EXCAVATION

- FINISHED GRADES ON PROFILES ARE THE SAME AS FINISHED GRADES SHOWN ON TYPICAL SECTIONS AND ON CROSS SECTIONS.
- THE COST OF REMOVAL AND DISPOSAL OF EXISTING FLEXIBLE PAVEMENT ENCOUNTERED IN THE PROGRESS OF THE WORK AND NOT COVERED IN OTHER BID ITEMS SHOWN ON PLANS, SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.
- WHEN SPECIFIED GRADING REQUIREMENTS ARE NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL GRADE ALL AREAS DISTURBED BY CONSTRUCTION, TO DRAIN AND TO MATCH THE EXISTING, ADJACENT GROUND.
- ON THE PROJECT, NEWLY GRADED, EARTH AREAS NOT TO BE PAVED, RIP-RAPPED, OR STABILIZED SHALL BE SEEDED IN ACCORDANCE WITH THE SPECIFICATIONS.

- THE CONTRACTOR IS TO DISPOSE OF, AT HIS OWN EXPENSE, ALL UNSUITABLE AND/OR SURPLUS, EXCAVATED MATERIAL.
- EXCAVATION ADJACENT TO EXISTING PAVEMENT SHALL BE MADE TO A NEAT SAW-CUT LINE.

EROSION AND POLLUTION CONTROL

- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRECTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES. THE CONTRACTOR SHALL NOT DISTURB MORE AREA THAN CAN BE STABILIZED AT THE END OF EACH WORK DAY.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO CONTROL EROSION AND WATER POLLUTION THROUGH THE CONSTRUCTION PERIOD. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE IN PLACE BEFORE EARTH MOVING OPERATIONS BEGIN. CLEARING AND GRUBBING SHALL BE HELD TO A MINIMUM WIDTH NECESSARY TO ACCOMMODATE THE CONSTRUCTION OF THE PROJECT. EXCAVATED AREAS SHALL BE PROMPTLY STABILIZED TO MINIMIZE EROSION. BALED STRAW EROSION CHECKS AND SILT FENCES SHALL BE USED ALONG THE TOE OF FILL SLOPES, IN DITCHES, AND IN OTHER AREAS WHERE EROSION IS A PROBLEM AND SILT-LADEN RUN-OFF MAY ENTER A STREAM OR ADJACENT PROPERTY.
- ANY STOCKPILED SOIL OR FILL MATERIAL SHALL BE LOCATED AND TREATED IN A MANNER TO PREVENT SILT'S ENTERING STREAMS. NO EXCAVATED MATERIAL SHALL BE DISCHARGED INTO DITCHES. THE CONTRACTOR SHALL DISPOSE OF ALL EXCAVATED MATERIAL IN A LOCATION, APPROVED BY THE ENGINEER, ABOVE THE NORMAL HIGH WATER ELEVATION.
- THE CONTRACTOR MUST INSTALL EROSION AND SEDIMENT CONTROL AND MAINTAIN CONTROLS UNTIL THE ESTABLISHMENT OF FINAL VEGETATIVE COVER. THIS WILL INCLUDE SILT FENCING, HAY BALES, SLOPE STABILIZATION FABRIC, ETC. TO MINIMIZE SEDIMENT IN THE RUNOFF. EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES.
- WITHIN THE UNIT PRICE FOR EACH EROSION CONTROL ITEM, THE CONTRACTOR IS EXPECTED TO MAINTAIN THE EROSION CONTROL MEASURES THROUGHOUT THE LENGTH OF THE CONTRACT AS REQUIRED.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY EROSION AND WATER CONTROL MEASURES (SUCH AS BERMS, SEDIMENT BASINS, SLOPE DRAINS, HAY BALES, AND SILT FENCES) AS REQUIRED BY LAW TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THESE TEMPORARY MEASURES SHALL BE COORDINATED WITH THE PERMANENT EROSION CONTROL FEATURES TO ASSURE ECONOMICAL, EFFECTIVE, AND CONTINUOUS EROSION CONTROL THROUGHOUT THE PROJECT.
- DRAINAGE WATER FROM DEWATERING EXCAVATIONS THAT CONTAINS MUD OR SEDIMENT SHALL NOT BE DISCHARGED DIRECTLY INTO DITCHES OR CREEKS. FILTER SUCH WATER USING APPROPRIATE SEDIMENT TRAPS PRIOR TO DISCHARGE. NO SEPARATE PAYMENT WILL BE MADE FOR COMPLYING WITH THIS REQUIREMENT.

RIGHTS-OF WAY/EASEMENTS

- BEFORE CONSTRUCTION OF PROJECT, CALHOUN-CHARLESTON UTILITY DISTRICT SHALL ATTEMPT TO SECURE ALL RIGHT-OF-WAYS AND EASEMENTS REQUIRED FOR COMPLETION OF THE PROJECT.

MISCELLANEOUS

- PIPE AND FITTING MATERIAL SHALL BE FURNISHED BY THE CONTRACTOR AS DESCRIBED IN THE BID SCHEDULE. ALL OTHER MATERIALS NOT SPECIFIED SHALL BE FURNISHED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST AND COORDINATION ASSOCIATED WITH ALL UTILITY COMPANIES REQUIRING UTILITY POLE TIE-BACKS.
- ALL CONCRETE SHALL BE CLASS "A" (4,000 PSI) UNLESS OTHERWISE NOTED ON THE PLANS OR DETAILS. CLASS "B" CONCRETE SHALL BE 3,000 PSI.
- CONTRACTOR SHALL RESTORE/STABILIZE DISTURBED PROPERTY DAILY AFTER PIPE INSTALLATION.
- ALL MAIN LINE VALVES SHALL BE OPEN-RIGHT AND FIRE HYDRANT VALVES OPEN-LEFT.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING ANY LAY-DOWN OR STAGING AREA NECESSARY TO PERFORM THE WORK.

ADDITIONAL EROSION CONTROL NOTES:

- PIPELINE TRENCH SHALL BE BACKFILLED DAILY. DISTURBED AREAS OUTSIDE OF THE PIPELINE TRENCH SHALL NOT BE EXPOSED FOR MORE THAN 14 DAYS. AREAS THAT REMAIN DISTURBED FOR MORE THAN 14 DAYS ARE TO BE TEMPORARILY MULCHED AND SEEDED.
- THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY THE ENGINEER OR THE ENGINEER'S AUTHORIZED AGENT, UNDER THE ENGINEER'S DIRECT SUPERVISION.
- THE PROPOSED PROJECT IS ESTIMATED TO DISTURB MORE THAN 1 ACRE. CONSTRUCTION SHALL CONFORM TO THE MINIMUM REQUIREMENTS SET FORTH IN LOCAL ORDINANCES. SEDIMENT MUST BE PREVENTED FROM MOVING BEYOND THE BOUNDARIES OF THE PROPOSED WATER LINE CONSTRUCTION.

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CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE

GENERAL NOTES



CTIENGINEERS
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613



JASON BELL
REGISTERED ENGINEER
NO. 12247
STATE OF TENNESSEE

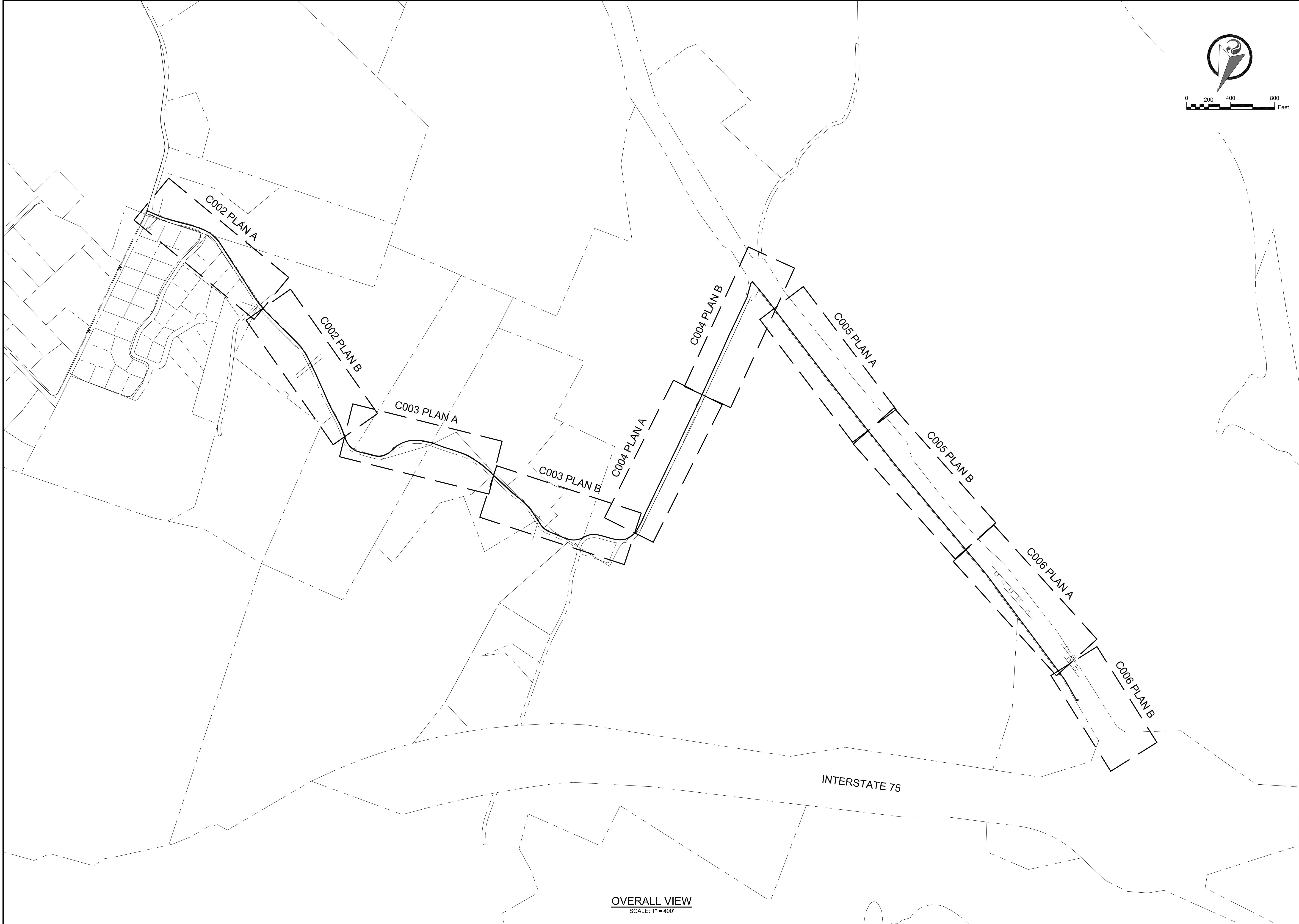
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ISSUE DATE
06/27/2025

DRAWING NO.
G002

DATE OF PRINT: 5/1/2026 2:48 PM

CTI PROJECT: C25004, DRAWING: C25004 - C25004 PROPOSED BASE (659036v12/14/24/26 4:00PM), LAYOUT: C001



OVERALL VIEW
SCALE: 1" = 400'

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CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE

OVERALL PLAN



CTIENGINEERS
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613



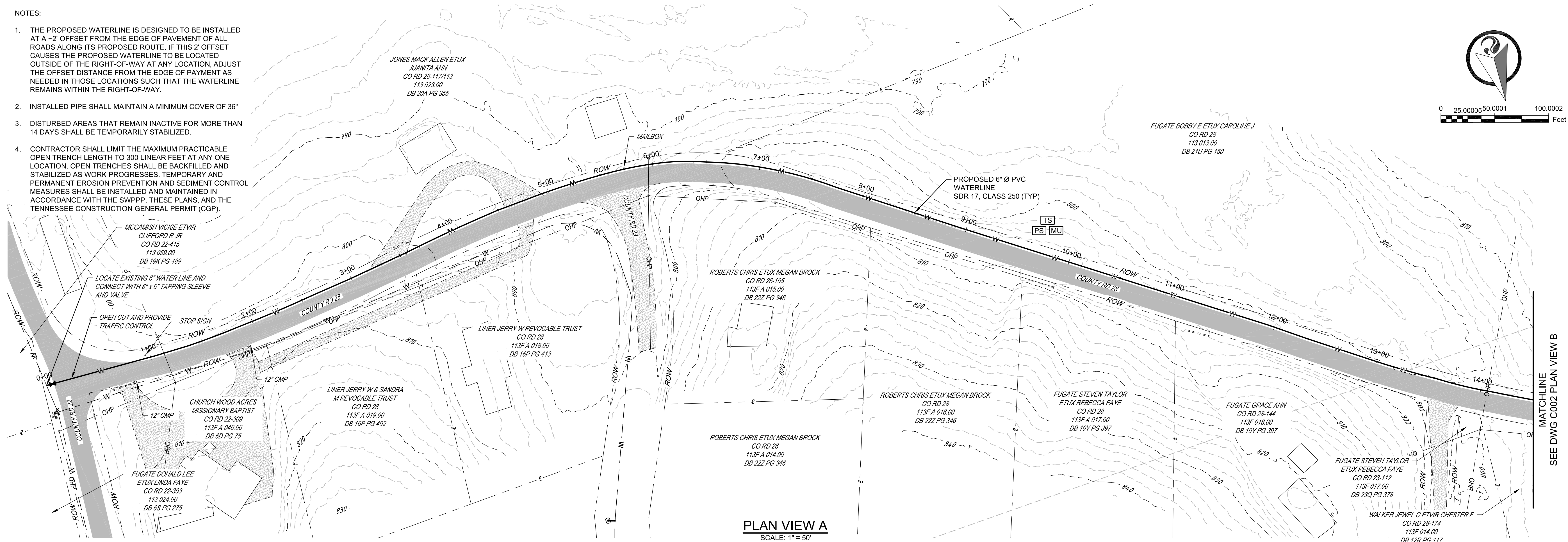
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ISSUE DATE
06/27/2025

DRAWING NO.
C001

NOTES:

1. THE PROPOSED WATERLINE IS DESIGNED TO BE INSTALLED AT A 2'-0" OFFSET FROM THE EDGE OF PAVEMENT OF ALL ROADS ALONG ITS PROPOSED ROUTE. IF THIS 2' OFFSET CAUSES THE PROPOSED WATERLINE TO BE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AT ANY LOCATION, ADJUST THE OFFSET DISTANCE FROM THE EDGE OF PAYMENT AS NEEDED IN THOSE LOCATIONS SUCH THAT THE WATERLINE REMAINS WITHIN THE RIGHT-OF-WAY.
2. INSTALLED PIPE SHALL MAINTAIN A MINIMUM COVER OF 36"
3. DISTURBED AREAS THAT REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY STABILIZED.
4. CONTRACTOR SHALL LIMIT THE MAXIMUM PRACTICABLE OPEN TRENCH LENGTH TO 300 LINEAR FEET AT ANY ONE LOCATION. OPEN TRENCHES SHALL BE BACKFILLED AND STABILIZED AS WORK PROGRESSES. TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE SWPPP. THESE PLANS, AND THE TENNESSEE CONSTRUCTION GENERAL PERMIT (CGP).



PLAN VIEW A
SCALE: 1" = 50'



PLAN VIEW B
SCALE: 1" = 50'

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CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE
PLAN VIEW
SHEET 1

CTI ENGINEERS
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613

JASON BELA
REGISTERED ENGINEER
STATE OF TENNESSEE
12222

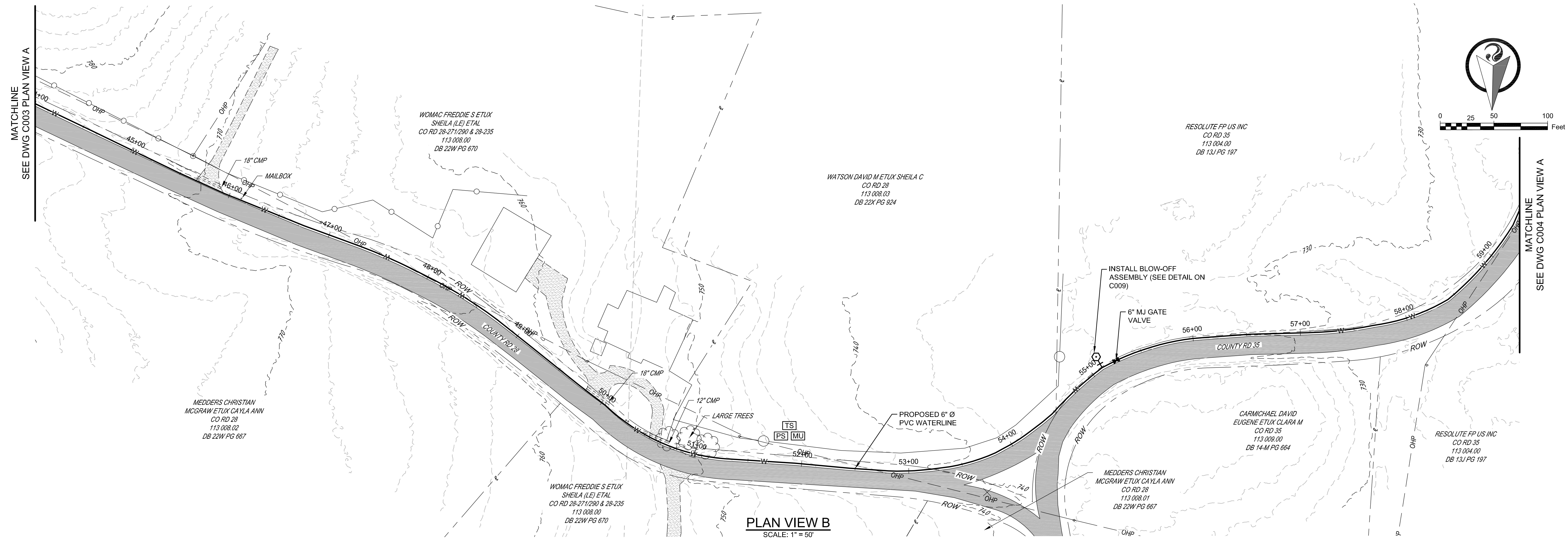
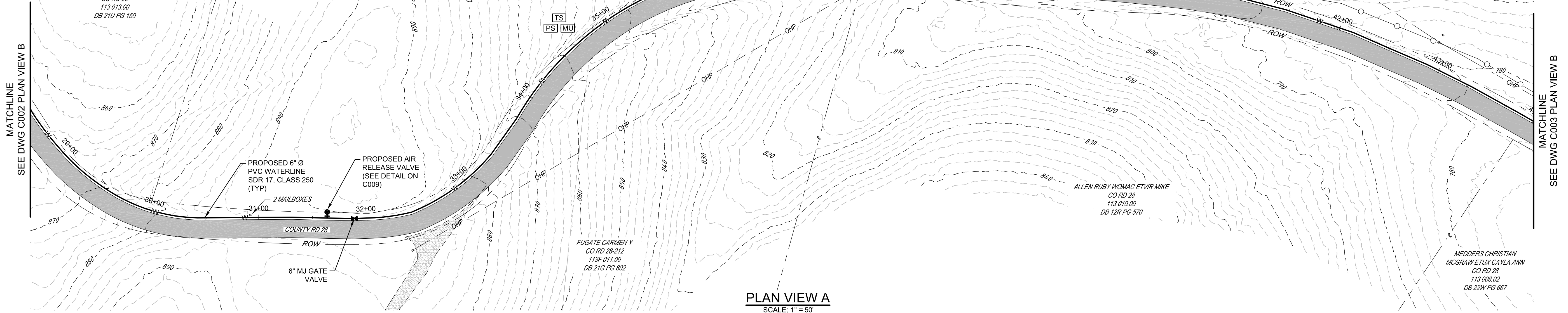
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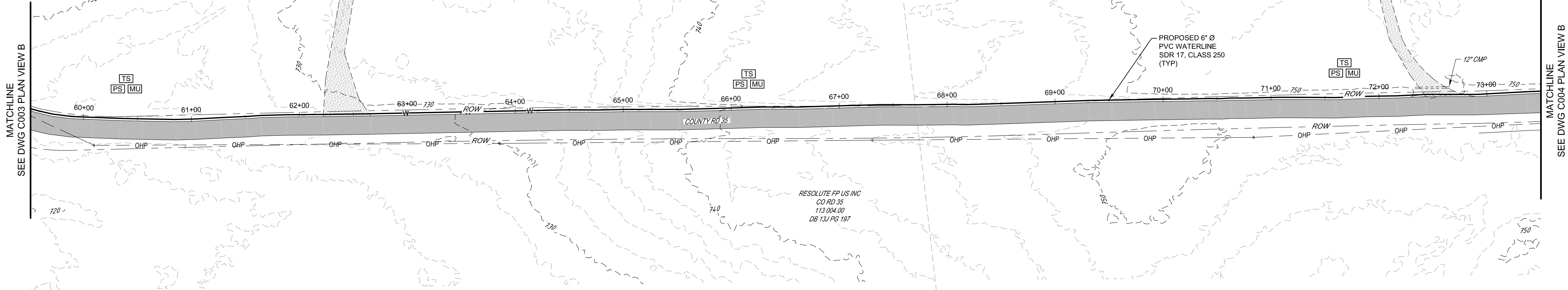
1. THE PROPOSED WATERLINE IS DESIGNED TO BE INSTALLED AT A -2' OFFSET FROM THE EDGE OF PAVEMENT OF ALL ROADS ALONG ITS PROPOSED ROUTE. IF THIS 2' OFFSET CAUSES THE PROPOSED WATERLINE TO BE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AT ANY LOCATION, ADJUST THE OFFSET DISTANCE FROM THE EDGE OF PAYMENT AS NEEDED IN THOSE LOCATIONS SUCH THAT THE WATERLINE REMAINS WITHIN THE RIGHT-OF-WAY.
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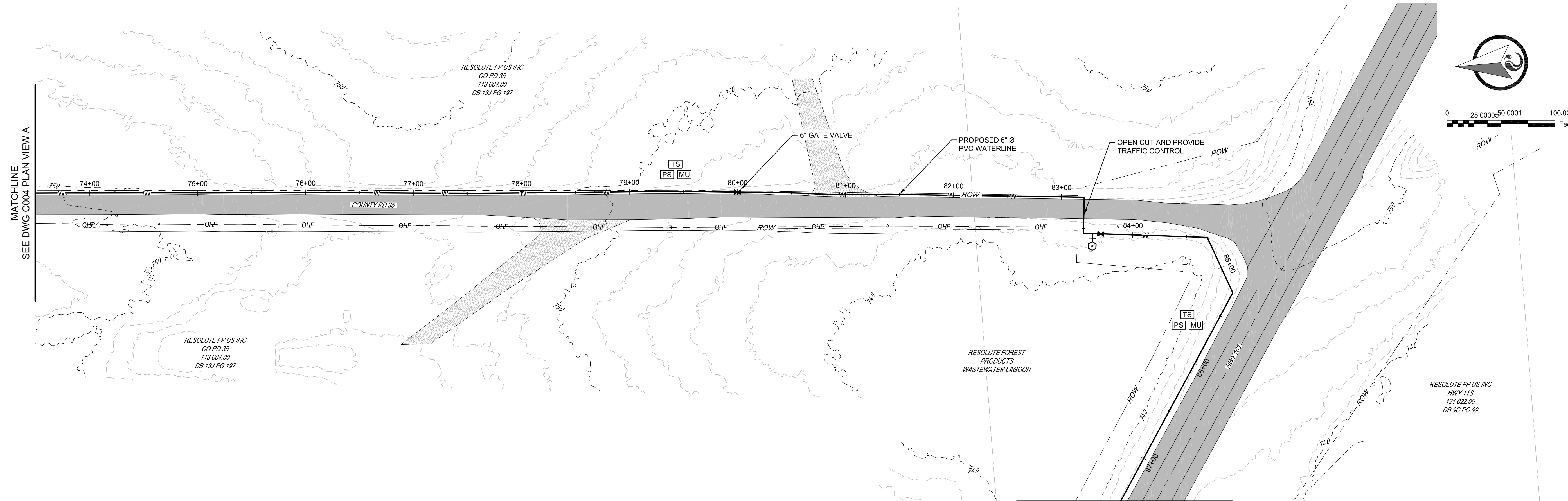
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APPROVED: JRB	
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DESCRIPTIONS	
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CALHOUN-CHARLESTON UTILITY DISTRICT	
HWY 163 WATERLINE	
PLAN VIEW	
SHEET 2	
CTI ENGINEERS	
1122 RIVERFRONT PARKWAY	
CHATTANOOGA, TN 37402	
423-267-7613	
JASON BELA	
REGISTERED ENGINEER	
STATE OF TENNESSEE	
JOB NO. C25004	
ISSUE DATE 06/27/2025	
DRAWING NO. C003	

NOTES:

1. THE PROPOSED WATERLINE IS DESIGNED TO BE INSTALLED AT A -2' OFFSET FROM THE EDGE OF PAVEMENT OF ALL ROADS ALONG ITS PROPOSED ROUTE. IF THIS 2' OFFSET CAUSES THE PROPOSED WATERLINE TO BE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AT ANY LOCATION, ADJUST THE OFFSET DISTANCE FROM THE EDGE OF PAYMENT AS NEEDED IN THOSE LOCATIONS SUCH THAT THE WATERLINE REMAINS WITHIN THE RIGHT-OF-WAY.
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PLAN VIEW A
SCALE: 1" = 50'



PLAN VIEW B
SCALE: 1" = 50'

MATCHLINE
SEE DWG C005 PLAN VIEW A

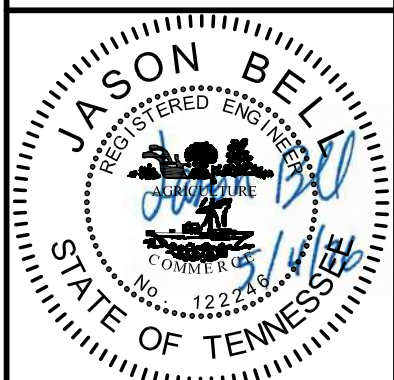
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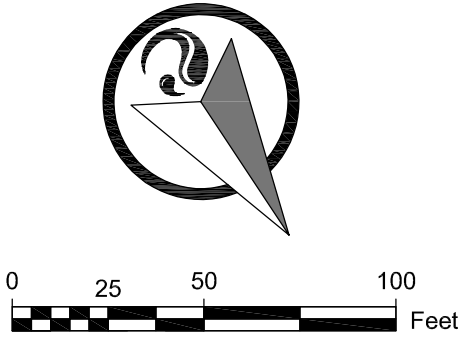
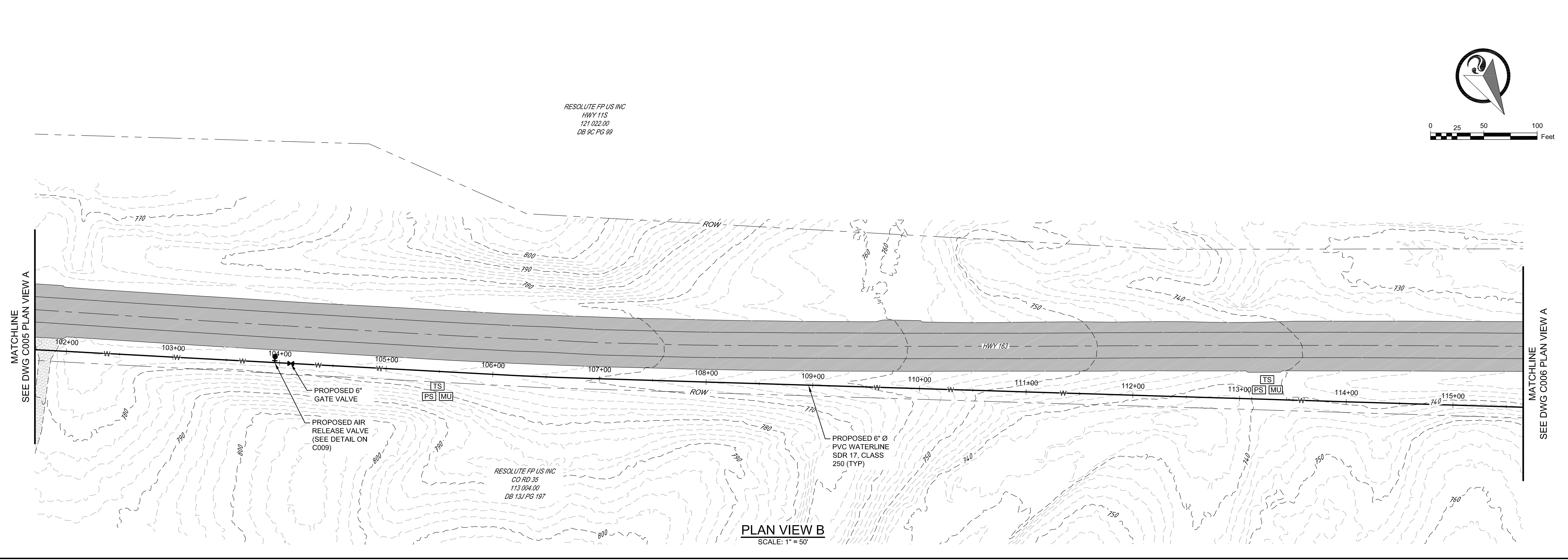
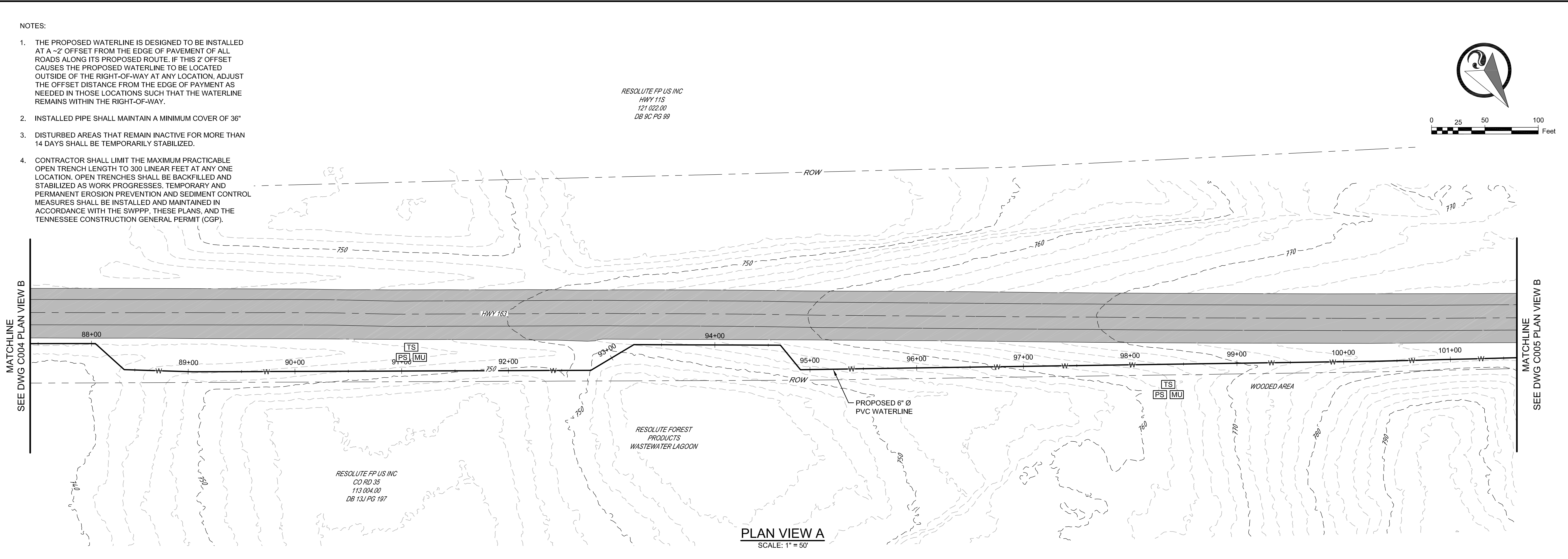
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CHECKED	ZWR
APPROVED	JRB

CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE
PLAN VIEW
SHEET 3

CTI ENGINEERS
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613



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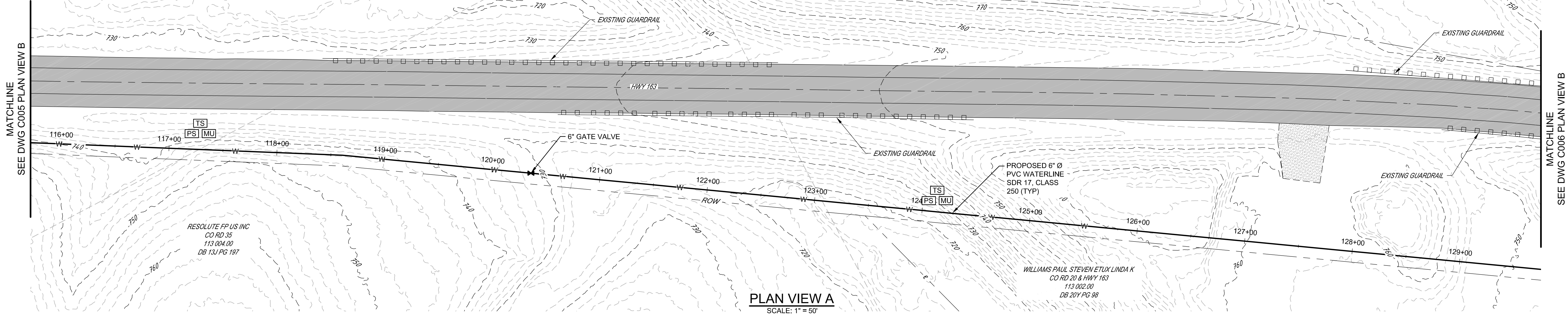
CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE
PLAN VIEW
SHEET 4



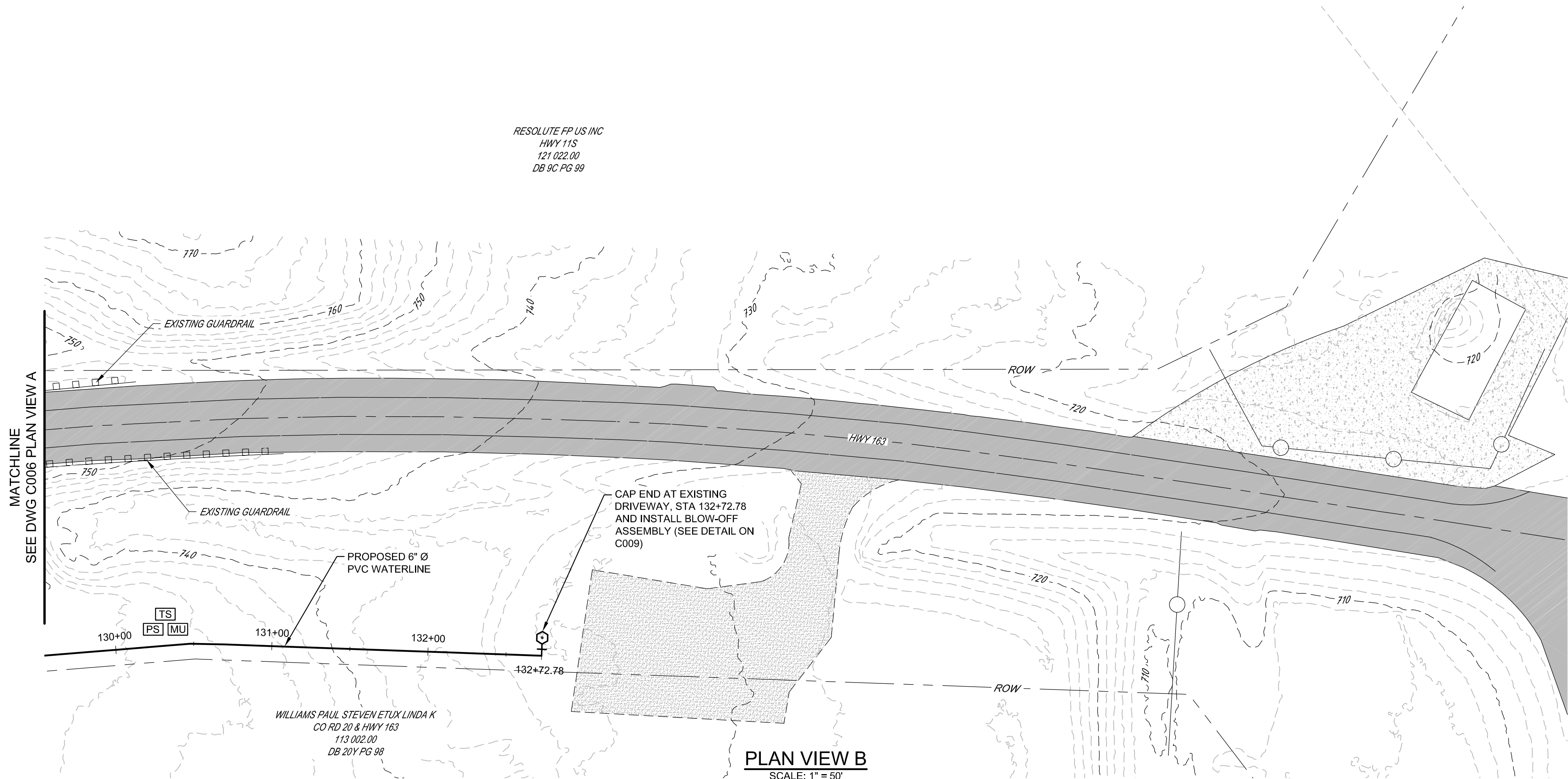
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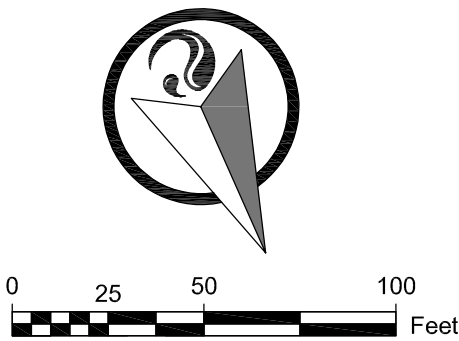
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3. DISTURBED AREAS THAT REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY STABILIZED.
4. CONTRACTOR SHALL LIMIT THE MAXIMUM PRACTICABLE OPEN TRENCH LENGTH TO 300 LINEAR FEET AT ANY ONE LOCATION. OPEN TRENCHES SHALL BE BACKFILLED AND STABILIZED AS WORK PROGRESSES. TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE SWPPP. THESE PLANS, AND THE TENNESSEE CONSTRUCTION GENERAL PERMIT (CGP).



PLAN VIEW A
SCALE: 1" = 50'



PLAN VIEW B
SCALE: 1" = 50'



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REVISIONS		DESIGN	PLAN VIEW	
NO.	DESCRIPTIONS	JRB	DATE	BY
1	SWPPP REVISIONS	JRB	8/26	JRB

APPD	BY	DATE
JRB	JRB	8/26

CTI ENGINEERS

1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613

STATE OF TENNESSEE

JASON BELA
REGISTERED ENGINEER
12224

JOB NO.
C25004

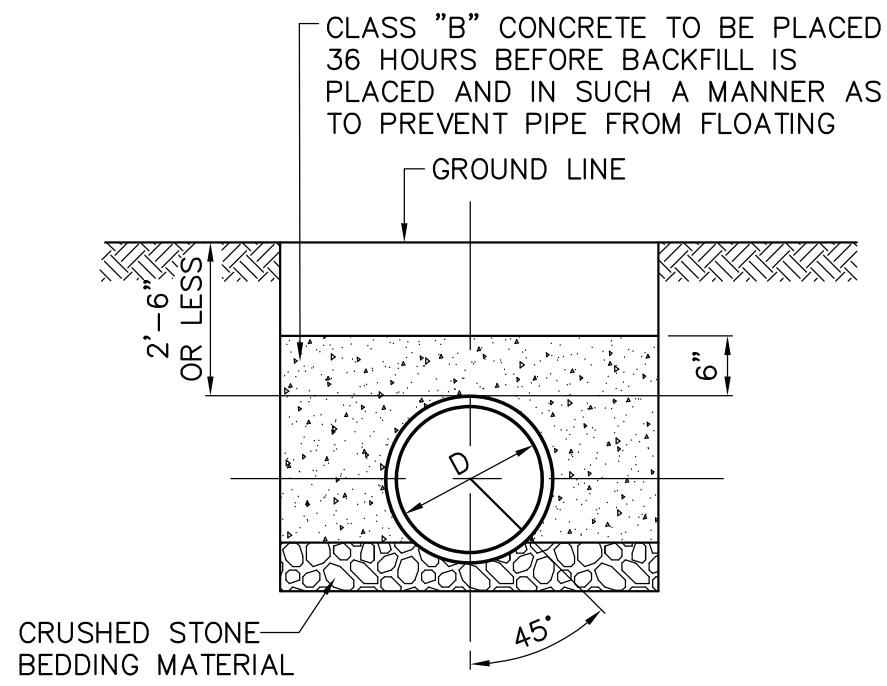
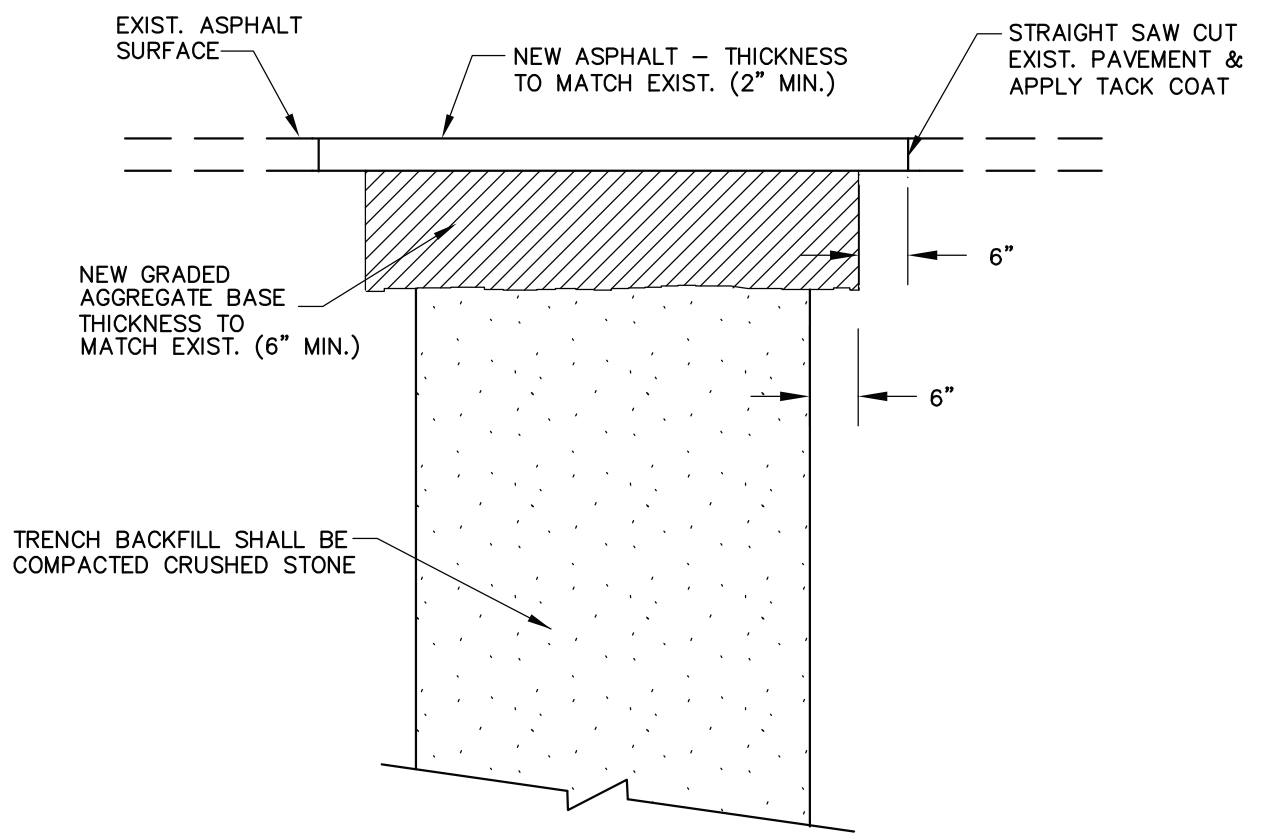
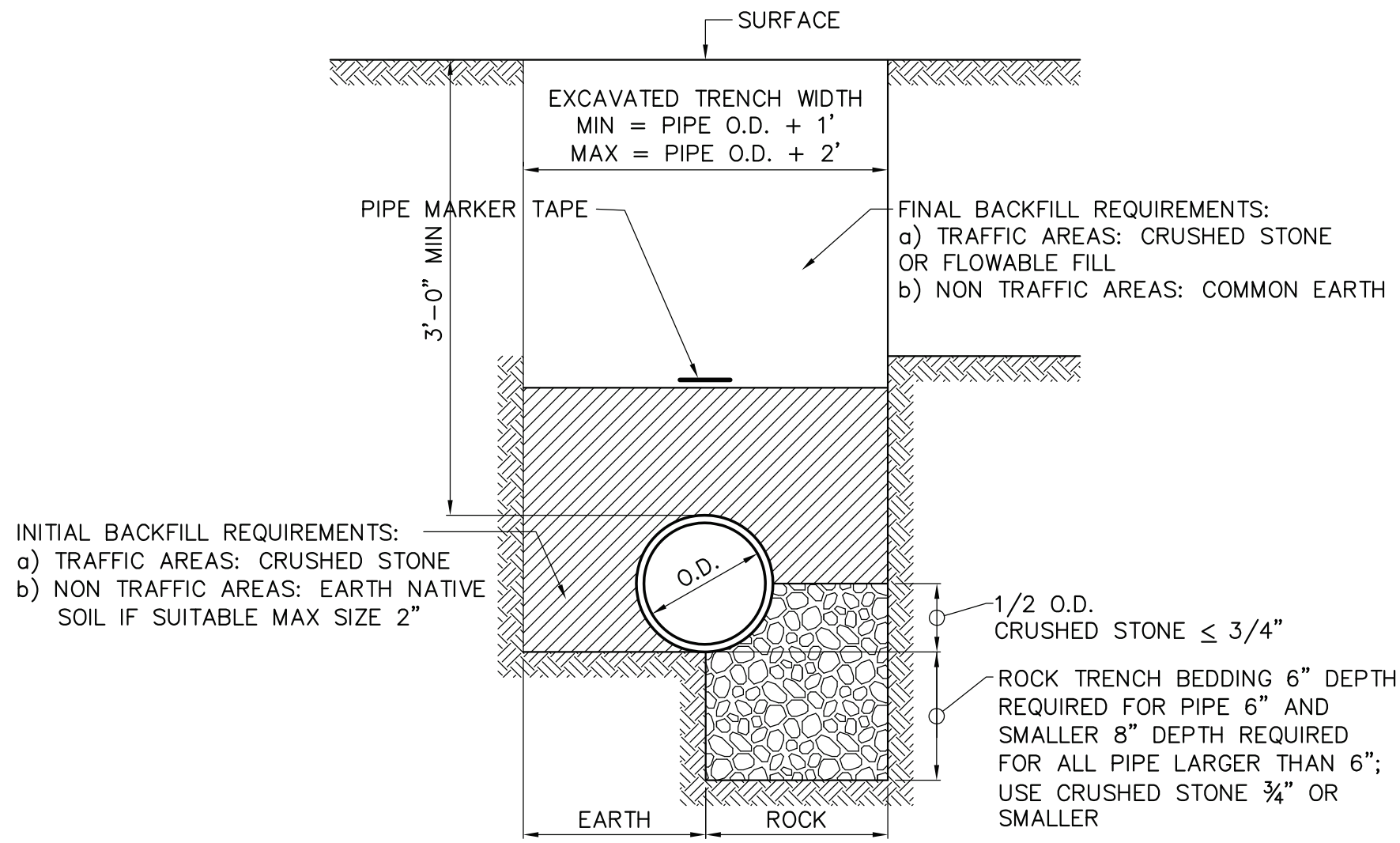
ISSUE DATE
06/27/2025

DRAWING NO.
C006

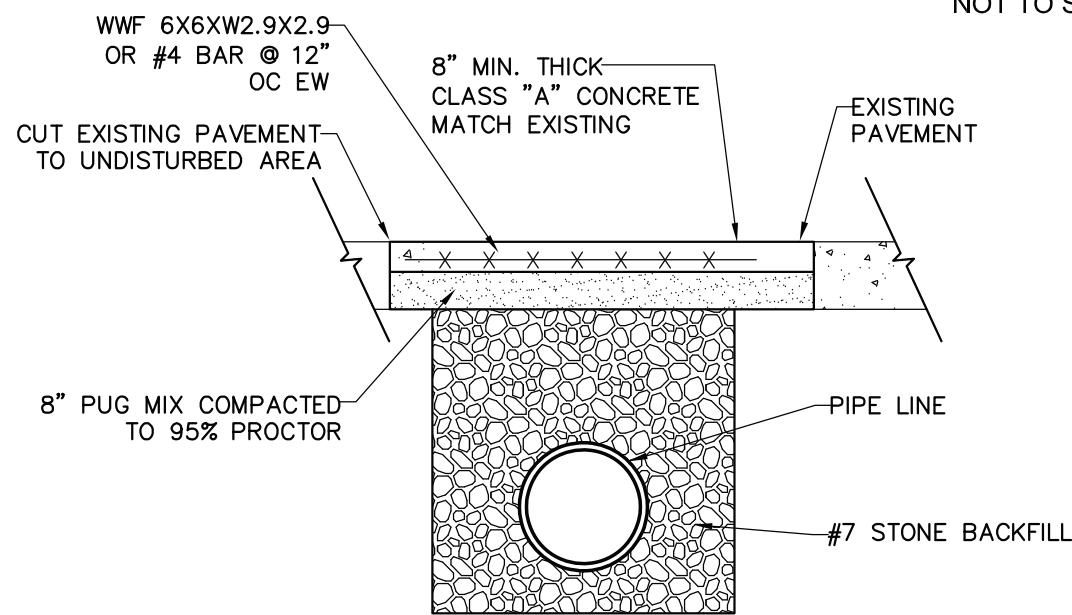
CALHOUN-CHARLESTON UTILITY DISTRICT

HWY 163 WATERLINE

PLAN VIEW
SHEET 5

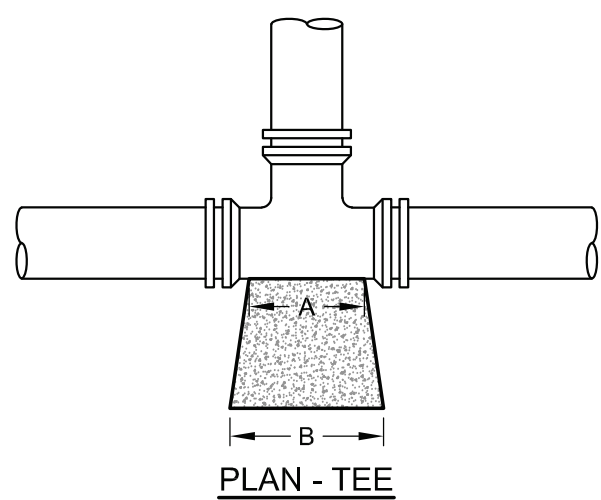
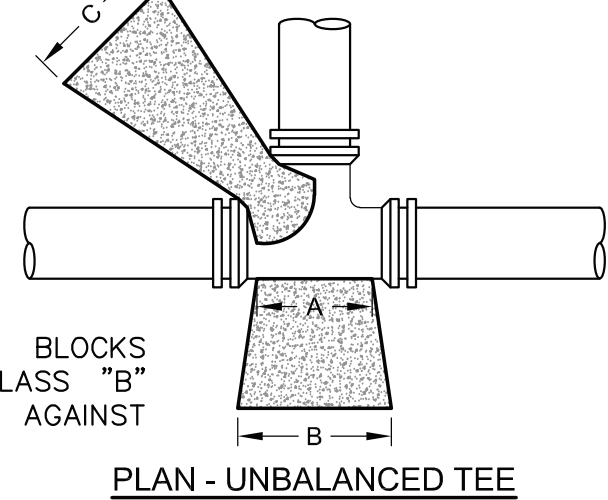
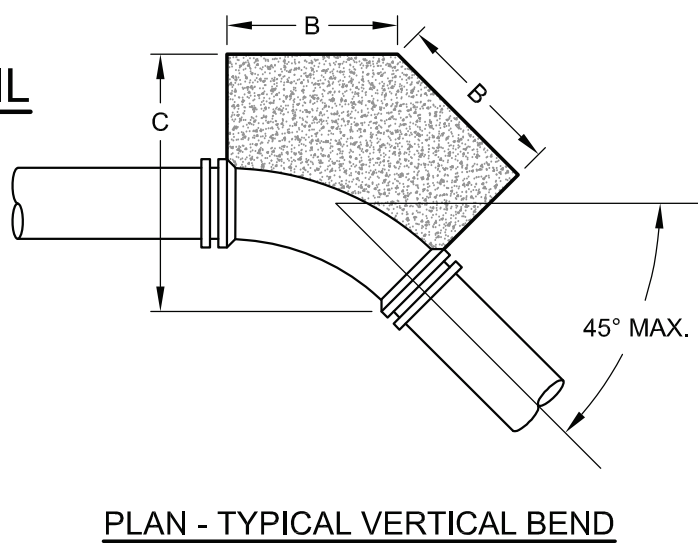
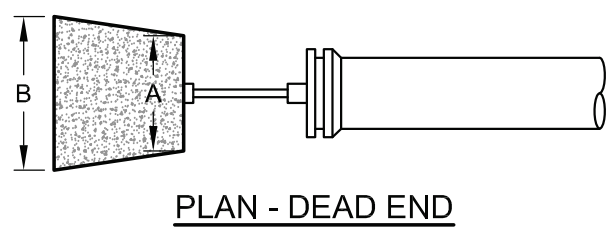


TYPICAL SECTION CONCRETE PROTECTION
NOT TO SCALE



1. TO BE USED ON CONCRETE DRIVEWAYS AND PARKING AREAS AND ELSEWHERE AS DESIGNATED BY THE ENGINEER. COST OF SAW CUTTING, COMPACTING, PUG MIX, CONCRETE, ETC. TO BE INCLUDED IN THE UNIT PRICE FOR CONCRETE PAVEMENT IN THE BID SCHEDULE.

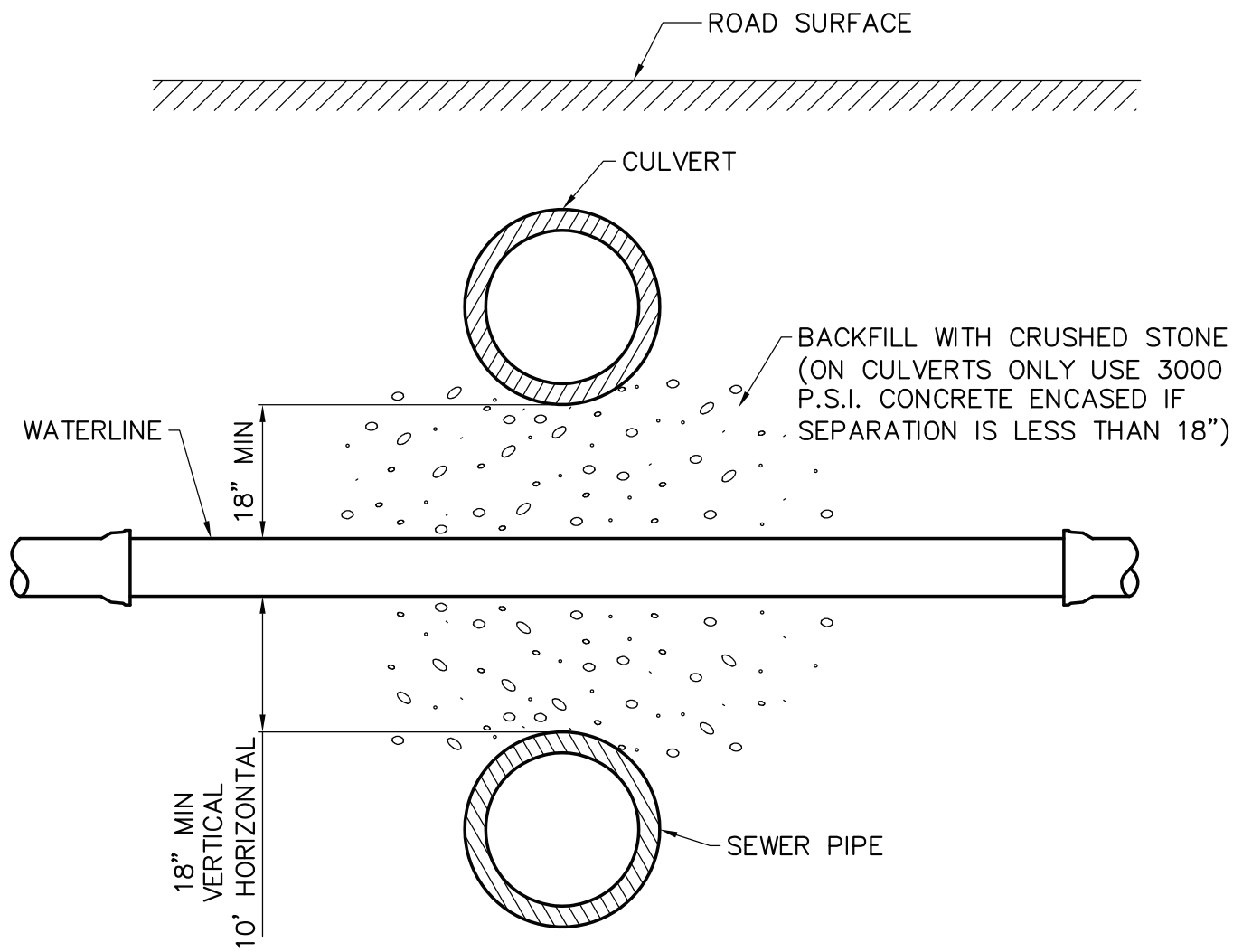
TYPE "5" CEMENT CONCRETE PAVEMENT REPLACEMENT DETAIL
NOT TO SCALE



NOTE:
CONCRETE THRUST BLOCKS SHALL BE 3000psi CLASS "B" CONCRETE POURED AGAINST UNDISTURBED EARTH

SIZE OF PIPE	TEE			DEAD END			90° BEND & UNBAL. TEE			45° BEND			22 1/2° BEND			11 1/4° BEND		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1-1/2" TO 4"	12"	24"	12"	4"	10"	11"	9"	12"	12"	9"	12"	12"	9"	7"	12"	6"	12"	4"
6"	12"	30"	18"	5"	15"	17"	12"	15"	24"	9"	12"	18"	9"	10"	12"	9"	12"	6"
8"	18"	36"	24"	7"	20"	21"	12"	24"	24"	9"	18"	20"	9"	12"	16"	9"	12"	8"
10"	21"	48"	27"	9"	24"	28"	16"	26"	36"	9"	24"	21"	9"	15"	18"	9"	12"	12"
12"	48"	56"	18"	11"	30"	31"	18"	36"	36"	12"	30"	24"	12"	18"	21"	12"	14"	15"
16"	54"	56"	18"	12"	36"	36"	21"	42"	42"	12"	51"	24"	12"	28"	24"	12"	16"	16"

CONCRETE THRUST BLOCK DETAIL



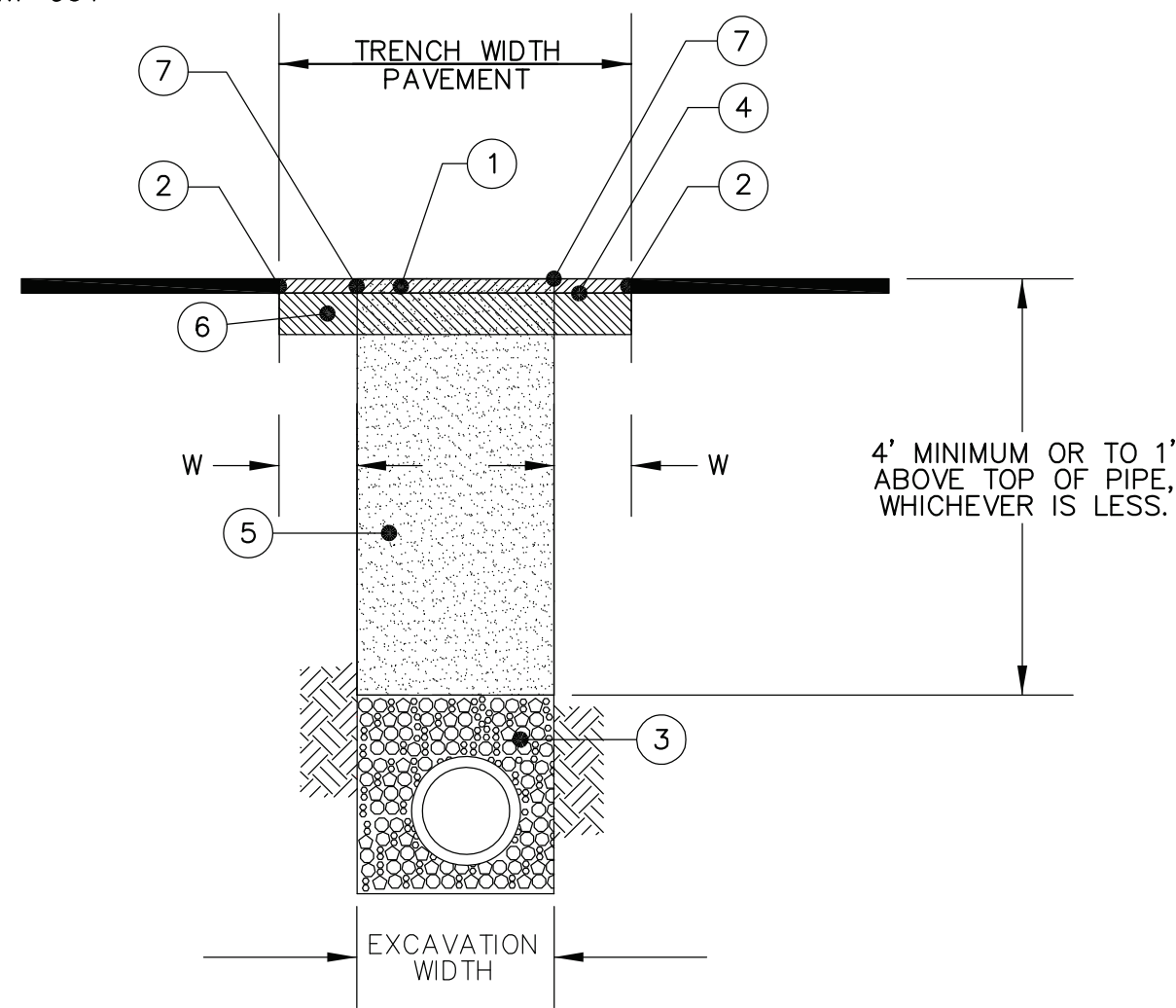
DETAIL OF INSTALLATION UNDER CULVERT OR OVER SEWER PIPE (IF NEEDED)
NOT TO SCALE

GENERAL REQUIREMENTS

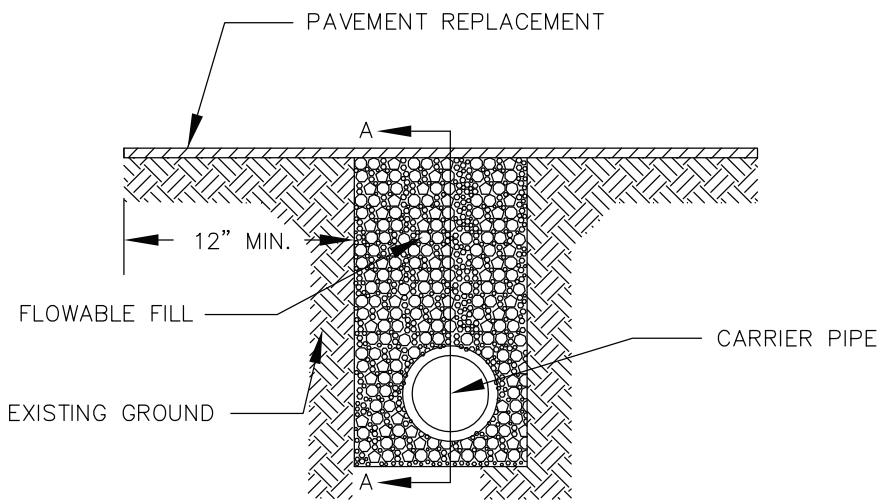
1. ALL STREET CUTS MUST BE REPAIRED IMMEDIATELY AFTER BACKFILLING AND ACCORDING TO THIS STANDARD.
2. WHERE LONGITUDINAL CUTS ARE MADE, THE OWNER RESERVES THE RIGHT TO REQUIRE ADDITIONAL RESURFACING BEYOND THE LIMITS OF THE REPAIR TO ENSURE THE PROPER RIDING CHARACTERISTICS AND THE STABILITY OF THE PAVEMENT.

DRAWING NOTES

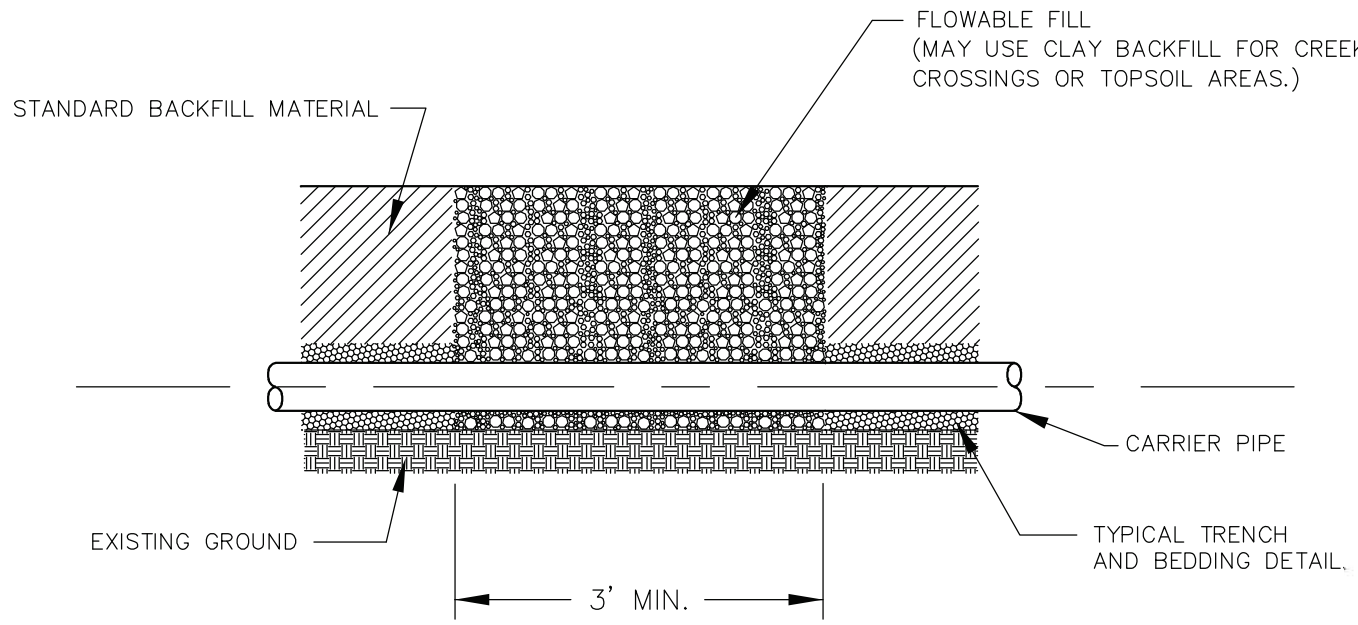
- ① ASPHALTIC CONCRETE SURFACE COURSE 1-1/2" THICK, GRADING "E", TDOT SPECIFICATION SECTION 411 BY THE CITY OF CHATTANOOGA (FULL WIDTH)
- ② MILL JOINT 4" DEEP
- ③ BEDDING MATERIAL - SEE SD-13 (ON DRAWING NO.11.1)
- ④ BITUMINOUS TACK COAT 0.05 GAL./SY, TDOT SPECIFICATION SECTION 402 BY CITY OF CHATTANOOGA
- ⑤ FLOWABLE FILL - SEE SPECIFICATIONS FOR DESIGN MIX, ETC. FLOWABLE FILL SHALL CURE FOR AT LEAST 48 HOURS PRIOR TO PLACING BINDER COURSE AND FINAL ASPHALTIC CONCRETE SURFACE.
- ⑥ 4" THICK AFTER MILLING 4" DEEP ASPHALTIC BINDER COURSE, GRADING B, PER TENNESSEE D.O.T. SPECIFICATIONS
- ⑦ INITIAL FULL DEPTH SAW-CUT



TRENCH WIDTH PAVEMENT REPAIR DETAIL
NOT TO SCALE



TYPICAL SECTION IN TRENCH CHECK DAM



NOTE:
A CHECK DAM SHALL BE LOCATED EVERY 500' ALONG THE TRENCH UNLESS SHOWN OTHERWISE ON THE PLANS.

TRENCH CHECK DAM

NOTE:
TABLE DIMENSIONS ARE BASED ON SOIL RESISTANCE FOR UNDISTURBED SAND-GRAVEL CEMENTED WITH CLAY. FOR OTHER SOIL CONDITIONS, THE DIMENSIONS SHALL BE INCREASED BY THE FOLLOWING FACTORS:

SAND	2
SAND & GRAVEL	1.33
SHALE	0.4
SOFT CLAY, PEAT, AND MUCK	

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NO.	REVISIONS	DESIGN	JRB	DRAWN	WEP	CHECKED	ZWR	APPROVED	JRB	DATE	BY	APPD

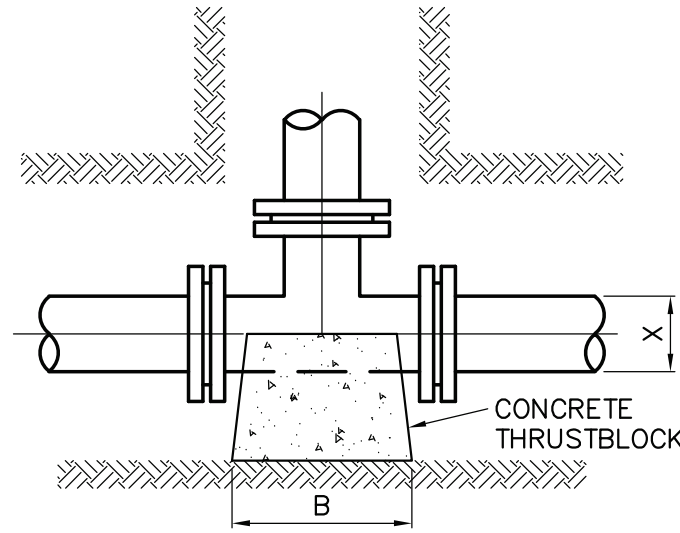
CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE

TYPICAL DETAILS
SHEET 1

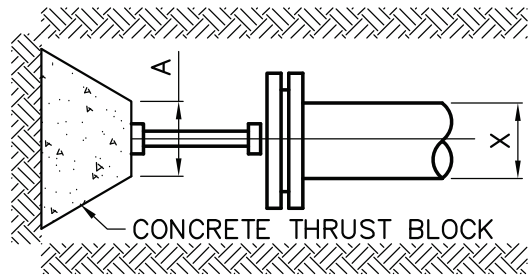
CTI ENGINEERS
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613



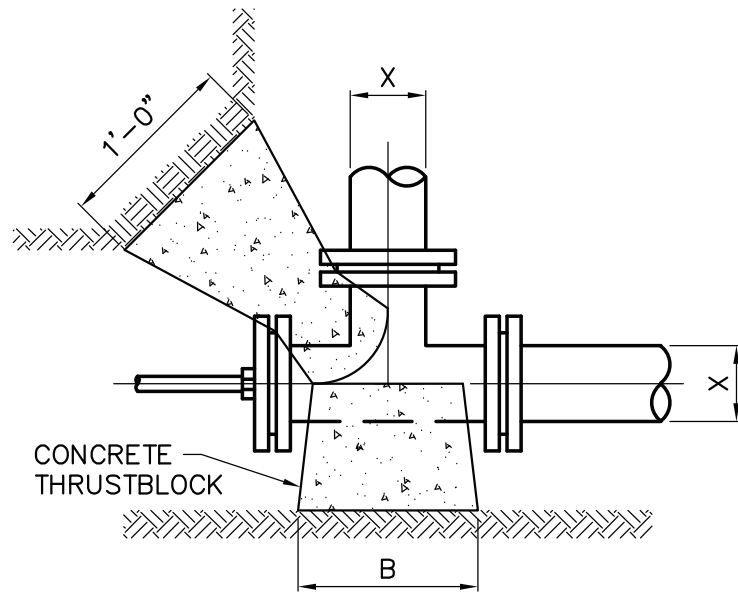
JOB NO.
C25004
ISSUE DATE
06/27/2025
DRAWING NO.
C007



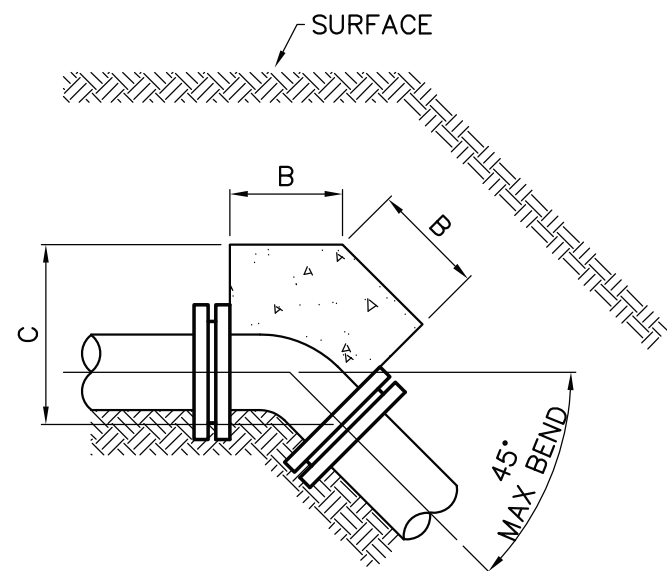
PLAN—TYPICAL TEE



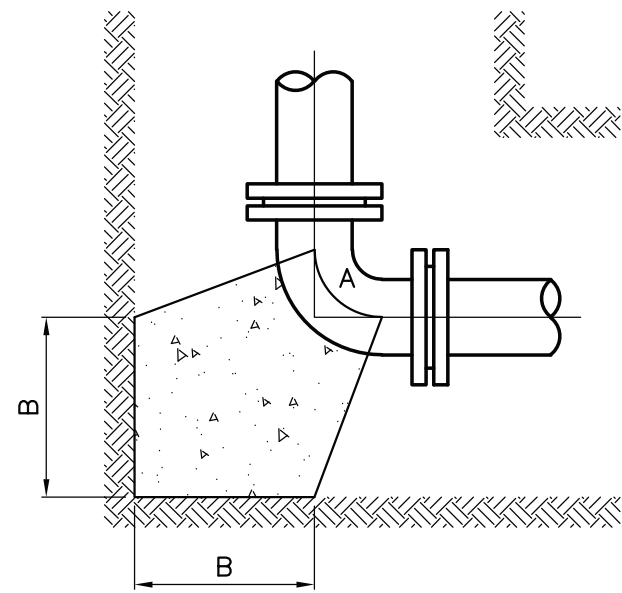
PLAN—TYPICAL PLUG



PLAN—UNBALANCED TEE



PLAN—TYPICAL VERTICAL BEND



PLAN—TYPICAL HORIZONTAL BEND

CONCRETE THRUST BLOCK DETAILS
NOT TO SCALE

PIPE SIZE X	A	B	DEPTH C	PIPE SIZE X	A	B	DEPTH C
1 1/2" BEND				90° BEND & UNBALANCED TEE			
18"	1'-3"	3'-0"	1'-6"	18"	2'-0"	6'-2"	3'-6"
16"	1'-0"	1'-0"	1'-6"	16"	1'-9"	5'-0"	3'-6"
12"	1'-0"	1'-2"	1'-3"	12"	1'-6"	3'-3"	3'-0"
10"	0'-9"	1'-0"	1'-0"	10"	1'-4"	2'-6"	3'-0"
8"	0'-9"	1'-0"	0'-8"	8"	1'-0"	2'-0"	2'-3"
6"	0'-9"	1'-0"	0'-6"	6"	1'-0"	1'-3"	2'-0"
4"	0'-6"	1'-0"	0'-4"	4"	0'-9"	1'-0"	1'-0"
DEAD END				45° BEND			
18"	1'-3"	6'-10"	3'-6"	18"	1'-3"	4'-9"	2'-6"
16"	1'-0"	3'-0"	3'-0"	16"	1'-0"	4'-3"	2'-3"
12"	0'-11"	4'-3"	3'-3"	12"	1'-0"	2'-6"	2'-3"
10"	0'-9"	3'-0"	3'-0"	10"	0'-9"	2'-0"	2'-0"
8"	0'-7"	2'-9"	2'-3"	8"	0'-9"	1'-8"	1'-6"
6"	0'-5"	1'-3"	1'-5"	6"	0'-9"	1'-0"	1'-6"
4"	0'-4"	0'-10"	0'-11"	4"	0'-8"	1'-0"	1'-0"
TEE				22 1/2° BEND			
18"	2'-8"	12'-3"	3'-6"	18"	1'-3"	2'-6"	2'-0"
16"	2'-6"	10'-0"	3'-6"	16"	1'-0"	2'-6"	2'-0"
12"	2'-0"	6'-6"	3'-0"	12"	1'-0"	1'-6"	2'-0"
10"	1'-9"	5'-0"	2'-6"	10"	0'-9"	1'-3"	2'-0"
8"	1'-6"	4'-0"	2'-3"	8"	0'-9"	1'-0"	2'-0"
6"	1'-0"	2'-8"	1'-6"	6"	0'-9"	0'-10"	1'-0"
4"	1'-0"	2'-0"	1'-0"	4"	0'-9"	0'-7"	1'-0"

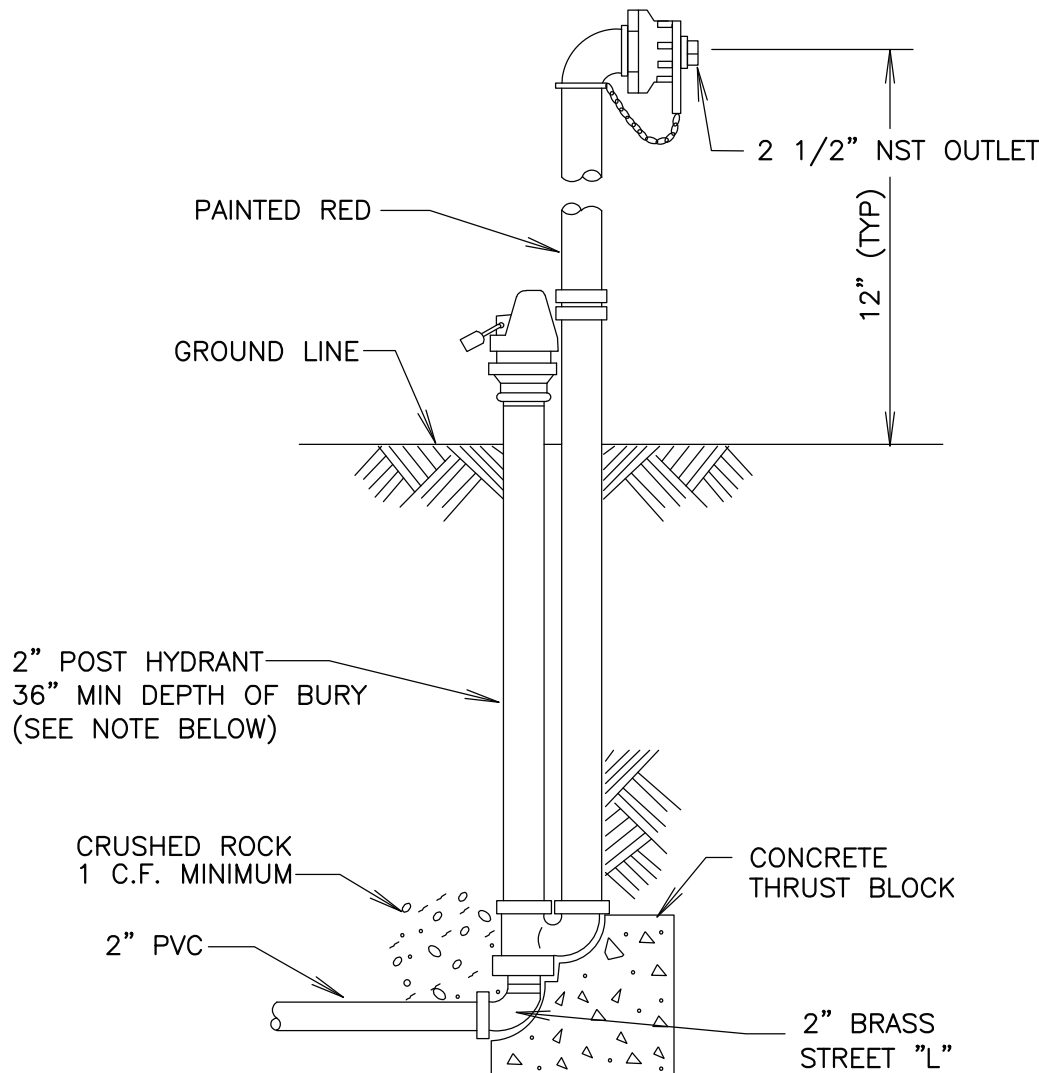
TABLE OF DIMENSIONS FOR HORIZONTAL & VERTICAL BENDS

NOTE : ALL CONCRETE FOR THRUST BLOCKS SHALL BE READY-MIXED 3000 psi (MINIMUM) CLASS "B". MIX DESIGN SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO USE. THRUST BLOCKS BASED ON 225 psi & 2000lb/ft2 SOIL RESISTANCE TYPICAL FOR UNDISTURBED SAND AND GRAVEL CEMENTED WITH CLAY. FOR OTHER SOILS THE BEARING FACE OF THE THRUST BLOCKS SHOULD BE INCREASED BY THE FOLLOWING FACTORS.

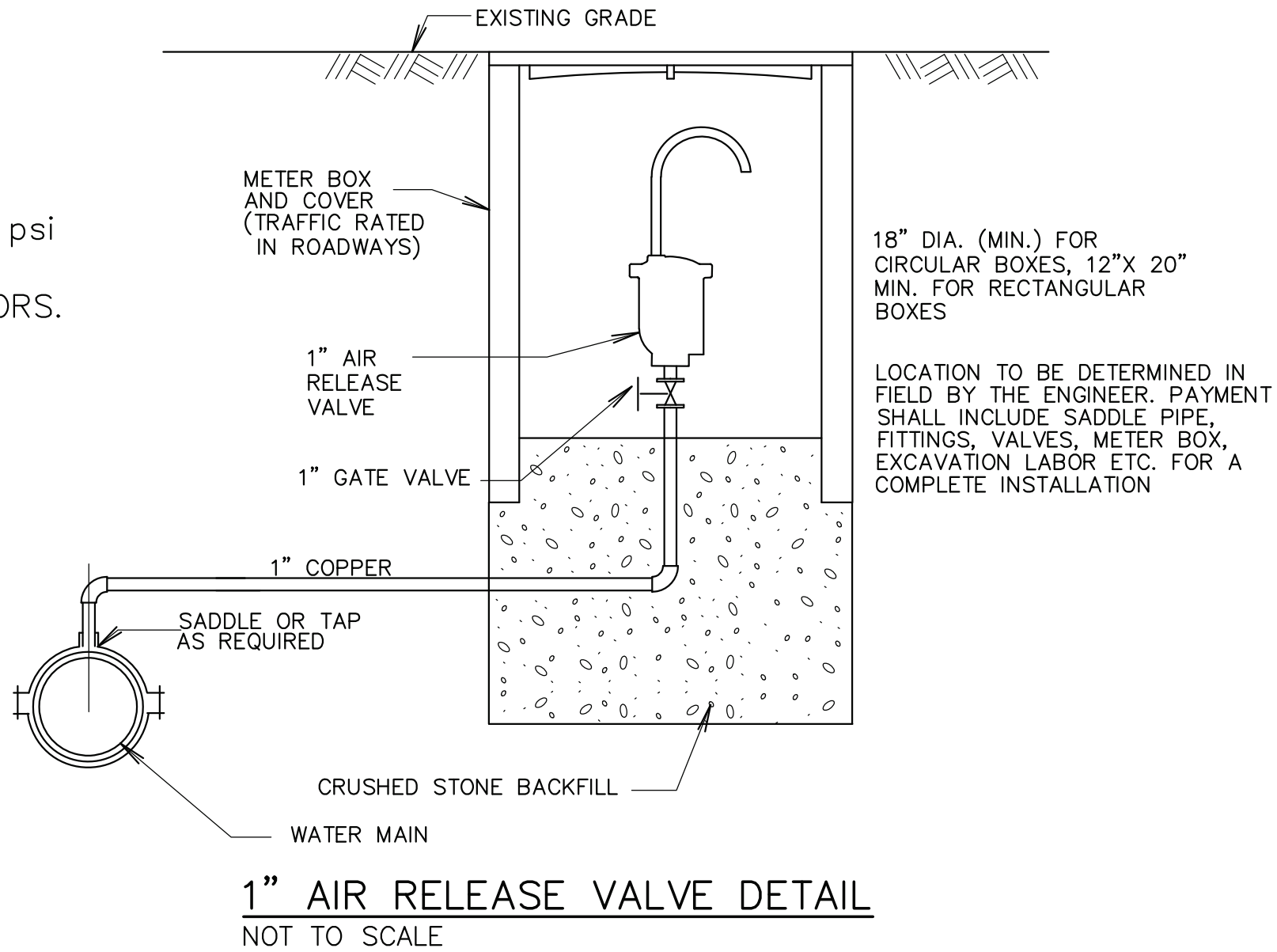
SAND 2	1.33
SAND & GRAVEL 1.33	1.33
SHALE 0.4	0.4
SOFT CLAY, MUCK AND PEAT	USE RESTRAINED JOINTS IN LIEU OF THRUST BLOCKS.

GENERAL PIPING SPECIFICATIONS

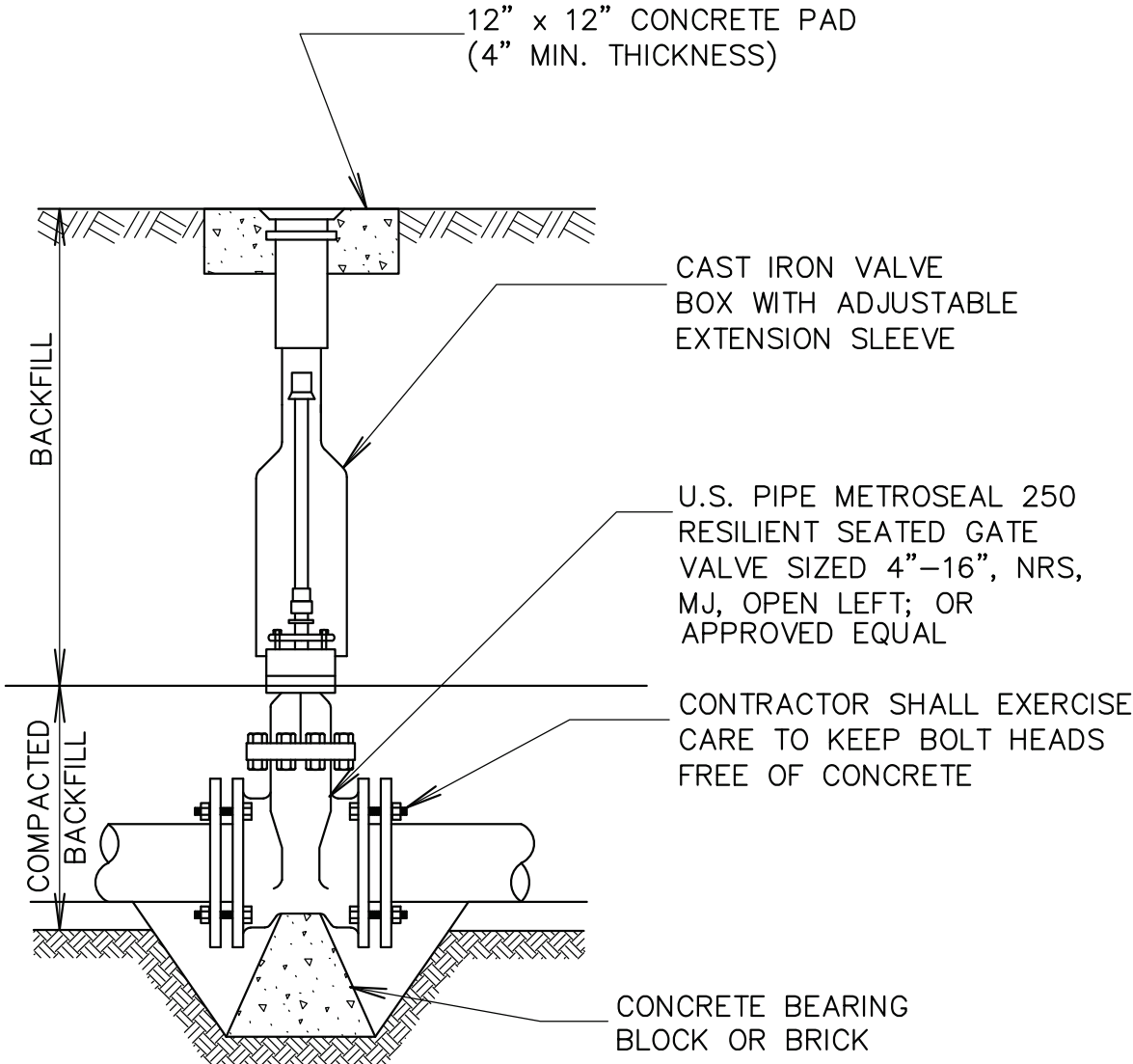
- STEEL PIPING SHALL BE MANUFACTURED PER AWWA C200 AND ASTM A139
 - STEEL PIPE SHALL HAVE A MINIMUM 0.375-INCH WALL THICKNESS WITH CEMENT MOTAR INTERIOR LINING AND POLYURETHANE EXTERIOR COATING.
 - ENDS SHALL BE BEVELED FOR BUTT WELDING.
 - AFTER INSTALLATION, PIPE SHALL BE JEEPED, CLEANED, AND DISINFECTED.
- DUCTILE IRON PIPE
 - PIPE SHALL HAVE CEMENT MORTAR INTERIOR LINING AND MANUFACTURE'S STANDARD BITUMASTIC EXTERIOR COATING.
 - ALL PIPE SHALL BE PRESSURE CLASS 350, UNLESS OTHERWISE NOTED, WITH BELL AND SPIGOT OR MECHANICAL JOINT ENDS.
- VALVES
 - ALL VALVES SHALL BE AWWA APPROVED.
 - GATE VALVES: RESILIENT SEATED, EPOXY COATED, NRS, AWWA C509
 - BUTTERFLY VALVES: EPOXY COATED, AWWA C504.
- TRENCHING AND BACKFILLING
 - ALL PIPE SHALL HAVE 3'-0" TO 3'-6" COVER.
 - STEEL PIPE SHALL BE BEDDED AND BACKFILLED WITH NATIVE SOIL HAVING ROCK NO LARGER THAN 1/2-INCH DIAMETER. IN PLACES WHERE NATIVE SOIL IS NOT SUITABLE, BEDDING AND BACKFILL SHALL BE CLEAN EARTH FROM OFF SITE.
 - DUCTILE IRON PIPE SHALL BE BEDDED AND BACKFILLED WITH NATIVE SOIL HAVING ROCK NO LARGER THAN 2-INCH DIAMETER. WHERE NATIVE SOIL IS NOT SUITABLE, BEDDING SHALL BE NO. 7 STONE.
 - IN CITY ROADS, BEDDING AND BACKFILL SHALL BE NO. 7 OR NO. 57 STONE.
 - IN COUNTY ROADS, BEDDING SHALL BE NO. 7 STONE AND BACKFILL SHALL BE FLOWABLE FILL BACKFILL.



2" BLOW-OFF DETAIL
NOT TO SCALE



1" AIR RELEASE VALVE DETAIL
NOT TO SCALE



2"—16" GATE VALVE INSTALLATION DETAIL
NOT TO SCALE

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NO.	REVISIONS DESCRIPTIONS	DATE	BY	APPD	DESIGN	JRB	DRAWN	WEP	CHECKED	ZWR	APPROVED	JRB

CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE

TYPICAL DETAILS
SHEET 3

CTI ENGINEERS
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TN 37402
423-267-7613

JASON BELL
REGISTERED ENGINEER
STATE OF TENNESSEE
12321

JOB NO. C25004
ISSUE DATE 06/27/2025
DRAWING NO. C009

CTI PROJECT: C25004, DRAWING: C25004_C25004 EPSC DETAILS (898403v1/5/7/26 4:06PM), LAYOUT: EROSION ES001

DATE OF PRINT: 5/7/2026 4:06 PM

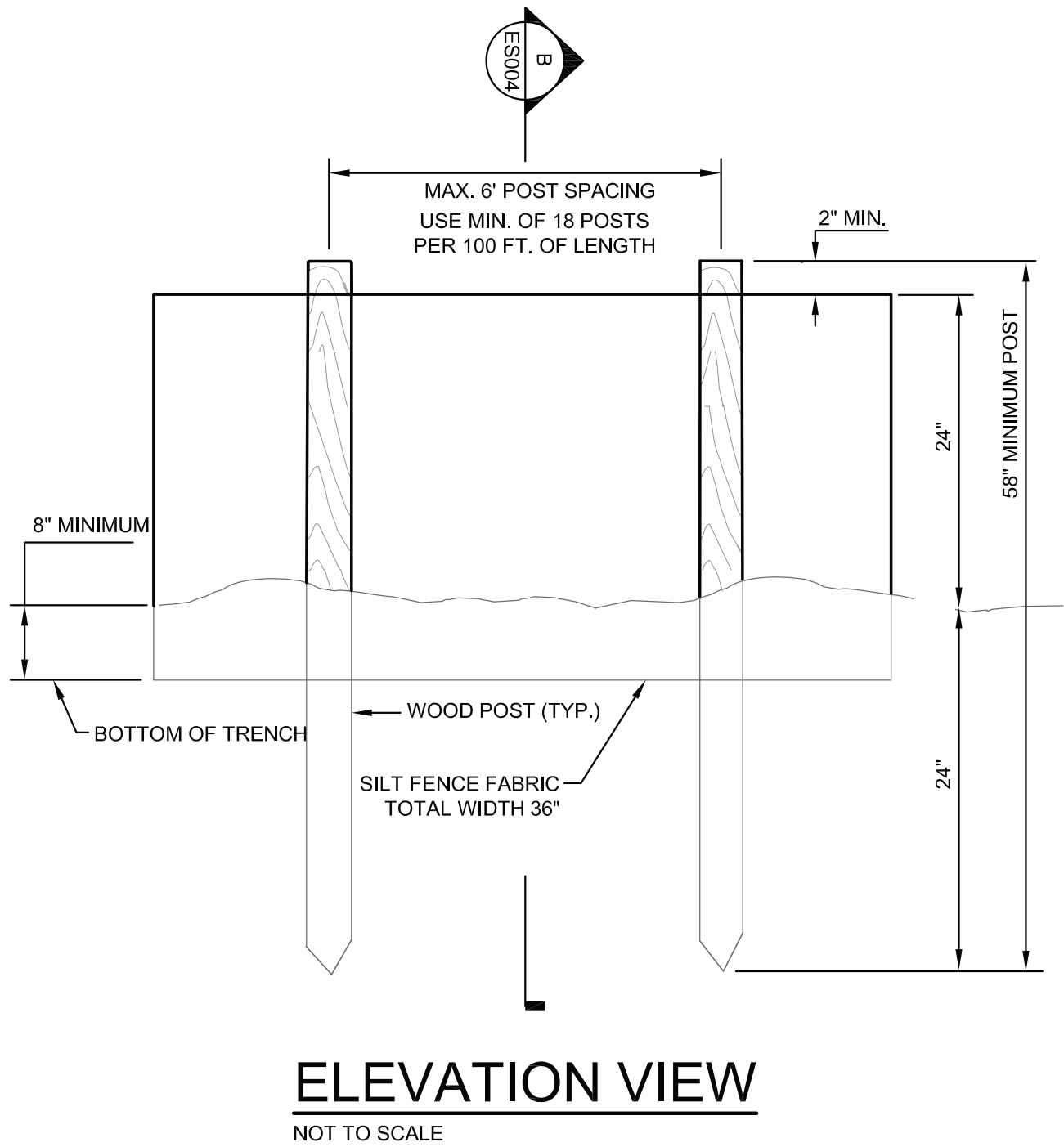
EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN
GENERAL NOTES

1. COMPREHENSIVE:

- A. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO OR CONCURRENT WITH LAND-DISTURBING ACTIVITIES.
- B. PROVISIONS TO PREVENT EROSION OF SOIL FROM THE SITE SHALL BE AT A MINIMUM IN CONFORMANCE WITH THE REQUIREMENTS OF THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION, AND ALL APPLICABLE CODES OF THE LOCAL ISSUING AUTHORITY GOVERNING EROSION SEDIMENTATION CONTROL. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
- C. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE STANDARDS SPECIFIED IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN TENNESSEE, CURRENT EDITION, AND ALL APPLICABLE CODES OF THE LOCAL ISSUING AUTHORITY.
- D. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
- E. EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- F. THE CONSTRUCTION OF THE SITE MAY COMMENCE AFTER THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROL WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVEWAYS HAVE BEEN PAVED.
- G. CONSTRUCTION EXITS SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY OR EXIT FROM THE SITE AND SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH STONE AS CONDITIONS DEMAND, REPAIR, AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OFF SITE ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- H. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION EXITS, ALL PERIMETER EROSION CONTROL DEVICES AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
- I. ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER INSTALLATION IS COMPLETE.
- J. EROSION CONTROL DEVICES ARE TO BE INSTALLED AND FULLY OPERATIONAL PRIOR TO ANY DEMOLITION.
- K. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
- L. AMENDMENTS AND/OR REVISIONS TO THE EPSC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE ENGINEER.

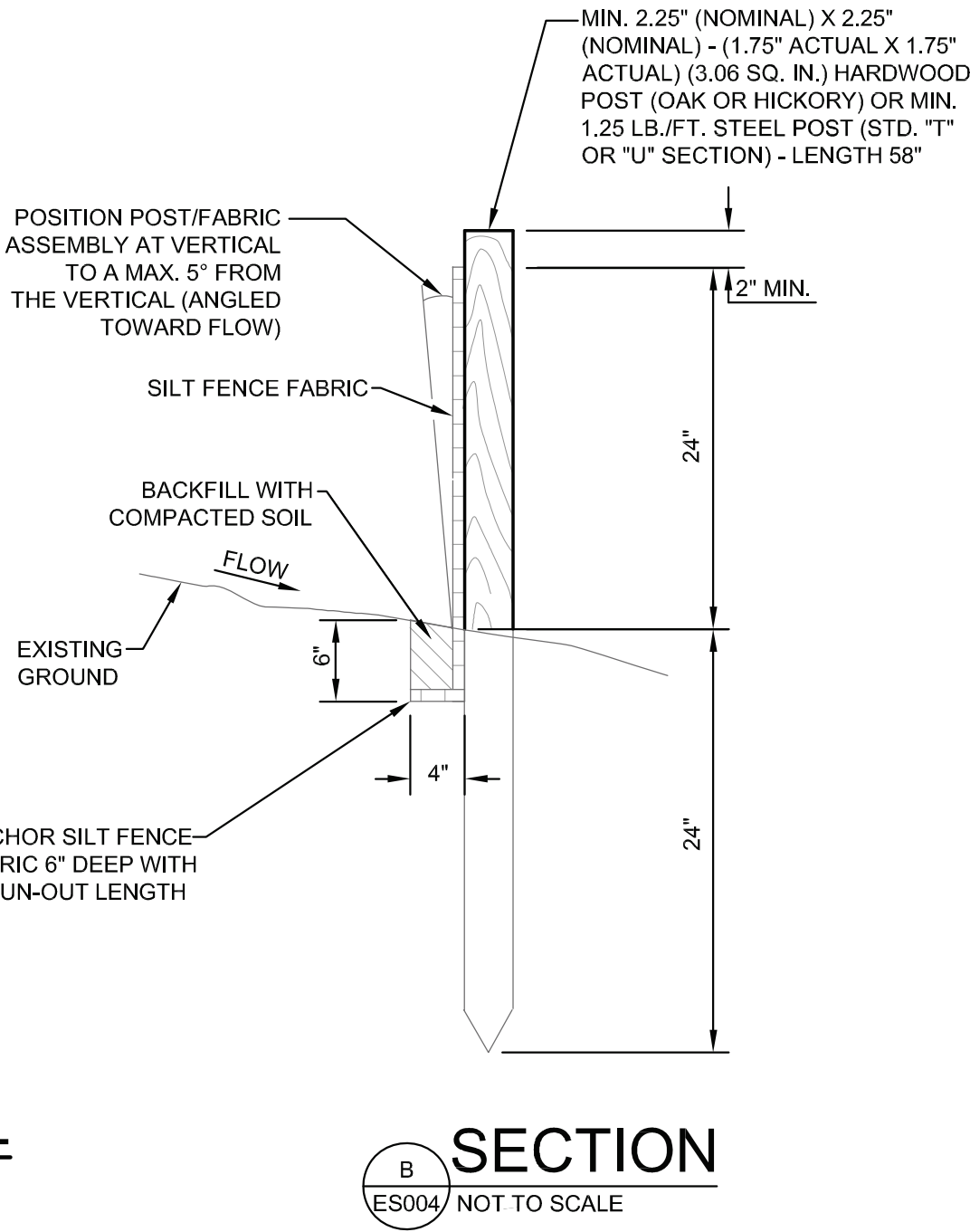
2. DURING CONSTRUCTION:

- A. ON SITE DUST CONTROL DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES OF THE LOCAL ISSUING AUTHORITY.
- B. THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE SILT HAS ACCUMULATED TO ONE-HALF (1/2) OF THE HEIGHT OF THE SILT FENCE UTILIZED FOR EROSION CONTROL.
- C. DISTURBED AREAS LEFT IDLE FOR 7 DAYS AND NOT TO FINAL GRADE WILL BE ESTABLISHED WITH TEMPORARY VEGETATION (TS). DISTURBED AREAS LEFT IDLE FOR 14 DAYS OR MORE WILL BE ESTABLISHED WITH PERMANENT VEGETATION (PS). ALL AREAS TO FINAL GRADE ESTABLISHED WITH PERMANENT VEGETATION WITHIN TWO WEEKS.
- D. ANY DISTURBED SOIL WILL BE STABILIZED W/ MULCH AT THE END OF EVERY WORK DAY.
- E. ACCORDANCE WITH ALL APPLICABLE CODES OF THE LOCAL ISSUING AUTHORITY.
- F. DISTURBED AREAS LEFT IDLE FOR 7 DAYS AND NOT TO FINAL GRADE WILL BE ESTABLISHED WITH TEMPORARY VEGETATION (TS). DISTURBED AREAS LEFT IDLE FOR 14 DAYS OR MORE WILL BE ESTABLISHED WITH PERMANENT VEGETATION (PS). ALL AREAS TO FINAL GRADE ESTABLISHED PERMANENT VEGETATION WITHIN TWO WEEKS.
- H. ANY DISTURBED SOIL WILL BE STABILIZED W/ MULCH AT THE END OF EVERY WORK DAY.



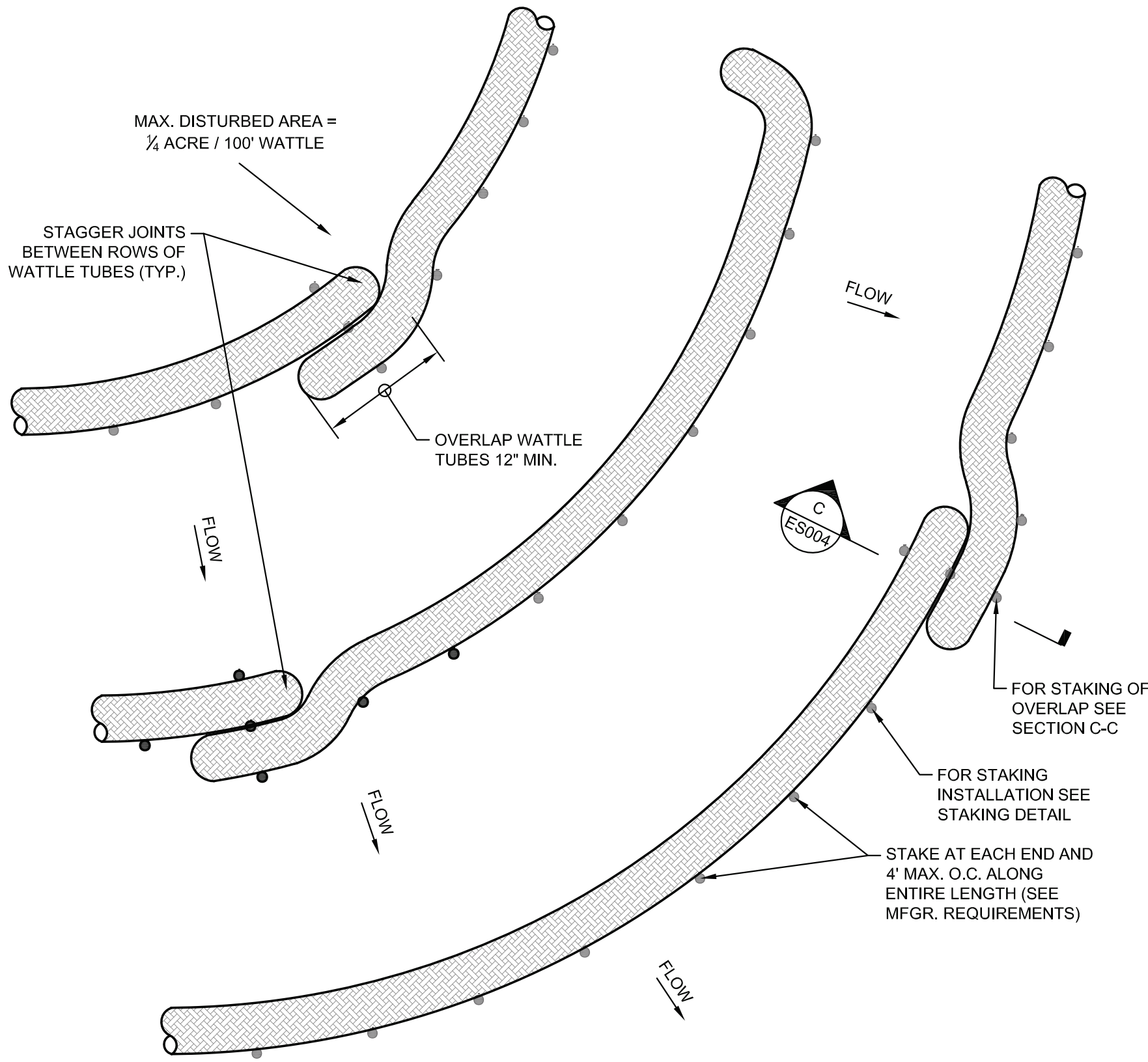
SILT FENCE TIEBACK FOR STEEL POSTS OR WOOD POSTS

NOT TO SCALE



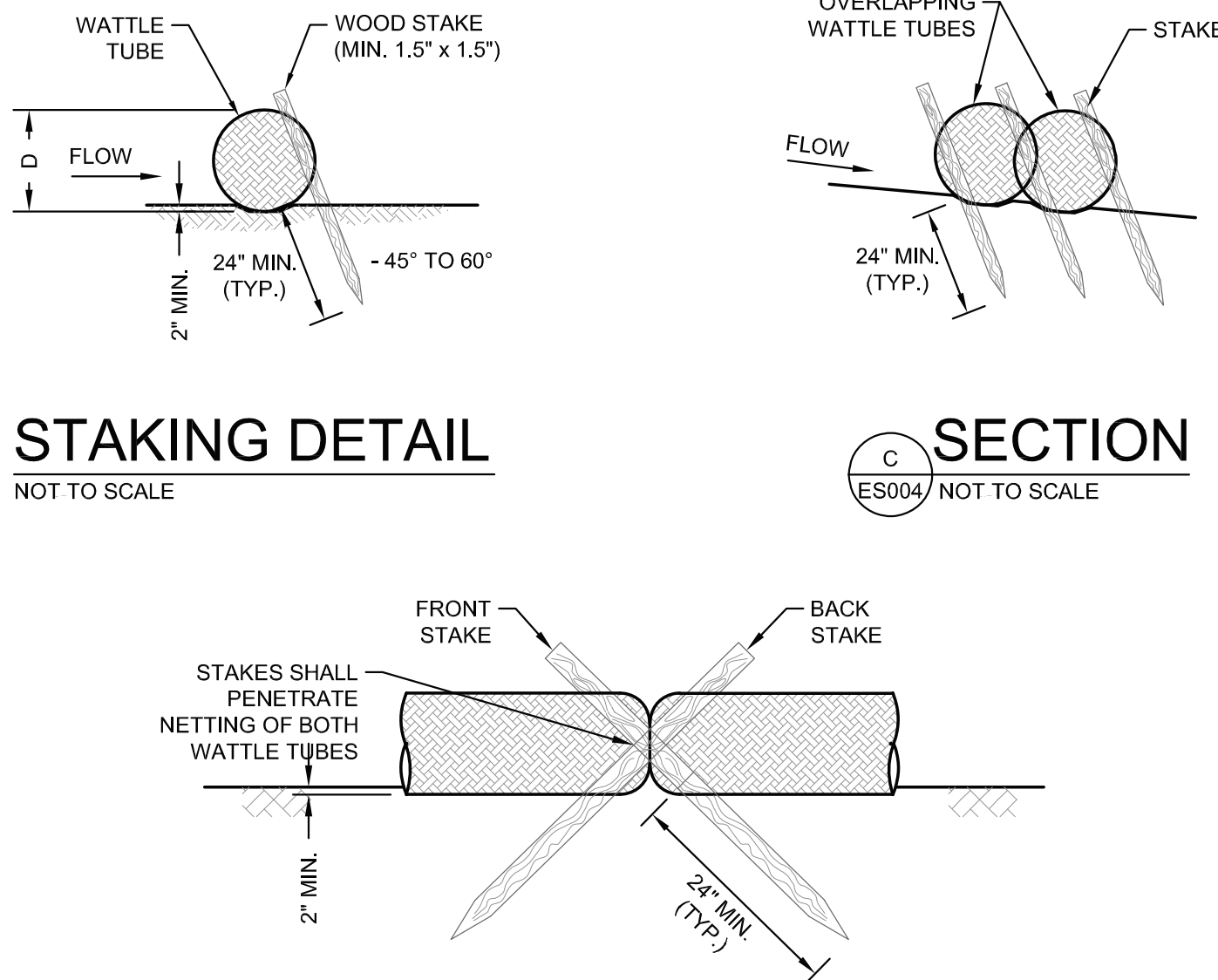
SECTION

NOT TO SCALE



PLAN VIEW FOR SLOPE APPLICATION

NOT TO SCALE

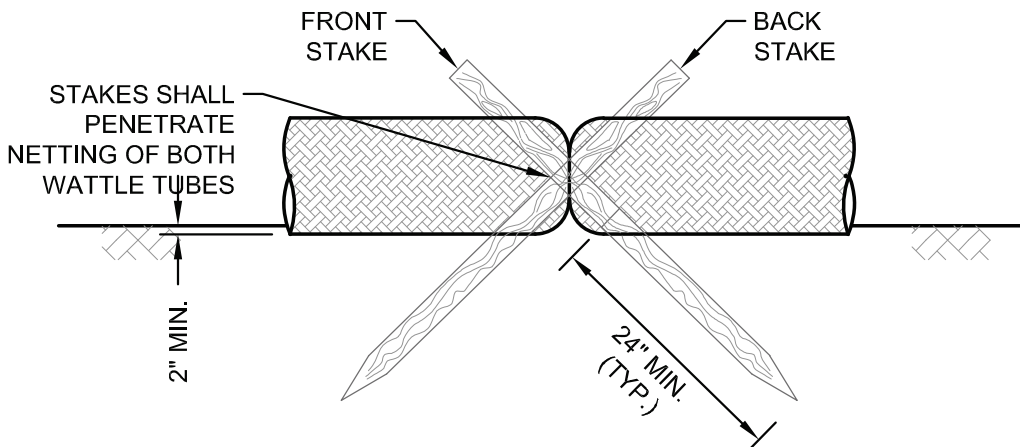


STAKING DETAIL

NOT TO SCALE

SECTION

NOT TO SCALE



JOINT STAKING DETAIL

NOT TO SCALE

TUBE AND WATTLE SPACING TABLE FOR SLOPE APPLICATIONS					
SLOPE	TUBE AND WATTLE DIAMETER				
	8"	12"	18"	20"	24"
2%	70'	100'	N/A	N/A	N/A
5%	30'	60'	100'	100'	100'
10%	20'	30'	70'	85'	100'
6:1	N/A	20'	40'	50'	55'
4:1	N/A	20'	30'	30'	30'
3:1	N/A	N/A	20'	20'	25'
2:1	N/A	N/A	20'	20'	20'

TUBES & WATTLES DETAIL

NOT TO SCALE

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CALHOUN-CHARLESTON UTILITY DISTRICT
HWY 163 WATERLINE

EROSION CONTROL DETAILS



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