

October 17, 2023

Town of Montville
Planning and Zoning Department
Attn: Ms. Liz Burdick



Re: Gateway and Marine Materials Management
125 Depot Road
Uncasville, Connecticut 06382

Greetings:

Marine Materials Management, LLC ("M3") has reviewed the Memorandum for the Record prepared by Ms. Burdick dated 10/07/2023. Below are specific responses and attached are related supporting information and modifications to the application materials.

A. TOWN ENGINEER - Comments and Responses

1. The submission plans are graphic and contain no details of the proposed construction, such as the several bins, silo's, temporary dock improvements, etc.
 - a. *Sheet 8 entitled, "Details" has been prepared and is included in the attached submittal. All equipment (standard excavators, conveyors, silos, batch plant, and specialty mixing tools including the pugmill) and ancillary/support equipment (generators, air compressors, water tanks and spill containment) are portable and mobile and will be deployed to their required locations and/or position onsite on a project-by-project basis. We have attached additional information regarding the pugmill specialty equipment anticipated for larger project throughputs.*
 2. The proposed development must be coordinated on plan Sheets 4 thru 8.
 - a. *Acknowledged and completed.*
 3. The traffic report states 12 employees, there are seven parking spaces shown.
 - a. *The drawings have been modified to show the original 7 plus 12 additional parking spaces.*
 4. The unloading area at receiving Bin 1 must be shown in cross-section. The unloading ramp appears to be impractical.
 - a. *Further details of the unloading area at receiving Bin 1 have been developed and shown (including cross-sections) in the attached drawings. Access to the center isles of the bins and equipment on the north/northeastern side of the site shall be maintained.*
 5. The location of the storage of 10,000 CY of dry material must be shown on the plans.
 - a. *For dry material that can be stacked up, we anticipate the ability to store up to 10,000 CY within the curing bins. If the moisture of the material in the bins is uneven (e.g., some material is dry and some may be wetter) we would temporarily stockpile dry material to the west of the bins, on 6-mil poly*
-

sheeting and covered with poly in the event of precipitation. The sheeting will be secured with hand placed weights. The location of the Bins and temporary storage area are shown in the attached drawings. The total onsite storage would not exceed 10,000 CY at any one time.

6. Access to the several pieces of equipment on the northerly side of the site is not evident.
a. Access routes and added requirements to maintain access have been presented in the revised drawings.
7. Is there a water supply for vehicular and equipment washdown?
a. We have added an area onsite for vehicle inspection and vehicular cleaning if necessary. Careful loading and subsequent inspection will be the first action. Physical removal of material by brush or shovel will be performed next if necessary. Trucks that may require wet wash will be limited and performed in a portable secondary containment area shown on the drawings. Water and supplies will be mobile as well (I.e., tank trucks). Water will be collected and managed (characterized and recycled and/or disposed of) according to local, state and federal requirements.
8. A description of method(s) to control odor and noise must be added to the plans.
a. An Odor Control Plan and Noise Control Plan are attached.
9. The E&S controls must be enhanced, including protection of catch basin inlets, riprap swales, drainage inlet units. Access to the catch basins and hydrodynamic separators must be free and clear. Additional waddles along the perimeter of the site and details of the methods and materials must be added to the plans.
a. The above comments have been included in the drawings.
10. The E&S bond amount should reflect a more complete E&S control.
a. A revised bond estimate letter is attached.

B. FIRE MARSHAL - Comments and Responses

1. Review comments pending.
a. We have removed the request to add the 2000 diesel fuel AST from the plans. All machinery refueling will be completed by a licensed fuel transporter and trained operators.
b. Equipment noted on Sheet 4 with fuel tanks located within the regulated flood hazard area will be either anchored, or placed on temporary dunnage so that tanks are maintained above 11.00 ft msl.

C. COASTAL AREA MANAGEMENT (CAM) STCT DEEP LWRD - Comments and Responses

1. FEMA compliance for the proposed equipment noted in the plans (above ground storage tank), stormwater and water quality as the drainage and catch basins on the upland do not appear to be clearly shown on the plans and there are areas that outlet directly to the Thames River.
a. We have removed the 2000 diesel fuel AST from the plans. All machinery refueling will be completed by a licensed fuel transporter and trained operators.
b. Equipment noted on Sheet 4 with fuel tanks located within the regulated flood hazard area will be either anchored, or placed on temporary dunnage so that tanks are maintained above 11.00 ft msl.
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D. STCT DEEP SOLID WASTE - Comments and Responses

Comments from the Town of Montville regarding Demonstration Project 202107450 are below. Additional comments (if any) solicited by the Town from the State are pending.

1. Applicant shall provide further information regarding “contaminated dredged soils” referenced in the approval letter.
 - a. *Dredged material management is one of the most regulated programs in environmental management. All dredged material must be tested for either open water aquatic disposal and/or tested for upland placement. Dredged material that cannot be placed in open water is the dredged material that will be processed by cement stabilization at the site and transported to Authorized upland placement sites such as active Brownfield or Landfill sites depending on the dredged material that has been pre-tested in the arriving dredge scow.*

Long Island Sound (LIS) open water placement of dredged material is different than upland disposal and/or beneficial reuse, specifically in the risk profile with respect to “contaminants”. The risk pathway in open water placement must account for bioaccumulation potential (exposure) in aquatic species. This can occur and as a result magnify sediments toxicity (survival vs mortality) further up the food chain. As a result, open water placement “contamination” levels can be extremely low. They are particularly low when compared to upland reuse or disposal because there is a dramatically different risk profile for exposure. Specifically in upland applications, there is no multiplication of the toxicity (if any) because of bioaccumulation potential from the food chain. Secondly, the material is processed with Portland cement, which binds contaminants and immobilizes them, preventing movement in the environment and exposure. Finally, the material is often of very low permeability and used as a cap or placed beneath a low permeability cap. This reduces rainwater infiltration and migration/exposure. As a result of these differences, the allowable concentrations of sediment for upland placement are higher than open water placement options.
 - b. *Depending on the constituents in the sediment, there are thresholds where the material requires special handling and/or disposal as RCRA hazardous waste or TSCA related PCB waste. THIS FACILITY WILL NOT ACCEPT RCRA HAZARDOUS WASTE nor TSCA PCB waste.*
 2. The Applicant, at the 9/26/23 regular meeting of the PZC, stated that there would be no dredged materials stored on site. The approval allows storage up to “5000 CY of unprocessed dredged sediment at any one time” and storage of “no more than 100 CY of unacceptable material in roll-off containers.” Please confirm there will be no dredged materials stored on site.
 - a. *It is the intention that for all dredged material that will be processed through Gateway Montville it will have an upland placement site secured to be transported to. Once the dredged material cures in the holding bins, typically within 24 hours, and passes the “paint filter test” it is coordinated to be transported off site. There will be no dredged material received and/or stored on site for any extended period of time that does not have a final upland placement alternative. In fact, a fundamental requirement of the operations is that processed dredged material moves as quickly off-site as possible to allow subsequent dredged material to be received at Gateway Montville.*
 3. Please provide a copy of the contingency plan for corrective measures for various items required per condition 10 of the approval.
-

- a. A copy of the Contingency Plan for the project is attached.*
4. Provide a copy of the odor control plan required per condition 12 of the approval.
 - a. An Odor Control Plan is attached.*
5. Provide a narrative showing how the operation will ensure unpermitted discharges to air, water or other natural resources, create a public nuisance or present a significant threat to public health, safety or environment per condition 13 of the approval.
 - a. As with any environmental project there are unforeseen circumstances where possible releases to the environment can occur. The Contingency Plan will be enforced and site activities monitored (and updated when needed based on operational awareness) along with the Health and Safety Plan employing Best Management Practices (BMPs) will mitigate any nuisance and/or significant threat to human health and the ecosystem.*
6. Confirm the requirement of condition 15 to provide proposed physical or operational improvements to DEEP Commissioner for review and written approval has been satisfied.
 - a. A copy of CT DEEP correspondence is attached.*
7. The Demonstration permit expires January 5, 2024. Advise if an extension has been granted by the Commissioner to operate after said date.
 - b. A copy of CT DEEP correspondence is attached. TPRG has pre-coordinated (October 9) the transmittal of the request to the Commissioner with the CT DEEP Bureau of Materials Management and Compliance Assurance Waste Engineering and Enforcement Division. They have advised TPRG of the transmittal process with a copy going to the Division who will review it.*
8. The NDDB Determination Number 202110181 expired 10/1/23. Please advise the affect of this expiration on the Demonstration Permit.
 - a. A copy of CT DEEP correspondence is attached.*

E. BOND - Comments and Responses

1. An E & S Controls Bond estimate of \$2,327.60 shall be reviewed and approved by the Town Engineer.
 - a. Attached is a revised bond estimate of \$3,487.00 for review and approval.*

Should you have any questions regarding this information, or require additional information, please feel free to contact me at (203) 858-4034.

Sincerely,

Marine Materials Management, LLC

A handwritten signature in black ink, appearing to read 'Alfred N. Kovalik', with a stylized flourish at the end.

Alfred N. Kovalik
Managing Member

cc: M. Rose (M3)
E. Stern (TPRG)

Attachments:

- Revised Drawings
- Odor and Noise Control Plans
- Contingency Plan
- Pugmill Cut Sheets

ODOR CONTROL PLAN

Prepared by: Marine Materials Management, LLC

Date: 10/10/2023

1. Approach

Purpose of this Plan is Develop a Comprehensive Odor Control Strategy for the Montville Gateway Site.

2. Tier 1: Prevention

Monitor and Manage Material in Onsite Bins to Cover Odorous Materials with less Odorous Materials to the extent Practicable.

3. Tier 2: Mitigation

A. Cover Dredged Material Piles:

- Use heavy-duty, UV-resistant, and impermeable tarps designed for odor control.
- Secure covers using durable fastening methods (ratchet straps, bungee cords).
- Schedule regular inspections:

C. Inspect covers for tears, gaps, or damage

D. Ensure proper anchoring and sealing

E. Repair or replace covers as needed

B. Apply Odor Control Foam:

- Use biodegradable and environmentally safe foam products
- Apply foam evenly to the entire surface of stockpiles
- Adjust foam application rates as necessary
- Maintain records of foam application, including location, date, and quantity used

4. Monitoring

Investigate Unusual Odor Occurrences and Conduct root cause analysis for any unexpected odor events. Implement corrective actions, such as increased foam application or enhanced cover measures. Monitor weather conditions and windspeed / direction with an onsite mounted windsock.

5. Reporting

- A. Document any odor exceedances or unusual incidents in the onsite field logbook.
- B. Maintain a detailed log of all odor-related incidents, responses, and corrective actions taken
- C. Develop a standardized format for incident reporting and record-keeping

6. Evaluation and Adjustments

A. Conduct periodic reviews of odor control effectiveness:

- Analyze data to assess trends and potential improvements
- Perform quarterly performance assessments

B. Modify control measures as necessary to ensure compliance and minimize community impact:

- Adjust foam application rates
- Modify tarp coverings
- Update action thresholds

C. Periodically engage an independent third party to conduct audits and provide recommendations for improvements.

8. Training

A. Provide comprehensive training to all personnel involved in odor control:

- Proper operation and maintenance of monitoring equipment
 - Full understanding of regulatory requirements
 - Proficiency in emergency response protocols
 - Detailed record-keeping procedures
-

Noise Control Plan

Prepared by: Marine Materials Management, LLC

Date: 10/10/2023

1. Introduction

The purpose of this plan is to comprehensively monitor and effectively mitigate excessive nuisance noise from the site associated with M3 activities.

2. Scope of Work

- A. Activities: All heavy construction activities taking place within the project area.
- B. Timeframe: The plan covers the entire duration of activities of offloading, processing, loading and transportation.

3. Noise Sources Identification

- A. Identify sources of potential excessive noise. A list of potential sources proposed are:
 - Heavy machinery (excavators, bulldozers, etc.)
 - Power tools
 - Truck deliveries
 - Generators
- B. Rented and purchased equipment for project execution will be selected to include noise reducing models, mufflers, and accessories. Prioritize sources based on noise levels.

4. Enhanced Noise Level Monitoring

- A. Utilize advanced sound level meters and real-time monitoring systems when excessive noise is possible or being experienced onsite:
 - Install meters at strategic locations
 - Continuously monitor noise levels during activities
 - Record periodically and display noise levels in decibels (dB) in real-time

5. Proactive Noise Control Measures

- A. Implement proactive noise-reduction techniques:
 - Schedule noisy activities during permissible hours (typically 7 am to 7 pm)
 - Utilize quieter/efficient equipment models
 - Conduct regular maintenance to reduce noise emissions
 - Employ noise-reducing technologies such as noise barriers and acoustic enclosures around specific equipment and/or motors as needed
-

- Provide soft bumpers on onsite dump trucks to minimize noise during offloading using this option to the Bins
- Implement a 3-minute no-idle requirement on site

6. Documentation and Record Keeping

A. Maintain records to facilitate continuous improvement:

- Archive noise level monitoring data, including real-time records
 - Document noise mitigation actions taken and their effectiveness
-



CONTINGENCY PLAN

for

Montville Transloading and BlueTech Innovation Center

125 Depot Road, Montville, CT 06382

REVISED

Application No: 202107450

SWDP Approval No: 08601340-DP

Submitted to:

Connecticut Department of Energy and Environmental Protection
(CT DEEP)
Hartford, Connecticut

Submitted by:

Tipping Point Resources Group, LLC
New Haven, Connecticut

Date Submitted:

04 April 2022
05 January 2023 (Updated)
2 August 2023 (Updated)
17 October 2023 (updated removed onsite diesel fuel AST)



Tipping Point Resources Group, LLC
2 Poplar Street, P.O. Box 8532
New Haven, Connecticut 06531-0532
Corporate: (800) 603-8902
Web: www.TPRGLLC.com

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The purpose of this document is to provide a description of operations and associated contingency planning for work at 125 Depot Road, Montville, Connecticut. The site is leased by Gateway Terminal, Inc. for use as a land-rail-marine transloading facility. Gateway operations at the site primarily include road salt products. Marine Materials Management, LLC (M3), a newly formed Connecticut-based company and TPRG affiliated company, holds a sublease and approval to perform expanded operations onsite at Gateway. M3 and Tipping Point Resources Group, LLC (TPRG) will manage other marine construction products including large rock for revetments, sand and stone, as well as sediments as described in detail in this document.



Emergency Contact and Notification List

Below is an organization chart for the site and a list of emergency contacts for the site.



Table 1. Emergency Contact List

Emergency Contact List				
Company	Name	Title	Mobile Phone	Office Phone
BlueTech/Tipping Point Resources Group/Marine Materials Management	Alfred Kovalik, PE	Partner, TPRG/M3	(203) 858-4034	(800) 603-8902 ext. 2
	Mike Rose	Partner, M3	(508) 431-3071	
	Eric A. Stern	Partner, TPRG	(201) 247-3281	(800) 603-8902 ext. 1
	Alex Freimuth	Operations Support	(914) 645-0065	(800) 603-8902 ext. 6
	Heather DiBerardino	Office Manager	(203) 231-0163	(800) 603-8902
Gateway Terminal, Inc.	Gregory Baribault	Vice President, Strategic Planning & Development	(203) 895-6367	(203) 467-1997
	Mark Augur	Co-Chief Operating Officer	(203) 619-2022	(203) 467-1997

Table 2. Notification List - Federal, State, and Local Agencies

List of Federal, State, and Local Agencies		
Name	Emergency Phone	Non-Emergency Phone
United States Coast Guard	(203) 468-4404	
Montville Fire Department (Emergency)	911	(860) 848-8070
Montville Fire Marshal	(860) 848-3030	
Montville Police (Emergency)	911	(860) 848-7510
State Fire Marshal – Hartford, CT	(860) 713-5750	
Connecticut State Police – Troop E	(860) 848-6500	
National Response Center – USEPA	(800) 424-8802	
Connecticut DEEP – 24-Hour Spill Response	(860) 424-3338	
State Emergency Response Commission – SERC	(860) 424-3373	
RCRA Hotline (Spill Cleanup Information)	(800) 424-9346	
Occupational Safety and Health Administration – OSHA	(203) 579-5581	
Hartford Healthcare Backus Hospital (Emergency Services) / 11 miles/15 mins	(860) 823-6389	
Yale New Haven Health Lawrence + Memorial Hospital (Emergency Services) / 11 miles/20 mins	(860) 442-0711	

Table 3. Notification List - Additional Contacts

List of Additional Contacts		
Name	Emergency Phone	Non-Emergency Phone
Insurance Representative: Vin Falcigno	(203) 314-3400	
Center for Disease Control – CDC	(404) 633-5313	
Montville Water Authority	(860) 848-7094	
CompuWeather (contract Weather Information)	(800) 825-4445	
Local Television Station: WTNH Channel 8	(203) 784-8888	

Introduction

Tipping Point Resources Group, LLC (“TPRG”) has prepared this Contingency Plan to support activities related to the Connecticut Department of Energy and Environmental Protection (“CT DEEP”) Solid Waste Demonstration Project Authorization received on January 5, 2022. Revisions in this document include:

1. the addition of complementary stabilization mixing tools,
2. offloading alternatives on the North and South Piers,
3. improved onsite operational layout and
4. the addition of new key personnel with particular expertise and operational experience in sediment management and processing.

Stabilization and dredged material processing with a preference of beneficial upland reuse will be performed per the authorization and in accordance with additional CT DEEP guidance in particularly with the deployment of additional technologies and enhancing flexibility and controls on onsite operations.

The BlueTech Innovation Center affiliation and moniker will provide an enhanced opportunity to consider and evaluate new and innovative technologies. By the addition of more classic operations such as pugmill mixing, baseline operations at the site can compete as a hub for New England’s first regional sediment management program providing a selection of alternative beneficial re-use options (at brownfields and other locals) for historically poor geotechnical quality dredged materials. By combining proven and innovative technologies, experienced personnel, and industry experts to improve the material with Portland cement (and other binders), an improved quality engineered fill to address regional brownfield capping needs is produced/manufactured for related construction opportunities.

Only stabilization tools shown in this document will be used. We do not currently have any plans to add additional technologies. However, if from BlueTech’s efforts additional methods of processing are suitable, we may propose to the State and Local authorities for an evaluation and consideration via formal application or modification requests.

The vision of a BlueTech Innovation Center is to leverage Tipping Point’s innovation and technical experience together with solid contracting expertise to catalyze the growth of multiple, maritime dependent technology companies at the Montville/Uncasville, Connecticut location.

This Contingency Plan “describes corrective measures to be taken in the event of equipment breakdowns, delivery of unacceptable materials, spills, fires, extreme weather or other events.” It has been prepared to address the corrective measures that will need to be immediately



implemented and completed in case any events occur that may affect the operation of the processing facility. This plan will be kept on-site at the Thames River Facility processing site (located at 125 Depot Road, Montville, CT) and updated as the project continues to ensure adequate planning for potential events that could impact operations.

Marine Materials Management (M3) and BlueTech/TPRG will be operating with Gateway Terminal, Inc. (“GT”) and will coordinate all responses to spills and/or releases with GT.



Process Background

The M3/TPRG sediment processing location in Montville, CT has the capability of processing up to 2,500 cubic yards (yd³) of sediment per day, based upon processing rates specified in the Solid Waste Demonstration Project Approval (SWDP Approval No. 08601340-DP). There may be periods of lower processing rates depending on project dredging operations and the dredging contractor's ability to provide material. During operations, M3/TPRG will coordinate all movement of barges, scows, trucks, and equipment with GT personnel. This Contingency Plan will be kept on site in the office trailer adjacent to TPRG processing operations. Address and contact information for principal GT and TPRG personnel are provided in Table 1.

Table 4. Operations and Site Lessee Details

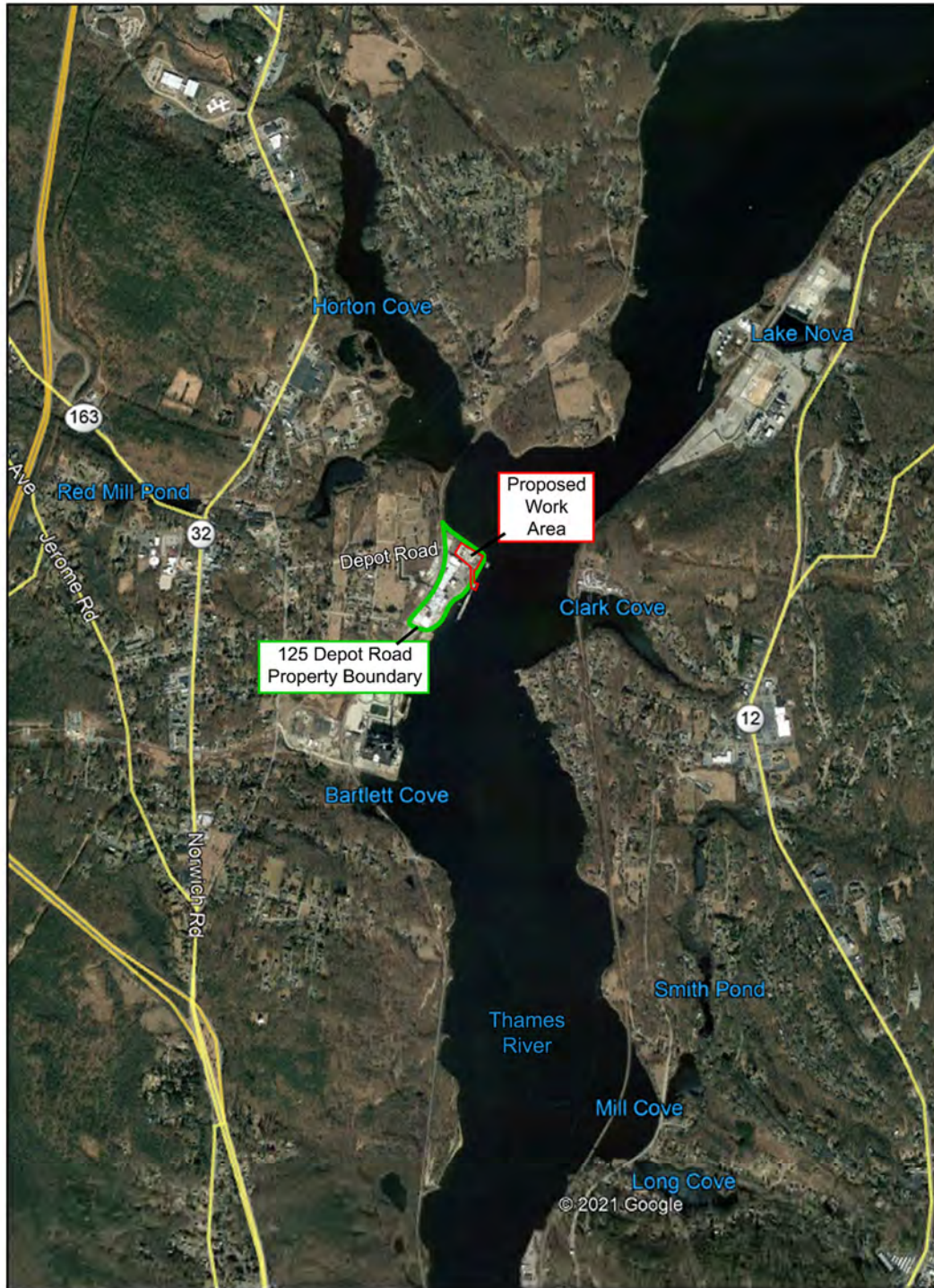
Site Lessee Address and Information	Address and Information
Gateway Terminal, Inc. 125 Depot Road Montville, CT County: New London Phone: (203) 467-1997	Tipping Point Resources Group, LLC P.O. Box 8532 New Haven, CT 06513 County: New Haven Phone: (800) 603-8902
Site Lessee - Principal Contact	Owner – Principal Contact
Greg Baribault Vice President, Strategic Planning & Development Phone: (203) 895-6367	Alfred Kovalik, PE Partner Mobile: (203) 858-4034
Sublessee: Marine Materials Management, LLC (M3) Alfred Kovalik, PE Phone (203) 858-4034	Mike Rose Partner (M3) Mobile: (508) 431-3071

Sediment processing operations will be limited to a subsection of the 125 Depot Road, Montville, CT property. Figures 1 and 2 detail this designated area and the proposed Thames River Site layout.

This Contingency Plan has been prepared to address equipment issues, delivery of unacceptable sediment for processing, environmental releases, extreme weather, and transportation delays. It is limited in scope to contingencies for processing operations at the Thames River Facility.

In the case of unforeseen events occurring onsite that result in unsafe or suboptimal operating conditions for the systems or personnel, operations will be halted and problem remedied in order to continue operating in a safe manner.






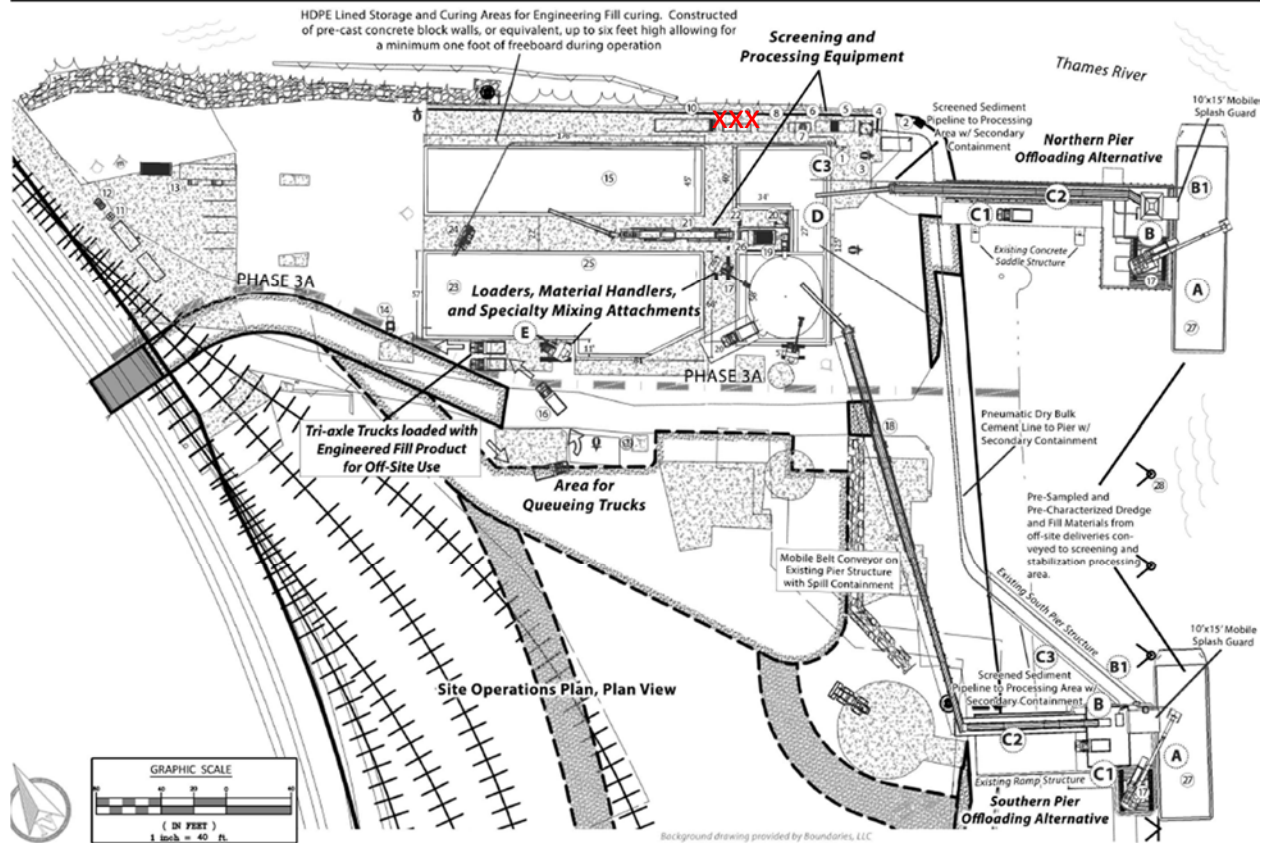
TIPPING POINT RESOURCES GROUP, LLC 2 POPLAR STREET NEW HAVEN, CT 06513 (800) 603-8902 WWW.TPRGLLC.COM	DATE 05/24/2021 VERS. 1.2	PROJECT TITLE	Connecticut Solid Waste Demonstration Project Registration 125 Depot Road, Montville, CT 06382 Attachment B Facility Site Plan Figure 1 - Area Overview	
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Figure 1. Site Location



Equipment List

1. Pneumatic Flow Tube Mixing Tool (PFTM)
2. Mobile Equipment Control Center
3. Mobile Light Stand (typ)
4. Mobile 60 Ton Cement Silo*
5. Mobile Air Compressor *
6. Mobile Cement Batch Plant*
7. Grout Pump
8. 600kW Mobile Generator* (typ)
9. ~~10'x15' Mobile Splash Guard~~
10. 21,000gal Water Storage Frac Tank
11. Sanitary Facilities
12. 2CY MSW Dumpster
13. Field Office
14. Skid Steer (typ)
15. Engineered Fill Storage Area during Curing
16. 22 Ton Tri-Axle Dump Truck
17. Material Handler / Excavator with option for Specialty Mixing Head(typ)
18. Mobile Sediment Materials Conveyor w/ Spill Protection
19. Mobile Bar Screener
20. Mobile Binder Silo
21. Mobile Pugmill
22. High Solids Sediment Pump
23. Placement of Amended Processed Material and Storage for Aggregate
24. Telehandler
25. Engineered Fill Material Curing Bin
26. Oversized Screened rocks, wood, and other dredged material
27. Hopper or Deck Barges
28. Temporary Dock Improvements for Receiving Barges

*Anchored

Figure2 - Site Overview and Designated TPRG Work Area

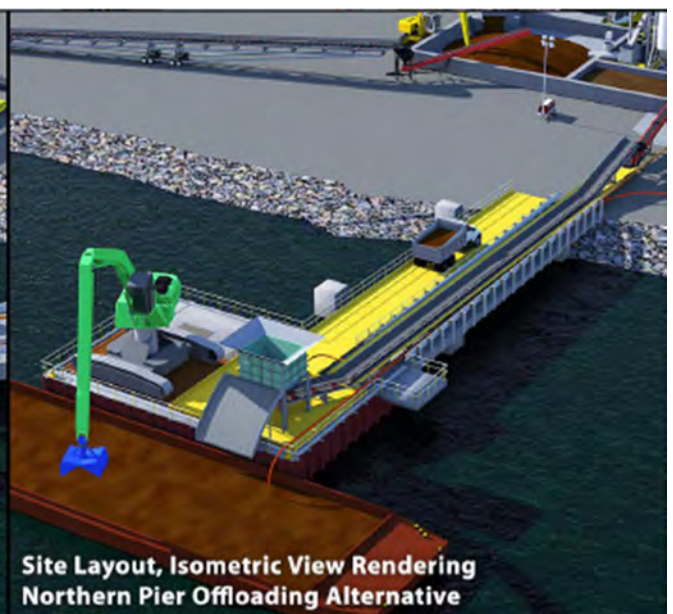
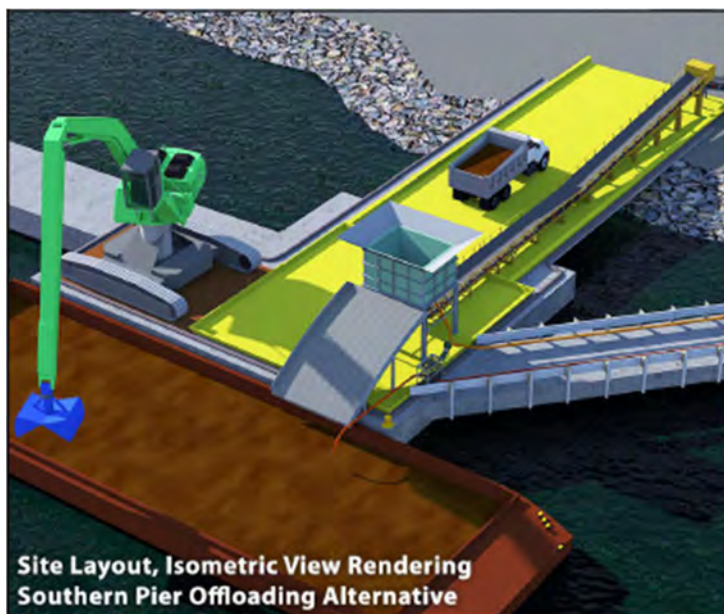


Figure 2. Isometric Site Renderings

Stabilization Technology & Equipment Breakdowns

Overview

Several mixing tools will be used onsite that may include a Pneumatic Flow Tube Mixing (PFTM) system, a standard pugmill system, and Allu™ style mixing head attachments on standard excavation equipment and in-barge stabilization. Each of these techniques for stabilizing pre-screened (chemically and geotechnically) sediments can be used to produce engineered fill products for use in offsite construction. The amended dredged material sets up as a granulated stiff clay that can be re-worked with earth moving equipment within 24 hours of placement. It does not set up as a concrete monolith.

Figure 3 provides a simplified system process flow diagram that can be used to identify individual equipment and the corrective actions required to safely restore system operations.

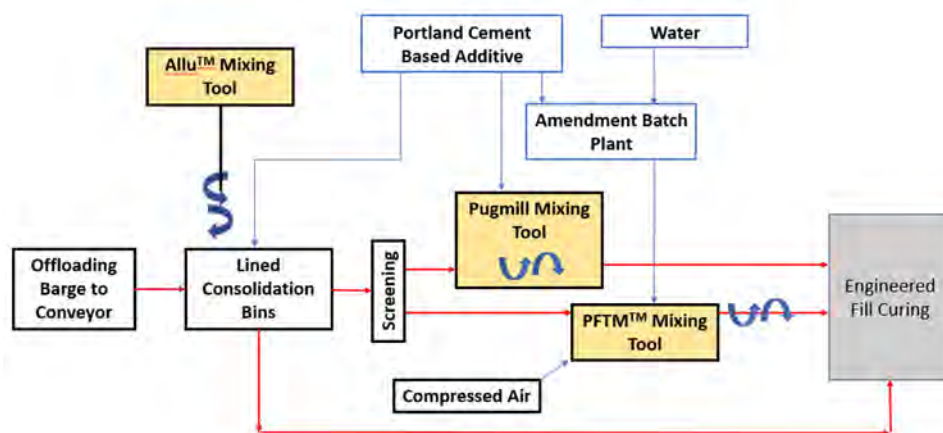


Figure 3. S/S Process Flow Diagram

As shown in Figure 2, the general processes are:

General Process

- A. Secure Hopper Barge to Dock
- B. Prepare for Offloading
 - Excess Water Management
 - B1) Portland Cement Addition
 - B2) Pump Water
- C. Offloading
 - Option C1) Truck Material to Bins
 - Option C2) Conveyor Material to Bins
 - Option C3) Slurry Pump Material to Bins
- D. Stabilize Material with Portland Cement and Cure
- E. Load Material and Transport Offsite

Item B, Prepare for Offloading, is a step that will help manage water in incoming barges so that materials transferred from the barge to the land are performed in the most efficient manner. Excess water will be pumped to an onsite frac tank for recycling in the Portland cement batch plant operations. Dry pneumatically delivered Portland cement will be accessible to the dock for in-barge mixing to stiffen the barges should conveyors be used to transfer materials.

Item C, Offloading will be at the discretion of the operators based on the material consistency, the desired processing scheme considering incoming material characteristics and outgoing requirements. There are three options incorporated into the plans as shown above.

For each project, a mobile spill containment berm and splash guard will be deployed in the areas of material transfer on the dock. Dryer materials will likely be processed using the Allu mixing heads or pugmill. Wetter materials will likely be processed using the PFTM, or equivalent technology. The PFTM process was designed to be a reliable and resilient processing system, as a result of fewer moving parts and a smaller overall process footprint. However, equipment failure is still possible due to the nature of processing wet sediments with a Portland cement slurry, especially at high processing rates.

All personnel will be trained on the safe and proper use of equipment. Only experienced and trained personnel already familiar with the processing will operate and maintain the processing equipment.

Equipment inspections, incident reports, and corrective actions will be documented via field notes and the forms provided as Attachments to this Contingency Plan.



1. Vibratory Grizzly Screener

The “Grizzly” is a vibratory shaker screen, driven by electric motors, that screens out oversized debris from the received dredged material. It is the “front-end” of the M3/TPRG processing operations. Sediment that passes through the screen is collected in a surge tank/hopper directly beneath the Grizzly to be pumped through a sediment slurry process such as the PFTM technology. The screened-out debris is directed to roll-off dumpsters, where it can be segregated and disposed of appropriately (according to waste characterization).

The Grizzly (or similar smaller-capacity screening system) is an essential part of front-end material handling operations for a slurry and pugmill processes. As a result, redundant system components (including extra motors and plates) will be stored onsite and local contractors will be identified for immediate part replacement capabilities, in case of an equipment failure. While a breakdown would cause delays in material processing and project scheduling, there is no danger of a dredged material release if the Grizzly breaks down.

In the case of Grizzly/vibratory screen failure, dredged material loading activities will cease and the equipment will be safely assessed to determine the cause of failure. Any close-up inspections or mechanical replacements/repairs will take place only once power has been cut off from the equipment. Operations will not resume until all personnel are at a safe operating distance from the moving equipment parts and the identified cause of failure has been fully addressed.

2. Sediment Pumps

The sediment pumps are positive displacement electric pumps that are designed to pump relatively high-viscosity fluids or fluid mixtures (slurries) - in this case, sediment. The sediment pumps transport sediment from the hopper located beneath the Grizzly screener into the PFTM or other slurry/in-line processing pipeline. Critical pump replacement parts will be kept on-hand, to be installed in case of pump breakdown.

In the case of sediment pump failure, loading of the Grizzly/vibratory screener will cease to avoid overfilling the sediment hopper. The pump will be safely assessed to determine the cause of the failure. Any close-up inspections or mechanical replacements/repairs will take place only once power has been cut off from the sediment pump. Loading operations will not resume until the sediment pump has been repaired or replaced and is fully operational again.

3. Computer System and Associated Sensors

Computer systems and sensor “feedback loop” are some of the most important elements that make sediment slurry process flows efficient and sophisticated, compared to other sediment processing methods. In the case of a computer system or sensor failure, operations must automatically cease for the entire system. This may result in processing delays but will not cause a release of any sort.

The computer system will be operated and maintained in a temperature-controlled environment (work trailer) and kept safe from security- or weather-related issues. The computer system and associated sensors will undergo routine calibration and performance checks, and knowledgeable personnel (technical experts) will be onsite or available remotely to troubleshoot performance issues or breakdowns. If access must be provided to sensors housed within the processing equipment, operations will cease, and the system will be de-energized prior to any close-up inspection or sensor handling for repair. System operations will not resume until the computer system and sensors have been restored in a safe and effective manner.

4. Cement Plant

A cement silo and batch plant are used to prepare the Portland cement slurry that is injected into PFTM processing equipment or for dry powder addition for allu mixing/pugmill for sediment stabilization. They are standard modular plant and can be replaced and/or swapped out quickly, as necessary. Similarly, cement silos are used to store and supply cement powder onsite and are considered standard equipment.

Potential leakage will be monitored and ascertained visually by onsite personnel, as well as by computer operations “accounting” for raw material volumes. Once identified, any cement raw product will be contained, cleaned up, and disposed of properly.

5. PFTM Mixing Tool and Pipes

The PFTM mixing tool is a patented, modified steel pipe that is extremely durable and not expected to experience significant wear. The pipes within which the sediment plugs are transported are primarily steel pipes that can be separated into isolated sections for cleanout in the event of a clog. HDPE piping may also be used. Based on the experience of PFTM operations in Japan, it is anticipated that these pipes have very low failure rates. Typically, these steel pipes are replaced once per year under long-term continuous use operations. HDPE will be monitored for excessive wear and changed accordingly.

Small sections of the processing pipeline may be constructed of corrugated vacuum hose, rather than steel pipe, to allow flexibility. Additional hose will be kept onsite to replace any sections that may become compromised due to wear and use over time.

6. Ancillary Equipment

Additional standard pieces of equipment, such as air compressors and generators, will be required to supply power and materials to the PFTM and Pugmill systems. These pieces of equipment will be maintained according to the manufacturer's recommended maintenance schedule, and records of maintenance and inspections will be kept onsite as part of the permanent equipment record for facility operations. This equipment is standard and widely available for rent. In the event of failure, replacement rental unit(s) will be delivered, and the broken-down unit(s) will be transported offsite for repair.

Based on its extensive use in Japan over the last two decades as well as the 2015 New York/New Jersey Harbor commercial pilot demonstration, the PFTM system has been demonstrated to be reliable and rugged with very few incidents of equipment breakdown.

Daily processing reports will also be prepared and kept onsite as part of the facility's operating record. These reports will include daily tailgate/safety briefings to discuss planned operations as well as safety and contingency improvements (i.e. "Lessons Learned").

Other Stabilization Technologies

In alignment with recent allowances to the Griswold, Connecticut site BUD and other upland placement sites (eg., landfill caps), additional stabilization mixing tools and techniques will be used at the site. The equipment comprising these technologies will be integrated onsite to meet project, market and mixing needs. For emphasis, only material with testing meeting State, Local, and Federally criteria at approved sites will be handled. This will be determined and documented prior to acceptance at the site.

Delivery of Unacceptable Materials

For any project to be considered and contracted for sediment processing, we must first be provided documentation of the dredged material characteristics. The results of sediment characterization sampling will be evaluated and compared to the upland placement criteria defined by the end-use site's Beneficial Use Determination (e.g, Griswold Triangle Wire Site) or applicable solid waste regulatory criteria (e.g., landfill).

Any project material that is reasonably expected to not be in compliance with project end use criteria will be managed as follows. An alternative disposal location, as appropriate based on the material characteristics, will be identified for unacceptable project dredged material during the project's planning phase, so that material can be transported to an appropriate upland location or facility minimizing delays.

In terms of physical material properties, it is possible that sediment may be delivered to the site with an unacceptably high water content, a direct result of typical dredging operations. We will work closely and directly with project dredging contractors to identify and enforce the acceptable limits to sediment water content. While the systems can adjust Portland cement dosages in real-time to effectively stabilize sediment with a range of water contents, it would be wasteful and inefficient to attempt to process material that contains significantly more water than solids. Ultimately, we will either reject sediment deliveries that contain too much water or require that the dredging contractor decants the excess liquid prior to receiving the sediment. We may collect the excess water on the barges for use in the cement batch plant operations, thereby recycling the water without the need for discharge or disposal. We will work directly and communicate with the dredging contractor(s) to minimize high water content scows.



Releases/Spills

Very few potential releases could result from processing activities at the Site. These would include:

- 1) Release of fuel used to power the generators, air compressor fluids and loader;
- 2) Release of sediment, either by human error in loading operations or by a breach in the PFTM system or Pugmill, or Allu Mixing Systems; and
- 3) Release of Portland cement slurry due to a breach in the batch plant or delivery lines.

Site personnel and subcontractors involved in the work will be required to complete Health & Safety and spill prevention/contingency training prior to site work.

Incident reports and corrective actions for any release events will be documented via the forms provided as Attachments to this Contingency Plan. Once completed, digital copies of the forms will be submitted to TPRG management, and the original hard copies will be kept onsite as part of the facility records.

1. Fuel Spills

The primary route for potential diesel fuel spills will be during fueling operations for heavy equipment, such as the material loader, generators, and air compressors. Refueling will occur upland, at a safe distance from the water, and will be completed during breaks in active processing operations. Active spill response equipment, including absorbent materials, will be stocked and available onsite. Standard procedures for fueling operations will also include the inspection of valves to identify any leakage or improper connections both a) prior to initiating fuel transfer, and b) during fuel transfer operations.

Once the refueling is completed, a final inspection will be conducted to ensure that there are no loose connections, and the immediate areas will be inspected for the presence of fuel and/or oil. In the event of an observed leak or spill, site personnel will use absorbent materials and shovel/sweep up and dispose of the material properly while wearing proper PPE (identified in a site-specific Health and Safety Plan).

In the event of a large release, Site personnel will notify and follow GT's spill response procedure. Affected site operations will cease immediately, and the appropriate agencies and emergency contacts will be notified.



2. Dredged Material Release

Material will be offloaded and conveyed to lined consolidation bins on the waterfront in front of the South and/or North Piers. Spill Guards and secondary containment will be placed in areas of material transfer from the barge to either the conveyor system or trucks. Materials handling from the secured bins may include S/S via PFTM, Pugmill or mixing head operations. For the PFTM system, prescreening using a Grizzly screener is the first, often throughput-limiting, step in the PFTM materials handling process. As a result, highly trained or expert machine operators will be assigned to this role. Loading operators will be trained on the expectations for safe and careful loading of dredged material into the Grizzly screener. Due to the wet nature of the sediment, splash guards and/or secondary containment will also be installed around the material transfer area to prevent possible releases.

In the event of sediment release, whether by human/operator error or splashing beyond secondary containment, site personnel will shovel/sweep up the material while wearing proper PPE (identified in a site-specific Health and Safety Plan) and dispose of it properly - most likely back into the scow or containment bin with the remaining unprocessed dredged material.

A far less likely scenario for potential sediment release would be the rupture or breach of the PFTM system processing pipeline. The processing pipeline consists of approximately 300 feet of steel pipes and up to 50 feet of corrugated vacuum hose, with sections securely attached to each other. Pipeline assembly and operation will occur on land. Any leakage or releases from the system will be addressed as stated above.

Front-end pre-screening for oversized materials is less important for standard pugmill and mixing head applications.

3. Cement Slurry Release

Cement slurry is often used as the stabilizing agent for the sediment treatment process. Portland cement can be mixed with water in the cement batch plant to form a slurry, which is pumped via a grout pump to the PFTM mixing tool for injection into the pipeline. The slurry will be transported via a pressurized line that is securely connected via industry standard connectors. Controlled addition of dry PC based mixes is achievable with Standard Pugmill and mixing head processes.

The only potential scenarios for slurry release would be from connection failure or a ruptured line (due to wear or accidental impact). The cement slurry equipment will be inspected regularly, and observations will be documented within field records. Equipment that is

observed to be worn or potentially broken will be fixed and/or replaced with urgency. Additional administrative controls will protect the grout line from accidental impact, such as markers identifying the location of the line and/or implementation of an exclusion zone to restrict close contact with mechanical activities. It is anticipated that this zone would also include the PFTM processing lines and sensor cables.

Extreme Weather

Due to the nature of the work facility operations will likely endure temperature fluctuations (freezing), various forms of precipitation (including nor'easters and winter storms with precipitation), as well as high winds and severe weather events. The systems are extremely rugged and have been designed for stability through inclement weather.

While the equipment is weather-resistant, site personnel and support activities such as material loading and transportation will be susceptible to the weather. Facility operations will only occur when it is deemed safe. The types of extreme weather that would impact our ability to process sediment safely would also preclude dredging, and therefore eliminate the possibility of sediments being delivered (and accumulating) onsite during processing down-time.

The most likely challenging weather to be experienced at the site is extreme cold which is subject to icing. As mentioned, the conventional dredging window for Connecticut would limit much of the processing season to occur during winter months. During periods of extreme cold, water and slurry lines and reservoirs will be heated using heat trace or an equivalent product to protect against freezing. Site personnel will also be required to wear proper PPE for winter operations. Since the system is computer-automated and controls will be located within the onsite office trailer, operating personnel should face limited exposure. Heated worksite trailers and other administrative controls for cold weather protection will be made available to keep personnel safe from exposure.

Transportation Delays

Material transportation and handling is vital to dredged material processing operations at the processing site. Individual project scenarios will dictate the method for dredged material transport to the site, but it is expected that the majority of dredged material will be transported via scow to the site's waterfront bulkhead. The dredged material will be unloaded into an upland containment area (created using concrete barriers and appropriate liners, or equivalent) to limit waterside activities. Based upon the processing rates specified in the Solid Waste Demonstration Project Approval (SWDP Approval No. 08601340-DP), up to 5,000 yd³ of unprocessed dredged material may be staged in this upland containment area at a given time.

Dredged material will be loaded from the containment area after mixed with PC (mixing head), mixed with PC as loaded into a pugmill, or into the vibratory Grizzly screener and processed via the PFTM processing system. The stabilized material will be discharge via the PFTM diffuser or directly from the pugmill into designated "curing" containment bins to begin strengthening and drying out prior to transloading. Once the stabilized sediment has become "workable" (approximately 12-24 hours after discharging), the material will be loaded onto individual tri-axel trucks for transport to the permitted placement site (such as the Griswold Triangle Wire Brownfield site). It should be noted that upon truck transport, the amended dredged material will have the characteristics of an engineered fill (not liquid) and that no splashing or spillage will occur.

A delay in any of the above steps would have a significant impact upon our ability to reach the processing goal of up to 2,500 yd³ per day. We expect to maintain enough capacity in the containment areas for both a) unprocessed dredged material, and b) stabilized dredged material, to absorb one to two days' delay or downtime. In order to preserve site capacity, it is paramount that material is moved on- and offsite on a daily basis. We will maintain open lines of communication with both dredging and trucking operations to identify and circumvent misalignment as quickly as possible. At least one day's notice is expected to confirm truck transportation schedules.

Attachments

Inspection and Event Response Forms



EQUIPMENT INSPECTION / CORRECTIVE ACTION FORM

This Corrective Action Form may be used in conjunction with the Daily and Monthly Visual Inspection Logs. Where corrective action(s) is/are required as identified during these inspections, Facility personnel should check the appropriate box on the inspection forms and then complete this form. This form should be used to provide detailed information for item(s) requiring attention and actions taken to correct the item(s).

Item Requiring Repair:

Date Identified:

Required Action:

Date of Correction:

Name:

Signature:

Attachment 2. Training Log

TRAINING LOG

This Training Log may be used to record formal and informal training sessions completed by site personnel. Formal training includes classroom training such as HAZWOPER Training, refresher courses and other certification training. Informal on-the-job training records may also be maintained for personnel training conducted by the Operations Manager or appropriate personnel. This training includes but is not limited to introductory training for new employees, spill response training and review of existing, new and pending regulations. Formal training should be completed as required by specific certifications. Informal training should be conducted semi-annually at a minimum.

<u>Name</u>	<u>Type of Training</u>	<u>Date</u>	<u>Hours</u>
_____	_____	_____	_____
_____	_____	_____	_____
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_____	_____	_____	_____

Attachment 3. Discharge / Spill Prevention Meeting Log



DISCHARGE / SPILL PREVENTION MEETING LOG

Discharge/Spill Prevention meetings should be held on a semi-annual basis, at a minimum, in order to review proper discharge/spill prevention procedures components of this plan (i.e., review of spill events, spill prevention measures and stormwater best management practices, etc.).

Date: _____

Attendees: _____

Subject/Issue Identified	Required Action	Implementation Date	Complete (Y/N)



Attachment 4. Spill Response Documentation Log

SPILL RESPONSE DOCUMENTATION LOG

This Log may be completed for all spills occurring at the Facility. Actions taken to respond to the spill should be completed from the time of spill until completion of spill response procedures. If no spills occur during the year, this Log should be completed to indicate that no spills have occurred.

Spill Date: _____ **Spill Time:** _____

Description:

Actions Taken to Respond to the Spill	Time Performed



Pugmill Systems LLC

204 Cemetery Avenue
Columbia, Tennessee 38401
(931) 388-0626
www.pugmillsystems.com

300BT SKID MOUNTED PUGMILL PLANT:

1 - New 1036 FEEDER BIN 10 yard hopper and 36" belt – extended to pugmill

- *Self relieving feeder design
- * 3/16" x 1/16" 2-ply belt
- *16" Crowned herringbone grooved head pulley
- *12" Winged tail pulley
- *15 HP motor (TEFC 230/460 3 phase 60 Hz)
- *Shaft mount reducer
- *18" Travel screw type take-ups
- *Adjustable gate
- *Electric vibrator
- *Variable frequency drive
- *Skid mounted

1 - New 300BT PUGMILL with Twin-Shaft Twin-Drive

- *2 - 30 HP motors (TEFC 230/460 3 phase 60Hz)
- *Shaft mount reducers
- *Timing gears & gear housing
- *Liquid spray bar with 2" valve
- *Hinged cover over mixing chamber
- *Receiving hopper
- *Contour liner (AR235 plate)
- *Hi-chrome paddle tips, reversible for wear
- *Belt guards
- *Bolt on discharge end plate
- *Wide flange beam base frame
- *Skid mounted

Capacity will vary in relation to size and type of materia

1 - New BELT SCALE for coordinating cement feeder

1 – New ELECTRICAL SYSTEM with CONTROL PANEL

- *Motor starters
- *Circuit breakers
- *Main disconnect
- *Push button controls
- *Wiring system with plug connectors
- * NEMA 3R enclosure
- *Start-up warning horn

1 - New 350 bbl Portable SILO (1,405 cu. ft.)

- * 8'6" Dia. X 38' height
- *9" Dia. screw x 17'-0"
- *10 HP motor & gear box drive
- * 8 external air pads with manifold and lines
- * 4" Blow pipe with adapter
- * Manhole
- * Full railing
- * Heavy duty dual axle trailer and tires
- * Trailer jack and pintle hitch
- * Electric brakes and light package
- *330 Sq. Ft. Pulse jet dust collector
- * High & low bin level indicators
- *Outside ladder with fall arrest cable system

1 - New 3640 Portable Stacking CONVEYOR 36" wide belt 40' length

- *3/16 " x 1/16" 2-ply belt
- *16" crowned herringbone grooved head pulley
- *14" winged tail pulley
- *35 degree troughing idlers
- *Screw type take-ups with 18" travel
- *15HP (TEFC 230/460 3 phase 60 Hz) motor
- *Shaft mount reducer with built in backstop
- *Skirted receiving hopper
- *Belt scraper
- *Light bar
- *Manual raise & lower with standard pin set
- *King pin tow hitch, 5th wheel



PROCESSING EQUIPMENT FOR THE CRUST OF THE EARTH

PORTABLE CEMENT SILO

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Inventory Number: C2565

Montana Tank Works 350 Barrel/52 Ton Portable Cement Silo - 8'-6" diameter x 37' high, 10" discharge screw with 10 h.p., 3 phase electric motor & gear box, forced feed auger system, outside ladder with cage, full top railing - 42" tall, access hole, 4" fill pipe with male quick coupler, heavy duty Torflex axles, tires, brakes, lights, jack & pintle hitch, WAM Stainless Pulse Jet Silo Vent, relief valve, 4 aerator pads and manifold, air purge line, painted white, bin level indicators, warning light package, horn & grill buzzer.

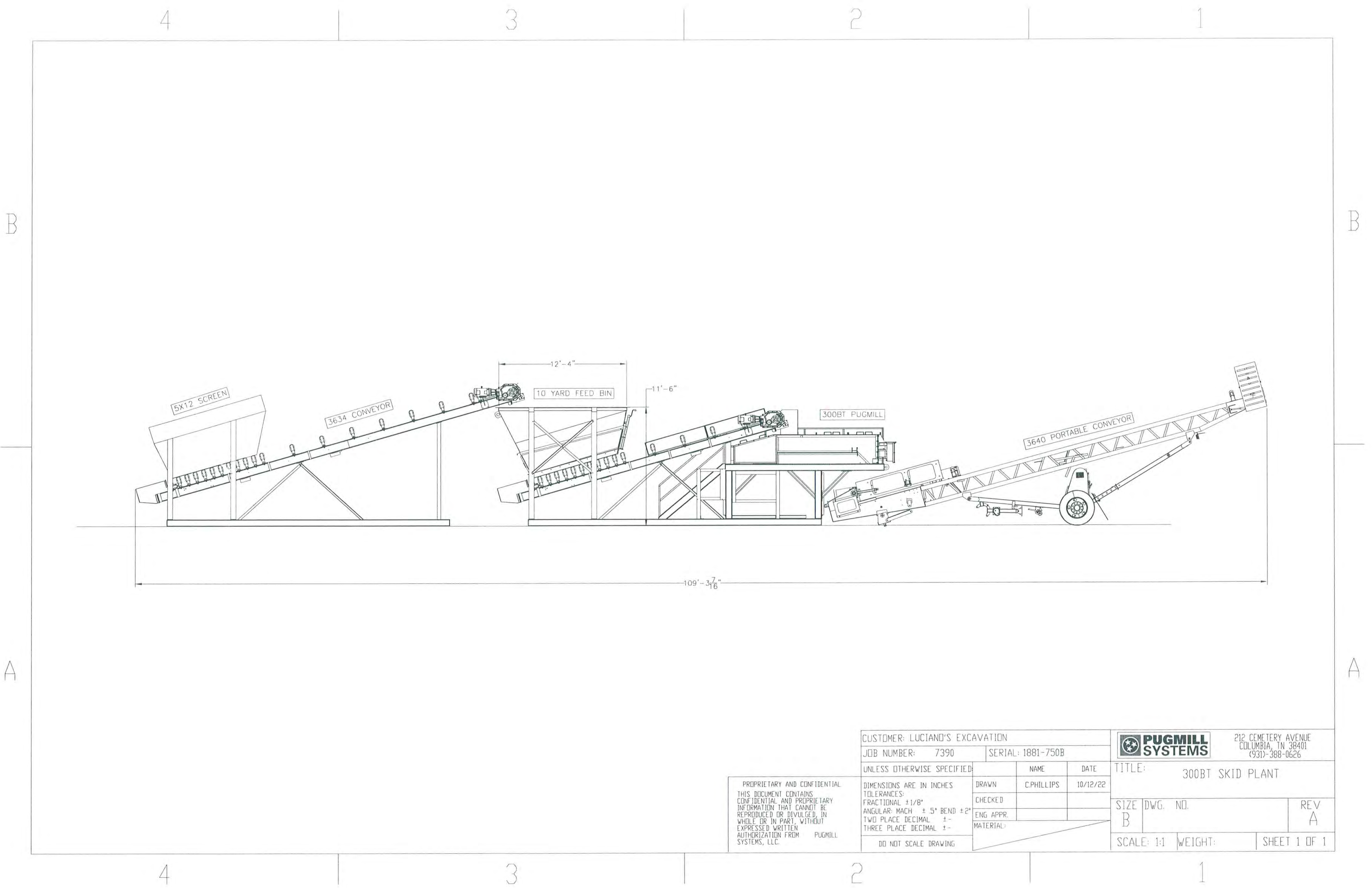


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CUSTOMER: LUCIANO'S EXCAVATION				<div></div> <div>212 CEMETERY AVENUE COLUMBIA, TN 38401 (931)-388-0626</div>	
JOB NUMBER: 7390		SERIAL: 1881-750B			
UNLESS OTHERWISE SPECIFIED:		NAME	DATE	TITLE: 300BT SKID PLANT	
DIMENSIONS ARE IN INCHES		DRAWN	C.PHILLIPS		
TOLERANCES:		CHECKED		SIZE DWG. NO. REV B A	
FRACTIONAL ±1/8"		ENG APPR.			
ANGULAR: MACH ± 5° BEND ±2°		MATERIAL:			
TWO PLACE DECIMAL ±					
THREE PLACE DECIMAL ±					
DO NOT SCALE DRAWING				SCALE: 1:1 WEIGHT: SHEET 1 OF 1	