**“EXHIBIT A”**

# EXCAVATED MATERIAL AND GROUNDWATER MANAGEMENT PLAN

## (Licensee)
## (Name of Project)
## (City and State of Project)

**Date:_____**

**Prepared at the Request of:**

**Consolidated Rail Corporation**
**Philadelphia, Pennsylvania**

Ver1.0

## TABLE OF CONTENTS

**Page**


1.0 INTRODUCTION ..... 1
2.0 PROJECT DESCRIPTION ..... 2
3.0 PROJECT APPROACH ..... 3
3.1 Project Background ..... 3
3.2 Health and Safety ..... 3
3.3 Soil Observation, Screening and Classification ..... 4
3.4 Soil Handling and Management ..... 5
3.4.1 No Environmental Concern, Suitable Backfill ..... 5
3.4.2 No Environmental Concern, Unsuitable Backfill ..... 5
3.4.3 Potential Environmental Concerns, Licensee Related ..... 5
3.4.4 Potential Environmental Concerns, Third Party Unknown ..... 6
3.4.5 Potential Environmental Concerns, Third Party Known ..... 6
3.5 Construction Dewatering/Water Management ..... 7
3.6 Conrail and DEP Notifications ..... 7
3.7 Site Restoration and Backfill Requirements ..... 7
3.8 Disposal ..... 7
3.9 Permitting Authority ..... 8


### FIGURES


1. Overview of Dig Locations Area
2. Detail Dig Locations


### APPENDICES


A. Clean Fill Certification Boilerplate

## 1.0 INTRODUCTION

Company Name (Licensee) prepared this Excavated Material and Groundwater Management Plan (the Plan) to address planned excavation activities associated with the (detailed Project description). An overview of the work locations is shown on Figure1. The work is on or along the Consolidated Rail Corporation (Conrail) right-of-way (ROW) in (Town and State). This Plan contains project-specific procedures for the planned construction activities and was prepared at the request of Conrail prior to the issuance of dig permits along its ROW.

The purpose of the Plan is to provide general guidance for the field screening, classification, and proper handling of soil and/or groundwater encountered during the field work. The guidelines outlined herein were developed to ensure the materials are properly managed for use as backfill, off-site disposal or recycling, or decanting (as appropriate) based on observations and screening conducted during the construction activities.

## 2.0 PROJECT DESCRIPTION

This Plan is focused on the excavation and backfill activities associated with the work on Conrail property.

The project activities are undertaken to (Project description and reason). The project will involve excavation of material and backfill with the excavated materials or clean fill, as appropriate, and restoration of the work area to an in-kind condition.

Excavation, inspection, repair, backfill and restoration of each dig site requiring shoring within the theoretical load line of the railroad tracks will take approximately (number of days) working days, contingent upon the inspection results, offset from the center line of the tracks, the number and proximity of parallel underground utility lines along the easement, and the related shoring requirements.

Material, equipment or supplies requiring staging overnight or for longer durations will be located in an area approved by the Conrail Project Engineer, and will be staged only for so long as determined to be reasonably necessary by both Licensee and the Conrail Project Engineer. Every attempt will be made to conduct work outside the fouling limit along Conrail's critical lines. No staging of equipment or excavated materials will occur within the fouling limit or in access roads, except with the specific approval of Conrail's Project Engineer and only for so long as determined to be reasonably necessary by both Licensee and the Conrail Project Engineer. The fouling limit of the track is fifteen (15) feet from the closest rail. Work in close proximity to Conrail track will be conducted in close coordination with Conrail Engineering Department representatives and the flagman assigned to the project. Licensee will not foul track without appropriate track protection in place arranged in advance with Conrail and in accordance with Conrail and Federal Railroad Administration (FRA) requirements.

## 3.0 PROJECT APPROACH

### 3.1 Project Background

(Detailed project background).

### 3.2 Health and Safety

Licensee personnel and its contractors may be required to complete Occupational Safety and Health Administration (OSHA) Hazwoper training in accordance with 29 CFR 1910, depending on the requirements of the planned work and OSHA regulations. FRA On-Track Worker Safety Training will be provided to workers as appropriate for their tasks and compliance with FRA regulations. Air monitoring, trench stabilization, and personnel protective equipment are all routine training completed by Licensee personnel.

Licensee requires that a Daily Work Permit be completed and a Job Safety Hazard Analysis be performed for each dig site. In addition, daily tailgate meetings shall be performed before the start of each work day to address specific health and safety concerns. Air monitoring will be completed by Licensee personnel to evaluate the potential for organic vapors, hydrogen sulfide, unacceptable oxygen levels, and explosive atmospheres prior to excavation entry or hot work. Excavation areas will be allowed to vent and/or be evacuated with air movers until acceptable excavation action levels are attained.

Excavations will be shored or sloped, as necessary, in accordance with OSHA regulations and Conrail construction specifications for both worker safety and protection of the surrounding utilities or structures. Trained and experienced excavation equipment operators will be used to complete the work. Hand excavation will be completed, as necessary, to minimize the potential for injury to site workers and/or damage to adjacent track structure, or adjacent utilities. Open excavation areas will be surrounded with orange safety fence throughout the construction activities to alert vehicular traffic along the ROW and to secure the area from third party trespassers at the end of each day. Flagman or watchman will be stationed where and when necessary as determined in coordination with Conrail. Contingent upon the excavation depths, ladders will be staged along the excavation sidewalls and tied off in accordance with OSHA requirements.

### 3.3 Soil Observation, Screening and Classification

During the excavation activities, excavated material will be field inspected and screened with a photoionization detector (PID). Field personnel will use visual observation, olfactory senses, and PID readings as indicators of the potential presence of soil/material that is not suitable for use as backfill, a release of petroleum or other constituents from licensee's utility/equipment, and/or third party contamination. Examples of the initial indicators that may warrant further evaluation include the following:

**Visual**

- An oily, tar-like or stained appearance or sheen on the surface of the material.
- Debris or waste in form of wooden pallets, bags of plastic, paper, metal, etc.
- An oily sheen or free product floating on ponded water in the excavation.
- The presence of drums or other waste containers.
- The presence of seeping petroleum, sludge or other contaminated aqueous material from the excavation sidewall.

**Olfactory**

- The soil or water may have a sulfur (rotten egg), petroleum or chemical odor.
- A petroleum odor coupled with visual confirmation of oil or stained or tar-like appearance. Soil or water with chemical odor may not exhibit visual signs of impacts.

**PID Readings**

- A PID will be used, as needed, to field screen for volatile organic compound (VOC) vapors in soil, debris, waste and water encountered during the excavation.
- In conjunction with the visual and olfactory observations, PID readings will be evaluated to make determinations with regard to the proper management of excavated material and water generated during the excavation activities.

Based on field observations, soil screening results, and site conditions, to the extent reasonably possible, excavated soil/material will be classified as one of the following:

- No environmental concerns – material suitable for backfill;
- No environmental concerns – material not suitable as backfill due to non-environmental issues, e.g. trash and debris;
- Potential environmental concerns – possibly related to Licensee construction, operation and/or maintenance;
- Potential third party environmental concerns – not related to Licensee.

The appropriate material, soil and/or water handling and management decision processes will be initiated as described in the following section.

## 3.4 Soil Handling and Management

Regardless of the classification of the excavated material, soil excavated to perform the work will be staged on plastic at a designated area within the approved workspace and covered by plastic at the end of each work day. The stockpile location will be near the trench in the swing zone of the excavating equipment, if practical and if permitted by Conrail's Project Engineer. Prior to transfer to the stockpile, excavated material will be allowed to drain of any free liquid over the excavation trench. Soil erosion and sediment control best management practices (e.g., silt fence and hay bales) will be used and maintained, as necessary, to secure the work area and soil stockpile. Based on the

classification of the material, the following additional handling and management procedures will be employed. Regardless of the classification that applies to particular excavated materials, Licensee shall promptly make that determination and promptly move any such soils off-site or use it as backfill in accordance with this Section.

### 3.4.1 No Environmental Concern, Suitable Backfill

If field observations and screening indicate the stockpiled soil is not impacted and is of sufficient engineering quality to be used as backfill, it will be returned to the excavation as backfill and compacted in the reverse order of excavation (last out, first in).

### 3.4.2 No Environmental Concern, Unsuitable Backfill

In the event that field observations and screening indicate that excavated material has no environmental impacts, but contains debris or material unsuitable for backfill, the debris (i.e., wooden pallets, plastic, paper, etc.) will be segregated into a separate pile, staged on and covered by plastic, and transported off site for disposal. The use of a roll-off box or direct load into a truck for off-site transport will be field determined in conjunction with Conrail's Project Engineer, based on site access and the volume and nature of the material. No excavation debris will remain along the Conrail ROW. The other stockpiled material may be used as backfill, as detailed in Section 3.4.1. Licensee will manage the disposal of, and pay all fees associated with, any material identified for off-site disposal consistent with this section.

### 3.4.3 Potential Environmental Concerns, Licensee Related

If field observations, screening, inspection and/or testing procedures indicate a current or historical release or discharge related to construction, operation and/or maintenance activities of Licensee, the material will be staged on plastic and covered by plastic and surrounded by hay bales pending classification for off-site recycling or disposal at a State-approved facility or a United States Environmental Protection Agency (USEPA)-approved facility, if the former is inapplicable. Disposal facilities used must be approved in advance by Conrail. The use of a lined roll-off box or direct load into a truck for off-site transport will be field determined in conjunction with Conrail's Project Engineer based on site access and the volume of the material excavated.

Conrail will immediately be notified (856-231-2454) along with the State Environmental Reporting Hotline. Licensee will retain an appropriately licensed environmental professional to manage the environmental issues. With consideration of the safety guidelines outlined in Section 3.2 and standard work practices, the inspection and repair work will be completed, and the excavation will be backfilled with certified clean fill (see Section 3.7) in order to protect the utility integrity.

Licensee will confer with Conrail regarding the appropriate manner for proceeding with remediation of the area of concern (AOC) in order to achieve applicable remediation standards and to ensure that Conrail is not adversely impacted by the selected remedy.

Licensee will manage the disposal of, and pay all fees associated with, any material identified for off-site disposal consistent with this section and the License Agreement.

### 3.4.4 Potential Environmental Concerns, Third Party Unknown

If field observations and screening indicate residual petroleum constituents or other contaminants (i.e. chlorinated solvents, metals, etc.) are encountered that are unrelated to Licensee as determined by consensus of Licensee and Conrail, the material will initially be staged on plastic and covered by plastic and surrounded by hay bales. Conrail will be notified promptly to discuss a path forward for handling the material. Licensee will coordinate the work with Conrail and/or develop the data necessary to pursue a responsible third party. As an initial matter, waste material generated as a result of the anomaly excavations under this section will be managed by Licensee, including payment of transportation and disposal fees, for proper off-site disposal by Licensee. Licensee management, transportation and disposal of waste materials under this section shall not be construed as an admission of responsibility for said waste material or any associated AOC. Waste management under this section will be in accordance with Conrail's waste management program and use a Conrail approved disposal facility. Waste disposal will be coordinated through a designated Conrail representative, familiar with this program. The designated Conrail representative will provide disposal facility information and all other related documents to Licensee.

### 3.4.5 Potential Environmental Concerns, Third Party Known

For known, third party areas of contamination, the responsible party will be contacted in advance of the construction activities, and pre-arranged conditions will be established for the proper handling and management of impacted materials in accordance with agreements entered into directly between Licensee and the responsible party.

The work will be completed in a manner to protect the Conrail property and ensure that impacted materials are properly handled and disposed in accordance with prevailing regulations and guidance. Waste management under this section will be in accordance with Conrail's waste management program. If Licensee is able to reach agreement with the known third-party such that the known third-party assumes responsibility for the management of the impacted materials, including payment of all fees, the impacted materials shall be disposed of at a State-approved facility or a USEPA-approved facility, if the former is inapplicable. If Licensee is unable to reach agreement with the known third-party: (a) waste material generated as a result of the work under this section will be managed by _____(licensee or licensee representative), including payment of transportation and disposal fees, for proper off-site disposal by _____ (company name); (b) waste disposal will be coordinated through a designated Conrail representative familiar with this program; and (c) the impacted materials will be disposed of at a Conrail-approved facility. Licensee's management, transportation and disposal of waste materials under this section shall not be construed as an admission of responsibility for said waste material or any associated AOC.

## 3.5 Construction Dewatering/Water Management

Groundwater infiltrating into the planned excavations will be field screened by Licensee during construction dewatering. Dewatering by Licensee will in all cases comply with applicable State or municipality permitting requirements and may include surface discharge or discharge to groundwater consistent with such requirements. Licensee will secure all permits and assume responsibility for compliance. If field screening and observations indicate the water is suitable for discharge, it will be conveyed away from the excavation and discharged through a silt bag. The discharge area will include hay bales for energy dissipation. Consistent with BMPs, the water will be discharged along the easement in the Conrail ROW but will not be discharged onto the Conrail roadbed or track structure. Licensee will manage the discharged groundwater to prevent direct runoff into a water body or residential property.

If a sheen or petroleum product is observed on the water, or the water is otherwise impacted or has been in contact with impacted media, Licensee will use a vacuum truck to dewater the excavation. The water vacuumed from the excavation will be disposed at a permitted recycling facility. As an initial matter, Licensee will be responsible for management and fees associated with water treatment and/ or disposal. Manifesting for off-site disposal of dewatering materials and the selection of the off-site disposal facility will be in accordance with the applicable provisions of Sections 3.4.3, 3.4.4 and 3.4.5 hereof.

## 3.6 Conrail and Regulatory Notifications

In the event that environmental concerns are identified during the construction activities, Licensee will immediately contact Conrail (856-231-6400) to confer on an appropriate course of action and path forward prior to notification to the State Environmental Reporting Hotline.

If through field screening and inspection, it appears that environmental concerns are a result of a release of petroleum or other materials to the environment by Licensee, or any discharge of hazardous substances related to the construction, operation and/or maintenance activities of Licensee, the appropriate State Environmental Hotline will be notified immediately.

## 3.7 Site Restoration and Backfill Requirements

Based on the field observations and screening, excavated material and/or clean certified fill material will be placed in the excavation and properly compacted to grade. In areas critical to the stability of Conrail structures backfill and compaction will be in accordance with Conrail's CE-8 Specifications (Section 5.1.2) with the exception that the existing excavated material may be used for fill in lieu of crushed stone. Stone or topsoil will be placed over the excavation to restore the area to the pre-work conditions. Areas outside of the Theoretical Railroad Embankment Line will be backfilled and compacted as follows:

The backfill under, around, and to a point 6 inches above the top of the pipe or casing shall be of loose earth, free of clods or rocks, and shall be placed in mechanically compacted layers not to exceed 6 inches in thickness. Each succeeding layer, to a point 12 inches below the normal road surface, shall be placed in 6" layers, each layer being thoroughly compacted and watered if necessary. On graded dirt roads, the top 12 inches of backfill shall be well-graded crushed rock or gravel mix. If appropriate, seed and straw and/or seed mats will be placed over the work area to minimize erosion. Soil erosion and sediment control structures (i.e., silt fence) will be temporarily installed (and subsequently removed), as necessary to minimize soil erosion and stabilize the work zone during the restoration period.

A clean fill certification (See e.g. Appendix A) will be obtained from the supplier for imported fill material. Decontaminated or recycled soil will not be used on Conrail property.

### 3.8 Disposal

Licensee will, at its own cost, properly transport and dispose/recycle trash, debris, material unsuitable for re-use as fill or impacted soils or waste generated through the pipeline repair or remediation of an AOC in accordance with the applicable provisions of this Plan. Properly licensed and permitted waste haulers will be used. All federal, state, and local rules and regulations will be adhered to including county solid waste flow control rules. Licensee will be responsible for obtaining all waste acceptance and approval for disposal, and will be the generator of record for all Licensee-derived waste. Licensee will coordinate for the disposal of these materials, in accordance with Conrail's waste management program, through a designated Conrail representative familiar with that program. To the extent Conrail has an approved list of disposal facilities, it shall provide such list fourteen (14) days in advance of the commencement of excavation work.

In addition, Licensee will be responsible for performing the required waste sampling, and will obtain all the required paperwork for shipment of waste material including the bill-of-lading or manifest, except as provided for above. Licensee will provide Conrail copies of all waste characterization data and shipping records upon request.

### 3.9 State Permitting Authority

There are no additional environmental/Land Use permits required for the work.

# FIGURES

(Licensee's Name)

**Figure 1**

## Overview of Dig Locations

(Licensee's Name)

**Figure 2**

## Detail of Dig Locations

# APPENDIX A

# CLEAN FILL CERTIFICATION BOILERPLATE

# Consolidated Rail Corporation

## Clean Fill Material Certification Form

1. Project Name and Location: _____

   Street Address _____ County _____

   City or Town _____State _____Zip Code _____

   Project Contact Name _____Phone Number _____

2. Clean Fill Supplier Name and Address: _____

   Street Address _____ County _____

   City or Town _____State _____Zip Code _____

   Contact Name _____Phone Number _____

3. Clean Fill Material Source/Site Description/Location: _____

   _____

   _____

   _____

   Street Address _____ County _____

   City or Town _____State _____Zip Code _____

   Contact Name _____ Phone Number _____

4. Estimated Volume Required and Describe Use:_____

5. Proposed Clean Fill Must Meet CONRAIL Specification*. Existing Source and/or Analytical Performed/ Results Attached, if required:
   Clean Crushed Stone with Certification (Y N )
   Existing Certified Soil Fill Source with Certification (Y N ) and/or
   Clean Soil Source with Supporting Data (Y N )
   Additional Information_____

6. Number and Location of Samples Collected/Method of Sampling/Date of Sampling, if required:

   _____

I hereby certify that information provided herein is true and accurate and that it accurately represents the backfill material intended for shipment to the above described site. I further certify that the backfill material being provided from the above-identified fill source constitutes clean fill*. I further certify that the samples obtained and described above and attached to the form were collected by personnel trained and experienced in environmental sampling and sample management.

I AM FULLY AUTHORIZED TO MAKE THESE CERTIFICATIONS AND WARRANTIES.

Name: Title/Company

Address: Phone Number:

Signature Date

Attachements:

1) Copy of Existing Certification and/or Chemical Analysis Results Compared to Residential Standards
2) Sampling Diagram

* ACCEPTABLE TYPES of FILL

1. Clean Crushed Stone (strongly preferred by CONRAIL) or,
   - Clean crushed stone is virgin quarried crushed stone with a certification as such from the quarry.

2. Conrail Approved Clean Soil (Including Topsoil)
   - Requires Confirmation that the material being used meets the individual state's policy requirement for clean fill
     AND the state's residential/unrestricted use soil quality standards. The state in which the fill is being placed is the state requirement that needs to be met. This may include:
     - Clean virgin soil from a borrow source that carries an existing certification from the source to meet the above clean fill requirement.
     - Analytical data from representative samples demonstrating compliance with the state's residential / unrestricted use standards.
     - If a borrow source is lacking a certification, CONRAIL may accept that source as clean via representative laboratory testing of the soil to be used that includes the following analyses: Volatile and Semi-Volatile Organic Compounds (VOC and SVOC) by EPA Methods 8260 and 8270; PCBs by EPA Method 8082; and analyses for RCRA Metals by Method 6010, adding Mercury by Method 7471).
   - Structural fill will include additional requirements for engineering specification and placement.
   - CONRAIL will not accept any re-used (off-site source), recycled, or decontaminated materials for backfill.