

**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)**Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit**

OFFICIAL STATE USE ONLY		Site #:	Permit #:	
Section 1. Applicant Information (individual responsible for site, signs certification below)				
Applicant Name: Ty Blakely				
Company: City of Maynardville			Signatory's Title or Position: Mayor	
Mailing Address: PO Box 217			City: Maynardville	State: TN Zip: 37807
Phone: 865-992-3821		Fax:	E-mail:	
Section 2. Alternate Contact/Consultant Information (a consultant is not required)				
Alternate Contact Name:				
Company:			Title or Position:	
Mailing Address:			City:	State: Zip:
Phone:		Fax:	E-mail:	
Section 3. Fee (check appropriate box and submit requisite fee with application)				
<input type="checkbox"/> No Fee Submitted		<input checked="" type="checkbox"/> Fee Submitted with Application		Amount Submitted: \$ 500.00
Current fee schedules for Aquatic Resource Alteration Permit processing may be found at the Division of Water Resources webpage at http://www.tn.gov/environment/permits/arap.shtml or by calling (615) 532-0625. Make checks payable to "Treasurer, State of Tennessee".				
Section 4. Project Details (fill in information and check appropriate boxes)				
Site or Project Name: Water Line Extension			Nearest City, Town or Major Landmark: Maynardville	
Street Address or Location: Autumns Way, Gilbert Lane, and Malone Gap Road in Maynardville.				
County(ies): Union		MS4 Jurisdiction: Union	Latitude (dd.dddd): 36.203109 Longitude (dd.dddd): -83.877053	
Resource Proposed for Alteration: <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Wetland <input type="checkbox"/> Reservoir				
Name of Water Resource: Miscellaneous Tributary to Norris Reservoir and Crooked Creek				
Brief Project Description (a more detailed description is required under Section 8): Installation of 21,140 linear feet of 6, 4, and 2-inch PVC water line along Autumns Way, Gilbert Lane, and Malone Gap Road in Maynardville. It will include the four crossings of streams. These will be directionally bored to minimize impact.				
Does the proposed activity require approval from the U.S. Army Corps of Engineers, the Tennessee Valley Authority, or any other federal, state, or local government agency? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
If Yes, provide the permit reference numbers: _____				
Is the proposed activity associated with a larger common plan of development? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
If Yes, submit site plans and identify the location and overall scope of the common plan of development. Plans attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
If applicable, indicate any other federal, state, or local permit authorizations that the overall project site (common plan of development) has obtained in the past (i.e. construction general permit coverage and/or other ARAPs): Currently submitting CGP for SWPPP for this project as well.				
Section 5. Project Schedule (fill in information and check appropriate boxes)				
Start date: 03/01/2021		Estimated end date: 03/01/2022		
Is any portion of the activity complete now? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe the extent of the completed portion:				

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

The required information in Sections 6-11 must be submitted on a separate sheet(s) and submitted in the same numbered format as presented below. If any question is not applicable, state the reason why it is not applicable.

Section 6. Project Description		Attached	
		Yes	No
6.1	A narrative description of the scope of the project	<input type="checkbox"/>	<input type="checkbox"/>
6.2	USGS topographic map indicating the exact location of the project (<i>can be a photographic copy</i>)	<input type="checkbox"/>	<input type="checkbox"/>
6.3	Photographs of the resource(s) proposed for alteration with location description (<i>photo locations should be noted on map</i>)	<input type="checkbox"/>	<input type="checkbox"/>
6.4	A narrative description of the existing stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	<input type="checkbox"/>	<input type="checkbox"/>
6.5	A narrative description of the proposed stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	<input type="checkbox"/>	<input type="checkbox"/>
6.6	In the case of wetlands, include a wetland delineation with delineation forms and site map denoting location of data points	<input type="checkbox"/>	<input type="checkbox"/>
6.7	A copy of all hydrologic or jurisdictional determination documents issued for water resources on the project site	<input type="checkbox"/>	<input type="checkbox"/>

Section 7. Project Rationale	Attached	
	Yes	No
Describe the need for the proposed activity, including, but not limited to, the purpose, alternatives considered, and what will be done to avoid or minimize impacts to streams or wetlands.	<input type="checkbox"/>	<input type="checkbox"/>

Section 8. Technical Information		Attached	
		Yes	No
8.1	Detailed plans, specifications, blueprints, or legible sketches of present site conditions and the proposed activity. Plans must be 8.5.x 11 inches. Additional larger plans may also be submitted to aid in application review. The detailed plans should be superimposed on existing and new conditions (<i>e.g., stream cross sections where road crossings are proposed</i>)	<input type="checkbox"/>	<input type="checkbox"/>
8.2	For both the proposed activity and compensatory mitigation, provide a discussion regarding the sequencing of events and construction methods	<input type="checkbox"/>	<input type="checkbox"/>
8.3	Depiction and narrative on the location and type of erosion prevention and sediment control (EPSC) measures for the proposed alterations	<input type="checkbox"/>	<input type="checkbox"/>

Section 9. Water Resources Degradation (degree of proposed impact) <i>Note that in most cases, activities that exceed the scope of the General Permit limitations are considered greater than de minimis degradation to water quality.</i>
<p>My activity, as proposed:</p> <ul style="list-style-type: none"> a. <input checked="" type="checkbox"/> Will not cause measurable degradation to water quality b. <input type="checkbox"/> Will only cause de minimis degradation to water quality c. <input type="checkbox"/> Will cause more than de minimis degradation to water quality (<i>Complete additional sections 9-11</i>) d. <input type="checkbox"/> Unsure/need more information <p><i>For information and guidance on the definition of de minimis and degradation, refer to the Antidegradation Statement in Chapter 0400-40-03-.06 of the Tennessee Water Quality Criteria Rule: https://www.tn.gov/sos/rules/0400-40-03-.06.pdf. For more information on specifics on what General Permits can cover, refer to the Natural Resources Unit webpage at http://www.tn.gov/environment/permits/arap.shtml</i></p>

If you checked "c." above in Section 9, complete the following 2 sections, 10-11.

Section 10. Detailed Alternative Analysis		Attached	
		Yes	No
10.1	Analyze all reasonable alternatives and describe the level of degradation caused by each of the feasible alternatives	<input type="checkbox"/>	<input type="checkbox"/>
10.2	Discuss the social and economic consequences of each alternative	<input type="checkbox"/>	<input type="checkbox"/>
10.3	Demonstrate that the degradation associated with the preferred alternative will not violate water quality criteria for uses designated in the receiving waters, and is necessary to accommodate important economic and social development in the area	<input type="checkbox"/>	<input type="checkbox"/>

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

Section 11. Compensatory Mitigation		Attached	
		Yes	No
11.1	A detailed discussion of the proposed compensatory mitigation	<input type="checkbox"/>	<input type="checkbox"/>
11.2	Describe how the compensatory mitigation would result in no net loss of resource value	<input type="checkbox"/>	<input type="checkbox"/>
11.3	Provide a detailed monitoring plan for the compensatory mitigation site	<input type="checkbox"/>	<input type="checkbox"/>
11.4	Describe the long-term protection measures for the compensatory mitigation site (e.g., deed restrictions, conservation easement)	<input type="checkbox"/>	<input type="checkbox"/>

Certification and Signature

An application submitted by a corporation must be signed by a principal executive officer; from a partnership or proprietorship, by the partner or proprietor respectively; from a municipal, state, federal or other public agency or facility, the application must be signed by either a principal executive officer, ranking elected official, or other duly authorized employee.

"I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury".

Ty Blakely	Mayor		2-17-21
Printed Name	Official Title	Signature	Date

Submitting the form and obtaining more information Note that this form must be signed by the principal executive officer, partner or proprietor, or a ranking elected official in the case of a municipality; for details see **Certification and Signature** statement above. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed ARAP Application form (keep a copy for your records) to the appropriate EFO for the county(ies) where the ARAP activity is located, addressed to **Attention: ARAP Processing**. You may also electronically submit the complete application and all associated attachments (e.g., maps, wetland delineations and narrative portions) to water.permits@tn.gov.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	1301 Riverfront Pkwy., Ste. 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601



OFFICIAL STATE USE ONLY

Received Date:	Permit Number:	Reviewer:	Field Office:
Fee amount paid:	T & E Aquatic Flora and Fauna:	Impaired Receiving Stream:	Application Review:
Date:			<input type="checkbox"/> Deficient Date: _____
Check #:	Exceptional TN Water:		<input type="checkbox"/> Complete Date: _____

**APPLICATION FOR
AQUATIC RESOURCE ALTERATION PERMIT (ARAP)**

City of Maynardville

**Water Line Extension
Autumns Way, Gilbert Lane, and Malone Gap Road Areas**

Union County, Tennessee

February 2021

RGC&A Project# 20009

**Engineer: Robert G. Campbell & Associates
7523 Taggart Lane
Knoxville, TN 37938
Contact: Robert Colvin
Phone: (865) 947-5996
bobcolvin@rgc-a.com**

**Owner: City of Maynardville
Contact: Ty Blakely
PO Box 217
Maynardville, TN 37807
Phone: (865) 992-3821**

Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

Section 6: Project Description

6.1 A NARRATIVE DESCRIPTION OF THE SCOPE OF THE PROJECT:

Project Location & Description

Project Location:

A set of project plans is included with this documentation; the project plans provide a location map. In addition, a general location map on an 11"x17" sheet is included with this documentation.

The location map was generated using the following USGS quadrangle maps:

- Maynardville 145 SE
- Powder Springs 145 SW

Project Description:

Proposed Construction Description:

The proposed project consists of constructing water line extensions in the City of Maynardville along Autumns Way, Gilbert Lane, and Malone Gap Road. It will include 21,140 linear feet of new 6, 4, and 2-inch water line. The system proposed will be operated and maintained by the City of Maynardville.

There will be five separate areas that six (6) water lines will be installed. Water Line A will begin at the intersection of Swan Seymour Road and Circle Drive to the northeast of Maynardville. Water Line A will travel northeast along the north side of Circle Drive towards its intersection with Cool Branch Road where it will then continue south along the west side of Circle Drive before terminating. WL-A will be 6,530 linear feet of 4-inch Class 250 PVC. Water Line B will connect to WL-A at the intersection of Circle Drive and AJ Lane. WL-B will travel northwest along the west side of AJ Lane before terminating. WL-B will be 1,530 linear feet of 2-inch Class 200 PVC. Water Line C will begin at the intersection of Kettle Hollow Road and Walkers Ford Road just south of Water Line A and B area. WL-C will travel south along the east side of Walkers Ford Road for 750 linear feet as 6-inch Class 250 PVC. WL-C will then travel change to 4-inch Class 250 PVC as it runs for 5,650 linear feet along east along the north side of Black Fox Road. It will terminate at its intersection with Dotson Creek Road after 6,400 linear feet. Water Line D will begin at the intersection of Hickory Valley Road (SR 170) and Lambdin Road (Chestnut Ridge Road on Google Maps) to the north of Maynardville. WL-D will run north along the west side of Lambdin Road for 560 linear feet as 2-inch Class 200 PVC before terminating. Water Line E will begin at the intersection of Hickory Valley Road (SR 170) and Hurricane Hollow Road. It will travel north along the west side of Hurricane Hollow Road and then west along the south side of Autumns Way. WL-E will continue along Autumns Way until it terminates at the end of the cul-de-sac at its terminus. WL-E will be 4,500 linear feet and be 2-inch Class 200 PVC. Water Line F

Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

will begin at the intersection of Little Valley Road and Malone Gap Road. WL-F will travel north along the east side of Malone Gap Road and then east along the south side of Gilbert Lane. WL-F will then terminate after 320 linear feet on Gilbert Lane. WL-F will be 1,620 linear feet and be 4-inch Class 250 PVC.

The post construction runoff coefficient will remain the same as the existing site's runoff coefficient in that the surface conditions will not be significantly altered. No additional impervious area is planned for the proposed project. Considering that this is a linear project with small contributing drainage areas to localized outfalls, runoff management with regards to quantity is not applicable to this project.

As discussed in a subsequent section, the general timing of the construction process is as follows:

- Establish staging area in consideration of the design project.
- Install silt fence, or other appropriate erosion and sediment control measure where topography allows for effectiveness.
- Begin trenching by clearing the necessary ground material and over burden. The material will be placed temporarily beside the trench. Therefore, there are no stockpile areas, and this has been accounted for in the calculation of the total amount of disturbed area. As indicated in the "estimate of disturbed area" the width of the disturbed area will be approximately 10 feet. The construction limits are bound by the area surrounding the project alignment, shown on the attached plans.
- Water line and appurtenances to be installed and tested. Typically, the water line will be installed in no more than 500 linear feet sections during the course of a day, correlating to the amount of disturbed area at one time.
- Over burden will be placed back in the trench with topsoil placed on ground surface.
- Seed and straw will be distributed over the disturbed area after final grading, which will include the vegetative control measures indicated in the Appendix.

Due to the nature of this project, i.e. linear, the disturbed area per "outfall" area is negligible regarding structural practices. In addition, the narrow construction limits prevent the installation of such structures, with the exception of silt fence, and therefore, design calculations are not included with this SWPPP.

Construction material expected to be stored on-site is, at most, 1,000 linear feet of pipe. Other appurtenances will be brought to the job site and either installed or taken back to the Contractor's storage yard (off-site) at the end of the workday to prevent theft. Diesel fueling of machinery will take place at the Contractor's yard prior to the workday.

The stormwater prevention and sediment control measures in this report have been designed for the 5-year, 24-hour storm event.

Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

Estimate of Total Disturbed Area:

Construction for the installation of the proposed water line will be done using traditional open trenching methods, so the expected area of disturbance is based on a trench 4,553 feet long and 10 feet wide (to allow for surface disturbance by machinery), will account for 45,530 square feet of disturbance, or 1.05 acres. As described in a subsequent section the entire 1.05 acres will not be disturbed at one time, rather, the construction activities will be staged.

Existing Site Conditions:

The anticipated receiving waters for stormwater runoff from the project area are:

- Tributary of Raccoon Creek
- Raccoon Creek

At this time Raccoon Creek has not been assessed according to TDEC's Division of Water Resources. Raccoon Creek is a tributary of Bullrun Creek and this creek has been assessed and is listed as "not supporting" due to pollution from *Escherichia Coli* caused by grazing in riparian or shoreline zones. This crossing will cause no effect to the water body.

As shown on the attached figures with USGS maps as a background, the areas indicated as the project locations show that the topography of the project site is typical of the Tennessee Valley.

According to the USDA's Web Soil Survey, the soils present in the site are typical of East Tennessee including the majority of soils in the B and C soils types. These soils have slow infiltration rates and lead to higher runoff amounts. The soils reports are located in the Appendix of this report.

Surface Water Conveyance Crossings:

As shown on the attached USGS quad map, there is one 'blue-line' creek crossings. See the table below for stream crossing locations. At these locations, the streams will be crossed by a new water line. The proposed crossing will be accomplished by running the water line across the existing bridge.

Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

Crossing #	Stream Name	Nearest Road	Water Line	Sheet No.
1	Misc Tributary of Norris Reservoir	Circle Drive	Water Line A	5
2	Misc Tributary of Norris Reservoir	Walker Ford Road	Water Line C	10
3	Misc Tributary of Norris Reservoir	Black Fox Road	Water Line C	13
4	Crooked Creek	Malone Gap Road	Water Line F	19

Crossing 1 will be at Station 16+60.00 of SL-A and will be a 60 linear feet directional bore underneath an existing 36-inch CMP housing a small tributary. Crossing 2 will take place at Station 3+30.00 of WL-C where the water line will be attached to the side of the bridge that runs overtop a tributary along Walkers Ford Road. Crossing 3 will be at Station 44+43.46 where WL-C will be installed overtop an existing 36-inch CMP that houses a small tributary. Crossing 4 will take place at Station 8+81.00 of WL-F where 20 linear feet bore will travel underneath an existing 42-inch CMP. No stream will be affected or altered due to these water line crossings.

6.2 USGS TOPOGRAPHIC MAP INDICATING THE EXACT LOCATION OF THE PROJECT (CAN BE A PHOTOGRAPHIC COPY):

See attached.

6.3 PHOTOGRAPHS OF THE RESOURCES PROPOSED FOR ALTERATION WITH LOCATION DESCRIPTION

**Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir**

CROSSING #1 (36.324139, -83.717472), STA 16+60 (WL-A), SHEET 5



**Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir**

CROSSING #2 (36.301500, -83.718278), STA 44+44 (WL-C), SHEET 10



**Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir**

CROSSING #3 (36.305222, -83.707306), STA 32+04 (WL-C), SHEET 13



**Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir**

CROSSING #4 (36.256989, -83.834027), STA 8+81 (WL-F), SHEET 19



Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

.6.4 A NARRATIVE DESCRIPTION OF THE EXISTING STREAM AND/OR WETLAND CHARACTERISTICS INCLUDING, BUT NOT LIMITED TO, DIMENSIONS (E.G., DEPTH, LENGTH, AVERAGE WIDTH), SUBSTRATE AND RIPARIAN VEGETATION.

CROSSING #1: (36.324139, -83.717472), STA 16+60 (WL-A), SHEET 5

A Miscellaneous Tributary of Norris Reservoir flows from northeast to the southwest and under Circle Drive via 36-inch CMP. The tributary continues west into the reservoir. The proposed crossing includes 60 linear feet bore underneath the CMP. The stream has a defined top of bank and the width of the channel at this location is approximately 4-8' and the channel side slopes are generally 6:1 to vertical in this area. The stream has experienced moderate rainfall and runoff recently and the banks appear partially overrun. The channel depth is approximately 1-3' with a water depth of a 1'-2'. The stream bottom consists of a mostly muddy bottom with some rock and sand. Many shrubs line the bank and offer some stabilization.

CROSSING #2: (36.301500, -83.718278), STA 44+44 (WL-C), SHEET 10

Another Miscellaneous Tributary of Norris Reservoir flows from west to east and under Walkers Ford Road. The tributary then continues north into the reservoir. The water line crossing will include attaching the water line to the bridge and running it overtop the creek. The tributary has a defined top of bank and the width of the channel at this location is approximately 8-12' and the channel side slopes are generally 3:1 to vertical in this area. The channel depth is approximately 2-4' with a water depth of a 1'-2'. The stream bottom consists of a mostly rocky and sandy bottom with some rock some mud. The slopes are gradual at the channel side and there exists a strong riparian buffer at the proposed crossing.

CROSSING #3: (36.305222, -83.707306), STA 32+04 (WL-C), SHEET 13

Another Miscellaneous Tributary of Norris Reservoir flows from east to west and under Black Fox Road via a 36-inch CMP. The stream continues west and then north into the reservoir. WL-C will be installed overtop the CMP. The stream has a defined top of bank and the width of the channel at this location is approximately 4-8' and the channel side slopes are generally 5:1 to vertical in this area. The channel depth is approximately 1-3' with a water depth of a 1'-2'. The stream bottom consists of a mostly rocky and sandy bottom with some mud. The slopes are gradual at the channel side and there exists a strong riparian buffer at the proposed crossing.

Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

CROSSING #4: (36.256989, -83.834027), STA 8+81 (WL-F), SHEET 19

Crooked Creek flows from east to west and under Malone Gap Road via a 42-inch CMP. The creek continues west and then north towards the reservoir. The crossing will include a 20 linear feet bore under the 42-inch CMP. It has a defined top of bank and the width of the channel at this location is approximately 2-4' and the channel side slopes are generally 4:1 to vertical in this area. The channel depth is approximately 2-4' with a water depth of a 1'-2'. The stream bottom consists of a mostly rocky and sandy bottom with some mud. The slopes are gradual at the channel side and there exists a strong riparian buffer at the proposed crossing.

6.5 A NARRATIVE DESCRIPTION OF THE PROPOSED STREAM AND/OR WETLAND CHARACTERISTICS INCLUDING, BUT NOT LIMITED TO, DIMENSIONS (E.G., DEPTH, LENGTH, AVERAGE WIDTH), SUBSTRATE AND RIPARIAN VEGETATION.

The water line crossings of the creeks will not affect or change the condition of the streams. Two crossings will be directionally bored underneath existing CMP's, one will travel overtop and existing CMP, and the another will run along an existing bridge overtop a stream. The water line will be installed at a minimum of 3 feet below existing grade. Grading and construction will be conducted in accordance with the SWPPP, which will be submitted to TDEC, and prudent best management practices will be followed until all affected areas are permanently stabilized.

6.6 IN THE CASE OF WETLANDS, INCLUDE WETLAND DELINEATION WITH DELINEATION FORMS AND SITE MAP DENOTING LOCATION OF DATA POINTS.

Not applicable; no wetlands will be affected at the crossing locations.

6.7 THE CASE OF WETLANDS, INCLUDE WETLAND DELINEATION WITH DELINEATION FORMS AND SITE MAP DENOTING LOCATION OF DATA POINTS.

Not applicable.

Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

Section 7: Project Rationale

7.0 DESCRIBE THE NEED FOR THE PROPOSED ACTIVITY, INCLUDING, BUT NOT LIMITED TO, THE PURPOSE, ALTERNATIVES CONSIDERED, AND WHAT WILL BE DONE TO AVOID OR MINIMIZE IMPACTS TO STREAMS OR WETLANDS.

The City of Maynardville is seeking to increase its water capacity for its residents. Construction activities include installation of approximately 21,140 linear feet of new water line and associated appurtenances to provide service to some areas in Maynardville and Union County. The project will also include four stream crossings.

Alternatives considered for the stream crossings include: open cut the crossings, directionally bore the crossings, or jack and/or bore the crossings. The crossings were evaluated for feasibility and minimization of environmental impact.

Section 8: Technical Information

8.1 DETAILED PLANS, SPECIFICATIONS, BLUEPRINTS, OR LEGIBLE SKETCHES OF PRESENT SITE CONDITIONS AND THE PROPOSED ACTIVITY.

Please see attached plan set.

8.2 FOR BOTH THE PROPOSED ACTIVITY AND COMPENSATORY MITIGATION, PROVIDE A DISCUSSION REGARDING THE SEQUENCING OF EVENTS AND CONSTRUCTION METHODS.

- 1) One or more staging areas will be selected.
- 2) It is the intent of this Storm Water Pollution Prevention Plan that no sediment leaves the construction site. Work will be performed in such a manner that, as much as possible, trenches, borings and excavations will be opened in the morning; pipe and appurtenances installed throughout the day, and trenches, borings and excavations shall be filled before work is suspended for the day. All disturbed areas shall be covered with straw before work is suspended for the day, with no disturbed areas left uncovered. Seeding of completed areas shall occur within 7 days of completion of construction activities.
- 3) Silt fence shall be installed in areas along the project as required by topography or proximity to nearby watercourses. Details for installation and maintenance of silt fence are included in the Appendix. Silt fence need not be installed on the entire project at once, but silt fence installation shall proceed in advance of any soil disturbing activity. Silt fence shall not be required at all locations along the project route but shall be placed on the downhill side of construction activity where existing slopes indicate the possibility of sediment being carried into any adjacent water conveyances during a rainfall event.

Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

- 4) At areas where construction activity is near streams, silt fence shall be placed between construction activity and the stream such that project run-off is intercepted before it enters the stream channel. In no case shall construction equipment be permitted to operate in the stream channel.
- 5) Smaller conveyances with no flow at the time of construction will be trenched without diverting.
- 6) Topsoil will be removed and temporarily stockpiled for later redistribution. Topsoil piles shall be temporarily stabilized and seeded.
- 7) Construction activity for this water line shall be limited to excavating and backfilling as work progresses. To minimize the area of active disturbance at any given time, any initial clearing, excavating, or backfilling will be conducted in sections 500 feet or less in length. Silt fence shall be installed on downstream side of activity as directed by the construction representative.
- 8) Care shall be exercised to protect all open utility pipe ends or open ends of trenches so that neither the pipe nor the trench becomes a conduit for silt movement. Temporarily open pipe ends shall be capped and any trenches that open onto existing grade and may allow water to drain from the trench to natural ground shall be protected by silt fence.
- 9) Sediment shall be removed from silt fence before the design capacity of the structure has been reduced by 50%. Litter, construction debris, and construction chemicals exposed to storm water shall be picked up prior to anticipated storm events, or otherwise prevented from becoming a pollutant source for storm water discharges. After use, silt fences shall be removed to prevent them from becoming a pollutant source for storm water discharges. Temporary measures may be removed at the beginning of the workday, but shall be replaced at the end of the workday.
- 10) Stabilization shall be accomplished as soon as practicable after trench or excavation backfilling and no later than seven days after attaining final grade. Where trenching and backfilling have ceased (temporarily or permanently), temporary stabilization shall be applied within seven days if the activity will not resume within 15 days.
- 11) The dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated shall be recorded and maintained on the site. Stabilization methods may include seed and mulch, or seed and erosion control blankets.

Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

- 12) Storm drain inlet protection will be utilized when necessary. Use of storm drain inlet protection shall not interfere with roadway traffic. The contractor is responsible for ensuring the safety of the public when implementing and utilizing storm drain inlet protection.
- 13) Permittees shall maintain a rain gauge and daily rainfall records at the site, or use a reference site for a record of daily amount of precipitation.
- 14) Muddy water to be pumped from excavation and work areas must be held in settling basins or filtered or chemically treated prior to its discharge into surface waters. Water must be discharged through a pipe, well-grassed or lined channel or other equivalent means so that the discharge does not cause erosion and sedimentation. Discharges from dewatering activities including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls. Appropriate controls included, but are not limited to: weir tank, dewatering tank, gravity bag filter, sand media particulate filter, pressurized bag filter, cartridge filter or other control units providing the level of treatment necessary to comply with permit requirements. Discharged water must not cause an objectionable color contrast with the receiving stream.
- 15) Buffer zone requirements: to the extent practical, a minimum 15-foot/average 30-foot, natural riparian buffer zone adjacent to streams at the project sites shall be preserved, per the Tennessee Erosion and Sediment Control Handbook.

All erosion prevention and sediment control best management practices identified in this SWPPP shall be installed as recommended in the Tennessee Erosion and Sediment Control Handbook.

Mayor Andy Lawhorn, or his designate, shall be responsible for implementation of the erosion and sediment control plan, and for inspections and maintenance. Robert G. Campbell & Associates will assist and advise Mayor Lawhorn.

If sediment escapes the construction site, off-site accumulations of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts (e.g., fugitive sediment that has escaped the construction site and has collected in a street must be removed so that it is not subsequently washed into storm sewers and streams by the next rain and/or so that it does not pose a safety hazard to users of public streets). Permittee shall not initiate remediation/restoration of a stream without consulting the division first. This permit does not authorize access to private property. Arrangements concerning removal of sediment on adjoining property must be settled by the permittee with the adjoining landowner.

Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

8.3 DEPICTION AND NARRATIVE ON THE LOCATION AND TYPE OF EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES FOR THE PROPOSED ALTERATIONS.

The construction-phase erosion prevention controls will be implemented to minimize the dislodging and suspension of soil in water and retain mobilized sediment on site. The construction sequence will be followed to minimize the exposure time of graded or denuded areas. Clearing and grubbing will be held to the minimum necessary. Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than 10 days prior to grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed.

Erosion and sediment control structures will be installed and functional before any earthmoving activity begins. All control measures will be properly installed and maintained in accordance with the manufacturer's specifications and good engineering practices. Measures will be implemented to slow runoff so that rill and gully formation is prevented.

Permanent seeding is outlined in the construction sequence and will be followed as a minimum. Disturbed areas will be seeded for permanent cover as soon as grading is completed and weather conditions are suitable. Final stabilization requires a minimum of 70% coverage. Temporary seeding will also be used when necessary. Stabilization will be accomplished as soon as practicable after attainment of final grade. Where earth-disturbing activity has temporarily ceased, temporary stabilization will be applied if the activity will not resume within 15 days. Steep slopes will require stabilization within 7 days. Stabilization methods may also include erosion control blankets.

Sediment will be removed from silt fence before the design capacity of the structure has been reduced by 50%. Litter, construction debris, and construction chemicals exposed to storm water will be picked up prior to anticipated storm events, or otherwise prevented from becoming a pollutant source for storm water discharges. After use, silt fences will be removed to prevent them from becoming a pollutant source for storm water discharges. Temporary measures may be removed at the beginning of the workday, but will be replaced at the end of the workday.

All erosion prevention and sediment control best management practices identified in this ARAP will be installed as recommended in the Tennessee Erosion and Sediment Control Handbook.

Please see the attached EPSC measures:
Wire Backed Silt Fence
Mulch Berm
Permanent Vegetation
Stabilization

Aquatic Resource Alteration Permit Application
City of Maynardville
Water Line Crossings of Tributaries of Norris Reservoir

The contractor will be responsible for day-to-day operational control and will have a qualified person to conduct inspections. Persons conducting inspections will have successfully completed the “Fundamentals of Erosion Prevention and Sediment Control” course offered by TDEC and certification shall be current throughout the life of the project.

If sediment escapes the construction site, off-site accumulations of sediment that have not reached a stream will be removed as soon as possible to minimize offsite impacts. The Division will be consulted prior to remediation or restoration activities of a stream. Arrangements concerning removal of sediment on adjoining property will be settled by the permittee with the adjoining landowner.

Litter, construction debris, and construction chemicals exposed to storm water will be picked up prior to anticipated storm events or before being carried off of the site by wind, or before otherwise becoming a pollutant source. After use, materials used for erosion prevention and sediment control will be removed.



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources

William R. Snodgrass Tennessee Tower, 11th Floor
312 Rosa L. Parks Avenue, Nashville, Tennessee 37243
1-888-891-TDEC (8332)

Notice of Termination (NOT) for General Aquatic Resource Alteration Permit (ARAP) Coverage

Submittal of this form is required when requesting termination of coverage from a General ARAP. The purpose of this form is to notify TDEC that the ARAP activities authorized at the portion of the identified facility have been completed. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form along with photographic documentation of the completion of the permitted activity to the local DWR Environmental Field Office (EFO) address (see table below). For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Type or print clearly, using ink.

Site or Project Name:	ARAP Tracking Number: NR
Street Address or Location:	County(ies):

Name of Applicant Requesting Termination of Coverage:			
Permittee Contact Name:		Title or Position:	
Mailing Address:	City:	State:	Zip:
Phone:	E-mail:		

Check the reason(s) for termination of permit coverage:

<input type="checkbox"/>	All activities authorized by the above referenced tracking number have been completed in accordance with terms and conditions of the general permit. Photographic documentation is attached.
<input type="checkbox"/>	The activity was not conducted.

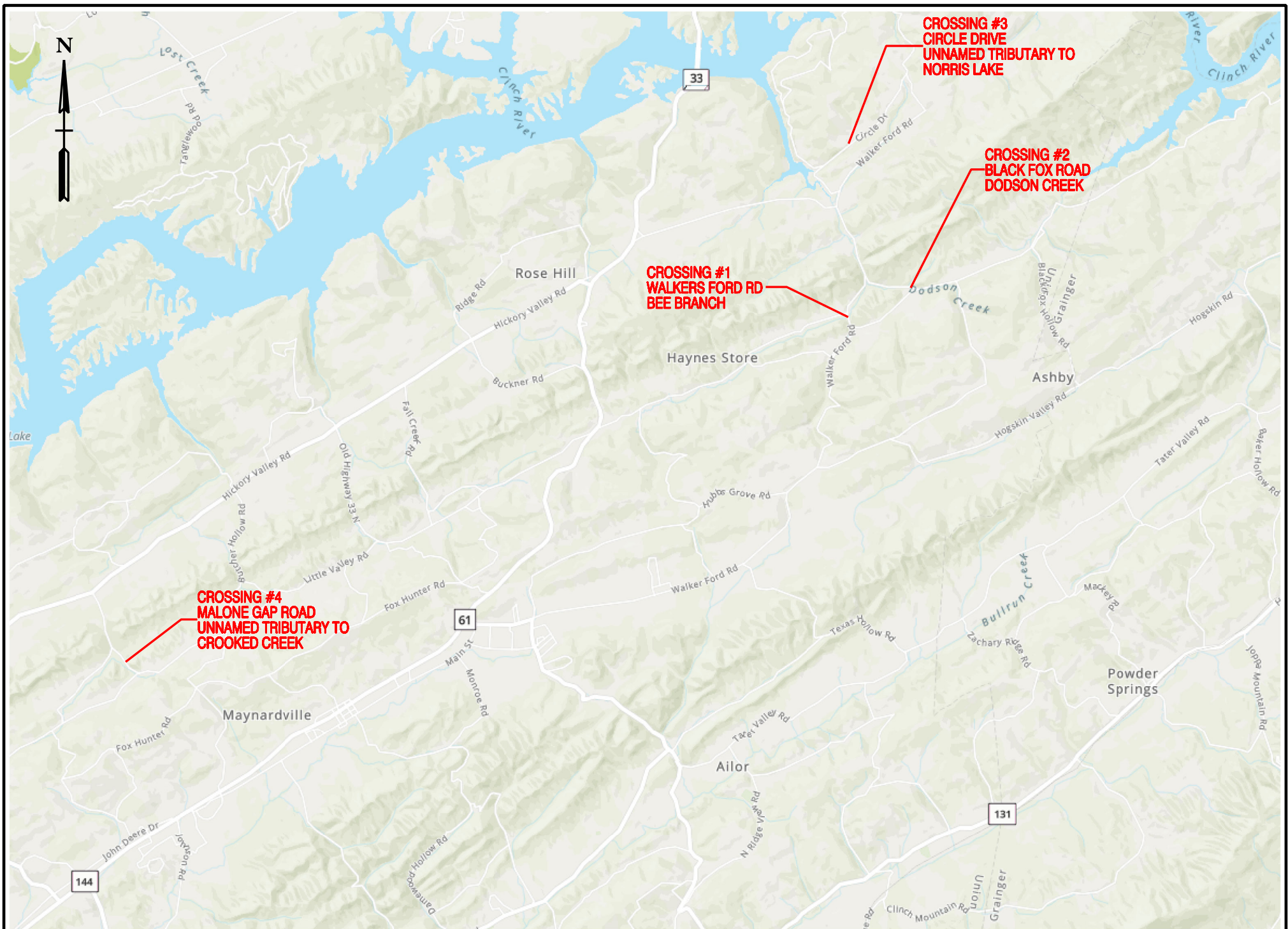
Certification and Signature: (must be signed by president, vice-president or equivalent ranking elected official)

I certify under penalty of law that either: (a) all activities authorized by the above referenced tracking number have been completed in accordance with terms and conditions of the general permit; or (b) the authorized activity was not conducted. I understand that by submitting this notice of termination, I am no longer authorized to conduct aquatic resource alteration activities under this general permit, and that such alterations to waters of the State is unlawful under the Tennessee Water Quality Control Act or waters of the United States is unlawful under the Clean Water Act. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act and the Tennessee Water Quality Control Act.

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Permittee name (print or type):	Signature:	Date:
---------------------------------	------------	-------

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett, TN	38133	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	1301 Riverfront Parkway, Ste 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601



ROBERT G. CAMPBELL
& ASSOC., L.P.

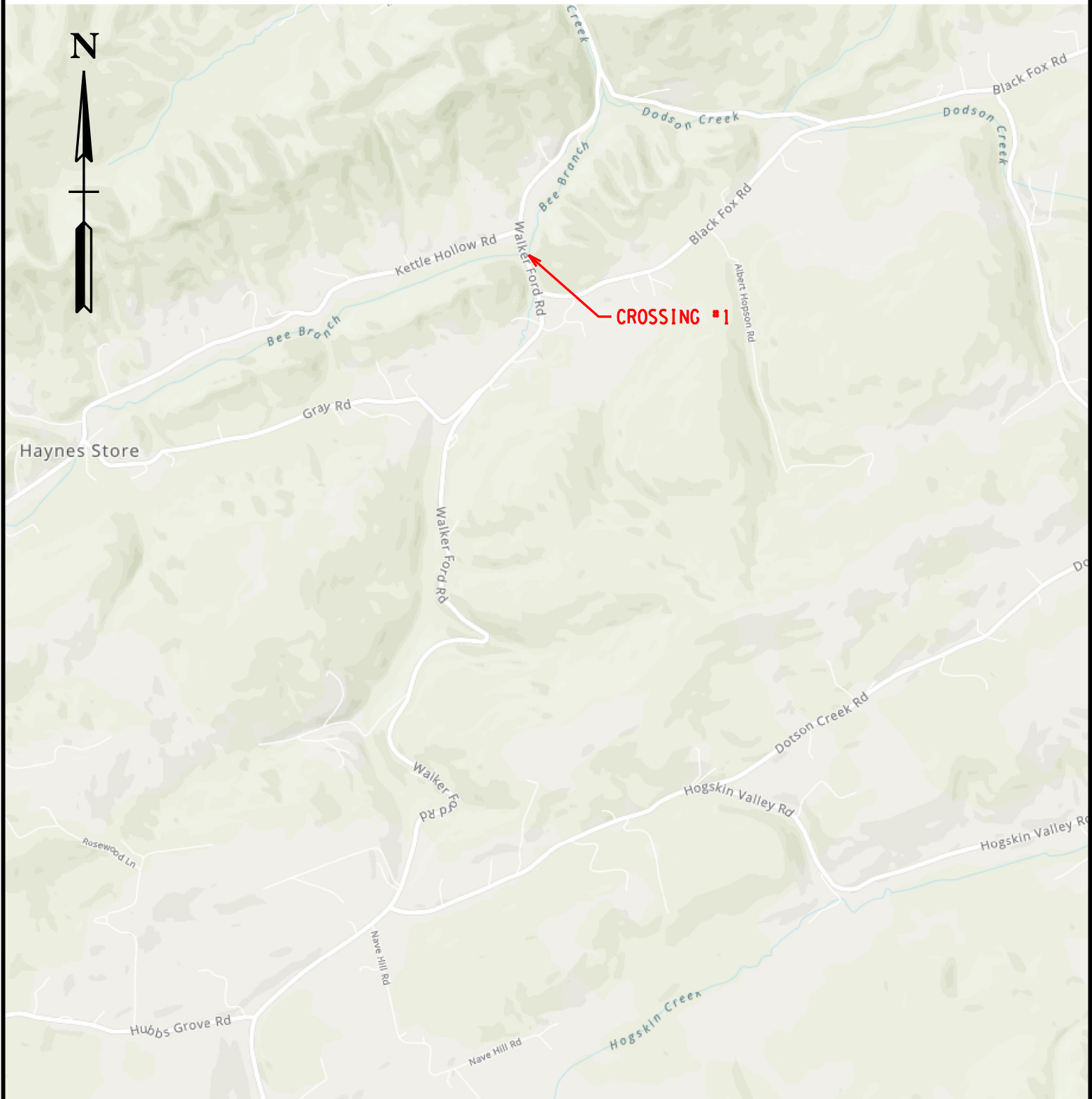
CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE


2020 CDBG WATER LINE EXTENSION
GENERAL LOCATION MAP

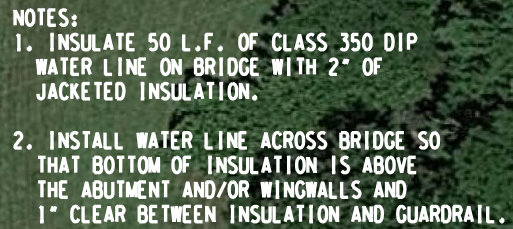
SCALE:
N.T.S

DATE:
01/29/2021

PROJ. NO.
20009



 ROBERT G. CAMPBELL & ASSOC., L.P.	CITY OF MAYNARDVILLE UNION COUNTY, TENNESSEE		2020 CDBG WATER LINE EXTENSION WALKERS FORD ROAD	
SCALE: N.T.S.	DATE: 01/29/2021	PROJECT NO. 20009	SHEET 1 OF 3	CROSSING #1 BEE BRANCH SITE LOCATION



WL-C STA. 3+00.00
INSTALL 30 L.F OF
6" CLASS 350 DIP TO
TRANSITION TO GROUND

WL-C STA. 3+30.00
INSTALL 35 L.F OF
6" CLASS 350 RESTRAINED
JOINT DIP ON BRIDGE WITH
METAL HANGERS ATTACHED
TO SIDE OF BRIDGE.
SEE DETAIL THIS SHEET

WL-C STA. 3+65.00
INSTALL 30 L.F OF _____
6" CLASS 350 DIP TO
TRANSITION FROM GROUND

- TOP OF BANK

CREEK EDGE

- TOP OF BANK
1058.92

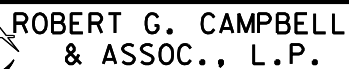
— END WALL
TOP 1065.79

— CREE

— TOP OF BANK
1059.31

—END WALL
TOP 1065.89

END WALL
TOP 1066.27



CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

2020 CDBG WATER LINE EXTENSION WALKERS FORD ROAD

SCALE:
1" = 50'

DATE:
01/29/2021

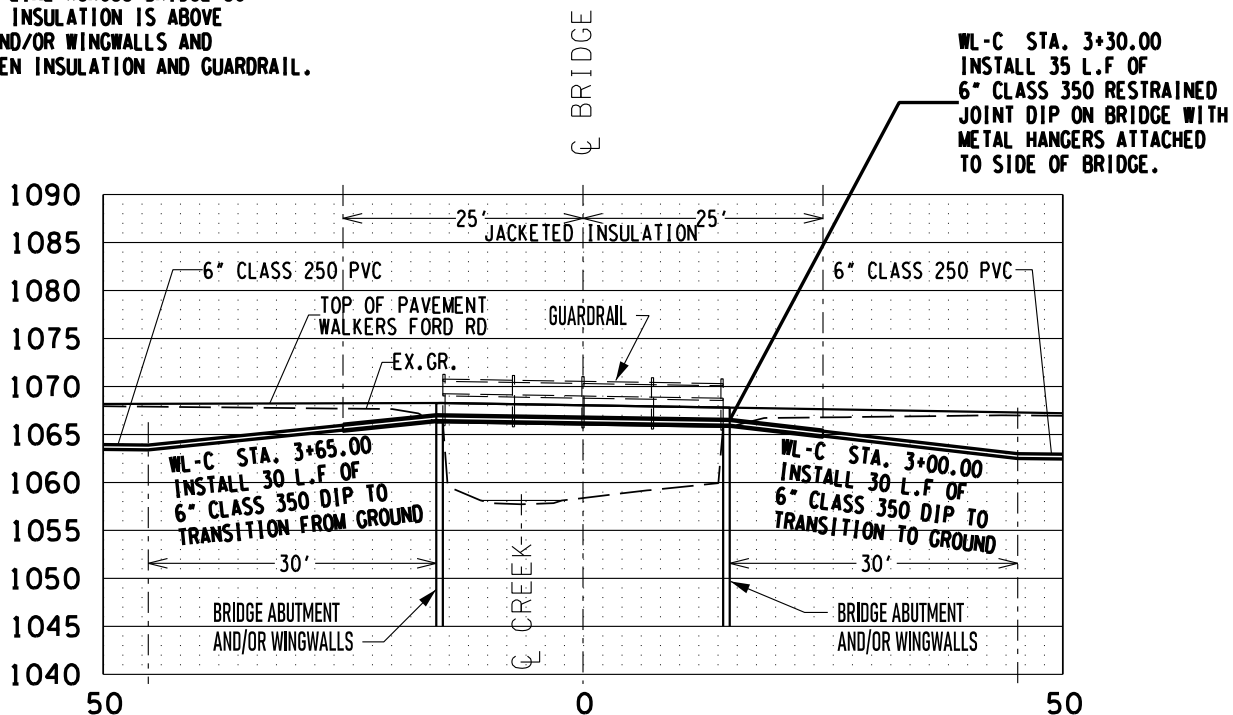
PROJECT NO.
20009

SHEET 2
OF 3

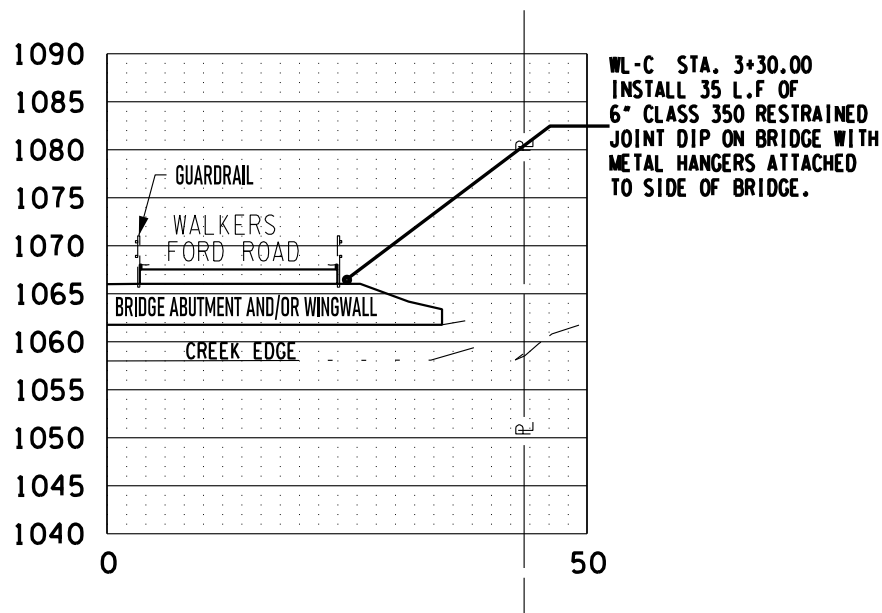
CROSSING #1 BEE BRANCH
PLAN VIEW

NOTES:

1. INSULATE 50 L.F. OF CLASS 350 DIP WATER LINE ON BRIDGE WITH 2" OF JACKETED INSULATION.
2. INSTALL WATER LINE ACROSS BRIDGE SO THAT BOTTOM OF INSULATION IS ABOVE THE ABUTMENT AND/OR WINGWALLS AND 1" CLEAR BETWEEN INSULATION AND GUARDRAIL.



PROFILE



CROSS SECTION A-A



ROBERT G. CAMPBELL
& ASSOC., L.P.

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

2020 CDBG WATER LINE EXTENSION
WALKERS FORD ROAD

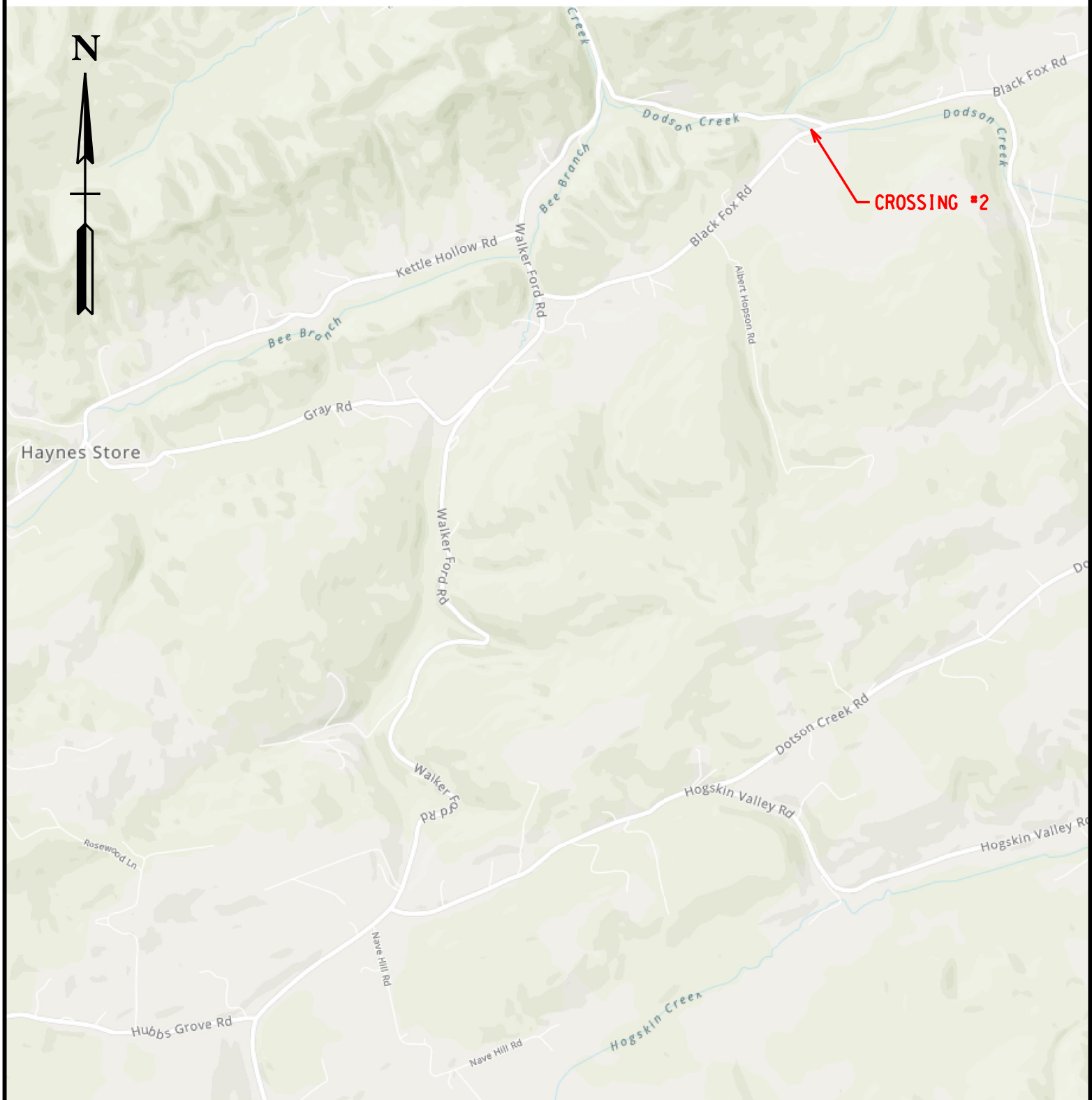
SCALE:
1" = 20'

DATE:
01/29/2021

PROJECT NO.
20009

SHEET 3
OF 3

CROSSING #1 BEE BRANCH
PROFILE



ROBERT G. CAMPBELL
& ASSOC., L.P.

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

2020 CDBG WATER LINE EXTENSION
BLACK FOX ROAD

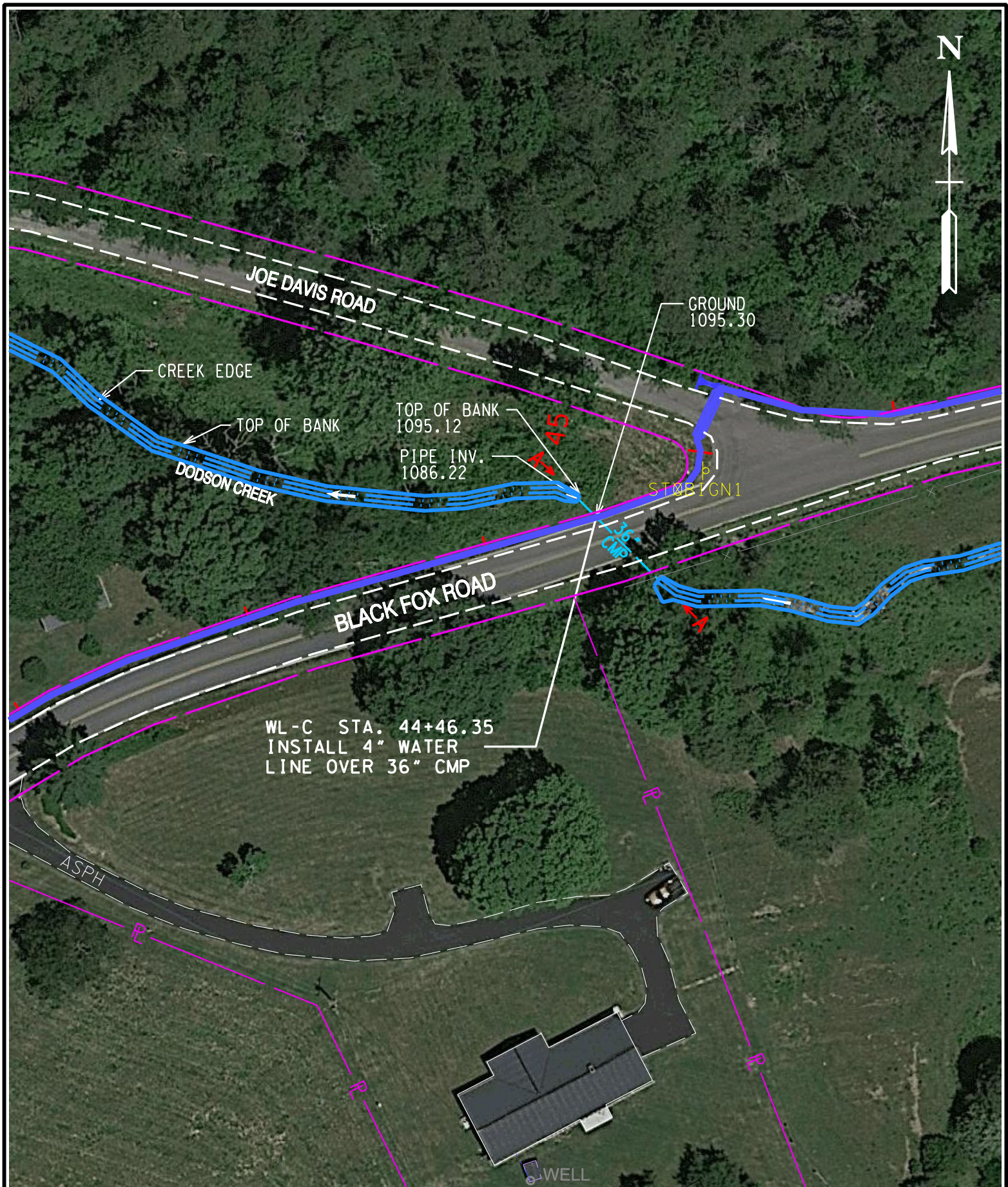
SCALE:
N.T.S.

DATE:
01/29/2021

PROJECT NO.
20009

SHEET 1
OF 3

CROSSING #2 DODSON CREEK
SITE LOCATION



ROBERT G. CAMPBELL
& ASSOC., L.P.

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

2020 CDBG WATER LINE EXTENSION
BLACK FOX ROAD

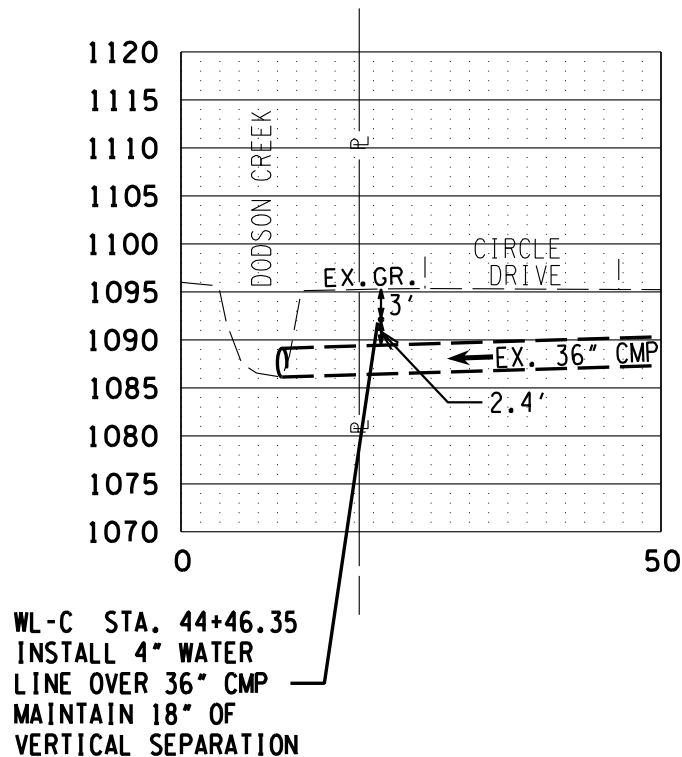
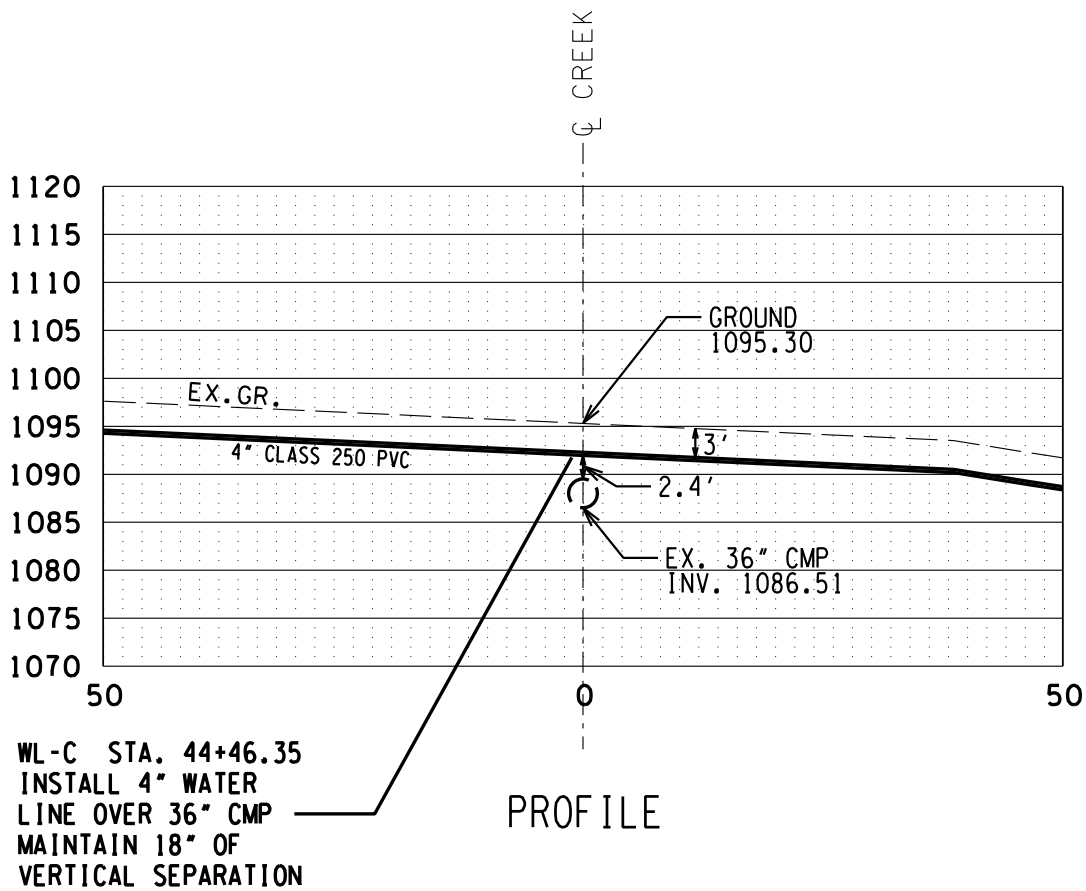
SCALE:
1" = 50'

DATE:
01/29/2021

PROJECT NO.
20009

SHEET 2
OF 3

CROSSING #2 DODSON CREEK
PLAN VIEW



ROBERT G. CAMPBELL
& ASSOC., L.P.

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

2020 CDBG WATER LINE EXTENSION
BLACK FOX ROAD

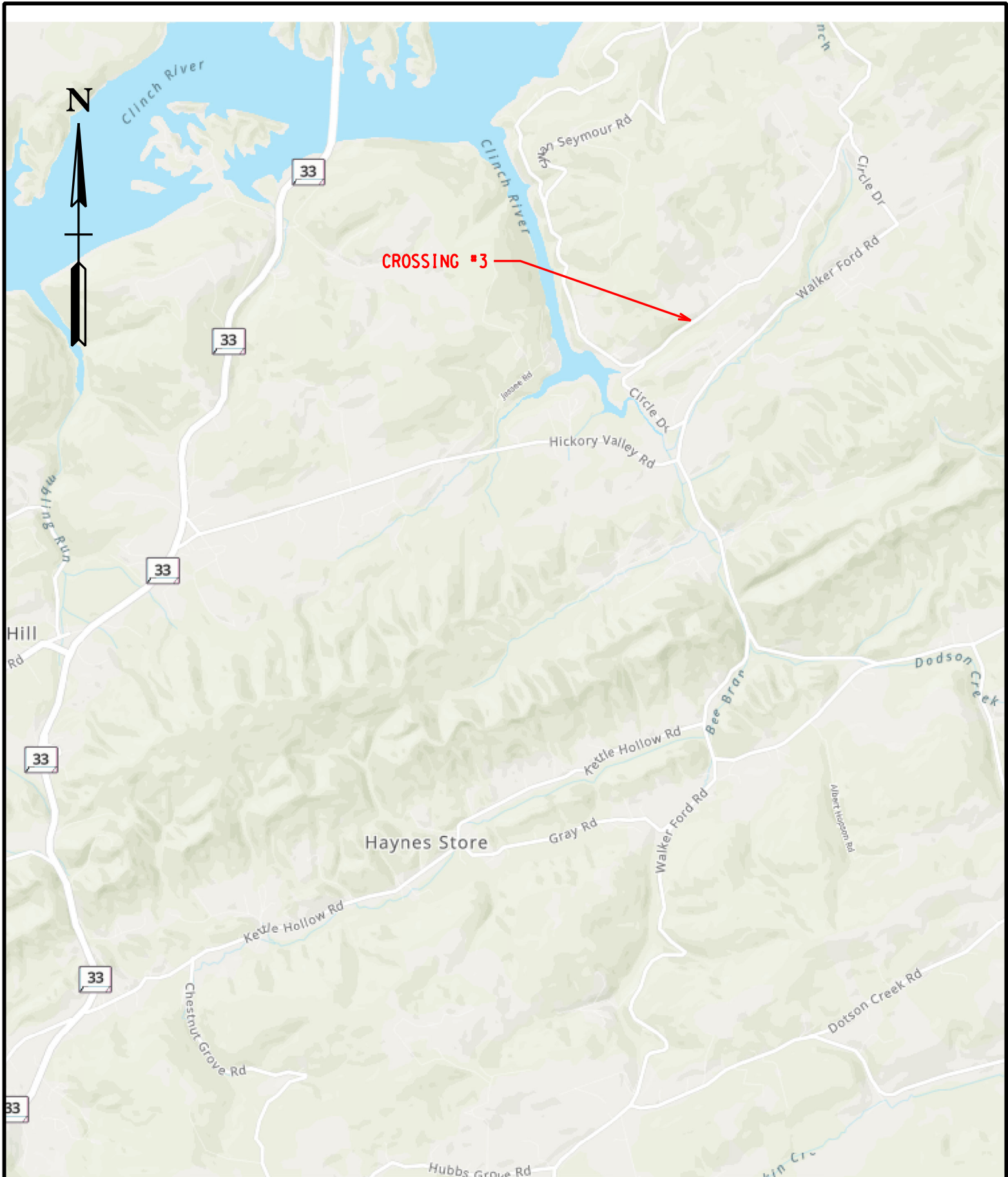
SCALE:
1" = 20'

DATE:
01/29/2021

PROJECT NO.
20009

SHEET 3
OF 3

CROSSING #2 DODSON CREEK
PROFILE



ROBERT G. CAMPBELL
& ASSOC., L.P.

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

2020 CDBG WATER LINE EXTENSION
CIRCLE DRIVE

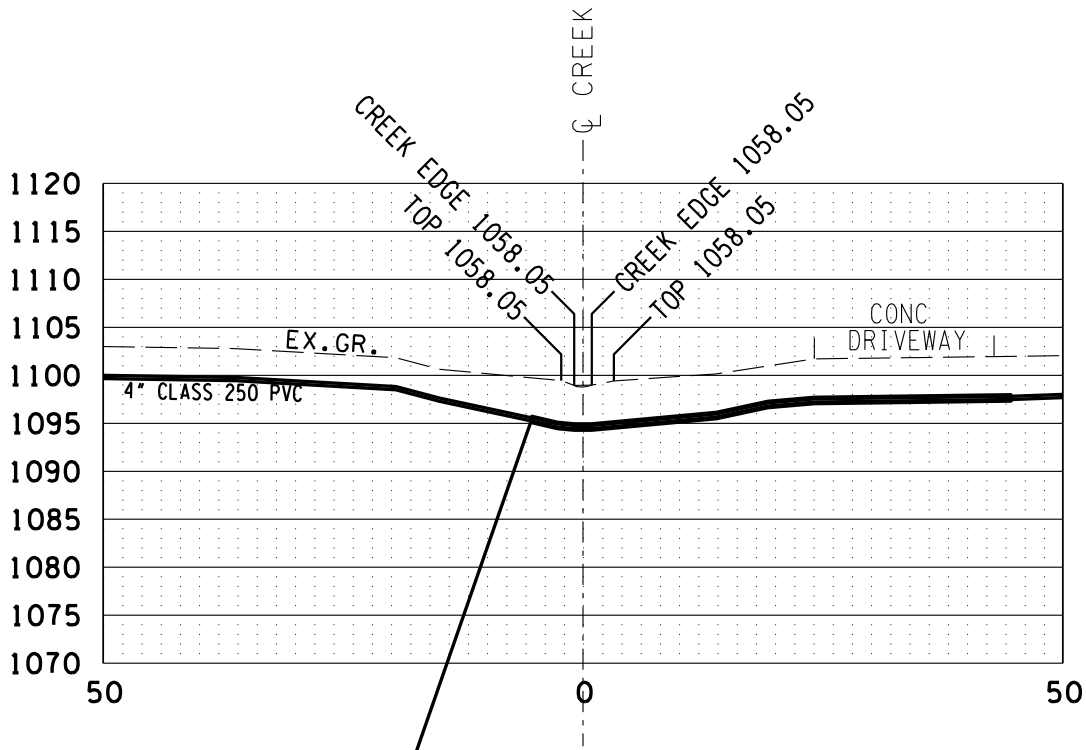
SCALE:
N.T.S.

DATE:
01/29/2021

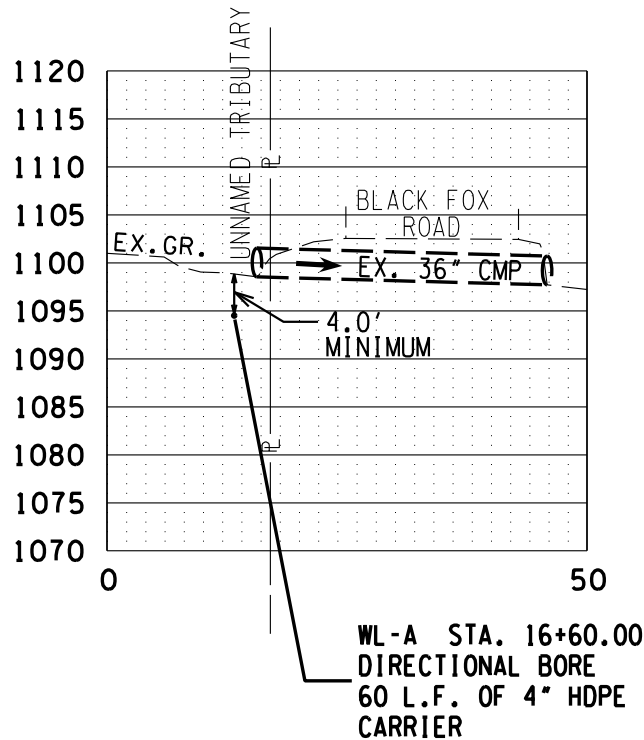
PROJECT NO.
20009

SHEET 1
OF 3

CROSSING #3 UNNAMED TRIBUTARY
SITE LOCATION



PROFILE



CROSS SECTION A-A



ROBERT G. CAMPBELL
& ASSOC., L.P.

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

2020 CDBG WATER LINE EXTENSION
CIRCLE DRIVE

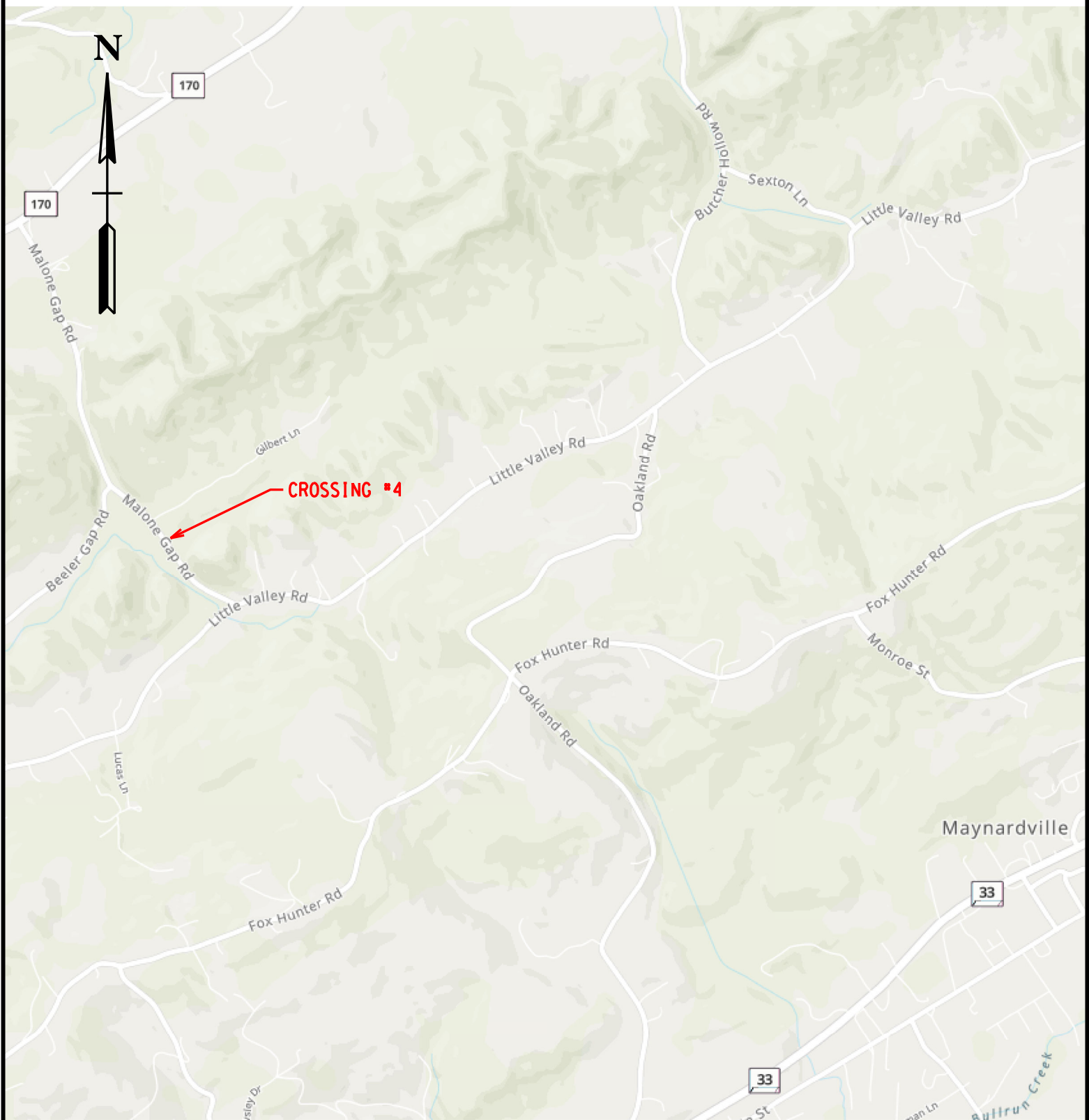
SCALE:
1" = 20'


DATE:
01/29/2021

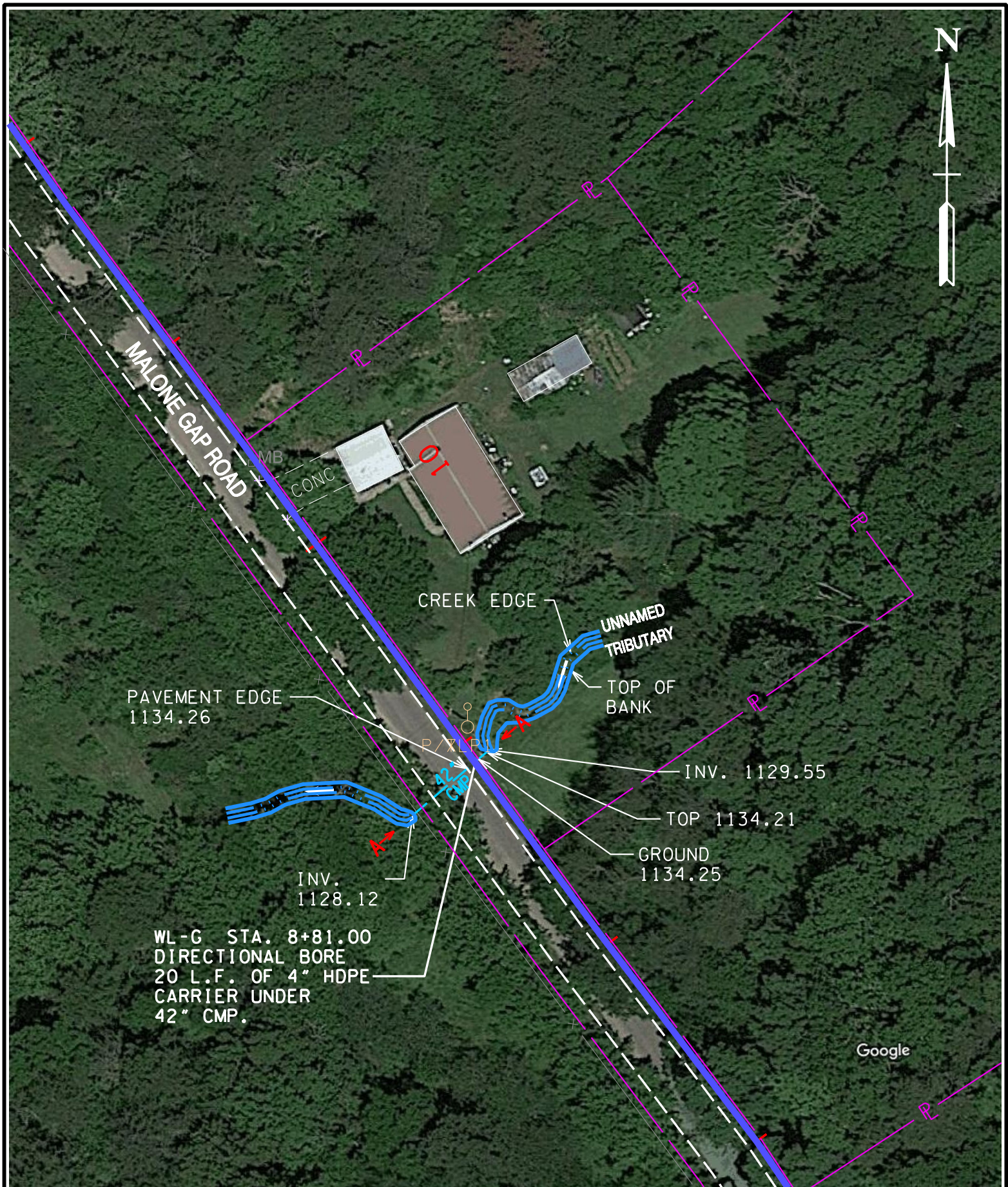
PROJECT NO.
20009

SHEET 3
OF 3

CROSSING #3 UNNAMED TRIBUTARY
PROFILE



 ROBERT G. CAMPBELL & ASSOC., L.P.	CITY OF MAYNARDVILLE UNION COUNTY, TENNESSEE		2020 CDBG WATER LINE EXTENSION MALONE GAP ROAD	
SCALE: N.T.S.	DATE: 01/29/2021	PROJECT NO. 20009	SHEET 1 OF 3	CROSSING #4 UNNAMED TRIBUTARY SITE LOCATION



ROBERT G. CAMPBELL
& ASSOC., L.P.

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

2020 CDBG WATER LINE EXTENSION
MALONE GAP ROAD

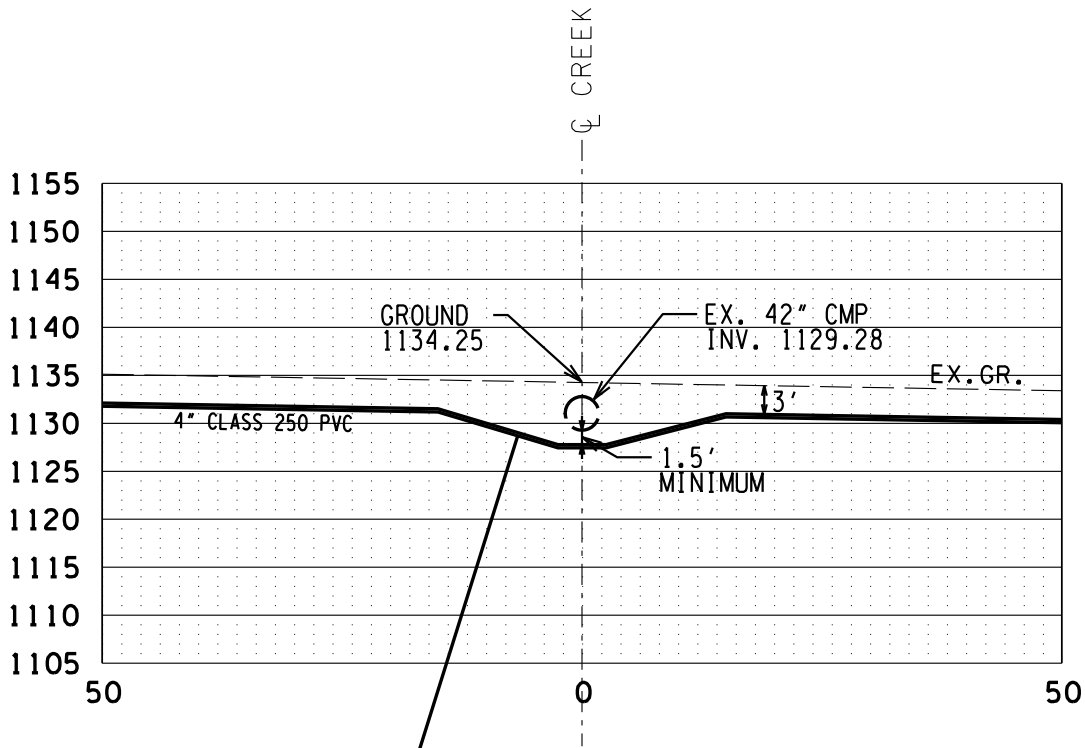
SCALE:
1" = 50'

DATE:
01/29/2021

PROJECT NO.
20009

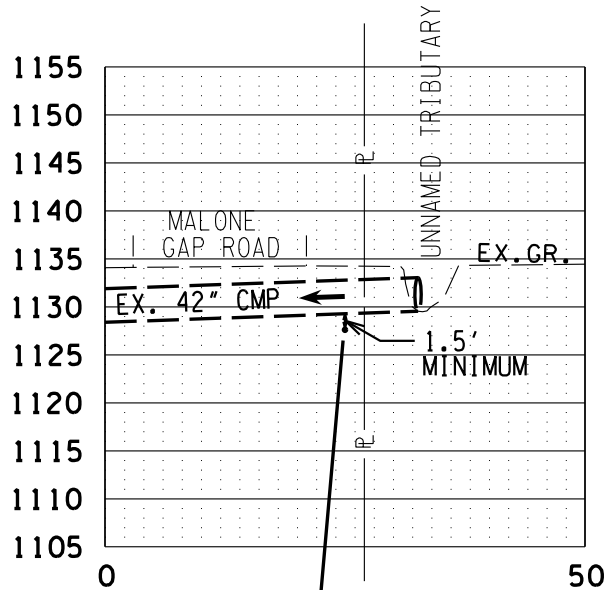
SHEET 2
OF 3

CROSSING #4 UNNAMED TRIBUTARY
PLAN VIEW



WL-G STA. 8+81.00
DIRECTIONAL BORE
20 L.F. OF 4" HDPE
CARRIER UNDER
42" CMP.

PROFILE



WL-G STA. 8+81.00
DIRECTIONAL BORE
20 L.F. OF 4" HDPE
CARRIER UNDER
42" CMP.

CROSS SECTION A-A



ROBERT G. CAMPBELL
& ASSOC., L.P.

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

2020 CDBG WATER LINE EXTENSION
MALONE GAP ROAD

SCALE:
1" = 20'

DATE:
01/29/2021

PROJECT NO.
20009

SHEET 3
OF 3

CROSSING #4 UNNAMED TRIBUTARY
PROFILE

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

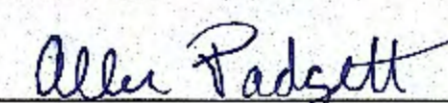
STORMWATER POLLUTION PREVENTION PLAN
2020 CDBG WATER LINE EXTENSIONS
CIRCLE DRIVE, BLACK FOX ROAD, LAMBDIN ROAD,
AUTUMN'S WAY, GILBERT LANE AND MALONE GAP ROAD AREAS

MAYOR:
TY BLAKELY

VICE MAYOR:
LEN PADGETT

COMMISSIONERS:
ISAAC COLLINS
MARTY SMITH
TIM YOUNG

APPROVED BY:


CITY OF MAYNARDVILLE

ROBERT G. CAMPBELL & ASSOCIATES , L.P.
CONSULTING ENGINEERS



KNOXVILLE , TENNESSEE

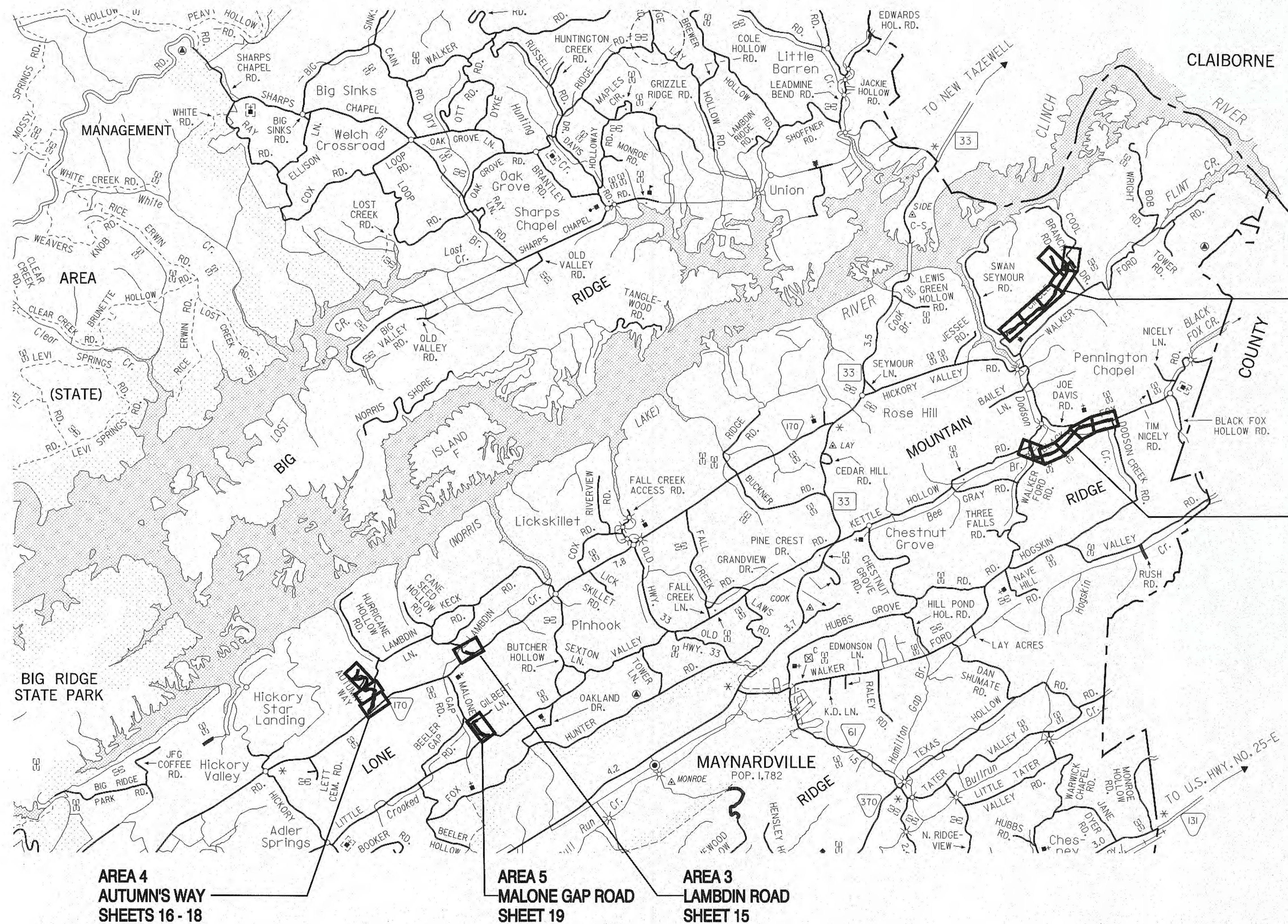


ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

2020 CDBG WATER LINE EXTENSIONS
CIRCLE DR., BLACK FOX RD., LAMBDIN RD.,
AUTUMN'S WAY, GILBERT LN. AND MALONE GAP RD. AREAS

FILE NO.:
20009
DATE:
02/09/2021



AREA 1
CIRCLE DRIVE
SHEETS 4 - 9


AREA 2
BLACK FOX ROAD
SHEETS 10 - 14

AREA 4
AUTUMN'S WAY
SHEETS 16 - 18

AREA 5
MALONE GAP ROAD
SHEET 19

AREA 3
LAMBDIN ROAD
SHEET 15



					ROBERT G. CAMPBELL & ASSOC., L.P. CONSULTING ENGINEERS KNOXVILLE, TENNESSEE	CITY OF MAYNARDVILLE UNION COUNTY, TENNESSEE	SWPPP SHEET LAYOUT / LOCATION MAP	DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 2
								DRAWN BY JLD	DATE FEB. 12, 2021	FILE NO. 20009	
NO. DATE DESCRIPTION BY CKD.											
REVISIONS											

1. ALL WATERLINES SHALL BE INSTALLED IN ACCORDANCE WITH APPROVED CITY OF MAYNARDVILLE SPECIFICATIONS.
2. ALL WATERLINES SHALL BE CLASS 250 PVC UNLESS NOTED OTHERWISE.
3. WATER MAINS ENCASED IN STEEL PIPE SHALL BE CLASS 350 RESTRAINED JOINT DUCTILE IRON PIPE UNLESS NOTED OTHERWISE.
4. ALL CASING PIPE SHALL BE INSTALLED BY DIRECTIONAL BORE UNLESS NOTED OTHERWISE.
5. ALL SERVICES FROM NEW LINE TO AND INCLUDING METER BOX SHALL BE NEW CONSTRUCTION.
6. SERVICE LINES FROM THE MAIN TO THE METER SHALL BE 3/4" POLYETHYLENE 200 PSI SDR 9 PE 3408 CLASS 200.
7. SERVICE LINES FROM THE METER TO THE LMI SHALL BE 3/4" POLYETHYLENE 200 PSI SDR 9 PE 3408 CLASS 200 PIPE UNDER 500' AND 1" POLYETHYLENE 200 PSI SDR 9 PE 3408 CLASS 200 PIPE IF MORE THAN 500'.
8. EXISTING WATERLINE PRESSURE FURNISHED BY OFFICIALS AT THE CITY OF MAYNARDVILLE.
9. CONTRACTOR MUST HAVE A VALID CONTRACTOR UTILITY LICENSE FOR INSTALLATION OF UNDERGROUND PIPING.
10. ALL WATER VALVES SHALL BE PLACED OUTSIDE THE ROADWAY SURFACE.
11. ALL WATER LINES TO BE CONSTRUCTED WITH A MINIMUM OF 36" OF COVER.
12. AIR RELEASE VALVES WILL BE INSTALLED AT ALL HIGHPOINTS IN NEW WATER LINE CONSTRUCTION, ALSO AT ANY OTHER LOCATION AS DIRECTED BY OFFICIALS OF THE CITY OF MAYNARDVILLE.
13. EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL NOTIFY THE OWNERS OF EACH UTILITY PRIOR TO CONSTRUCTION IN THE AREA AND REQUEST EXACT HORIZONTAL AND VERTICAL LOCATIONS.

1. ALL LOCAL, STATE, AND FEDERAL EROSION CONTROL REQUIREMENTS SHALL BE FOLLOWED DURING CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO CONTROL EROSION AND WATER POLLUTION THROUGHOUT 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 CONSTRUCTION SLOPES. THE CONTRACTOR SHALL ADHERE TO THE STORM WATER POLLUTION PREVENTION PLAN AS PROVIDED IN THE CONTRACT DOCUMENTS.
2. ANY STOCKPILED SOIL OR FILL MATERIAL SHALL BE LOCATED AND TREATED IN A MANNER TO PREVENT SILT FROM 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.
3. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL EROSION CONTROL PROVISIONS AS SET FORTH IN THE EROSION AND SEDIMENT CONTROL HANDBOOK AVAILABLE FROM THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.
4. THE CONTRACTOR SHALL MAINTAIN THE EROSION CONTROL MEASURES THROUGHOUT THE LENGTH OF THE CONTRACT AS REQUIRED.
5. THE CONTRACTOR SHALL PROVIDE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES (SUCH AS TEMPORARY VEGETATION, BERMS, SEDIMENT BASINS, SLOPE DRAINS, AND SILT FENCES) AS DIRECTED BY THE ENGINEER.
6. NO EARTH OR OTHER ERODIBLE MATERIAL SHALL BE USED TO DIVERT STREAM FLOW OR TO CONSTRUCT COFFERDAMS. CLEAN CUT ROCK WITH FINES MAY BE USED, OR IN THE CASE OF COFFERDAMS, STEEL SHEETING OR SAND BAGS IS PERMISSIBLE. WATER OR SEDIMENT ISOLATED BY COFFERDAMS SHALL BE PUMPED INTO SEDIMENT BASINS ON THE BANK OF THE STREAM.

1. CONTRACTOR IS RESPONSIBLE FOR ALL TRENCH SAFETY
2. CONTRACTOR SHALL SHORE AND BRACE ALL OPEN CUT TRENCHES AS REQUIRED BY STATE AND FEDERAL LAWS AND LOCAL ORDINANCES; TO CONFORM WITH RECOMMENDATIONS SET FORTH IN THE AGC MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION; TO PROTECT LIFE, PROPERTY, OR WORK; TO AVOID EXCESSIVELY WIDE CUTS IN UNSTABLE MATERIAL.
3. ALL AREAS DISTURBED BY CONSTRUCTION AND NOT COVERED BY PAVEMENT OR OTHER STRUCTURES SHALL BE PREPARED FOR SEEDING AND MULCH AS SOON AS PRACTICAL AFTER THE INSTALLATION OF PIPE LINE HAS BEEN COMPLETED IN EACH AREA.
4. ALL APPURTENANCES SUCH AS MAIL BOXES, FENCES, ETC. MOVED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AND/OR REPAIRED TO EXISTING CONDITION AFTER SEWER CONSTRUCTION.
5. ALL DRIVEWAY PAVEMENT DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH LIKE MATERIALS AND EQUAL TO THE EXISTING CONDITION OR BETTER.
6. ALL DRIVEWAY PAVEMENT DAMAGED SHALL BE REPLACED BY BACKFILLING DAMAGED AREA WITH STONE TO THE TOP OF THE EXISTING BASE THEN PLACING A MINIMUM OF 3.5 INCHES OF ASPHALT BINDER COURSE AND 1.5 INCHES OF ASPHALTIC CONCRETE AS THE WEARING SURFACE.
7. EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL NOTIFY THE OWNERS OF EACH UTILITY PRIOR TO CONSTRUCTION IN THE AREA AND REQUEST EXACT HORIZONTAL AND VERTICAL LOCATIONS.
8. 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.
9. ANY EXISTING STORM DRAINAGE PIPING DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AS RAPIDLY AS POSSIBLE AND THEN BE INSPECTED BY ITS RESPECTIVE OWNER.

1. WHEN SPECIFIC GRADING REQUIREMENTS ARE NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL GRADE ALL AREAS WITHIN THE LIMITS OF CONSTRUCTION, OR OTHERWISE DISTURBED BY CONSTRUCTION, TO DRAIN AND MATCH THE EXISTING, ADJACENT GROUND
2. THE CONTRACTOR SHALL PERFORM ALL NECESSARY STRIPPING OF EXISTING TOPSOIL ON THE JOBSITE.
3. ON THE PROJECT, NEWLY GRADED EARTH AREAS NOT TO BE PAVED, RIP-RAPPED, OR STABILIZED SHALL BE SEEDED IN ACCORDANCE WITH THE SPECIFICATIONS. PRIOR TO SEEDING, A FOUR INCH LAYER OF TOPSOIL SHALL BE PLACED ON THESE AREAS.
4. THE CONTRACTOR IS TO DISPOSE OF, AT HIS OWN EXPENSE, ALL UNSUITABLE AND/OR SURPLUS, EXCAVATED MATERIAL.
5. ALL TREES THAT ARE CUT OR KNOCKED DOWN WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED AND DISPOSED OF OFF-SITE AT THE CONTRACTORS EXPENSE. BURNING IS NOT PERMITTED.
6. BACKFILLING, COMPACTING, GRADING, AND SITE-CLEANUP SHALL OCCUR DAILY
7. ADDITIONAL FILL REQUIRED TO BRING FINISHED GRADE TO ELEVATIONS NOTED SHALL BE FROM OFF-SITE. FILL SOIL MUST MEET REQUIREMENTS PROVIDED IN GEOTECHNICAL REPORT AND SPECIFICATIONS ATTACHED.
8. EXCAVATIONS ON SITE SHALL INCLUDE THE DEMO & REMOVAL OF ALL EXISTING STRUCTURES TO INCLUDE EXISTING UTILITIES, BUILDINGS, BASEMENTS, FOUNDATIONS AND UNSUITABLE SOILS. EXPOSED SUBGRADE SHALL BE APPROVED BY ENGINEER PRIOR TO PLACEMENT OF SOIL FILL OR CONCRETE.

1. THE CITY OF MAYNARDVILLE SHALL HAVE THE AUTHORITY TO DESIGNATE AND/OR LIMIT AREAS OF CONSTRUCTION.
2. THE CITY OF MAYNARDVILLE MAKES NO REPRESENTATIONS ABOUT SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED WITHIN THE LIMITS OF THE PROJECT. THE CONTRACTOR SHOULD SATISFY HIMSELF BY ON-SITE INSPECTIONS, CORE DRILLINGS, OR OTHER METHODS, OF THE SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED. THE RISK OF ENCOUNTERING AND CORRECTING UNFAVORABLE SUBSURFACE CONDITIONS SHALL BE BORNE SOLELY BY THE CONTRACTOR.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL FIELD LAYOUTS.
4. THE CONTRACTOR SHALL PROVIDE BENCH MARKS. SHOULD A BENCH MARK BE DAMAGED OR DESTROYED, THE CITY OF MAYNARDVILLE IS TO BE NOTIFIED.
5. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING AT HIS OWN EXPENSE ANY AND ALL DAMAGE THAT MAY OCCUR OUTSIDE THE LIMITS OF THIS PROJECT AS A RESULT OF CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PAYMENT FOR TESTING OF SOILS AND CONCRETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND ORDERING APPROPRIATE TESTS AS REQUIRED.
7. THE CONTRACTOR SHALL PROVIDE RECORD DRAWINGS OF THE PROJECT WITHIN THIRTY (30) DAYS AFTER SUBSTANTIAL COMPLETION OF THE WORK. ("SUBSTANTIAL COMPLETION" SHALL BE DEFINED BY THE ENGINEER).
8. SHOULD THERE BE A CONFLICT BETWEEN THESE GENERAL NOTES, CONTRACT DRAWINGS, AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY CLARIFICATION OR INTERPRETATION, IN ADVANCE AND IN WRITING, FROM THE CITY OF MAYNARDVILLE.

- 1) ALL EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES IDENTIFIED IN THIS SWPPP WILL BE INSTALLED AS RECOMMENDED IN THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
- 2) TOPSOIL WILL BE REMOVED AND EITHER TEMPORARILY STOCKPILED FOR LATER REDISTRIBUTION OR IMMEDIATELY UTILIZED FOR FINAL COVER. CLEARING AND GRUBBING WILL BE HELD TO THE MINIMUM NECESSARY FOR GRADING AND EQUIPMENT OPERATION. TOPSOIL PILES WILL BE TEMPORARILY SEEDED.
- 3) SEDIMENT WILL BE REMOVED FROM SILT FENCE, ROCK CHECK DAMS, HAY BALE TRAPS, AND TEMPORARY SEDIMENT TRAPS BEFORE THE DESIGN CAPACITY OF THE STRUCTURE HAS BEEN REDUCED BY 50%. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORM WATER WILL BE PICKED UP PRIOR TO ANY ANTICIPATED STORM EVENTS, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES. AFTER USE, SILT FENCES WILL BE REMOVED TO PREVENT THEM FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT WILL BE REPLACED AT THE END OF THE WORKDAY
- 4) IN ACCORDANCE WITH THE TNCPG, INSPECTIONS WILL BE PERFORMED BY QUALIFIED PERSONNEL AT LEAST TWICE EVERY CALENDAR WEEK. INSPECTIONS WILL BE AT LEAST 72 HOURS APART. INSPECTIONS WILL INCLUDE DISTURBED AREAS OF THE CONSTRUCTION SITE, AREAS USED FOR STORAGE OF MATERIALS EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, LOCATIONS WHERE VEHICLES ENTER AND EXIST THE SITE, AND EACH OUTFALL POINT. BASED ON INSPECTION RESULTS, MODIFICATIONS OR REPAIRS TO EXISTING CONTROL MEASURES WILL BE MADE BEFORE THE NEXT RAIN EVENT IF POSSIBLE, BUT AT LEAST 7 DAYS AFTER THE NEED IS IDENTIFIED. INSPECTION DOCUMENTS WILL BE MAINTAINED ON SITE AND MADE AVAILABLE UPON REQUEST.
- 5) STABILIZATION WILL BE ACCOMPLISHED AS SOON AS PRACTICABLE AFTER ATTAINMENT OF FINAL GRADE AND NO LATER THAN SEVEN DAYS AFTER ATTAINING FINAL GRADE. WHERE EARTH-DISTURBING ACTIVITY HAS TEMPORARILY CEASED, TEMPORARY STABILIZATION WILL BE APPLIED WITHIN SEVEN DAYS IF THE ACTIVITY WILL NOT RESUME WITHIN 15 DAYS. IF THE DATES WHEN TEMPORARILY CEASING OCCUR ARE THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED WILL BE RECORDED AND MAINTAINED ON THE SITE. STABILIZATION METHODS MAY INCLUDE SEED AND MULCH, OR SEED AND EROSION CONTROL BLANKETS.

	EXISTING IRON PIN
	IRON PIN SET
	EX GAS VALVE
	EX WATER METER
	EX MANHOLE
	EX LIGHT POLE
	EX GROUND LIGHT
	EX SIGN
	FOM FIBER OPTIC MARKER
	TM TELEPHONE MARKER
	PM POWER MARKER
	GM GAS MARKER
 OR 	EX WATER VALVE
	EX FIRE HYDRANT
	EX CATCH BASIN
	EX POWER/TELEPHONE
	EX GUY WIRE
	BENCH MARK
	EX LIGHT POLE
	EX MAIL BOX
	EX FENCE POST
	EX METAL FENCE POST
	EX WOOD FENCE POST
	EX DECIDUOUS TREE
	EX EVERGREEN TREE
	EX SHRUB
	HOSE BIBB
	NEW AIR RELEASE VALVE
	NEW BLOW OFF VALVE
	NEW FIRE HYDRANT
	NEW GATE VALVE
	NEW SERVICE METER
	NEW MANHOLE
	NEW SEWER CLEAN OUT
	LANDSCAPING



DGN SPEC *****
TIME *****
DATE *****

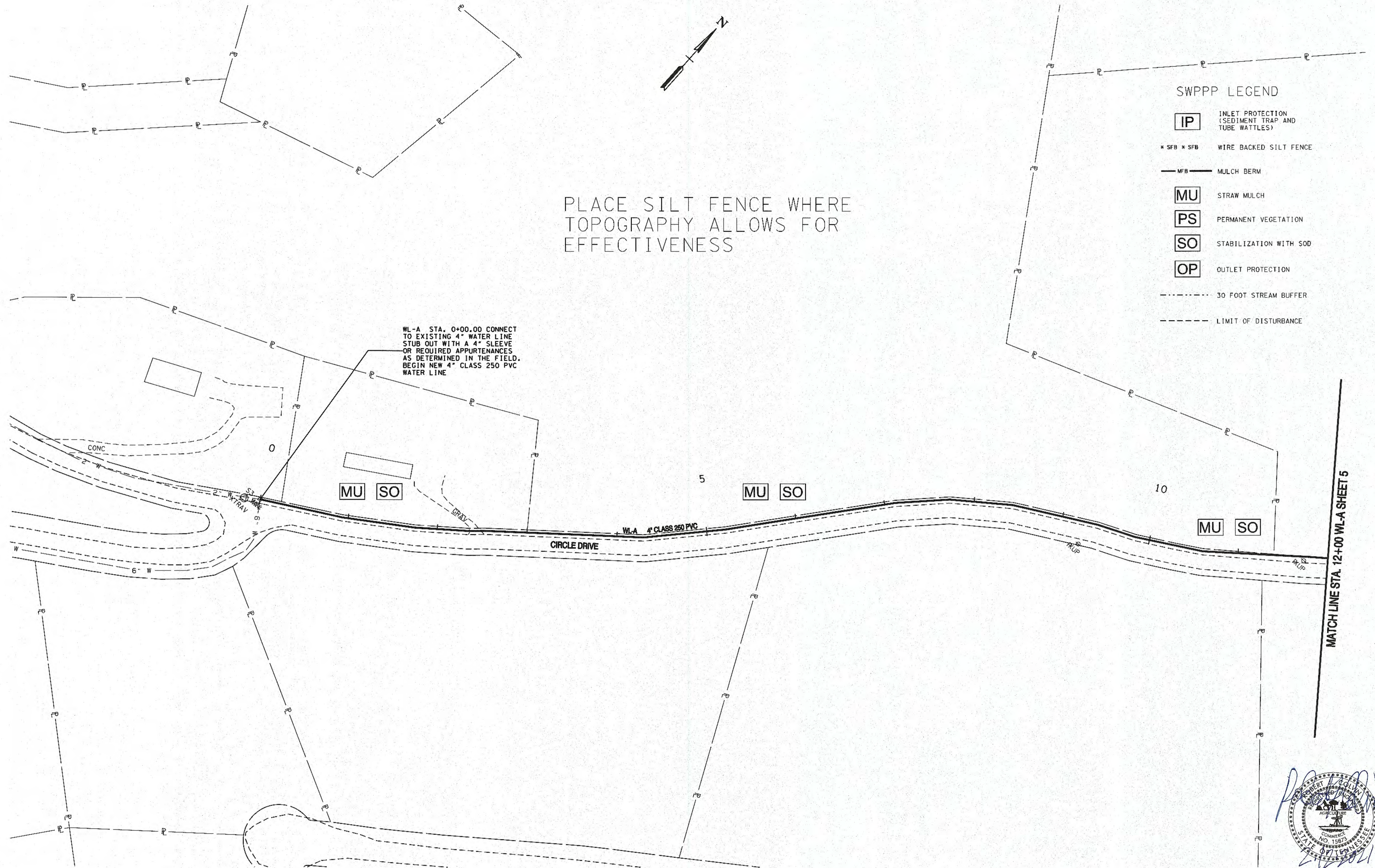
NO.	DATE	DESCRIPTION	BY	CKD.
REVISIONS				



**CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE**

DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 3
DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	

OF **19** SHEETS



NO.	DATE	DESCRIPTION	BY	CHKD.
REVISIONS				

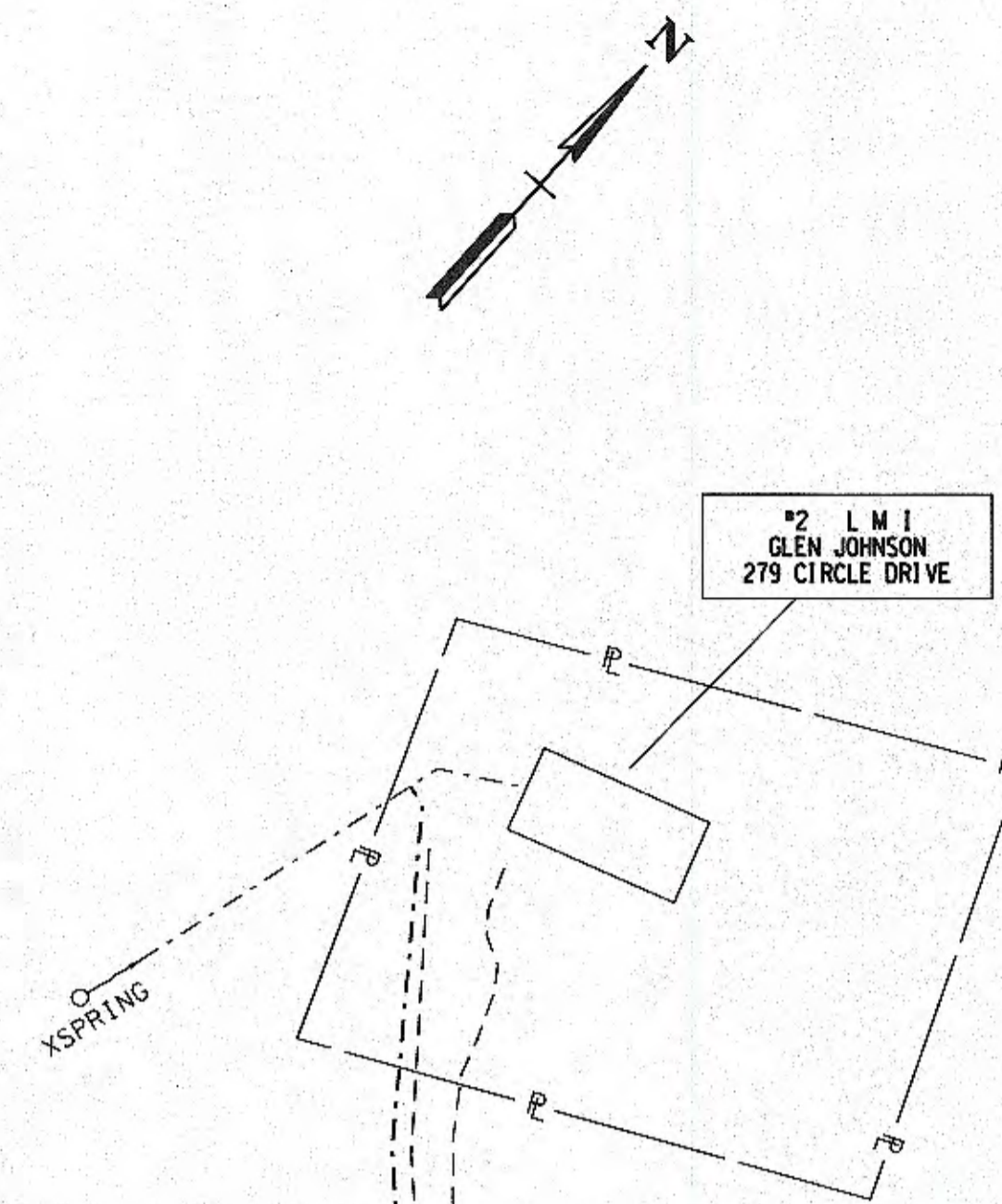
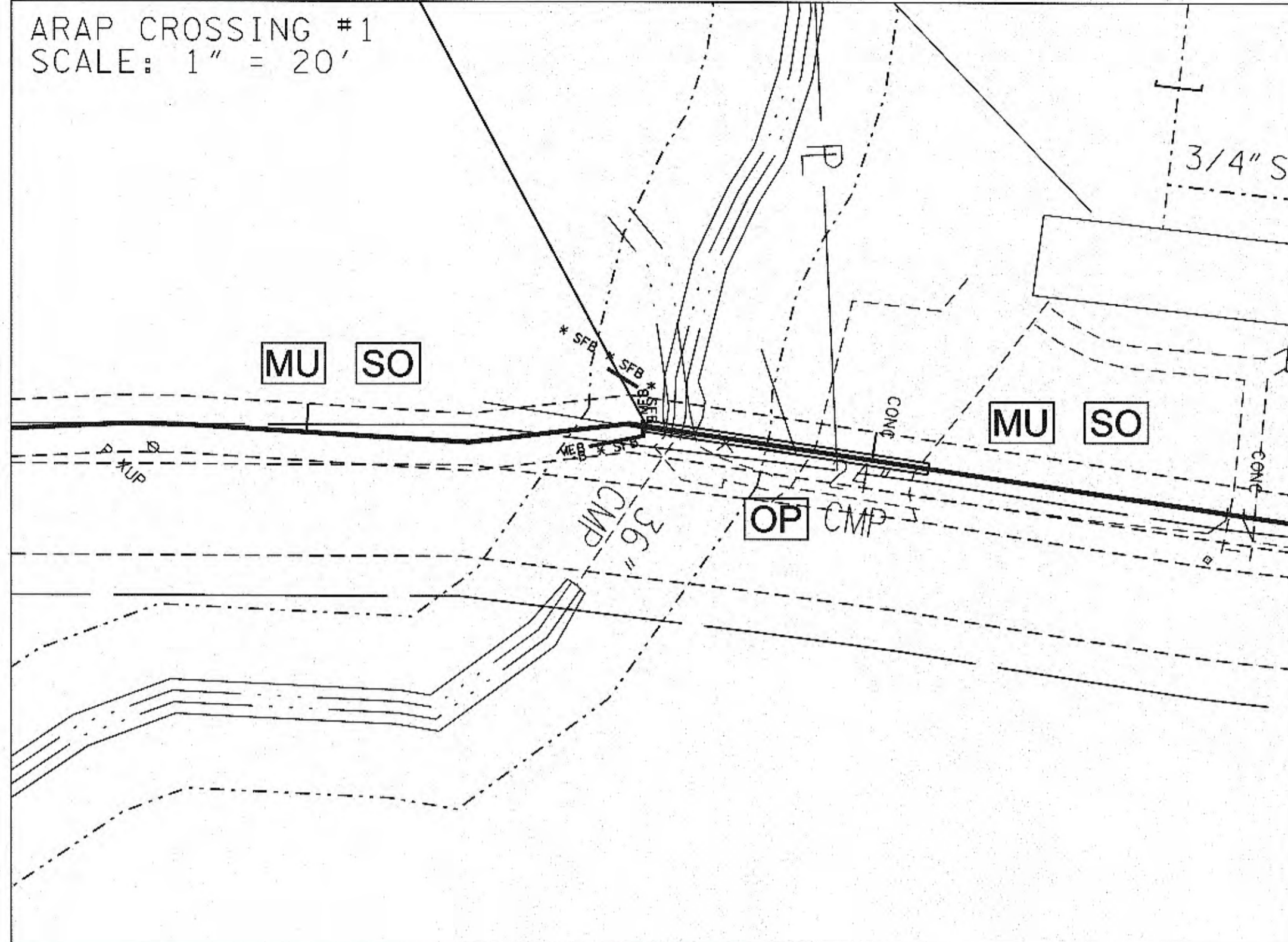


ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

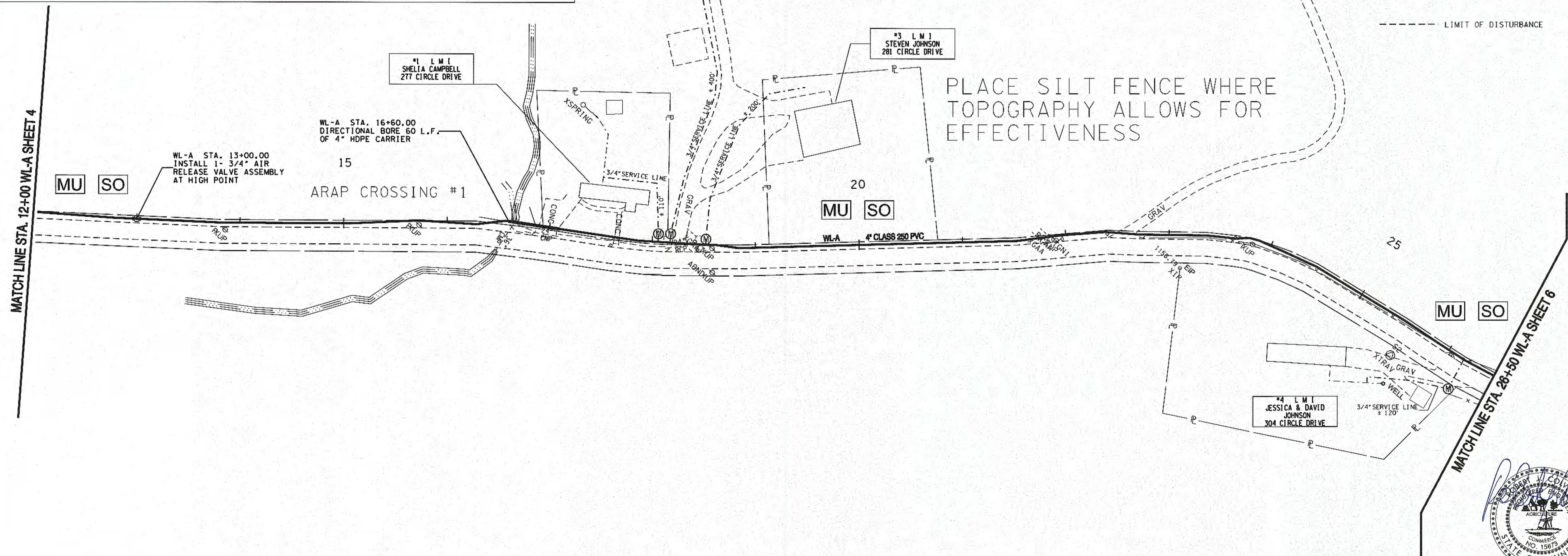
CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

SWPPP
AREA 1 - CIRCLE DRIVE

DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 4
DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	OF 19 SHEETS



- SWPPP LEGEND
- IP** INLET PROTECTION (SEDIMENT TRAP AND TUBE WATTLES)
 - * SFB * SFB WIRE BACKED SILT FENCE
 - MFB MULCH BERM
 - MU** STRAW MULCH
 - PS** PERMANENT VEGETATION
 - SO** STABILIZATION WITH SOD
 - OP** OUTLET PROTECTION
 - 30 FOOT STREAM BUFFER
 - LIMIT OF DISTURBANCE



PLACE SILT FENCE WHERE TOPOGRAPHY ALLOWS FOR EFFECTIVENESS



NO.	DATE	DESCRIPTION	BY	CHKD.

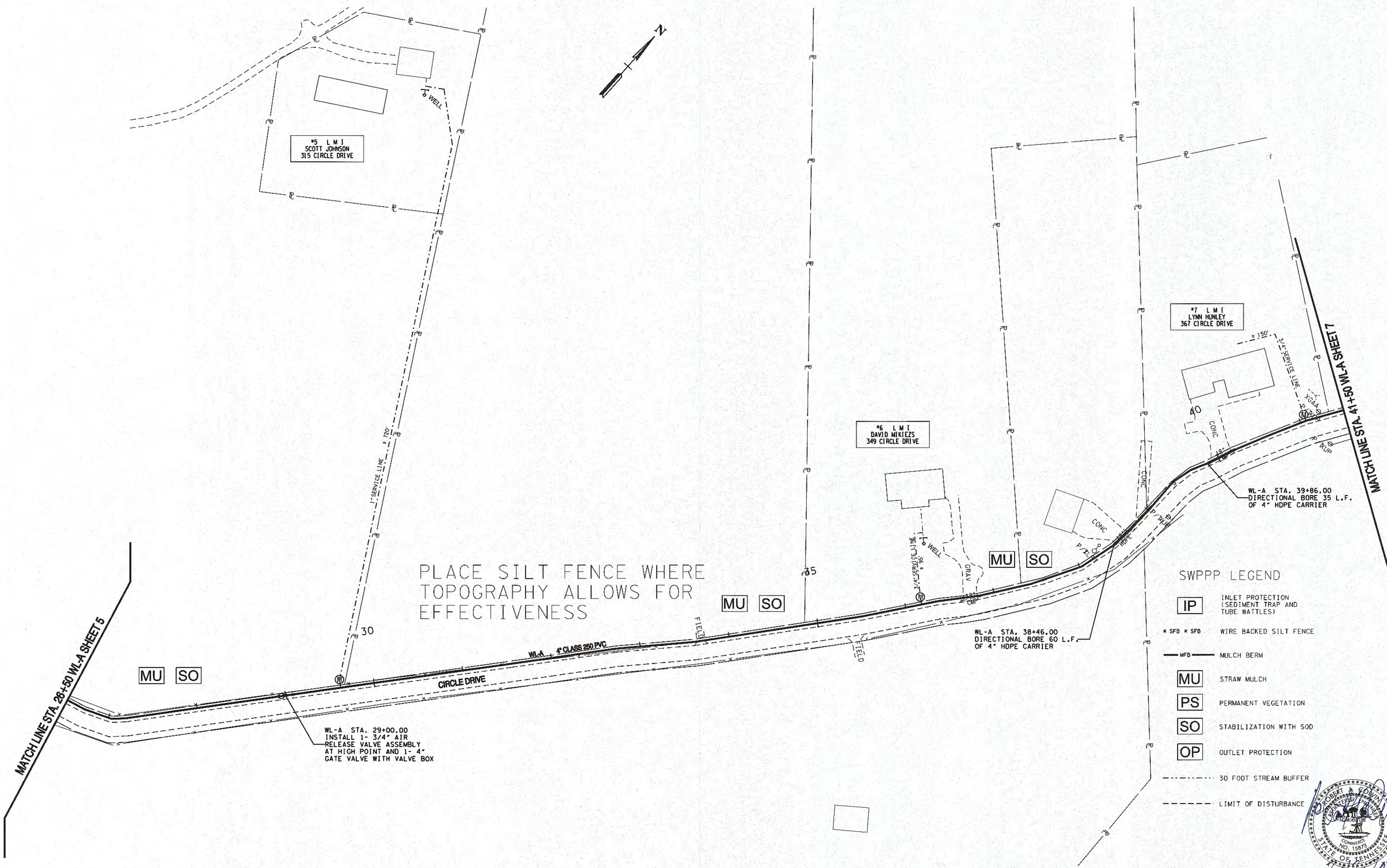


ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

SWPPP
AREA 1 - CIRCLE DRIVE

DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 5
DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	OF 19 SHEETS



PLACE SILT FENCE WHERE
TOPOGRAPHY ALLOWS FOR
EFFECTIVENESS

SWPPP LEGEND

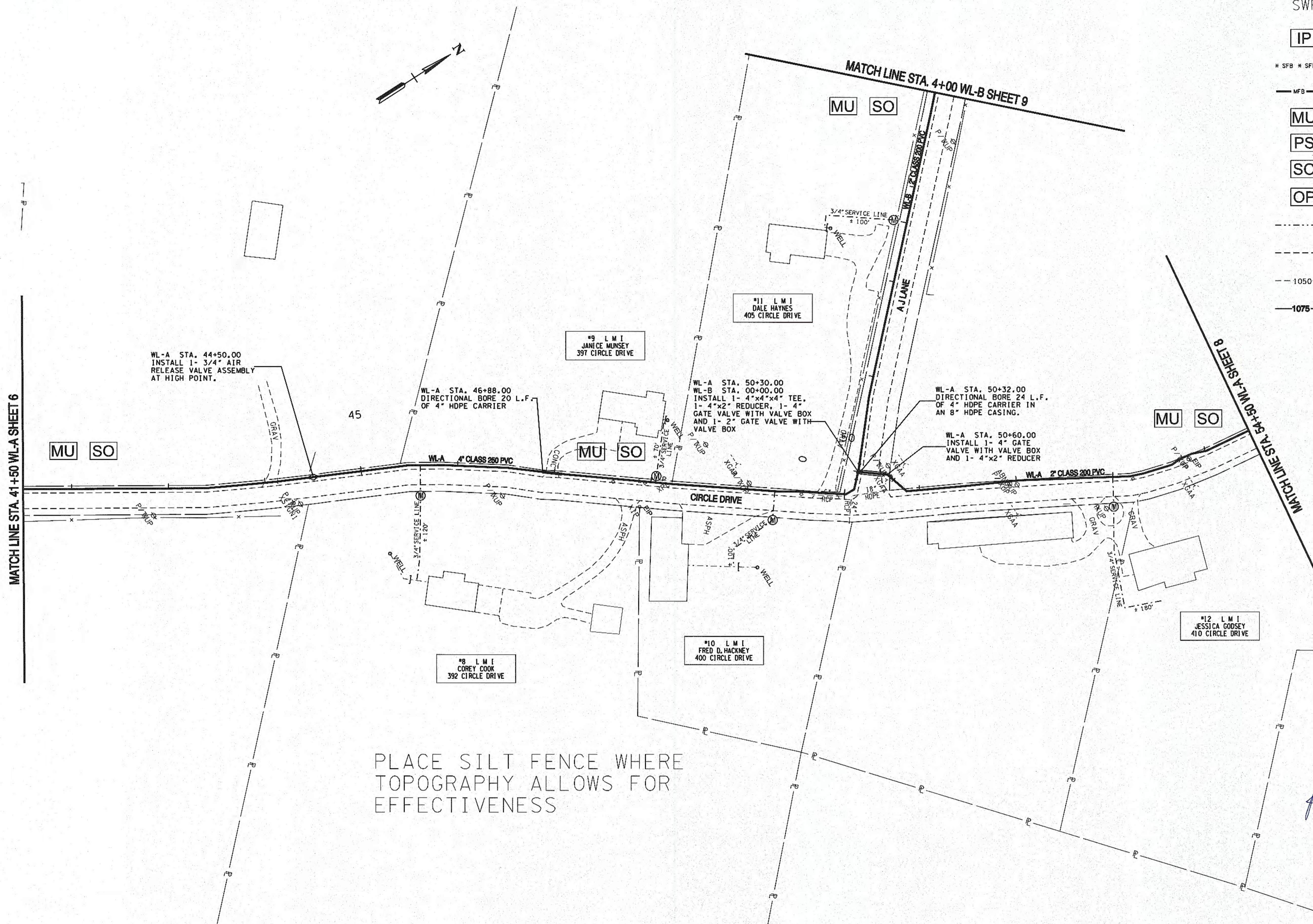
- IP** INLET PROTECTION (SEDIMENT TRAP AND TUBE WATTLES)
- * SFB * SFB WIRE BACKED SILT FENCE
- MFB** MULCH BERM
- MU** STRAW MULCH
- PS** PERMANENT VEGETATION
- SO** STABILIZATION WITH SOD
- OP** OUTLET PROTECTION
- 30 FOOT STREAM BUFFER
- LIMIT OF DISTURBANCE



<div> ROBERT G. CAMPBELL & ASSOC., L.P. CONSULTING ENGINEERS KNOXVILLE, TENNESSEE </div>	CITY OF MAYNARDVILLE UNION COUNTY, TENNESSEE	SWPPP AREA 1 - CIRCLE DRIVE	DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET 6
NO. DATE DESCRIPTION BY CKD.	DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	OF	19	SHEETS

SWPPP LEGEND

- IP** INLET PROTECTION (SEDIMENT TRAP AND TUBE WATTLES)
- * SFB * SFB WIRE BACKED SILT FENCE
- MFB** MULCH BERM
- MU** STRAW MULCH
- PS** PERMANENT VEGETATION
- SO** STABILIZATION WITH SOD
- OP** OUTLET PROTECTION
- 30 FOOT STREAM BUFFER
- LIMIT OF DISTURBANCE
- 1050--- EXISTING CONTOURS
- 1075--- PROPOSED CONTOURS



PLACE SILT FENCE WHERE TOPOGRAPHY ALLOWS FOR EFFECTIVENESS



NO.	DATE	DESCRIPTION	BY	CHKD.



ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

SWPPP
AREA 1 - CIRCLE DRIVE

DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 7
DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	OF 19 SHEETS

MATCH LINE STA. 4+00 WL-B SHEET 7

WL-B STA. 15+30.00
INSTALL 1- 3/4" AIR
RELEASE VALVE ASSEMBLY
AT HIGH POINT
5

#17
NOT INTERESTED
165 A J LANE

#18 L M I
DAVID W. NEWELL Sr.
175 A J LANE

MU SO

PLACE SILT FENCE WHERE
TOPOGRAPHY ALLOWS FOR
EFFECTIVENESS

10

WL-B 2" CLASS 200 PVC
A J LANE

MU SO

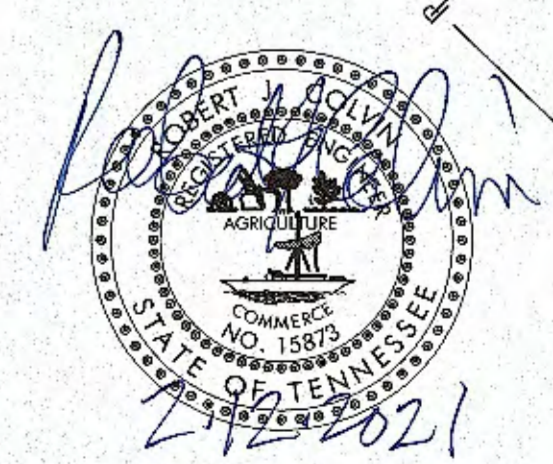
WL-B STA. 15+30.00
INSTALL 1- 2" BLOW-OFF
VALVE ASSEMBLY AT END
OF WL-B

#20 L M I
CHARLES E. GANT Jr.
200 A J LANE

#19 L M I
JEREMY PETERS
190 A J LANE

SWPPP LEGEND

- IP** INLET PROTECTION
(SEDIMENT TRAP AND
TUBE WATTLES)
- * SFB * SFB WIRE BACKED SILT FENCE
- MFB MULCH BERM
- MU** STRAW MULCH
- PS** PERMANENT VEGETATION
- SO** STABILIZATION WITH SOD
- OP** OUTLET PROTECTION
- 30 FOOT STREAM BUFFER
- LIMIT OF DISTURBANCE
- 1050--- EXISTING CONTOURS
- 1075--- PROPOSED CONTOURS



NO.	DATE	DESCRIPTION	BY	CHKD.
REVISIONS				



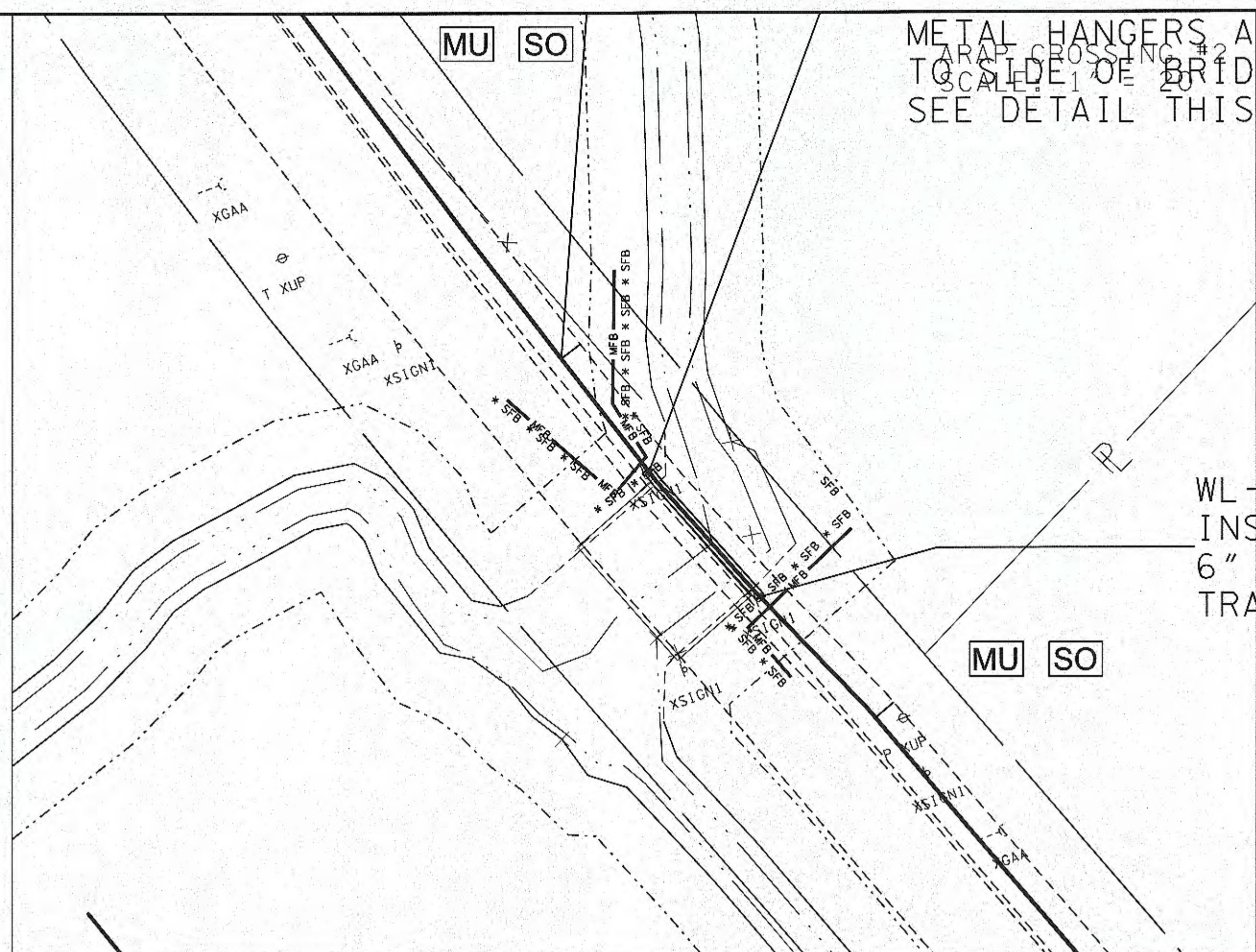
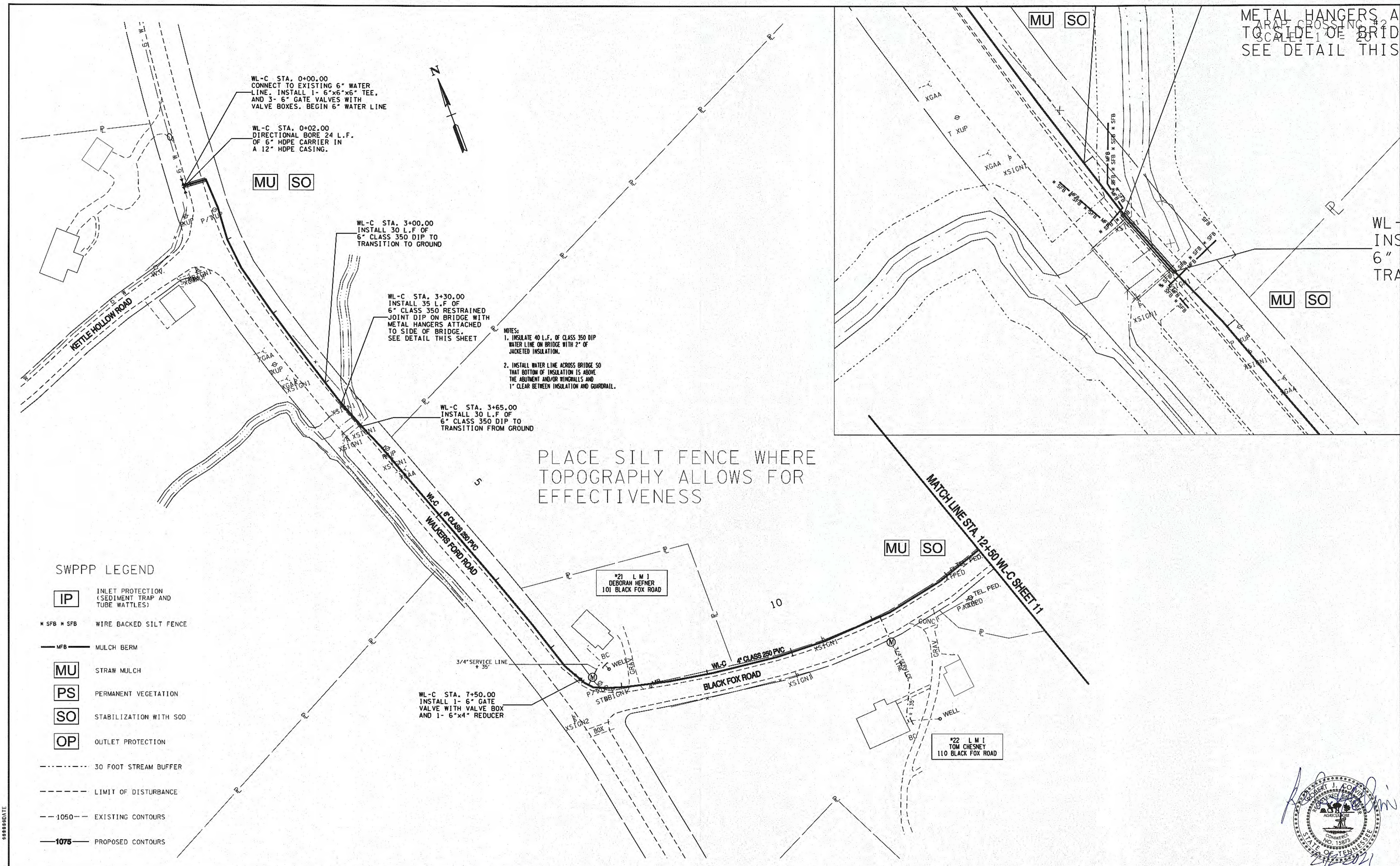
ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

SWPPP
AREA 1 - CIRCLE DRIVE

DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 9
DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	OF 19 SHEETS

METAL HANGERS ATTACHED TO SIDE OF BRIDGE SEE DETAIL THIS SHEET



SWPPP LEGEND

- IP INLET PROTECTION (SEDIMENT TRAP AND TUBE WATTLES)
- * SFB * SFB WIRE BACKED SILT FENCE
- MFB MULCH BERM
- MU STRAW MULCH
- PS PERMANENT VEGETATION
- SO STABILIZATION WITH SOD
- OP OUTLET PROTECTION
- 30 FOOT STREAM BUFFER
- LIMIT OF DISTURBANCE
- 1050--- EXISTING CONTOURS
- 1075--- PROPOSED CONTOURS

PLACE SILT FENCE WHERE TOPOGRAPHY ALLOWS FOR EFFECTIVENESS

MATCH LINE STA. 12+50 WL-C SHEET 11

NO.	DATE	DESCRIPTION	BY	CHKD.
REVISIONS				



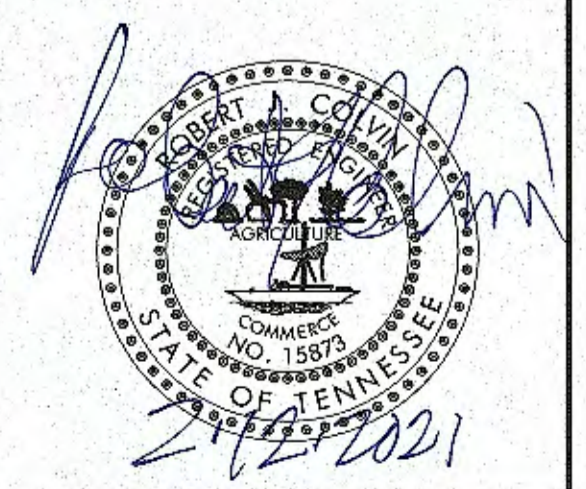
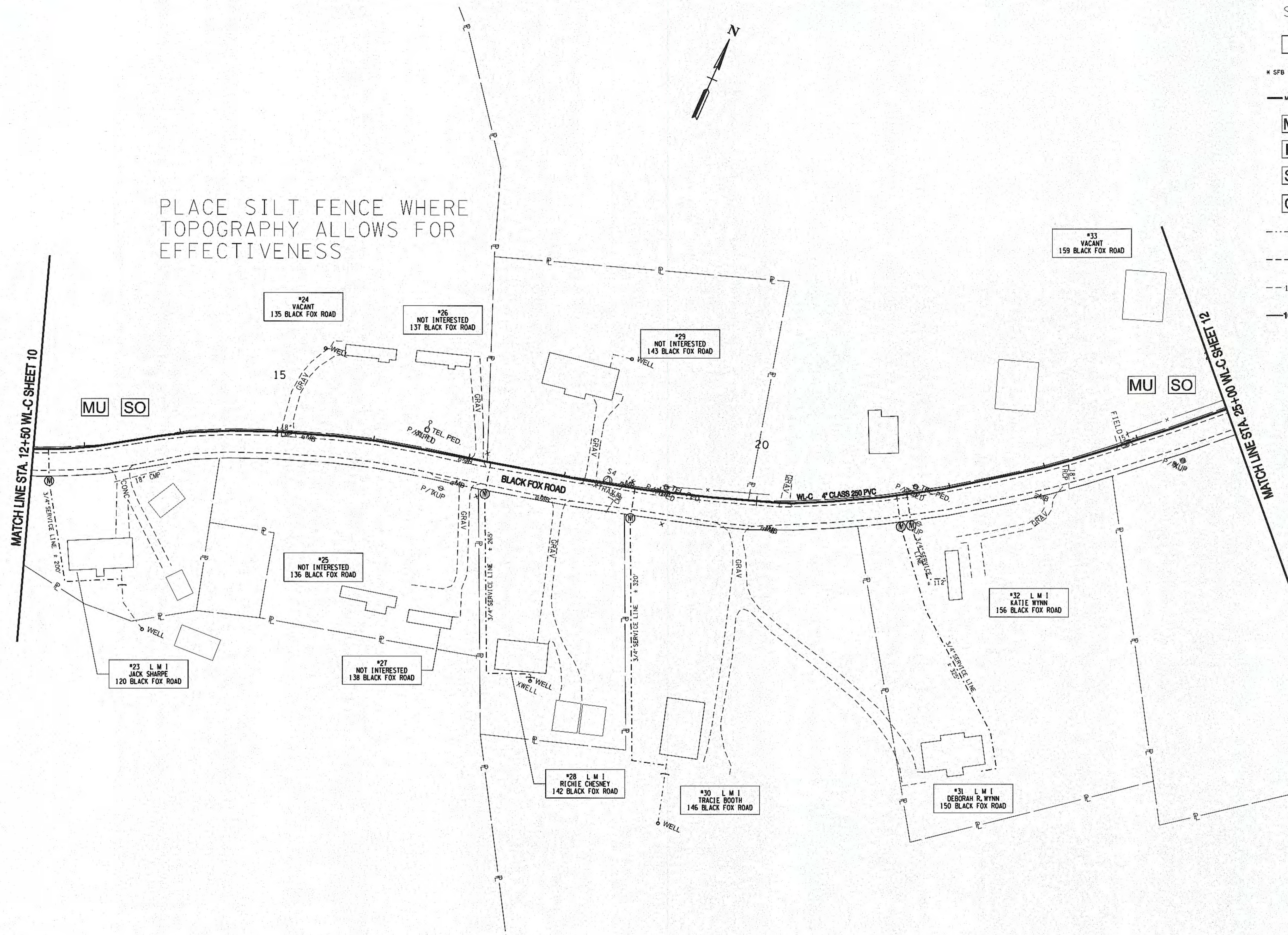
ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE


SWPPP
AREA 2 - BLACK FOX ROAD

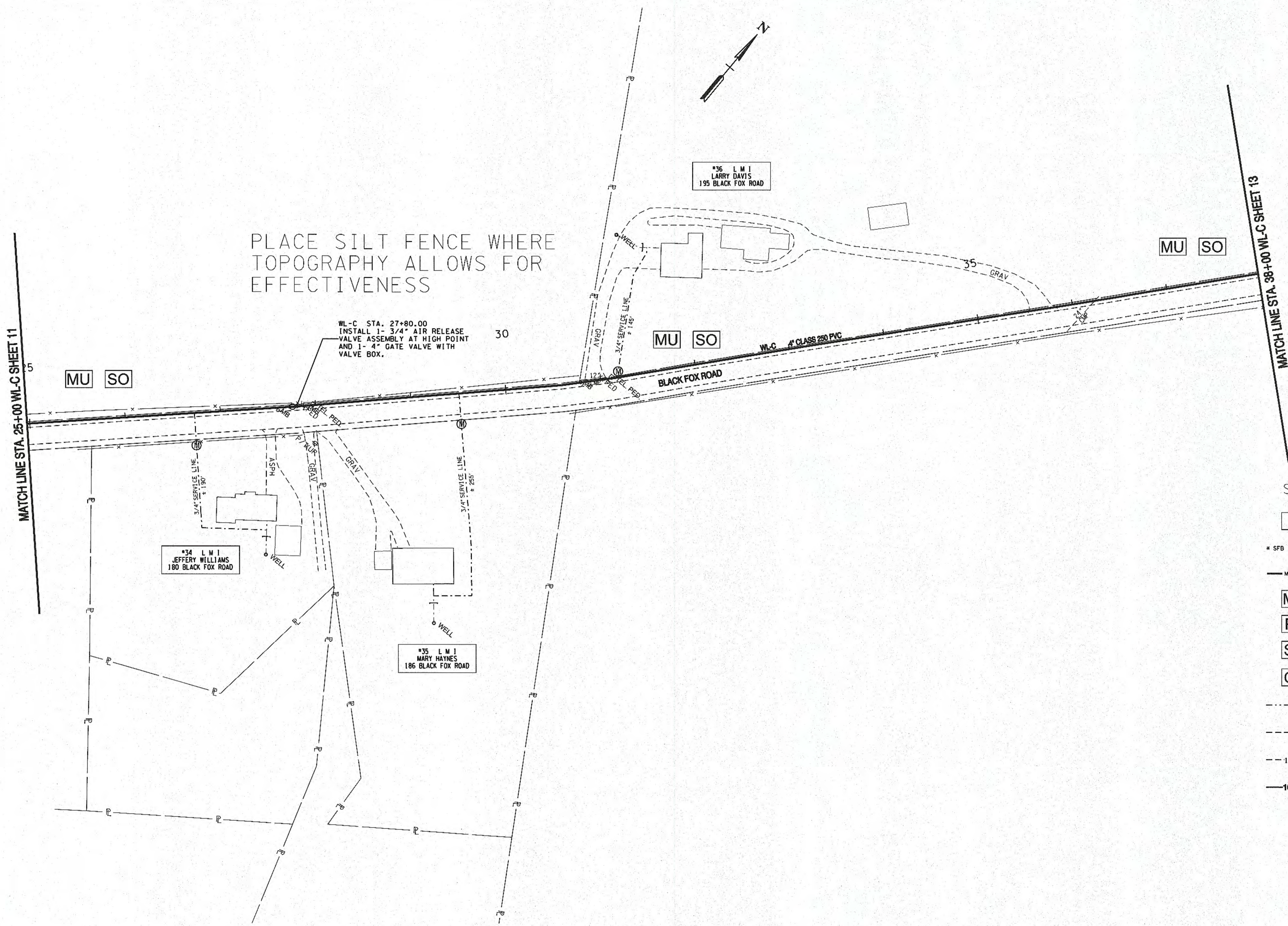
DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 10
DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	OF 19 SHEETS

	INLET PROTECTION (SEDIMENT TRAP AND TUBE WATTLÉS)
— FB * SFB	WIRE BACKED SILT FENCE
— MF8	MULCH BERM
	STRAW MULCH
	PERMANENT VEGETATION
	STABILIZATION WITH SOD
	OUTLET PROTECTION
-----	30 FOOT STREAM BUFFER
-----	LIMIT OF DISTURBANCE
-1050-	EXISTING CONTOURS
-1075-	PROPOSED CONTOURS



*****REVISIONS SPECIFIED*****
*****TIME*****

							ROBERT G. CAMPBELL & ASSOC., L.P. CONSULTING ENGINEERS KNOXVILLE, TENNESSEE	CITY OF MAYNARDVILLE UNION COUNTY, TENNESSEE	SWPPP AREA 2 - BLACK FOX ROAD	DESIGNED BY	CHECKED BY	SCALE	SHEET NO. 11
NO.	DATE	DESCRIPTION	BY	CKD.	JLD					RJC	1" = 50'		
REVISIONS					DRAWN BY					DATE	FILE NO.	OF	SHEETS
					JER	FEB. 12, 2021	20009	19					

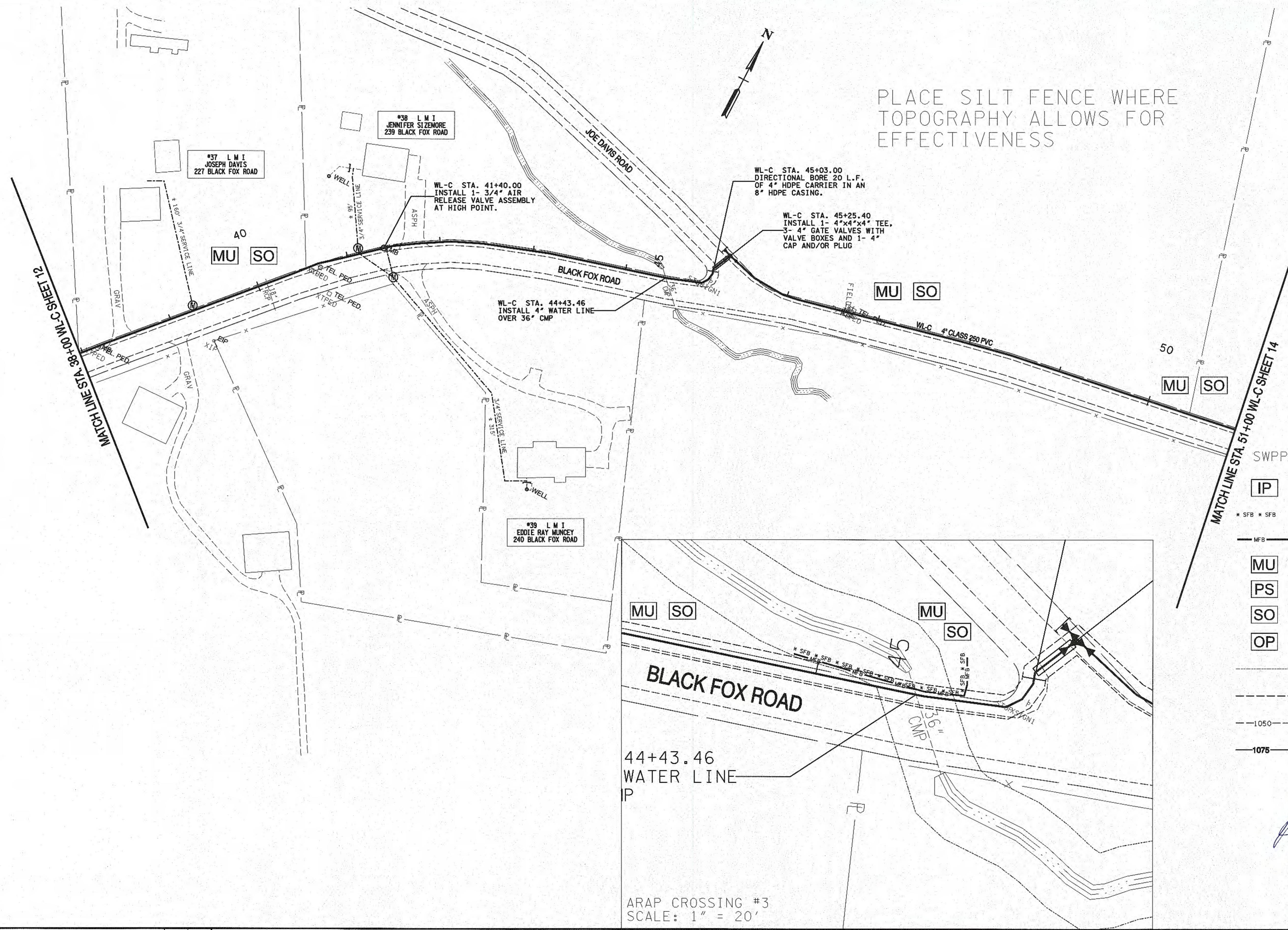


- SWPPP LEGEND**
- IP** INLET PROTECTION (SEDIMENT TRAP AND TUBE WATTLES)
 - * SFB * SFB WIRE BACKED SILT FENCE
 - MFB MULCH BERM
 - MU** STRAW MULCH
 - PS** PERMANENT VEGETATION
 - SO** STABILIZATION WITH SOD
 - OP** OUTLET PROTECTION
 - 30 FOOT STREAM BUFFER
 - LIMIT OF DISTURBANCE
 - 1050--- EXISTING CONTOURS
 - 1075--- PROPOSED CONTOURS



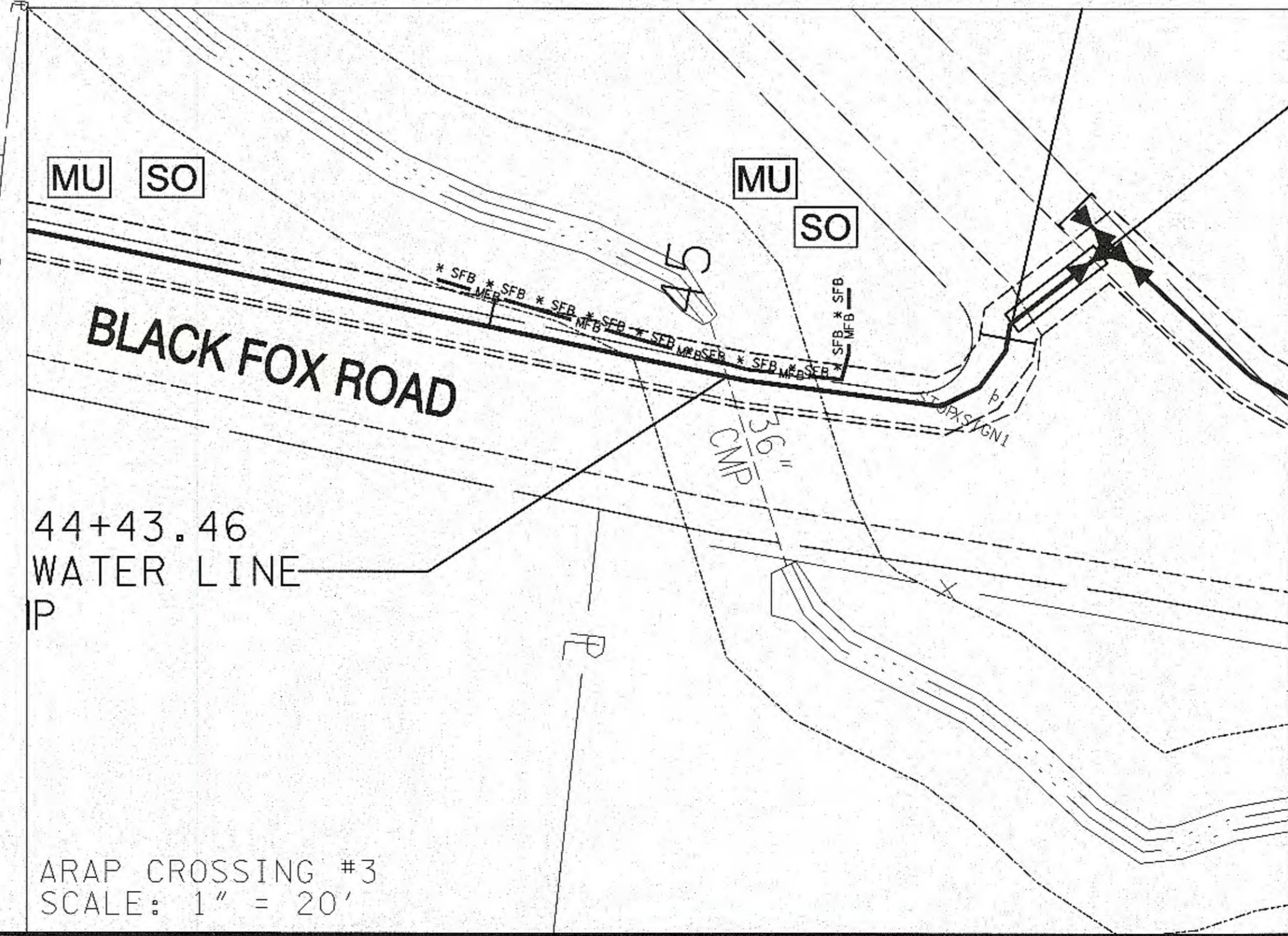
NO.		DATE	DESCRIPTION	BY	CHKD.
			REVISIONS		

		ROBERT G. CAMPBELL & ASSOC., L.P. CONSULTING ENGINEERS KNOXVILLE, TENNESSEE		CITY OF MAYNARDVILLE UNION COUNTY, TENNESSEE		SWPPP AREA 2 - BLACK FOX ROAD		DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET 12
								DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	OF 19 SHEETS



PLACE SILT FENCE WHERE TOPOGRAPHY ALLOWS FOR EFFECTIVENESS

- SWPPP LEGEND
- IP INLET PROTECTION (SEDIMENT TRAP AND TUBE WATTLES)
 - * SFB * SFB WIRE BACKED SILT FENCE
 - MFB MULCH BERM
 - MU STRAW MULCH
 - PS PERMANENT VEGETATION
 - SO STABILIZATION WITH SOD
 - OP OUTLET PROTECTION
 - 30 FOOT STREAM BUFFER
 - LIMIT OF DISTURBANCE
 - 1050- EXISTING CONTOURS
 - 1075- PROPOSED CONTOURS



NO.				DATE		DESCRIPTION		BY		CKD.	
						REVISIONS					

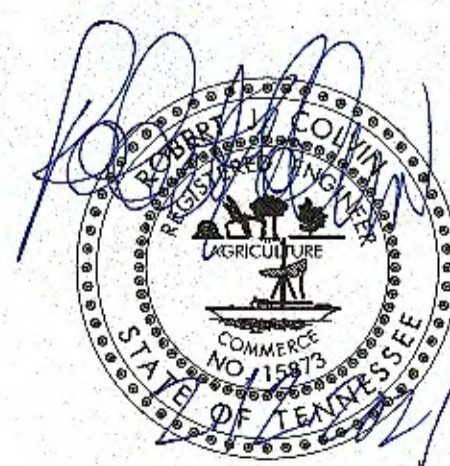
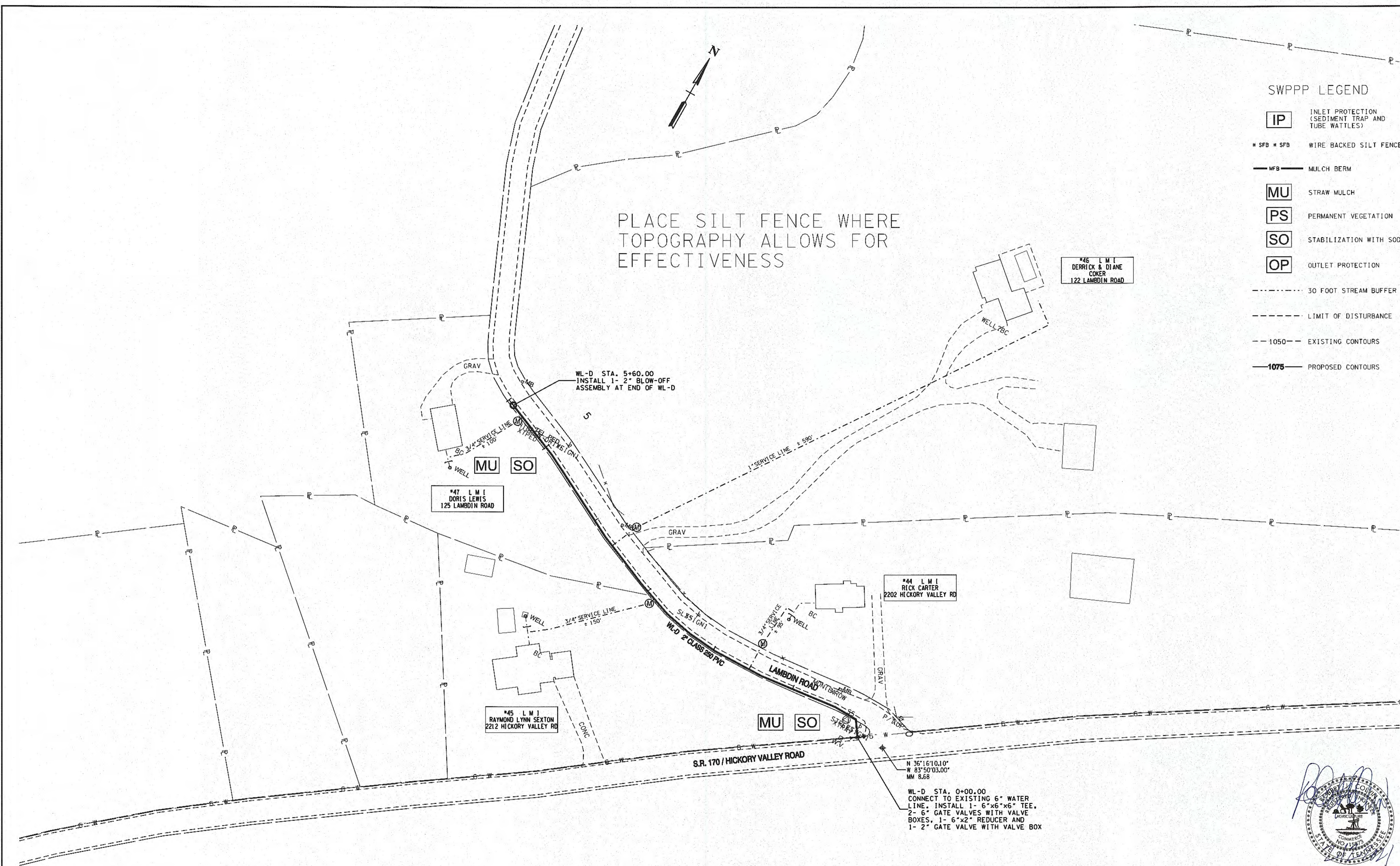
		ROBERT G. CAMPBELL & ASSOC., L.P.		CONSULTING ENGINEERS		KNOXVILLE, TENNESSEE	
		CITY OF MAYNARDVILLE		UNION COUNTY, TENNESSEE		SWPPP	
		AREA 2 - BLACK FOX ROAD		DESIGNED BY JLD		CHECKED BY RJC	
				DRAWN BY JER		DATE FEB. 12, 2021	
						SCALE 1" = 50'	
						FILE NO. 20009	
						SHEET NO. 13	
						OF 19 SHEETS	

L:\LocalGov\20009\20009 SWPPP Sheet.dgn
2/12/2021 8:25:33 AM

SWPPP LEGEND

- IP** INLET PROTECTION (SEDIMENT TRAP AND TUBE WATTLES)
- * SFB * SFB WIRE BACKED SILT FENCE
- MFB** MULCH BERM
- MU** STRAW MULCH
- PS** PERMANENT VEGETATION
- SO** STABILIZATION WITH SOD
- OP** OUTLET PROTECTION
- 30 FOOT STREAM BUFFER
- LIMIT OF DISTURBANCE
- - - - - 1050 - - - - - EXISTING CONTOURS
- - - - - 1075 - - - - - PROPOSED CONTOURS

PLACE SILT FENCE WHERE TOPOGRAPHY ALLOWS FOR EFFECTIVENESS



NO.	DATE	DESCRIPTION	BY	CKD.
REVISIONS				



ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

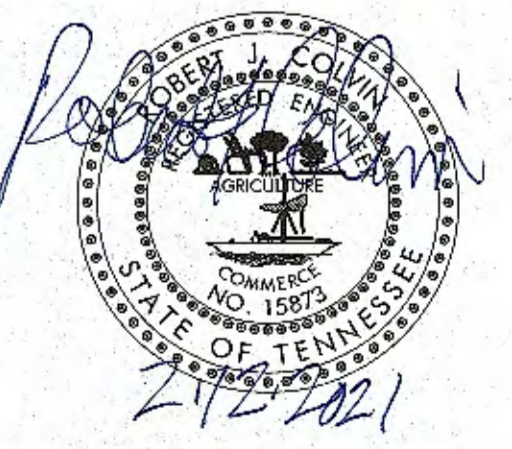
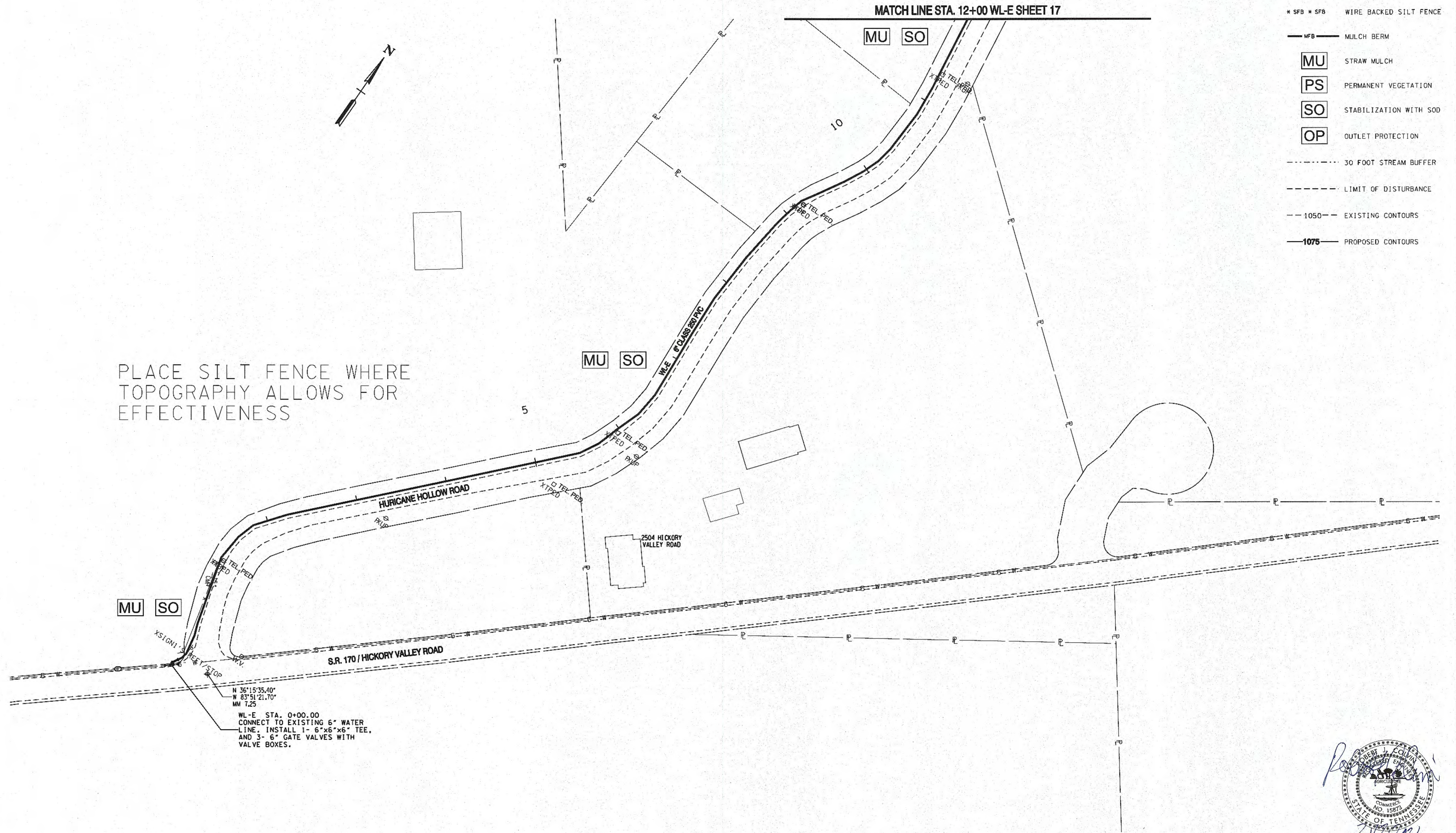
SWPPP
AREA 3 - LAMB DIN ROAD

DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 15
DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20008	OF 19 SHEETS

SWPPP LEGEND

- IP INLET PROTECTION
(SEDIMENT TRAP AND TUBE WATTLES)
- * SFB * SFB WIRE BACKED SILT FENCE
- MFB MULCH BERM
- MU STRAW MULCH
- PS PERMANENT VEGETATION
- SO STABILIZATION WITH SOD
- OP OUTLET PROTECTION
- 30 FOOT STREAM BUFFER
- LIMIT OF DISTURBANCE
- - - - - 1050 - - - - - EXISTING CONTOURS
- - - - - 1075 - - - - - PROPOSED CONTOURS

PLACE SILT FENCE WHERE
TOPOGRAPHY ALLOWS FOR
EFFECTIVENESS



NO.	DATE	DESCRIPTION	BY	CKD.
REVISIONS				



ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

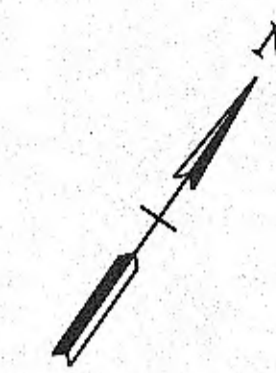
SWPPP
AREA 4 - AUTUMN'S WAY

DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 16
DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	OF 19 SHEETS

SWPPP LEGEND

- IP** INLET PROTECTION (SEDIMENT TRAP AND TUBE WATTLES)
- * SFB * SFB WIRE BACKED SILT FENCE
- MFB** MULCH BERM
- MU** STRAW MULCH
- PS** PERMANENT VEGETATION
- SO** STABILIZATION WITH SOD
- OP** OUTLET PROTECTION
- 30 FOOT STREAM BUFFER
- LIMIT OF DISTURBANCE
- 1050 EXISTING CONTOURS
- 1075 PROPOSED CONTOURS

PLACE SILT FENCE WHERE TOPOGRAPHY ALLOWS FOR EFFECTIVENESS



MATCH LINE STA. 24+00 WL-E SHEET 18

MU SO

WL-E STA. 22+12.00
INSTALL 1- 3/4" AIR
RELEASE VALVE ASSEMBLY
AT HIGH POINT.

WL-E STA. 28+68.15
INSTALL 30 L.F. OF
2" PVC CARRIER IN
ASPHALT APRON

*49 L M I
EARL BULL
165 AUTUMNS WAY

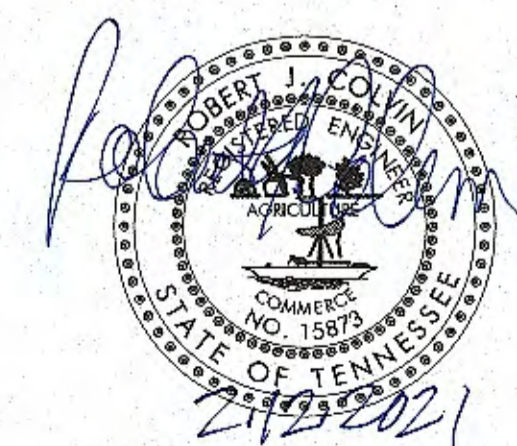
*48 L M I
TONY WILLIAMS
141 AUTUMNS WAY

WL-E STA. 16+00.00
INSTALL 1- 6" GATE
VALVE WITH VALVE BOX
AND 1- 6"x2" REDUCER.

MU SO

156 HURRICANE
HOLLOW ROAD

MATCH LINE STA. 12+00 WL-E SHEET 16



*****NO. DATE DESCRIPTION BY CKD.*****

NO.	DATE	DESCRIPTION	BY	CKD.
		REVISIONS		



ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

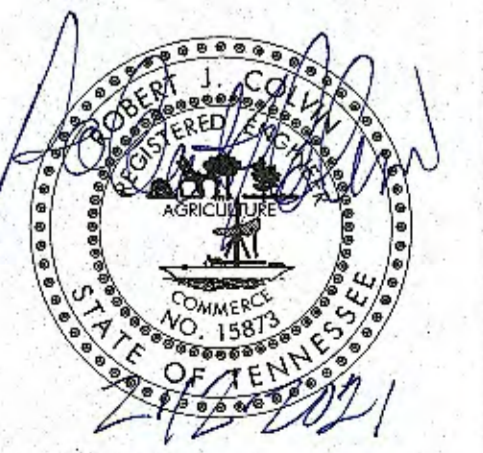
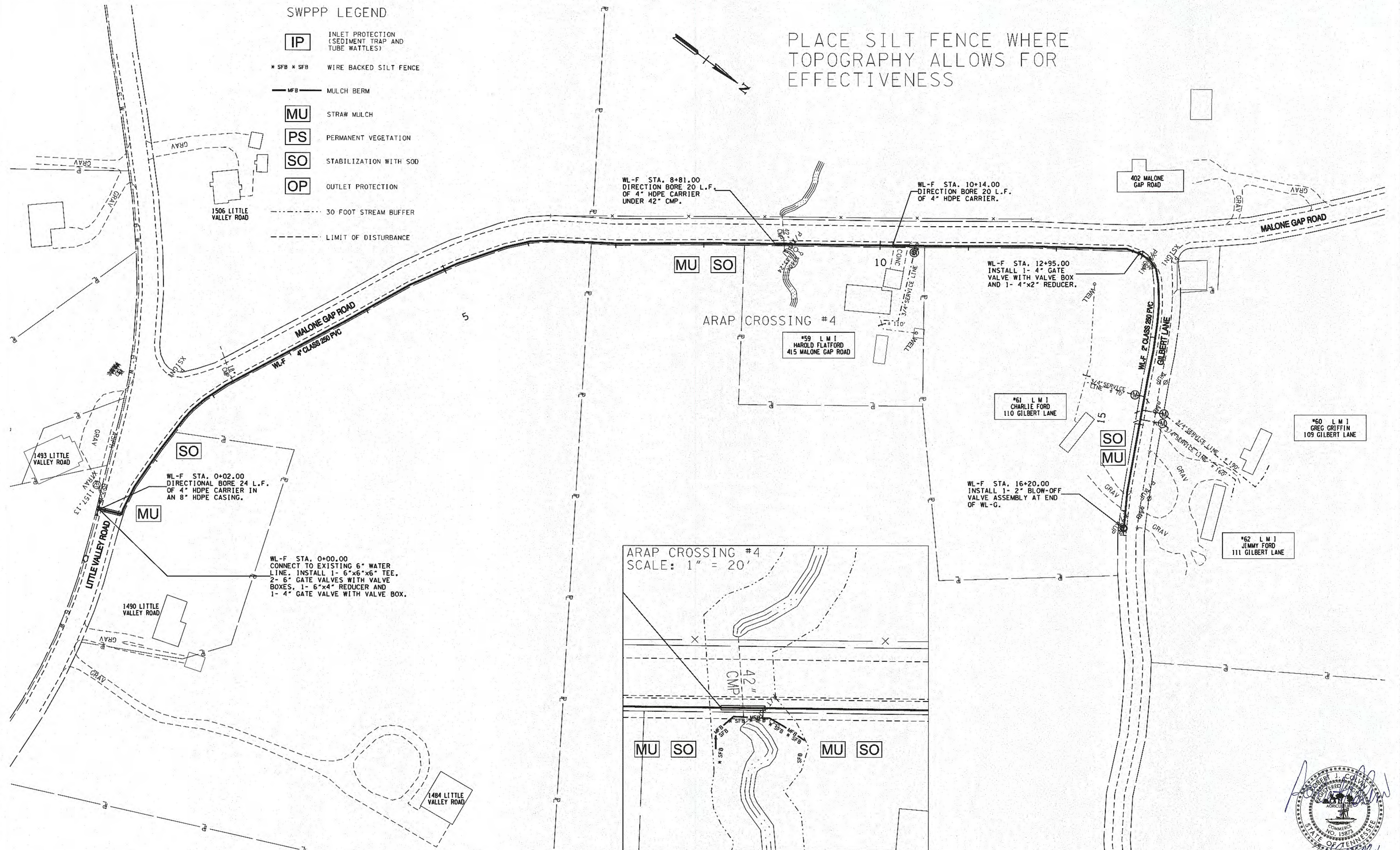
SWPPP
AREA 4 - AUTUMN'S WAY

DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 17
DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	OF 19 SHEETS

SWPPP LEGEND

- IP** INLET PROTECTION
(SEDIMENT TRAP AND TUBE WATTLES)
- * SFB * SFB WIRE BACKED SILT FENCE
- MFB** MULCH BERM
- MU** STRAW MULCH
- PS** PERMANENT VEGETATION
- SO** STABILIZATION WITH SOD
- OP** OUTLET PROTECTION
- 30 FOOT STREAM BUFFER
- LIMIT OF DISTURBANCE

PLACE SILT FENCE WHERE
TOPOGRAPHY ALLOWS FOR
EFFECTIVENESS



NO.	DATE	DESCRIPTION	BY	CHKD.
REVISIONS				



ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

CITY OF MAYNARDVILLE
UNION COUNTY, TENNESSEE

SWPPP
AREA 5 - MALONE GAP ROAD

DESIGNED BY JLD	CHECKED BY RJC	SCALE 1" = 50'	SHEET NO. 19
DRAWN BY JER	DATE FEB. 12, 2021	FILE NO. 20009	OF 19 SHEETS