

## Wade Murphy

---

**From:** Erik Knowles <erik.knowles@rogersgroupinc.com>  
**Sent:** Friday, February 9, 2024 3:37 PM  
**To:** Wade Murphy  
**Cc:** Allen Rogers; Gary Horne; Timothy Hill  
**Subject:** [EXTERNAL] RE: Rogers Group, LLC; SOP-23036; Additional Supporting Information Needed to Proceed with Permitting Pump and Haul  
**Attachments:** Pottsville SOP Application 2-9-24 V3.pdf

Wade,

Please find attached RGI's repackaged SOP application that includes the requested documents in your email below. Please let me know if you have any questions regarding these plans during your review.

Thanks,

Erik Knowles, P.E.  
*Director of Environmental Services*

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### ROGERS GROUP INC.

421 Great Circle Road  
Nashville, Tennessee 37228  
Phone: (615) 780-5719  
Cell: (615) 418-9474  
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[rogersgroupinc.com](http://rogersgroupinc.com)

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**From:** Wade Murphy <Wade.Murphy@tn.gov>  
**Sent:** Wednesday, December 6, 2023 1:04 PM  
**To:** Erik Knowles <erik.knowles@rogersgroupinc.com>  
**Cc:** Allen Rogers <allen.rogers@rogersgroupinc.com>; Gary Horne <Gary.Horne@tn.gov>; Timothy Hill <Timothy.Hill@tn.gov>  
**Subject:** FW: Rogers Group, LLC; SOP-23036; Additional Supporting Information Needed to Proceed with Permitting Pump and Haul

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good day Erik. Thanks again for contacting me. I now have some next-step directions for you. We are going to skip the usual Step 1: "preliminary project discussion", because we would be repeating information you have already provided. Additionally, we propose that the remaining three steps be combined into two:

1. Traditionally Step 2: Preliminary Engineering Report/Alternatives Analysis:

A Preliminary Engineering Report to MyTDEC Forms that repackages the alternatives analysis and basis for the pump and haul (a more linear narrative on how a septic was ruled out, why a public sewer connection is not feasible, what are the projected flows and uses of the site). In addition to repackaging the alternatives

including the soil scientist evaluation, the preliminary engineering report will be the place to detail consideration of the hauling and POTW receiving components of this system as well as a financial security amount as identified as deficiencies in the incomplete application notification email of November 7, 2023. The Division's water quality permitting program cannot guarantee that a holding tank alone will be serviced and its contents treated and disposed for the useful life of an office building constructed with toilet facilities, so some aspect of engineering/planning/design will need to ensure sewage will be disposed for the life of the system even if ownership changes. The amount of security can be established on the redundancies or other design factors that lessen the risks from failure or abandonment of the sewerage system. I have attached examples of the forms of securities acceptable to TDEC. Hold off on arranging any security until we deem the PER and application complete. We will public notice a draft permit on the basis of the application and PER. As submitted, the application does not include any documentation of the agreement with FusionSite Services nor does it have any documentation that Metro Nashville will receive the wastes.

2. Traditionally Step 3 and 4 (combined): Engineering Report, Final Plans and Specifications: After written acceptance of the PER, combine the Engineering Report-Preliminary Plans with the Final Plans and Specifications submissions (since there is likely little difference in them). The ER and Construction Documents would need to have the flow rates, materials of construction, control features (alarms, gages), site access, post-installation watertightness testing, etc. We will issue the effective permit after the construction plans are approved (in consideration of any comments received during the public comment period.)

Here is the webpage with the engineering submission instructions: [Plans Review and Approval for Sewage Works Construction Projects \(tn.gov\)](#) Feel free to reach out to us with questions.



**Wade D. Murphy** | E.I.  
Division of Water Resources, Water-Based Systems Unit  
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[tn.gov/environment](http://tn.gov/environment)

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**From:** Wade Murphy  
**Sent:** Tuesday, December 5, 2023 4:50 PM  
**To:** Erik Knowles <[erik.knowles@rogersgroupinc.com](mailto:erik.knowles@rogersgroupinc.com)>  
**Subject:** RE: Rogers Group, LLC; SOP-23036; Additional Supporting Information Needed to Proceed with Permitting Pump and Haul

Hello Erik. Thanks for the prod. I don't recall hearing back from ESU. I'll check. Wade

---

**From:** Erik Knowles <[erik.knowles@rogersgroupinc.com](mailto:erik.knowles@rogersgroupinc.com)>  
**Sent:** Tuesday, December 5, 2023 4:07 PM

**To:** Wade Murphy <[Wade.Murphy@tn.gov](mailto:Wade.Murphy@tn.gov)>

**Cc:** Allen Rogers <[allen.rogers@rogersgroupinc.com](mailto:allen.rogers@rogersgroupinc.com)>; Gary Horne <[Gary.Horne@tn.gov](mailto:Gary.Horne@tn.gov)>; Timothy Hill <[Timothy.Hill@tn.gov](mailto:Timothy.Hill@tn.gov)>

**Subject:** [EXTERNAL] RE: Rogers Group, LLC; SOP-23036; Additional Supporting Information Needed to Proceed with Permitting Pump and Haul

**\*\*\* This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. \*\*\***

Wade,

Were you getting feedback from Engineering about specifics needed on the site plans? Would like to keep this project going and if you are waiting on us, please let me know.

Thanks,

Erik Knowles, P.E.  
*Director of Environmental Services*

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## **ROGERS GROUP INC.**

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Nashville, Tennessee 37228  
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---

**From:** Wade Murphy <[Wade.Murphy@tn.gov](mailto:Wade.Murphy@tn.gov)>

**Sent:** Tuesday, November 7, 2023 8:48 AM

**To:** Erik Knowles <[erik.knowles@rogersgroupinc.com](mailto:erik.knowles@rogersgroupinc.com)>

**Cc:** Allen Rogers <[allen.rogers@rogersgroupinc.com](mailto:allen.rogers@rogersgroupinc.com)>; Gary Horne <[Gary.Horne@tn.gov](mailto:Gary.Horne@tn.gov)>; Timothy Hill <[Timothy.Hill@tn.gov](mailto:Timothy.Hill@tn.gov)>

**Subject:** Rogers Group, LLC; SOP-23036; Additional Supporting Information Needed to Proceed with Permitting Pump and Haul

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Good morning Erik and hello Allen. Erik, it was good speaking with you again a couple of days ago. As I said, we are amenable to working with customers on pump and haul arrangements where the site activity doesn't have reasonable potential for becoming a water quality issue over the life of the constructed sewer system (e.g. limestone quarries).

Since you're last application, the Division promulgated a new rule applicable to State Operating Permits. This email primarily points out some other requirements in the rule that are prerequisites to permitting. Here is a link to the rule for ease of reference: <https://publications.tnsosfiles.com/rules/0400/0400-40/0400-40-06.20220515.pdf>

We will work with you on the basis that a holding tank is essentially a collection system under these rules. That part of the rule, 0400-40-06-09, requires that the system be designed in accordance with accepted engineering practice and that all collection system components be owned by a corporation demonstrating capacity to provide the resources necessary to operate a collection system in support of a business activity. Additionally, another part of the rule, 0400-40-

06-.11, requires financial security be submitted to TDEC prior to construction. Both of these rules implement requirements of the state Water Control Act, TCA 69-3-108, requiring plan approval and financial security for privately-owned systems. I detail these requirements further below.

Regarding plans, I will coordinate with our Engineering Services Unit and get back to you on where we need to start this project in what we call the engineering four-step process. You have already provided preliminary engineering consisting of alternative's analysis with the application. However, we will still need a plan on file that details the design of the holding tank. Our files need to show the basis of design (sizing), materials of construction, methods of construction and operational controls. For example, the tank needs to be accessible for emptying, not be subject to damaging traffic loads, and capable of being monitored timely to prevent overflow. Submission and review of construction plans can run simultaneous with public noticing of a permit. However, we will need at least a site plan schematic prior to public notice of a permit action.

The financial security is also something we can work out during public notice and prior to actual issue of the effective permit and approval of construction plans. We generally set the security at the statutory maximum of \$75,000.00 unless redundancy details in the design and operation justify a lesser amount. I can get you examples of security formats (certificates of deposits, letters of credit, performance bonds) acceptable to TDEC.

The two issues we need to address to deem the application complete are the hauling and disposal arrangements. The two facets are 1) current arrangements and 2) future arrangements.

- 1) The application does not include any documentation of the agreement with FusionSite Services nor does it have any documentation that Metro Nashville will receive the wastes.
- 2) Water quality is ultimately protected if the basis of design for this system doesn't change over the life of the system. If there is a possibility that the site could change ownership and the lab building could change uses so that sewer demand changes, then the system design needs to contain a means of hauling (i.e. a truck) and some perpetual contract for sewer service to the site that all transfer to future owners. Alternatively, if for the anticipated life of the holding tank, the site will remain a quarry with no change in basis of design, that evidence along with the financial security could suffice support Division approval of the arrangement. The permit rule above allows for transfer of permits, so we have to be assured on the front end that a transfer resulting from change in owner doesn't invalidate the basis of design.

I am copying some field staff and Engineering Services Unit staff on this correspondence for their information.

Have a great day. I look forward to working with you further on this. Feel free to call or write back with questions or comments on the content of this email.



**Wade D. Murphy** | E.I.  
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**State Operating Permit Application**

**SOP-23036**

**Marshall County, Tennessee**

**February 2024**

Prepared by

Erik Knowles  
Rogers, Group, Inc.  
421 Great Circle Road  
Nashville, TN 37228

# Table of Contents

1. Application for a State Operation Permit (SOP)	1
2. Alternative Engineering Analysis	8
3. Site Maps	10
4. Topo Map	11
5. TDEC Field Activity Report	12
6. Soil Map Report	13
7. Above All Plumbing Services Agreement	14
8. Septic Tank Specs	15
9. Tank Alarm Specs	16
10. Summertown Metals Building Plans	18



Tennessee Department of Environment and Conservation  
 Division of Water Resources  
 William R. Snodgrass - Tennessee Tower  
 312 Rosa L. Parks Avenue, 11th Floor  
 Nashville, Tennessee 37243-1102  
 (615) 532-0625



**APPLICATION FOR A STATE OPERATION PERMIT (SOP)**

Type of application:  New Permit     Permit Reissuance     Permit Modification

**Permittee Identification:** (Name of city, town, industry, corporation, individual, etc., applying, according to the provisions of Tennessee Code Annotated Section 69-3-108 and Regulations of the Tennessee Water Quality Control Board.)

Permittee Name (applicant):	Rogers Group Inc., Pottsville Quarry Allen Rogers
Permittee Address:	646 Hwy 99, Lewisburg, TN 37091

Official Contact:	Allen Rogers	Title or Position:	Quality Control Manager		
Mailing Address:	1008 S. Washington St.	City:	Tullahoma	State:	TN
				Zip:	37388
Phone number(s):	931-581-5583	E-mail:	allen.rogers@rogersgroupinc.com		

Optional Contact:	Erik Knowles	Title or Position:	Environmental Director		
Address:	421 Great Circle Rd	City:	Nashville	State:	TN
				Zip:	37228
Phone number(s):	615-780-5719	E-mail:	erik.knowles@rogersgroupinc.com		

**Application Certification** (must be signed in accordance with the requirements of Rule 0400-40-05-.05)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted 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 for knowing violations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Name and title; print or type	Signature	Date
Allen Rogers		10/10/2023



<b>Facility Identification:</b>		<b>Existing Permit No.</b>	
Facility Name:	Rogers Group, INC, Pottsville Quarry	County:	Marshall
Facility Address or Location:	646 Hwy 99, Lewisburg, TN 37091	Latitude:	35.62687787
		Longitude:	-86.80893839
Name and distance to nearest receiving waters:			
If any other State or Federal Water/Wastewater Permits have been obtained for this site, list their permit numbers: None			
Name of company or governmental entity that will operate the permitted system:			
Operator address:			
Has the owner/operator filed for a Certificate of Convenience & Necessity (CCN), or an amended CCN, with the Tennessee Regulatory Authority (TRA) (may be required for collection systems and land application treatment systems)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
If the applicant listed above does not yet own the facility/site or if the applicant will not be the operator, explain how and when the ownership will be transferred or describe the contractual arrangement and renewal terms of the contract for operations.			
<b>Complete the following information explaining the entity type, number of design units, and daily design wastewater flow:</b>			
<u>Entity Type</u>	<u>Number of Design Units</u>		<u>Flow (gpd)</u>
<input type="checkbox"/> City, town or county	No. of connections:		
<input type="checkbox"/> Subdivision	No. of homes:	Avg. No. bedrooms per home:	
<input type="checkbox"/> School	No. of students:	Size of cafeteria(s): No. of showers:	
<input type="checkbox"/> Apartment	No. of units:	No. units with Washer/Dryer hookups: No. units without W/D hookups:	
<input type="checkbox"/> Commercial Business	No. of employees:	Type of business:	
<input checked="" type="checkbox"/> Industry	No. of employees: 6	Product(s) manufactured: Limestone Agg	200
<input type="checkbox"/> Resort	No. of units:		
<input type="checkbox"/> Camp	No. of hookups:		
<input type="checkbox"/> RV Park	No. of hookups:	No. of dump stations:	
<input type="checkbox"/> Car Wash	No. of bays:		
<input type="checkbox"/> Other			
Describe the type and frequency of activities that result in wastewater generation. Two Sinks and one toilet			

<b>Engineering Report (required for collection systems and/or land application treatment systems):</b>	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Prepared in accordance with Rule 0400-40-05-.03 and Section 1.2 of the State of Tennessee <a href="#">Design Criteria for Sewage Works</a>	
<input type="checkbox"/> Attached, or	
<input type="checkbox"/> Previously submitted and entitled:	Approved? <input type="checkbox"/> Yes. Date: <input type="checkbox"/> No
Operation and Maintenance Inspection Schedule Submitted:	Approved? <input type="checkbox"/> Yes. Date: <input type="checkbox"/> No

<b>Wastewater Collection System:</b>	<input checked="" type="checkbox"/> N/A
System type (i.e., gravity, low pressure, vacuum, combination, etc.):	
System Description:	
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.):	
In the event of a system failure describe means of operator notification:	
List the <b>emergency</b> contact(s) (name/phone):	
For low-pressure systems, who is responsible for maintenance of STEP/STEG tanks and pumps or grinder pumps (list all contact information)?	
Approximate length of sewer (excluding private service lateral):	
Number/hp of lift stations:	/      Number/hp of lift pumps      /
Number/volume of low pressure and or grinder pump tanks	/
Number/volume septic tanks	/
Attach a schematic of the collection system. <input type="checkbox"/> Attached	
If this is a satellite sewer and you are tying in to another sewer system complete the following section, listing tie-in points to the sewer system and their location (attach additional sheets as necessary):	
<u>Tie-in Point</u>	<u>Latitude (xx.xxxx°)</u>
<u>Longitude (xx.xxxx°)</u>	



<b>Land Application Treatment System:</b>	<input checked="" type="checkbox"/> N/A
Type of Land Application Treatment System: <input type="checkbox"/> Drip <input type="checkbox"/> Spray <input type="checkbox"/> Other, explain:	
Type of treatment facility preceding land application (recirculating media filters, lagoons, other, etc.):	
Attach a treatment schematic. <input type="checkbox"/> Attached	
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.):	
For New or Modified Projects: Name of Developer for the project:	
Developer address and phone number:	
For land application, list: Proposed acreage involved: Inches/week gpd/sq.ft loading rate to be applied:	
Is wastewater disinfection proposed?	
<input type="checkbox"/> Yes Describe land application area access:	
<input type="checkbox"/> No Describe how access to the land application area will be restricted:	
<b>Attach required additional Engineering Report Information (see <a href="#">website</a> for more information)</b>	
<input checked="" type="checkbox"/> Topographic map (1:24,000 scale presented at a six inch by six inch minimum size) showing the location of the project including quadrangle(s) name(s) GPS coordinates, and latitude and longitude in decimal degrees should also be included.	
<input type="checkbox"/> Scaled layout of facility showing the following: lots, buildings, etc. being served, the wastewater collection system routes, the pretreatment system location, the proposed land application area(s), roads, property boundaries, and sensitive areas such as streams, lakes, springs, wells, wellhead protection areas, sinkholes and wetlands.	
<input type="checkbox"/> Soils information for the proposed land disposal area in the form of a Water Resources Soils Map per Chapter 16 and 17 State of Tennessee Design Criteria for Sewage Work. The soils information should include soil depth (borings to a minimum of 4 feet or refusal) and soil profile description for each soil mapped.	
<input type="checkbox"/> Topographic map of the area where the wastewater is to be land applied with no greater than ten foot contours presented at a minimum size of 24 inches by 24 inches.	
<input type="checkbox"/> Describe alternative application methods based on the following priority rating: (1) connection to a municipal/public sewer system, (2) connection to a conventional subsurface disposal system as regulated by the Division of Groundwater Protection, and/or (3) land application.	



<p><b>For Drip Dispersal Systems Only: Unless otherwise determined by the Department, sewage treatment effluent wells, i.e. large capacity treatment/drip dispersal systems after approval of the SOP Application, will be issued an UIC tracking number and will be authorized as Permit by Rule per UIC Rule 0400-45-06-.14(2) and upon issue of a State Operating Permit and Sewage System Construction Approval by the Department. Describe the following:</b></p>	<input checked="" type="checkbox"/> N/A
<p>The area of review (AOR) for each Drip Dispersal System shall, unless otherwise specified by the Department, consist of the area lying within a one mile radius or an area defined by using calculations under 0400-45-06-.09 of the Drip Dispersal System site or facility, and shall include, but not be limited to general surface geographic features, general subsurface geology, and general demographic and cultural features within the area. Attach to this part of the application a general characterization of the AOR, including the following: (This can be in narrative form)</p>	
<input type="checkbox"/> A general description of all past and present groundwater uses as well as the general groundwater flow direction and general water quality.	
<input type="checkbox"/> A general description of the population and cultural development within the AOR (i.e. agricultural, commercial, residential or mixed)	
<input type="checkbox"/> Nature of injected fluid to include physical, chemical, biological or radiological characteristics.	
<input type="checkbox"/> If groundwater is used for drinking water within the area of review, then identify and locate on a topographic map all groundwater withdrawal points within the AOR, which supply public or private drinking water systems. Or supply map showing general location of publicly supplied water for the area (this can be obtained from the water provider)	
<input type="checkbox"/> If the proposed system is located within a wellhead protection area or source water protection area designated by Rule 0400-45-01-.34, show the boundary of the protection area on the facility site plan.	
<input type="checkbox"/> Description of system, Volume of injected fluid in gallons per day based upon design flow, including any monitoring wells	
<input type="checkbox"/> Nature and type of system, including installed dimensions of wells and construction materials	

<p><b>Pump and Haul:</b></p>	<input type="checkbox"/> N/A
<p>Reason system cannot be served by public sewer: <a href="#">Not available</a></p>	
<p>Distance to the nearest manhole where public sewer service is available: <a href="#">Not available</a></p>	
<p>When sewer service will be available: <a href="#">Not in future plans</a></p>	
<p>Volume of holding tank:                      gal.</p>	
<p>Tennessee licensed septage hauler (attach copy of agreement): <a href="#">FusionSite Services</a></p>	
<p>Facility accepting the septage (attach copy of acceptance letter): <a href="#">Metro Dump in Nashville TN</a></p>	
<p>Latitude and Longitude (in decimal degrees) of approved manhole for discharge of septage:</p>	
<p>Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): <a href="#">Berms will in place for containment, followed by immediate cleanup</a></p>	



<b>Holding Ponds (for non-domestic wastewater only):</b>	<input checked="" type="checkbox"/> N/A
Pond use: <input type="checkbox"/> Recirculation <input type="checkbox"/> Sedimentation <input type="checkbox"/> Cooling <input type="checkbox"/> Other (describe):	
Describe pond use and operation:	
If the pond(s) are existing pond(s), what was the previous use?	
Have you prepared a plan to dispose of rainfall in excess of evaporation? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If so, describe disposal plan:	
Is the pond ever dewatered? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If so, describe the purpose for dewatering and procedures for disposal of wastewater and/or sludge:	
Is(are) the pond(s) aerated? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Volume of pond(s): _____ gal. Dimensions: _____	
Is the pond lined (Note if this is a new pond system it must be lined for SOP coverage. Otherwise, you must apply for an Underground Injection Control permit.)? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Describe the liner material (if soil liner is used give the compaction specifications):	
Is there an emergency overflow structure? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<i>If so, provide a design drawing of structure.</i>	
Are monitoring wells or lysimeters installed near or around the pond(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<i>If so, provide location information and describe monitoring protocols (attach additional sheets as necessary):</i>	



<b>Mobile Wash Operations:</b>		<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Individual Operator	<input type="checkbox"/> Fleet Operation Operator	
<b>Indicate the type of equipment, vehicle, or structure to be washed during normal operations (check all that apply):</b>		
<input type="checkbox"/> Cars	<input type="checkbox"/> Parking Lot(s):	sq. ft.
<input type="checkbox"/> Trucks	<input type="checkbox"/> Windows:	sq. ft.
<input type="checkbox"/> Trailers (Interior washing of dump-trailers, or tanks, is prohibited.)	<input type="checkbox"/> Structures (describe):	
<input type="checkbox"/> Other (describe):		
<b>Wash operations take place at (check all that apply):</b>		
<input type="checkbox"/> Car sales lot(s)	<input type="checkbox"/> Public parking lot(s)	
<input type="checkbox"/> Private industry lot(s)	<input type="checkbox"/> Private property(ies)	
<input type="checkbox"/> County(ies), list:	<input type="checkbox"/> Statewide	
<b>Wash equipment description:</b>		
<input type="checkbox"/> Truck mounted	<input type="checkbox"/> Trailer mounted	
<input type="checkbox"/> Rinse tank size(s) (gal.):	<input type="checkbox"/> Mixed tanks size(s) (gal.):	
<input type="checkbox"/> Collection tank size(s) (gal.):	Number of tanks per vehicle:	
Pressure washer:	psi (rated)	gpm (rated)
<input type="checkbox"/> gas powered	<input type="checkbox"/> electric	
Vacuum system manufacturer/model:	Vacuum system capacity:	inches Hg
Describe any other method or system used to contain and collect wastewater:		
List the public sewer system where you are permitted or have written permission to discharge waste wash water (include a copy of the permit or permission letter):		
Are chemicals pre-mixed, prior to arriving at wash location? <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>Describe all soaps, detergents, or other chemicals used in the wash operation (attach additional sheets as necessary):</b>		
Chemical name:	Manufacturer:	Primary CAS No. or Product No.



## **2. Alternative Engineering Analysis**

Rogers Group is proposing to add a pump and haul septic system for our new Quality Control Lab at our Pottsville Quarry. This lab will support quality control facilities performed at the quarry to ensure produced products meet the specifications required set forth by TDOT. One bathroom is proposed in the new building with only a toilet and two sinks being drained to the proposed holding tank. The maximum projected number of employees working at this facility is 6 with a maximum flow of 200 gallons per day. Normal hours of operation are 7am to 5pm Monday through Friday with some weekend work possible when local demand calls for it. This building will not be occupied overnight.

The site has been assessed by TDEC Environmental Scientist Charles Zielke, on September 13, 2023, to review the proposed site and the need for a septic system and it was determined that the property was all shallow rock or fill and was not suitable for a septic system.

Below are some alternatives considered when determining how to best handle wastewater from our new lab building.

### **Alternative 1: Septic Tank.**

Undisturbed areas were reviewed by Brett Hughes with Soil Map on September 22, 2023, to see if any suitable soils were available for a septic system. This report determined that the tract consisted of predominantly Gladeville soils with very shallow rock deposits (less than 24 inches). Due to the percolation test needing at least 30 inches of soil, it was determined that this property was not suitable for septic systems and a “pump and haul” permit was recommended.

### **Alternative 2: Connect to Sewer**

County sewer connection not available along State Highway 99. It is currently not economically feasible to connect sewer to this facility and is not a viable option for treatment.

### **Alternative 3: Portable toilets**

Not install the proposed pump and haul tank and rely on portable toilets to service the needs of workers at this facility. This is not an ideal solution since these toilets can be easily damaged and are not protected from weather or vehicle traffic, increasing the risk of a spill of waste in the area. This solution also relies on a third party to manage the integrity of these toilets when they get weathered and need to be replaced.

Given these facts, Rogers Group has determined the most logical solution for wastewater treatment at this facility is through a TDEC SOP Pump and Haul Permit.

### **3. Haul and Treatment Details**

Haul contract has been agreed with Above All Plumbing and Septic Services and they will be on a two-week pumping schedule at this facility. Tank will be a concrete 2,000-gallon septic tank with risers for accessibility. A SJE Rhombus EZ Series alarm will be installed and positioned to go off when the tank reaches 80% capacity. All removed septic will be hauled to the Columbia wastewater treatment facility where Above All Plumbing and Septic Services are approved haulers under permit number WH56.







PROPOSED LAB BUILDING

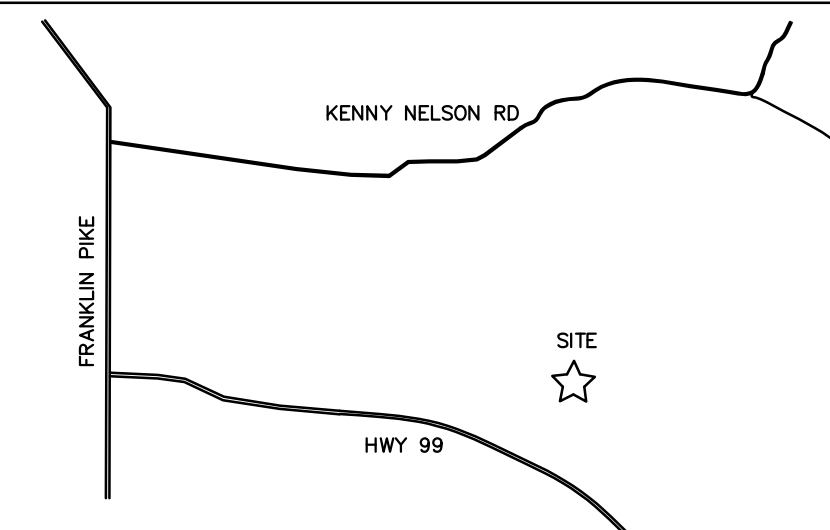
PROPOSED TANK LOCATION

HWY 99

**LEGEND**

-  PROPERTY LINES
-  PUBLIC ROADS

**LOCATION MAP**



8			
7			
6			
5			
4			
3			
2			
1			
REVISION	DESCRIPTION	BY	DATE



ROGERS GROUP, INC.

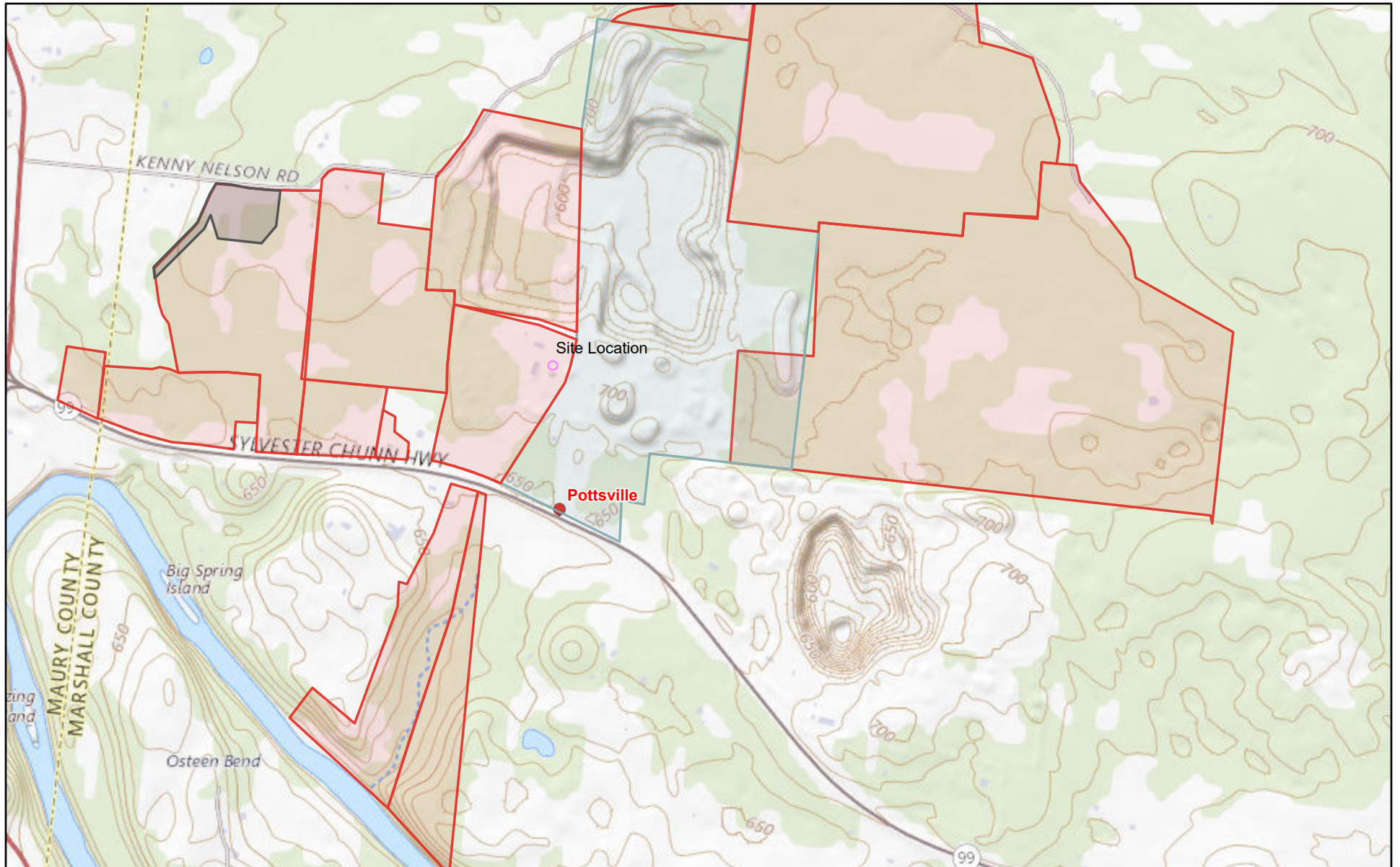
AGGREGATE OPERATIONS  
421 GREAT CIRCLE ROAD  
NASHVILLE, TN 37228

DATE: 1/11/24 SCALE: 1"=50' DRAWN BY: EMK CHECKED BY: ---

TITLE: PRELIM SITE MAP			
LOCATION: POTTSVILLE QC LAB			
W.O. No./OP. No.	FILE:	DRAWING NO:	SHEET NO:

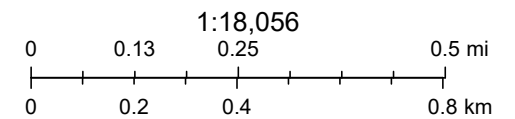


# Pottsville Topo Map



1/25/2024, 2:25:05 PM

- RGI Property Boundaries
  - Lease Out
  - Fee Simple
  - Leasehold
- RGI Locations
  - Quarry
- Asphalt



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography

Web AppBuilder for ArcGIS

Source: FEMA, Esri | Source: US Fish and Wildlife Service, Esri | USGS The National Map: National Hydrography Dataset. Data refreshed October, 2023. | Esri, US Census Bureau, Infogroup | U.S. Geological Survey (USGS) | Federal Railroad Administration (FRA),



DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF WATER RESOURCES

FIELD ACTIVITY REPORT

Person Contacted:

Name: Allen Rogers Phone: (931)581-5583  Property Owner  
 Location: 646 State Highway 99  Installer  
Lewisburg, TN 37091  Developer  
 Realtor  
 \_\_\_\_\_

Owner: \_\_\_\_\_ Phone: \_\_\_\_\_  Complaint  
 Address: \_\_\_\_\_  Technical Assistance  
 \_\_\_\_\_  Enforcement  
 \_\_\_\_\_  \_\_\_\_\_

NOTES AND REMARKS:

On 09/13/2023 I met Mr. Rogers on site of the Pottsville Quarry owned by the Rogers group to discuss what would be needed for a septic system on site. While on-site we went to the location that a septic would be needed for and found that the area was all shallow to rock or fill material not suitable for a system. A soil consultant to check the rest of the property was recommended to determine if there was a suitable area for septic onsite before going any farther since no permit had been applied for.

Charles Zielke ES2

Environmental Scientist

Marshall

County

09/21/2023

Date



# Soil Map

(931) 246-6485

P.O. Box 1126, Pulaski, TN 38478

www.soil-map.com

## INVOICE

Sep 22, 2023

### Rogers Group Inc.

Allen Rogers

1008 South Washington Street

Tullahoma, TN 37388

Project: **Pottsville Quarry, Job ID 3908**

DESCRIPTION OF WORK	AMOUNT
<b>Preliminary Soil Consultation</b>	\$480
-Denoted boundaries and setbacks from gullies, wells, etc.	
-Demarcated unsuitable soils.	
-Completed pedon reviews for suitability.	
-Consultation over sites and concerns.	

Work was completed on **Sep 22, 2023** and full payment was requested via Chase Credit Services.

Please note I do not schedule or conduct the bounds (property lines) of the project. This must be carried out and certified by a Registered Land Surveyor per TCA 62-18-102(3) when it is required. This invoice does not include that service. If you need any more information or services, please contact me at [brett@soil-map.com](mailto:brett@soil-map.com) or by phone at your convenience.

I enjoyed working for you and I appreciate your business!

Very Respectfully,



**Brett Hughes**

Soil Scientist, Lic#100



# Soil Map

(931) 246-6485

P.O. Box 1126, Pulaski, TN 38478

[www.soil-map.com](http://www.soil-map.com)

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**CONSULTATION: Job ID 3908**

Sep 22, 2023

Please let this letter serve as a summation of our site visit on September 22, 2023. This consultation has no legal authority or permitting information since it does not bear my seal. For permitting and real estate contracts, a stamped soil map is recommended if not required.

I reviewed the site on a clear, cool but dry summer day. The tract is predominantly on Gladeville soils that are very shallow to shallow (less than 24 inches) to rock with minor components of Very Rocky to ROC-Talbott. These soils are greater than or slower than 75 mpi (minutes per inch.) The rating of 75 mpi is the slowest allowed percolation rate of soils for conventional septic installation without percolation tests. However, the soils cannot be tested for suitability with a percolation test due to soil depth being less than 30 inches to rock. These areas are referenced in the attached image. All other areas have been mined or disturbed to points of unsuitability for septic systems.

Therefore, please let this letter serve as my recommendation for a "dump and haul" permit. With the limited use of the outbuilding and the level of disturbance from mining, I do not recommend Extra High intensity mapping or pursuing engineered/alternative systems for septic needs.

If you have any questions, I will gladly answer them at your convenience. Thanks again for letting me assist you in this matter!

*Best Regards,*

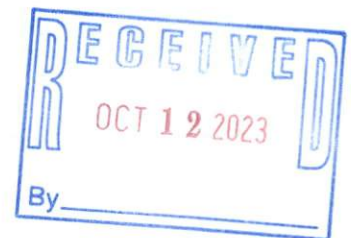


**Brett Hughes**

Soil Scientist, **Soil Map**



Not to Scale. This is not a soil map and does not bear authority for septic permitting. The area of native soil mapped can be placed by the "Gladeville" unit and its surrounding area.







Site for construction of new Laboratory Building (32' X 40')

Rogers Group Inc., Pottsville Quarry

646 Hwy 99, Lewisburg TN 37091





Lat: 35.62687787 Long: -86.80893839









## Above All Plumbing & Septic Services

 (931) 581-5583  
 Allen.rogers@rogersgroupinc.com

ESTIMATE	#29
TOTAL	\$10,500.00

### CONTACT US

PO Box 680394  
 Franklin, TN 37068

 (615) 753-8881  
 cason@aboveallplumbingllc.net

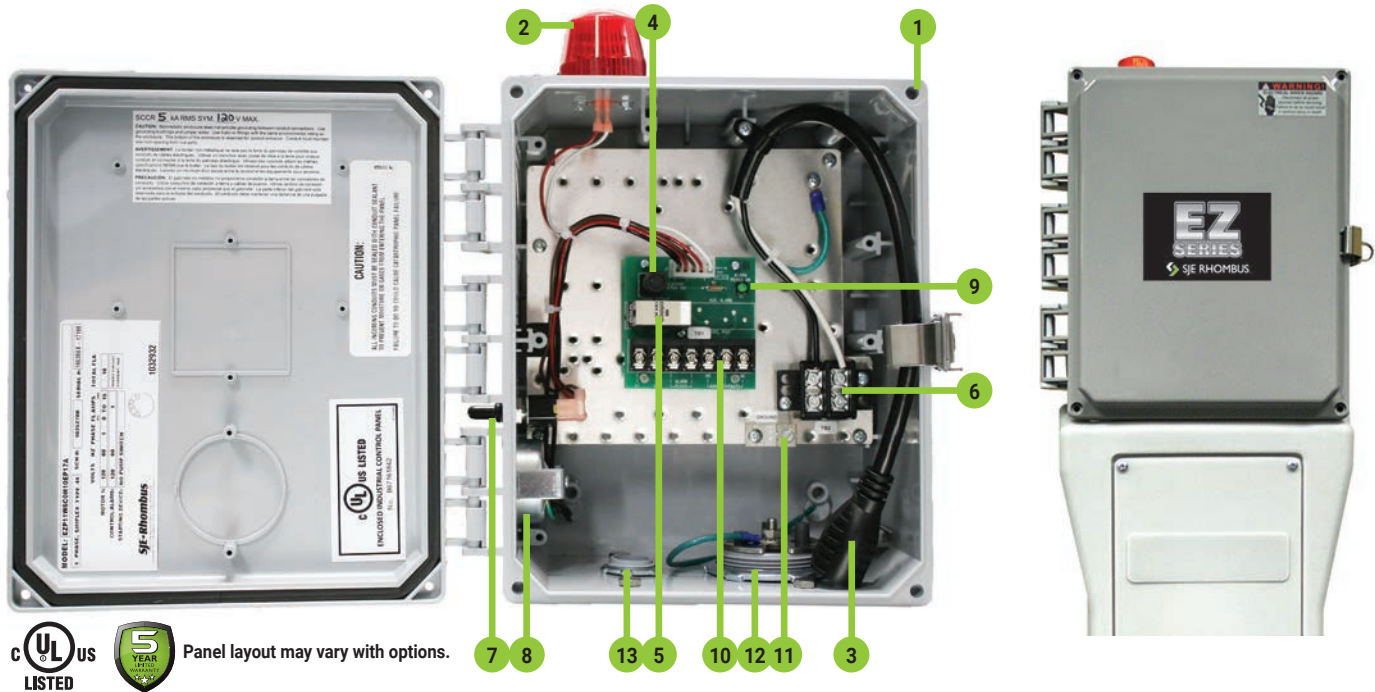
## ESTIMATE

Services	qty	unit price	amount
Install 2000 gallon septic system with alarm system System will be a pump and haul system, Rogers group will be put on a bi-weekly pumping schedule to ensure the tank level stays down. Rogers group to dig hole. All other plumbing of tank to be completed by Above All Plumbing and Septic services. Tank will be a concrete 2000 gallon septic tank with risers for accessibility. We will install a SJE Rhombus EZ Series alarm. The alarm will be attached to a stand pipe in side of the tank. The stand pipe will be a 2" diameter piece of PVC cemented into a concrete block for sturdiness. The alarm will be positioned to go off when the tank reaches 80% capacity. This will ensure pumper has time to get there to prevent overflow. All removed septic will be dumped in Columbias waste water treatment facility where Above All Plumbing and Septic Services are approved haulers with. Permit number for dumping in Columbia is WH56	1.0	\$10,500.00	\$10,500.00
Services subtotal:			\$10,500.00
<b>Total</b>			<b>\$10,500.00</b>

Thank you for trusting us with your needs!  
 Please provide this receipt at the next appointment for \$25 off!

# EZ SERIES® PLUGGER CONTROL PANEL

Convenient Wiring Connection for Pump



Panel layout may vary with options.

Easy to install control panel provides convenient wiring connection for use with one single phase pump in effluent and sewage installations.

The EZ Series® Plugger control panels feature a sleek easy to install panel and optional mounting post. The panel includes a built-in high water alarm with test/normal/silence switch and incorporates a receptacle to accept 120 VAC or 240 VAC pump and piggy-back pump switch.

Models with the optional post include a removable access door and cord seal which allow piggy-back and pump plugs to be easily routed and sealed into the panel. The post can be mounted in the ground directly, over a 4X4, or over conduit. The panel is also available with optional duo alarm and auxiliary contacts to meet the needs of various applications.

## OPTIONAL FEATURES

- 34" mounting post with cord seal
- Duo Alarm
- Elapsed Time Meter (See Accessories catalog page for information.)
- Various cord lengths available
- Pump circuit breaker
- Auxiliary contacts

## COMPONENTS

1. Enclosure measures 10 x 8 x 6 inch (25.40 x 20.30 x 15.2 cm) with removable mounting feet, NEMA 4X rated, ultraviolet stabilized thermoplastic for indoor and outdoor use; includes locking latch as standard
2. Red LED beacon provides 360° visual check of alarm condition
3. Receptacle for use with piggy-back pump switch
4. Alarm fuse (mounted on circuit board)
5. Horn silence relay (mounted on circuit board)
6. Pump circuit terminal block
7. Exterior Alarm Test/Normal/Silence switch allows horn and light to be tested and horn to be silenced in an alarm condition; alarm automatically resets once alarm condition is cleared
8. Alarm horn provides audio warning of alarm condition (83 to 85 decibel rating)
9. Alarm Power indicator (mounted on circuit board)
10. Alarm circuit terminal block (mounted on circuit board)
11. Ground lug
12. Custom engineered liquid tight 2" cord seal
13. Incoming pump power 3/4" hub

**Note:** Schematic/Wiring Diagram and Pump Specification Label are located inside the panel.



**EZ SERIES® PLUGGER** - Provides convenient wiring connection for use with one single phase 120V or 230V pump in effluent and sewage installations.

EZP			W		C			10E
CONTROL PANEL	MODEL TYPE	ALARM PACKAGE	ENCLOSURE RATING	STARTING DEVICE	PUMP FULL LOAD AMPS	PUMP DISCONNECTS	FLOAT SWITCH APPLICATION	OPTIONS (LISTED BELOW)
CONTROL PANEL	✓	EZP						<b>PRICING WORKSHEET</b> EZ Plugger Base Price _____ Alarm Package _____ Enclosure Rating _____ Starting Device _____ Pump Full Load Amps _____ Pump Disconnects _____ Float Switch Application _____ Total Options _____ <b>TOTAL LIST PRICE</b> _____
MODEL TYPE		1	120V (includes Option 10E as standard)					
		2	240V (includes Option 10E as standard)					
ALARM PACKAGE		0	No Alarm Package					
		1	Alarm Package (includes test/normal/silence switch, red light, & horn)					
ENCLOSURE RATING	✓	W	Weatherproof, NEMA 4X (engineered thermoplastic)					
STARTING DEVICE		2	SJE PumpMaster® Plus Pump Switch (0-15 FLA)					
		6	No Pump Switch					
		7	120V Double Float® Master Pump Switch (0-15 FLA)					
		8	240V Double Float® Master Pump Switch (0-15 FLA)					
PUMP FULL LOAD AMPS		A	SJE MicroMaster® Plus WS Pump Switch (0-13 FLA)					
	✓	C	0 - 15 FLA					
PUMP DISCONNECTS		0	No Pump Disconnect					
		4	Circuit Breaker	120V				
				240V				
FLOAT SWITCH APPLICATION		H	Floats - Pump Down (select Option 17 below)					
		X	No Alarm Floats					

OPTIONS	DESCRIPTION
1J	Duo Alarm Inputs with Alarm without Alarm
1V	Vertical Reed Switch (must also select Option 1J)
6A	Auxiliary Alarm Contact, Form C
8G	ETM with Piggy-Back
✓ 10E	<b>Lockable Latch - NEMA 4X (included as standard)</b>
10P	Mounting Post (Factory installed, includes Cord Seal)
11C	Additional NEMA 1 Remote Alarm Panel (must also select Option 6A)
11G	Additional NEMA 3R Alarm Panel (Tank Alert® EZ Duo) (must also select Option 1J)

OPTIONS	DESCRIPTION
16A	10' Cord in Lieu of 20' Cord (per Float) <b>Does not apply to Double Float® Master pump switch</b>
16B	15' Cord in Lieu of 20' Cord (per Float)
16C	30' Cord in Lieu of 20' Cord (per Float)
16D	40' Cord in Lieu of 20' Cord (per Float)
17A	SJE SignalMaster® / Pipe Clamp (Alarm Float Only) - Mechanical
22C	2" Hub Installed with Cord Seal
22F	Riser Mounting Kit

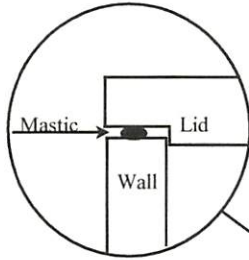
**2000 Gallon  
2-Compartment Septic Tank**

**Property of: Del Zotto Products, Inc.,**

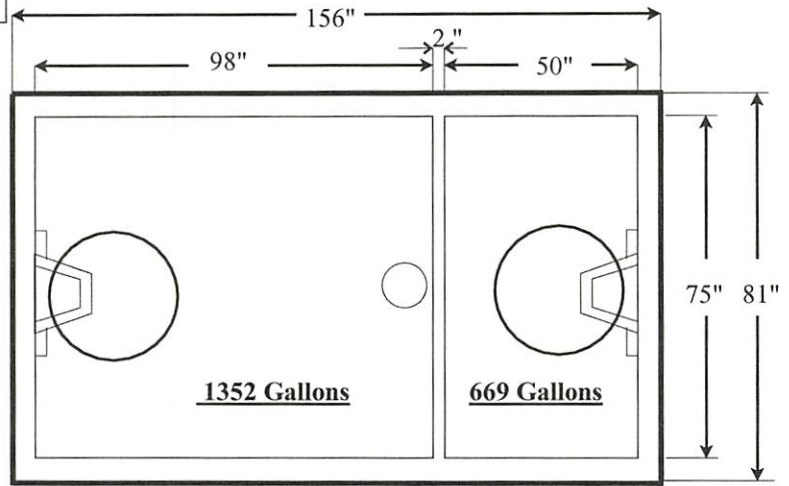
1900 County Road #1, Wrenshall, MN 55797 (218) 384-3066 Office  
Or 4405 West Highway #40, Ocala, FL 34482 (352) 351-3834 Office

**Do Not duplicate, Do Not reproduce without written permis-**

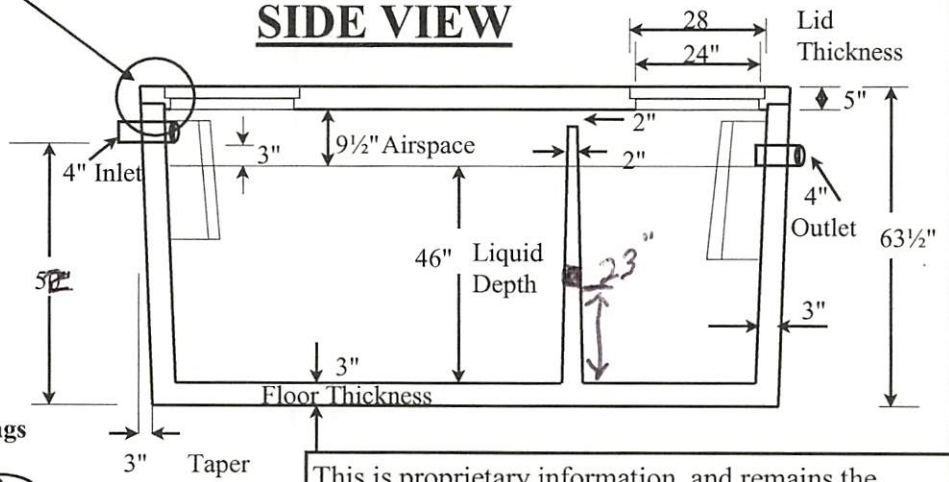
**Enlarged Detail**



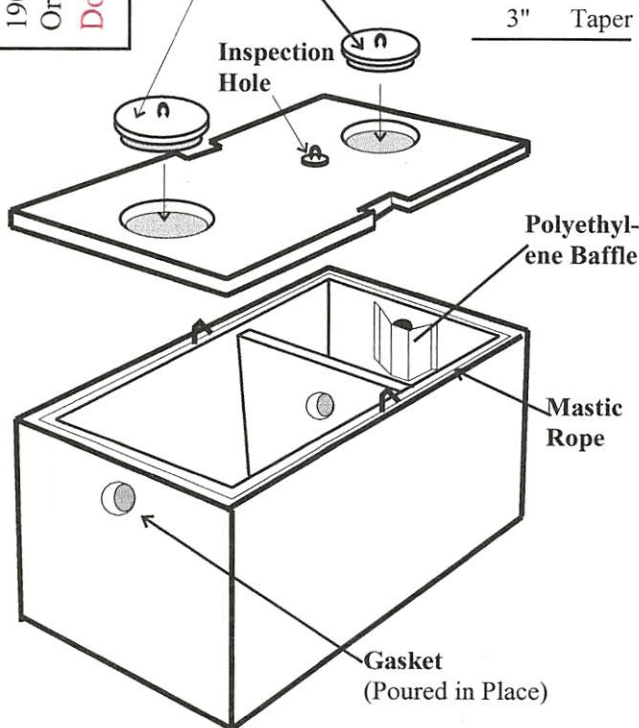
**TOP VIEW**



**SIDE VIEW**



**Manhole Lids/Openings**



This is proprietary information, and remains the property of Del Zotto Products, Incorporated. These Drawings and Dimensions have been drawn especially for:

**T & H Concrete**  
225 Heil Avenue  
Lewisburg, TN 37091  
Phone: 931-359-7023 Fax #: 931-359-7027  
Attn.: Barry Hooten

*The Company/Persons named above shall be given written permission upon purchase of the Concrete Form to duplicate and promote sales literature on this septic tank by:*

***Del Zotto Products, Incorporated***

**2000 - Gallon 2-Compartment Septic Tank**

Drawing #: DZ-2

Drawing by: PJS Date: 07-26-99



# Legend



### GENERAL NOTES:

- A. GOVERNING CODES**
  1. INTERNATIONAL BUILDING CODE (IBC 2018)
  2. ASCE 7-16
  3. NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS)
  4. POST FRAME DESIGN MANUAL 2<sup>ND</sup> EDITION
- B. CONTRACTOR RESPONSIBILITY**
  1. ALL STRUCTURES SHALL BE CONSTRUCTED ACCORDING TO DIMENSIONS NOTED WITHIN THESE CONSTRUCTION DOCUMENTS.
  2. SCALING OF DIMENSIONS SHALL NOT BE PERMITTED.
  3. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS (INCLUDING ROUGH OPENINGS) AND ALL CONDITIONS ON THE SUBJECT SITE.
  4. NEITHER STM ENGINEERING, LLC NOT ITS REPRESENTATIVES SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, ACTS OR OMISSIONS OF THE CONTRACTOR OR THEIR SUBCONTRACTORS OR FAILURE TO PERFORM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THESE CONSTRUCTION DOCUMENTS.
  5. ANY DISCREPANCY OR OMISSION DISCOVERED IN THESE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD BY WRITTEN NOTICE BEFORE THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
  6. STM ENGINEERING, LLC SHALL REQUIRE A MINIMUM OF TWO (2) WEEKS TO CORRECT ANY OMISSIONS OR ERRORS DISCOVERED WITHIN THESE CONSTRUCTION DOCUMENTS.
  7. IF THE MINIMUM TIME REQUIRED TO CORRECT ANY OMISSION OR ERROR IN THESE CONSTRUCTION DOCUMENTS IS NOT GRANTED TO STM ENGINEERING, LLC, THE GENERAL CONTRACTOR SHALL ASSUME ALL COST AND LIABILITY TO CORRECT THE IDENTIFIED ERROR OR OMISSION.
  8. ALL STRUCTURES SHALL BE ADEQUATELY BRACED WITH THE NECESSARY TEMPORARY BRACING ELEMENTS FOR ALL LATERAL AND CONSTRUCTION LOADING UNTIL ALL PERMANENT LATERAL FORCE RESISTING SYSTEM ELEMENTS HAVE BEEN FULLY INSTALLED.
  9. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL NECESSARY TEMPORARY BRACING ELEMENTS.
  10. THE GENERAL CONTRACTOR AND/OR OWNER SHALL MAINTAIN AN UP-TO-DATE SET OF CONSTRUCTION DRAWINGS ON THE JOB SITE AT ALL TIMES. THE GENERAL CONTRACTOR AND/OR OWNER SHALL OBTAIN ALL PROPER BUILDING PERMITS AND ENSURE ALL REQUIRED INSPECTIONS ARE MADE.
  11. ANY ROOF AND/OR WALL PENETRATION SHALL BE MADE WEATHERPROOF WITH THE NECESSARY FLASHING AND/OR CAULKING AS REQUIRED.
  12. IT SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND/OR OWNER TO PROPERLY RECEIVE AND STORE ALL BUILDING MATERIALS WITHOUT DAMAGE.
  13. THE GENERAL CONTRACTOR SHALL ERECT ALL POST-FRAME STRUCTURES IN ACCORDANCE WITH THE FOLLOWING DOCUMENTS:
    - a. BCSI-B10 (WOOD TRUSS COUNCIL OF AMERICA & TRUSS PLATE INSTITUTE)
    - b. ACCEPTED PRACTICE FOR POST-FRAME BUILDING CONSTRUCTION: FRAMING TOLERANCES (NATIONAL FRAME BUILDERS ASSOCIATION)
- C. STRUCTURAL LOAD CRITERIA**
  1. RISK CATEGORY: **II** (ASCE 7-16 TABLE 1.5-1)
  2. DEAD LOAD
    - THE DESIGN DEAD LOAD OF THE STRUCTURE SHALL INCLUDE THE SELF-WEIGHT OF ALL PERMANENT BUILDING ELEMENTS AS DETERMINED BY THE ENGINEER OF RECORD.
  3. ROOF LIVE LOAD: **20 PSF** (ASCE 7-16 TABLE 4.3-1)
  4. SNOW LOAD (ASCE 7-16 CHAPTER 7)
    - GROUND SNOW LOAD (p<sub>g</sub>): **10 PSF**
    - MINIMUM SNOW LOAD (p<sub>m</sub>): **10 PSF**
    - SNOW IMPORTANCE FACTOR (I<sub>s</sub>): **1.0**
    - EXPOSURE FACTOR (C<sub>e</sub>): **0.9**
    - THERMAL FACTOR (C<sub>t</sub>): **1.2**
    - FLAT ROOF SNOW LOAD (p<sub>f</sub>): **6 PSF**
  5. WIND LOAD (ASCE 7-16 CHAPTER 26)
    - BASIC WIND SPEED (V): **105 MPH**
    - WIND DIRECTIONALITY FACTOR (K<sub>d</sub>): **0.85**
    - TOPOGRAPHIC FACTOR (K<sub>z</sub>): **1.0**
    - GROUND ELEVATION FACTOR (K<sub>e</sub>): **1.0**
    - EXPOSURE CATEGORY: **C**
    - ENCLOSURE CLASSIFICATION: **ENCLOSED**
    - INTERNAL PRESSURE COEFFICIENT (GC<sub>pi</sub>): **±0.18**
    - GUST-EFFECT FACTOR (G): **0.85**
  6. SEISMIC LOAD (ASCE 7-16 CHAPTER 11)
    - SEISMIC IMPORTANCE FACTOR (I<sub>e</sub>): **1.0**
    - SITE CLASS: **D**
    - SEISMIC DESIGN CATEGORY: **D**
    - SHORT-PERIOD SITE COEFFICIENT (F<sub>a</sub>): **1.579**
    - LONG-PERIOD SITE COEFFICIENT (F<sub>v</sub>): **2.33**
    - S<sub>s</sub>: **0.276**
    - S<sub>1</sub>: **0.135**
    - S<sub>MS</sub>: **0.436**
    - S<sub>M1</sub>: **0.314**
    - S<sub>D5</sub>: **0.291**
    - S<sub>D1</sub>: **0.209**
    - T<sub>L</sub>: **12 SEC**
    - T: **0.145 SEC**
    - RESPONSE MODIFICATION FACTOR (R): **2 1/2**
    - SEISMIC RESPONSE COEFFICIENT (C<sub>s</sub>): **0.12**



**3864 Summertown Highway  
Summertown, TN 38483**

**Phone: (931) 796-1521  
Email: info@summertownmetals.com**

**Drawings Prepared For:  
Rogers Group Inc.**



# Abbreviations

&: and	EXT: exterior	PT: pressure-treated lumber
@: at	FND: foundation	SP: southern pine
Ø: diameter	FTG: footing	SPF: spruce-pine fir
BTM.: bottom	INT.: interior	SQ: square
B/W: between	LSH: long side horizontal	TYP.: typical
CLR: clear	LSV: long side vertical	U.N.O.: unless noted otherwise
CL: centerline	LVL: laminated veneer lumber	W/ with
CONC: concrete	MAX: maximum	W/O: without
DBL: double	MIN: minimum	
E.W.: each way	O.C.: on center	

### GENERAL NOTES CONT'D:

- D. WOOD STRUCTURE REQUIREMENTS**
  1. UNLESS SPECIFICALLY NOTED ON THE DRAWINGS, NO ONE SHALL CUT, NOTCH OR DRILL ANY TRUSS, HEADER, BEAM, POST, GIRT, PURLIN, OR FLANGE OF I-JOIST.
  2. ANY MEMBER REPAIRS OR REPLACEMENT SHALL BE AS SPECIFIED IN WRITING BY A LICENSED PROFESSIONAL ENGINEER AND THE EXPENSE OF THE REPAIR SHALL BE THE RESPONSIBILITY OF THE PARTY WHICH CREATED THE DAMAGE.
  3. DIMENSIONED LUMBER MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION AND ALL RELATED DOCUMENTS.
  4. ALL MEMBERS SHALL BE THE SIZE, GRADE AND SPECIES AS INDICATED WITHIN THESE DRAWINGS.
  5. SAWN LUMBER USED FOR LOAD-SUPPORTING PURPOSES, INCLUDING END-JOINTEDED OR EDGE-GLUED LUMBER, MACHINE STRESS-RATED OR MACHINE-EVALUATED LUMBER, SHALL BE IDENTIFIED BY THE GRADE MARK OF A LUMBER GRADING OR INSPECTION AGENCY THAT HAS BEEN APPROVED BY AN ACCREDITATION BODY THAT COMPLIES WITH DOC PS 20 OR EQUIVALENT.
  6. PRESSURE PRESERVATIVE TREATED LUMBER SHALL BE TREATED WITH WATERBORNE PRESERVATIVE AND BEAR THE QUALITY MARK OF AN APPROVED INSPECTION AGENCY. POSTS AND SKIRTS SHALL BE PROTECTED WITH PRESSURE PRESERVATIVE CHEMICAL TREATMENTS TO RETENTION LEVELS FOR USE CATEGORY UC4B OR BETTER PER AWPA-U1.
- E. STRUCTURAL CONCRETE REQUIREMENTS**
  1. MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE EQUAL OR EXCEED THE FOLLOWING CRITERIA:
    - a. PADS AND UNREINFORCED FOOTINGS: **3500 PSI**
    - b. REINFORCED PADS AND FOOTINGS: **3500 PSI**
    - c. SLABS ON GRADE: **3500 PSI**
  2. UNLESS PLASTICIZERS ARE USED, WORKABLE SLUMP SHALL BE NO LESS THAN 4".
  3. NO EXCESS WATER SHALL BE ADDED ON-SITE.
  4. ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE MINIMUM 5% AND MAXIMUM 7% ENTRAINED AIR.
  5. ALL REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 AND SHALL BE DEFORMED BARS WITH AN ULTIMATE YIELD STRESS OF 60,000 PSI.
  6. ALL LAP SPLICES SHALL BE CONFORM TO THE REQUIREMENTS OF ACI 318-14 CLASS 'B'.
  7. EXCEPT FOR BUILDINGS WHERE MIGRATION OF MOISTURE THROUGH THE SLAB WILL NOT BE DETRIMENTAL OR FOR SITES THAT ARE ESPECIALLY DRY, A 6 MIL POLYETHYLENE VAPOR RETARDER WITH JOINTS LAPPED 6" MINIMUM SHALL BE PLACED BETWEEN THE BASE COURSE OR SUB GRADE AND THE CONCRETE. FOR SITES THAT ARE ESPECIALLY WET, PERIMETER DRAINS SHALL BE INSTALLED AS REQUIRED IN ADDITION TO THE VAPOR RETARDER.
  8. FORMS SHALL BE CLEANED AND LUBRICATED PRIOR TO INSTALLATION OF CONCRETE. ALL MEMBERS USED TO FORM THE PERIMETER OF CONCRETE SHALL BE BRACED BY THE CONTRACTOR TO REMAIN IN-PLACE DURING CONCRETE INSTALLATION. ALL UNTREATED FORM BOARDS SHALL BE REMOVED ONCE CONCRETE HAS CURED.
  9. CONCRETE SHALL BE CONSOLIDATED BY ACCEPTED VIBRATORY CONSOLIDATION METHODS. CONTRACTOR SHALL ENSURE THAT FRESH CONCRETE OCCUPIES ALL SPACES BETWEEN ANY REINFORCEMENT, IF ANY.
  10. NO CONCRETE IS PERMITTED TO BE INSTALLED WHEN OUTSIDE AIR TEMPERATURE IS BELOW 40° F.
  11. FOR BUILDINGS WITHOUT A FLOOR SLAB, IT IS RECOMMENDED THAT A VAPOR RETARDER BE INSTALLED IN ACCORDANCE WITH NOTE 7.

Revision Number	Date	Description

Project No.	
Project Status	

Prepared For	<b>Rogers Group Inc.</b>
Project Address	<b>646 State Hwy 99, Lewisburg, TN 37091</b>

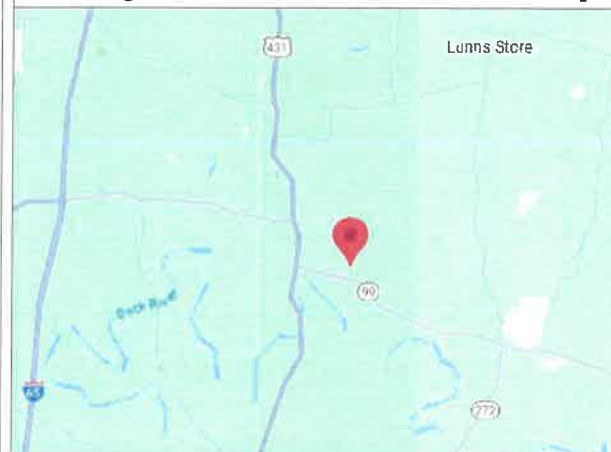
**SUMMERTOWN METALS**  
3864 Summertown Hwy.  
Summertown, TN 38483  
Phone: (931) 796-1521  
www.summertownmetals.com

Date Issued	<b>11/10/2023</b>
Scale	<b>NOT TO SCALE</b>
Drawn By	DMW
Checked By	EoR



Sheet **S.1**

## Project Location Map

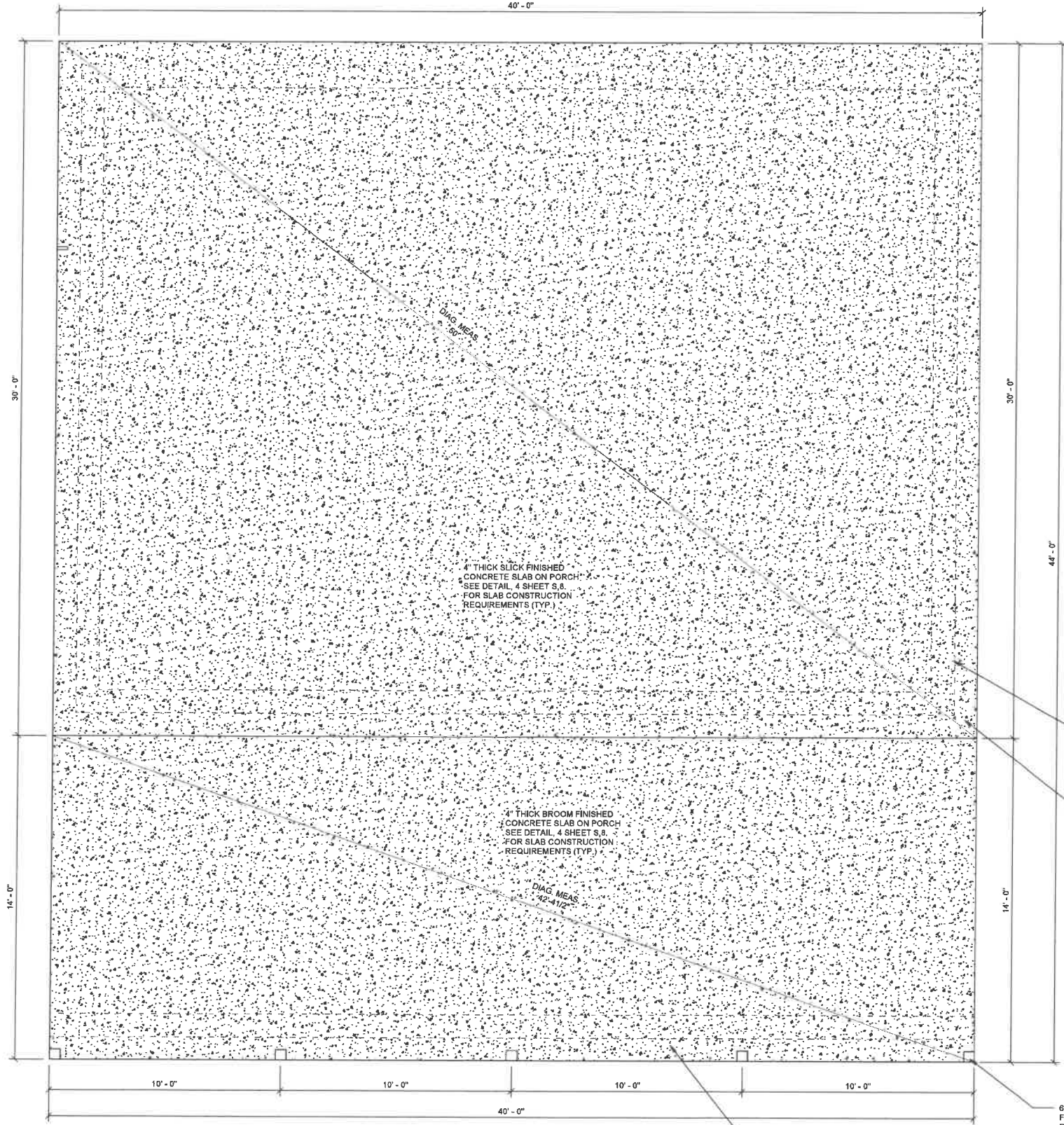




S.5

S.5

S.5



**SPECIFICATIONS AND NOTES:**

**FOUNDATION AND STRUCTURAL EARTHWORK**

- FOUNDATION ARE DESIGNED FOR A MAXIMUM NET SOIL BEARING PRESSURE OF 2500 PSF. ENSURE FOUNDATIONS AND SLABS BEAR ON SELECT FILL COMPACTED IN EIGHT INCH LAYERS MAXIMUM TO NOT LESS THAN 98% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST AASTM D998 OR ON UNDISTURBED SOIL OF EQUIVALENT DENSITY. ENSURE THE TOP 1 FOOT OF SOIL HAS A DENSITY EQUIVALENT TO THE FILL NOTED ABOVE. IF NOT, COMPACT THE SOIL TO THESE REQUIREMENTS OR REPLACE WITH SUITABLE FILL AND COMPACT.
- NOTIFY THE ENGINEER IMMEDIATELY IF UNUSUAL SOIL CONDITIONS ARE FOUND.
- DO NOT ALLOW STORED EXCAVATION MATERIALS TO DISRUPT PROPER DRAINAGE OF AREA.
- MAINTAIN STABILITY OF EXCAVATIONS UNTIL PROPERLY BACKFILLED. KEEP EXCAVATIONS FREE OF ANY LOOSE MATERIAL. Dewater EXCAVATIONS AND REMOVE AND WET MATERIAL PRIOR TO THE PLACEMENT OF CONCRETE.
- USE EXCAVATED MATERIAL AS BACKFILL IF ACCEPTABLE TO OWNER'S TESTING AGENCY. IF EXCAVATED BACKFILL MATERIAL IS NOT AVAILABLE, USE SELECT FILL MATERIAL ACCEPTABLE TO OWNER'S TESTING AGENCY.
- ENSURE GRADE IS SUCH THAT THICKNESS OF FOUNDATION, SLAB ON GRADE, ETC., IS ACHIEVED AS SHOWN ON DRAWINGS.

FINAL GRADE AROUND EXTERIOR OF STRUCTURE MUST MEET IBC 2008 REQUIREMENTS AND MUST BE AT A MINIMUM 1:10 SLOPE AWAY FROM ENTIRE PERIMETER OF STRUCTURE FOR A MINIMUM DISTANCE OF 6' AWAY FROM THE STRUCTURE IN ALL DIRECTIONS. NO STANDING WATER SHALL BE ALLOWED TO REMAIN WITHIN 10' OF EXTERIOR OF STRUCTURE.

**NOTES:**

- DIMENSIONS ARE OUTSIDE OF EXTERIOR OF SLAB AND TO CENTER OF POSTS (TYP. U.N.D.)
- SEE STRUCTURAL ELEVATIONS, SHEET S.6. FOR FRAMING REQUIREMENTS.
- CONTRACTOR SHALL OBTAIN ALL APPROVALS FROM LOCAL JURISDICTION PRIOR TO COVERING ANY FOUNDATION FOOTINGS.
- CONTRACTOR SHALL OBTAIN ALL APPROVALS FOR LOCAL BUILDING INSPECTORS PRIOR TO POURING ANY CONCRETE.
- ALL REBAR REINFORCEMENT SHALL BE INSTALLED PRIOR TO INSTALLATION OF CONCRETE SLAB.
- CONTRACTOR SHALL SAWCUT CONTRACTION JOINTS (1) DAY AFTER SLAB HAS BEEN POURED. CONTRACTION JOINTS SHALL BE CUT TO A MIN. DEPTH OF 1" & SHALL BE SPACED @ MAX. 10'-0" E.W. (TYP.)
- THE STRUCTURE DETAILED WITHIN THIS PLAN SET IS ASSIGNED TO OCCUPANCY CATEGORY 'B' IN ACCORDANCE WITH IBC 2018 SECTION 312. THIS STRUCTURE IS NOT DESIGNED FOR RESIDENTIAL USE.
- THE BUILDING DETAILED WITHIN THESE PLANS IS DESIGNED ASSUMING A 5 PSF SUPERIMPOSED DEAD LOAD & 0 PSF FLOOR LIVE LOAD ACROSS ALL TRUSS BTM. CHORDS. IF OWNER WISHES TO INSTALL A CEILING, ANY SUSPENDED DEVICE, APPURTENANCE OR ELEVATED FINISHED FLOOR FOR ANY PURPOSE OTHER THAN THOSE SPECIFICALLY IDENTIFIED WITHIN THESE PLANS, THE ENGINEER OF RECORD DESIGNATED WITHIN THESE PLANS SHALL BE NOTIFIED, IN WRITING, PRIOR TO INSTALLATION IN ORDER TO VERIFY OVERALL EFFECT ON BUILDING DESIGN. NO CEILING, SUSPENDED DEVICE, APPURTENANCE OR ELEVATED FINISHED FLOOR OTHER THAN THOSE SPECIFICALLY IDENTIFIED WITHIN THESE PLANS SHALL BE PERMITTED TO BE INSTALLED WITHOUT PRIOR WRITTEN CONSENT FROM THE ENGINEER OF RECORD DESIGNATED WITHIN THESE PLANS. IN ADDITION, VERIFICATION OF LOAD-BEARING CAPACITY OF TRUSS SHOULD BE OBTAINED FROM TRUSS MANUFACTURER AND/OR TRUSS DESIGNER. THE ENGINEER OF RECORD DESIGNATED WITHIN THESE PLANS IS NOT RESPONSIBLE FOR TRUSS DESIGN AND CAN OFFER NO GUIDANCE ABOUT THE STRUCTURAL INTEGRITY OF ANY TRUSS.

① Foundation Plan  
3/8" = 1'-0"

Current Revision	
Number	Date
Revision Table	Description
Issued By	

**Foundation Plan**

Project No. \_\_\_\_\_  
Project Status \_\_\_\_\_

**Prepared For**  
Rogers Group Inc.

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Scale: 3/8" = 1'-0"  
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Checked By: Checker



Sheet  
**S.2**

























