OPERABLE UNIT 1
REMEDIAL DESIGN REPORT

Sunnyside Yard
Queens, New York

October 8, 1997

Prepared/or:

National Railroad Passenger Corporation
30th Street Station
4th Floor South
Philadelphia, Pennsylvania 19104

Prepared by:

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October 8, 1997

Richard Gardineer, P.E.
Regional Hazardous Waste Remediation Engineer
New York State Department of Environmental Conservation
Hazardous Waste Remediation - Region 2
47-40 21st Street
Long Island City, New York 11101

Re: Final Report Titled, "Operable Unit 1 Remedial Design Report, Sunnyside Yard, Queens, New York"

Dear Mr. Gardineer:

Enclosed please find three copies of the above-referenced document for your use. Please call if you have any questions or if I can provide further assistance.

Sincerely,

ROUX ASSOCIATES, INC.

Joseph D. Duminuco
Principal Hydrogeologist

REMEDIAL ENGINEERING, P.C.

Peter J. Gerbasi, P.E.
Principal Engineer

Enclosure

cc: S. Ervolina, NYSDEC
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CONTENTS

FIGURES

APPENDICES

PLATES

1. Operable Unit 1 Site Map
2. Details

1.0 INTRODUCTION

The National Railroad Passenger Corporation (Amtrak) owns property known as Sunnyside Yard (Yard), located at 39-29 Honeywell Street in Queens County, a borough of New York City, New York (Figure 1). A portion of the Yard has been designated by Amtrak for construction of a new High Speed Trainset Facility (HSTF) Service and Inspection (S&I) Building and its ancillary structures (i.e., the access road and utilities route, the parking area, the construction easement area which surrounds the building, and the construction laydown area). The Sunnyside Yard is listed as a Class II Site in the New York State Department of Environmental Conservation's (NYSDEC) Registry of Inactive Hazardous Waste Disposal Sites. As a result of the listing for the entire Yard, Amtrak, New Jersey Transit Corporation (NJTC), and the NYSDEC entered into an Order on Consent (OOC) Index #W2-0081-87-06 effective October 1989.

In accordance with the OOC, several investigations have been perfonned at the Yard including, but not limited to, remedial investigations, feasibility studies, and a risk assessment. Each of these investigations was performed by Roux Associates, Inc. (Roux Associates). As a result of these investigations, areas of the Yard were identified where levels of contamination require remedial efforts. With the NYSDEC's concurrence, to accommodate the HSTF S&I Building construction schedule and still address remedial efforts sitewide in a timely and orderly manner, the Yard has been subdivided into six operable units (Figure 2). The operable units are described as follows:

- Operable Unit 1 (OU-1) designated as the soil above the water table within the footprint of the proposed HSTF S&I Building;
- Operable Unit 2 (OU-2) designated as the soil above the water table within the footprint of the HSTF S&I Building ancillary structures (i.e., the access road and utilities route, the parking area, the construction easement area which surrounds the building, and the construction lay down area);
- Operable Unit 3 (OU-3) designated as the soil and separate-phase petroleum accumulation above the water table in Area 1 of the Yard, as defined in the Phase I Remedial Investigation (RI) report;
- Operable Unit 4 (OU-4) designated as the soil above the water table in the remainder of the Yard;

- Operable Unit 5 (OU-5) designated as the sewer system beneath the Yard; and
- Operable Unit 6 (OU-6) designated as the ground water including the saturated soil beneath the Yard.

Following the Operable Unit approach, a Feasibility Study (FS) was submitted for OU-l (April 18, 1997) which involved the development and evaluation of alternatives to remediate carcinogenic polycyclic aromatic hydrocarbon (CPAH) impacted soil within OU-l.

A Proposed Remedial Action Plan (pRAP) was issued on June 9, 1997 to identify the preferred remedy for OU-l as stated in the OU-l FS, summarize other alternatives, and discuss the rationale for this preference. The PRAP was issued as a component of citizen participation activities. A public meeting was held on June 24, 1997 to explain the components of the PRAP and answer questions from the public. Following a public comment period, the draft OU-l Order on Consent, Index #W2-0081-96-061 and its corresponding Record of Decision (ROD) were issued on August 13, 1997, identifying OU-l FS Alternative III - Soil Excavation and Off-Site Disposal as the selected remedy for implementation.

This document, the OU-l Remedial Design Report, serves to establish the scope of the NYSDEC-approved alternative to remediate the impacted soil within aU-I, which consists of soil above the water table within the HSTF S&I Building footprint (Figure 3). The contents of this OU-l Remedial Design address and follow the guidelines set by the ROD.

It is the intention of Amtrak to implement a remedy which is protective of human health and the environment, accommodates HSTF S&I Building construction, and also pennits post-remediation site use for the purpose specified above.

1.1 OU-1 Site Description and History

OU-1 is located in the northeastern portion of the Yard as shown in Figure 2. OU-1 measures approximately 790 feet in length and 60 feet in width, and is slightly over one acre in total area. The topography of OU-1 is primarily level and gently slopes down from east to west along its length.

Currently, OU-1 operates as a portion of an active lOS-acre rail yard and is occupied by Wheel Track No.1 and NO.2 and a portion of the Metroliner Shed and No.1 Engine House Track. The most readily apparent features of OU-1 are the railroad tracks, concrete and asphalt platforms, occasional concrete ruins, overhead electric catenary wires, and the ubiquitous presence of ballast. The railroad tracks and overhead electric catenary wires will be removed by Amtrak prior to initiation of remediation activities.

OU-1 is located entirely within the boundary of the Yard. Land use immediately adjacent to the Yard is almost exclusively mixed commercial and light industrial with surrounding residential areas located primarily to the south and east.

OU-1 and the surrounding Yard were originally owned and developed in the early 1900s by the Pennsylvania Tunnel and Terminal Company, a subsidiary of the Pennsylvania Railroad (later known as the Penn Central Transportation Company). On April 1, 1976, the Consolidated Rail Corporation (Conrail) acquired the Yard and the same day conveyed it to Amtrak. The Yard originally operated as a storage and maintenance facility for railroad rolling stock and currently functions primarily as a train maintenance and train makeup facility for electric locomotives and railroad cars for Amtrak and NITC. OU-1 formerly housed an inspection pit/repair shed and a portion of a locomotive washer.

1.2 NYSDEC-Recommended Soil Cleanup Levels

Based on an e"aluation of the Yard conditions, in a February 25, 1997 letter to Roux Associates, the NYSDEC and New York State Department of Health (NYSDOH) issued the following NYSDEC-recommended soil cleanup levels for the contaminants of concern at the Yard, including OU-I:

- Semivolatile organic compounds (SYOCs) - 10 parts per million (ppm) for both surface and subsurface soil for total CP
- Lead - 1,000 ppm for both surface and subsurface and
- PolycWorinated biphenyls (PCBs) - 25 ppm for both surface and subsurface soil.

The letter further acknowledged that while certain metals were found in soil throughout the Yard above the NYSDEC's Recommended Soil Cleanup Objectives (RSCOs), none (with the exception of lead) were present at levels high enough to require any remediation. Additionally, the letter did not specify NYSDEC-recommended soil cleanup levels for volatile organic compounds (VOCs) since no YOCs were detected at the Yard above the RSCOs.

1.3 Objective of the OU-l Remedial Design

The primary objective of this OU-I Remedial Design is to establish procedures necessary to implement the remedial alternative selected by the NYSDEC in the ROD for OU-l, thereby accommodating the future HSTF construction project. This OU-I Remedial Design Report includes the following:

- a detailed description of the objectives and the means by which each element of the selected remedial alternative will be implemented to achieve those objectives;
- "Biddable Quality" documents for the OU-I Remedy;
- a construction schedule for the OU-I Remedy;
- the parameters, conditions, procedures, and protocols to determine the effectiveness of the OU-I Remedy;
- operation, maintenance and monitoring activities to be undertaken after construction of the OU-I Remedy;

- a Contingency Plan to be implemented if any element of the QU-! Remedy fails to achieve any of its objectives or otherwise fails to protect human health or the environment;

- a Health and Safety Plan for the protection of personnel at and in the vicinity of QU-! during construction of the remedy; and

- a Citizen Participation Plan.

2.0 PROPOSED REMEDY

The OU-l Remedy consists of the following:

- concrete and asphalt removal;
- excavation of CPAH-contaminated soil;
- post-excavation soil sampling;
- concrete, asphalt and soil staging;
- backfill of the excavation with clean structural fill; and
- disposal of concrete, asphalt, and soil and construction wastewaters.

The following sections present a general overview of the work to be performed as part of the Remedy at OU-l. Detailed instructions that will be used by a Contractor during construction activities are described and shown in the Plans and Technical Specifications for OU-l Remedial Construction. The Contractor will be also responsible for complying with all requirements of the Health and Safety Plan and Contingency Plan. Amtrak's Representative will provide full-time oversight supervision of OU-l Remedy construction activities to verify that the work is performed in accordance with the Contract Documents. The Health and Safety Plan (Appendix A), Contingency Plan (Appendix B), Technical Specifications (Appendix C), and the Plans (plates 1 and 2) are collectively termed the Contract Documents, and are included as part of this OU-l Remedial Design Report.

2.1 Limits of OU-1 Work

Although, as stated in Section 1.1, OU-l encompasses an area 790 feet in length and 60 feet in width, the area identified in the RI/FS as actually containing CPAH-contaminated soil in excess of NYSDEC-recommended soil cleanup levels is 60 feet by 95 feet, as shown on the Plans and in Figure 3.

Asphalt, concrete, ballast and soil above the water table within this area will be removed and disposed offsite. It is expected that the vertical extent of the excavation will extend to the water table and will not include saturated soil; however, an attempt will be made to remove gross,

visibly-contaminated soil below the water table. Although ground-water contamination is an issue in the area, addressing ground water (OU-6) will be a component of the continuing RIlFS process at the site, which will occur in a later phase of work.

In the vicinity of OU-I, depth to water below land surface is approximately three feet. Actual soil excavation depth will be approximately two feet since it is estimated that a one-foot thick layer of asphalt and concrete is found at the surface over approximately 70 percent of the area. Within the excavation area of OU-l, the volume of soil requiring remediation is approximately 485 cubic yards in addition to approximately 150 cubic yards of asphalt and concrete. The limits of excavation may expand horizontally if post-excavation samples reveal that contamination is more wide-spread than established in the *RIlFS.* If no visible evidence of gross contamination exists above the water table that may have potentially migrated into the soil beneath the water table, excavation will not extend into the water table as part of the OU-l Remedy.

2.2 **Yard** Access

Access to the Yard and the OU-l work area is restricted and the Contractor will only be allowed to enter designated areas (the limits of work as specified in the Contract Documents). Access control will be implemented at OU-l to allow only authorized personnel in the area. OU-l authorized personnel includes Amtrak employees specifically working on OU-l remediation, Amtrak's legal counsel, Amtrak's Representative, regulatory personnel such as NYSDEC and NYSDOH employees, the Contractor and the Contractor's subcontractors.

Access to the OU-l work area will be limited using temporary fencing and other restrictions implemented at the OU-l limit of work. All authorized personnel entering the work area must be properly trained in accordance with Occupational Safety and Health Administration (OSHA) requirements, attend Amtrak safety training and be familiar with OU-l specific health and safety procedures prior to entry. Currently, access control to the Yard consists of a police force employed by Amtrak, and a Yard perimeter fence.

2.3 Contractor Pre-Mobilization Activities

With respect to the buried former inspection pits that underlie aU-I, a test pit program that will allow the evaluation of the backfill contained within the inspection pits will be performed by the Contractor as part of the construction activities. Additional buried concrete is anticipated to be encountered, which could increase the volume of material stated in Section 2.1. Two active tracks currently overlie the buried pits. These tracks, which include rails and ties, will be removed by Amtrak prior to test pit initiation.

2.4 Concrete and Asphalt Removal

Concrete is present at the surface within the area of aU-I to be excavated. In addition, over most of the area of concrete a thin asphalt covering can be found. In order to access the underlying soil to perform excavation, this concrete and asphalt layer must first be removed. The concrete and asphalt will be sawcut at the limits of contamination, broken up with power equipment, removed, and staged as necessary prior to off-site disposal. As mentioned above, in addition to the surface concrete, subsurface concrete may be encountered, which the Contractor will also be directed to remove and stage prior to disposal offsite.

2.5 Soil Remediation

Soil excavation within aU-I will be performed with mechanical equipment that will include backhoes and excavators. Hand excavation work will be performed as necessary. Prior to initiating excavation activities, the Contractor shall locate known underground utilities in order to disconnect or support them as needed. If unanticipated underground utilities or other structures are encountered, the Contractor will notify Amtrak's Representative prior to the continuation of excavation activities. After identifying the utility and determining its use, the Contractor will be directed to abandon the utility, temporarily or permanently relocate the utility, or support the utility so that it may be left in place. Excavation will be allowed to continue with caution. Excavated soil will be staged in approved locations and sampled prior to off-site disposal, which is discussed in Section 2.6.

After completion of excavation activities to the initial limits shown on the Plans, post-excavation samples will be collected from the sidewalls and bottom of the excavation in accordance with NYSDEC 1995 Analytical Services Protocol (ASP) Method 95-2 to confirm that all contaminated soil with total CPAH concentrations greater than 10 ppm has been removed. If necessary, based on the analytical results, the excavation will extend horizontally, until additional post-excavation sampling indicates that all soil with CPAH concentrations above the NYSDEC-recommended soil cleanup levels has been removed.

Initially, one post-excavation sample will be collected for every 3,000 square feet of area on the bottom of the excavation, and one sample for every 100 feet of length on each of the sidewalls. Based on the initial excavation area of 60 feet by 95 feet, two post-excavation samples will be taken from the bottom, and four samples from the sidewalls. Should additional excavation be warranted as a result of post-excavation sampling, the location and frequency of any additional post-excavation sampling will also be at the indicated frequency, although specific to the size of the additional excavation. The locations of any additional confirmation samples, if required, will be subject to prior approval of the NYSDEC.

Analytical results of the post-excavation sampling activities will be provided by the laboratory, requiring a 48-hour turnaround time so that work may progress in a timely manner. The final limits of excavation along with the locations of all post-excavation samples will be surveyed by a New York State-licensed surveyor to provide a final as-built Construction Plan.

After all analytical results of the post-excavation sampling have been received and evaluated, backfill of the excavation will commence with the concurrence of the NYSDEC. Structural backfill from off-site sources will be placed in the excavation area and compacted to the original grade. The fill material will be certified to be clean and free of contaminants.

The Contractor will be required to take precautions to minimize the amount of surface water entering the excavation area. Water migration into the excavation can be limited with the used of silt fence, haybales, or other suitable means. If surface water does enter the excavation, the Contractor will be responsible to properly remove all free-standing water through dewatering prior to staging the soil. Management of construction wastewater is described in Section 2.7.

2.6 Staging and Disposal of Solid Materials

Following excavation of the soil, and removal of the concrete and asphalt, the materials will be staged in approved stockpile areas. The excavated soil will be staged in an area separate from the asphalt and concrete. In addition, a third area will be created to stage clean structural backfill prior to placement.

The materials in the three staging areas will be placed on polyethylene, and covered daily with one layer of the same type of polyethylene to prevent runoff in the event of precipitation. Run-on control will be implemented to prevent flow from storm events from entering the stockpiles. In addition, inspection of the stockpiles will be performed on a regular basis to detect any evidence of erosion of materials or damage or deterioration to the polyethylene sheeting.

The Contractor may elect to directly load excavated soil into transport vehicles. Covered, lined rolloff containers will be used to transport materials from aU-I, whether the material is directly loaded into the containers or staged first. The Contractor will take all necessary precautions so that the rolloffs do not leak.

Prior to leaving aU-I, all equipment used within the confines of the remediated area will be decontaminated. In addition, Amtrak's Representative will not allow vehicles that are leaking or have soil adhered to the tires to leave QU-I.

It is not anticipated that the concrete and asphalt will reqUIre sampling prior to disposal. However, the excavated soil will require sampling. All disposal characterization sampling will be performed in accordance with the requirements of the disposal facility accepting the waste.

Since CPAHs are the only contaminant of concern at aU-I, and since CPAHs do not exhibit Resource Conservation and Recovery Act (RCRA) hazardous waste characteristics, the soil, concrete, and asphalt are non-hazardous. Accordingly, the concrete and asphalt will be disposed at a recycling facility, while it is assumed that the soil will be disposed at a RCRA Subtitle D (non-hazardous) disposal facility.

2.7 Management of Construction Wastewaters

Construction wastewaters may be generated from: (1) personnel and equipment decontamination activities; (2) runoff/run-on control operations; and (3) ground water from saturated soil. These waters will be collected and stored onsite, sampled, and either disposed offsite or, if approved by the New York City Department of Environmental Protection, discharged to the on-site sewer system. The Contractor will acquire any permits necessary for sewer discharge.

Any tank used to hold the wastewaters will conform to both New York State and Federal requirements. Appropriate controls will be used to prevent spills and overflows from the tanks such as monitoring and gauging, quick-close shut-off valves, and secondary containment, as necessary.

Following disposal or sewer discharge of wastewaters from any storage tanks used, the tank will be decontaminated prior to removal from the Yard.

2.8 Fugitive Dust Emission Control

There is a potential for air emissions to be generated during excavation and loading activities at aU-I. A Health and Safety Plan has been prepared as Appendix A to this report, specifying action levels that will be protective of workers and the community regarding particulate concentrations in air, and the associated concentrations of particulate-adhering aU-I contaminants in air. Although CPAHs are the only contaminants that are found in the soil above the NYSDEC-recommended cleanup levels, there are also other contaminants that are found in the soil that may adhere to particulate matter and, therefore, must be monitored.

Exceedance of the dust action level will cause related construction activities to be temporarily shut down until dust concentrations return to acceptable levels and the appropriate corrective actions have been implemented. The Contract Documents provide alternatives for dust control for the Contractor to select, in consultation with Amtrak, as appropriate. Engineering controls that may be used for corrective action are included in the Health and Safety Plan. It must be noted that engineering controls will be implemented prior to upgrading the required level of personal protective equipment for Contractor personnel.

2.9 Quality Assurance and Quality Control

The quality assurance objective for the construction of the Remedial Design is to verify that all construction activities are implemented in accordance with the ROD and the Contract Documents. This is assured during construction with the provision of resident engineering oversight at OU-l for the duration of field activities. The resident engineer will be responsible for the following duties:

- observe and review progress through completion of the project by the Contractor;
- require the Contractor to conform with the requirements of the Contract Documents;
- report to Amtrak any deviations by the Contractor performing such work that are observed; and
- review Contractor submissions such as work plans and shop drawings.

Quality assurance and quality control during construction activities include, but are not limited to:

- the use of appropriate construction practices;
- the use of materials of construction as required by the Plans and Technical Specifications, or as commonly accepted in the construction industry;
- the use of specified or approved sampling and analytical methods and procedures, and quality assurance protocols as required by the Contract Documents;
- certification by a New York State-registered Professional Engineer to identify that all activities related to the remedial construction activities were conducted in accordance with the Contract Documents; and

- the requirement for the Contractor to guarantee all work performed and materials supplied, for a period of at least one year after completion of construction of the Remedy.

2.10 Operation, Maintenance and Monitoring Activities

Post-remediation operation, maintenance, and monitoring activities will not need to be performed at QU-l. This is based on the following reasons:

- during construction, post-excavation sampling of the excavation area will be performed to determine the final extent of soil removal, with excavation activities ending once these samples confirm CPAH concentrations below the NYSDEC-recommended soil cleanup levels. Therefore, the residual soil will not contribute to any future contamination concerns;

- ground-water remediation at the Yard will be addressed in the future, as OU-6, therefore no ground-water monitoring activities will be performed as part of OU-l remediation. Post-remediation ground-water monitoring activities will also be addressed as part of OU-6; and

- clean backfill, with supporting analytical results, will be placed in the excavation, and will therefore not contribute to any future contamination concerns.

2.11 Citizen Participation Plan

A Citizen Participation Plan (CPP) was developed for previous work at the Yard and accepted by the NYSDEC on July 19, 1991. This plan was developed to inform the local community of work activities and to provide citizens with the opportunity to voice their concerns. The CPP will be amended to include OU-l specific Remedial Design components, upon the NYSDEC approval of the Remedial Design.

The components and tasks associated with the CPP will consist of the following:

- the name and location of the established information repositories for the approved Remedial Design documents will be made available so that the public may inspect these documents;

- development of a fact sheet summarizing the Remedial Design and its components, and distribution to the existing contact list of interested parties and local residents; and

- upon receiving comments from the public, completion of a Responsiveness Summary document to be mailed to the contact list and local residents.

At this time it has not been detennined whether the NYSDEC Project Manager or Amtrak will be taking the lead in implementing the above CPP.

3.0 SUBMISSIONS TO THE NYSDEC

Amtrak is responsible for various submittals to the NYSDEC, which are described 10 the following sections.

3.1 Qualifications of Project Personnel

Project personnel selected to perform the technical, engineering, and analytical responsibilities will consist of professional consultants, contractors, laboratories, quality assurance/quality control personnel, and third party data validators. Prior to the initiation of any activities at the Yard for which the firms or individuals will be responsible, qualifications of the selected firms or individuals will be submitted to the NYSDEC for approval. Since Amtrak is responsible for the performance of the firms or individuals that it chooses, Amtrak reserves the right to choose or change firms or individuals at its discretion. However, prior to initiation of any activities by the new firm or individual, qualifications will be submitted to the NYSDEC for approval.

3.2 Notification Prior to Field Activities and Meetings

A notification of at least 10 working days will be provided to the NYSDEC prior to initiation of any field activities at aU-I. In addition, Amtrak will notify the NYSDEC at least 7 days in advance of any pre-bid meetings, job progress meetings, substantial completion inspections, and final inspections.

3.3 Quarterly Progress Reports

Quarterly progress reports will be prepared for to the NYSDEC and other parties. The progress report will consist of the following items.

- An account of the activities accomplished the preceding quarter in achieving compliance. All activities performed during the previous quarter will be described. These activities include data collection, implementation of work plans, and other information in relation to progression of activities at OU-I.
- All analytical sampling and test data received or generated by Amtrak, and associated contractors and agents in the previous quarter.
- All work plans, reports and other deliverables required by the NYSDEC completed and submitted during the previous quarter will be identified.

- Statistics regarding percentage of completion, encountered or anticipated obstructions in the schedule causing unresolved delays that will affect the future schedule, and efforts that will be made to rectify the encountered or anticipated delays will all be discussed in the quarterly reports.

- Any proposed modifications to the work plan made by Amtrak and accepted modifications by the NYSDEC will be presented in the quarterly progress reports.

- All activities performed in support of the CPP completed in the preceding quarter will be identified.

- All projected activities for the subsequent quarter will be presented and a detailed schedule will be provided.

3.4 Final Engineering Report

A Final Engineering Report will be submitted to the NYSDEC within 30 days after the completion of all remedial construction activities at aU-I. The report will be prepared, signed, and sealed by a New York State-registered Professional Engineer.

The Final Engineering Report will include a summary of the remedial construction activities at aU-I, including all deviations made to the Remedial Design during the construction process. As-built drawings will be provided as an attachment to the Final Engineering Report, which will also show any deviations to the original Plans.

A Certification of Completion will also be included in the report, which will serve as a verification that all remedial construction activities were completed consistent with the intent of the aU-I Remedial Design, and the objectives approved by the NYSDEC.

3.5 Magnetic and Microfilm Documents

Within 30 days of approval from the NYSDEC, all reports will be submitted to the Director of the Division of Hazardous Waste Remediation in the form of a computer readable magnetic media copy. The report is to be in American Standard Code for Information Interchange (ASCII) format.

Within 30 days after approval of the Final Engineering Report, Amtrak will submit microfilm copies (16 millimeter roll film M type cartridge) of the Final Engineering Report, along with the associated as-built drawings, as well as all other approved submittals to the NYSDEC. Copies of the microfilm will be submitted to both the Director of the Division of Hazardous Waste Remediation, as well as the Director of the Division of Environmental Remediation.

4.0 CONSTRUCTION SCHEDULE

A Remedial Design schedule is included as Figure 4. The schedule includes the timeframe from submission of this Remedial Design Report through NYSDEC acceptance of the Final Engineering Report. The schedule identifies the key stages of construction from mobilization to demobilization and has been broken down in sufficient detail to include construction elements such as asphalt and concrete removal, soil excavation, post-excavation sampling, transportation and disposal, and backfill, in addition to indicating required submissions and review periods for the documents developed.

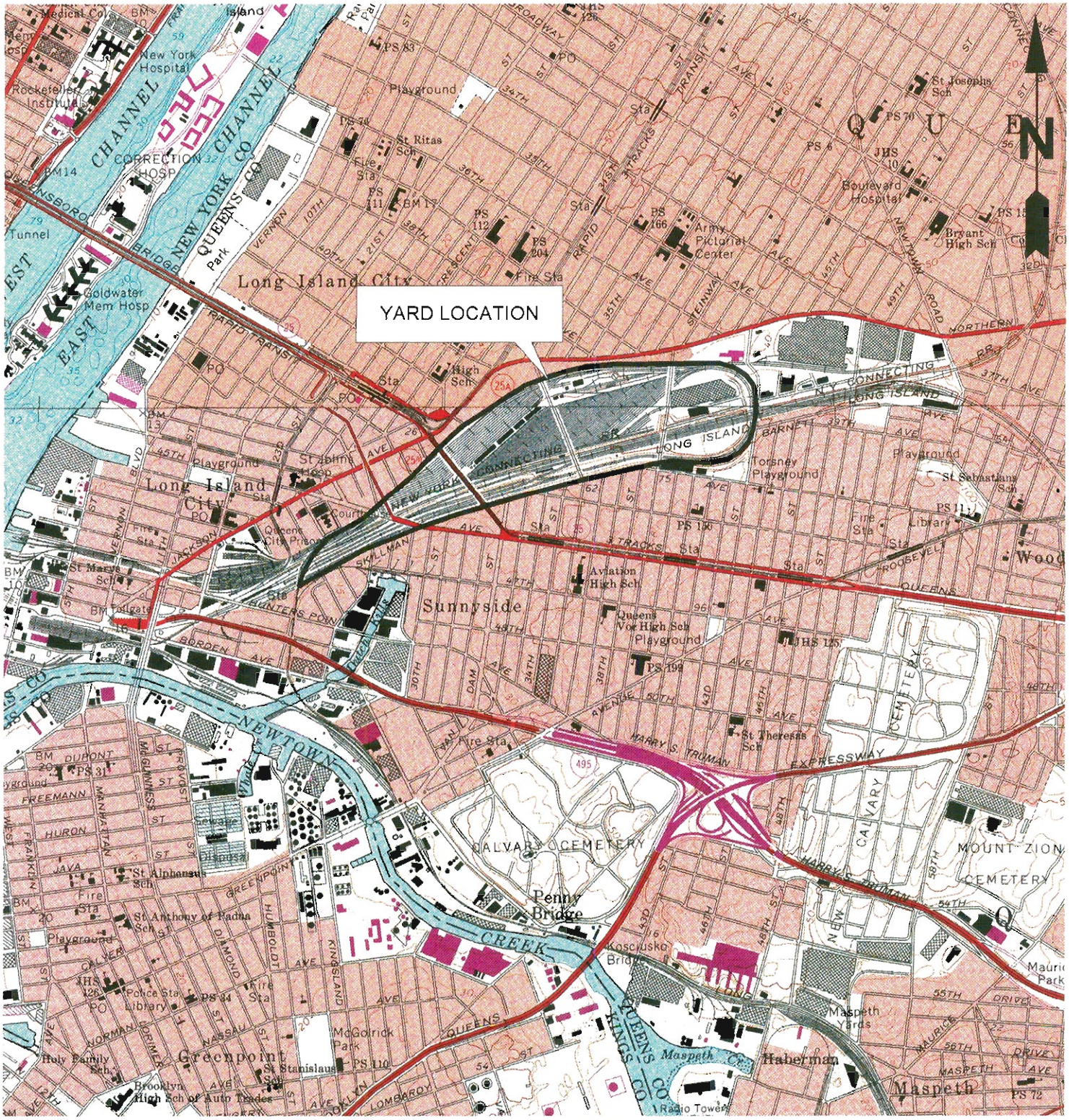
Respectfully Submitted,

ROUX ASSOCIATES, INC.

Joseph D. Duminuco
Principal Hydrogeologist

REMEDIAL ENGINEERING, P.C.

Peter J. Gerbasi, P.E.
Principal Engineer



SOURCE:
CENTRAL PARK AND BROOKLYN, NEW YORK
QUADRANGLE 7.5 MINUTE SERIES (TOPOGRAPHIC)

Title:

YARD LOCATION MAP

SUNNYSIDE YARD
39-29 HONEYWELL STREET
QUEENS, NEW YORK

Prepared For:

AMTRAK

ROUX ASSOCIATES INC
Environmental Consulting & Management

Compiled by:	J.D.	Date:	9/97	FIGURE
Prepared by:	R.R.	Scale:	1"=2,000'	1
Project Mgr:	J.D.	Status:	Final	
File No:	A5214005	Project:	05552E05	

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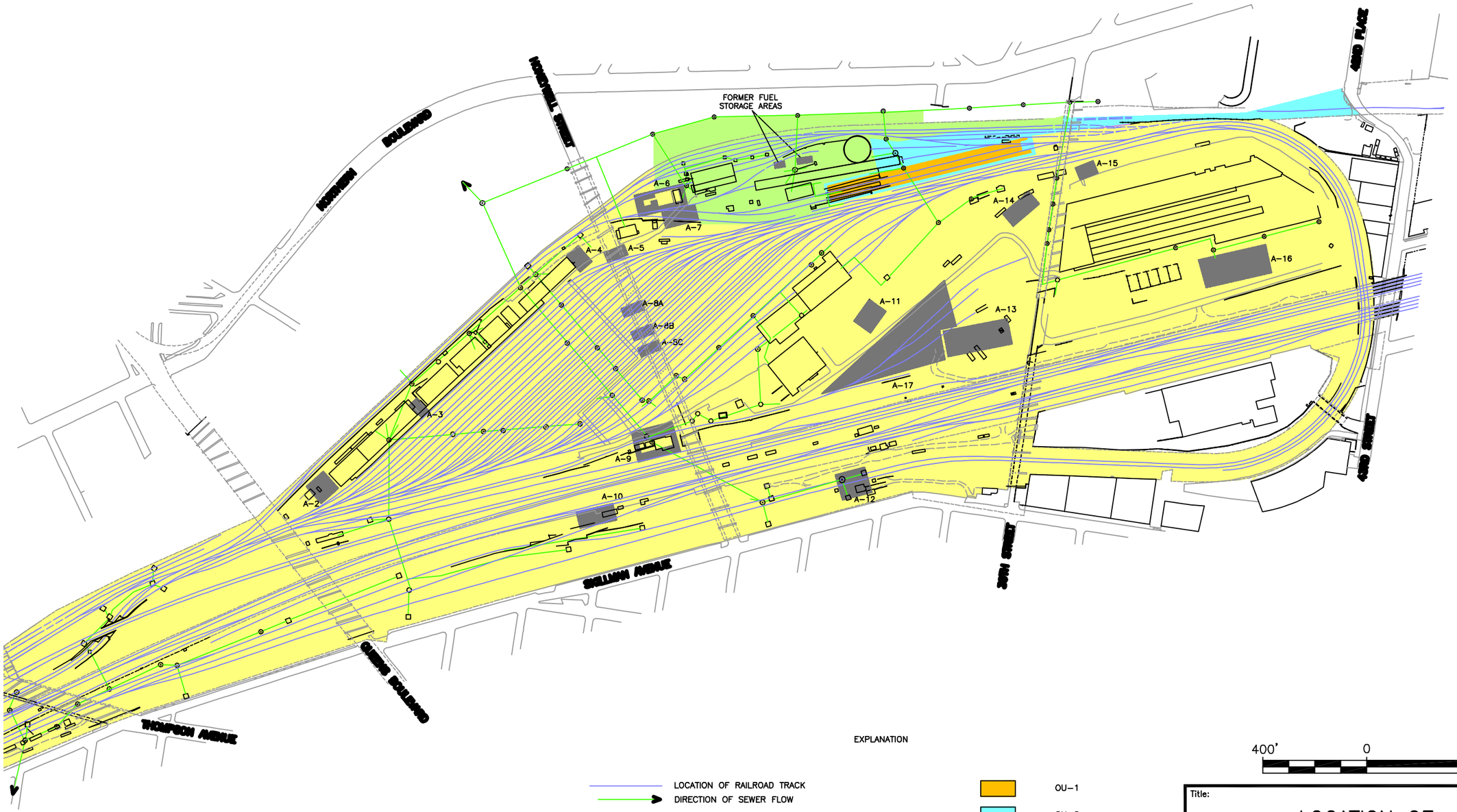

EXPLANATION

- LOCATION OF RAILROAD TRACK
- DIRECTION OF SEWER FLOW
- APPROXIMATE LOCATION OF SEWER
- GRATE COVER CATCH BASIN LOCATION
- SOLID COVER MANHOLE LOCATION
- GRATE COVER MANHOLE LOCATION
- A-2 LOCATION AND DESIGNATION OF PREVIOUSLY DETERMINED AREA OF CONCERN
- APPROXIMATE PROPERTY BOUNDARY

- OU-1
- OU-2
- OU-3
- OU-4
- OU-5

NOTES:

1. LOCATIONS AND DIAMETERS OF SEWER COMPONENTS BASED UPON A REVIEW OF AMTRAK-SUPPLIED ENGINEERING DIAGRAMS AND LIMITED FIELD SURVEY.
2. OU-6, GROUND WATER BENEATH THE YARD, IS NOT SHOWN.

Title:

LOCATION OF OPERABLE UNITS

SUNNYSIDE YARD, QUEENS, NEW YORK

Prepared For:

AMTRAK

ROUX ASSOCIATES INC
Environmental Consulting & Management

Compiled by: H.G.	Date: 8/97	FIGURE
Prepared by: R.K.	Scale: AS SHOWN	2
Project Mgr: H.G.	Status: FINAL	
File No: A5214008	Project: 05552E05	

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SITE MAP OF OPERABLE UNIT 1

SUNNYSIDE YARD, QUEENS, NEW YORK

Prepared For: AMTRAK

OPERABLE UNIT 1

STANDARD MOTOR PRODUCTS

NORTHERN BOULEVARD

37TH AVENUE

38TH AVENUE

39TH STREET

HST-1 HST-2 HST-3 HST-4 HST-5 HST-6 HST-7 HST-8

TP-6 TP-7

1-S-BR CO 35-20

2-S-BR CO 36-02

6-S-BR CO 36-20

6-S-BLK COMM 37-18

6-S-BR CO 37-18

1-S-BR CR

1-S-BLK OLD WHEEL & TRACK

2-S-BLK METRO SHED

TURNTABLE RUINS

CONTROL HOUSE

ABANDONED TRACK

R.O.W.

SUBWAY GRATES

CC

CONC

CSW

COL (TYP.)

ABUTMENT

RUINS

CAR STOP

LIGHT TOWER

UTILITY PEDESTAL

BRIDGE 'LUK'

CAT BRIDGE

STEAM PIPES

SWITCH CONTROL BOX

CP VALVE

SIGNAL CONTROL BOX

PIPE

PIPES

AIR LINE

SHED

'R' TOWER 2-S-BLK

SIGNAL CONTROL BOXES

1-S-BLK C&S BUILDING

GATE

GRAVEL

CLF

UTILITY PIT

C&S

WINCH

TEST STATION

FLAG POLE

1-S-BLK WHEEL TRUING BLDG.

2-S-BLK WHEEL HOUSE & RUNNING REPAIR BLDG.

OIL-WATER SEPARATOR

1-S-BLK CONDENSER

SURGE TANK

80' 0 80'

LEGEND

OUTLINE OF OPERABLE UNIT 1 (PROPOSED HSTF S&I BUILDING LOCATION)

PROPOSED LIMIT OF EXCAVATION

HST-4 SOIL BORING LOCATION AND DESIGNATION

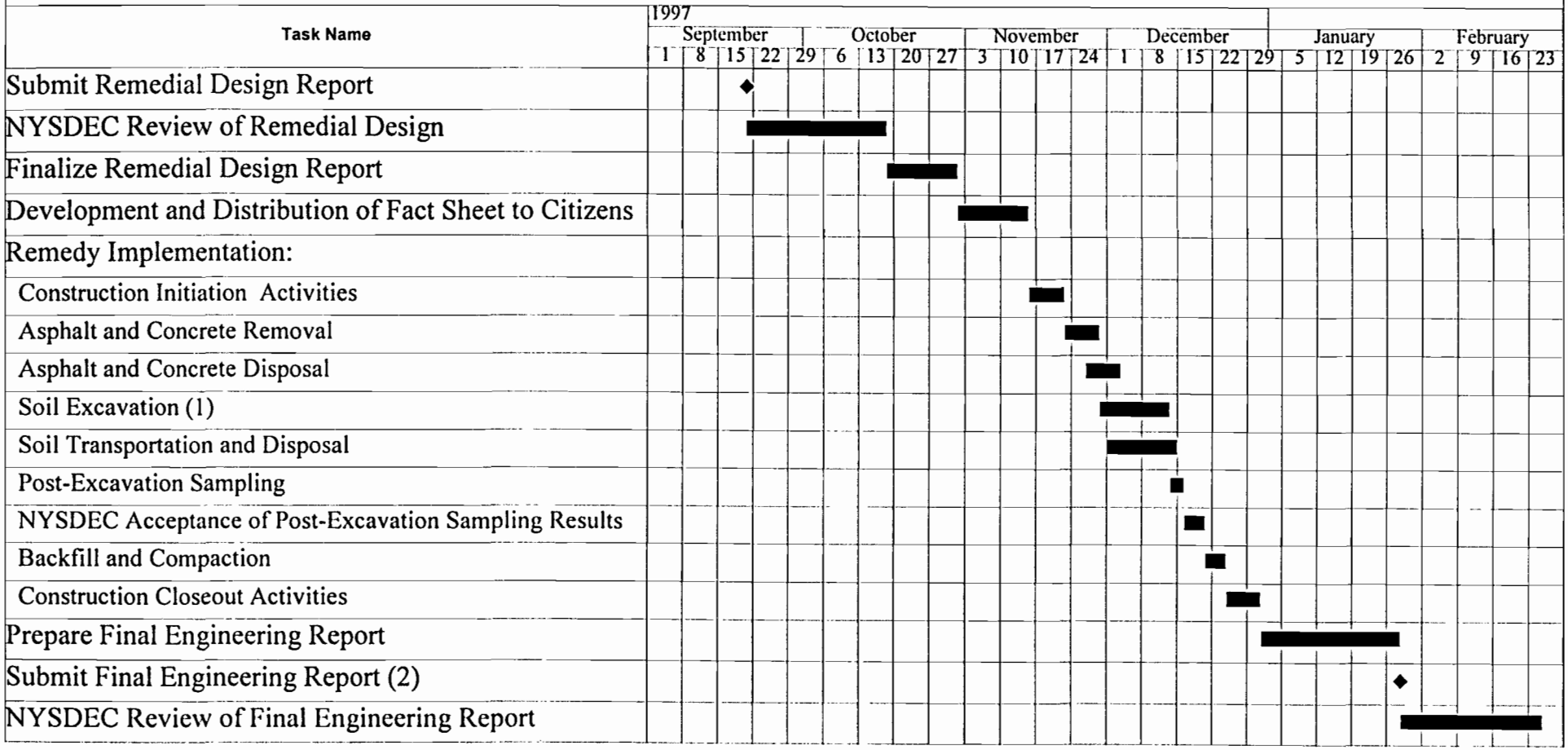
TP-7 TEMPORARY PIEZOMETER LOCATION AND DESIGNATION

ROUX ASSOCIATES INC
Environmental Consulting & Management

Compiled by:	J.Y.	Date:	9/97
Prepared by:	R.K.	Scale:	AS SHOWN
Project Mgr:	H.G.	Status:	FINAL
File No:	A5214004	Project:	05552E05

FIGURE 3

Figure 4. Schedule for the OU-1 Remedy Implementation Amtrak, Sunnyside Yard, Queens, New York



Notes:
1. If post-excavation sampling reveals that residual soil contains Carcinogenic Polycyclic Aromatic Hydrocarbons (CPAHs) above the NYSDEC-recommended soil cleanup levels, this schedule may be extended.
2. If this schedule remains within the timeframe indicated, the Final Engineering Report will also serve as the required quarterly progress report.

◆ - Deliverable Submission

APPENDIX A

Health and Safety Plan

OPERABLE UNIT 1
REMEDIAL DESIGN

HEALTH AND SAFETY PLAN

Sunnyside Yard
Queens, New York

October 2, 1997

Approvals:

Roux Associates, Inc. Project Manager		
	William G. Fisher, P.E.	Date
Roux Associates, Inc. Health and Safety Manager		
	Linda M. Wilson	Date
Roux Associates, Inc. Site Health and Safety Officer		
	Harry Gregory	Date

CONTENTS

CONTENTS (Continued)

TABLE

FIGURES

ATIACHMENTS

1.0 GENERAL

This site-specific Health and Safety Plan (HASP) has been prepared in accordance with 29 CFR 1910.120 Occupational Safety and Health Act (OSHA) Hazardous Waste Operations, Department of Transportation Roadway Worker Protection, and Roux Associates, Inc. (Roux Associates) Standard Operating Procedures (SOPs). It addresses all activities associated with the remediation activities at Operable Unit 1 (OU-I) of the Sunnyside Yard, Queens, New York and will be implemented by the designated Site Health and Safety Officer (SHSO) during work at OU-I.

Compliance with this HASP is required for all Amtrak Representative employees, subcontractor personnel, and third parties who enter OU-I. Assistance in implementing this HASP can be obtained from the Amtrak Representative Health and Safety Manager. The content of this HASP may undergo revision based upon additional information made available. Any changes proposed must be reviewed and approved by the Roux Associates Health and Safety Manager or her designee.

Scope of Work:

The scope of work will consist of the following activities:

- design and construct on-site support facilities;
- removal of railroad tracks and overhead catenary lines and poles;
- removal of concrete and asphalt from the surface of contaminated soil;
- excavation of contaminated soil (carcinogenic polycyclic aromatic hydrocarbons greater than 10 parts per million [ppm]);
- perform post-excavation soil sampling and waste characterization sampling; and
- backfill of excavation with clean fill.

2.0 EMERGENCY INFORMAnON

Multiple emergency services may be obtained from 911. More specific numbers for local services are listed below.

Type	Name	Telephone Numbers
Amtrak Police		(212) 630-7113
Fire		(718) 847-6600
Hospital (Figure 1 - Map)	Astoria General Hospital 25-10 30th Avenue Astoria, New York	(718) 932-1000
National Response Center		(800) 424-8802
Poison Control Center		(800) 962-1253
Penn Station Control Center		(212) 630-7465
Project Manager	Joseph Duminuco	Work: (516) 232-2600 Pager: 1-888-367-1207
Site Health and Safety Officer	Harry Gregory	Work: (516) 232-2600 Pager: 1-888-518-0833

3.0 HEALTH AND SAFETY PERSONNEL DESIGNAnONS

Personnel Designation	Responsibilities
Health and Safety Manager (HSM)	Implementation and modification of the HASP. Will assign health and safety duties. Provides adequate resources for field health and safety personnel. Ensures that field personnel are trained and aware of Yard conditions. Schedules adequate personnel and equipment to perform job safely.
Site Health and Safety Officer (SHSO)/ Site Emergency Coordinator	Conducts safety briefings and worker awareness meetings. Ensures compliance with HASP. Notifies HSM of accidents/incidents. Coordinates health and safety activities. Makes contact with local emergency groups prior to beginning work on-site. Responsible for evacuation, emergency treatment, and emergency transport of Yard personnel.
Field Technical Staff	Report unsafe or hazardous conditions to SHSO. Understand the information contained in this HASP.

4.0 YARD mSTORY AND PHYSICAL DESCRIPTION

The Sunnyside Yard (Yard) is located in an urban area in northeastern Queens County in New York. The East River is located approximately one mile to the west. The Yard is surrounded by commercial, light industrial, and residential areas.

The Yard consists of an active railroad maintenance and storage facility which encompasses approximately 105 acres. It functions primarily as a maintenance facility for electric locomotives and railroad cars for both Amtrak and New Jersey Transit Corporation.

The Pennsylvania Tunnel and Terminal Company, a subsidiary of the Pennsylvania Railroad constructed the terminal in the early 1900s. On April 1, 1976, the Consolidated Rail Corporation (Conrail) acquired the Yard, and on the same day conveyed it to Amtrak, which has continued to operate it as a storage and maintenance facility for railroad rolling stock. Prior to September 29, 1961, a portion of the Yard was owned by the Long Island Rail Road (LIRR). Today, the LIRR maintains a right-of-way through the Yard.

QU-1 is the portion of the Yard designated by Amtrak as a site for the High Speed Trainset Facility (HSTF). This includes the northeastern portion of the Yard with the Service and Inspection (S&I) Building measuring approximately 790 feet in length and 60 feet in width.

5.0 SITE-RELATED INCIDENTS, COMPLAINTS, AND ACTIONS

Investigations at the Yard have been ongoing since 1983. The previous investigations (1983 through 1986) for which Amtrak has records are described in previous HASPs.

A Phase I Remedial Investigation (RI) was performed by Roux Associates from October 1990 through March 1991. The RI was undertaken in accordance with the provisions of the Order On Consent, Index No. W2-0081-87-06 between the New York State Department of Environmental Conservation (NYSDEC), the National Railroad Passenger Corporation (Amtrak) and the New Jersey Transit Corporation. This investigation concluded that further investigations were warranted to delineate the nature and extent of contamination in 17 areas of concern and facility wide.

Investigations at the Yard have continued including a Phase II RI, Phase II Addendum RI, Interim Remedial Measure Designs, sewer repair, sampling and various other activities. A Limited Phase II Environmental Site Assessment Investigation during April and May 1996 was performed to characterize soil quality within the proposed footprint of the HSTF S&I Building, designated as OU-I.

With the NYSDEC's concurrence, to accommodate the HSTF S&I Building construction schedule and still address remedial efforts sitewide in a timely and orderly manner, the Yard has been subdivided into six operable units described as follows:

- Operable Unit 1 (OU-l) designated as the soil above the water table within the footprint of the proposed HSTF S&I Building;
- Operable Unit 2 (OU-2) designated as the soil above the water table within the footprint of the HSTF S&I Building ancillary structures (i.e., the access road and utilities route, the parking the construction easement area which surrounds the building, and the construction laydown area);
- Operable Unit 3 (OU-3) designated as the soil and separate-phase petroleum accumulation above the water table in Area 1 of the Yard, as defined in the Phase I RI report;
- Operable Unit 4 (OU-4) designated as the soil above the water table in the remainder of the Yard;

- Operable Unit 5 (OU-5) designated as the sewer system beneath the Yard; and
- Operable Unit 6 (OU-6) designated as the ground water including the saturated soil beneath the Yard.

A Feasibility Study for OU-1 was submitted to the NYSDEC in April 1997 and accepted in the ROD issued August 13, 1997. The OU-2 RI was submitted to the NYSDEC in May 1997 and accepted August 1, 1997.

6.0 HAZARD ASSESSMENT

The potential hazards associated with the anticipated activities on hazardous waste sites include biological, chemical, and physical hazards. Based on the available information, the potential for encountering biological hazards at OU-l is low. There is the potential for encountering both chemical and physical hazards due to the nature of the work location and the activities to be conducted. These are discussed below.

6.1 Chemical Hazards

Previous investigations have shown concentrations of inorganic compounds (metals), volatile organic compounds (YOCs), semivolatile organic compounds (SYOCs), polychlorinated biphenyls (PCBs) and total petroleum hydrocarbons (TPHs). The toxicological, physical, and chemical properties of these potential contaminants are presented in Table 1. This table includes action levels (permissible exposure levels) which will establish the level of protection. The potential for encountering these hazards exists during intrusive activities such as excavation, waste characterization, etc.

6.2 Physical Hazards

A variety of physical hazards may be present during OU-l activities. These hazards are similar to those associated with any remediation project. These physical hazards are due to motor vehicle and heavy equipment operation, the use of power and hand tools, hazardous walking and working surfaces, and handling and storage of fuels. In addition, workers must be aware of electrical hazards, such as overhead and underground power lines, while performing their assigned tasks. These hazards are not unique and are generally familiar to most field personnel. However, the main hazards which are unique to OU-1 are those involved with working on or near tracks over which trains move. The hazards are discussed below.

6.2.1 Noise

Noise is a potential hazard associated with the operation of heavy equipment, power tools, pumps, and generators. High noise operations will be evaluated at the discretion of the SHSO. Personnel with 8-hour time-weighted-average exposures exceeding 85 dBA must be included in a hearing conservation program in accordance with 29 CFR 1910.95.

6.2.2 Heat Stress

Heat stress is a significant potential hazard and can be associated with heavy physical activity andlor the use of personal protective equipment in hot weather environments.

Heat cramps are brought on by prolonged exposure to heat. As an individual sweats, water and salts are lost by the body resulting in painful muscle cramps. The signs and symptoms of heat cramps are as follows:

- severe muscle cramps, usually in the legs and abdomen;
- exhaustion, often to the point of collapse; and
- dizziness or periods of faintness.

First aid treatment includes shade, rest and fluid replacement. Normally, the individual should recover within one-half hour. If the individual is not better within 30 minutes and the temperature has not decreased, the individual should be transported to a hospital for medical attention.

Heat exhaustion may occur in a healthy individual who has been exposed to excessive heat while working or exercising. The circulatory system of the individual fails as blood collects near the skin in an effort to rid the body of excess heat. The signs and symptoms of heat exhaustion are as follows:

- rapid and shallow breathing;
- weak pulse;
- cold and clammy skin with heavy perspiration;
- skin appears pale;
- fatigue and weakness;
- dizziness; and
- elevated body temperature.

First aid treatment includes cooling the victim, elevating the feet, and replacing fluids. If the individual is not better within 30 minutes and the temperature has not decreased, the individual should be transported to the hospital for medical attention.

Heat stroke occurs when an individual is exposed to excessive heat and stops sweating. Thi This condition is classified as a MEDICAL EMERGENCY, requiring immediate cooling of the victim and transport to a medical facility. The signs and symptoms of heat stroke are as follows:

- dry, hot, red skin;
- body temperature approaching or above 105°F;
- large (dilated) pupils; and
- loss of consciousness - the individual may go into a coma.

First aid treatment requires immediate cooling and transportation to a medical facility.

Heat stress is a significant hazard if any type of protective equipment (semipermeable or impermeable) which prevents evaporative cooling is worn in hot weather environments. Local weather conditions may require restricted work schedules in order to adequately protect personnel. The use of work/rest cycles (including working in the cooler periods of the day or evening) and training on the signs and symptoms of heat stress should help prevent heat-related illnesses from occurring.

6.2.3 Cold Stress

Cold stress is a danger at low temperatures and when the wind-chill factor is low. Prevention of cold-related illnesses is a function of whole body protection. Adequate insulating clothing must be used when the air temperature is below 40°F. In addition, reduced work periods followed by rest in a warm area may be necessary in extreme conditions. Training on the signs and symptoms of cold stress should prevent cold-related illnesses from occurring. The signs and symptoms of cold stress include the following:

- severe shivering;
- abnormal behavior;

- slowing;
- weakness;
- stumbling or repeated falling;
- inability to walk;
- collapse; and/or
- unconsciousness.

First aid requires removing the victim from the cold environment and seeking medical attention immediately. Also, prevent further body heat loss by covering the victim lightly with blankets. Do not cover the victim's face. If the victim is still conscious, administer hot drinks, and encourage activity, such as walking wrapped in a blanket.

6.2.4 Track Safety

All employees assigned to work at OU-l must attend the Amtrak Contractor Employee Safety Program Course (CSG-101), which includes Roadway Worker Protection for compliance with 49 CFR Part 214. In addition, all employees will display the Amtrak Contractor Employee Safety Trained Badge.

As part of Amtrak's compliance efforts, each employee must understand the following:

- a job briefing with an Amtrak representative is required prior to commencing work;
- never foul any track without protection provided by Amtrak;
- immediately clear tracks upon signal from watchman;
- never return to tracks until clear signal is given by watchman; and
- follow all Amtrak on-track safety rules and instructions.

The two most common dangers involved with working on or about railroad tracks are moving trains and electrical power lines. The following procedures must be followed.

- Clear the tracks when a train approaches from either direction. A gang watchman will signal that a train is approaching by blowing a whistle or air hom, and by raising a black and white signal disc overhead.

- To avoid the dangers from electrical hazards, stay at least 15 feet away from any energized line. Do not approach closer than 15 feet to an electrical wire unless a class A employee tells you it is de-energized and properly grounded.

A copy of the Contractor Safety Course booklet and New York Division Supplement is included as Attachment 1. Amtrak provides Contractor Responsibilities for conducting work and handling equipment and materials to prevent any part of equipment from fouling on operated track or wire line without written permission. The Contractor Responsibility is also included as Attachment 1.

7.0 TRAINING REQUIREMENTS

The Hazardous Waste Operations and Emergency Response Rule (29 CFR 1910.120) requires that all personnel be trained to recognize on-site hazards, the provisions of this HASP, and the responsible personnel. This section discusses the means to meet these requirements.

7.1 Basic Training

All personnel who will perform work in areas where there exists the potential for toxic exposure will be health and safety trained prior to performing work on-site per OSHA 29 CFR 1910.120(e). Training records will be maintained by the SHSO on-site and as described in Section 7.4.

All employees will receive the Amtrak Contractor Employee Safety Program course.

7.2 Site-Specific Training

Health and safety related training that will specifically address the activities, procedures, monitoring and equipment for the OU-l operations will be provided to all personnel and visitors by the SHSO. It will include OU-l and facility layout, hazards, emergency services at the Yard and will detail all provisions contained within this HASP. This training will also allow field workers to clarify anything they do not understand and to reinforce their responsibilities regarding safety and operations for their particular activity. Site-specific training will be documented and kept as part of the project records.

7.3 Safety Briefings

Project personnel will be given briefings by the SHSO on an as-needed basis to further assist them in conducting their activities safely. Safety briefings will be provided when new operations are to be conducted (such as excavation, waste characterization), changes in work practices must be implemented due to new information made available, and before work is begun at each location (Le., excavation). Records of safety briefings will be kept as part of the project records.

7.4 Record Keeping Requirements

All record keeping requirements mandated by OSHA 29 CFR 1910.120 will be strictly followed. Specifically, all personnel training records, injury/incident reports, medical examination records and exposure monitoring records will be maintained by Amtrak's Representative for a period of at least thirty years after the employment termination date of each employee. Pertinent health and safety training and medical certifications will be kept onsite during the field operations. The SHSO shall maintain a daily written log of all health and safety monitoring activities, and monitoring results shall become part of the project records.

Each subcontractor will maintain the above-mentioned records for his/her employees.

8.0 MONITORING PROCEDURES FOR OU-1 OPERATIONS

During monitoring, the SHSO will record wind direction and temperature in the logbook. All monitoring equipment will be calibrated per the applicable owner's manual, which will be kept onsite.

8.1 Intrusive Operations

Data from previous investigations have identified low concentrations of specific VOCs in soil and ground water. Air monitoring will be performed to establish the concentrations of these constituents during intrusive activities (i.e., excavation) using a photoionization detector (PID).

The PID will be used to provide direct readings at the time of the excavating, sampling, etc. to determine that the level of personal protection being applied is adequate.

The SHSO will monitor the breathing zone with the PID in continuous operating mode and with the alarm activated. The alarm will be set at 5 ppm, which is below the permissible exposure level (PEL) for all organic constituents of concern. If the PID indicates the 5 ppm level is exceeded, the SHSO will order cessation of the activity until all personnel within the exclusion zone have donned a full face air-purifying respirator, or until the nature of the hazard has been more thorougWy evaluated.

Polycyclic aromatic hydrocarbons (pAHs), PCBs, and metals have been detected in soil during previous investigations. Therefore, particulate monitoring and fugitive dust suppression will be employed to minimize the potential for employee and off-site exposure to these constituents.

Particulates will be continuously monitored upwind and downwind of the work area. The alarm for the particulate monitoring device will be set at 150 micrograms per cubic meter ($\mu g/m^3$). If the downwind particulate levels, integrated over a period of 15 minutes, is 150 $\mu g/m^3$ greater than the upwind particulate level, then dust suppression techniques will be employed. If the working site particulate measurement is greater than 100 $\mu g/m^3$ above the background level, additional dust suppression techniques must be employed.

There may also be situations where dust being generated is not detected by the monitoring equipment at or above the action level. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observations. Therefore, if dust is observed leaving the working area, additional dust suppression techniques will be employed. All readings will be recorded in the field logbook and will be available for the NYSDEC and New York State Department of Health (NYSDOH) personnel to review.

The following techniques will be employed to mitigate the generation and migration of fugitive dust during remediation activities:

- applying water on the haul roads;
- misting equipment and excavation faces;
- spraying water (using atomizer) on buckets during excavation and dumping;
- hauling materials in properly tarped or watertight containers; and
- covering excavated areas and material after excavation activity ceases.

If the dust suppression techniques do not lower particulates to below 150 downwind and no visible dust is noted, work will be suspended until appropriate corrective measures are identified and implemented to remedy the situation.

8.2 **Non-Intrusive Operations**

Based on the current understanding of OU-I conditions, monitoring may be performed using a Pill on the first day of non-intrusive operations and periodically thereafter.

9.0 MEDICAL SURVEILLANCE REQUIREMENTS

Medical surveillance specifies any special medical monitoring and examination requirements as well as stipulates that all Amtrak Representative personnel and subcontractors are required to pass the medical surveillance examination or equivalent for hazardous waste work required by 29 CFR 1910.120. As a minimum, the examination will include:

- complete medical and work histories;
- EKG;
- urinalysis;
- physical exam;
- eye exam;
- blood chemistry;
- pulmonary function test; and
- audiometry.

The examination will be taken annually, at a minimum, and upon termination of employment with the company. Additional medical testing may be required by the HSM in consultation with the company physician and the SHSO if an overt exposure or accident occurs, or if other Yard conditions warrant further medical surveillance.

10.0 ZONES, PROTECTION AND COMMUNICATIONS

10.1 Site Zones

Roux Associates employs the following three zone approach to OU-I operations:

- the Work Zone;
- the Contamination Reduction Zone; and
- the Support Zone.

10.1.1 Work Zone

The Work Zone is the area where work will be conducted. The Work Zone will be designated by a temporary barrier (e.g., cones, caution tape, etc.). All workers within the Work Zone shall wear the proper personal protective equipment (see Section 10.2). No unauthorized persons will be allowed in the Work Zone during OU-I activities.

No personnel are allowed in the Work Zone without:

- a buddy;
- the proper personal protective equipment;
- medical authorization; and
- training certification.

10.1.2 Contamination Reduction Zone

A Contamination Reduction Zone (CRZ) will be established between the Work Zone and the Support Zone. The CRZ will provide for full personal and portable equipment decontamination (Section 10.3). The CRZ will also contain safety and emergency equipment such as first aid equipment (bandages, blankets, eye wash) and containment equipment (absorbent, fire extinguisher).

10.1.3 Support Zone

The Support Zone is considered the uncontaminated area and will provide for team communications and emergency response. Appropriate safety and support equipment will be located in this zone. The Support Zone will be located upwind of OU-I operations, if possible, and may be used as a potential evacuation point. No potentially contaminated personnel or material are allowed in this zone except appropriately packaged/decontaminated and labeled samples and drummed wastes.

10.2 Personal Protection

This section describes the levels of protection which will be required by personnel during the field sampling activities at OU-I.

10.2.1 General

The level of protection to be worn by field personnel and visitors will be defined and controlled by the SHSO with approval of the HSM. Where more than one hazard area is indicated, further definition shall be provided by review of OU-I hazards, conditions, and operational requirements and by monitoring at the particular operation being conducted.

During all intrusive activities, continuous monitoring will be performed using the PID and the particulate meter. Protection may be upgraded or downgraded by the SHSO in conjunction with the HSM based upon the PID instrument and particulate meter results.

Tasks which will require continuous monitoring to ensure that exposure levels are below the required action levels include the following:

- excavation; and
- waste disposal activities.

All non-intrusive activities which preclude contact with contaminated media will be performed in Level D protection without continuous monitoring, unless periodic monitoring results indicate additional monitoring is warranted.

10.2.2 Respiratory Protection and Clothing

Three levels of protective equipment are discussed below including Level D, Level C, and Level B.

Level D Protection

1. Personal protective equipment

   Cotton coveralls

   Cotton gloves

   Boots/shoes, leather or chemical-resistant, steel toe and shank

   Boots (outer), chemical-resistant (disposable·)

   Safety glasses or chemical splash goggles

   Hard hat

   Escape mask·

* Optional

2. Criteria for selection

   Pill instrument (such as Photovac Microtip) readings in the breathing zone are less than 5 ppm. Work functions preclude splashes, immersion, or potential for unexpected inhalation of any chemicals.

NOTE: Modifications of Level D will be used to increase the level of skin protection during activities which increase the degree of contact with chemical hazards. These modifications include the use of chemical resistant coveralls (e.g., tyveks) and chemical-resistant gloves.

Level C Protection

1. Personal protective equipment

Full face, air-purifying, cartridge-equipped respirator (Mine Safety and Health Administration [MSHA]/National Institute for Occupational Safety [NIOSH] approved)

Chemical-resistant clothing (coverall; hooded, two-piece chemical splash suit; chemical-resistant hood and apron; disposable chemical-resistant coveralls)

Cotton or synthetic coveralls*

Gloves (outer), chemical-resistant nitriles

Gloves (inner), chemical-resistant latex

Boots (inner), chemical-resistant, steel toe and shank

Boots (outer), chemical-resistant (disposable*)

Hard hat (face shield*)

Escape mask*

2-Way radio communications (intrinsically safe)*

*Optional

2. Criteria for selection

Continuous total vapor readings register between 5 ppm and 25 ppm on Pill instruments (such as the Photovac Microtip).

Measured air concentrations of identified substances (organic vapors) will be reduced by the respirator to at or below the substance's pennissible exposure limit, and the concentration is within the service limit of the canister.

Atmospheric contaminant concentrations do not exceed Immediately Dangerous to Life and Health (IDLH) levels.

Atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect the small area of skin left unprotected by chemical-resistant clothing.

Job functions have been determined not to reqUIre self-contained breathing apparatus.

Level B Protection

1. Personal Protection Equipment

Pressure-demand, self-contained breathing apparatus (MSHNNIOSH approved)

Chemical-resistant clothing (overall and long-sleeved jacket; coveralls; hooded, one or two-piece chemical-splash suit; disposable chemical- resistant coveralls)

Coveralls

Gloves (outer), chemical-resistant nitriles

Gloves (inner), chemical-resistant latex

Boots (inner), chemical-resistant, steel toe and shank

Boots (outer), chemical-resistant (disposable)

Hard hat (face shield)

2-way radio communications (intrinsically safe)

2. Criteria for Selection

Meeting anyone of these criteria warrants use of Level B protection:

PID instrument (such as Photovac Microtip) readings in the breathing zone are greater than 25 ppm and less than 500 ppm.

The type(s) and atmospheric concentration(s) of toxic substance(s) have been identified and require the highest level of respiratory protection, but a lower level of skin and eye protection. These would be atmospheres:

with concentrations Immediately Dangerous to Life and Health (IDLH)

or

exceeding limits of protection afforded by a full face, air-purifying mask

or

containing substances requiring air-supplied equipment, but substances and/or concentrations do not represent a serious skin hazard.

The atmosphere contains less than 19.5% oxygen.

Yard operations make it higWy unlikely that the small, unprotected arc of the head or neck will be contacted by splashes of extremely hazardous substances.

If work is performed in an enclosed space.

10.3 Decontamination Procedures

A steam cleaner will be utilized to decontaminate the excavation equipment. Personnel should exercise caution when using a steam cleaner. The high pressure steam can cause severe bums. Protective gloves, face shields, hard hats, steel-toed boots, and Tyvek suits or rain gear will be worn when using steam cleaners.

10.3.1 Contamination Prevention

Adequate contamination prevention should minimize worker exposure and help ensure valid sample results by precluding cross-contamination. Procedures for contamination avoidance include the following.

Personnel

- Do not walk through areas of obvious or known contamination;
- Do not handle contaminated materials directly;
- Make sure all personal protective equipment (PPE) has no cuts or tears prior to donning;
- Fasten all closures on suits, covering with tape, if necessary;
- Take particular care to protect any skin injuries;
- Stay upwind of airborne contaminants;
- Do not cany cigarettes, gum, etc. into contaminated areas; and
- Use disposables to cover nondisposables when contact is probable.

SamplingIMonitoring

- When required by the SHSO, cover instruments with clear plastic, leaving openings for sampling and exhaust ports; and
- Bag sample containers prior to the placement of sample material.

Heavy Equipment

- Care should be taken to limit the amount of contamination that comes in contact with heavy equipment;
- If contaminated tools are to be placed on non-contaminated equipment for transport to the decontamination pad, plastic should be used to keep the equipment clean; and
- Excavated soil should be contained and kept out of the way of workers.

10.3.2 Decontamination

All personnel and equipment exiting the Work Zone shall be thoroughly decontaminated. Figures 2, 3 and 4 illustrate decontamination procedures for Levels D, C and B, respectively. Safety briefings shall explain the decontamination procedures for personnel and portable equipment for the various levels of protection. Heavy equipment will be decontaminated with a steam cleaner.

10.3.3 Disposal Procedures

All discarded materials, waste materials, or other objects shall be handled in such a way as to preclude the potential for spreading contamination, creating a sanitary hazard, or causing litter to be left at aU-I. All potentially contaminated materials (e.g., soil, clothing, gloves, etc.) will be bagged or drummed, as necessary, and segregated for disposal. All contaminated materials shall be disposed of in accordance with appropriate regulations. All non-contaminated materials shall be collected and bagged for appropriate disposal as normal domestic waste. All waste disposal operations conducted by Amtrak's Representative will be monitored by the SHSa and carried out under the appropriate level of personal protection.

10.4 Standard Operating Procedures/Safe Work Practices

This section discusses safe work practices to be used during all activities. In addition, non-monitoring, safety-related procedures are described.

10.4.1 Communications

- Telephones -- A telephone will be available for communication with emergency support services/facilities.

- Hand Signals -- To be employed by personnel required to have Level C and Level B protection. They shall be known by the entire field team before operations commence and covered during site-specific training.

The following hand signals will be used, if needed:

Signal	Meaning
Hand gripping throat	Out of air, can't breath
Grip partner's wrist	Leave area immediately
Hands on top of head	Need assistance
Thumbs up	I'm alright, okay
Thumbs down	No, negative

10.4.2 General Safe Work Practices

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand to mouth contact and ingestion of material is prohibited in the Work Zone orCRZ.

- Hands must be washed thoroughly upon leaving the Work Zone or before eating, drinking, or any other activities.

- Contaminated protective equipment shall not be removed from OU-l until it has been decontaminated and properly packaged and labeled.

- Portable eyewash stations shall be located in the decontamination staging area in the Support Zone.

- No facial hair, which interferes with a satisfactory fit of respiratory equipment, will be allowed on personnel that may be required to wear respiratory protective equipment.

- An emergency first aid kit and fire extinguisher shall be onsite in the Support Zone at all times.

- All respiratory protection selected to be used onsite shall meet NIOSH/MSHA requirements for the existing contaminants.

- Any skin contact with sutface and ground water shall be avoided.
- No contact lenses may be worn in the Work Zone or CRZ.

10.4.3 Sampling

All field sampling will be performed under the level of personal protection described in Section 10.2. Non-monitoring, safety-related procedures are described below.

Personnel must wear prescribed clothing, especially eye protection and chemical resistant gloves when sampling. The sampling team must be aware of emergency evacuation procedures described in this HASP, and the location of all emergency equipment (Section 10.1.2) and emergency contacts prior to sampling (Section 11.0). Contamination avoidance shall be practiced at all times. In some situations, additional monitoring by the SHSO may be needed to confirm or establish the proper level of protection before the sampling team can proceed.

10.4.4 Sample Handling

Personnel responsible for the handling of samples shall wear the prescribed level of protection described in Section 10.2. Samples shall be identified as to their hazard and packaged as to prevent spillage or breakage. Any unusual sample conditions should be noted. Laboratory personnel shall be advised of sample hazard level and the potential contaminants present. This can be accomplished by a phone call to the lab coordinator and/or inclusion of a written statement with the samples. It may be necessary for the SHSO to review safety procedures in handling OU-l samples to assure that these practices are appropriate for the type of suspected contaminants in the sample.

10.4.5 Waste Disposal

All waste disposal operations shall be monitored by the SHSO and petformed usmg the appropriate level of personal protection. Personnel shall wear the prescribed clothing, especially eye protection and chemical-resistant gloves, when handling or drumming waste materials. Contamination avoidance shall be practiced at all times.

10.4.6 Confined Space Entry

The proposed scope of work does not require personnel to enter any confined space during the conduct of this project. Confined space is defined as having limited or restricted means of entry or exit, is large enough for an employee to enter and perform assigned work, and is not designed for continuous occupancy by the employee. These spaces include, but are not limited to, underground vaults, tanks, storage bins, pit and diked areas, vessels, and silos.

A permit required confined space is one that meets the definition of confined space, and has one or more of the following characteristics:

- contains or has the potential to contain a hazardous atmosphere;
- contains a material that has the potential for engulfing an entrant;
- has an internal configuration that might cause an entrant to be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross section; and/or
- contains any other recognized serious safety or health hazards (29 CFR 1910.146 b).

A non permit confined space "does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm" (29 eFR 1910.146 b).

Although no confined space entry is scheduled for work at aU-I, there is a possibility that "out of scope" work requires entering a manhole, recovery well, etc. Should this occur, the following activities will be performed prior to entry.

1. The cover protecting the vault, manhole, etc. will be removed several hours before the sampling activity (e.g., water-level measurement, sampling, etc.) occurs to allow for natural ventilation. (NOTE: Provide a temporary barrier around this area to prevent an accidental fall, or foreign objects from entering this space.)
2. Before entering, the internal atmosphere shall be tested with direct reading instruments for the following:
    - oxygen content - oxygen meter;

- flammable gases and vapors - combustible gas indicator; and
- potential toxic air contaminants - Pill or flame ionization detector (Fill).

3. If a hazardous atmosphere is detected during entry, the employee shall leave the space immediately and procure protective equipment before any re-entry takes place.

10.4.7 Additional Safe Work Practices

Refer to the SHSO for specific concerns on each individual OU-l task. The safety rules listed below must be strictly followed:

- employ the "buddy system" for any Work Zone activities;
- practice contamination avoidance, both onsite and offsite; and
- plan activities ahead of time.

11.0 EMERGENCY PLAN

As a result of the hazards onsite and the conditions under which operations are conducted, the possibility of an emergency exists. An emergency plan is required by OSHA 29 CFR 1910.120 to be available for use and is included below. A copy of this plan shall be posted in the Support Zone at each work site.

11.1 Site Emergency Coordinator(s)

The SHSO shall act as the Site Emergency Coordinator to make contact with the local fire, police and other emergency units prior to beginning work on-site. In these contacts, the SHSO will inform the emergency units about the nature and duration of work expected at OU-l and the type of contaminants and possible health or safety effects of emergencies involving these contaminants.

The SHSO or his designee shall implement this emergency plan whenever conditions at the Yard warrant such action. The coordinator(s) will be responsible for assuring the evacuation, emergency treatment, emergency transport of Yard personnel as necessary, and notification of emergency response units and the appropriate management staff.

11.2 Evacuation

In the event of an emergency situation, such as fire, explosion, significant release of particulates, etc., an air horn or other appropriate device will be sounded by the SHSO for approximately ten seconds indicating the initiation of evacuation procedures. All persons in both the restricted and non-restricted areas will evacuate and assemble near the Support Zone or other safe area as identified in advance by the SHSO. Under no circumstances will incoming personnel or visitors be allowed to proceed into the evacuated area once the emergency signal has been given. The SHSO must see that access for emergency equipment is provided and that all combustible apparatus has been shutdown once the alarm has been sounded. Once the safety of all personnel is established, the fire department and other emergency response groups will be notified by telephone of the emergency. The hospital route will be posted onsite (Figure 1). Any other evacuation routes will be specified by the appropriate emergency personnel.

11.3 Potential or Actual Fire or Explosion

If the potential for a fire exists or if an actual fire or explosion occurs, the following procedure will be implemented:

- immediately evacuate the Work Zone as described above (Section 11.2); and
- notify fire department and security.

11.4 Environmental Incident (Release or Spread of Contamination)

The SHSO shall instruct a person onsite to immediately contact police and fire authorities to inform them of the possible or immediate need for nearby evacuation. If a significant release (above the reportable quantity as described in 40 CFR 302) has occurred, the National Response Center and other appropriate groups should be contacted. Those groups will alert National or Regional Response Teams as necessary. The personnel listed below shall be notified as necessary.

Type	Name	Telephone #
Fire Department		(718) 847-6600
Hazardous Material Emergency Response		911
Police Department	Amtrak Police Department	(212) 630-7113
Ambulance		911
Poison Control Center		(800) 962-1253
Hospital	Astoria General Hospital	(718) 932-1000
Penn Station Control Center		(212) 630-7465
National Response Center (Release or Spill)		(800) 424-8802
Site Health and Safety Officer	Harry Gregory	Work: (516) 232-2600 Beeper: 1-888-518-0833
Health and Safety Manager	Linda Wilson	(516) 232-2600
Project Manager	Joseph Duminuco	Work: (516) 232-2600 Beeper: 1-888-367-1207

11.5 Personal Injury

Emergency first aid shall be applied onsite as deemed necessary to stabilize the patient. Notify the emergency units as deemed necessary.

11.6 Overt Personnel Exposure

If an overt exposure to toxic materials should occur, the exposed person shall be treated onsite as follows.

Skin Contact:	Wash/rinse affected area thoroughly with copious amounts of soap and water, then provide appropriate medical attention. An eyewash and/or emergency shower or drench system will be provided on-site at the CRZ and/or Support Zone as appropriate. Eyes should be rinsed for at least fifteen (15) minutes upon chemical contamination.
Inhalation:	Move to fresh air and/or if necessary, decontaminate and transport to the hospital.
Ingestion:	Decontaminate and transport to emergency medical facility.
Puncture Wound or Laceration:	Decontaminate and transport to emergency medical facility. SHSO will provide medical data sheets to medical personnel as requested.

11.7 Adverse Weather Conditions

In the event of adverse weather conditions, the SHSO will determine if work can continue without sacrificing the health and safety of any field workers. Some of the items to be considered prior to determining if work should continue are:

- heavy rainfall;
- potential for heat stress;
- potential for cold stress and cold-related injuries;
- limited visibility;
- potential for electrical storms;
- potential for malfunction of health and safety monitoring equipment or gear; and
- potential for accidents.

12.0 AUTHORIZATIONS

Personnel authorized to enter OU-1 while operations are being conducted must be approved by the SHSO and the Project Manager. This document will be completed when the subcontractors have assigned trained personnel for this site. Authorization will require completion of appropriate training courses, medical examination requirements as specified by OSHA 29 CFR 1910.120, and review and sign-off of this HASP.

The following Roux Associates personnel are authorized to perform work onsite:

1. Joseph Duminuco
2. Harry Gregory
3. Peter Barczak
4. Linda Wilson
5. Jeffrey Makowski
6. Peter Gerbasi
7. Denise Labowski
8. William Fisher
9. Robert Tweeddale

Other personnel authorized to enter OU-1 are:

1. Amtrak Employees
2. Waste Disposal Contractors
3. Surveyors
4. LIRR Employees
5. NYSDEC Representatives
6. NYSDOH Representatives
7. Members of the Consortium

13.0 FIELD TEAM REVIEW

Each person entering OU-I and each field member shall sign this section after site-specific training is completed and before being permitted to work onsite.

I have read and understand this Site-Specific Health and Safety Plan. I will comply with the provisions contained therein.

SiteIProject: _____

Name Printed	Signature	Date

Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at the Sunnyside Yard, Queens, New York

Compound	CAS#	TLV ($mglm^3$)	IDLH (ppm)	PEL ($mglm^3$)	Routes of Exposure	Toxic Properties	Target Organs	PhysicaJl Chemical Properties
Trichloroethene	79-01-6	270 50 ppm	None	270 50 ppm	Dermal; inhalation; ingestion	CNS depression irritant Kidney damage Liver damage Heart damage	CNS skin eyes kidney liver CVS	Liquid BP = 189°F flammable LEL= 12.5% UEL=90%
Toluene	108-88-3	375 100 ppm	2,000·	375 100 ppm	Dermal; inhalation; ingestion	CNS depression Liver damage Kidney damage Defatting of skin	CNS liver kidney skin	Liquid benzene odor BP = 232°F flammable LEL= 1.2% UEL=7.1%
l,2-Dichloroethene	540-59-0	790 200 ppm	4,000	790 200 ppm	Dermal; ingestion; inhalation	CNS depressant Epigastric cramps irritant Dermatitis	CNS stomach skin	Colorless liquid BP = 118-140°F LEL=9.7% UEL= 12.8%
Petroleum hydrocarbons (petroleum distilled)	8002-05-9	1,600 400 ppm	10,000	1,600 400 ppm	Dermal; inhalation; ingestion	CNS depressant Respiratory irritant Dried/cracked skin	CNS respiratory tract skin	Colorless liquid BP = 86-460°F UEL=5.9% LEL= 1.1% Flammable

TLV - Threshold Limit Value
$mglm^3$ • milligrams per cubic meter
IDLH - Immediately dangerous to life or health
ppm - parts per million
PEL - Pennissible Exposure Limit
CNS - Central Nervous System
CVS - Cardiovascular System
GI Gastrointestinal

BP - Boiling Point
LEL Lower Explosive Limit
UEL Upper Explosive Limit
°C - degrees Celcius
OF - degrees Fahrenheit

Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at the Sunnyside Yard, Queens, New York

Compound	CAS#	TLV (mg/m^3)	IDLH (ppm)	PEL (mg/m^3)	Routes of Exposure	Toxic Properties	Target Organs	PhysicaV Chemical Properties
Chromium	7440-47-3	0.5	None	1	Dermal; inhalation; ingestion	Decreased pulmonary function Sensory irritant	lung skin eyes	Steel gray metal
Arsenic	7440-38-2	0.2	None	0.5 organic 0.01 - inorganic	Dermal; inhalation; ingestion	Sensory irritant Lung & skin cancer Aplastic anemia Numbness	skin eyes lungs blood peripheral nervous system	Silver gray - tin white BP = sublimes
Lead	7439-92-1	0.15	700	0.2	Dermal; inhalation; ingestion	Abdominal pain CNS depressant Anemia Nephropathy Reproductive effects	GI tract CNS blood kidneys	Metal - soft gray BP = 3,164°F
Zinc	7440-66-6	10	None	10	Dermal; inhalation; ingestion	Skin irritant Cough	skin lungs	Bluish-white metallic element BP = 908°F
Copper (dusts and mists)	7440-50-8	1	None	1	Dermal; inhalation; ingestion	Sensory irritant GI irritation CNS depressant	skin eyes GI tract CNS	Reddish metal BP = 4,730°F Powdered form may ignite

TLV - Threshold Limit Value
mg/m^3 - milligrams per cubic meter
IDLH - Immediately dangerous to life or health
ppm - parts per million
PEL - Permissible Exposure Limit
CNS - Central Nervous System
CVS - Cardiovascular System
GI - Gastrointestinal
BP - Boiling Point
LEL - Lower Explosive Limit
UEL - Upper Explosive Limit
°c - degrees Celcius
OF - degrees Fahrenheit

Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at the Sunnyside Yard, Queens, New York

Compound	CAS#	TLV (mg/m^3)	IDLH (ppm)	PEL (mg/m^3)	Routes of Exposure	Toxic Properties	Target Organs	Physical/ Chemical Properties
Aroclor 1254	11097-69-1	0.5 (Skin)	None	0.5 (Skin)	Dennal; inhalation; ingestion	Eye, skin irritation Acne fonn dennatitis Potential carcinogen	skin eyes liver	Colorless to pale yellow mild hydrocarbon odor nonflammable
Chrysene	218-01-9	0.1	None	0.2	Dennal	Mutagen Carcinogen	NA	White crystals
Aroclor 1260	11096-82-5	0.001	None	None	Dennal; inhalation; ingestion	Liver damage Nausea Abdominal pain	liver skin	
Benzo(a)pyrene	50-32-8	None	None	None	Dermal; inhalation; ingestion	Teratogen carcinogen	Reproductive lung skin	Yellowish needles; BP = 312°F
Manganese	7439-96-5	1.0 fume	10,000	5.0	Inhalation; ingestion	Metal fume fever Apathy Anorexia Insomnia Headaches	Resp. system eNS blood kidneys	Lustrous, brittle, silvery solid BP = 3,564°F

TLV - Threshold Limit Value
mg/m^3 - milligrams per cubic meter
IDLH - Immediately dangerous to life or health
ppm - parts per million
PEL - Permissible Exposure Limit
CNS - Central Nervous System
CVS - Cardiovascular System
GI - Gastrointestinal

BP - Boiling Point
LEL - Lower Explosive Limit
VEL - Upper Explosive Limit
°C - degrees Celcius
OF - degrees Fahrenheit

References

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Sax, N.J. and RJ. Lewis. 1989. Dangerous Properties of Industrial Materials. 7th Edition. Van Nostrand Reinhold. New York.

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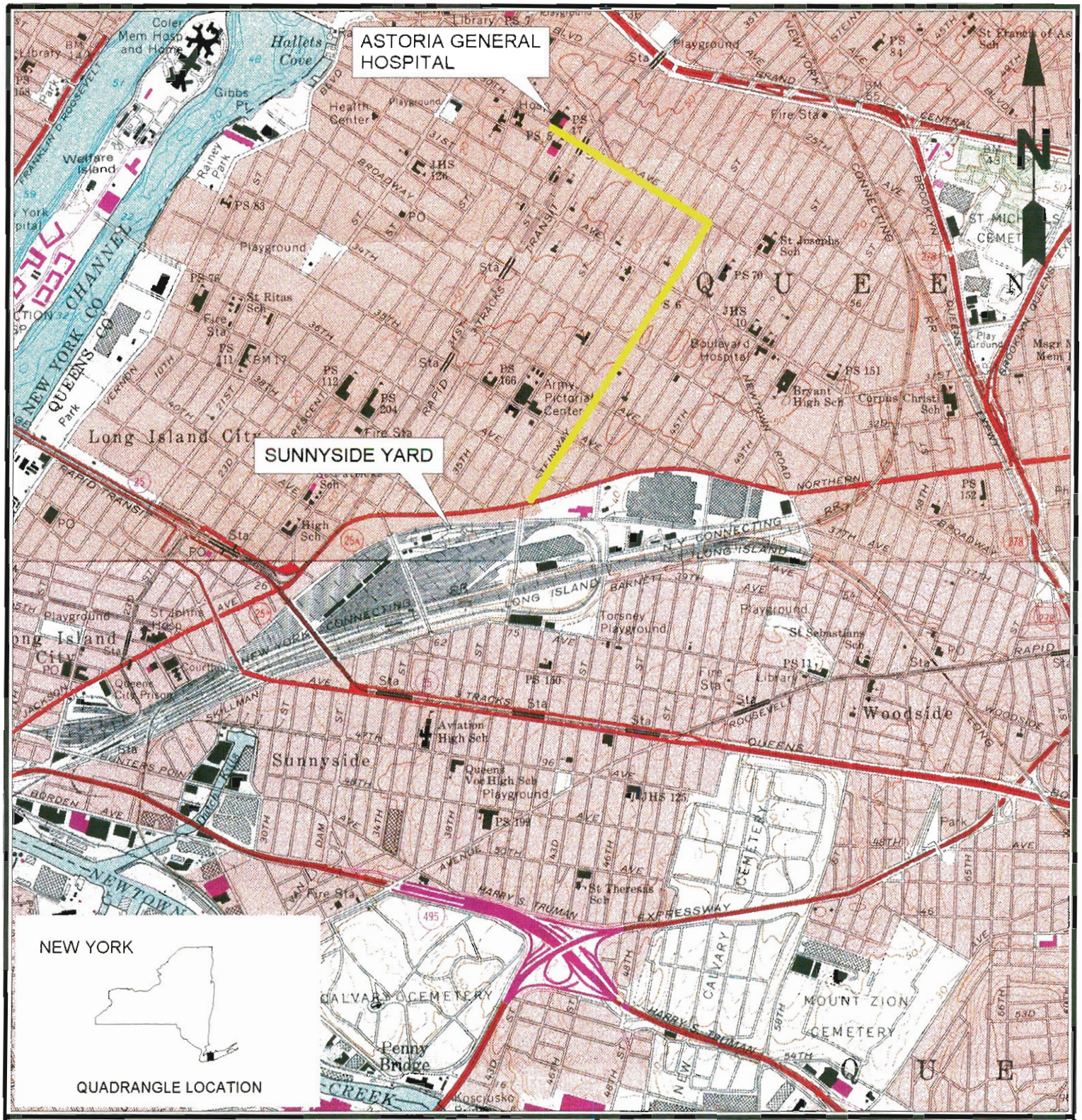

EMERGENCY ROUTE

DIRECTION TO ASTORIA GENERAL HOSPITAL:
FROM HONEYWELL STREET MAKE RIGHT ON NORTHERN BOULEVARD. MAKE LEFT AT STEINWAY STREET, THEN LEFT AT 30TH AVENUE. HOSPITAL AT CRESCENT AND 30TH AVENUE

Title:

ROUTE FROM SUNNYSIDE YARD TO ASTORIA GENERAL HOSPITAL

Prepared For:

AMTRAK

ROUX ASSOCIATES INC
Environmental Consulting & Management

Compiled by:	L.W.	Date:	6/97	FIGURE 1
Prepared by:	R.R.	Scale:	1"=2,000'	
Project Mgr:	J.S.	Status:	Final	
File No:	A5214007	Project:	05552E05	

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TYPICAL DECONTAMINATION PROCEDURE

LEVEL D PROTECTION

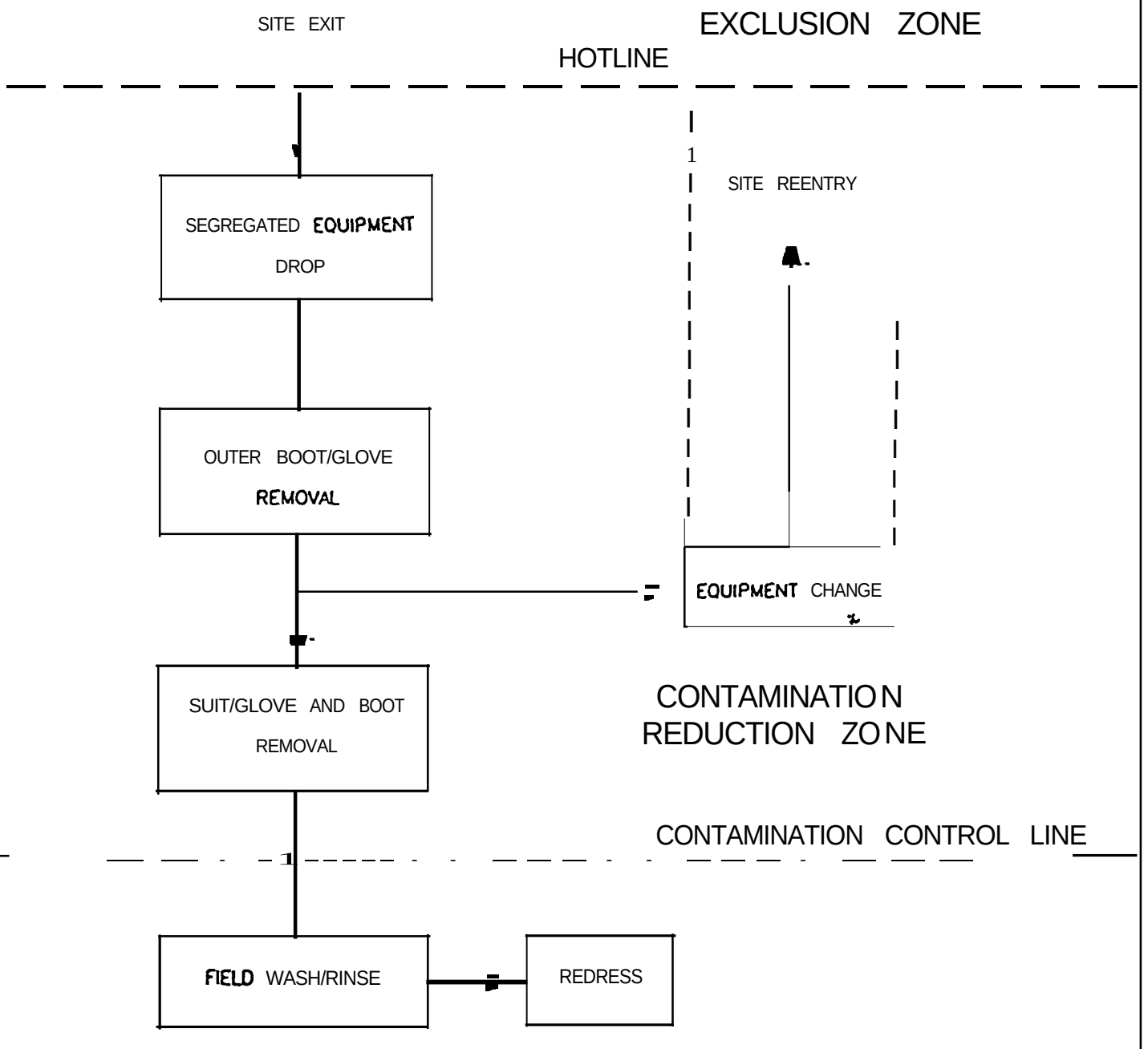
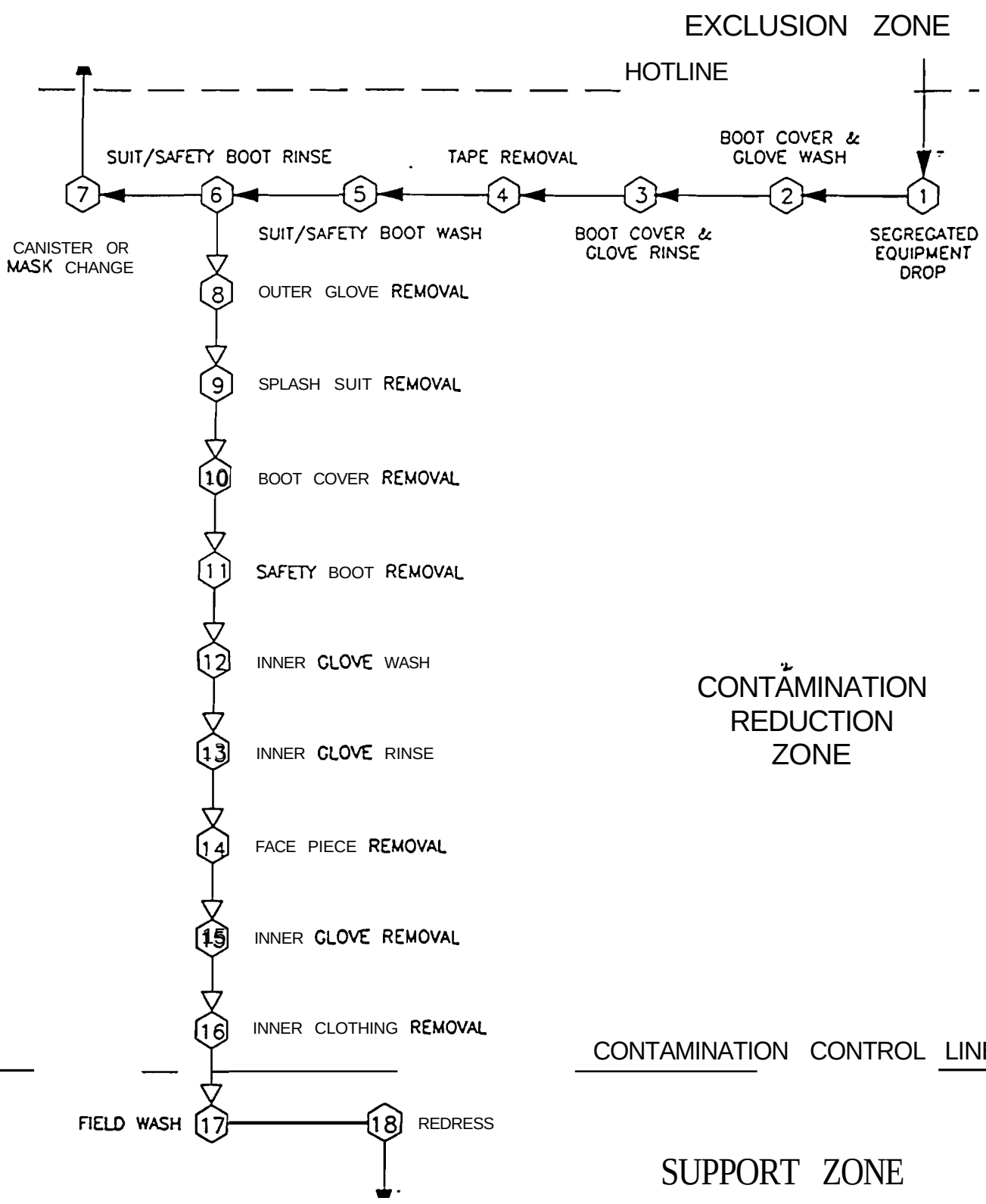


FIGURE 2

TYPICAL DECONTAMINATION PROCEDURE

LEVEL C PROTECTION



TYPICAL DECONTAMINATION PROCEDURE

LEVEL B PROTECTION

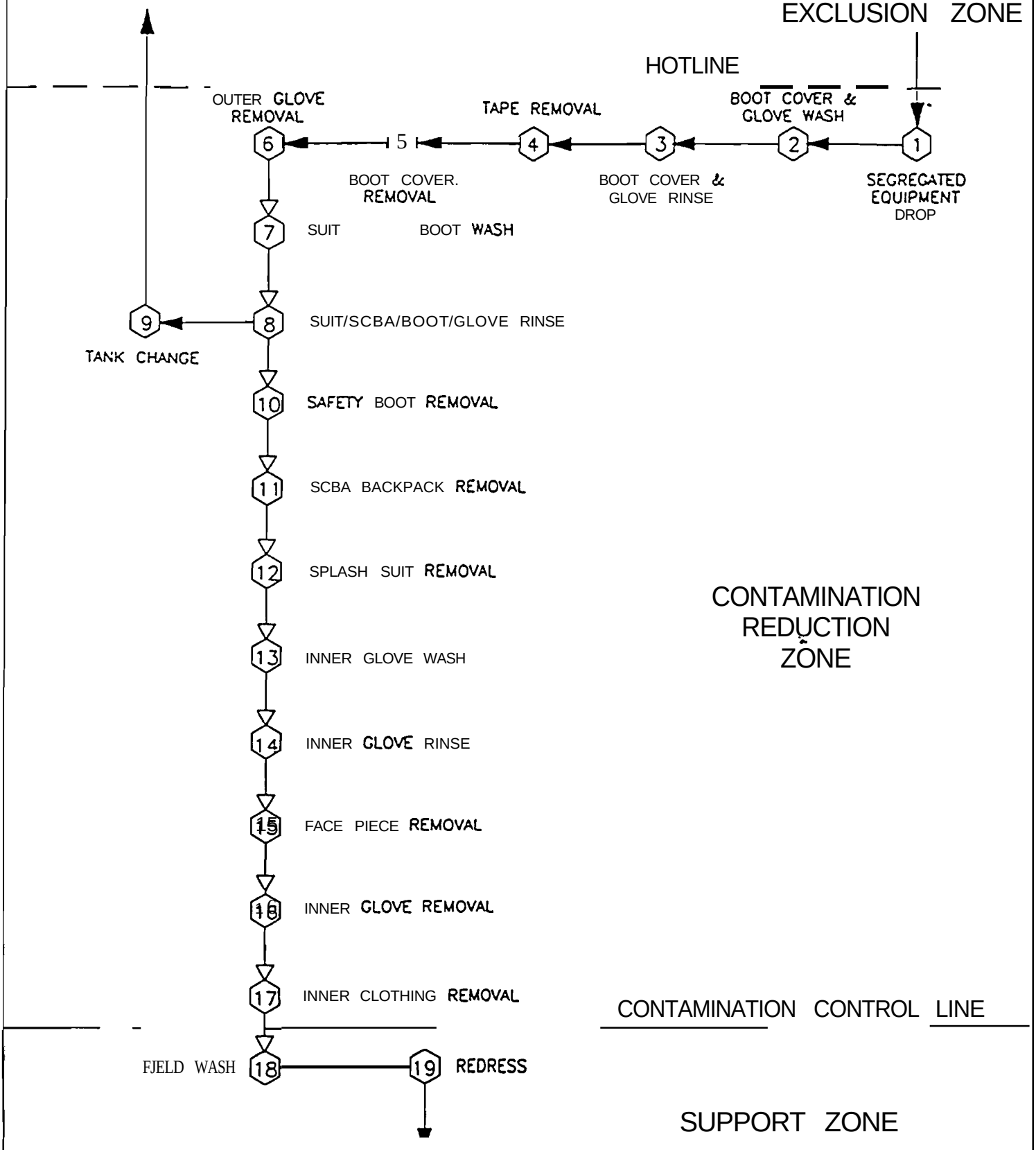


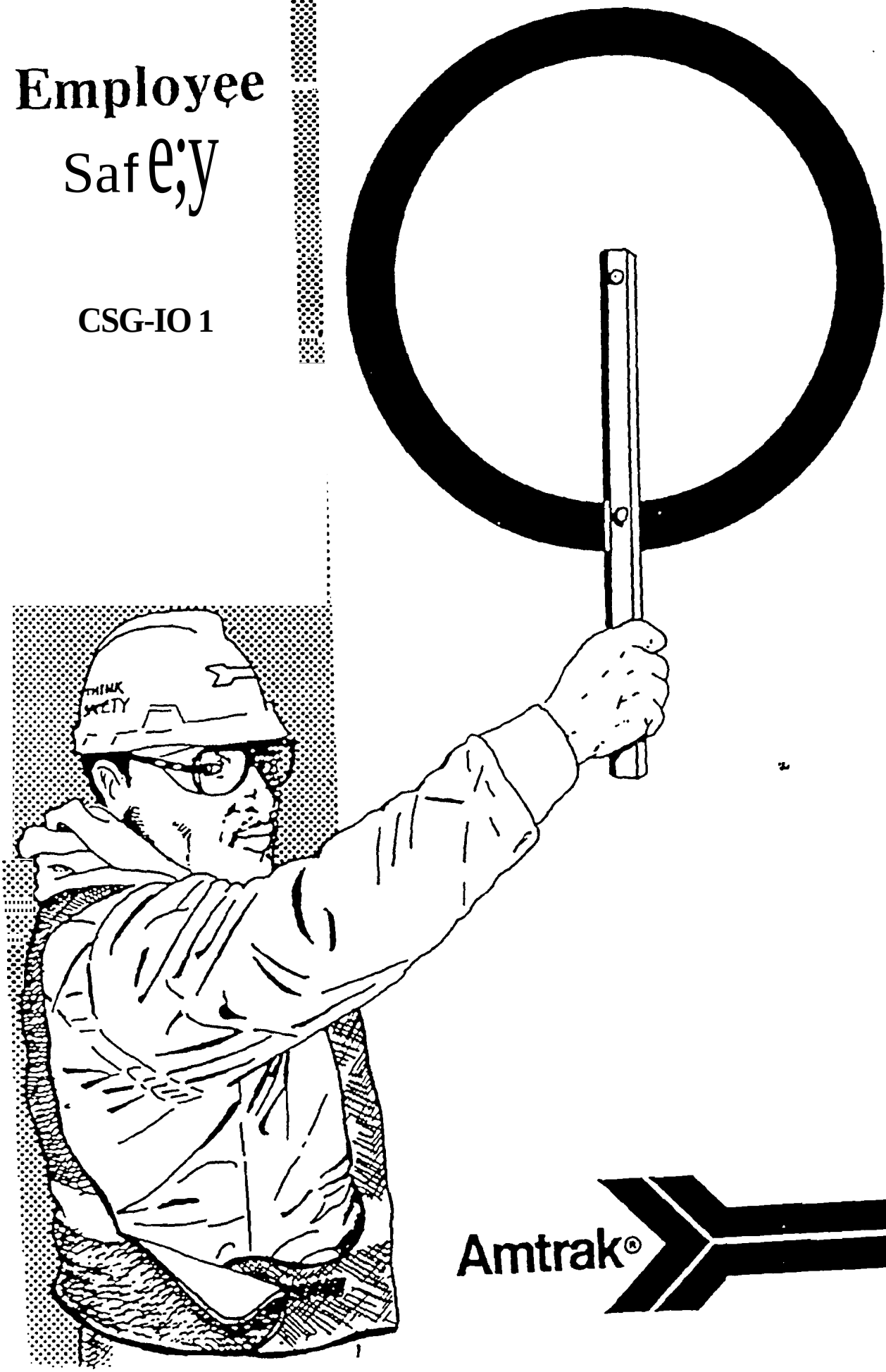
FIGURE 4

ATTACHMENTl

Amtrak Contractor Employee Safety Program

Contractor Employee Safety

CSG-IO 1

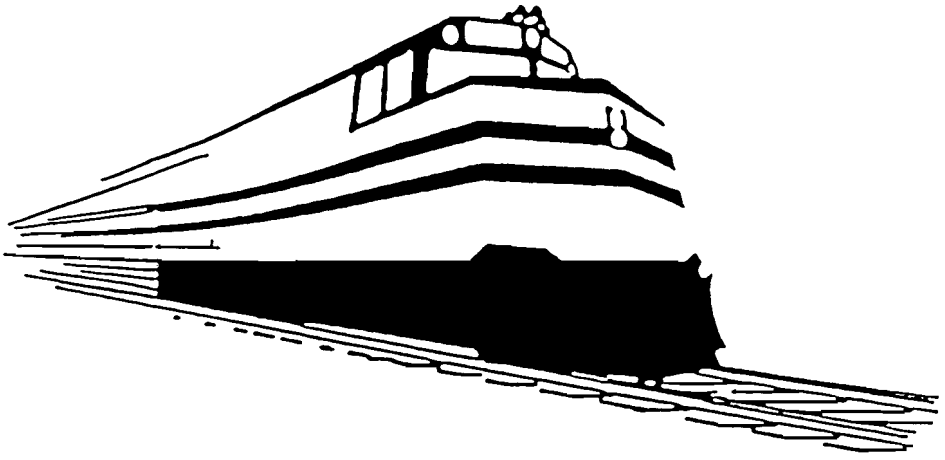


Amtrak®

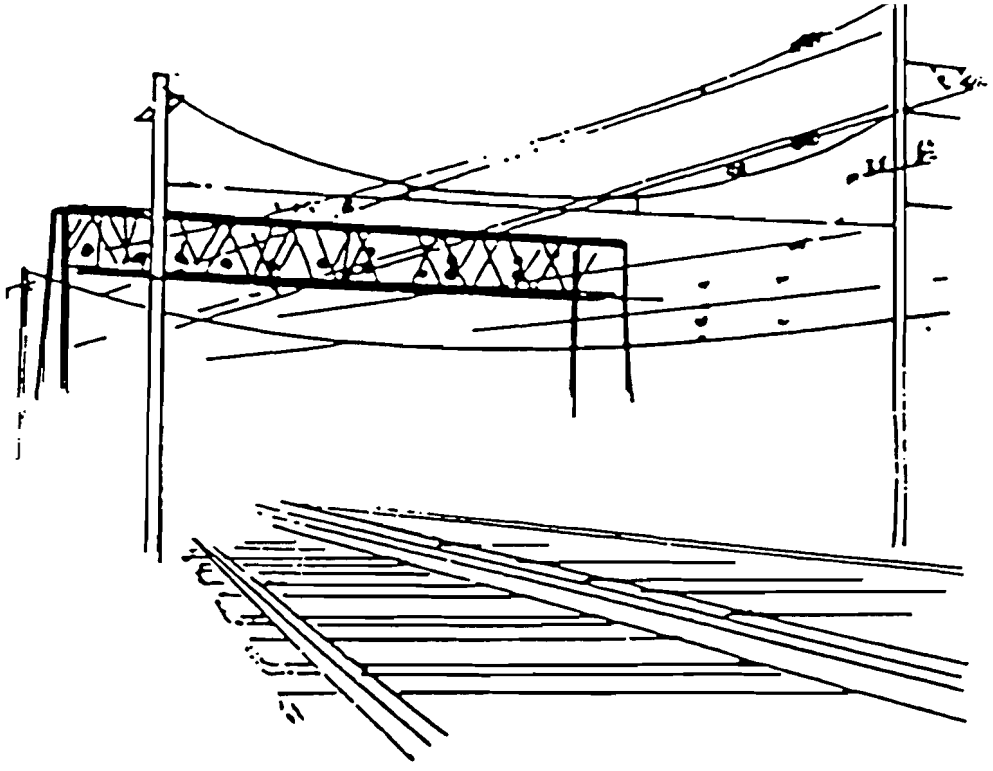
National Railroad Passenger Corporation,
Washington, D.C. 2000l.

Danger! Danger! Danger!

Two of the *biggest* dangers involved *with* working on or about railroad tracks are:



Moving Trains
and
Electrical Power Lines



Basic Terminology (Continued)

Occupancy - Any use of track other than direct crossing at right angles or infrequent use.

Infrequent Use - Crossing a track or tracks at a right angle by personnel only, or the infrequent fouling of an outside rail by a person or persons.

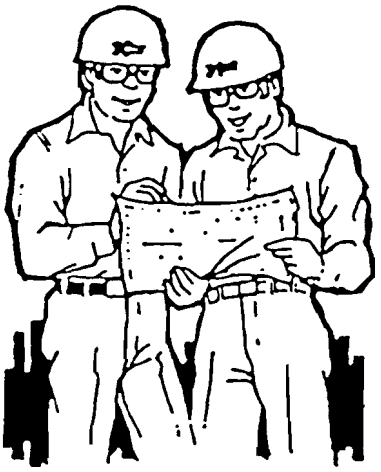
Obstruction or Fouling - An entering into the traffic envelope; also referred to as fouling.

Traffic Envelope - Area between clearance points and rails and overhead power lines.

Clearance Points - A point 15 feet from the centerline of outside track for employees and standing equipment.

Right-of-Way - The limits of railroad property ownership on either side of tracks.

Clothing and Personal Protective Gear



Your clothing must fit well and not be torn badly.

Your shoes must be at least six inches high, preferably leather, and completely laced, buckled, zipped, or otherwise fastened. The shoe must have a definite heel.

Do NOT wear shoes with loose, thin, cracked, rippled, or wedge type sales. Do NOT wear shoes with a metal plate or cleat on the sole or hee1. Do NOT allow shoe laces to dangle far enough to be a hazard.

Do NOT wear sandals, open toe, canvas, or other shoes that cannot be fastened.

Basic Rules of Conduct

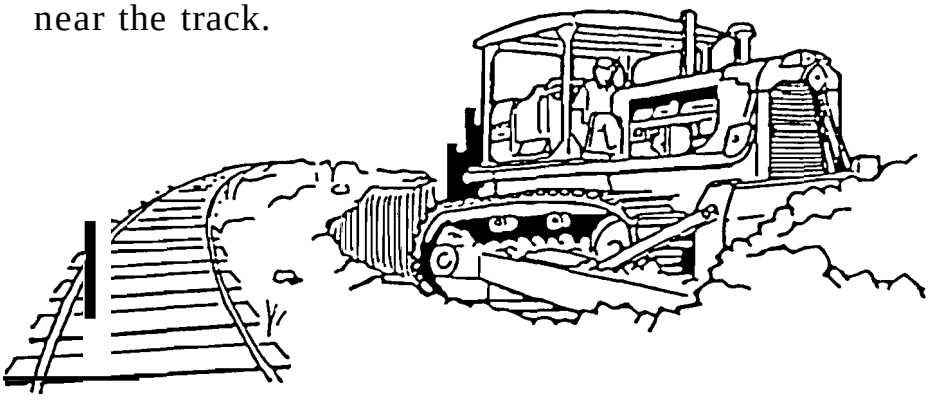
1. You may NOT possess, consume, or be under the influence of intoxicants, narcotics, or other mood altering substances, including medication.

2. Horseplay, fighting, practical jokes, scuffling. or wrestling are not tolerated.

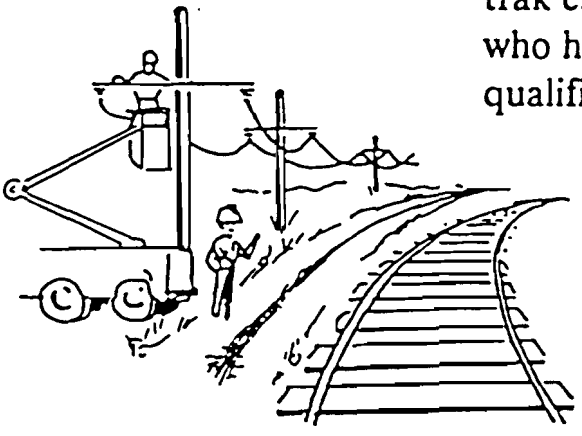
3. You must report any unsafe or hazardous conditions to your supervisor so that corrective actions can be taken.

Contractor's Responsibilities
(Continued)

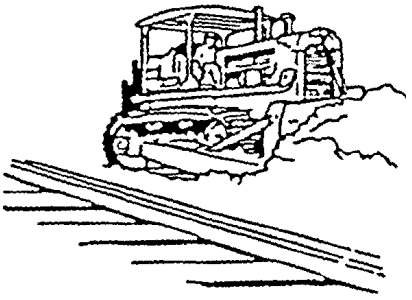
Equipment must be in first-class condition to prevent delays to the trains. Contractors must have permission before placing or putting into service equipment near the track.



Contractor's employees and equipment may work near overhead wires and electrical apparatus ONLY when protected by a Class A Amtrak employee (that is, one who has been trained and qualified to protect you).

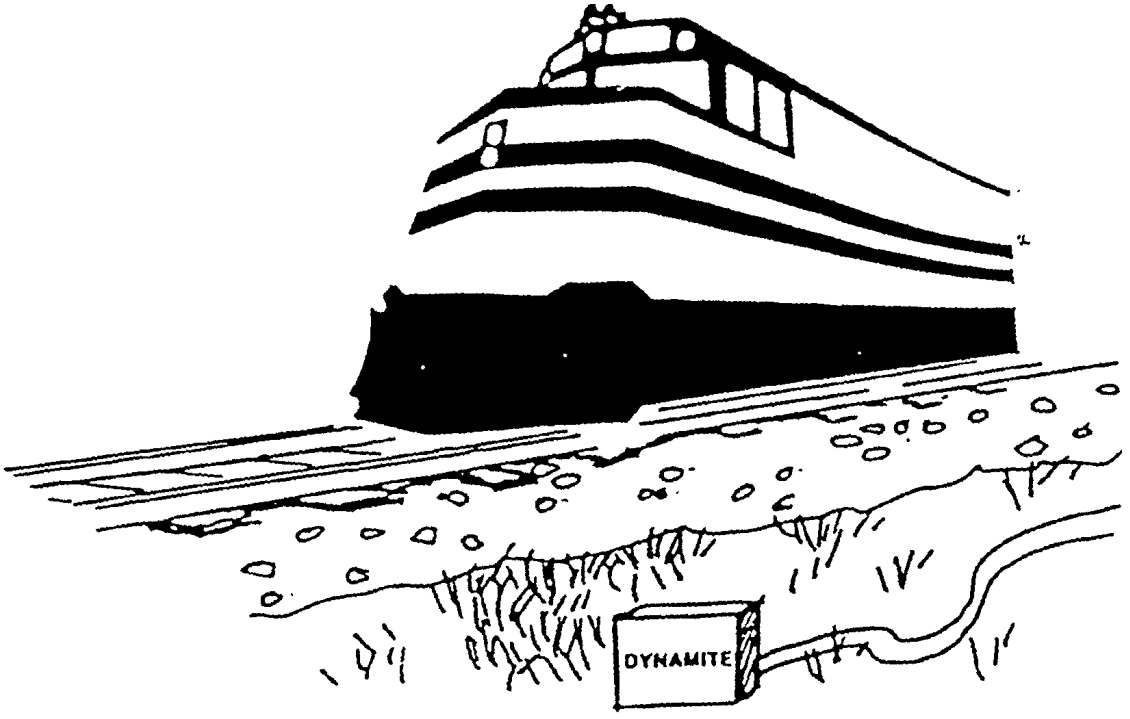


Removing Track from Service
(Continued)



4. Excavations are made under operating tracks or excavations affect the stability of adjacent tracks.

5. Any other conditions, circumstances. or situations that may present a danger to the safe movement of trains.



Main Points for
"No Second Chance"

1. People are killed too frequently because they try to cross active track.

2. Crossing active track is difficult for several reasons:

   a. Tracks and rails offer poor footing.

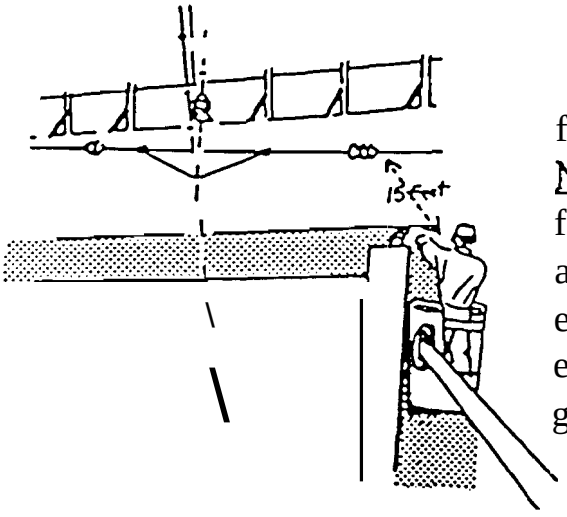
   b. As many as 200 trains run each day in certain areas.

   c. There may be high voltage electric lines nearby or underfoot.

Working Near Electrical Lines

Many Amtrak trains operating in the northeastern states are electrically powered. The source of this electricity can be either wires running over the track or a "third rail" on the track. These and all electrical lines near the railroad are very dangerous and should be considered energized, or live.

To avoid the hazards of these wires. there are several work practices you must fol1ow.

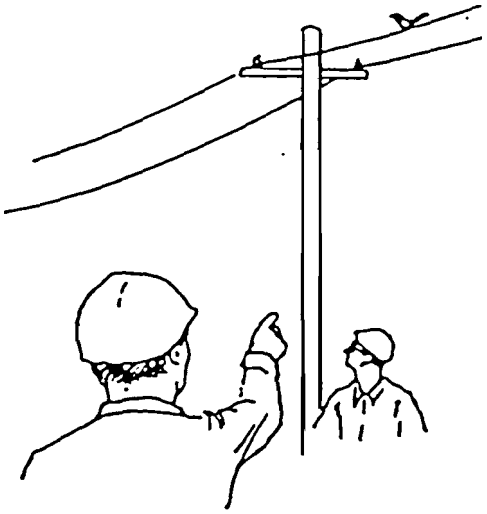


Stay at least 15 feet away from any energized line. Do NOT approach closer than 15 feet to an electrical wire or apparatus unless a Class A employee tells you it is de-energized and properly grounded.

You must follow all instructions from the Class A employee. If you do not understand the instructions, you will not be permitted to work or observe.

Working on De-Energized Lines

When you must work within 15 feet of electrical lines, you must make certain the lines are de-energized and properly grounded.



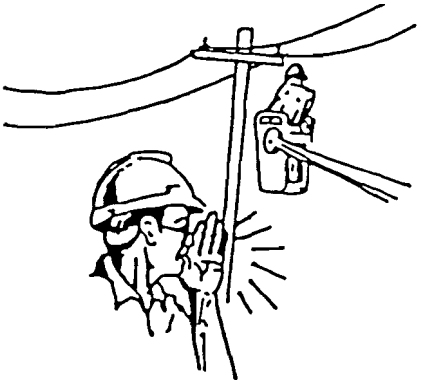
At the start of each tour of duty, the Class A employee will instruct the contractor foreman in how to avoid the dangers that may exist.

Before work can be started on or about power lines, an electrical clearance must be obtained by the Class A employee. All equipment must be de-energized and grounded. The Class A employee will then inform the contractor foreman about wires, equipment, and/or apparatus which are de-energized and the physical limits in which work can be done safely.

The contractor foreman must sign a standard clearance form. His/her signature is assurance that he/she fully understands the instructions given by the Class A employee and has accepted the responsibility of conveying these same instructions to his/her gang.

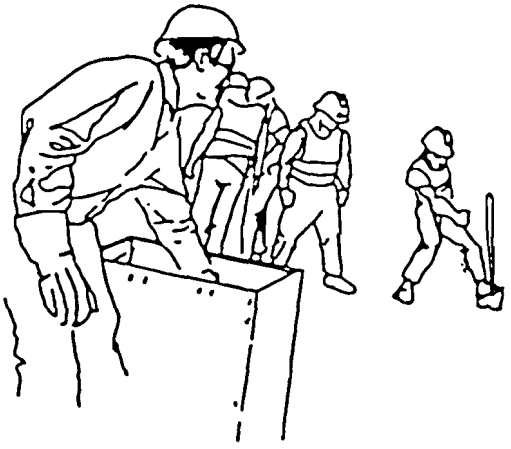
Re-Energized Electrical Lines

When the electrical lines. equipment. etc. are to be re-energized. you must move away at least 15 feet.



When the clearances are to be released and the lines re-energized. the Class A employee will inform the contractor foreman and each employee.

The Class A employee must be sure that everyone has moved away a safe distance before removing the grounding devices.



The Class A employee also will get the signature of the contractor foreman, showing that he and the workgang have been told the wires, etc., will be re-energized and that they will stay a safe distance until informed otherwise by the Class A employee.

National Railroad Passenger Pennsylvania Slation. New York. NY 10001

Amtrak

AMTRAK

CONTRACTOR SAFETY PROGRAM

NEW YORK DIVISION

SUPPLEMENT

AREA CONSTRUCTION ENGINEER

212-630-7328

AMTRAK TUNNELS

Amtrak has six tunnels. Under the East River are Lines 1, 2,) & 4. Under the Hudson River, there is the North and South Tubes. When walking the tunnels, there are bench walls on each side of the tunnel that are used for walking. Along the entire length of the bench walls (2 per tunnel) there is a handrail. Between Lines 1 & 2,) & 4, and the North and South Tubes, there are crosspassages equipped with fire doors.

In Lines 1, 2,) & 4 .there are marked emergency exits to street level at 1st Avenue and at Long Island City. In the North and South Tubes, there is an emergency exit between 10th Avenue and 11th Avenue at 33rd Street, and also at Weehawken.

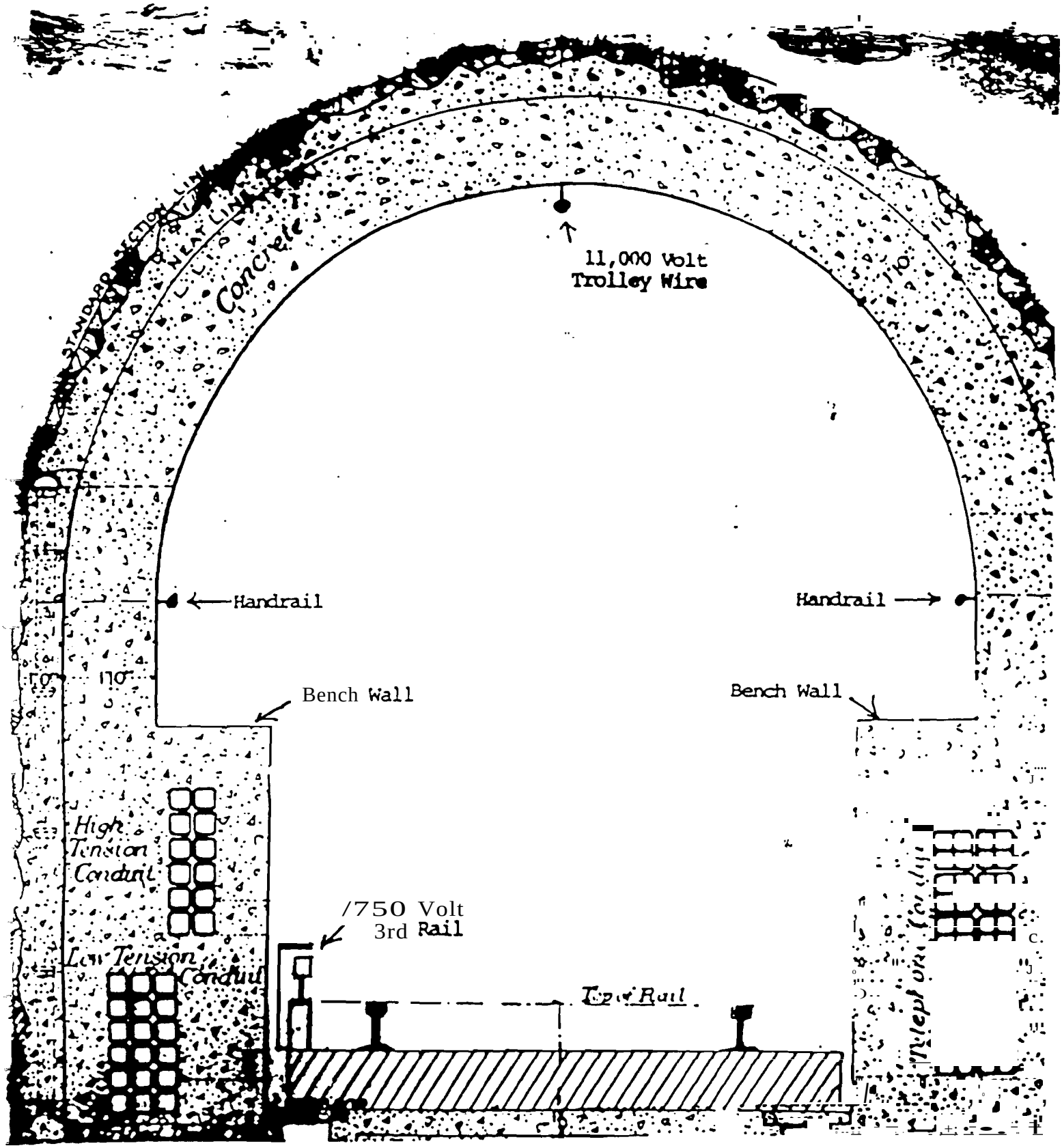
Trolley wire supported from the arch of the tunnel is 11,000 volts. At track level, there is a 750 volt 3rd rail, which is also located throughout Penn Station. Also at track level are man holes set into the bench wall, along with hand holds used to lower oneself to track level.

When walking through any of the Tunnels, have a strong flashlight to guide your passage. As the train enters the tunnel, a rush of air will be felt, getting stronger as the train gets closer. Hold onto the handrail until the train passes and the rush of air subsides, you can continue walking. The train <u>will</u> <u>not</u> pull you into its path. Along some sections of the benchwall, there are leaks that have made the benchwall slippery. Use <u>extreme</u> <u>caution</u> in these areas. Use <u>extreme</u> <u>caution</u> along the edges of the benchwall, and walking over the steel gratings set in the top of the benchwall.

When coming to a crosspassage. if the firedoors are open or missing, <u>DO</u> <u>NOT</u> go into the crosspassage or stand in front of it if a train is coming. There will be a <u>strong</u> wind going through the crosspassage that will knock you off your feet and cause possible injury. Only go into the crosspassage if one or both doors will be closed.

DO NOT use a steel tape or any steel measuring device in the tunnel because of the 11.000 volt catenary suspended from the arch of the tunnel. and the 750 volt 3rd rail at track level.

When at track level. handholds are set into the top and sides of the benchwall to be used when decending to track level. When at track level and a train enters the tunnel. and there is insufficient time to get back up onto the benchwall, man holes are set into the sides of the benchwall for protection against the train. These man holes are not DEEP. but there is room enough to position yourself for protection against the train. <u>DO</u> <u>NOT</u> <u>PANIC.</u> just keep your wits about you. If common sense prevails. your work will be done safely.



Typical view of Amtrak's Tunnels

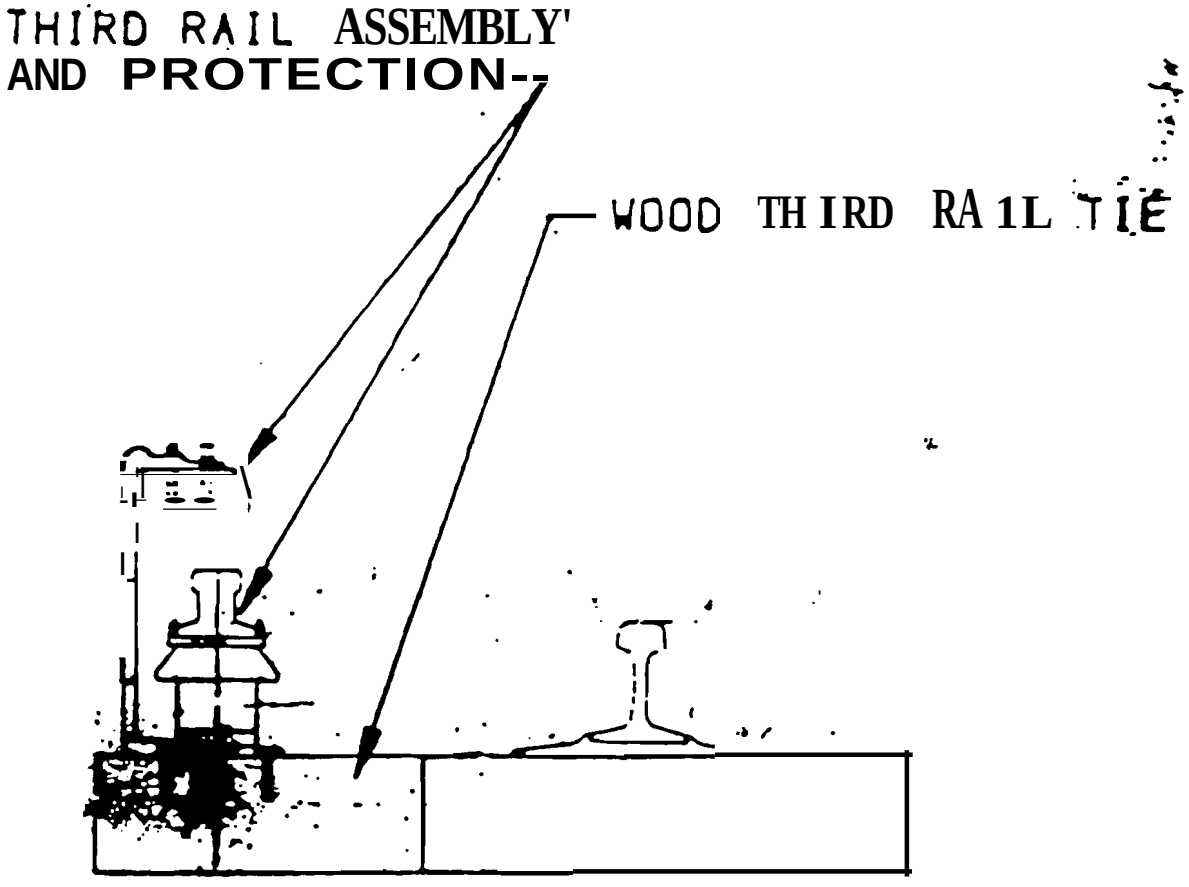
Lines 1, 2, 3, 4 under the East River

North and South Tubes under the Hudson River

TYPICAL 3rd RAIL INSTALLATION

IN AMTRAK'S TUNNELS

AND IN PENN STATION



CONTRACTOR RESPONSIBILITY

During the demolition procedure, the Contractor must provide an approved shield to prohibit all debris from falling onto Railroad right-of-way. A grounded temporary protective barrier must be provided if the existing protective barrier is removed during the demolition procedure. In addition, if any openings are left in the existing deck, a protective fence must be erected at both ends of the bridge to prohibit trepassers from entering over the unprotected area of the Railroad.

The Contractor shall conduct his work and handle his equipment and materials so that no part of any equipment shall foul an operated track or wire line without the written permission of the Assistant Chief Engineer, Design and Construction, of the Railroad. When the Contractor desires to foul an operated track, he must give the Assistant Chief Engineer, Design and Construction of the Railroad, written notice of his intentions twenty-one (21) days in advance, so that if approved, arrangements may be made for proper protection of the Railroad.

Cranes, shovels, or any other equipment shall be considered to be fouling the track when located in such position that failure of same with or without load, brings the equipment within the fouling limit. The Contractor's employees and equipment will not be permitted to work near overhead wires or apparatus, except when protected by a Class "A" employee of the Railroad who will take necessary precautions for their safety before starting and during the progress of such work. The Contractor must supply a grounding cable (4/0 copper or equivalent ACSR) for each piece of equipment working adjacent to any electrified lines.

Equipment of the Contractor to be used adjacent to the tracks shall be in first-class condition so as to fully prevent failures of defective equipment that might cause delay in the operation of trains or damage to Railroad facilities. His equipment shall not be placed or put into operation adjacent to tracks without first obtaining permission from the Assistant Chief Engineer, Design and Construction of the Railroad, or his duly authorized representative. Under no circumstances shall any equipment or materials be placed or stored within fifteen (lS) feet from the centerline of the outside track. To insure compliance with this requirement, the Contractor must establish a fifteen (15) foot foul line prior to start of work by either driving stakes and taping off the work area, erecting a temporary fence, or providing an alternate method approved by the Railroad. The Contractor will be issued warning stickers which must be placed in the operating cab of all equipment as a constant reminder of the fifteen (15) foot clearance envelope.

ATTACHMENT 2

Incident Report

INCIDENT REPORT

Site _____

Site _____

Report Prepared By _____

Name Printed

all that apply)

Injury	Illness	Property
		Chemical Exposure
Motor Vehicle	Fire	Electrical
Mechanical	Other	

Date and Time of Incident _____

Names of Persons Injured and of report for details)

_____

_____

_____

NARRATIVE REPORT OF INCIDENT

sufficient detail so that the reader may fully the actions leading to or contributing to incident, incident and actions of the incident. Append additional of paper if necessary.)

_____

_____

_____

_____

_____

_____

WITNESSES TO INCIDENT

1. Name _____ Company _____

   Address _____

   Telephone No. _____

2. Name _____ Company _____

   Address _____

   Telephone No. _____

PROPERIY DAMAGE

of Property Damage _____

_____

_____

_____

Estimate or Damage –

INCIDENT LOCATION

_____

_____

INCIDENT ANALYSIS

Causative agent most directly related to accident (object, substance, material, machinery, conditions): _____

_____

a factor? _____

Unsafe condition at time of Incident (be specific) _____

_____

Unsafe act by injured and/or others contributing to the Incident (be specific, must

_____

Personal factors (improper attitude, 'ack of knowledge or skJII, reaction, fatigue) _____

_____

ON·SITE INCIDENTS

Level of equipment required In Safety Plan _____

_____

_____

_____

Modifications –

_____

_____

Was injured using required equipment? _____

_____

INCIDENT FOLLOW-UP

Date or Incidcnt _____

Site _____

or Incident _____

_____

_____

Outcome or Incident _____

_____

_____

Physician's _____

_____

_____

Date Injured to Work _____

ATIACH ANY ADDmONAL INFORMATION TO THIS FORM

AITACHMENT3

Site Safety Follow-Up Report

SITE SM'ElY FOLLOW-UP REPORT

This section must be filled out and returned to Safety after each site visit or task.

for Follow-up _____

Actual of _____

AcruAL SITE INVESTIGAnON TEAM

Roex Personnel	Responsibility

Other Interested Parties	Affiliation	Purpose of Visit

PERSONAL EQUIPMENT

Level of Respiratory Protection Used	Activity Performed

Field Dress	Activity

MONITORING EQUIPMENf

HNU/OYA/CGl

- _____
  _____ z
  Location Of high _____
  _____
  _____

Radiation

- Yes No
- If yes, round and what action

_____
_____

GENERAL SAFETY

Were any safety problems oo site?

Explain _____

ACCIDENT REPORT INFORMATION

Old Team Member Report Yes No

- Chemical
- or unusual symptoms
- Environmental cold, etc.)

Explain _____

Was an Employee Exposure/Injury Incident Report Completed? ____ Yes No

ATTACHMENT 4

Field Change Request Form

FIELD CHANGE DOCUMENTATION

DATE: _____ FIELD CHANGE #: _____

PERSON CHANGE: _____

COMPANY/TITLE: _____

FIELD _____

_____

_____

_____

REASON FOR REill CHANGE: _____

_____

_____

_____

_____

ACKNOWLEDGEMENT: _____

WORK PLAN ADDENDUM REQUIRED *(YIN)*: _____

ADDENDUM SUBMITTED TO: _____

ADDENDUM SUBMITTED TO: _____

APPENDIXB

Contingency Plan

OPERABLE UNIT 1
REMEDIAL DESIGN

CONTINGENCY PLAN

Sunnyside Yard
Queens, New York

October 2, 1997

CONTENTS

FIGURE

ATTACHMENTS

1.0 INTRODUCTION

The National Railroad Passenger Corporation (Amtrak) owns property known as Sunnyside Yard (Yard), located at 39-29 Honeywell Street in Queens County, a borough of New York City, New York (Figure 1). A portion of the Yard has been designated by Amtrak for construction of a new High Speed Trainset Facility (HSTF) Service and Inspection (S&I) Building and its ancillary structures (Le., the access road and utilities route, the parking area, the construction easement area which surrounds the building, and the construction laydown area). The Sunnyside Yard is listed as a Class 2 Site in the New York State Department of Environmental Conservation's (NYSDEC) Registry of Inactive Hazardous Waste Disposal Sites. As a result of the listing, Amtrak, New Jersey Transit Corporation (NJTC), and the NYSDEC entered into an Order on Consent Index #W2-0081-87-06 effective October 1989.

A Proposed Remedial Action Plan (pRAP) was issued on June 9, 1997 to identify the preferred remedy for Operable Unit 1 (OU-l) as stated in the OU-l Feasibility Study, summarize other alternatives, and discuss the rationale for this preference. The PRAP was issued as a component of citizen participation activities. A public meeting was held on June 24, 1997 to explain the components of the PRAP and answer questions from the public. Following a public comment period, the Record of Decision (ROD) was issued on August 13, 1997, identifying Alternative III - Soil Excavation and Off-Site Disposal as the selected remedy for OU-l.

It is the intention of Amtrak to implement a remedy which is protective of human health and the environment, accommodates HSTF S&I Building construction, and also permits post-remediation site use for the purpose specified above.

This Contingency Plan will be implemented if any element of the OU-l Remedial Design fails to achieve any of its objectives or otherwise fails to protect human health or the environment.

This Contingency Plan is designed for the implementation of remedy for OU-l at the Amtrak Sunnyside Yard to establish procedures which will be followed to verify that residual soil concentrations of carcinogenic polycyclic aromatic hydrocarbons (CPAHs) remaining in OU-l are below the NYSDEC recommended soil cleanup levels, as defined in the ROD, to minimize potential impact to human health and the environment from fire, explosions, and other unplanned release of petroleum or hazardous materials, and to minimize delays in remediation in the event that any unforeseen environmental conditions are encountered.

1.1 Remedial Action

The remedial action chosen for OU-l includes the following:

- removal of Wheel Track Nos. 1 and 2 and an overhead electrical catenary line and poles which pose a safety hazard to workers during construction activities;
- removal of concrete and asphalt above the surface of contaminated soil;
- excavation of contaminated soil (greater than 10 parts per million [ppm] total CPAHs) to an approximate depth of three feet below land surface; and
- backfill of the excavation with clean fill.

1.2 Short Term Contingency Procedures

As required to verify the completion of excavation activities, post-excavation soil samples will be collected to determine the concentrations of CPAHs remaining in the soil. Post-excavation sidewall samples will be collected at a frequency of one composite sample per 100 linear feet. Four grab samples will be collected from 0 to six inches into the sidewall of the excavation and combined to form one composite sample for each 100-foot section (i.e., approximately one every 25 feet) of sidewall. This procedure will result in four post-excavation sidewall composite samples for the 95 feet x 60 feet area excavated. Post-excavation samples will be collected from the bottom of the excavation at the frequency of one composite sample per 3,000 square feet of excavation. Four grab samples will be collected below the exposed surface and combined to form each composite sample to be analyzed for CPAHs. Two post-excavation samples from the bottom of the excavation will be collected.

If analytical results indicate that soil contamination remains above the water table, additional excavation and post-excavation sampling will be performed until the CPAH concentration is less than the NYSDEC recommended cleanup level.

2.0 EMERGENCY PROCEDURES

The remedial action work will be perfonned in an active railyard; therefore, dangers relating to passing trains and electrical lines exist. Although Wheel Track Nos. 1 and 2, and all overhead electrical catenary wires and poles will be removed prior to commencement of construction activities, certain precautions must be taken for all personnel who perfonn work as part of the OU-l remedy. In addition, the Yard is also a Class 2 Inactive Hazardous Waste Disposal Site; therefore, there is the possibility of encountering buried tanks, transfonners, or hazardous materials.

An Emergency Coordinator will be chosen to notify all Yard personnel, and state and local emergency personnel in the event of an imminent or actual emergency situation. The Emergency Coordinator must be capable of immediately identifying any source, the approximate amount, and the extent of any released material. The Emergency Coordinator will be the Yard Manager or his designee.

2.1 Preparedness and Prevention

The OU-I remedial construction work should be perfonned to minimize the possibility of a fire, explosion, or unplanned release of hazardous waste or petroleum constituents which could threaten human health or the environment. Personnel working on the Amtrak property must attend the Amtrak Contractor Safety Program Course which includes Roadway Worker Protection for awareness of the specific hazards posed by construction work at the Yard. A track foreman, flagman, and electrical supervisor employed by Amtrak will be present at the work site when needed.

Amtrak will designate an individual to perfonn general inspections to mitigate incidents/accidents involving hazardous or petroleum wastes (i.e., evaluate dewatering, existence of separate-phase petroleum) on a regular basis. These inspections will be implemented to address the possibility of malfunctions, operator errors, or discharges which may lead to a release of hazardous or petroleum wastes.

Information provided from previous investigations should be used to determine the location and potential impact of a separate-phase petroleum accumulation on the construction activities. If any of the following items are encountered, appropriate action must be taken:

- separate-phase petroleum accumulation;
- an underground storage tank;
- buried drums;
- buried transformers;
- a sewer line;
- pipes with asbestos lagging;
- a need for dewatering; or
- objects with peeling, flaking, or chipping lead-based paint.

2.2 **Required Equipment**

The contractor will establish emergency response stations at the OU-I remedial construction site being excavated. These stations will be equipped with spill response materials (sorbent pads, booms), fire extinguishers (a minimum of two dry chemical [type ABCD, protective clothing, respirators, and emergency first aid supplies. During an emergency response, respirators may only be used by properly trained personnel. In addition, a minimum of four new 55-gallon drums will be staged on wooden pallets, and the required tools for installation of a locked ring (drum lid) will be available.

2.3 **Communication**

A communication or alarm system must be available for communication with emergency support services/facilities. The personnel listed below shall be notified as necessary.

Yard Manager (Emergency Coordinator)	212-630-6167
Amtrak Environmental Compliance Engineer	212-630-6215
Amtrak Power Director	212-630-7684
Amtrak Police	212-630-7113
Sunnyside Yard Safety Department	212-630-7586
New York City Hazardous Material Response	212-699-9811
New York City Fire Department	718-847-6600
National Poison Control Center	800-962-1253
National Response Center (release or spill)	800-424-8802
NYSDEC Spills Hotline	800-457-7362
NYSDEC Region IT Office	718-482-4909

3.0 EMERGENCY RESPONSE PROCEDURES

General and specific emergency response procedures are discussed in the following sections.

3.1 General Response Actions

The following general response actions will be taken for all emergency situations. The specifics of enacting these procedures are explained in more detail in Section 3.2.

3.1.1 It will be the duty of the designated Emergency Coordinator or his designee to determine if the use of the Contingency Plan is warranted. If utilization of the plan is necessary, then notification to Yard personnel and the local authorities is required, and the following steps will be implemented and are further described in Section 3.2.

- The location and type of incident (i.e., fire, spill, etc.) will be announced.
- The identity, source, amount, and extent of the released material will be determined.
- Possible hazards to human health and/or the environment will be assessed using the information obtained from Yard history and previous investigations.
- All operations and appropriate utilities will be shut down in the work area (as required).
- Evacuation procedures will be implemented (if necessary).

3.1.2 Containment and control of the immediate hazards to human health and the environment should be undertaken along with evacuation, if necessary. Containment and/or control may include the following:

- the spread of released waste material so that the potential for fire will be mitigated;
- safeguard against recurrences when the incident is brought under control; and
- all incompatible waste materials will be segregated.

3.1.3 Post-emergency actions such as disposal of waste materials, preparation of a written account of the incident, and a report of the incident should be undertaken as necessary.

3.2 Specific Response Procedures

The procedures stated below shall be used for initial response to incidents within the OU-1 facility boundaries.

3.2.1 When an imminent or actual emergency occurs, the person observing the incident will immediately notify the supervisor, and the Yard Emergency Coordinator.

3.2.2 The supervisor may shut down and evacuate the areas where the incident has occurred. The Yard Emergency Coordinator will designate the immediate area of the incident as the "Hot Zone" and will extend 25 feet in all directions. Only trained emergency response personnel will be permitted entrance into the hot zone. If the Yard Emergency Coordinator determines that the OU-1 excavation contractor is appropriately trained and equipped, these persons will conduct response and cleanup activities.

3.2.3 For small fires, the fire extinguishers will be used, and the New York City Fire Department will always be called. All personnel from the impacted area will be evacuated with the exception of emergency response personnel. Small fires will be extinguished with the portable fire extinguishers located throughout the Yard. If a fire is observed, two people should man the fire extinguisher while another person calls the fire department.

- Fire fighting procedures should be prioritized by Rescue, Alarm, Contain, Extinguish (RACE). The basic procedure is as follows:

    1. Rescue any person who is in *immediate* danger of being injured either from smoke or by flames.

    2. Alarm must be sent to the local fire department to prevent the spread of fire that could not be contained with portable fire extinguishers.

    3. Contain the fire as much as possible by eliminating/reducing the sources of fuel or oxygen (i.e., closing doors and windows, remove adjacent flammable materials).

    4. Extinguish the fire with portable extinguishers (fire extinguisher should be utilized from upwind if outdoors).

- The extinguishing media of the fire extinguishers should be directed toward the base of the fire and not into the rising flames. The extinguisher should be pointed at one side of the fire and used with a right to left sweeping motion until the fire is extinguished.

3.2.4 When hazardous chemicals or wastes, or petroleum are involved, care must be taken to prevent worker exposure to toxic gases or vapors which may be emitted into the atmosphere by burning or toxic chemicals. If this release occurs, the appropriate personal protective equipment must be worn by the responding personnel.

3.2.5 If vapors or particulates are released to the atmosphere, sampling must be performed to determine the extent of contamination. The sampling parameters will be determined based on the identification of the waste. The New York State Department of Health air monitoring procedures will be used for protection of the surrounding community (Attachment 1).

3.2.6 The Yard Emergency Coordinator, with the assistance of emergency personnel, will take the appropriate measures to contain and prevent the spread or release of hazardous waste into the environment. The following represents methods to contain potential spill/release situations.

- For waste oil or chemical waste spills or leaks - absorbent materials in the form of pads or speedy dry will be used to absorb and contain the spill.
- Container leak - the leaking container will be immediately transferred to a secure container and any spillage will be handled with sorbent materials.
- Fire - hand held portable fire extinguishers will be used to isolate fires following the procedures in 3.2.3.

3.2.7 Following the containment or control of the emergency, the Yard Emergency Coordinator, or a designee, will be responsible for the following post-emergency actions.

- As necessary, arrange for the treatment and disposal of any contaminated soil, water, or other media impacted by the emergency.
- Verify that all emergency equipment is restored to full operating condition, and notify all appropriate agencies in writing that the Yard is in compliance and operations will be resumed.
- Investigate the cause of the incident and take the necessary measures to prevent its recurrence.
- Submit written reports to the NYSDEC and other appropriate agencies within 15 days.

4.0 SITE-SPECIFIC EVACUATION PLAN

Contractors at the Yard will be evacuated whenever a fire, explosion, or other emergency condition exists which the Yard Emergency Coordinator determines to be a danger to personnel. If evacuation is deemed necessary, contractor personnel will be notified over the alarm system. Various evacuation routes are available throughout the Yard which are described in the National Railroad Passenger Corporation "Emergency Plan for Sunnyside Yard" (Attachment 2). The evacuation infonnation presented below is applicable to personnel associated with the remediation of aU-I.

4.1 Evacuation Route

Three safe zones or staging areas are designated for employees to report during an evacuation. The zones are designated for a safe congregation of personnel where a roll call can be implemented. The designated zone location for the OU-I construction area is Zone B - fonner Engine HouselMetro Shed (located on the northwest end of Sunnyside Yard). The Amtrak Evacuation Plan is included in Attachment 2.

4.2 All Clear

An All Clear signal will be given when the emergency which caused the evacuation has been abated (i.e., the fire is extinguished, the spill is cleaned up or contained). Safety personnel will consult with the Yard Emergency Coordinator for his approval before an All Clear signal is given.

5.0 **REPORTING**

The Yard Emergency Coordinator will note the time, date, and details of any incident that requires implementing the Contingency Plan. Petroleum spills must be reported to the NYSDEC unless they meet all of the following criteria:

- the spill is known to be less than 5 gallons; and
- the spill is contained and under the control of the spiller; and
- the spill has not and will not reach the State's water or any land; and
- the spill is cleaned up within 2 hours of discovery.

In accordance with the NYSDEC Spill Reporting and Initial Notification Requirements, all reportable petroleum spills and most hazardous materials spills must be reported to the NYSDEC hotline (1-800-457-7362). For spills not deemed reportable, it is strongly recommended that the facts concerning the incident be documented by the spiller and a record maintained.

DRAWINGl

Operable Unit 1 Site Map

ATTACHMENT 1

New York State Department of Health
Community Air Monitoring Plan

non-intrusive activities (surface sampling, well sampling)

Community Air Monitoring Plan

Real-time *air* monitoring, for volatile compounds and *particulate* levels at the perimeter of the work area is necessary. The plan must include the following:

- *Volatile* organic compounds must be monitored at the downwind perimeter of the work area daily at 2 hour In erv Is If total organic vapor levels exceed 5 ppm above bac ground, work activities must be and monitoring continued under the provisions of a Vapor Emission Response Plan. All readings must be recorded and be available for State (DEC & DOH) personnel to review.
- Particulates should be continuously monitored upWind, downwind and withia the work area at temporary particulate monitoring stations. If the downwind particulate level Is 150 $\mu g/m^3$ greater than the upwind partiCUlate level, then dust suppression techniques must be employed. All readings must be recorded and be available for State (DE.C & DOH) personnel to review.

Vaoor Emission Resoonse Plan

It the ambient air concentration of organic vapors exceeds 5 ppm above background at the perimeter of the work area, activities will be halted and monitorIng continued. If the organic vapor level decreases below 5 ppm above background, work activities can resume but more frequent intervals of monitoring, as directed by the Safety Officer, must be conducted. If the organic vapor: !evels are greater than 5 ppm over background but less than 25 ppm over background at the perimeter of the work area, activities can resume provided:

- the organic vapor level 200 ft. downwind of the work area or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background, and
- more frequent intervals of monitoring, as directed by the SafelY Officer, are conducted.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. When work shutdown occurs, downwind air monitoring as directed by the Safety Officer will be implemented to ensure that vapor emission does not impact the nearest *residential* or commercial structure at levels exceedIng those specified in the Major Vapor Emission section.

Community Air Monitoring Plan

Major Vapor Emission

if any organic levels· greater than 5 ppm over background are identified 200 feet downwind from the work area or hair the distance to the nearest residential or commercial property. whichever is less, all work activities must be halted.

If, following the cessalion of the work actiVities, or as the result of an emergency, organic levels *persist* above 5 ppm above background 200 feet downwind or half the to the nearest residential or commercial property from the work area. then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).

If efforts to abate the emission source are unsuccessful and if the following levels persist for more than 30 minutes *in* the 20 Foot Zone, then the *Major* Vapor Emission Response Plan shall automatically be placed Into effect if organic vapor levels are approaching 5 ppm above background.

However, the Major Vapor Emission Response Plan shall be immediately placed into effect if organic vapor levels are greater than 10 ppm above background.

Major Vaoor Emission Resoonse Plan

Upon activation, the following activities will be undertaken:

1. All Emergency Response Contacts as listed in the Health and Safety Plan of the Work Plan will go into effect.
2. The local police authorities will immediately be contacted by the Safety Officer and advised of the situation.
3. Frequent air monitoring will be conducted at 30 minutes intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Safety Officer.

ATTACHMENT 2

Emergency Plan for Sunnyside Yard,
National Railroad Passenger Corporation

EMERGENCY PLAN

for

SUNNYSIDE YARD

National Railroad Passenger Corporation

AMTRAK
METROPOLITAN DIVISION
SUNNYSIDE YARD FACILITY

LONG ISLAND CITY
QUEENS, NEW YORK

Prepared by:

Gary W.Jones
Chairman
Sunnyside Emergency
Services
with Emmanual Alatzas
Safety Coordinator
SUnnyside Yard

TABLE OF CONTENTS

SECTION 1

EMERGENCY TELEPHONE NUMBERS

The telephone numbers listed below have a 212 area code and a prefix of 630. These are all Amtrak internal numbers at .Sunnyside Yard and Penn Station in Manhattan. The extension numbers are listed only. OUtside Amtrak telephone system full dialing will be required.

Power Director	7684, 7685
Amtrak Police	7113
Penn Station Control Center	7465
Q Tower.	7662
R Tower.	7663
Sunnyside Shop Desk	7616
Metropolitan Div. General Manager	7530
Mechanical Superintendant	6127
New Jersey Transit-Sunnyside	7591
Sunnyside Safety Department	7586
Poison Control Center	212-764-7667
Haz-Mat	212-699-9811
New Jersey Transit Penn Station	201-491-8936
New York City Transit Authority	71S-330-5000
Long Island Railroad	718-990-8204

SECTION 2

INTRODUCTION

SUNNYSIDE YARD DISASTER PREPARDNESS PROGRAM

FACILITY EVACUATION PLAN GUIDE

This book contains the general guidelines to a safe employee evacuation from Amtrak's Sunnyside Yard Maintenance Facility, located in Long Island City, New York. This book will act as reference and provide the user of various information pertinent to emergency application. Proper use of this guide will support smooth operations in perBonnel evacuation, managment, and control of an emergency incident.

The table of contents in Section 1 can act as a quick reference' guide by providing data on demand. Any material or information unable to be found *in* this guide can be''obtained from Amtrak Management or Amtrak Emergency Personnel, or by calling the appropriate phone numbers listed *in* Section 1.

SECTION 3

EVACU.ATION PROCEDURE

NOTIFY EMERGENCY PERSONNEL

IMMEDIATELY

DIAL 9 1 1

WHEN TO EVACUATE

1. If there is a FIRE with eminent hazard or danger to any personnel in the immediate area or inside any building.

2. If there is a HAZARDOUS MATERIAL spill, leak or any potential of such, which may be unhealthy or life threatening to any persons in the immediate area.

3. If there is any other related incident with any potential or immediate danger to health or life of personnel such as natural or man made causes.

HOW TO EVACUATE

LEVELS OF EVACUATION

Level D	Room(s)
Level C	Building(s)
Level B	Zone(s)
Level A	Entire Yard

ANY LEVEL OF EVACUATION

1. NarIFY EMERGENCY PERSONNEL IMMEDIATELY (911)
2. NOTIFY AMTRAK MANAGEMENT & SUNNYSIDE EMERGENCY SERVICES

LEVEL D or C EVACUATION

Follow floor plan to safely exit building or rooms. Proceed to a safe local area away from the point of danger and free from interference of emergency personnel. Report to Foreman.

LEVEL B EVACUATION

Follow floor plan to safely exit buildings or areas. Proceed to the ll1structed or specified safe zone or staging area. Report to Foreman. Keep clear from interference of emergency personnel.

LEVEL A EVACUATION

Follow instructions of emergency personnel. Evacuate to areas as directed. The safe zone or staging area may not necessarily be on Amtrak property. Surrounding local residents may be part of the evacuation. Stay close to fellow emolyees. Report to Foreman

SECTION 4

SAFE ZONES & STAGING AREAS

Three safe zones or staging areas are designated for employees to report during a evacuation procedure. The zones are designated strategically for a safe congregation of personnel where a roll call can be implemented. The zone furthest from the incident will be activated as the safest place to group employees. All have ample spaces for large numbers ofpersonnel. Zone locations are as follows:

A. REA Parking lot

Located on the far east end of Sunnyside behind R Towe.

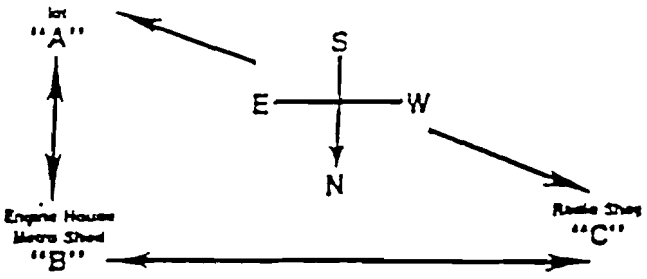
B. Engine House / Metro Shed

Located on the north west end of Sunnyside yard.

C. Radio Shop (Building #1)

Located at the West End of Sunnyside under the Queens Boulevard Bridge.

The attached diagram illustrates the safe zones and employee instructions.



These are the Staging areas.
Emergencies in the area of
"C' would evacuate to ''A'' or ''B'',
''B'' to ''A'' or ''C'', and
''A'' to "S" or "e".

''Q'' TOWER-7662

"R" TOWER-7663

SHOP DESK-7616

EVACUATION PLAN

1. Follow floor plan to exit building.

2. Proceed in a and orderly fashion
. to the *furthest* staging area.

3. Report to supervisor at the staging'
area.

4. Do not leave premises (stay in
staging area for purpose of head
count).

EMERGENCY PROCEDURE

1. In the event of an emergency,
whether fire or medical, the
towers, shop desk, or someone with
a radio.

2. Notify the person with the radio to
an ambulance or fire
. if needed.

3. Then tell the to notify
S.E.S. personnel.

Sunnyside Emergency should
be notified in the event of any
In the yard of a fire or medical nature.

SECTION 5

COMMAND CENTERS

When the disaster plan becomes activated, an operations location must be utilized. The following three locations are designed as command centers.

INCIDENTS EAST	ENGINE HOUSE	630-7658
INCIDENTS SOUTHEAST	WHEEL TRACK	630-7202
INCIDENTS WEST	BUILDING #2	630-7616

COMMAND CENTER IDENTIFICATION

1. A large green sign identifying the center.
2. A large green cloth flag that can be seen from a distance.
3. Emergency persormel posted outside center.

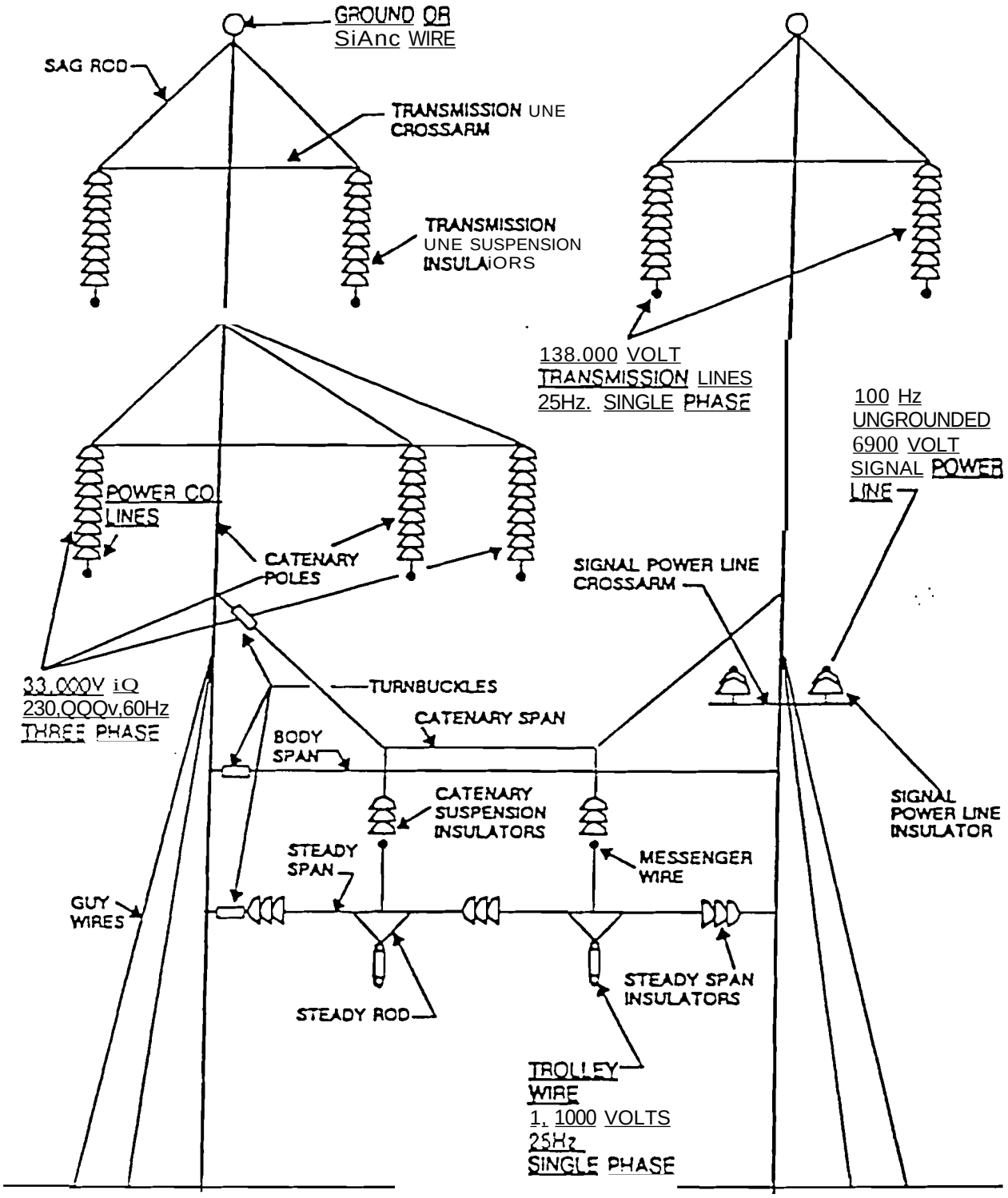
SERVICES AVAILABLE AT COMMAND CENTERS

1. Telephone communications
2. Radio communications
3. Messenger
4. Medical aid (S.E.S First Resoonder & EMS)
5. Access to Material Safety Data Sheets
6. Emergency Evacuation Plan Book
7. Employee Accountability
8. Administrative
9. Division Information and Data

COMMAND CENTERS

Personnel Available At Command Centers

1. Amtrak Management
2. Sunnyside Emergency Services
3. Sunnyside Safety Personnel
4. Amtrak Police
5. NYC *Fire*
6. NYC POLICE
7. NYC EMS



TYPICAL CATENARY BRIDGE
SHOWING UTILITY POWER UNE OCCUPATION

SECTION 6

HIGH POWER SAFETY PROCEDURE

The electrical power lines which run parallel to the tracks in the Northeast Corridor include a 6,900 volt signal line, all, 000 volt trolley wire, a 138, 000 volt transmission line, and other power lines. ANY OF THESE LINES CARRY ENOUGH ELECTRICAL POWER TO KILL OR SERIOUSLY INJURE. When necessary to work within 15 feet of electrical lines, you must make certain that the lines are de-energized and properly grounded.

TO REQUEST POWER TO BE SHUT OFF-------CALL POWER DIRECTOR

7684

OR

7685

Before any activity on or about power lines, electrical clearance must be obtained

TIURD RAIL: The same procedure holds for third rail operations. All third rails are considered live and produce 750 volts. Contact power director to request third rail to be de-energized.

SECTION 7

DESCRIPTION

In this section, each structure at:. Sunnyside Yard has a corresponding description sheet identifying:

Location

Structure Type

Interior Structure

Exterior Structure

Floor surface

Roof surface

Heating Surface

Fire Protection**

Power Shut-Off

** ALL BUILDINGS CONTAIN 20 POUND DRY CHEMICAL (TYPE ABC) FIRE)

AMTRAK SUNNYSIDE YARDS

BUILDING STRUCTURE DATA SHEET

BUILDING: "O" Tower

GEOGRAPHICAL LOCATION IN YARD: West End Beneath Queens Boulevard

CONSTRUCTION DATE: 1916

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
Shed/Storage	____ Drywall	___X Brick
Repair Facility	____ Plaster	Block
One Story	____ Wood Panel	___X Stone
X Two Story	____ Tile	Aluminum
Other	____ Brick	Stucco
_____	__X Block	Other _____
	___. Other _____	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
X Conc::ete	____ Eat Water	___X Metal
Steel	____ Eat Air	'X Asphalt Shingle
Eardwood	____ Electric	Wood Shingle
X Tile	____ Air Conditioning	____ .Slate
Carpeting	____ Other Steam	Tile
		Other _____

: \REST FIRE HYDRANT	POWER SEUT OFF LOCATION	FIRE PROTECTION
JO feet north	Second Floor	Sprinkle=s
	South Wall	____ Smoke Detectors
		__X Extinguishers
		____ Halon
		___ Alarms
		____ Other _____

AMTRAK SUNNYSIDE YARDS

BUILDING STRUCTURE DATA SHEET

BUILDING: # 1
Radio & Communication Repairs

CONSTRUCTION DATE: 1910

GEOGRAPHICAL LOCATION IN YARD: West End Beneath Queens Boulevard

*** LPG Storage area fenced in location. Tanks are 33 pounds for fork lift use

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
X ***LPG Storage Shed/Scarage	Drywall	X Brick
Repair Facility	Plaster	Elock
X One Story	Wood Panel	Stone
Two Story	Tile	Aluminum
Other	Erick	Stucco
Basement	X Block	Other
	Other	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
X Concrete	Eot Water	Metal
Steel	Eot Air	X Asphalt Shingle
Eardwood	Electric	Wood Shingle
Tile	Air Conditioning	Slate
Carpeting	X Other Steam	Tile
		Other

NEAREST FIRE HYDRANT	POWER SHUT OFF LOCATION	FIRE PROTECTION
Outside east side of building	In Basement	Sprinklers
		Smoke Detectors
		X Extinguishers
		Ealon
		Alarms
		Other

AMTRAK SUNNYSIDE YARDS

BUILDING STRUCTURE DATA SHEET

BUILDING: Building # 2

Administrative Offices/locker rooms /Cafeteria/ Material Control

CONSTRUCTION DATE: 1910

GEOGRAPHICAL LOCATION IN YARD: West E. Along Track #1

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
Shed/Storage	X Drywall	Y Brick
____ Repair Facility	Y Plaster	___ Elock
One Story	Y Wood Panel	Y Stone
X Two Story	X Tile	___ Aluminum
Other	X Erick.	____ Stucco
Basement	Y Elock.	___ Other ____
	Other ____	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
Y Concrete	Eat Water	Metal
Steel	Eat Air	X Asphalt Shingle
____ Eardwood	Electric	____ Wood Shingle
Y Tile	X Air Conditioning	____ Slate
Y Carpeting	Y Other Steam	____ Tile
		____ Other ____

NEAREST FIRE HYDRANT	POWER SHUT OFF LOCATION	FIRE PROTECTION
10 Feet West Side of Building	Basement below cafeteria	____ Sprinkle=s
10 Feet East Side of Building	For Credit Onion: rear of office.	____ Smoke Detectors
	For Material Control: Middle of Mate=ial Control area	X Extinguishers
		____ Ealon
		____ Alarms
		Y Other Wall mount hos=

AMTRAK SUNNYSIDE YARDS

BUILDING STRUCTURE DATA SHEET

EUILDING: # 5 _____

Employee men locker room/Lab

CONSTROCTION DATE: 1912

GEOGRAPHICAL LOCATION IN YARD: Center of . Behind Building

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
____ Shec/Storage	_X_ Drywall	_X_ Erick
____ Repair Facility	____ Plaster	____ Elock
____ One Story	Wood Panel	_X_ Stone
x Two Story	____ Tile	____ Aluminum
_X_ Other	_X_ Erick	____ Stucco
Lab for electrical equipment repair.	X Elock	____ Other ____
	__ __ Other ____	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
_X_ Concrete	Eot Water	_X_ Metal
____ Steel	____ Eot Air	____ Asphalt Shingle
____ Eardwood	Elect.ric	____ Wood Shingle
x Tile	Air Conditioning	____ .Slate
Carpeting	X Other Steam	___ Tile
		____ Other ____

NEAREST FIRE HYDRANT	POWER SHUT OFF	FIRE PROTECTION
50 Feet East in front of Motor Pool Building	Located *in* Building 2 in basement below cafeteria.	____ Sprinkle.rs
		____ Smoke Detectors
		_X_ Extinguishe.rs
		____ Halon
		___ Alarms
		____ Other ____

AMTRAK SUNNYSIDE YARDS

EUILDING STRUCTURE DATA SHEET

EUILDING: # 6

Paint Shop *Eiahlv* Flammable Stock·

CONSTRUCTION DATE: 1910

GEOGRAPHICAL LOCATION IN YARD: Center along Track #1 behind Building =

STRUCTURE TYPE or USE

- _X_ Shed/Storage
- _ _ Repai.r *Facility*
- X _ One Story
- _ _ Two Story
- _____ Other

INTERIOR STRUCTURE

- --y- Drywall
- _____ Plaster
- _ _ Wood Panel
- _____ *Tile*
- X *Brick*
- _ _ Block
- _____. Other _____

EXTERIOR STRUCTURE

- ___x Brick
- _ _ _ Elock
- _ _X Stone
- _____ Aluminum
- _____ Stucco
- _____ Other _____

FLOOR STRUCTURE

- X Concrete
- Steel
- Eardwood
- _____ *Tile*
- _____ Carpeting

HEATING SYSTEM

- _ _ Eat Water
- _ _ Eat Air
- _____ *Electric*
- _____ Air Conditioning
- ___X Other Steam

ROOF STRUCTURE

- _____ Metal
- _____x_ Asphalt Shingle
- _____ Wood Shingle
- _____ .Slate
- _____ *Tile*
- ___x Other Flat

NEAREST FIRE HYDRANT

20 Feet East of Buildin<

POWER SHUT OFF LOCATION

Rear of *Building* on west wall.

FIRE PROTECTION

- _____ Sprinklers
- _ _ _ Smoke Detectors
- ___x Extinguishers
- _____ Halon
- _ _ _ Alarms
- _____ Other _____

AMTRAK SUNNYSIDE YARDS

EUILDING STRUCTURE DATA SHEET

BUILDING: Motor Pool/Boiler House
Gasoline Powered Vehicle Repair Shop
Oil Burnincr Boilers generating steam heat.
CONSTRUCTION DATE: 1910

GEOGRAPEICAL LOCATION IN YARD: Center a Track #1 behind Paint Shop

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	OR STRUCTURE
X Shed/Storage	Drywall	X Brick
X Repair Facility	Plaster	Block
X One Story	Wood Panel	X Stone
Two Story	Tile	Aluminum
Other	___X Brick	Stucco
FLAMMABLE LIQDIDS	__X_ Block	Other _____
	Other _____	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
__X_ Concrete	Eat Water	X Metal
Steel	Eot Air	Asphalt Shingle
Eardwood	Electric	Wood Shingle
Tile	Air Conditioning	Slate
Carpeting	_X Other Steam	Tile
		Other _____

NEAREST FIRE HYDRANT	POWER SEUT OFF LOCATION	FIRE PROTECTION
_ Feet west of Building	Boiler Eouse Office	Sprinklers
		_____ Smoke Detectors
		__X_ Extinguishers
		_____ Halon
		_____ Alarms
		_____ Other _____

AMTRAK SUNNYSIDE YARDS

BUILDING STRUCTURE DATA SHEET

BUILDING: Track & Structures
Old YMCA Building

GEOGRAPHICAL LOCATION IN YARD: East beneath Honeywell Street Bridge

CONSTRUCTION DATE: 1911

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
___y_ Shed/Storage	x Drywall	__X_ Brick
Repair Facility	_____ Plaster	Block
One Story	___ Wood Panel	___X Stone
y Two Story	__x_ Tile	Aluminum
Other	____X Brick	Stuc::o
r_-Structure Materials	___ Block	Other _____
	___ Other _____	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
X Concrete	_____ Eot Water	___X Metal
Steel	__x_ Eot Air	Asphalt Shingle
Hardwood	___X Electric	Wood Shingle
Tile	_____ Air Conditioning	Slate
Carpeting	_____ Other _____	Tile
		Other _____

NEAREST FIRE HYDRANT	POWER SHUT OFF LOCATION	FIRE PROTECTION
280 Feet East at Engine Heuse	First Floor	Sprinklers
		Smoke Detectors
		__x__ Extinguishers
		Halon
		Alarms
		Other _____

AMTRAK SUNNYSIDE YARDS

BUILDING STRUCTURE DATA SHEET

BUILDING: Oil House Platform

GEOGRAPHICAL LOCATION IN YARD: East End next to Engine House

CONSTRUCTION DATE: 1910

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
X Shed/Storage	____ Drywall	X Brick
___ Repair Facility	____ Plaster	Block
____ One Story	____ Wood Panel	___ Stone
___ Two Story	____ Tile	____ Aluminum
X Other	____ Brick	___ Stucco
Platform: Chemical & Hazardous Materials	____ Block	___ Other ____
	X Other Not apply	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
X Concrete	____ Eot Water	___ Metal
____ Steel	___ Eot Air	____ Asphalt Shingle
____ Hardwood	____ Electric	____ Wood Shingle
____ Tile	____ Air Conditioning	____ Slate
Carpeting	X Other None	____ Tile
		X Other Dono

NEAREST FIRE HYDRANT	POWER SHUT OFF LOCATION	FIRE PROTECTION
East end of platform		____ Sprinklers
		____ Smoke Detectors
		X Extinguishers
		____ Balon
		____ Alarms
		____ Other ____

AMTRAK SUNNYSIDE YARDS

EUILDING STRUCTURE DATA SHEET

EUILDING: Enaine Eouse
Locomotive Repair Facility

CONSTRUCTION DATE: 1909

GEOGRAPHICAL LOCATION IN YARD: East
west of Metro-Shed

STRUCTURE TYPE or USE

Shed/Storage
__X__ Re?air Facility
One Story
X Two Story
X Other
Office & Store Room

INTERIOR STRUCTURE

Drywall
Plaster
Wood Panel
Tile
X Brick
__v__ Black
___ Other _____

EXTERIOR STRUCTURE

Brick
X Block
Stone
Aluminum
__X__ Stucco
Other _____

FLOOR STRUCTURE

X Concrete
Steel
Eardwood
Tile
Carpeting

HEATING SYSTEM

Eat Water
Eot Air
Electric
____ Air Conditioning
__X__ Other Steam

ROOF

Metal
Asphalt Shingle
___X Wood Shingle
Slate
Tile
__X__ Other Roof unsafe to carry weight.

NEAREST FIRE HYDRANT

located at West end of Engine Eouse

POWER SHUT OFF LOCATION

On North wall of building.

FIRE PROTECTION

Sprinklers
Smoke Detectors
__X__ Extinguishers
____ Ealon
___ Alarms
Other _____

AMTRAK SUNNYSIDE YARDS

BUILDING STRUCTURE DATA SHEET

BUILDING: Metro Shed

GEOGRAPHICAL LOCATION IN YARD: East En
Behind Engine Eouse

CONSTRUCTION DATE: 1961

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
y Shed/Storage	Drywall	Brick
Repair Facility	___ Plaster	X Block
___y_ One Story	___ Wood Panel	St.one
Two Story	___ Tile	Aluminum
Other	_____ Brick	Stucco
_____	__X_ Block	Other _____
	___ Other _____	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
____x Concrete	_____ Hot Water	__X_ Metal
Steel	Hot Air	Asphalt Shingle
Hardwood	__X_ Electric	Wood Shingle
Tile	Air Conditioning	Slate
Carpeting	Other _____	Tile
		Other _____

NEAREST FIRE HYDRANT	POWER SHUT OFF LOCATION	FIRE PROTECTION
15 feet, northside of building	Inside, center of building, north wall.	Sprinklers
		Smoke Detectors
		__X_ Extinguishers
		_____ Halon
		_____ Alarms
		Other _____

AMTRAK SUNNYSIDE YARDS

BUILDING STRUCTURE DATA SHEET

EUILDING: Wheel Track Lockers

GEOGRAPHICAL LOCATION IN YARD: East next to Metro

CONSTRUCTION DATE: 1910

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
Shed/Storage	Drywall	v Brick
Repair Facility	Plaster	Elock
y One Story	Wood Panel	X Stone
Two Story	Tile	Aluminum
X Other	X Erick	Stucco
Employee locker room.	Elock	Other
	Other	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
y Concrete	Eot Water	X Metal
Steel	Eot Air	Asphalt Shingle
Eardwood	Electric	X Wood Shingle
Tile	Air Conditioning	Slate
Carpeting	X Other Gas	Tile
		Other

NEAREST FIRE HYDRANT	POWER SHUT OFF LOCATION	FIRE PROTECTION
85 feet northside of building at Metro Shed	Inside Building	Sprinklers
		Smoke Detectors
		y Extinguishe=s
		Halon
		Alarms
		Other

AMTRAK SUNNYSIDE YARDS

EUILDING STRUCTURE DATA SHEET

EUILDING: Wheel True Building

GEOGRAPHICAL LOCATION IN YARD: East End next to Commissary

CONSTRUCTION DATE: 1901

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
Shed/Storage	____ Drywall	___ Brick
X Repair Facility	____ Plaster	_X_ Block
___y One Story	____ Wood Panel	___X Stone
Two Story	____ Tile	____ Aluminum
____ Other	____ Brick	___ Stucco
_____	___X Block	____ Other _____
	____ Other _____	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
___y Concrete	____ Eot Water	___X Metal
Steel	____ Eot Air	Asphalt Shingle
Hardwood	___X Electric	____ Wood Shingle
Tile	____ Air Conditioning	____ Slate
Carpeting	____ Other _____	____ Tile
		____ Other _____

NEAREST FIRE HYDRANT	POWER SHUT OFF LOCATION	FIRE PROTECTION
_ Feet both east & west of Buildi	Outside of building, northside, inside fenced area.	____ Sprinklers
		____ Smoke Detectors
		___X Extinguishers
		____ Ealon
		____ Alarms
		____ Other _____

AMTRAK SUNNYSIDE YARDS

EUILDING STRUCTURE DATA SEEET

BUILDING: Wheel Track Building

GEOGRAPEICAL LOCATION IN YARD: East End next to Wheel True Build

CONSTRUCTION DATE: 1989

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
____ Shed/Storage	Drywall	Brick
X Repair Facility	Plaster	X Block
X One Story	Wood Panel	X Stone
Two Story	Tile	Aluminum
Other	*Brick*	Stucco
Repairs on Passenger cars welding equipment	X Block	Other ____
	Other ____	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
X Concrete	Eot Water	X Metal
Steel	**Eat Air**	Asphalt Shingle
Eardwood	X Electric	Wood Shingle
Tile	Air Conditioning	Slate
Carpeting	Other ____	Tile
		Other ____

NEAREST FIRE HYDRANT	POWER SEUT OFF LOCATION	FIRE PROTECTION
Feet both east and west of the buildin	Inside building, center of north wall.	____ Sprinklers
		Smoke Detectors
		X Extinguishers
		____ Halon
		____ Alarms
		Other ____

AMTRAK SUNNYSIDE YARDS

BUILDING STRUCTURE DATA SHEET

BUILDING: R Tower

GEOGRAPHICAL LOCATION IN YARD: East End behind Wheel Track

CONSTRUCTION DATE: 1916

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
Shed/Storage	____ Drywall	X Brick
Repair Facility	Plaster	Block
One Story	Wood Panel	Stone
X Two Story	Tile	Aluminum
Other	X Erick	Stucco
Train dispatching center	Block	X Other Steel
	Other ____	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
X Concrete	Eat Water	Metal
Steel	Eot Air	X Asphalt Shingle
Eardwood	Electric	X Wood Shingle
	Air Conditioning	Slate
Carpeting	X Other Steam	Tile
		Other ____

NEAREST FIRE HYDRANT	POWER SEUT OFF LOCATION	FIRE PROTECTION
200 Feet west of building	inside, first floor in bathroom	Sprinklers
		Smoke Detectors
		X Extinguishers
		____ Ealon
		____ Alarms
		____ Other ____

AMTRAK SUNNYSIDE YARDS

EUILDING STRUCTURE DATA SHEET

BUILDING: Commissary

GEOGRAPEICAL LOCATION IN YARD: East En
west of wheel track

CONSTRUCTION DATE: 1992

STRUCTURE TYPE or USE	INTERIOR STRUCTURE	EXTERIOR STRUCTURE
Shed/Storage	X Drywall	Brick
Repair Facility	Plaster	Block
One Story	X Wood Panel	Stone
y Two Story	Tile	X Aluminum
Other	Brick	X Stucco
Food handling, offices	Block	Other
	Other	

FLOOR STRUCTURE	HEATING SYSTEM	ROOF STRUCTURE
X Concrete	Eot Water	y Metal
Steel	Eot Air	X As?halt Shingle
Eardwood	Electric	Wood Shingle
y Tile	X Air Conditioning	Slate
X Carpeting	Other	Tile
		Other

NEAREST FIRE HYDRANT	POWER SHUT	FIRE PROTECTION
200 feet west of building	outside, northwest side of building	X Sprinklers
		y Smoke Detectors
		y Extinguishers
		Halon
		Alarms
		Other

SECTION 8

Amtrak is a consumer of a large variety of chemicals, cleansers, solvents and so on. These products are used in all areas of Sunnyside Yard. Some areas have a higher concentration in quantity than others. These higher concentration areas may be:

Oil House Platform

Paint Shop

Motor Pool

Boiler House

Engine House

Wheel Track Buildings

Directory of MSDS forms for each substance will be posted in the areas of high concentration.

MSDS INFORMATION

630-7586 SUNNYSIDE YARD SAFETY DEPT.

630-7232 METROPOLITAN DIVISION SAFETY DEPT.

SECTION 9

SUNNYSIDE YARD EMERGENCY EQUIPMENT

Sunnyside Yard has a limited amount of emergency equipment. This amount of apparatus is ample to care for the needs and responibilities of the facility, and can be readily available for emergency use. Listed below is the equipment and type:

FIRE TRAIN: Consists of two 10,000 gallon tank cars containing watern and a coach or baggage car converted to accomodate fire fighting.

FIRE EXTD1GUISHERS: Amtrak stocks an inventory of various types of fire extinguishers, the majority of which are 20 pound dry chemical (type ABC). These are located in the Material Control storeroom on the west end of 1 track.

FIRST AID KITS: Amtrak stocks a supply of basic First Aid kits (In the storeroom, and offices), and stretchers (In buildings throughout the yard) .

FIRE TRUCK: A small sized gasoline powered vehicle containing a 100 pound dry chemical fire extinguisher.

RADIO SYSTEM: Multi-channel two-way radio system with radio access throughout th facility. These radios are in the possesion of all supervisors.

SECTION 10

RAILROAD TERMINOLOGY AND DICTIONARY

CATENARY	overhead wire system, supplies power to locomotives at 11,000 volts. EXTREMELY DANGEROUS
COBRA CROSSING	brand name of a hard rubber walkway used to safely cross tracks.
DEAD HEAD	term for one way move of equipment.
HEAD END POWER	(HEP) 480 volt power supply from locomotive to provide cars with electricity.
HIGH LINE	term for mainline,high speed rail traffic.
HUMP	track which crosses over a hill for switching purposes.
JUMPER	multi point electrical cable connecting passenger cars to provide HEP.
LOOF	term for tracks which connects inbound and outbound movement to and from Sunnyside Yard. Located at east end.
MOTOR	term for locomotive.
NEW YORK	term for Penn Station in Manhattan.
SES	Sunnyside Emergency Services, Amtrak Sunnyside's emergency rescue personnel.
SUBS	Term forlocationat west end of yard where multiple storage tracks are funneled to several lead tracks.
SWITCH	term for switch track.
THIRD RAIL	750 volt energized rail located on either side of conventional reil which supplies electrical power for movement. EXTREMELY DANGEROUS.
TOWER	structure staffed by personnel which controlls rail movement in a yard, station, or mainline.
40 OFFICE	Amtrak term for central office controlling all train movements in New York area. this office must be informed of all activities especally in emergency situations.

PANTOGRAPH	Folding tubular structure on the roof of certain types of equipment. This structure rides along the 11,000 "volt a.c. -catenary wire to carry current to the equipment.
3rd RAIL SHOE	Metal plate that rides along the 750 volt d.c. Third Rail to collect current for the" equipment.

DISASTER PLAN

TRAINING PROGRAM

INSTRUCTORS GUIDE - EMPLOYEE COURSE OUTLINE

1. INTRODUCTION

What is a disaster/evacuation plan?

Why is such a plan necessary?

What types of emergencies we may encounter?

The importance of employees participation in the pla

Why organization is very important.

2. What to do if an employee discovers a fire, hazardous material spill, or any other emergency.

A. Contact Foreman immediately.

B. Tell others

3. EVACUATION NOTICE

A. Bow you will be notified to evacuate. Listen carefully for instructions.

B. Levels of evacuation. (Instructor explains the various levels)

C. Explanatioit of function and locations of the command centers.

D. What are"Emergency Response Team (ERT) Captains and- their role.

E. Explanation of Staging Areas. Keep clear of command uenters unless absolutely necessary.

4. ROLL CALL

A. Importance of accountability.

B. Do not go home unless specifically instructed.

5. Handout

A. Distribute laminated evacuation card.

6. VIDEO

A. Show video on disaster evacuation.

Course time appx. 30 minutes

DISASTER PLAN

TRAINING PROGRAM

INSTRUCTION GUIDE CAPTAINS COURSE OUTLINE

1. What is a Captain?

   Main role: facilitate safe, smooth, orderly evacuation. Render upon request logistic support, information runners and other requested duties.

2. Give captains the employees course and explain employees procedure to evacuate.

3. Role playing as a Captain.

   A. Border lines of authority must be identified.

   B. Do not perceive role to be larger than it actually is.

4. Geographical positions for captains.

   A. *Directing* personnel to a staging area.

   B. Duty at command center.

   C. Directing emergency equipment to scene.

   D. Duty at staging area for various purposes.

CHAIN OF COMMUNICATION

DISASTER STRIKES

1

Person discovering incident contacts

↓

Foreman

↓

Calls Management and SES via 2 way Radio

1

Management and SES decides level of evacuation and determines command center site. Immediately contacts

↓

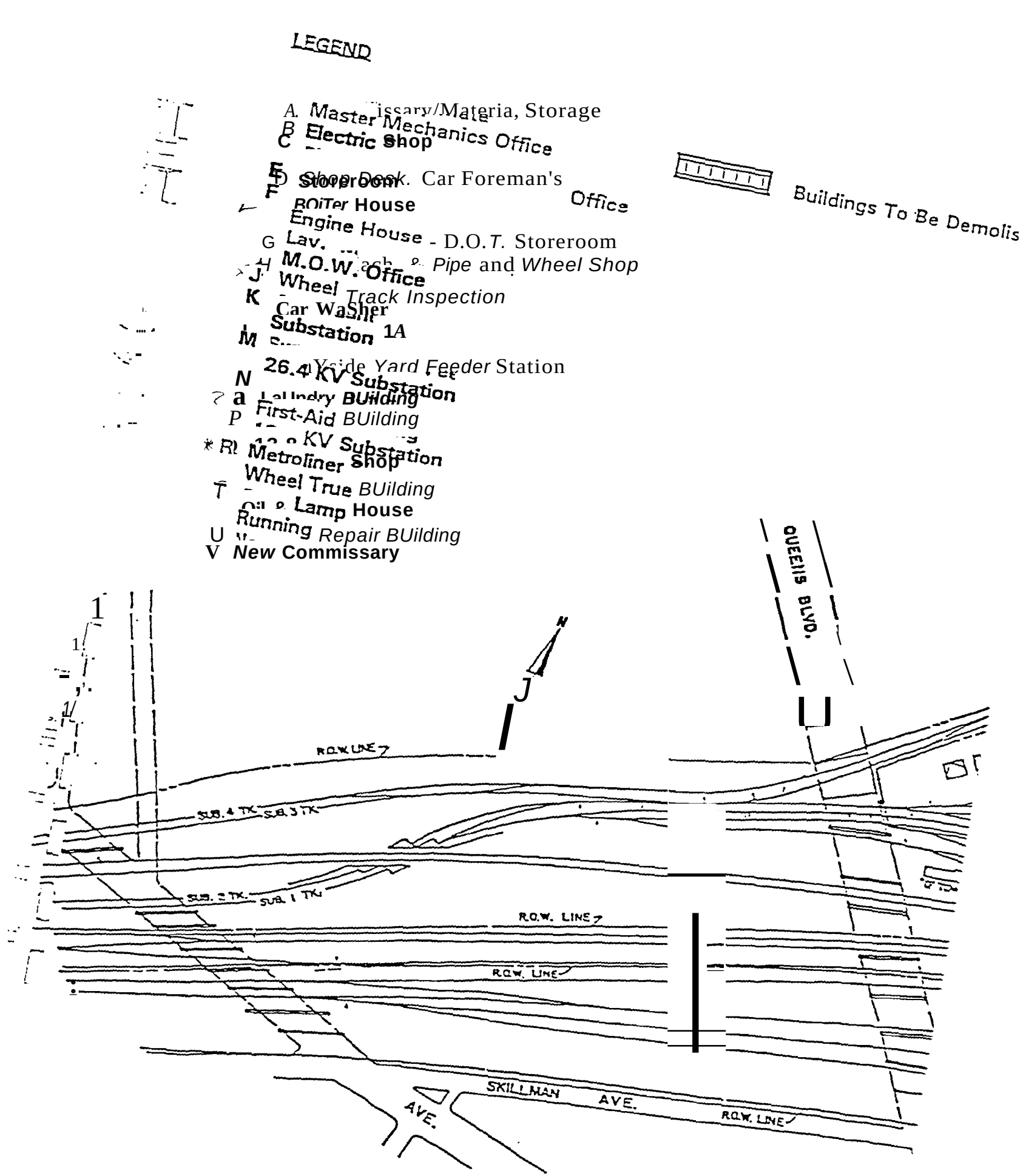
Q Tower,

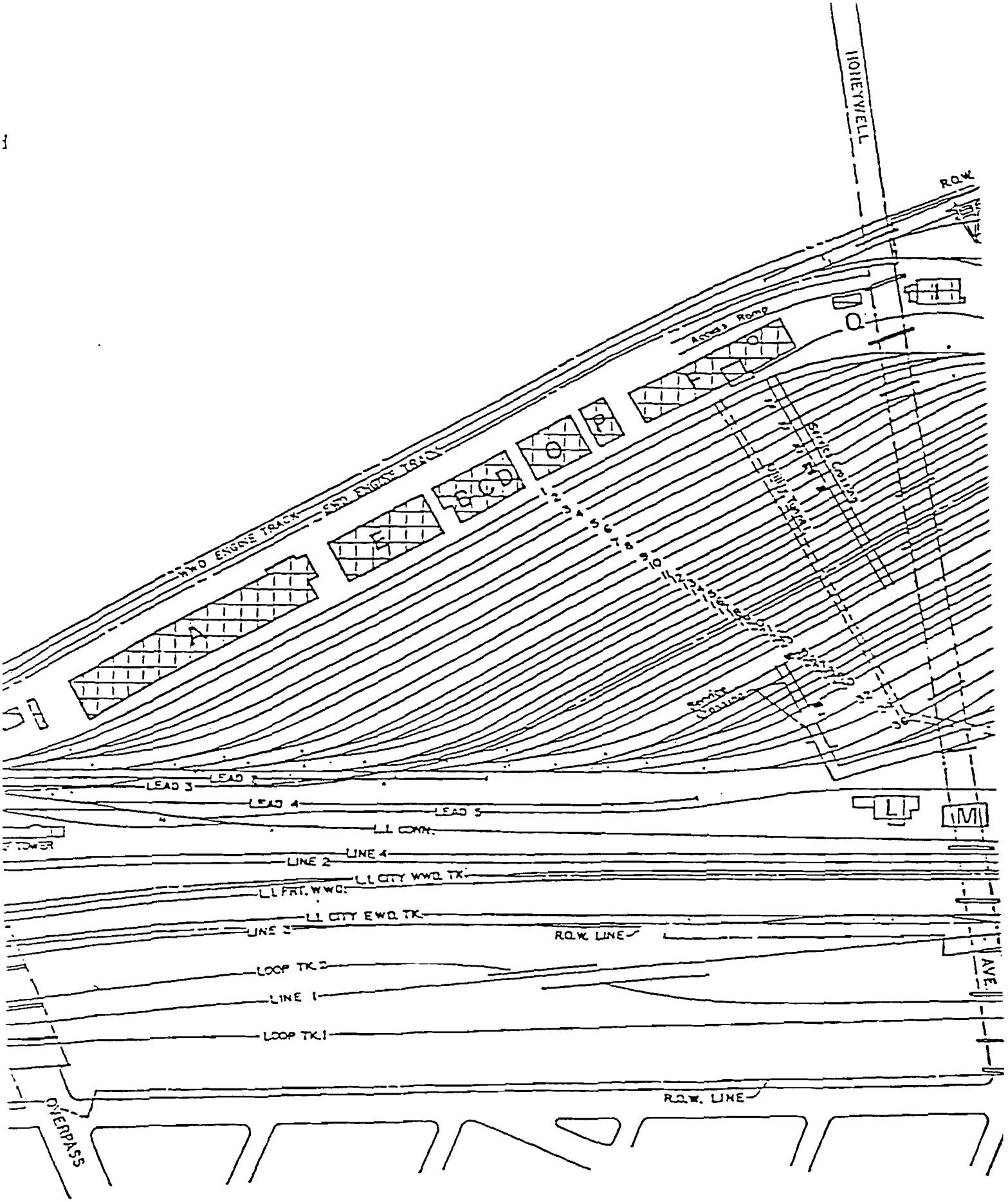
Sounds audible alarm
Responds ERT Captains
Dials 911 Police Fire EMS
Broadcasts on radio safe zone or staging areq

ERT Captains begin role playing and evacuation begins.

↓

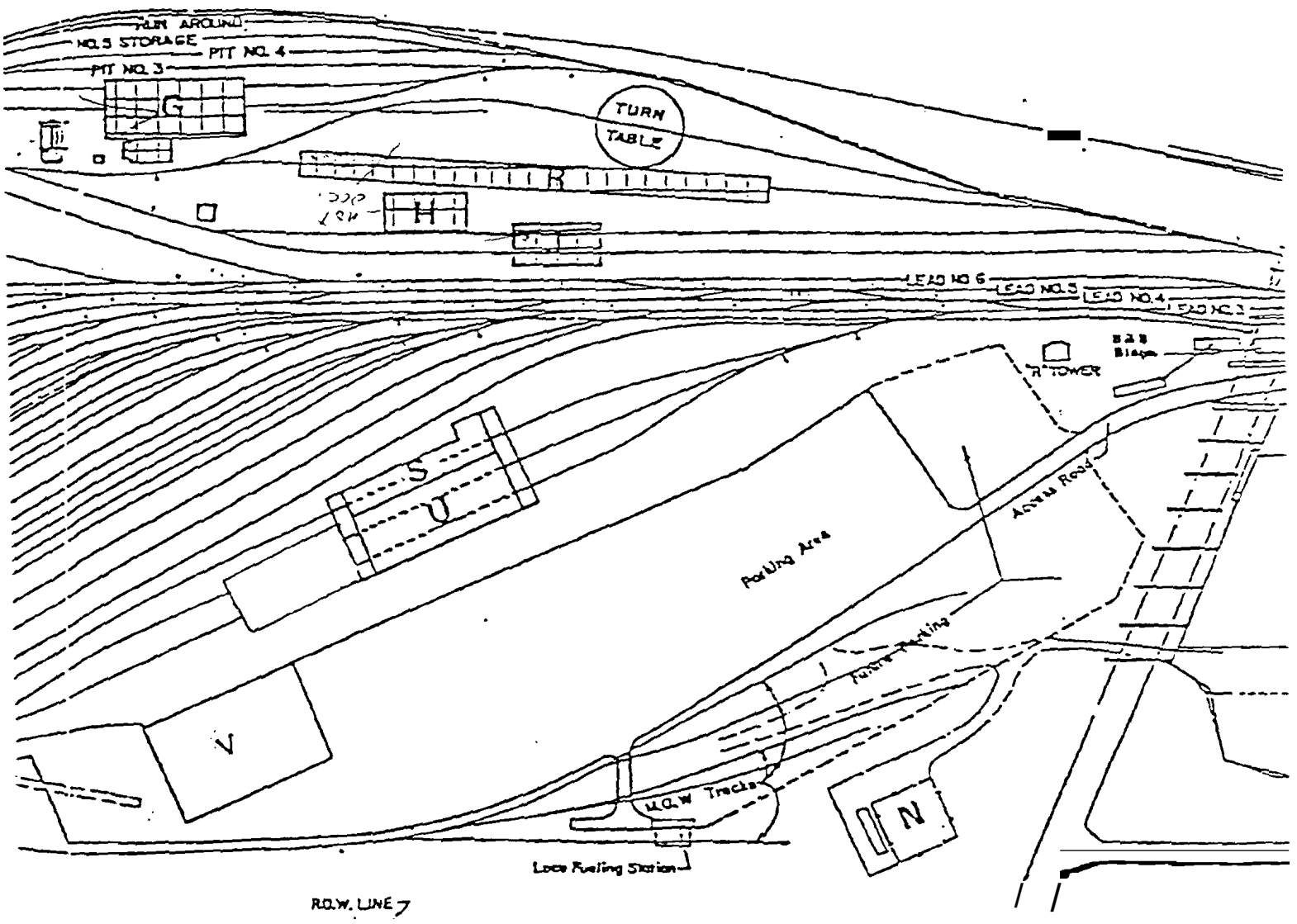
Staging area roll call.

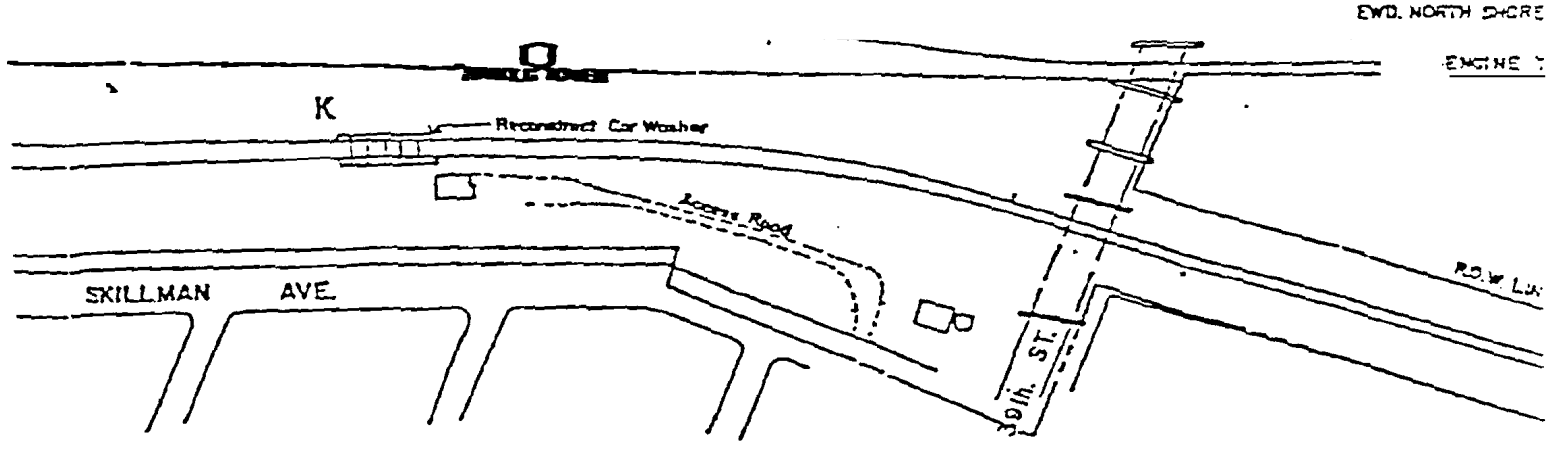

LEGEND
A. Master Mechanics Office
B Electric Shop
C
D Shop Desk. Car Foreman's Office
E Storeroom
F BOiTer House
Engine House - D.O.T. Storeroom
G Lav.
H M.O.W. Office
J Wheel Track Inspection
K Car Wash
Substation 1A
M
26.4 KV Substation
N
a Laundry BUilding
P First-Aid BUilding
KV Substation
Metroliner Shop
Wheel True BUilding
Lamp House
Running Repair BUilding
V New Commissary
Buildings To Be Demolis
QUEENS BLVD.
R.O.W. LINE
SUB. 4 TK.
SUB. 3 TK.
SUB. 2 TK.
SUB. 1 TK.
R.O.W. LINE
R.O.W. LINE
SKILLMAN AVE.
R.O.W. LINE
AVE.



EXISTING SITE PLAN

100 200 300 500


TURN AROUND
NO. 5 STORAGE
PIT NO. 4
PIT NO. 3
G
TURN TABLE
R
H
LEAD NO. 6
LEAD NO. 5
LEAD NO. 4
LEAD NO. 3
"A" TOWER
S
U
Parking Area
Access Road
Future Parking
V
M.C.W. Tracks
N
Loco Fueling Station
R.O.W. LINE 7
L WVD. NORTH SIDE


EWD. NORTH SIDE
ENGINE
K
Reconstruct Car Washer
Access Road
SKILLMAN AVE.
R.O.W. LI
Goth. ST.

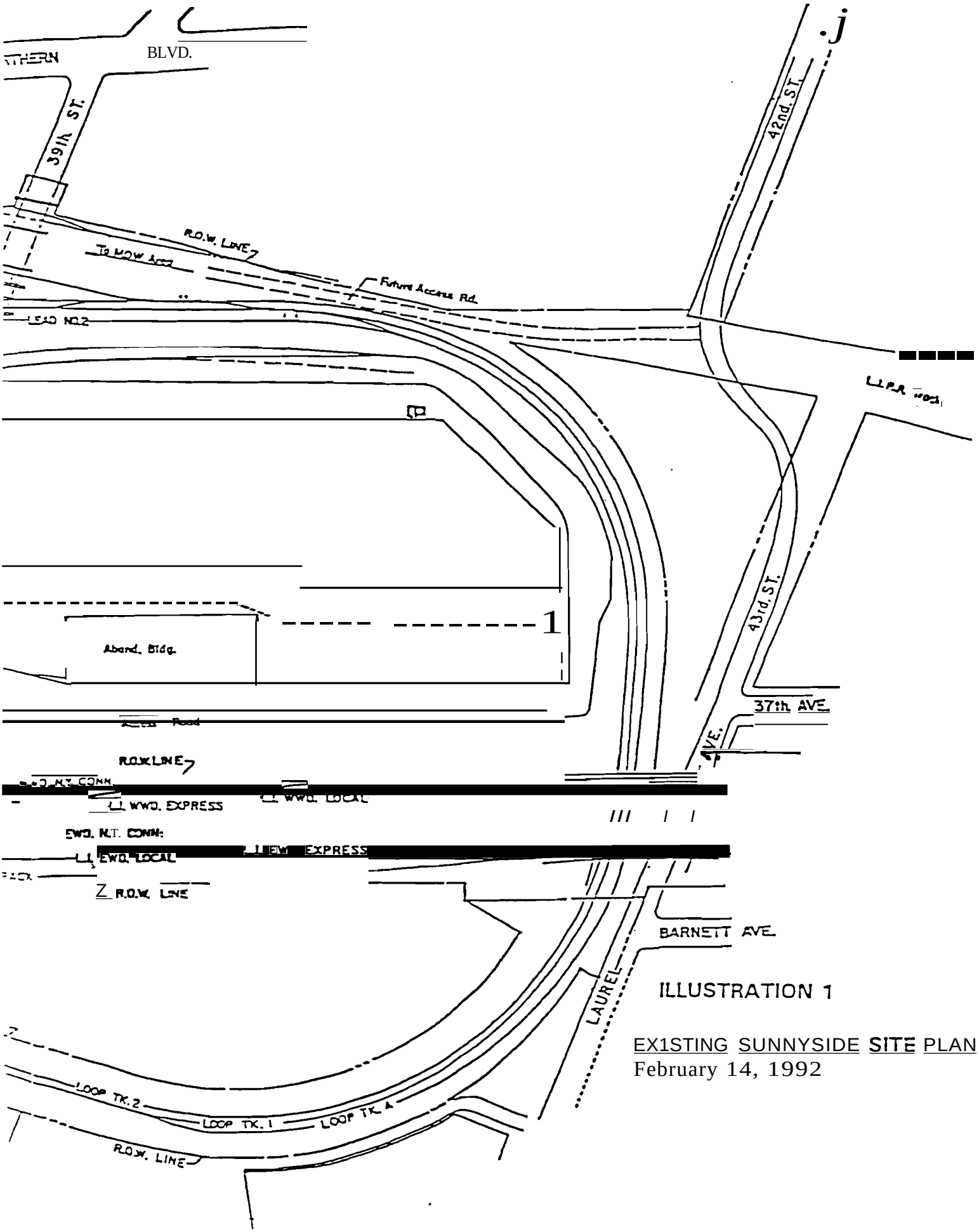
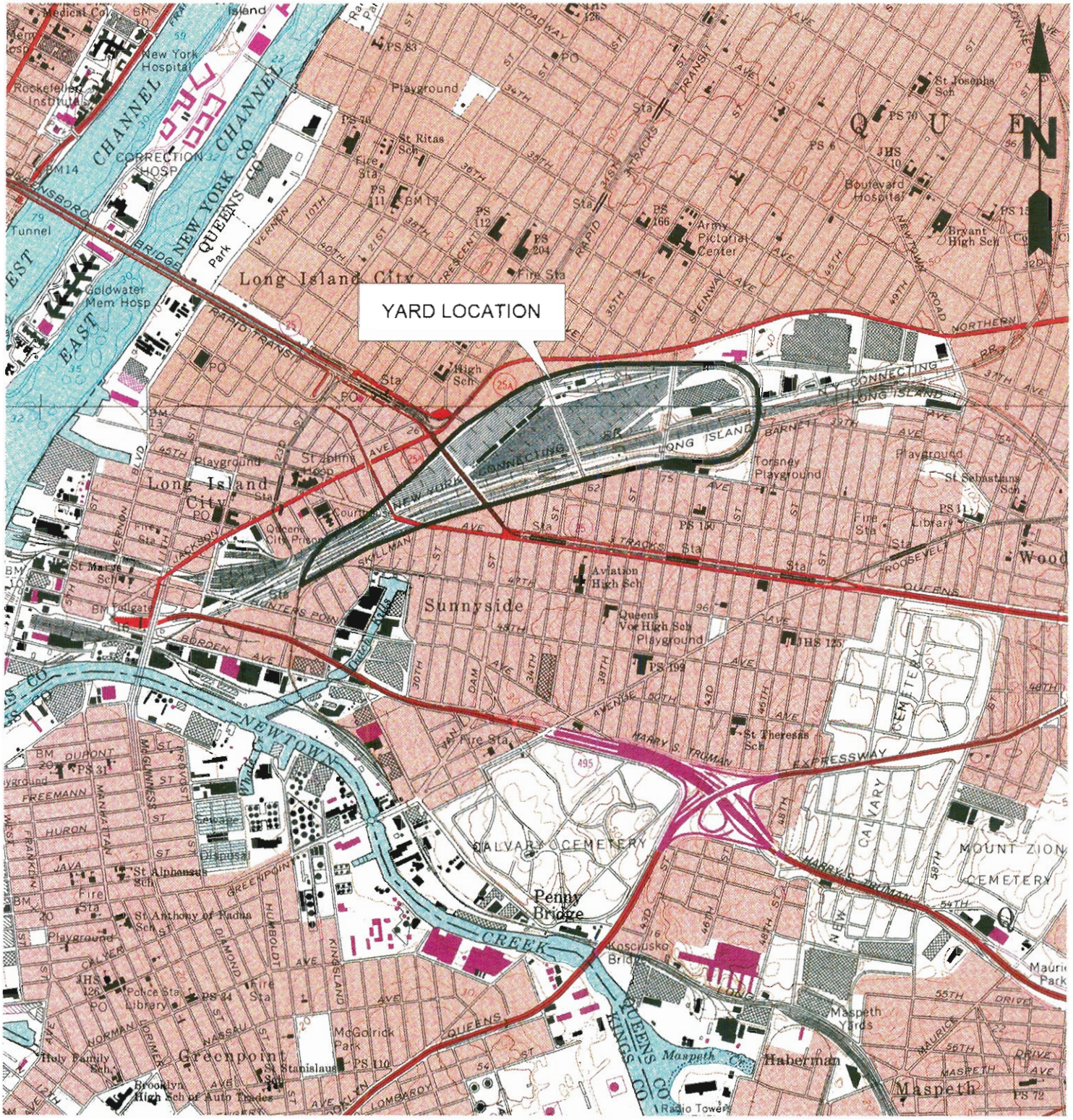


ILLUSTRATION 1

EX1STING SUNNYSIDE SITE PLAN
February 14, 1992

APPENDIXC

Technical Specifications



SOURCE:
CENTRAL PARK AND BROOKLYN, NEW YORK
QUADRANGLE 7.5 MINUTE SERIES (TOPOGRAPHIC)

Title:

SITE MAP

SUNNYSIDE YARD
39-29 HONEYWELL STREET
QUEENS, NEW YORK

Prepared For:

AMTRAK

ROUX ASSOCIATES INC
Environmental Consulting & Management

Compiled by:	J.D.	Date:	9/97	FIGURE
Prepared by:	R.R.	Scale:	1"=2,000'	1
Project Mgr:	J.D.	Status:	Final	
File No:	A0214006	Project:	05552E05	

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TECHNICAL SPECIFICATIONS
OU-l REMEDY IMPLEMENTATION
AMTRAK, SUNNYSIDE YARD
QUEENS, NEW YORK

TABLE OF CONTENTS

SECTION 01005

DEFINITIONS

PART 1 - GENERAL

1.01 DESCRIPTION

Contract Documents - The Specifications, Drawings, the Health and Safety Plan, the Contingency Plan, and the Order-on-Consent issued for the Site on August 13, 1997.

Contractor - The corporation, company, partnership or individual who will perform the Work in the Contract Documents.

Plans - The drawings which show the character and Scope of Work to be performed.

Site - The portion of Sunnyside Yard located at 39-29 Honeywell Street in Queens County, New York, known as Operable Unit I (OU-I) designated as the soils above the water table within the footprint of the proposed High Speed Trainset Facility Service and Inspection Building and surrounding area necessary to perform the Work.

Specifications - Written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work.

Work - The various obligations of performance of Contractor including, but not limited to providing all materials, supplies, equipment, small tools, supervision, labor and services, as set forth by the Contract Documents either expressly or implied, or the tangible product of Contractor's efforts.

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 DESCRIPTION:

A. The purpose of this section is to summarize the Work to be performed at Operable Unit 1 (OU-I), Sunnyside Yard, Queens, New York under the project entitled OU-I Remedial Design. This section is not all inclusive and is intended to describe only the general performance requirements of the Work. The Contractor shall be entirely responsible to perform all Work described in these Contract Documents whether or not specifically or fully specified in this section and to provide all equipment and personnel necessary to perform the Work.

B. This document provides specifications for work at OU-I, Sunnyside Yard, at 32-29 Honeywell Street, Queens, New York (Site). The Work includes, but is not limited to the following:

1. removal and disposal of approximately 150 cubic yards of asphalt and concrete;

2. excavation and disposal of approximately 485 cubic yards of carcinogenic PAH-contaminated non-hazardous soil; and

3. placement of approximately 625 cubic yards of structural backfill.

C. Amtrak's Representative will notify the Contractor of any non-compliance and the required action to be taken. The Contractor shall immediately inform Amtrak's Representative of the proposed corrective action and take such action as may be approved. If the Contractor fails or refuses to comply promptly, Amtrak's Representative may issue an order stopping all or part of the Work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for additional costs or damages by the Contractor unless it is determined that the Contractor was in compliance.

D. Health and Safety Plan: The Contractor shall submit a site specific health and safety plan to Amtrak for review and approval consistent with the requirements of OSHA, federal, state and local authorities, and the Health and Safety Plan prepared by Amtrak's Representative which is a component of the Contract Documents. All personnel working at the Site must be HAZWOPER-certified in accordance with OSHA 1910.120, and be Amtrak safety trained.

1.02 SUMMARY OF WORK:

A. Concrete, asphalt, and contaminated soil shall be excavated, removed, and disposed as described in the Specifications and as shown on the Plans.

B. Contractor shall provide facilities as

C. Contractor shall survey the Work area as described in these specifications to properly determine the limits of the Work.

D. Erosion Control: Contractor shall provide erosion control to minimize storm water run-on/run-off in the excavation area.

E. Decontamination Pads: The Contractor shall construct decontamination pads for its use and its subcontractors use at the Site. The Contractor shall be responsible to store, test, and dispose or discharge all decontaminated waters generated at the Site. Contractor is responsible for the proper decontamination of equipment and personnel.

F. Storage Tanks: The Contractor shall provide a storage tank to store construction wastewater.

G. Dewatering: The Contractor shall perform all dewatering tasks required throughout the Project. All dewatered water shall be stored within the storage tank, tested and properly discharged or disposed by the Contractor.

H. Staging and Storage Areas: The Contractor shall stage all materials in accordance with the Specifications and Plans. Equipment, excavated materials, and fill materials shall be kept in temporary staging areas as approved by Amtrak's Representative.

I. Soil Solidification: After excavation, soil shall be solidified to remove free liquid prior to transport off-site. The soil shall be solidified using absorbent material. Soil shall only be solidified as required by the facility receiving the waste. The Contractor shall not be paid for provision of or disposal of absorbent material.

J. Protection of Excavation Area: The Contractor shall be responsible for protecting the excavations. Excavations shall be protected using fencing and other security measures to prevent unauthorized access.

K. Soil Transport and Disposal: Excavated hazardous soils shall be transported in accordance with the U.S. Department of Transportation regulations and treated in accordance with the applicable land disposal requirements prior to disposal, if necessary. Disposal shall only be permitted at an Amtrak-approved disposal facility. All proposed disposal facilities shall be approved by Amtrak's Representative prior to removal of soil from the Site.

L. Backfill and Compaction: After completion of the excavation activities the excavations shall be backfilled and compacted using clean structural fill material to original grade.

M. The Contractor shall be responsible for obtaining all permits, insurance, bonds and licenses required to complete all Work and shall be responsible for payment of all fees to obtain these permits.

1.03 QUALITY ASSURANCE:

A. Contractors and their employees responsible for perfonning the Work shall be familiar with the most recent versions of the following:

1. all applicable safety rules and regulations;
2. the handling, transportation and disposal of liquid and solid wastes including hazardous wastes; and
3. all applicable city, state and federal environmental regulations.

SECTION 01012

WORK BY OTHERS

PART 1 - GENERAL

1.01 DESCRIPTION

This section describes work on the project being perfonned by others, and the requirements for coordinating the Contractor's Work with work under all other contracts and subcontracts, to minimize conflicts, delays and interruptions.

1.02 WORK BY OTHERS

A. Amtrak:

1. The Site is surrounded by a chain-link fence. Amtrak will provide access restrictions at the main entrance gates.
2. Amtrak will sign all waste manifests required under federal, state, and local law.
3. Amtrak will perfonn railroad track and overhead electric catenary line removal at the Site prior to start of remediation activities.
4. Amtrak will provide railroad safety training to all Contractor and subcontractor employees.
5. Amtrak will provide track foremen, electrical supervisors and flagmen as necessary during perfonnance of the Work.

B. Amtrak's Representative:

1. Post Excavation Sampling:

   Post-excavation sampling will be perfonned by Amtrak's Representative. Amtrak's Representative will obtain 48-hour laboratory turnaround time, from the time of sample collection. The 48 hour time frame applies only to working days.

2. Sampling of on-Site Spills:

   Post excavation sampling and analysis of all on-Site spill areas will be conducted by the Amtrak's Representative to verify that the spill event has been properly remediated. Amtrak's Representative will obtain 72-hour laboratory turnaround time, from the time of sample collection. The 72 hour time frame applies only to working days.

3. Amtrak's Representative may collect split samples of any samples collected by Contractor. In addition, Amtrak's Representative has the right to collect any additional disposal approval samples that it deems appropriate. Amtrak's Representative's approval and concurrence will be required on any conclusions made regarding the analytical results of Contractor's sampling activities. Concurrence will be received from Amtrak's Representative within 48 hours from its receipt of

analytical results. Amtrak's Representative will use the same laboratory turnaround time as used by the Contractor if split samples are collected.

4. Amtrak's Representative will verify whether Contractor's proposed TSDFs have current acceptable compliance status. Amtrak's Representative will contact the appropriate regulatory officials to make this determination.

C. NYSDEC:

1. NYSDEC may collect split samples of any samples collected by Amtrak's Representative and/or Contractor. In addition, NYSDEC has the right to collect any additional samples that it deems appropriate. NYSDEC approval and concurrence will be required on any conclusions made regarding the analytical results of Contractor's sampling activities. Concurrence will be received from NYSDEC within 72 hours from its receipt of analytical results. NYSDEC will use the same laboratory turnaround time as used by Amtrak's Representative or Contractor.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

SECTION 01025
MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 GENERAL DESCRIPTION

A. This Section separates the Work into measurable units for payment purposes. The Contractor shall be entirely responsible for performing all Work described in the Contract Documents, whether or not specifically or fully described in this Section.

B. The Work to be done and paid for under any item shall not be limited to the exact extent mentioned or described herein, but shall include all incidental work necessary or customarily done for the completion of that item.

C. The item numbers in this Section, with the exception of Item 01000 correspond to the most applicable Specification section where the technical requirements of the item are described.

D. Payment for lump sum items will be based on a percent complete basis.

1.02 ITEM 01000 - SITE PREPARATION AND TEMPORARY FACILITIES

A. Measurement:

1. The provision of all Work for the miscellaneous requirements described below will be measured on a lump sum basis. The lump sum amount for this payment item shall be limited to ten (10) percent of the total bid price.

2. This item shall include the mobilization, set-up, operation and demobilization of all equipment, materials, temporary facilities, and labor necessary to begin the Work. Specific Work under this Item shall include:

   (a) Mobilization

   (b) Erosion control

   (c) Health and safety monitoring

   (d) Equipment and personnel decontamination

   (e) Sanitary facilities

   (f) Dust suppression

   (g) Staging areas

   (h) Trash removal

   (i) Surveying and as-built drawings

   (j) Warning tapes and signs

(k) Decontamination washwaters

(l) Demobilization

3. Payment: Lump Sum

The lump sum price for this item will be paid in monthly installments that correspond to the percentage of all Work completed during the month, as determined by Amtrak's Representative.

1.03 ITEM 02200.A - REMOVAL OF ASPHALT AND CONCRETE

A. Measurement

Measurement for removal of asphalt and concrete consists of a unit price payment item. This item includes sawcutting, removal and crushing of asphalt and concrete. Measurement will be determined by Amtrak's Representative.

B. Payment: Unit Price (Cubic Yard)

Payment will be made for this item based on the number of cubic yards of concrete and asphalt properly removed.

1.04 ITEM 02200.B - EXCAVATION OF SOIL

A. Measurement

Measurement for removal of soil consists of a unit price payment item. This item includes the excavation of soil, and the necessary diversion of surface water in order to perform the Work. Measurement will be determined by Amtrak's Representative based on the volume of in-place soil removed. Proper discharge of all waters generated by the Work, and all sampling necessary to properly manage the waters, is included in this item.

B. Payment: Unit Price (Cubic Yard)

Payment will be made for this item based on the number of cubic yards of in-place soil properly excavated. .

1.05 ITEM 02200.C - BACKFILL WITH STRUCTURAL FILL

A. Measurement

Measurement for backfill consists of a unit price payment item.

This item includes the provision, stockpiling, placement, compaction, and compaction testing of structural fill to backfill the excavation area. Measurement will be based on the number of tons of structural backfill placed by the Contractor, as determined by weight tickets.

B. Payment Unit Price (Tons)

Payment will be made for the number of tons of structural fill properly placed and compacted.

1.06 ITEM 02280.A - TRANSPORTATION AND DISPOSAL OF ASPHALT AND CONCRETE

A. Measurement

Measurement for transportation and disposal of asphalt and concrete consists of a unit price payment item. This item consists of the off-site disposal of asphalt and concrete at an approved recycling facility, including all sampling required by the facility. Measurement will be based on the number of tons of asphalt and concrete disposed, as determined by empty and full weight tickets obtained at the recycling facility.

B. Payment: Unit Price (Tons)

Payment will be made for the actual number of tons of asphalt and concrete properly transported and disposed to an approved recycling facility.

1.07 ITEM 02280.B - TRANSPORTATION AND DISPOSAL OF SOIL

A. Measurement

Measurement for transportation and disposal of soil consists of a unit price payment item. This item consists of the off-site disposal of soil at an approved RCRA Subtitle D (non-hazardous) facility, including all sampling required by the facility. Measurement will be based on the number of tons of soil disposed, as determined by empty and full weight tickets obtained at the facility.

B. Payment: Unit Price (Tons)

Payment will be made for the actual number of tons of soil properly transported and disposed to an approved facility.

SECTION 01050

SURVEYS AND AS-BUILT DRAWINGS

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Contractor shall perform an initial Site survey to establish the exact limits of soil removal which are shown on the Plans. All surveying has been performed in the 1988 North American Vertical Datum System. Any errors, or apparent discrepancies found in the Plans with respect to existing Site conditions shall be called to Amtrak's Representative's attention for interpretation prior to proceeding with the Work.

B. The Contractor shall employ a New York State-licensed surveyor who shall lay out the location of all Work, and who shall perform all other surveying associated with the Work and specified herein. For Contractor's information, previous survey work at the Site has been performed by Topometrics, Inc., Hauppauge, New York.

C. Bench marks are shown on the Plans. The Contractor shall carefully preserve all bench marks, and in the case of disturbance or destruction thereof caused by its Work, Contractor shall be charged with the expense and damage resulting therefrom, and shall be responsible to correct any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks.

D. These bench marks shall be reestablished by the Contractor, and all reference ties recorded therefor shall be furnished to and checked by Amtrak's Representative. All computations necessary to establish the exact position of the Work shall be made and preserved by the Contractor.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

3.01 LAYOUT AND LEVELS:

A. Field records and as-built drawings shall show the exact surveyed location and elevation of all Work in relation to the bench marks, including, but not limited to:

1. All utilities identified or uncovered during performance of the Work.
2. Limits and elevations of all soil, asphalt and concrete excavations.
3. Post excavation sample locations and elevations.

B. All record data shall be surveyed to the control system indicated on the Plans.

3.02 AS-BUILT DRAWINGS:

A. Upon completion of all Work and before requesting final payment, Contractor shall provide mylar reproducibles of the as-built drawings showing all changes to the Plans. Two sets of paper prints shall be submitted to Amtrak's Representative for review and approval.

B. Contractor shall revise the as-built drawings in accordance with Amtrak's Representative's comments and resubmit two additional sets of paper prints of the revised as-built drawings for Amtrak's Representative's review and approval if requested by Amtrak's Representative.

C. All as-built drawings showing final elevations and the locations and dimensions of Work shall be sealed and signed by a New York State-licensed surveyor employed by the Contractor.

D. Amtrak's Representative's checking and approval of as-built drawings will apply to content only. Contractor shall be responsible for the accuracy and completeness of its Work.

E. Amtrak's Representative will not approve Contractor's request for final payment until the as-built drawings are received and approved.

F. Shop drawings will not be deemed acceptable as as-built drawings.

SECTION 01080

WARNING TAPES, SIGNS AND FENCING

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Contractor shall furnish and install temporary caution tapes, warning signs and fencing specified herein.

B. All Work shall comply with applicable OSHA, ASTM, and ANSI Standards, and all standards referenced herein.

PART 2 - PRODUCTS

2.01 GENERAL

A. All lettering shall be carefully made so as to produce a clear legible sign. No lettering, symbol or markings containing the name of the manufacturer will be permitted to be placed on the signs.

B. All lettering and numbering on warning signs and tapes shall be in block style in size and spacing to suit the size of the sign or tape unless otherwise specified or approved by Amtrak's Representative.

C. All colors shall be brilliant distinctive shares in accordance with ANSI Z53.1 "Safety Color Code for Marking Physical Hazards".

2.02 ABOVE GROUND CAUTION TAPE

Above ground caution tape shall be 3 inches wide, 4 mil polyethylene tape. Tape wording shall be "Caution - Do Not Enter".

2.03 WARNING AND SAFETY SIGNS

Signs shall be medium-weight, 4 mils, aluminum with a long lasting baked enamel finish. Signs shall be furnished complete with appropriate mounting holes. All holes shall be provided with suitable brass or stainless steel grommets. As per OSHA regulations, warning signs shall be orange with black lettering, and shall have the wording: "Keep Out - Open Excavations", and "Unauthorized Personnel Keep Out". Signs shall be seven (7) inches by ten (10) inches.

2.04 TEMPORARY FENCING

A. Orange colored plastic (polyethylene or polyethylene-propylene) barrier fences shall be a minimum of four (4) feet tall and installed with steel fence posts. Installation shall be in accordance with OSHA requirements.

PART 3 - EXECUTION

3.02 ABOVE GROUND CAUTION TAPE

Above ground caution tapes shall be located around all exclusion zones, contamination reduction zones, and other hazards as directed by Amtrak's Representative. The tape shall be placed so that words on the tape are upright and readable. The tape shall be supported by appropriately sized steel or wooden posts.

3.03 WARNING AND SAFETY SIGNS

A. "Open Excavation" warning signs shall be located around the perimeter of the excavation at a maximum spacing of 100 feet. Signs shall be installed at a height of five feet above grade.

B. "Unauthorized Personnel" warning signs shall be installed at the perimeter of the work area, as directed by Amtrak's Representative.

3.04 TEMPORARY FENCING

A. Contractor shall install orange plastic fence around all Work zones, contamination reduction zones, all staging areas, or hazardous areas as required by Amtrak's Representative, as may be necessary to control access to the Work areas.

B. Steel support posts shall be spaced at no more than eight (8) feet.

SECTION 01300

SUBMITTALS

PART 1 - GENERAL:

1.01 DESCRIPTION OF REQUIREMENTS:

The types of submittal requirements specified in this section include shop drawings, product data, samples and miscellaneous Work-related submittals. Individual submittal requirements are specified in applicable specification sections for each unit of Work.

A. Work-related submittals of this section are categorized for convenience as follows:

1. Shop drawings include specially-prepared technical data for this project, not in standard printed form for general application to several projects. The Contractor shall provide shop drawings as necessary for the execution of the Work as required by the Plans, Specifications, or Amtrak's Representative's instructions. Contractor shall maintain copies of each shop drawing, along with product at the Site at all times.

2. The Contractor shall collect required data into one submittal for each unit of Work or system, and mark each copy to show which choices and options are applicable to the project and will be provided. Include manufacturer's standard printed recommendations for installation, application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and special coordination requirements.

3. Product data includes standard printed information on materials, products, systems and construction methods, i.e., soils, dewatering, etc., and shall be submitted with shop drawings.

4. Samples include both fabricated and unfabricated physical examples of materials, products and units of Work, i.e., solidification material, erosion control materials, etc., either for limited visual inspection or for more detailed testing and analysis. Provide units identical with final condition of proposed materials or products for the Work when required by Specifications. Include information with each sample to show generic description, source or product name and manufacturer, limitations, and compliance with standards.

1.02 GENERAL SUBMITTAL REQUIREMENTS:

A. All required submittals shall be provided with five (5) complete sets of submittal information, unless otherwise specified.

B. The Contractor shall coordinate preparation and processing of submittals with performance of the Work so that Work will not be delayed by submittals. Contractor shall not perform work until submittals have been marked "Approved" by Amtrak's Representative.

C. Each submittal shall be complete in all respects, incorporating all information and data required for evaluation by Amtrak's Representative. Partial, incomplete, or illegible submissions will be returned to the Contractor without review, for resubmittal by Contractor.

D. The Contractor shall provide a permanent marking on each submittal to identify the project, data, contractor and submittal name. Submittals which are received from sources other than through Contractor's office will be returned, marked "No Action."

1.03 REQUIRED SUBMITIALS:

Specific submittals are described in each specification section. Additional submittals are described below.

A. Materials and Equipment Suppliers and Manufacturers:

The Contractor shall submit to Amtrak's Representative a list of materials and equipment suppliers and manufacturers for approval prior to commencement of construction activities.

B. Subcontractors:

Contractor shall submit qualifications of subcontractors at least 14 days prior to intended use of subcontractor on Site. Contractor may change subcontractors, persons, or organizations proposed for the Work only with Amtrak's Representative's written consent.

C. Construction Schedule:

A construction schedule shall be submitted to Amtrak's Representative for approval prior to commencement of construction activities. The schedule shall be updated every month and submitted to Amtrak's Representative for review and approval.

D. Work Plan:

The Contractor shall submit a Work Plan prior to initiation of construction activities. The Work Plan shall describe the manner by which the Contractor intends to comply with the following requirements:

1. Quality Control

The quality of Work shall be the responsibility of the Contractor. The Contractor shall maintain an effective quality control program that complies with the Contract Documents. The Contractor shall furnish qualified personnel, appropriate facilities, instruments and testing devices necessary for the performance of the quality control system; these shall be adequate to cover all operations, including both on-Site and off-Site testing. Sufficient inspections and tests shall be performed on a continuous basis of all items of Work, including Work performed by subcontractors.

2. Sequencing of Work

The Contractor shall prepare and submit a detailed sequence of all Work to be performed. The sequence of Work shall address specific means, methods and procedures for all tasks that will be employed by the Contractor.

3. Run-On/Run-Off Control

In order to minimize the impacts of storm events, storm water diversion measures shall be established during the Work. The Contractor shall provide a description and figures of its intended approach for diversion of storm water.

4. Miscellaneous Requirements

The following miscellaneous requirements shall also be addressed in Contractor's Work Plan:

Adequate diagram of the Work site with a layout showing existing Site conditions, and the location of hauling routes and truck routes through public streets, staging areas, air monitoring stations, and the access to the Site. The diagram shall also 'show the contamination reduction zones, and the support zones.

Identification of any construction permits required to conduct Work.

Identification of the size, location, and required maintenance of all staging areas.

Methods and equipment to be used for excavation of soil.

Methods and equipment to be used for asphalt and concrete removal.

Any other requirements necessary to provide adequate staging and removal of materials from the Site.

Procedures for handling contaminated materials.

Procedures for the storage of liquid wastes generated during the Work.

Methods and equipment to be used for compaction of all fill materials installed on the Site.

List and condition of equipment to be used on-Site.

E. Daily Report

1. Contractor shall prepare a daily report which identifies at a minimum:

(a) the dates of commencement and completion of all aspects of the Work;

(b) all Work performed that day;

(c) the number of workers on-Site each day working for the Contractor and all subcontractors;

(d) all major equipment items on-Site; and

(e) weather conditions

2. All daily reports shall be kept as a permanent record at the Site. One copy of the daily reports shall be submitted to Amtrak's Representative prior to the Contractor leaving the Site each day.

1.04 CONTRACTOR'S HEALTH AND SAFETY PLAN

A. The Contractor shall submit a Site-specific health and safety plan to Amtrak for review and approval consistent with the requirements of Specification Section 01517.

B. Contractor shall submit documentation that workers are certified to Work at the Site prior to initiation of Work activities.

1.05 ACTION ON SUBMITTALS

A. Where action and return is required or requested, Amtrak's Representative will review each submittal, mark with "Action", and return within 15 working days of receipt in Amtrak's Representative's office. Where submittal must be held for coordination with other contracts, Contractor will be so advised without delay.

B. If a resubmittal is required, Amtrak's Representative will annotate the resubmittal as indicated, and return two (2) copies to the Contractor for appropriate action. If reproducible transparencies are submitted, Amtrak's Representative will return one (1) set of marked prints and the marked reproducible transparencies to the Contractor.

C. Approval of a shop drawing by Amtrak's Representative will constitute approval of the subject matter for which the drawing was submitted and not for any other structure, material, equipment or appurtenances shown.

D. Amtrak's Representative's Action:

1. Final Unrestricted Release:

   Work may proceed, provided it complies with Contract Documents, when submittal is returned with the following:

   Marking: "Approved"

2. Restricted Release:

   Minor corrections are noted and shall be made. A resubmittal may be required if noted by Amtrak's Representative on the shop drawings returned to Contractor. Work may proceed at Contractor's own risk, provided it complies with notations and corrections on submittal and with Contract Documents. Should resubmittal not be approved, Contractor shall perform all revisions to Work executed to bring Work into compliance with final approved shop drawing at no cost to Amtrak.

   Marking: "Approved as Noted"

3. Returned for Revisions and Resubmittal:

   Do not proceed with Work. Major corrections are noted. Revise submittal in accordance with notations thereon, and resubmit complete submittal without delay to obtain a different action marking. Do not allow submittals with the following marking (or unmarked submittals where a marking is required) to be used in connection with performance of the Work:

   Marking: "Disapproved"

4. Rejected:

   Based on the information submitted, the submission is not in conformance with the Contract Documents. The deviations from the Contract Documents are too numerous to list and a completely revised submission of the proposed equipment or a submission of other equipment is required.

   or

   Reproducible transparencies and resultant prints are not legible and will not be reviewed and a resubmittal is required. Partial or incomplete submittals will be rejected.

   Marking: "Rejected"

5. Other Action:

   Where submittal is returned for other reasons, with Amtrak's Representative's explanation included, it will be marked as follows:

   Marking: "No Action"

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

SECTION 01510

TEMPORARY FACILITIES AND UTILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Specific administrative and procedural requirements are specified in this section, as extensions of other provisions in the Contract Documents. Nothing in this section is intended to limit the types and amounts of temporary work required, and no omission from this section will imply that such temporary activity is not required for successful completion of the Work and compliance with requirements of Contract Documents.

B. In addition to compliance with governing regulations and rules/recommendations of franchised utility companies, Contractor shall comply with specific requirements indicated and with applicable local industry standards for construction work. Contractor shall obtain inspections and approvals as required.

C. All temporary Work shall comply with the applicable provisions of ANSI A10-Series Standards on construction safety, and NFPA Code 241 "Building Construction and Demolition Operations."

D. Contractor shall establish and initiate use of each temporary facility when it is reasonably required for proper performance of the Work, and shall terminate the use of, and remove from the Site, the facilities when no longer needed or when directed to do so by Amtrak's Representative.

E. Contractor shall install, operate, maintain and protect temporary facilities in a manner which will be safe, non-hazardous, sanitary, and protective of persons and property. Facilities shall be located where shown on the Plans or as directed by Amtrak's Representative.

F. Contractor shall not post advertisement signs during the performance of its Work.

PART 2 - PRODUCTS

2.01 TEMPORARY CONSTRUCTION FACILITIES:

A. Telephone Service:

1. Contractor shall maintain cellular telephones throughout the duration of the project.

B. Electrical Power:

1. Electrical power is not available for use by the Contractor at the Site. Contractor shall provide generators as a power source.

C. Lighting:

1. The Contractor shall provide sufficient temporary lighting to ensure proper workmanship.

D. Temporary Water:

1. Potable and non-potable water is available at the Site. The Contractor shall furnish and install as required: all hoses, tanks, receptacles, equipment and accessories necessary for the conveyance and application of water to the construction Work.

E. Trash Disposal:

1. Contractor shall make arrangements to dispose of trash, garbage, etc. off of the Site on a daily basis, as necessary, in accordance with the Contract Documents.
2. Trash shall be disposed off-Site on a regular basis, as necessary to ensure that Contractor's trash containers are not overflowing with trash at any time.

F. Trailers:

1. Contractor shall not maintain a trailer on the Site for use as a field office.

G. Sanitary Facilities:

1. The Contractor shall provide self-contained toilet (Port-O-Johns) units in quantity and type acceptable to governing authorities, adequate for all stages of construction for use by Amtrak's Representative and Contractor's personnel.
2. Sanitary facilities shall be maintained on a regular basis, and when directed by the Engineer.
3. The Contractor shall provide separate facilities for male and female personnel when both genders are working in any capacity at the Site.

2.05 SECURITYIPROTECTION PROVISIONS:

A. The Contractor shall provide provisions intended to minimize property losses, personal injuries and claims for damages at the Site.

B. Contractor is responsible to provide all security/protection services for its equipment as Contractor deems necessary.

C. Contractor shall provide services to limit access onto the Site by pedestrians and all non-authorized personnel, which shall consist of installing temporary fence in all necessary areas to prevent access to the Work areas by unauthorized personnel.

PART 3 - EXECUTION

(Not Applicable)

SECTION 01517

HEALTH AND SAFETY REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION:

A. The Work areas at the Site contain contaminants for which dust action levels have been established. Therefore, the Work shall be performed in accordance with specific health and safety requirements.

B. The Contractor shall prepare a Site-specific health and safety plan, and submit it to Amtrak for review and approval prior to performing Work at the Site. The Plan shall be consistent with the requirements of OSHA (29 CFR 1910 and 1926) federal, state and local authorities, and the Health and Safety Plan prepared by Roux Associates, which is a component of the Contract Documents. All personnel working at the Site must be HAZWOPER-certified, and be Amtrak safety trained.

C. The Contractor shall monitor health and safety conditions during all phases of the Work and fully enforce its own Site-specific health and safety plan.

D. Amtrak's Representative will not be responsible for full-time supervision of Contractor's compliance with its health and safety plan. However, Amtrak's Representative is authorized to issue orders stopping Work if the Contractor is conducting Work in an unsafe manner. No part of the time lost due to such stop orders shall be made subject of a claim against Amtrak or Amtrak's Representative by the Contractor.

SECTION 01520

TEMPORARY STAGING AND STORAGE REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION:

A. This section describes the requirements for the staging and segregation of all solid and liquid wastes generated during performance of the Work. All solid materials generated on-Site shall be staged in waste piles, and any containerized liquid staged in tanks. All staging and storage areas shall be designated for health and safety purposes as "Work Zones" as defined in the Health and Safety Plan.

B. Lined, covered, non-leaking rolloffs are an acceptable substitute for the waste pile requirements described herein for all solid wastes. Contractor is responsible for unloading, reloading, corrective actions, and other remedial Work resulting from any leakage of rolloffs. Amtrak's Representative reserves the right to disallow subsequent staging in rolloffs if leakage occurs.

C. All wastes staged on-Site shall be disposed off-Site in accordance with Section 02280 within 90 days of excavation.

D. All staging areas for solid Site media shall be sized by the Contractor as necessary to perform its Work, and located as approved by Amtrak's Representative.

E. Waste piles shall have run-on and run-off control systems capable of preventing flow onto or off of the stockpiled material, from a minimum of a 25-year, 24-hour storm event. At the Site, this storm event is equivalent to 6 inches of rainfall in 24 hours.

F. During and following storm events, Contractor shall expeditiously manage all water collection systems installed as part of the waste piles in order to maintain the design capacity of the systems.

G. Contractor shall inspect all waste piles and storage tanks, daily and following storms, to detect any deterioration, malfunction, leaks, or presence of liquids, and shall immediately correct any problems encountered to the satisfaction of Amtrak's Representative.

H. Any tank, rolloff, lined waste pile that is leaking shall be immediately taken out of service, the waste removed if necessary to repair the leak, and any visible releases to the environment contained. The cause of the leak shall be determined and repaired, or the item permanently taken out of service. Any repairs must be inspected and approved by Amtrak's Representative prior to the item being placed back in service.

I. All rolloffs, tanks, or waste piles used for storage of solid wastes, shall be labeled to identify the contents and date accumulation begins.

1.02 SUBMITTALS:

A. Manufacturer's certifications that all tank systems have been constructedlinstalled, as specified.

1.03 SEGREGATION OF WASTE STREAMS:

A. Contractor shall establish separate staging areas for the following:

1. Soil;
2. Asphalt and concrete; and
3. Construction waste waters.

Personal protective equipment and ballast shall be staged with the soil.

1.04 STAGING OF SOLID WASTES:

A. Solid wastes shall be staged in waste piles meeting the following requirements:

1. The waste pile shall be lined with geotextile, and a welded polyethylene liner which is chemically resistant to the wastes, to prevent any migration of wastes or liquids from the waste pile. The liner shall have a minimum thickness of 40 mils.
2. Waste piles shall be covered with polyethylene sheeting specified in Section 2.02 at all times unless waste is being added to or removed from the pile.
3. Temporary safety fencing and silt fence shall be installed around all waste piles.

B. Once a waste pile has been sampled for disposal purposes, material shall not be added to the waste pile until the waste pile contents have been removed for disposal.

C. A waste pile that has been removed from service due to leakage may not be restored to service until the liner system is repaired to the satisfaction of Amtrak's Representative.

1.05 STAGING OF CONSTRUCTION WASTE WATER:

A. All tanks used to store construction waste water shall meet the requirements of Paragraph 2.01 of this section.

B. Tanks must be tested and certified by the Contractor for water tightness prior to use.

C. Contractor shall use appropriate controls and practices to prevent spills and overflows from tanks, including spill prevention controls.

D. Once a water sample has been collected from a storage tank, liquids shall not be added to the tank until the tank has been emptied.

1.06 STAGING OF STRUCTURAL FILL:

A. Structural fill shall be placed on and covered with 20-mil reinforced construction grade polyethylene liners.

PART 2 - PRODUCTS

2.01 TEMPORARY STORAGE TANKS:

A. The Contractor shall provide a holding tank with a maximum capacity of 20,000 gallons. The tank shall be either a "frac" style or modular style. If modular tanks are provided, each tank shall have a minimum liner thickness of 40 mils, constructed of a material that will be compatible with all chemicals to be stored in the tank.

B. Amtrak's Representative will direct Contractor when the tank shall be removed from the Site. The tank shall be decontaminated as required by the tank manufacturer prior to return to manufacturer.

2.02 POLYETHYLENE SHEETING

A. All polyethylene sheeting used for staging purposes shall be 20 mils thick, reinforced construction grade sheeting.

PART 3 - EXECUTION

3.01 SPILL RESPONSE MEASURES - SOLID WASTES

A. Spills of solid wastes shall be immediately cleaned up by the Contractor using appropriate tools and supplies. Any "clean" soil or sediment potentially contaminated by spills of solid wastes during remediation activities shall be excavated and disposed. Post excavation sampling and analysis of the excavated spill area will be conducted by Amtrak's Representative to verify that the spill event has been properly remediated.

B. Any "clean" equipment, materials or facilities which are contaminated by a spill event shall be immediately cleaned, restored to previous existing conditions, and decontaminated by the Contractor in accordance with the Specifications, and in a manner approved by Amtrak's Representative.

C. If there is evidence of a leak of a waste pile liner system, the Contractor shall be immediately required to stop adding material to the pile, contain all leakage which has or is occurring, and take measures which will stop the leak.

D. If the leak cannot be stopped by other means, the wastes shall be removed from the pile and placed in a newly constructed waste pile.

3.02 SPILL RESPONSE MEASURES - CONSTRUCTION WASTE WATERS

A. If a spill of construction waste water or other liquids of concern (e.g., gasoline or diesel fuel) occurs anywhere on-Site during transfer to a storage tank, flow to the tank shall be immediately stopped and the spill immediately contained. The source of the spill shall be identified and the transfer equipment shall be repaired, subject to the approval of Amtrak's Representative prior to commencement of transfer activities.

B. In the event of a tank leak anywhere on Site, the source of the leak shall be identified immediately and repaired subject to the approval of Amtrak's Representative. If the leak cannot be repaired without removing the waste water from the tank, the tank shall be immediately drained and removed from service. Prior to reuse, the tank shall be repaired subject to the approval of Amtrak's Representative.

C. All spills of construction waste waters, including leakage of free liquids from transport vehicles, shall be immediately cleaned up and collected by the Contractor, if feasible, using appropriate tools and supplies.

D. All materials used for the cleanup of liquid spills (e.g., absorbent materials) shall be collected, stored, and disposed of with similar Site media as appropriate.

E. All collected liquids resulting from spills shall be stored with construction waste waters for subsequent testing and disposal or discharge to the sewer as described in Section 01562.

F. Any "clean" soil which may have been contaminated by liquid spills during remediation activities shall be excavated and disposed. Any "clean" equipment, materials (e.g., concrete or asphalt paving) or facilities with impervious surfaces which are potentially contaminated by a liquid spill event shall be immediately cleaned up by the Contractor in a manner acceptable to Amtrak's Representative.

SECTION 01560

TEMPORARY CONTROLS

PART 1 GENERAL

1.01 DESCRIPTION

A. This section describes temporary controls that shall be implemented during the Work. These measures include control of dust, erosion, noise, and pollution.

B. The Contractor shall provide environmental protection to ensure the retention of the environment in its natural state to the greatest possible extent during the Work. Environmental protection shall include consideration of air and land protection, noise minimization, and management of trash and other pollutants. The Contractor shall comply with all applicable federal, state, and local laws, and the requirements specified herein.

C. Amtrak's Representative will notify the Contractor of any non-compliance with the provisions of this section and the corrective actions to be taken. The Contractor shall, after receipt of such notice, immediately inform Amtrak's Representative of proposed corrective action and take such action as may be approved.

1.02 PROTECTION OF LAND RESOURCES

A. If any fuel or contaminated soil or water is released in unauthorized areas, the Contractor shall remove the material and restore the area to the condition of the adjacent undisturbed area. If necessary, contaminated soil shall be excavated as necessary at Contractor's expense, disposed of as directed by Amtrak's Representative, and replaced with suitable fill material and compacted.

1.03 DUST CONTROL

A. The Contractor shall maintain all excavations, embankments, stockpiles, access roads, and all other Work areas free from excessive dust which would cause a hazard or nuisance to others.

1.04 EROSION CONTROL

A. The Contractor shall take all necessary measures to control erosion and shall comply with all requirements specified herein and as shown on the Drawings.

B. Temporary diversion ditches and berms shall be created as necessary to prevent storm runoff from entering or existing excavations, with locations and methods subject to the approval of Amtrak's Representative.

C. Hay bales and/or silt fences shall be placed at locations upgradient of excavation areas to minimize water flow and soil from entering excavations, and downgradient of excavation areas to prevent soil in the excavations from migrating to other areas.

D. The need for any additional erosion control measures will be determined by Amtrak's Representative during construction on an as-needed basis, and shall be implemented and maintained by the Contractor at no additional cost to Amtrak. Inspection of temporary erosion control measures by the Contractor shall be frequent and repair or replacement shall be made promptly, as needed or directed by Amtrak's Representative.

E. The Contractor shall remove erosion control devices at the conclusion of the Work, or as directed by Amtrak's Representative.

1.05 NOISE CONTROL

A. The Contractor shall conduct all operations for the execution of the Work in compliance with the applicable local regulations controlling maximum noise levels due to construction work, and shall take noise abatement measures necessary to comply with the local regulations. All Work shall be performed during daylight hours and will be subject to local noise regulations.

1.06 SITE CLEANING

A. During progression of the Work, all Work areas shall be kept clean by Contractor, all rubbish shall be collected on a daily basis, and all surplus materials and unneeded construction equipment shall be removed from the Site when no longer required for the Work.

B. Where Contractor's operations have allowed or caused material or debris to enter existing ditches, drains, pipes, or structures, such material or debris shall be entirely removed and disposed of during the progress of the Work.

C. Contractor shall place all construction debris and trash into separate containers provided by Contractor, and shall be responsible for the disposal of container contents when full.

D. The Contractor shall restore or replace, when and as directed, any property damaged by its Work, equipment, or employees, to pre-existing conditions.

PART 2 - PRODUCTS

Not applicable.

PART 3 - EXECUTION

Not applicable.

SECTION 01562

MANAGEMENT OF CONSTRUCTION WASTE WATERS

PART 1 - GENERAL

1.01 SCOPE OF WORK

A. Construction waste waters include:

1. Water generated from personnel and equipment decontamination.
2. Dewatering water removed from excavated soil that has entered the excavation area as storm water runoff.

B. The Contractor shall be responsible for the proper handling of all construction waste waters. Contractor shall minimize the generation of construction waste waters, and shall be responsible for the proper disposal or sewer discharge of these waters, at no cost to Amtrak.

C. It is the intent of this Contract that all waste water generated on-Site during the Work shall be disposed of off-Site in accordance with Section 02280, unless directed otherwise by Amtrak's Representative. Contractor shall be responsible for all sampling and analysis required for disposal or sewer discharge.

D. If sewer discharge is performed, the Contractor shall be responsible to determine discharge requirements. The Contractor shall be responsible for all necessary permits, equipment, piping and appurtenances required to discharge approved waste water to the sewer.

PART 2 - PRODUCTS

Not applicable.

PART 3 - EXECUTION

Not applicable.

SECTION 01565

DECONTAMINATION REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Work covered by this section consists of the decontamination of equipment and personnel and shall be performed in accordance with the Health and Safety Plan.

B. Decontamination waters shall be managed in accordance with Section 01562.

C. Decontamination pads shall be sized by the Contractor as necessary to perform the Work, but shall be a minimum of 20 feet by 30 feet in area, with a one-foot high perimeter berm.

1.02 SUBMITTALS:

A. A Decontamination Plan shall be submitted. The Contractor's Decontamination Plan shall address the requirements of Section 01565, and shall include at a minimum the items listed below:

1. A description of the proposed equipment and methods to be used in the decontamination procedures including dusting, brushing, water use, power requirements, other cleaning activities, and solvents to be used.
2. A description and drawings (as applicable) showing construction details of the decontamination pads, waste water containment area, spill prevention methods, storage containers and required storage volumes to be used for the decontamination of equipment.
3. A description of procedures for the disposal of contaminated materials generated from decontamination activities.

B. A decontamination certificate, signed by the Contractor, shall be submitted for each construction and material transport vehicle leaving the Site, stating that:

1. no soil or other material is adhering to the vehicle body or undercarriage;
2. the vehicle is not leaking or dripping liquids; and
3. the contents of the vehicle are covered or completely enclosed so as not to permit potentially fugitive particulate matter to become airborne.

1.03 LEAKAGE, SPILLAGE, CONTAMINATION:

A. Any leakage, spillage, or contamination of soil or equipment caused by the decontamination activities of the Contractor shall be cleaned up at Contractor's expense.

B. All soil contaminated by the Contractor by decontamination activities shall be excavated and disposed in a manner acceptable to Amtrak's Representative at Contractor's expense.

PART 2 - PRODUCTS

2.01 EQUIPMENTIMATERIALS:

A. All decontamination equipment and materials necessary for the performance of the Work in accordance with these Specifications shall be supplied by the Contractor.

B. Requirements for aU tanks used for storage of decontamination wash waters are described in Section 01520.

2.02 DECONTAMINATION PADS:

A. Decontamination pads for equipment shall be constructed as shown on the Plans.

B. Decontamination pads shall be constructed as necessary to support equipment loads in a manner that shall not compromise the impermeability of the pad.

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS

A. The Contractor shall minimize its use of wash waters used for decontamination purposes.

B. All decontamination wash waters that are required to be collected shall be collected and stored in accordance with Section 01520.

C. All safety equipment and other equipment used during contamination procedures shall be either decontaminated and salvaged, or contained and disposed of in accordance with applicable regulatory requirements.

D. Contamination reduction zones (CRZs) for equipment decontamination shall be established at the Site, in locations selected by the Contractor and approved by Amtrak's Representative. CRZs shall be used to completely decontaminate all machinery and equipment used by the Contractor.

E. Each CRZ shall include shovels, brushes, power washers, a steam jenny, detergent solutions if necessary, and provisions to collect decontamination wash waters.

3.02 DECONTAMINATION OF EQUIPMENT, TOOLS, AND FACILITIES:

A. All equipment used for excavation and other earthwork activities which comes in contact with potentially contaminated materials shall be decontaminated prior to:

1. crossing areas of the Site which do not require remediation or have already been remediated;

2. handling clean fill materials; and

3. leaving the Site.

B. The Contractor shall not allow equipment to leave the Site with water leaking or mud dripping or caked to the equipment. All equipment leaving the Site shall be dry except during rainy or snowy weather, or with Amtrak's Representative's written consent for other exceptions.

C. Dry brushes shall be used to decontaminate trucks, trailers, and drill rigs. Trailers and trucks shall not be decontaminated using jet washers or steam jennies, unless directed by Amtrak's Representative. Any dry decontamination must be performed in accordance with the activity cessation thresholds for dust, as specified in the HASP.

D. Prior to equipment leaving the Site, the final decontamination of excavation equipment shall consist of using a powered or steam cleaning system (steam jenny) capable of effectively removing all soil, residues, and other debris adhering to equipment. Additives to the wash water shall be used when necessary and approved by Amtrak's Representative to enhance decontamination to levels acceptable to Amtrak's Representative.

E. Contractor shall erect decontamination facilities at location(s) selected by Contractor and approved by Amtrak's Representative to ensure heavy equipment is clean when leaving the Site.

3.03 PERSONNEL DECONTAMINATION:

A. Personnel shall be decontaminated in accordance with the Health and Safety Plan.

B. Employees of Amtrak, Amtrak's Representative, and regulatory agencies will utilize the personnel decontamination facilities provided by the Contractor.

SECTION 02200

EXCAVATION AND BACKFILL

PART 1- GENERAL

1.01 DESCRIPTION

A. This section describes the requirements for:

1. Removal of 150 cubic yards of concrete and asphalt;
2. Excavation of 485 cubic yards of carcinogenic PAH-contaminated soil; and
3. Backfil1 of 625 cubic yards with structural fill.

Approximately one (1) foot of combined surface concrete and asphalt will be removed followed by approximately two (2) feet of soil removal to the water table. Following removal of these materials, backfill will be performed to original grade. The areal extent of removal activities is shown on the Plans.

B. The soil removal limits indicated on the Drawings are preliminary, and may be modified based on post-excavation sampling performed by Amtrak's Representative.

C. The Plans show subsurface conditions to the best knowledge of Amtrak and Amtrak's Representative; however, the completeness or accuracy of information given is not guaranteed. If unforeseen subsurface conditions are encountered during the Work, the Contractor shall notify Amtrak's Representative immediately.

D. During progress of the Work, Contractor shall conduct its operations so as to minimize the wind dispersal of contaminants. If Amtrak's Representative determines that it is necessary to use more effective dust control, Contractor shall furnish all equipment and material required to minimize airborne particulates, as directed by Amtrak's Representative. Dust suppression is described in the Health and Safety Plan..

E. The Contractor shall prevent storm water run-on and run-off near excavation areas. The storm water shall be diverted using appropriate storm water and erosion control methods as specified in Section 01560.

F. Following removal of concrete and asphalt, and soil excavation, staging shall be performed in accordance with Section 01520.

G. Following excavation, the Contractor shall backfill the excavation area with structural fill as specified in this section.

1.02 SUBMITTALS:

A. Contractor shall submit gradation testing results and certification from suppliers that fill materials to be supplied for use at the Site meet the requirements of this Specification, and that they are clean and free of contaminants. Certification must be received and approved prior to delivery of fill materials to the Site:

B. Contractor shall submit samples of structural fill, in accordance with Section 01300 - "Submittals."

C. Contractor shall submit results of all compaction testing.

PART 2 - PRODUCTS

2.01 STRUCTURAL FILL:

A. Structural fill shall be natural river or bank sand; washed, free of silt, clay loam, friable or soluble materials or organic matter; graded as follows:

Sieve Size		Percent Passing
No.4	(4.75 rom)	100
No. 14	(1.18 mm)	10-100
No. 50	(0.30 mm)	5-90
No. 100	(0.15 rom)	4-30
No. 200	(0.075 rom)	0-1

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS

A. All existing structures, utilities or other items in areas where excavation will take place, shall be left in place unless specifically indicated otherwise or approved in writing by Amtrak's Representative.

B. All structures, utilities or other items left in place shall be carefully supported and protected from damage by the Contractor. Any items damaged by Contractor shall be restored to original condition or replaced as approved by Amtrak's Representative at no additional cost to Amtrak.

C. All existing structures or utilities which are to remain in service, but must be removed to allow Contractor to perform the Work, shall be:

1. Permanently relocated as approved by Amtrak's Representative; or

2. Temporarily relocated as approved by Amtrak's Representative and then returned to the item's original position in an undamaged condition.

D. During progress of all Work activities, the Contractor shall conduct its operations and maintain Work areas so as to minimize risk, interference and obstruction to personnel.

E. The Contractor shall be responsible at all times for carrying out all excavation operations in a safe and prudent manner so that unreasonable hazards to workers and the public are minimized. All applicable federal, state and local requirements shall be observed by the Contractor.

3.02 CONCRETE AND ASPHALT REMOVAL

A. Contractor shall remove concrete and asphalt where indicated on the Plans until the underlying native soil is reached. Subsurface concrete may also be encountered, which shall be removed.

B. Since portions of concrete or asphalt must be removed from a larger section, Contractor shall sawcut at the removal limit to create a neat final edge.

C. Concrete and asphalt that has been removed shall then be staged separately in accordance with Specification Section 01520 for off-Site disposal specified in Section 02280.

3.03 SOIL EXCAVATION

A. Soil excavation shall be performed using power equipment such as an excavator or a backhoe.

B. All soil shall be excavated to the initial limits shown on the Plans; however, may extend horizontally based on post-excavation sampling performed by Amtrak's Representative. The excavation depth shall be to the water table, which is estimated to be three feet below land surface.

C. If materials other than soil are encountered during excavation work, Contractor shall immediately notify Amtrak's Representative before proceeding. Excavation by hand may be necessary if determined by Amtrak's Representative.

D. Contractor shall to perform test pits prior to mobilization to determine subsurface conditions.

3.04 UNAUTHORIZED EXCAVATION:

A. When the excavation of an area is taken out beyond the limits indicated on the Plans or identified by Amtrak's Representative, the Contractor shall backfill the additional excavation with approved structural fiJl, at no additional cost to Amtrak. Contractor shall receive no compensation for excavation, relocation, loading, transportation or disposal of soil for which the excavation was unauthorized.

3.05 SPILLS OF EXCAVATED SOILS:

A. All spills and any "clean" soil contaminated by spilled contaminated soil during remediation activities shall be cleaned up and the area restored to previous existing conditions by the Contractor in a manner acceptable to Amtrak's Representative at no additional cost to Amtrak.

3.06 PLACEMENT OF STRUCTURAL FILL:

A. Any staged fill materials shall be covered with polyethylene sheeting.

B. Contractor shall maintain optimum moisture content to attain required density. The moisture content shall be within plus four or minus two percent of the optimum moisture content as detennined by field and laboratory tests.

C. A representative sample of the fill material shall be tested by an independent laboratory in accordance with ASTM 0-1557 to detennine maximum Proctor density. This result shall be used to perfonn in-place density testing in the field.

O. The Contractor shall spread six-inch thick unifonn layers of fill. moistened as necessary. and compact to 90 percent Proctor density.

E. In-place density testing shall be perfonned in accordance with ASTM 0-2922.

SECTION 02280

TRANSPORTATION AND DISPOSAL

PART 1- GENERAL

1.01 DESCRIPTION

A. The Work shall include all labor, equipment, materials, and services necessary to properly characterize, profile, manifest, transport, and dispose of the following separate waste streams:

1. Soil;
2. Asphalt;
3. Concrete;
4. Ballast;
5. Personal protective equipment;
6. Construction waste waters (if disposed off-Site [refer to Section 01562]); and
7. Other miscellaneous debris.

B. Soil shall be disposed at an RCRA Subtitle D (non-hazardous) Transport, Storage and Disposal Facility (TSDF). All personal protective equipment and ballast shall be disposed with the soil.

C. Contractor has the option of choosing the RCRA Subtitle D TSDF to be used for the Work subject to the approval of Amtrak. Each proposed TSDF shall be currently and appropriately permitted to accept the waste to be disposed at the TSDF.

D. Contractor shall recycle all asphalt and concrete generated by the Work.

E. Construction waste waters shall be disposed at an appropriate treatment facility.

F. The Work includes obtaining and providing appropriate liners and covers as specified herein, as well as transport vehicles.

G. The Contractor shall be responsible for all scheduling and coordination of transportation subcontractors and TSDFs. All costs incurred by Contractor due to delays, downtime, and charges by other subcontractors resulting from the failure to properly schedule, coordinate, or perform the Work shall be the responsibility of the Contractor.

H. Contractor shall take title to wastes at time of loading into transport vehicles, and shall retain title to all waste materials until receipt by Amtrak's Representative of Certificates of Disposal required in Paragraph 1.03.

1.02 SUBMITTALS:

A. In accordance with Section 01300, the Contractor shall submit the following to Amtrak's Representative prior to initiating any off-Site transport:

1. List of transportation subcontractors to be used for all waste transport, including EPA ill Numbers for each transporter.

2. A detailed schedule identifying the proposed daily transport schedule, including number and size of transport vehicles.
3. Documentation that vehicles are properly permitted to transport wastes, and that the transporter is licensed by the State of New York, and all other states through which wastes will be transported.
4. A list of all TSDFs proposed for its Work. For each TSDF, the name, address, telephone number, and EPA ID Number shall be identified.
5. For each TSDF, a description of all its waste characterization requirements, including sampling frequencies, analytical parameters and approval limits for each parameter.
6. Proposed primary and contingency transportation routes.
7. Contingency PlanlProgram for responding to off-Site spills.
8. Shop drawings/certifications from all vehicle providers, stating that vehicles meet the requirements of Paragraph 2.02.
9. Documentation of all Site scale calibrations and certifications.
10. Copies of all profiles, sample and analytical results, and all other paperwork generated in performing the work described herein, including disposal approval applications.
11. Tare and loaded weight tickets from the on-Site scale, for all transport vehicles prior to off-Site disposal.
12. Copies of all manifest forms or other bills of lading required under federal and state regulations, immediately following transport from the Site.
13. Copies of all manifest forms or other bills of lading following completion of the forms at the TSDFs, to document that the wastes arrived at the TSDF. Contractor shall ensure that copies of all forms are distributed among regulatory agencies as required.
14. Tare and loaded weight tickets from TSDFs for all transport vehicles.

1.03 LICENSING AND PERMIT REQUIREMENTS

A. Contractor, or its transportation subcontractors if used, shall be permitted and licensed to transport wastes in New York and all localities and states through which they will transport the wastes. All transporters shall be permitted in accordance with RCRA, USDOT, state and local requirements, and shall possess an EPA ID Number.

B. Vehicles used for transportation of wastes shall be permitted pursuant to all USDOT and USEPA requirements, and the requirements of all states and localities through which the wastes will be transported, and shall possess all required licenses and registration numbers.

C. Contractor shall comply with all federal requirements and the requirements of states and localities through which the wastes will be transported.

D. All TSDFs shall be pennitted, as applicable for the waste stream, under RCRA, TSCA, and/or by the State in which the TSDF is located.

1.04 WASTE PROFILING AND SAMPLING

A. Contractor shall be responsible to sample all waste at the frequencies required by the TSDF(s), and to analyze all samples for the parameters required by the TSDF(s) in order to properly profile the wastes and obtain disposal approvals.

1.05 MANIFESTING, PLACARDING AND TRANSPORTATION REQUIREMENTS

A. The Contractor shall ensure that all transport vehicles do not exceed regulatory weight limits, and shall be responsible for all measures necessary to correct overweight vehicles. Contractor shall provide, install and utilize a Site scale for this purpose.

B. All Waste Materials shall be described for transportation purposes, and transported, in accordance with USDOT HM-181 regulations.

C. Non-hazardous wastes shall be manifested on "Non-Hazardous Waste Manifest Forms" provided by Contractor. Forms shall be approved by Amtrak's Representative prior to shipment of wastes. The Contractor shall provide and complete these forms for all waste shipments, as necessary to comply with federal, state and local regulations and requirements.

D. Amtrak will sign all manifest forms as the generator.

E. The Contractor shall provide and affix to each vehicle, placards required under USDOT regulations. All manifesting and placarding shall comply with USDOT HM-181 regulations.

F. Contractor shall obtain tare and loaded weight tickets from the TSDF(s) for all wastes transported off of the Site. Weight tickets from the TSDF will be the only basis for payment. Payment will not be made based on weight tickets obtained from the Site scale, or for vehicles for which Contractor has not obtained weight tickets.

1.06 RCRA SUBTITLE C AND TSCA DISPOSAL REQUIREMENTS

A. Although it is not anticipated that wastes will be disposed at either RCRA Subtitle C or TSCA TSDFs, if wastes require disposal at off-Site TSDFs permitted under RCRA Subtitle C and/or TSCA, all requirements of this paragraph shall apply to the Work, in addition to all other requirements of this section.

B. Contractor shall provide and complete Land Disposal Restriction Notification Forms with any shipments of hazardous wastes. These forms will be sign by Amtrak.

C. All wastes shall be manifested on Hazardous Waste Manifest Forms required under federal and state regulations. Wastes shall be described for transportation purposes, and transported, in accordance with USDOT HM-181 regulations.

D. Wastes that do not meet federal land disposal requirements (40 CFR 268) shall be treated as necessary by the selected TSOF prior to land disposal. Contractor shall bear all costs for sampling and profiling the wastes, including all analyses to determine compliance with the Land Disposal Restrictions, required by the TSDF.

E. If treatment of Waste Materials is necessary to meet Land Disposal Restrictions (40 CPR 268), a Certificate of Destruction or other similar documentation shall be submitted, certifying that the waste has been destroyed or treated to meet Land Disposal Restrictions.

PART 2 - PRODUCTS

2.01 VEHICLE LINERS:

A. Liners for vehicles shall be minimum 1O-milliners custom sized for the particular size and type vehicle and container being used.

B. Liners shall be selected by Contractor to be chemically compatible with the respective waste being transported.

C. Liners shall be provided with extra height so that the liner can be draped or tied over the materials in the vehicle, and so there will be a liner between the waste and the outermost cover.

2.02 TRANSPORT VEHICLES:

A. All vehicles used to transport waste off of the Site shall be designed, equipped, operated and maintained to prevent leakage, spillage, or airborne emissions during transport. Contractor may install additional liners, absorbents, or other contingency measures; however, the actual vehicles provided for transportation of wastes must be leakproof

2.03 TRUCK SCALE:

A. Contractor shall provide and set up a temporary scale at the Site. This scale shall be provided with a ticket printer and digital weight indicator.

B. The temporary scale shall be placed in an on-Site location approved by Amtrak's Representative. The Contractor shall be responsible for the complete installation of the scale including all necessary supports and/or foundation.

C. The Site scale shall have sufficient capacity to measure all transport vehicles, and shall be designed and calibrated for the range of tare and full weights anticipated.

D. The Site scale shall be calibrated and certified by a licensed firm in accordance with all applicable standards and regulations. The scale shall meet the applicable requirements of the National Institute of Testing - Handbook 44 for commercial weighing.

E. The Contractor shall be responsible for all maintenance and operation of the Site scale. The scale shall be accurately calibrated and certified at the beginning of the Work and monthly thereafter by a licensed firm in accordance with NYSDOT and the manufacturer's requirements.

PART 3 - EXECUTION

3.01 LINING AND PROTECTION

A. The liners have been specified to minimize decontamination and provide an additional contingency against leakage. However, Contractor shall not reply on the specified 10-mil liner to provide leak-proof vehicles, and Contractor bears all risk regarding corrective measures due to vehicle leakage. The intent of the Contract Documents is that the leak-proof requirements for transport vehicles be obtained by provision of vehicles supplied in accordance with Paragraph 2.02. Any additional contingency measures such as placement of absorbent material in vehicles shall be provided as deemed necessary by the Contractor.

B. All vehicles shall be securely covered with a canvas tarp, unless the vehicle is equipped with a cover determined by Amtrak's Representative to be more secure than the tarp. The canvas tarp or other cover must be the outermost cover and must be waterproof.

3.02 ON-SITE DECONTAMINATION:

A. Contractor shall verify that the exterior of all vehicles is visibly clean, prior to transport off of the Site. If vehicles are not clean, Contractor shall decontaminate the vehicles in accordance with Section 01565.

3.03 TRANSPORTATION OF WASTE MATERIALS:

A. Prior to loading, any precipitation present in vehicles shall be drained in a manner acceptable to Amtrak's Representative.

B. Any transport vehicles observed by Amtrak's Representative to be leaking, or to be a source of airborne dust, will be immediately rejected.

C. Contractor shall be responsible for all measures necessary to correct leaking transport vehicles, from the time of loading to the time of tipping at the TSDFs.

D. Waste shall not be repackaged or handled between the Site and the TSDFs/facility(s).

3.04 OFF-SITE DECONTAMINATION:

A. Following disposal of wastes, each truck shall be decontaminated and sampled at the TSDF, in accordance with all applicable federal, state and TSDF requirements. All decontamination and sampling shall be performed by Contractor at no additional cost to Amtrak.

B. A certificate of decontamination shall be submitted to Amtrak's Representative for each vehicle which is required to be decontaminated.

3.05 OFF-SITE TRANSPORTATION SPILLS:

A. In the event of an off-Site spill during transportation, the Contractor and/or its transportation subcontractor shall immediately take all necessary action to prevent, abate, or minimize the additional release to threat of release of any wastes.

B. The general response measures to be taken in the event of a spill incident during off-Site transport of wastes are summarized below in sequential order:

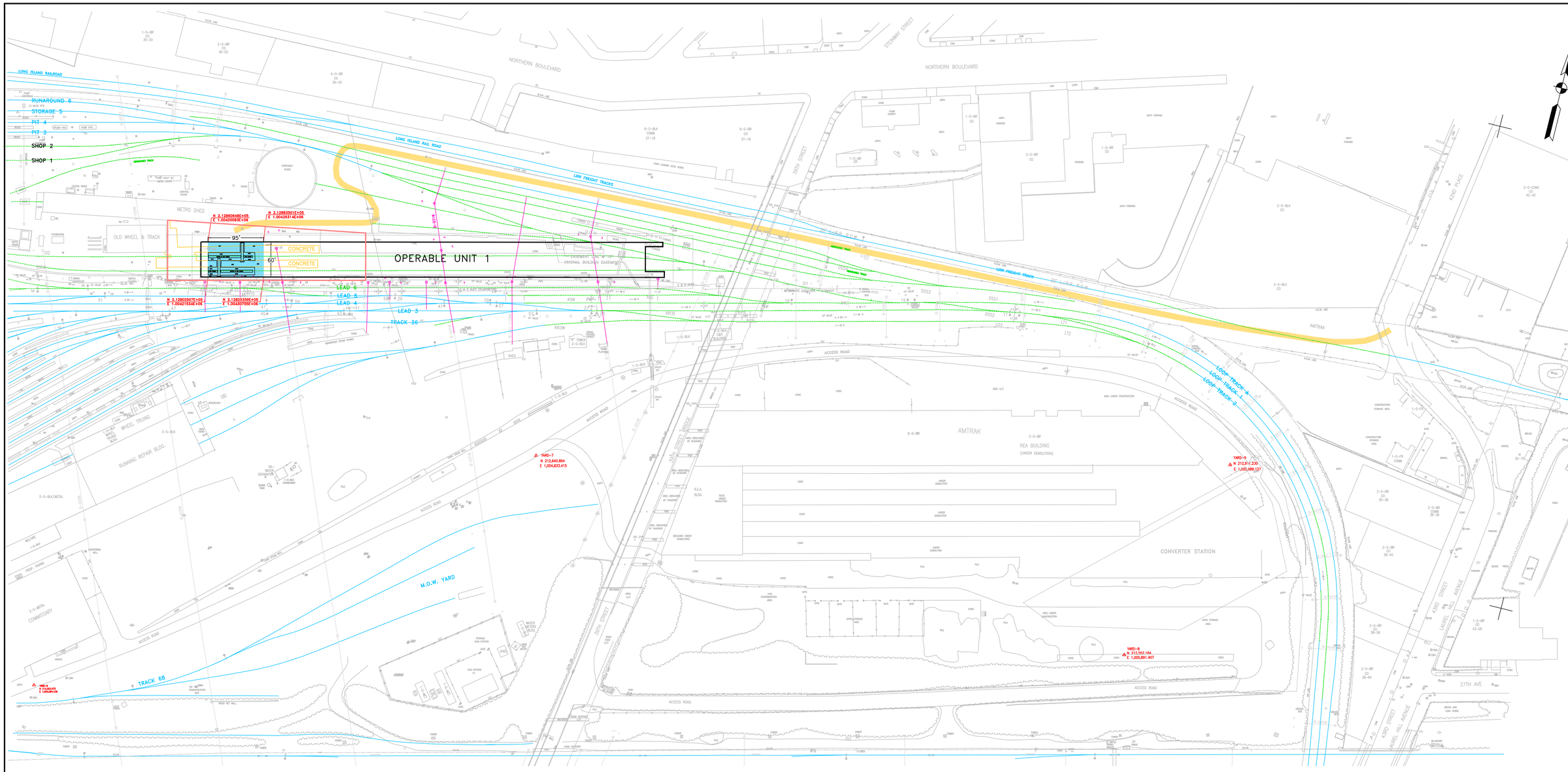
1. The transporters, who are trained in handling hazardous materials, shall secure the area, determine the extent of injuries, if any, and implement emergency first aid, if required.
2. The transporter shall notify local authorities, fire, police, etc. and the transporter's headquarters.
3. The transporter shall then immediately dispatch a spills response contractor to the scene of the incident.
4. The response contractor hired by the transporter shall mobilize to the scene of the incident.
5. The transporter shall notify all appropriate federal and state authorities and the Contractor.
6. Contractor shall notify Amtrak and Amtrak's Representative.

C. Off-Site spills of wastes shall be collected, stored and disposed of with similar Site materials. Any "clean" materials potentially contaminated by an off-Site spill shall be excavated and disposed of with the excavated materials which caused the contamination, or shall be cleaned and restored to previously existing conditions by the transporter's response contractor, to the satisfaction of local authorities having jurisdiction, Amtrak and Amtrak's Representative.

APPENDIX D

Order-Gn-Consent

(To Be Included In Final Submittal)



LEGEND

- TRACKS & FACILITIES TO BE REMOVED UNDER SEPARATE CONTRACT FOR OPERABLE UNIT 1 SITE WORK
- EXISTING TRACKS
- ELECTRIC TRACTION STRUCTURES TO BE REMOVED UNDER SEPARATE CONTRACT FOR OPERABLE UNIT 1 SITE WORK
- LIMIT OF AVAILABLE CONTRACTOR WORKSPACE
- ACCESS ROAD TO BE USED BY THE CONTRACTOR
- INITIAL LIMIT OF ASPHALT, CONCRETE AND SOIL REMOVAL

NOTE: SEWERS, DRAINS, AND UNDERGROUND UTILITIES NOT SHOWN

Date: 10-8-97 File Name: A5214001.DWG Plot Scale: 1"=80'-0"

NO.	DATE	REVISION DESCRIPTION	INT.

PROJECT ENGINEER: D.L.
DESIGNED BY: D.L.
DRAWN BY: R.R.
CHECKED BY: B.F.

PROJECT NO. 05552E05
FILE NO. A5214001
SCALE: 1"=80'-0"
DATE: OCT. 1997

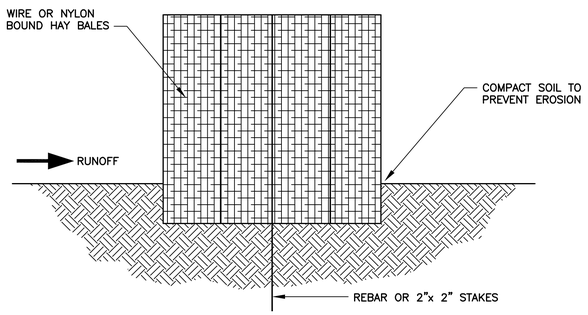
REMEDIAL ENGINEERING, P.C.
1377 Motor Parkway
Suite 403
Islandia, New York 11788 (516) 232-2600

PROJECT NAME:
SUNNYSIDE YARD
QUEENS, NEW YORK

PROJECT FOR:
AMTRAK

TITLE:
OPERABLE UNIT 1
SITE MAP

DRAWING NO.
1
DRAWING
1 OF 2

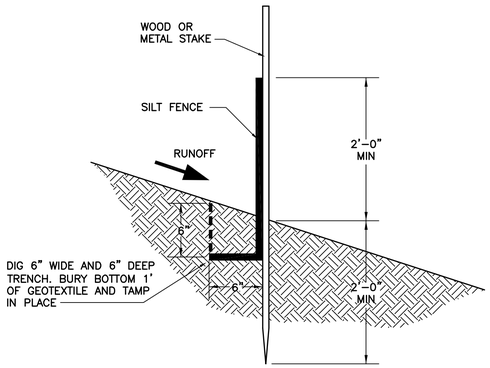


HAY BALE DETAIL

SCALE: NONE

NOTES:

1. WHERE HAY BALES AND SILT FENCE ARE REQUIRED TOGETHER, THE HAY BALES SHALL BE LOCATED UPGRADIENT OF THE SILT FENCE.
2. REBAR OR STAKES SHALL BE EMBEDDED 2'–0" IN GROUND, TWO PLACES IN EACH HAY BALE.

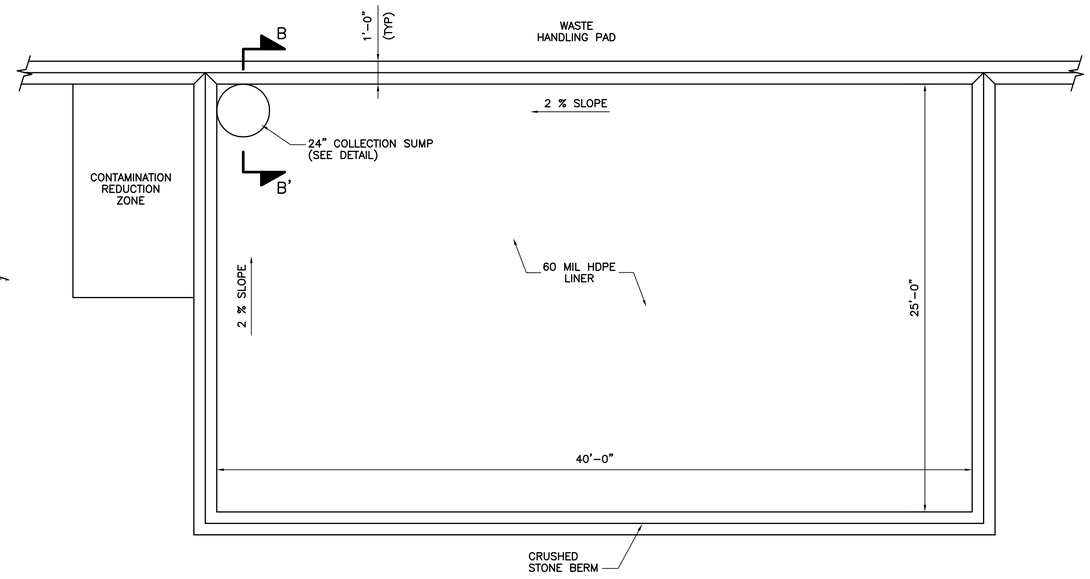


SILT FENCE DETAIL

SCALE: NONE

NOTE:

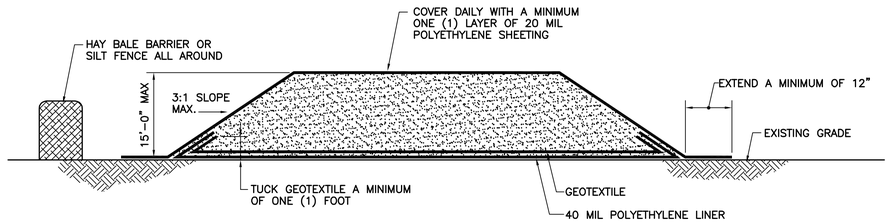
1. PLACE AT TOE OF ALL DISTURBED SLOPES.



PLAN VIEW

EQUIPMENT DECONTAMINATION AREA

SCALE: NONE

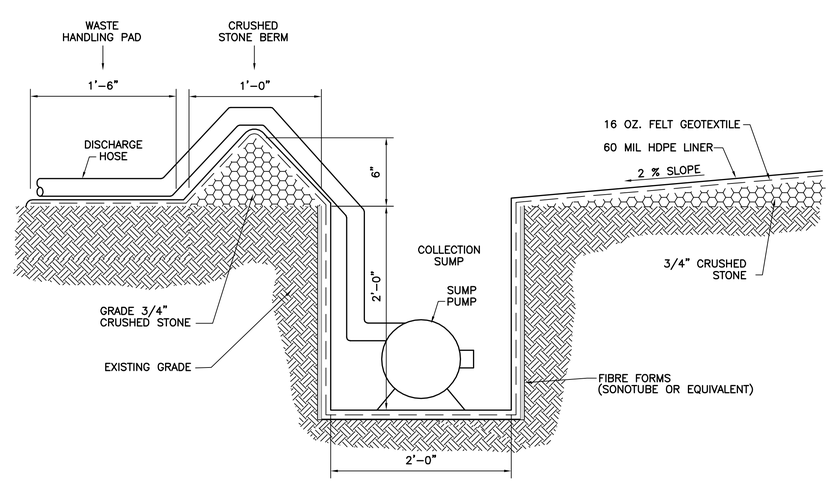


WASTE PILE DETAIL

SCALE: NONE

NOTES:

1. THE REQUIREMENTS SHOWN ARE MINIMUM REQUIREMENTS. REFER ALSO TO SPECIFICATION SECTION 01520 FOR SPECIFIC STAGING REQUIREMENTS.
2. POLY SHEETING SHALL OVERLAP BY A MINIMUM OF TWELVE (12) INCHES AND SHALL BE ANCHORED, USING SAND BAGS OR EQUIVALENT WEIGHTS, AT 5 TO 10 FOOT CENTERS. USE ADDITIONAL WEIGHTS, AS NECESSARY, TO PROPERLY ANCHOR SHEETING DURING WINDY CONDITIONS.
3. ALL STOCKPILES SHALL BE LABELLED WITH SIGNS INDICATING THE STOCKPILE CONTENTS.



SECTION B–B

EQUIPMENT DECONTAMINATION AREA

SCALE: NONE

Plot Scale: 1=1 Date: 10-1-97 File Name: A5214002

NO.	DATE	REVISION DESCRIPTION	INT.

PROJECT ENGINEER: D.L.
DESIGNED BY: D.L.
DRAWN BY: R.K.
CHECKED BY: B.F.

PROJECT NO. 05552E05
FILE NO. A5214002
SCALE: 1=1
DATE: OCT. 1997

REMEDIAL ENGINEERING, P.C.
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Suite 403
Islandia, New York 11788 (516) 232–2600

PROJECT NAME:
SUNNYSIDE YARD
QUEENS, NEW YORK

PROJECT FOR:
AMTRAK

TITLE:
DETAILS

DRAWING NO.
2
DRAWING
2 OF 2