

**Correia Middle School Sports Complex Project
Draft EIR**

Appendix B2

Operations and Maintenance Plan

Prepared by Ninyo & Moore

November 14, 2014

**OPERATIONS AND MAINTENANCE PLAN
CORREIA MIDDLE SCHOOL
4302 VALETA STREET
SAN DIEGO, CALIFORNIA**

PREPARED FOR:
San Diego Unified School District
Physical Plant Operations
4860 Ruffner Street
San Diego, California 92111

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
5710 Ruffin Road
San Diego, California 92123

November 14, 2014
Project No. 105338103

November 14, 2014
Project No. 105338103

Mr. Tom Wright
San Diego Unified School District
Physical Plant Operations
4860 Ruffner Street
San Diego, California 92111

Subject: Operations and Maintenance Plan
Correia Middle School
4302 Valeta Street
San Diego, California

Dear Mr. Wright:

Ninyo & Moore is pleased to submit this Operations & Maintenance (O&M) Plan prepared for Correia Middle School located at 4302 Valeta Street in the city and county of San Diego, California. This O&M Plan presents the policies and procedures of the San Diego Unified School District for long-term operation, maintenance, monitoring, and inspection related to the burned wastes underlying a portion of the school site. This Plan is also intended to meet applicable post closure maintenance requirements of California Code of Regulations Title 27 and ensure that the soil barrier cap overlying the burned wastes and impacted soils is not compromised over time or as a result of future activities at the site.

We appreciate the opportunity to be of continued service to you on this project.

Respectfully submitted,
NINYO & MOORE



Steven A. Fry, PG 4780
Senior Geologist

LB/BAB/SAF/PT/gg

Distribution: (1) Addressee

- (1) Ms. Rana Georges; Department of Toxic Substances Control, Sacramento
- (1) Mr. Bill Prinz; City of San Diego Solid Waste Local Enforcement Agency
- (1) Ms. Sylvia Castillo; City of San Diego, Environmental Services Department
- (1) Mr. Brian McDaniel; Regional Water Quality Control Board



Prasad Thimmappa, PE
Senior Environmental Engineer



This Operations and Maintenance (O&M) Plan has been prepared in general accordance with the California Education Code, for Correia Middle School located at 4302 Valeta Street in San Diego, California, and was prepared by Ninyo & Moore on behalf of the San Diego Unified School District in a manner consistent with the level of care and skill ordinarily exercised by professional geologists and environmental scientists. This O&M Plan was prepared under the technical direction of the undersigned.

NINYO & MOORE



Prasad Thimmappa, PE
Senior Environmental Engineer



TABLE OF CONTENTS

	<u>Page</u>
LIST OF ACRONYMS	IV
EXECUTIVE SUMMARY	1
1. OPERATIONS & MAINTENANCE PLAN OVERVIEW	1
1.1. Introduction.....	1
1.2. O&M Plan Goals and Objectives	3
1.3. Hazard Summary of Chemicals of Concern and Chemicals of Potential Concern	4
1.4. Human Health Screening Evaluation (Ninyo & Moore, 2006 and 2011)	5
1.4.1. Lead.....	5
1.4.2. Dioxins	6
1.5. O&M Personnel Roles and Responsibilities.....	6
1.5.1. O&M Coordinator.....	7
1.5.2. O&M Professional	8
1.5.3. School Site Designee	9
1.5.4. Health and Safety Officer.....	10
1.6. O&M Cost Estimate	10
1.7. Regulatory Agencies.....	11
1.7.1. City of San Diego Solid Waste Local Enforcement Agency	11
1.7.2. Department of Toxic Substances Control.....	12
1.8. Periodic Updates/Revisions	12
2. SITE DESCRIPTION	12
2.1. Site Identification.....	13
2.2. Surrounding Land Use and Sensitive Ecosystems.....	14
2.3. Regulatory Status.....	15
2.4. Site Topography.....	15
2.5. Site Geology	15
2.6. Prior Site Use.....	16
2.7. Previous Site Investigations and Mitigation	16
3. SELECTED CAP AND INSTITUTIONAL CONTROLS	22
3.1. Surface Cap Materials.....	23
3.1.1. Hardscape Cap Systems	24
3.1.2. Landscape Cap Systems.....	24
4. TRAINING	25
4.1. Training Requirements	26
5. POST-CLOSURE MAINTENANCE.....	27
5.1. Site Security.....	28
5.2. Cover and Final Grading	28
5.3. Drainage and Erosion Control	30
5.4. Landfill Gas Monitoring and Landfill Gas Control System	31
5.5. Leachate Control System.....	32

5.6.	Groundwater Monitoring System	32
5.7.	Irrigation	32
5.8.	General Inspection and Monitoring Schedule	32
5.9.	Post-Closure Land Use	33
6.	O&M INSPECTIONS	33
6.1.	Periodic Inspections.....	33
6.2.	Inspections for Unplanned Events.....	35
6.3.	Annual Inspections	35
7.	FIVE-YEAR REVIEW.....	36
8.	EMERGENCY RESPONSE PROCEDURES	37
8.1.	General Response Actions.....	38
8.2.	Flooding.....	39
8.3.	Earthquake.....	39
8.4.	Fire and Explosions	39
8.5.	Other Emergency Procedures	40
9.	INTRUSIVE WORK ACTIVITIES.....	40
9.1.	Pre-Design/Construction.....	40
9.2.	Intrusive Work in Areas Outlying the Waste Footprint.....	42
9.3.	Intrusive Work in Areas in Close Proximity to or within the Waste Footprint.....	43
9.3.1.	Standard Operating Procedures.....	45
9.3.2.	Health and Safety Requirements.....	45
10.	REPORTING AND RECORD KEEPING.....	47
10.1.	Reporting Requirements	47
10.2.	Annual Inspection Summary Reports.....	47
10.3.	Completion Report for Intrusive Work.....	48
10.4.	Five-Year Review Reports	49
10.5.	Notification and Reporting of Intrusive Work.....	50
10.5.1.	Notification Timeframes	50
10.5.2.	Electronic Mail Notice Format	51
10.6.	Record Keeping and Retention.....	51
11.	SITE ACCESS.....	52
12.	VARIANCE, MODIFICATION AND TERMINATION OF THE O&M PLAN	52
12.1.	O&M Plan Variance	53
12.2.	O&M Plan Modifications	53
12.3.	Termination of O&M Plan.....	53
13.	LIMITATIONS.....	54
14.	REFERENCES	56

Tables

Table 1 – Annual O&M Cost Estimate 11
Table 2 – Summary of Previous Environmental Investigations/Activities 17
Table 3 – Summary of Cap Materials and Thicknesses 25
Table 4 – General Reporting Requirements 32

Figures

Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Cross Section A-A'
Figure 4 – Cross Section B-B'
Figure 5 – Cap Materials and Remedial Action Area

Appendices

Appendix A – San Diego County Assessor’s Map
Appendix B – O&M Personnel Roles and Responsibilities
Appendix C – Cap Inspection Checklist
Appendix D – As-Built Grading Plan
Appendix E – Slope Stabilization and Retaining Wall Design Plans (pending)
Appendix F – Standard Operating Procedures
Appendix G – Soil Management Plan
Appendix H – Intrusive Work Completion Report Outline
Appendix I – Annual Inspection Summary Report Outline
Appendix J – Five-Year Review Report Outline

LIST OF ACRONYMS

BAMP	Burn Ash Management Plan
bgs	Below Ground Surface
CalRecycle	California Department of Resources, Recycling, and Recover (formerly the California Integrated Waste Management Board)
CCR	California Code of Regulations
CEC	California Education Code
CFR	Code of Federal Regulations
CIH	Certified Industrial Hygienist
COC	Chemical of Concern
COPC	Chemical of Potential Concern
CY	Cubic Yards
DEH	County of San Diego Department of Environmental Health
District	San Diego Unified School District
DTSC	Department of Toxic Substances Control
ECR	Excess Cancer Risk
Envirostor	DTSC Site Mitigation and Brownfields Reuse Program Database
ERP	Emergency Response Procedure
ESA	Environmental Site Assessment
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
HHSE	Human Health Screening Evaluation
HI	Hazard Index
HSC	California Health and Safety Code
HSO	Health and Safety Officer
ICs	Institutional Controls
LEA	Local Enforcement Agency
LUC	Land Use Covenant
mg/kg	Milligrams per kilogram
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
PAH	Polynuclear Aromatic Hydrocarbon
PEA	Preliminary Endangerment Assessment
PMP	Post-closure Maintenance Plan
RA	Removal Action
RAW	Removal Action Work Plan
RWD	Report of Waste Discharge
RWQCB	Regional Water Quality Control Board
SF	Square feet
SMP	Soil Management Plan
SOP	Standard Operating Procedures
SSD	School Site Designee
SWIS	Solid Waste Information System
TCDD	Tetrachlorodibenzo-p-dioxin

LIST OF ACRONYMS

$\mu\text{g}/\ell$	micrograms per liter
UCL	Upper Confidence Limit
USGS	United States Geological Society

EXECUTIVE SUMMARY

This Operations and Maintenance (O&M) Plan (Plan) describes the methods to be employed to protect human health and the environment from potential impacts associated with the burned wastes buried at Correia Middle School (site). This Plan also provides procedures to be implemented if intrusive activities are planned to be conducted at those portions of the school site underlain by burned wastes/impacted soils (i.e., within the fill slopes and portions of the playing fields) or within 1,000 feet of these areas, as required by the City of San Diego Solid Waste Local Enforcement Agency (LEA), so that such activities are conducted in accordance with provisions of this Plan. For the purposes of this document, the areas potentially impacted by the burned wastes include the filled areas and slopes of the playing fields at depths greater than 2 feet below ground surface (bgs). This area is referred to as the O&M Area or the waste footprint. Please see Figure 2 of the report.

- **Goal:** The primary goal of this Plan is to protect public health, particularly those persons associated with the school, including students, faculty, staff, O&M personnel, and visitors, and establish protocols and methods to prevent uncontrolled exposures to the burned wastes/impacted soils. This Plan is also intended to provide mechanisms to maintain and ensure the effectiveness of the soil barrier cap (Cap).
- **Media and Contaminants of Concern (COC):** Based on historical information and data collected from previous investigations, it appears that fill material originating from on-site formational materials was mixed with burned wastes from off-site sources during construction of the fill slopes and portions of the playing fields (i.e., O&M Area). The media of concern for the site are burned wastes and/or impacted soils containing chemicals of concern (COCs) and/or contaminants of potential concern (COPCs). The COCs within the O&M Area are lead and dioxin (as 2,3,7,8-tetrachlorodibenzodioxin toxic equivalent). The COPCs include antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, silver, vanadium, zinc, naphthalene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)pyrene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, and indeno(1,2,3-c,d)pyrene.
- **Remedial Action (RA):** For the portion of Correia Middle School with underlying burned wastes/impacted soils, the selected RA will include utilizing the existing cover as a protective soil barrier cap in the playing fields, installing a retaining wall and performing other slope stabilization measures (e.g., additional fill placement, vegetative cover) to minimize erosion and act as a protective soil barrier cap in the sloped areas, and implementing institutional controls (ICs) to ensure the integrity of the cap is maintained. The ICs will include procedures for communications between the San Diego Unified School District (District) and the lead regulatory agencies, monitoring in compliance with applicable California Code of Regulations (CCR) Title 27 requirements, and a land use covenant (LUC).

- **Cap:** The fill areas within the playing fields are overlain by at least 2 feet of clean soil which is covered by decomposed granite, grass (or other vegetation), or asphalt (in the parking lot area), which comprises the soil barrier cap in this area. Portions of the sloped areas along Valeta Street and Famosa Boulevard are covered by 2 feet or less of clean fill soil, which is currently covered by vegetation. After the RA is implemented, the sloped areas will be covered by at least 2 feet of clean cover fill and vegetative cover, which will comprise the soil barrier cap in this area.
- **O&M Personnel and Responsibilities:** The District will designate the following key O&M personnel associated with implementation of this Plan: O&M Coordinator, O&M Professional, School Site Designee (SSD), and Health and Safety Officer (HSO). A table identifying O&M personnel roles and responsibilities is provided in Appendix B of this Plan. The lead regulatory agencies are the LEA and the California Department of Toxic Substances Control (DTSC).
- **Training Requirements:** The O&M Professional should be a California Professional Engineer. Future construction/repair activities that involve intruding into the wastes will require the O&M Professional to have 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training and the 8-hour supervisor training and have completed the annual 8-hour refresher courses. HAZWOPER training will also be required for all personnel/contractors conducting intrusive work in areas within the estimated waste footprint. The HSO is also required to be 40-hour HAZWOPER and 8-hour supervisor trained with annual updates. There is no specific required training for the O&M Coordinator or SSD.
- **Post-Closure Maintenance:** The Plan also serves as a post-closure maintenance plan (PMP) in accordance with CCR Title 27. The PMP addresses applicable portions of CCR Title 27 regulations including but not limited to site security, final grading, drainage/erosion control, landfill gas monitoring/control, groundwater monitoring, leachate control/collection, and includes an emergency response plan. Additional information can be found in the Plan text.
- **O&M Inspections:** The District will perform inspections periodically, annually, and during or immediately following unplanned events where the Cap may be compromised (e.g., heavy rains, seismic event, etc.).
 - Site inspections will be conducted quarterly using the inspection form provided in Appendix C of this Plan. Some components will be inspected monthly and additional inspections will be conducted after periods of heavy rainfall. In general, the site will be inspected for those items described in the post-closure maintenance portion of the Plan including site security, cover and final grading (adequacy of Cap), surface drainage and erosion, and irrigation system control.

- The O&M Professional will conduct inspections of the Cap during or immediately following unplanned events, including but not limited to heavy rains, significant seismic events that adversely affect the site (e.g., fires, broken utility lines, etc.) where the Cap may be compromised and burned wastes/impacted soils may be exposed.
- The Cap will be inspected annually by the O&M Professional. The purpose of this inspection is to comply with post closure maintenance; identify and review completion of any required repairs or changes in site conditions or usage; and describe any on-site construction activities or any other significant information relating to the Cap that may have taken place over the previous twelve months. The annual inspections will include an evaluation of the adequacy of the Cap system overlying burned wastes/impacted soils.
- **Five-year Review:** Five-year reviews will be conducted by the O&M Professional who will evaluate the effectiveness of the Cap. The primary purpose of the five-year inspection is to identify and review completion of required repairs, if any; changes in site conditions or usage, if any; descriptions of any on-site construction activities; or any other significant information relating to the effectiveness of the Cap and ICs that may have taken place over the previous five years.
- **Emergency Response Procedures (ERPs):** The Plan describes the ERPs for the site, including the personnel to be notified and actions to be taken to minimize the effects should there be a catastrophic event such as vandalism, fire, explosion, earthquake, flooding, or landsliding, that comprises the integrity of the Cap and/or results in exposed burned wastes/impacted soils.
- **Intrusive Work Activities:** The Plan describes the protocol for conducting intrusive work at the site and specifies that such work conducted in areas in the waste footprint or within 1,000 feet of the waste footprint, as required by the LEA, needs to be performed in accordance with the procedures indicated in this Plan. The entire school campus is located within 1,000 feet of the waste footprint; therefore, any intrusive work at the site needs to be performed in accordance with this Plan. Planned construction or maintenance work order requests will be submitted by the SSD, verbally or in writing to the work order clerk. The work order clerk will notify the O&M Coordinator, who will evaluate whether or not the planned activities are considered intrusive work activities. Intrusive work activities include, but are not limited to digging, trenching, excavating, drilling, grading, and other soil movement activities.
 - If the planned work involves general maintenance activities and intrusive activities will not occur, the O&M Coordinator will approve the work order without notifications to the LEA or DTSC.

- If the planned work involves excavation or other intrusive activities and is determined not to be intrusive to the Cap (e.g., outlying the waste footprint), the LEA will review the scope of work and site map indicating where the work is scheduled to occur. The LEA will respond in writing regarding whether the work is approved to proceed and the O&M Coordinator will notify the LEA at least 24 hours in advance of the start of work. The O&M Professional will conduct inspections during construction and/or maintenance activities to ensure the work is being carried out in areas outlying the waste footprint.
- If the planned work involves intrusive work activities, both the LEA and DTSC will be notified of intrusive work overlying or within close proximity to the waste footprint. Both agencies will provide their approval in writing, indicating any specific procedures requiring implementation during the work and whether their personnel will be required to be on site during the activities. The O&M Coordinator will provide advance notice of scheduled work to the DTSC and LEA in accordance with provisions in this Plan. The work will be carried out at times when school is not in session, and when students/staff are not on site. Public access will be restricted. The work will be conducted by personnel trained to recognize burned wastes and who are familiar with the procedures to be followed should burned wastes be encountered. Following completion of the intrusive work, a Completion Report will be prepared summarizing the intrusive work and will be incorporated into the Annual Inspection Summary Report. Additional information regarding procedures to be followed during intrusive work activities is provided in Section 9.3, including the Standard Operating Procedures (SOPs) and Health and Safety Requirements.
- **Reporting Requirements:** The O&M Coordinator will compile appropriate information, prepare, and submit within the required timeframe, the following reports to the DTSC and the LEA: Annual Inspection Summary Reports, Completion Reports for intrusive work conducted in areas within the waste footprint, and Five-Year Review Reports.
- **Notification and Reporting of Intrusive Work:** The O&M Coordinator will submit written notice to the DTSC and the LEA prior to conducting intrusive activities at the site regardless of whether they are within or outlying the waste footprint. Intrusive work within or adjacent to the waste footprint will be conducted in accordance with a DTSC-approved SOP
- **Recordkeeping and Retention:** All documentation records (e.g., data, reports, and other documents) prepared under this Plan will be maintained by the O&M Coordinator at the school site and in the District administrative offices. The records will be available for inspection upon request by the public, DTSC, and LEA. All records will be retained by the O&M Coordinator for a minimum of seven years after the conclusion of each relevant activity. The O&M Coordinator will notify DTSC and the LEA in writing at least six months prior to destroying any documents prepared pursuant to this Plan.

- **Variance, Modification and Termination of the Plan:** The O&M Coordinator may seek variance, modification, and/or termination of this Plan at any time during the life of the Cap. For this Plan, variance refers to possible release from specific individual Plan requirements for a limited time, while modification refers to permanent revision of specific individual Plan requirements.

Disclaimer: This executive summary is not all inclusive and should not be considered as a substitute for reviewing the content contained within the text and appendices of this Plan.

1. OPERATIONS & MAINTENANCE PLAN OVERVIEW

This Operations and Maintenance (O&M) Plan (Plan) indicates the Plan purpose, identifies the property owner and responsibilities, provides the effective date of the document, indicates the California Department of Toxic Substances Control (DTSC) and City of San Diego Solid Waste Local Enforcement Agency (LEA) have the authority to oversee/regulate the burned wastes underlying a portion of Correia Middle School (site), and describes the methods to be employed to protect human health and the environment from potential impacts associated with the burned wastes buried at the site. This Plan also provides procedures to be implemented if intrusive activities are planned to be conducted at those portions of the school site underlain by burned wastes/impacted soils (i.e., within the fill slopes and portions of the playing fields) or within 1,000 feet of these areas, as required by the LEA, so that such activities are conducted in accordance with provisions of this Plan.

1.1. Introduction

This Plan has been submitted by Ninyo & Moore on behalf of the San Diego Unified School District (District) for the site located at 4302 Valeta Street, in the city and county of San Diego, California (Figure 1). A copy of the assessor's parcel map is included as Appendix A. This Plan is intended to assist the District with maintaining long-term protection of the site as a result of a portion of the property being underlain by burned wastes. This Plan describes the procedures to be employed by assigned personnel to ensure the site is maintained and monitored and provides reporting requirements for the protection of human health and safety and the environment. For the purposes of this document, the areas potentially impacted by the burned wastes include the filled areas and slopes of the playing fields at depths greater than 2 feet below ground surface (bgs). This area is referred to as the O&M Area or the waste footprint (Figure 2).

This Plan relies on the findings of various investigations previously conducted at the site. Specifically, the Preliminary Environmental Assessment (PEA), dated August 18, 2006, and the Removal Action Work Plan (RAW), dated June 3, 2011, were relied upon for the preparation of this Plan (Ninyo & Moore, 2006 and 2011). Based on historical information and data collected from these previous investigations, it appears that fill material originating from on-site formational materials

was mixed with burned wastes from off-site sources during construction of the fill slopes and portions of the playing fields (i.e., O&M Area/waste footprint) (Figure 2). The contaminants of concern within the O&M Area are lead and dioxin (as 2,3,7,8-tetrachlorodibenzodioxin [TCDD] toxic equivalent). The contaminants of potential concern (COPCs) include antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, silver, vanadium, zinc, naphthalene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)pyrene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, and indeno(1,2,3-c,d)pyrene.

An existing soil barrier (referred to as the Cap) within the playing field areas, construction of a retaining wall and other slope stabilization measures (e.g., additional fill placement, vegetative cover) to serve as a protective soil barrier cap in the sloped areas, and institutional controls (ICs) will be implemented to ensure the integrity of the Cap is maintained and to minimize the potential for exposure to the burned wastes/impacted soils. ICs refer to the processes that would be implemented by the District and agencies to ensure staff, students, teachers, and the general community are not exposed to burned wastes/impacted soils. ICs include long term monitoring and reporting (O&M activities) and a land use covenant (LUC) to protect the integrity of the Cap. Accordingly, the District has entered into an Oversight Agreement with DTSC, which requires the District to complete remedial activities and to implement this Plan under DTSC oversight. Intrusive activities, as defined in Section 9, shall only be conducted in accordance with applicable provisions of this Plan.

This Plan will be implemented upon completion of the RAW activities. Response actions and long term O&M activities will continue to be conducted under DTSC oversight, as required under the California Education Code (CEC) §17213.1 and §17213.2, and Health and Safety Code (HSC), Division 20, Chapter 6.8, commencing with § 25300 et. seq. The Plan, as modified and/or approved by DTSC, will remain in effect until DTSC has released the District in writing from the required Plan.

The Plan presents the policies and procedures to be implemented by the District for long-term operation, maintenance, and monitoring of ICs, and management of burned wastes/impacted soils underlying the O&M Area. This Plan is intended to be a stand-alone document that provides the following information:

- Identifies personnel responsible for ensuring the Cap remains protective and indicates reporting responsibilities to DTSC and LEA.
- Provides historical and current site descriptions, summarizes previous environmental investigations, and describes the existing cap and planned mitigation activities as indicated in the RAW (Ninyo & Moore, 2011).
- Identifies regulatory requirements and restrictions for potential future intrusive activities that may disturb the Cap and expose burned wastes/impacted soils.
- Establishes guidelines and specifies O&M activities to be conducted to ensure the effectiveness of the Cap including monitoring and reporting requirements; worker health and safety protection; methods of maintaining and, as necessary, repairing the Cap in the event it is damaged or fails; and reporting requirements associated with planned and unplanned inspections.
- Establishes policies and procedures for worker training, notifications, inspections, report preparations, submittals, and record keeping.

1.2. O&M Plan Goals and Objectives

The primary goal of this Plan is to protect public health, particularly those persons associated with the school, including students, faculty, staff, O&M personnel, and visitors, and establish protocols and methods to prevent uncontrolled exposures to the burned wastes/impacted soils. This Plan is also intended to provide mechanisms to maintain and ensure the effectiveness of the Cap. In order to accomplish these goals, this Plan will address the following objectives:

- Minimize disturbances to the Cap and burned wastes/impacted soils.
- Describe the Cap locations, thicknesses, and compositions.

- Establish an inspection and monitoring program to ensure the integrity of the Cap, evaluate Cap effectiveness, ensure the Cap system remains effective, and provide a mechanism to repair the Cap in the unlikely event that it fails and burned wastes/impacted soils are exposed.
- Evaluate the effectiveness of the Cap and as necessary, provide timely repair or replacement to restore the Cap, if damaged.
- Identify, assign responsibilities and train O&M personnel and other staff, as needed, in protection of personal health and safety, and proper methods of inspection and repair of the Cap.
- Provide requirements for record keeping associated with Cap inspections and repairs, and reporting to DTSC and LEA.
- Provide the Plan for public review by maintaining copies at the school site and the District office.

This Plan is also intended to serve as the post-closure maintenance plan (PMP) for this site to satisfy the City of San Diego LEA and applicable post closure maintenance requirements as indicated in California Code of Regulations (CCR) Title 27 requirements.

1.3. Hazard Summary of Chemicals of Concern and Chemicals of Potential Concern

The media of concern for the site are burned wastes and/or impacted soils containing chemicals of concern (COCs) and/or COPCs. Previous investigations evaluated the chemical characteristics of the burned wastes and impacted soils and identified the COCs in the O&M Area as lead and dioxin. The maximum concentrations of lead and dioxin in burned wastes was 69,100 milligrams per kilogram (mg/kg) at a depth of 2.5 feet below ground surface (bgs) and 59.9 parts per trillion at a depth of 5 feet bgs, respectively, both of which were found on the west side of the playing field at the top of the slope leading down to Cleator Community Park.

The COPCs for the site are antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, silver, vanadium, zinc, naphthalene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)pyrene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, and indeno(1,2,3-c,d)pyrene, most of which are typically associated with burned wastes.

1.4. Human Health Screening Evaluation (Ninyo & Moore, 2006 and 2011)

A detailed presentation of the Human Health Screening Evaluation (HHSE) is provided in the PEA report prepared by Ninyo & Moore, dated August 18, 2006. The HHSE quantified the risk to site receptors from COCs and COPCs in the potentially complete exposure pathways of soil ingestion, dust inhalation, and dermal contact in surface soil (top 6 inches). The exposure pathway for soil at depths greater than 6 inches is considered an incomplete pathway.

The risk calculations were therefore performed utilizing the maximum detected concentration of COCs and COPCs within surface soils. The results of the HHSE performed for the PEA indicated that an imminent and substantial endangerment to site receptors did not exist from potentially complete exposure pathways. However, since the HHSE was performed, the DTSC has revised the action level for lead from 255 mg/kg to 80 mg/kg. As part of the RAW the 95% upper confidence limits (UCLs) for lead in surface soil was calculated and compared to the revised DTSC action level. Lead concentrations in surface soils were below the DTSC action level in the playing fields, but slightly exceeded the action level in the sloped areas along Valeta Street and Famosa Boulevard (Figure 2). The RAW stated that this exceedance did not represent an imminent or substantial health risk to site receptors based on the current use and accessibility of the area (i.e., steep vegetated slope with partial fencing to limit access). In addition, the RAW activities in this area (i.e., installing a retaining wall, placement of additional fill soil, and vegetative cover) will serve as a protective soil barrier cap once complete and will minimize the potential for exposure to burned wastes/impacted soils.

The following sections describe the potential health hazards associated with exposure to the COCs at the site.

1.4.1. Lead

Lead has been shown to cause damage to the central and peripheral nervous system. Lead exposure in dust and paint has been linked to brain and nervous system disorders in children. Long-term exposure to lead can damage brain cells and nerve cells if ingested or inhaled. Acute toxic symptoms include ataxia, repeated vomiting, headache, stupor, hallucinations, tremors, convulsions, and coma. Exposure to high lead levels can

severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage.

1.4.2. Dioxins

Dioxins are produced in industrial processes as contaminants in production of herbicides and as by-products in the combustion of chlorinated hydrocarbons, particularly polychlorinated biphenyls and trichlorobenzene. Sites where dioxins are potentially present include waste dumps used to dispose pesticides, areas of ground that have experienced fires, and areas of electrical equipment or electrical maintenance shops that have experienced fires.

Dioxins are generally considered highly toxic although there is some controversy over extrapolation of animal toxicity studies to humans. Dioxins are known to cause chloracne in humans and are suspected carcinogens, even in trace quantities. Chloracne is a severe skin disease with acne-like lesions that occur mainly on the face and upper body (Agency for Toxic Substances and Disease Registry, 1999).

1.5. O&M Personnel Roles and Responsibilities

The District will designate the following key O&M personnel associated with implementation of this Plan: O&M Coordinator, O&M Professional, School Site Designee (SSD), and Health and Safety Officer (HSO). The District will designate qualified personnel in accordance with the DTSC-approved standard operating procedures (SOP) if the intrusive work is planned to be conducted in areas of the school site underlain by burned wastes/impacted soils (i.e., the O&M Area). A table identifying O&M personnel roles and responsibilities is provided in Appendix B of this Plan. The District will notify DTSC and the LEA within 14 days of any changes in the names, addresses, or telephone numbers for the key O&M personnel.

1.5.1. O&M Coordinator

This section identifies the O&M Coordinator, provides contact information, and indicates the responsibilities of the person assigned this role. The O&M Coordinator is the construction management supervisor for the District, and is responsible for compliance with the terms of this Plan. Normal job duties of the O&M Coordinator include management of construction projects on school sites, review of plans, supervision of employees, and review of environmental issues on new and existing school sites.

O&M Coordinator

To be determined (TBD)

Company Name

TBD

Telephone Numbers

TBD (office)

TBD (fax)

The responsibilities of the O&M Coordinator will generally include the following:

- Implementing this Plan.
- Familiarizing themselves with site conditions, locations, and compositions of the Cap.
- Evaluating work orders to determine whether proposed work will impact or intrude into the Cap (i.e., within the waste footprint), and potentially disturb the underlying burned wastes/impacted soils.
- Overseeing implementation of a DTSC-approved SOP for intrusive work that will impact or intrude into the Cap and potentially disturb underlying burned wastes/impacted soils.
- Coordinating and facilitating communications between the DTSC and LEA on behalf of the District including receiving and submitting notices, comments, documents, reports, approvals, decisions, and other communications.
- Overseeing provisions of inspection training.
- Accompanying the O&M Professional during annual inspections.
- Submitting this Plan and subsequent reports, including Annual Inspection Summary Reports, Five-Year Review Reports, and Intrusive Work Completion/Incident Reports for work conducted in areas underlain by burned wastes/impacted soils.

- Ensuring that issues pertaining to O&M are brought to the attention of the District's Board as appropriate, including requests for ongoing appropriations of funds and notifications in the event that any exposures of burned wastes/impacted soils occurs at the site.
- Contacting appropriate regulatory agencies such as the City of San Diego LEA and DTSC prior to conducting intrusive work that will impact or intrude into the Cap and potentially disturb underlying burned wastes/impacted soils or in the event of a Cap failure.

1.5.2. O&M Professional

This section provides contact information and responsibilities of the O&M. Pursuant to Business and Professions Code, Chapters 7 and 12.5, and the CCR, Title 16, Divisions 5 and 29, the O&M Professional will be a California-registered professional (e.g., engineer, geologist), with knowledge of the evaluation and maintenance of cap systems at former burn sites/landfills, and will be familiar with the Cap at the site. The O&M Professional will also have expertise and experience with slope stability issues, and more specifically the maintenance of cover systems on slopes. In addition, the O&M Professional will have had 40-hour HAZWOPER training, the 8-hour supervisor training, and will have completed the annual 8-hour refresher courses. Normal job duties of the O&M Professional will include supervising of consultants for engineering projects and storm water management projects, review of deliverables during the design process, and preparation of plans and specifications. The District will designate qualified personnel to serve as the O&M Professional.

O&M Professional

TBD

Company Name

TBD

Telephone Numbers

TBD (office)

TBD (cell)

TBD (fax)

Electronic Mail Address

TBD

The responsibilities of the O&M Professional will generally include the following:

- Conducting monthly, quarterly, annual, and five-year inspections and reviews.
- Preparing and signing Annual Inspection Summary Reports and Five-Year Review Reports.
- Directing oversight of intrusive Cap work within the waste footprint.
- Providing professional environmental services as necessary, pertaining to the Cap at the site. Environmental services may include collection of samples and laboratory analysis if burned wastes are observed.

1.5.3. School Site Designee

This section provides contact information and responsibilities of the SSD. Ordinary maintenance at the site will be conducted by the school janitorial staff. If maintenance that involves excavation of soils or disturbance to the Cap is required, a work order will be filed by the SSD, or by an assistant to the SSD. The work order will follow an approval process which includes an initial notification to Physical Plant Operations at the District. The work order clerk will then forward the work order to the O&M Coordinator, who will provide notifications to the LEA and DTSC, as appropriate, based on review of the project details.

School Site Designee
Principal

School Site Designee Address
Correia Middle School
4302 Valeta Street
San Diego, California

Telephone Numbers
(619) 222-0476 (office)
(858) 221-0147 (fax)

The responsibilities of the SSD will generally include the following:

- Ensuring school staff with O&M roles has received appropriate training and direction.
- Ensuring that activities that may potentially disturb burned wastes/impacted soils will not be conducted at the site without the knowledge and approval of the O&M Coordinator.
- Providing, as necessary, information to staff and parents concerning any exposures to burned wastes/impacted soils at the site.

1.5.4. Health and Safety Officer

The District will designate an HSO responsible for maintaining compliance with the Health and Safety Plan (HASP) when intrusive work subject to this Plan is conducted within the O&M Area. The HSO will be a Certified Industrial Hygienist (CIH) who has 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training, and who has field experience involving environmental investigations and remediation.

The responsibilities of the HSO will generally include the following:

- Identifying existing and potential conditions in the work area, which are potentially hazardous, dangerous, or unsanitary.
- Identifying potential hazards associated with the planned work and selecting appropriate control strategies to minimize exposures.
- Implementing prompt corrective measures to eliminate such identified hazards.

1.6. O&M Cost Estimate

Implementation of the Plan begins upon completion of the RAW and, for the purpose of providing a cost estimate, it is assumed to continue for 30 years after that date. The RAW provided routine annual O&M costs for containment through a surface cap and ICs, which are provided below.

Table 1 – Annual O&M Cost Estimate

Description	Quantity/Unit Cost	Annual Cost
Inspections & Reporting	Lump Sum	\$7,500.00
ICs	Lump Sum	\$3,500.00
Baseline Topographic Survey (including installation of survey monuments)	Lump Sum	\$5,000.00
Periodic Topographic Survey (once every 5 years)	Lump Sum	\$750.00
DTSC Oversight	10 hours at \$125/hour	\$1,250.00
Periodic Costs (cap maintenance, re-grading, erosion control, repairs, etc.)	Lump Sum	\$5,000.00
Contingency	25%	\$5,750.00
Overhead	15%	\$4,313.00
Total Annual O&M Cost Estimate		\$33,063.00

This cost estimate is also intended to be a reasonable estimate of the expected cost that would be incurred to carry out the first 30 years of post-closure maintenance, pursuant to applicable CCR Title 27 requirements.

1.7. Regulatory Agencies

The following regulatory agencies provide oversight of former burn sites. The roles and responsibilities of these agencies are described in the sections below.

1.7.1. City of San Diego Solid Waste Local Enforcement Agency

The LEA, acting on behalf of the California Department of Resources Recycling and Recovery (CalRecycle), has the primary responsibility for conducting periodic site inspections ensuring the correct closure of solid waste facilities in the state in accordance with applicable portions of CCR Title 27. This Plan is also intended to act as a PMP in that it indicates the methods to ensure that the reuse of the site will conform to state performance standards and minimum substantive requirements. This Plan also meets the requirements of providing written descriptions of PMP activities and a reasonable estimate of the cost to maintain the site through the post-closure period.

The District will pay an annual site facility fee to the LEA to inspect and monitor the site in accordance with applicable portions of CCR Title 27. The District will provide site inspection reports to the LEA in order to maintain periodic communication regarding the condition of the Cap at the site and anticipated and/or scheduled construction activities that would intrude into the Cap. In addition to notifying the LEA of planned intrusive work/construction, the report will also summarize the condition of the Cap. An example of a Cap Inspection Checklist is provided in Appendix C.

1.7.2. Department of Toxic Substances Control

The DTSC is currently responsible for providing regulatory oversight to school sites to ensure the protection of human health and the environment in accordance with the HSC and CEC.

1.8. Periodic Updates/Revisions

This Plan will be updated and revised periodically so that the information contained remains current. The Plan will be reviewed and updated as necessary and at a minimum annually, to reflect changes in key contacts and any procedural changes that may have arisen during the previous year. Revisions to the Plan and the date will be documented. Each revision will be assigned a revision number that is clearly indicated on each page of the document. This Plan will be updated within 14 days if there is a procedural issue that has resulted in a breach of the Cap.

2. SITE DESCRIPTION

The following sections describe the location, size, latitude and longitude, ownership, Assessor's Parcel Number, streets, highways, current property owner, and physical setting of the site. Descriptions of the topography and site geology are also provided in this section. Information pertaining to the prior site uses is provided and was primarily obtained from the PEA (Ninyo & Moore, 2006) and the RAW (Ninyo & Moore, 2011).

2.1. Site Identification

The Correia Middle School site is located at 4302 Valeta Street (Figure 1). The school site encompasses approximately 19 acres of land, occupied by school buildings on the northwestern portion of the property and athletic fields on the southeastern portion of the property. A baseball field with grass turf is located on the western side of the athletic field and the eastern side consists of a surface composed of decomposed granite fill. For the purposes of this assessment, the areas of the site potentially underlain by burned wastes/impacted soils are identified as the O&M Area or the waste footprint (Figure 2). In addition, the City of San Diego LEA requires certain notifications and activities for work within 1,000 feet of the O&M area (i.e., landfill boundary). All locations on the school site are within 1,000 feet of the waste footprint.

An as-built grading plan provided by the District is presented in Appendix D. The site is assigned Assessor's Parcel Number 449-110-03-00 (Appendix A). The current property owner of the parcel is the District; however a portion of the slopes along Valeta Street and Famosa Boulevard, not included as part of the parcel, are owned by the City of San Diego.

Based on our review of the United States Geological Survey (USGS), Point Loma, California 7.5-minute quadrangle map (1996) the site is located in Section 30, Township 16 South, Range 3 West of the San Bernardino Baseline and Meridian. The geographic coordinates of the approximate center of the site are 3623424 feet North and 478254 feet East (North American Datum of 1983, California State Plane Zone 6).

Site accessibility is primarily limited to students, school faculty, and staff during school hours. The playing fields are surrounded by a chain-link fence. A retaining wall is planned to be constructed parallel to the sidewalk along the length of the slopes parallel to Valeta Street and Famosa Boulevard with 4-foot high cable railing along the top, which should serve to minimize access to the sloped areas.

Because landfill gas is generally not associated with burn sites, there are no landfill gas monitoring or control systems at this site. Similarly, burn sites generally do not produce leachate; therefore there are no leachate control or collection systems at the site. There is not a groundwater monitoring program at the site. However, groundwater monitoring wells were

formerly installed at the site and sampled to evaluate potential impacts to groundwater from the burned wastes/impacted soils. The sampling results indicated that groundwater had not been impacted by the presence of the burned wastes at the site (Ninyo & Moore, 2008).

Surface drainage from the site's building area appears to flow southwest towards Cleator Community Park and south into storm drains along the northern perimeter of the playing fields. Surface drainage from the playing fields generally flows toward the south and east into storm drain inlets in the athletic field and east parking lot. Surface water runoff resulting from precipitation that has not infiltrated into the site will flow into the street and into the storm drain system. The storm drain system will carry the runoff into a Stormceptor® unit in the east parking lot that will remove sediments prior to entering buffer ponds adjacent to the Famosa Slough, the nearest surface water body, approximately 0.04-mile to the northeast. The site is primarily non-irrigated with the exception of the playing fields and the immediate areas surrounding the permanent classrooms. Subsurface utilities are located throughout the developed portions of the school site; however, based on the information provided by a representative of the District, the utilities present within the O&M area are irrigation lines, a sewer line, and a storm drain with an associated Stormceptor® unit. The Stormceptor® unit extends to a depth of approximately 25 feet bgs (SDUSD, 2007); however, a representative of the District indicated that the remaining utility lines are generally 10 feet bgs or less.

2.2. Surrounding Land Use and Sensitive Ecosystems

The school site is located in a primarily residential neighborhood with recreational facilities and parks. The site is bounded by a YMCA facility and residences to the north; Cleator Community Park to the west; Famosa Boulevard followed by undeveloped land to the south and residences to the southeast; and Valeta Street followed by residences and the Famosa Slough to the north and east (Figure 2). The Famosa Slough is located at the north terminus of Famosa Boulevard to the northeast of the site and is listed as an impaired water body under Section 303(d) of the Clean Water Act.

2.3. Regulatory Status

The site is listed on the DTSC Site Mitigation and Brownfields Reuse Program Database (EnviroStor), formerly known as the CalSites database, as a school cleanup site and has been assigned a site code of 404627. The EnviroStor database indicates that dioxin, as 2,3,7,8-TCDD, and lead in soil are confirmed as COCs at the site.

The CalRecycle Solid Waste Information System (SWIS) database contains information on solid waste facilities, operations, and disposal sites throughout the State of California. CalRecycle lists the 2400 Block of Famosa Boulevard as assigned SWIS number 37-AB-0014 and is identified as an unpermitted secondary disposal site that currently is a closed site (CalRecycle, 2011). The LEA performs periodic monitoring of the site on behalf of CalRecycle.

2.4. Site Topography

Based on our review of the USGS, Point Loma and La Jolla, California 7.5-minute quadrangle map (1996), the site is situated at an elevation of approximately 60 feet above mean sea level. Surface drainage from the site's building area appears to flow southwest towards Cleator Community Park and south into storm drains along the northern perimeter of the playing fields. Surface drainage from the playing fields generally flows towards the south and east into storm drain inlets in the athletic field and east parking lot.

2.5. Site Geology

Based on previous site assessment activities, fill encountered during drilling activities consists of fine- to coarse-grained sand, silty sand and sandy silt. The depth of fill materials ranges from 0.5 to 50 feet bgs based on the composition of the soil samples and background data. The fill materials appear to be disturbed Very Old Paralic Deposits (formerly Bay Point Formation) containing pockets mixed with debris, glass, and evidence of burned wastes generally encountered in the fill material at depths greater than 2.0 feet bgs (Ninyo & Moore, 2011).

Materials of the mid-early Pleistocene Very Old Paralic Deposits have been mapped underlying the site (Kennedy and Tan, 2008). Very Old Paralic Deposits are described generally as mostly poorly sorted, moderately permeable, reddish-brown, interfingering strandline, beach, estuarine, and colluvial deposits, composed of siltstone, sandstone, and conglomerate. Geologic cross sections were provided in the Removal Action Work Plan (Ninyo & Moore, 2011) and are presented as Figures 3 and 4 of this report.

2.6. Prior Site Use

The school is constructed on a mesa with cut and fill slopes. The east-northeast and west-southwest areas of the site, including the slopes, were filled with materials cut from other portions of the site. According to a 1958 site plan prepared by Clyde Hufbauer Architects, miscellaneous dumped materials were reported to be mixed with the fill soil used in the athletic field areas during construction. The grading plan is presented in Appendix D.

The City of San Diego LEA has indicated that several historic disposal sites were located in the vicinity of Correia Middle School and Cleator Community Park. It is believed that debris from one or more of the nearby disposal sites was mixed with fill soils during construction of the school site. The extent of burned wastes/impacted soils in the fill areas is estimated to be present from depths ranging from 2 to 50 feet bgs in playing fields and from the surface to 50 feet bgs in sloped areas; however, after completion of the RAW the burned wastes/impacted soils will not be present within at least the upper 2 feet of the sloped areas (Figure 2). It is estimated that approximately 114,000 cubic yards (cy) or 171,000 tons, at 1.5 tons per cy, of burned wastes/impacted soils are beneath the site.

2.7. Previous Site Investigations and Mitigation

This section of the Plan summarizes environmental activities performed at the school site in association with assessing the nature and extent of the burned wastes. Previous environmental assessment work conducted at the site is summarized chronologically and includes environmental investigations and as applicable, regulatory actions. Previous sample loca-

tions and analytical data are provided in the PEA and RAW (Ninyo & Moore, 2006 and 2011). The estimated extent of the burned wastes is summarized on Figure 2.

Table 2 provides a chronological summary of the previous environmental investigations and activities conducted at the site.

Table 2 – Summary of Previous Environmental Investigations/Activities

Report Date	Company/Report	Findings/Applicable Laws/Regulations
March 2002	Kleinfelder Draft Phase I Environmental Site Assessment (ESA)	<p>The Draft Phase I ESA report was prepared to determine if any recognized environmental conditions were associated with the site; however, for reasons unknown, the report was not finalized or reviewed by DTSC. According to the report, a former incinerator was located on the west central portion of the site. The incinerator was reportedly used to burn school trash consisting of paper products. The burned material was placed in a barrel that was transported and disposed of off site by the local municipal waste management company. The former incinerator was constructed on asphalt concrete, and regulatory records reviewed did not indicate hazards associated with its operation.</p> <p>A former underground storage tank was located on the northwestern portion of the site and was removed under oversight of the County of San Diego Department of Environmental Health (DEH) in 1988. Contaminated soil was disposed of off-site as part of the tank removal, and the case was issued regulatory closure by the DEH.</p> <p>The report mentions the imported fill material as indicated on a 1958 grading plan; however, no recommendations were made for assessment of the material. The report concluded that it was unlikely off-site sources had impacted the site based on distances from the site, direction of groundwater flow, and/or the nature of the releases.</p>
	Kleinfelder Summary of Eroded Slope Review	<p>Three soil borings were drilled and two dynamic cone penetration soundings were performed to evaluate the subsurface conditions in the sloped areas and soil samples were collected for geotechnical laboratory testing. Fill soils reportedly ranged in the borings from approximately 12 to 39 feet bgs. The borings indicate that the fill soil was built over alluvial deposits that overlie the Bay Point Formation (currently referred to as Very Old Paralic Deposits). Based on the information obtained from the laboratory testing and the dynamic cone penetration soundings, the slope stability was assessed, and recommendations were offered for slope repairs, protective coverings, and retaining walls.</p>

Table 2 – Summary of Previous Environmental Investigations/Activities

Report Date	Company/Report	Findings/Applicable Laws/Regulations
March 2003	Kleinfelder Report of Preliminary Site Assessment of Surface Soils	<p>Sixteen surface soil samples were collected on the sloped portion of the site in areas where glass and ceramic shards were observed, and analyzed for Title 22 Metals. In addition, four background samples were collected for comparison of metals concentrations.</p> <p>Analytical results indicated that one sample exceeded the DTSC action level for lead at the time, 255 mg/kg, and two samples exceeded the maximum arsenic concentration reported for the background soil samples. The report recommended further subsurface assessment, as well as a human health risk assessment.</p>
2003 (month unknown)	City of San Diego Soil Sampling Analysis and Summary	<p>The City of San Diego conducted surface sampling at Cleator Community Park (located adjacent to the west of the site) and on the slopes west and south of the site based on information from the LEA indicating the presence of burned wastes. A total of 27 samples were collected from the slopes where burned wastes and debris had been observed. The analytical results indicated that lead concentrations did not exceed 144 mg/kg, and arsenic concentrations did not exceed 2.18 mg/kg in the samples analyzed.</p>
July 2003	Kleinfelder Site Assessment Report	<p>Nine soil borings were drilled at the site in areas of the playing fields where fill soil was known to have been placed during the construction of the school campus. Reported lead concentrations exceeded DTSC's action level for lead at the time of 255 mg/kg and ranged from 423 to 69,100 mg/kg in samples that were noted to contain burned wastes. Lead concentrations above the action level were present in the southwest and southeast portion of the site. Arsenic concentrations ranged from 2.99 to 14.1 mg/kg; however, according to Kleinfelder, the arsenic concentrations did not exceed background levels for the area. PAHs were not detected in any of the soil samples analyzed. Six samples analyzed for dioxins and furans contained concentrations above the reporting limit. Dioxins and furans are often formed as byproducts of combustion; therefore, the presence of these contaminants supports the interpretation that burned refuse is present at the site.</p> <p>The report indicated that burned wastes and fill materials appear to be restricted to the southeast and southwest corners of the site. Burned wastes, including ash, glass, and ceramic shards, were not associated with a particular area of fill or a distinct layer of fill, but were encountered in visually identifiable burn material or debris distributed in the fill portions of the site.</p>

Table 2 – Summary of Previous Environmental Investigations/Activities

Report Date	Company/Report	Findings/Applicable Laws/Regulations
July 2004	Kleinfelder Burn Ash Management Plan (BAMP)	A BAMP was prepared as requested by the LEA in anticipation of a proposed rehabilitation of the site's sloped areas and the construction of a retaining wall along Famosa Boulevard and a portion of Valeta Street to facilitate erosion control. The BAMP was reviewed by the LEA, and comments were issued in a letter dated March 7, 2005. Subsequent to the preparation of Kleinfelder's BAMP, a Soil Management Plan (SMP) was prepared by Ninyo & Moore and approved by the DTSC, the lead regulatory agency (See December 2007 report summary).
March 2005	DTSC Sampling Activities	A surficial (i.e., 0.5-foot) elevated lead concentration (2,650 mg/kg) was documented in the Report of Preliminary Assessment (Kleinfelder, 2003a). DTSC subsequently collected eight step-out samples to determine whether the area in the vicinity of this sample posed an immediate risk to public health and safety. Laboratory analyses indicated that the concentrations of lead in the step-out samples were below the DTSC action level for lead at the time, which was 255 mg/kg. Based on the information, DTSC determined that the area did not require immediate attention, and did not pose a threat to human health.
April 2006	Ninyo & Moore PEA	<p>The PEA was performed to evaluate whether the contamination in surface soils in playing fields presented an imminent threat to the site receptors and if the sloped areas along Valeta Street and Famosa Boulevard could be characterized so that the planned erosion control measures could commence.</p> <p>In the playing fields, 27 surface samples were collected and six borings were drilled to assess the COPCs and eight borings were drilled to delineate the estimated cut-and-fill boundaries at the site. In the sloped areas, five hand auger locations were advanced and 14 borings were drilled to assess COPCs and the depth of fill along the slope.</p> <p>Lead was not detected above the DTSC action level at the time of 255 mg/kg in surface and shallow samples (within the top 2.0 feet). A HHSE was performed for the playing fields and the sloped areas using previous data, as well as the data collected during the PEA.</p> <p>In the playing fields, the risk calculations indicated a non-cancer hazard index (HI) of 0.56 from exposure to maximum COPC concentrations in surface soil (i.e., top 0.5 feet). The COPCs in the potentially complete pathways in surface soil in the playing fields are considered non-carcinogenic and, therefore, an excess cancer risk (ECR) was not calculated. In the sloped areas, exposure to maximum COPC concentrations in surface soil resulted in an ECR of 1.43E-07, and an HI of 0.012.</p> <p>The results of the PEA indicate that an imminent and substantial endangerment to site receptors does not exist from potentially complete exposure pathways. The DTSC subsequently confirmed lead and dioxin as COCs at the site.</p>

Table 2 – Summary of Previous Environmental Investigations/Activities

Report Date	Company/Report	Findings/Applicable Laws/Regulations
February 2007	Ninyo & Moore Revised Technical Memorandum for Supplemental Soil Sampling Activities	Based on a meeting held on February 2, 2007 between the City of San Diego, DTSC, the District, and Ninyo & Moore, it was agreed the District would perform a supplemental investigation of the District-owned portions of sloped areas that lead down to Cleator Community Park to be included as part of a RAW. In addition, the City of San Diego proposed to perform its own investigation of the portions of the slope owned by the City of San Diego. The Technical Memorandum proposed the advancement of three borings at the top of the slope and seven hand auger borings into the face of the slope.
September 2007	Ninyo & Moore Technical Memorandum Report and Housekeeping Removal	<p>In accordance with the Technical Memorandum prepared in February 2007, three borings were drilled at the top of the slope leading down to Cleator Community Park until samples indicative of formational material were collected. Seven hand auger borings were advanced on the face of the slope. The samples generally contained low levels of metals, PAHs, and dioxins. One sample contained an elevated concentration of lead at the surface and step-out sampling was performed as requested by the DTSC. Three hand auger borings were advanced 5 and 10 feet from the original sample location. Five random surface samples were collected from locations determined in the field. The sample results indicated lead concentrations were below the DTSC action level at the time, which was 255 mg/kg.</p> <p>The DTSC recommended that a housekeeping removal be performed in the area around the location of the sample with the elevated lead concentration at the surface. On June 12, 2007, a 2-foot by 2-foot area around the location was excavated to a depth of 4 feet bgs. Confirmation samples were collected from each of the four sidewalls and the bottom of the excavation. Following confirmation sampling, the excavation was back-filled with clean sand. The sample results indicated lead concentrations less than the DTSC's action level at that time, which was 255 mg/kg. The excavated soil was placed into 55-gallon drums and disposed of off-site.</p> <p>Based on the results from the initial sampling and the confirmation sample results, a determination of no further action was recommended for the District-owned portion of the slope leading down to Cleator Community Park. On October 4, 2007, the DTSC concurred with the conclusions of the report.</p>

Table 2 – Summary of Previous Environmental Investigations/Activities

Report Date	Company/Report	Findings/Applicable Laws/Regulations
November 2007	Ninyo & Moore Technical Memorandum for Groundwater Assessment	Based on a meeting held on August 6, 2007 between the District, Regional Water Quality Control Board (RWQCB), LEA, and Ninyo & Moore, the RWQCB stated that due to the proximity of the site to the San Diego River and the adjacent Famosa Slough, daylighting of groundwater to the surface water bodies was possible; therefore, surface water beneficial uses apply to groundwater at the site. It was agreed that the District would perform a groundwater investigation at the site to evaluate whether there are impacts to groundwater from burned wastes at the site. A Technical Memorandum was prepared that proposed the installation of three groundwater monitoring wells in the playing fields at the site and collect groundwater samples.
December 2007	Ninyo & Moore SMP	The DTSC required an SMP be prepared and approved prior to the installation of a storm water interceptor (Stormceptor [®]) unit at the site. The SMP was prepared to summarize the protocol for excavation, trenching, temporary stockpiling/storage, handling, and re-use and/or off-site disposal of soil within the construction envelope for the storm water quality improvement project. The DTSC approved the SMP on December 27, 2007.
May 2008	Ninyo & Moore Summary of Groundwater Sampling Results	<p>On December 26 and 27, 2007, three groundwater monitoring wells were installed at the site in accordance with the Technical Memorandum (Ninyo & Moore, 2007). Two monitoring wells were installed within the waste footprint and one was installed outside of the waste footprint.</p> <p>Soil samples were collected during the well installation. Lead was detected at concentrations exceeding the DTSC action level at the time (255 mg/kg) in some soil samples collected from the wells installed within the waste footprint.</p> <p>Groundwater samples and elevation measurements were collected from the wells on January 10 and April 3, 2008. Based on the calculated groundwater elevations, the groundwater gradient at the site was toward the northeast. Lead was not detected in groundwater at the site above the laboratory reporting limit of 10 micrograms per liter ($\mu\text{g}/\ell$), which is below the maximum contaminant level for lead in drinking water of 15 $\mu\text{g}/\ell$. Since lead was not detected in the site monitoring wells, it was concluded that burned wastes present at the site has not impacted groundwater.</p> <p>In an e-mail dated May 19, 2008, the DTSC concurred with the conclusions of this groundwater sampling letter report and approved the abandonment of the monitoring wells. The monitoring wells were abandoned under DEH permit on August 20, 2008.</p>

Table 2 – Summary of Previous Environmental Investigations/Activities

Report Date	Company/Report	Findings/Applicable Laws/Regulations
July - September 2008	Stormceptor® Installation	<p>In response to the RWQCB’s requirement to prepare a mitigation plan that would eliminate the deposition of sediments from the site into the nearby Famosa Slough, the District proposed the installation of a Stormceptor® at the site. The Stormceptor® slows incoming storm water and creates a non-turbulent environment that allows sediments to settle out to the bottom of the unit before the storm water flows out into the Famosa Slough. The sediment build up in the bottom of the unit is periodically cleaned out and disposed of at an appropriate disposal facility.</p> <p>The Stormceptor® unit was installed from July to September 2008. Since the unit was installed within the waste footprint, the installation was performed in accordance with the approved SMP (Ninyo & Moore, 2007). During excavation activities, burned wastes and impacted soils were encountered. Excavated materials were segregated, stockpiled, and sampled in accordance with the SMP. Based on the soil sampling results, 358.5 tons of soil was classified as California-hazardous waste and disposed of at the Yuma County Landfill in Yuma, Arizona as non-hazardous waste in the state of Arizona. Analytical testing indicated that approximately 220 cy of soil was suitable for reuse on site in accordance with the SMP, and was utilized as backfill material for the Stormceptor®.</p>
June 2011	Ninyo & Moore Final Removal Action Work Plan (RAW)	<p>A Final RAW was prepared by Ninyo & Moore in general accordance with California Health and Safety Code, Section 25356.1 to identify and screen possible removal actions (RA) based on effectiveness, implementability, and cost. The selected RA was containment through surface capping and ICs.</p> <p>The selected RA includes utilizing the existing cover as a protective soil barrier cap in the playing fields, installing a retaining wall and performing other slope stabilization measures (e.g., additional fill placement, vegetative cover) to minimize erosion, which will serve as a protective soil barrier cap in the sloped areas, and implementing ICs to ensure the integrity of the cap is maintained. The DTSC approved the RAW on August 11, 2011.</p>

3. SELECTED CAP AND INSTITUTIONAL CONTROLS

For the portion of Correia Middle School with underlying burned wastes/impacted soils, the RA as indicated in the RAW will include utilizing the existing cover as a protective soil barrier cap in the playing fields (i.e., containment through surface capping), installing a retaining wall and performing other slope stabilization measures (e.g., additional fill placement, vegetative cover) to

minimize erosion and act as a protective soil barrier cap in the sloped areas, and implementing ICs to ensure the integrity of the cap is maintained. A copy of the final Slope Stabilization and Retaining Wall Design Plans will be included as Appendix E.

A cap is generally a horizontal barrier that eliminates or limits downward migration or seepage of surface water runoff and/or upward migration of gas emissions. However, as previously discussed, impacts to groundwater are not a concern at the site (Ninyo & Moore, 2008). Since there are no structures overlying the fill areas and none of the COCs or COPCs are volatile, soil vapor is not considered an issue at the site. Therefore, the capping material at the site only needs to serve as a barrier to minimize the potential for exposure to burned wastes and impacted soils. Based on the existing conditions at the site (fill areas within the playing fields are overlain by at least 2 feet of clean soil which is covered by decomposed granite, grass (or other vegetation), or asphalt (in the parking lot area) and LEA Advisory Number 56 (CalRecycle, 1998), the existing cover in the playing fields sufficiently serves as a cap. The slope stabilization activities, which include the presence of at least 2 feet of clean fill soil at the surface of the sloped areas, will serve as a protective soil barrier cap and satisfy the conditions of LEA Advisory Number 56.

ICs will be established to reduce the potential for exposure to subsurface burned wastes/impacted soils. The ICs will include procedures for communications between the District and regulatory agencies (DTSC and LEA), monitoring in compliance with applicable CCR Title 27 requirements, and an LUC. The implementation of ICs will establish procedures to ensure future activities at the site do not penetrate the cover fill in such a way as to result in an exposure that would be considered an unacceptable risk to human health.

3.1. Surface Cap Materials

Based on the PEA and RAW, the fill areas within the playing fields are overlain by at least 2 feet of clean soil which is covered by decomposed granite, grass (or other vegetation), or asphalt (in the parking lot area) (Figure 5). Portions of the sloped areas along Valeta Street and Famosa Boulevard are covered by 2 feet or less of clean fill soil, which is currently covered by vegetation. After the RA is implemented, the sloped areas will be covered by at least 2 feet of clean

cover fill and vegetative cover. The sections below describe how each of the surface and subsurface materials serve as a barrier to the burned wastes/impacted soils.

3.1.1. Hardscape Cap Systems

Approximately 25,000 square feet (SF) (0.6-acres) of cover fill is overlain by asphalt paving in the parking lot area on the northeastern corner of the site. The underlying cover fill in the parking lot area is approximately 12 to 18 feet thick. Asphalt acts as a physical barrier to minimize erosion by wind, rain, and surface water run-off.

3.1.2. Landscape Cap Systems

Landscape cap systems for the school site include natural covers (i.e., natural soil and grasses), landscaped areas, and decomposed granite. Approximately 173,000 SF (3.9 acres) of cover fill without overlying hardscape is present at the site. Approximately 91,500 SF (2.1 acres) is generally covered or will be covered after the implementation of the RA with a vegetative layer (e.g., grass, native vegetation, etc.), which acts to anchor soil in place and reduce erosion. The remaining 81,500 SF (1.8 acres) is covered by decomposed granite which will also act to reduce erosion (Figure 5).

The landscape cap systems are further classified as high activity use, low activity use, and steep sloped areas.

- **High Activity Areas:** High activity areas include the playing fields that are covered with at least 2 feet of “clean” fill overlain by 4 to 6 inches of decomposed granite or grass. Approximately 4 acres of cover fill is overlain by decomposed granite or by grass. The underlying cover fill ranges from 2 to at least 20 feet thick in the fill areas of the playing fields (Figure 5). This material acts as a barrier layer to prevent erosion of the underlying cover fill by wind, rain, and surface water run-off.
- **Low Activity Areas:** There are no low activity areas that are covered by the landscape cap system.

- Steep Sloped Area:** Steep sloped areas exist along the boundaries of the playing fields sloping towards Valeta Street and Famosa Boulevard. The sloped areas are currently covered with vegetation and after the implementation of the RA will have at least 2 feet of clean fill covered by a vegetative layer (Figures 5). The sloped areas that slope toward Cleator Community Park are not included as part of this Plan as this area has previously received a status of no further action from the DTSC (2007).

Table 3 – Summary of Cap Materials and Thicknesses

Area	Activity Level	Material	Estimated Extent (acres)	Thickness
Hardscape Area (parking lot)	not applicable	asphalt	~0.6	~ 12 to 18 feet of cover fill + asphalt paving
Landscape Area (Playing Fields)	high	decomposed granite or grass	~4	~2 to at least 20 feet of cover fill + ~4 to 6 inches of decomposed granite or grass
Sloped Areas (along Valeta Street and Famosa Boulevard)	steep slope	vegetation	~0.9	at least 2 feet of cover fill + natural vegetation
Note: Minimum fill thicknesses assume the RA has been completed.				

4. TRAINING

The District-designated O&M Coordinator, O&M Professional, SSD, and HSO are identified in this Plan. There is no specific required training for the O&M Coordinator or SSD since their responsibilities are anticipated to generally be restricted to observing and reporting on the conditions of the Cap, and it is not anticipated that they will be conducting activities that have the potential for exposure to burned wastes/impacted soils.

The O&M Professional should be a California Professional Engineer. Some of his responsibilities include providing professional environmental services, as necessary, pertaining to the Cap systems and may include intrusive work in areas within the waste footprint. Future construction/repair activities that involve intruding into the wastes will require the O&M Professional to have 40-hour HAZWOPER training and the 8-hour supervisor training and have completed the annual 8-hour refresher courses. HAZWOPER training will also be required for all person-

nel/contractors conducting intrusive work in areas within the estimated waste footprint. The HSO is also required to be 40-hour HAZWOPER and 8-hour supervisor trained with annual updates.

4.1. Training Requirements

The O&M Coordinator is responsible for overseeing the O&M training and record-keeping. The O&M Coordinator will verify that the O&M Professional has received the required training or, if necessary, training will be provided to the O&M Professional, to the SSD, and to any school staff or maintenance workers who will perform work at the site. The primary purpose of the training is to ensure that the O&M Professional that will be conducting the inspections is familiar with the locations and composition of the Cap and is able to identify damage to the system, document findings on the inspection checklist (Appendix C), and appropriately document completion of maintenance and repair work. Training should ensure that the O&M Professional overseeing intrusive activities is familiar with and will follow requirements as indicated in this Plan, and comply with other applicable rules and regulations.

The O&M Coordinator is responsible for overseeing provisions of inspection training, and the SSD is responsible for ensuring that school staff with O&M roles have received appropriate training and direction. The O&M Professional will be a Professional Engineer with previous experience and expertise in Cap systems, environmental site investigations, and remediation. It is assumed that since the O&M Professional will be a Professional Engineer, additional training will be site-specific and include, but not be limited to, the following: familiarity with the contents of this Plan; knowledge about the types/descriptions and locations of the Cap and ICs; knowledge of the required inspection locations; ability to recognize damage (e.g., erosion, settlement, water ponding, etc.) to the Cap system; familiarity with inspection schedules and the inspection checklist (Appendix C); knowledge of the policies and procedures for intrusive O&M work associated with construction, maintenance, and repairs; documentation of repairs; roles and responsibilities of O&M personnel; and the contact list of responsible personnel.

Any personnel, including school maintenance workers and contractors, that have the potential to come into contact with burned wastes/impacted soils will be required to be 40-hour HAZWOPER certified with 8-hour annual updates. HAZWOPER training applies to groups of employers and their employees who are exposed or potentially exposed to hazardous substances, including hazardous waste, as specified by 29 Code of Federal Regulations (CFR) 1910.120. Such personnel are required to meet OSHA requirements for training of personnel engaged in hazardous waste operations, including removal or handling of contaminated soil and/or groundwater, subsurface investigations, construction work in which hazardous materials may potentially be present or encountered, prepared, packaged, labeled, marked, stored, shipped for disposal, or work at any facility wherein hazardous wastes are treated, stored, or disposed.

HAZWOPER training shall also include information pertaining to health effects associated with exposure to contaminated or hazardous materials. Upon completion of training, personnel will be familiar with appropriate hazard controls and work practices to reduce dust exposures, methods for dust suppression, protective clothing, dust monitors, respirators, proper cleanup and disposal, and decontamination of equipment and clothing.

5. POST-CLOSURE MAINTENANCE

As previously indicated, this Plan is also intended to serve as a PMP. Typically, closed waste disposal sites are subject to conducting post-closure maintenance in accordance with a PMP pursuant to applicable regulatory provisions as indicated CCR Title 27. The PMP describes the planned maintenance and monitoring activities to be performed to meet regulatory requirements for the protection of public health and safety and the environment. The PMP addresses applicable portions of CCR Title 27 regulations including but not limited to site security, final grading, drainage/erosion control, landfill gas monitoring/control, groundwater monitoring, leachate control/collection, and includes an emergency response plan. A PMP has not been prepared for the subject school site. This section of the Plan describes the planned post-closure maintenance activities, and Section 6 indicates personnel responsible for conducting the inspections and the reporting requirements.

5.1. Site Security

A chain-link fence surrounds the site except for the paved parking lot on the northeastern portion and the sloped areas along Valeta Street and Famosa Boulevard. After the implementation of the RA, a retaining wall will be constructed parallel to the sidewalk along the length of the slopes with 4 foot high cable railing along the top, which should serve to minimize the accessibility of the areas (Figure 5). Several locked gates exist around the perimeter of the property. The playing fields are primarily restricted to school purposes. The main gate is locked on a daily basis and when school is not in session. Other gates generally remain locked unless staff needs access for a particular purpose. Reportedly, the campus is not accessible to the public and the school facilities are typically not used for non-school activities.

The fencing and gates will be inspected monthly to ensure unauthorized personnel and vehicle access remains restricted. The fence will be inspected for settlement damage, breaks, signs of wear, corrosion (depending on construction materials used), or deterioration, and potential vandalism. Personnel will inspect the gates to ensure proper movement and that locks remain intact. The inspection will include observation for evidence of piping leaks or undermining.

The O&M Professional, as part of the inspections, is responsible for overseeing that site security is maintained, including fencing, gates, and locks. Damaged fencing and/or gate locks will be repaired as soon as possible. Excessively corroded or rusted fencing will be replaced as soon as possible following identification of the problem and to maintain the security of the site.

5.2. Cover and Final Grading

Based on previously prepared reports, cover fill overlies the burned wastes/impacted soil in the playing fields at thicknesses ranging from 2 to at least 20 feet (Figure 5). After the implementation of the RA, the sloped areas will be covered by at least 2 feet of cover fill. The proposed remedy will maintain the current cap on the playing fields and the proposed cap on the sloped areas through implementation of ICs. Upon completion of RA activities, a topographic survey will be conducted to establish a baseline as-built topography of the site. Survey monuments will be installed at selected locations on the site.

Settlement at waste disposal sites is generally a result of organic decomposition and the compression of loosely placed wastes. The latter condition generally occurs rapidly, while the former takes place over a longer time. Differential settlement can cause cover system cracks, misdirect drainage patterns, and result in slope failures. However, because the wastes at the site appear to have been burned off site and the burning process resulted in removal of organic materials, decomposition of the wastes and associated settlement is not expected to be a major factor. Inspection of the cover will be conducted to insure the integrity of the cover fill is maintained over the long term.

On a quarterly basis and immediately following periods of heavy rainfall, the cover fill will be visually inspected for evidence of exposed wastes, settlement, subsidence, rilling, and erosion. The surface will be inspected for evidence of cracks, localized depressions or low-lying areas, and water ponding. The sloped areas will be examined for evidence of excessive erosion (e.g., rilling), and surficial slumping. Should wastes become exposed through excessive erosion or if surficial slumping or ponded water are noted, the DTSC and the LEA will be notified and measures such as adding additional cover material and/or re-grading will be implemented to correct the problem.

The O&M Coordinator will address preventive and corrective repairs as promptly after identification as possible. It is anticipated that corrective measures will be implemented within 30 days of identification of the need of repair. Interim measures may be implemented, as necessary.

The cover fill will be maintained as necessary to correct for the effects of erosion, potential settlement or other adverse impacts. Maintenance will generally include filling eroded areas, low-lying areas or depressions, and/or cracks with additional soils or materials. Should localized depressions occur, they will be filled with appropriate cover fill material and graded in a manner to promote lateral run-off and prevent ponding. Fill soil brought to the site for maintenance of the fill cover will be “clean” material, pre-approved by the DTSC and the LEA. Repaired areas will be re-graded to match original grade. Repair areas will be documented, including photographs, in the annual site inspection report.

The DTSC and the LEA will be notified a minimum of 48 hours prior to implementing minor or routine maintenance grading. They will also be notified if burned wastes/impacted soils are exposed through erosion or slope failure. The District will obtain DTSC and LEA concurrence of the planned repair and implementation of corrective measures, in addition to providing an implementation schedule.

5.3. Drainage and Erosion Control

Based on previously prepared documents, little erosion of the cover fill has been observed in the playing fields at the site and it is not anticipated in the future (Ninyo & Moore, 2006 and 2011). Erosion has been an issue on slope faces; however, the construction of the retaining wall at the base of the slopes and the placement of additional vegetation will reduce the potential for erosion in the future.

Surface drainage from the site's building area appears to flow west towards Cleator Community Park and south into storm drains along the northern perimeter of the playing fields. Surface drainage from the playing fields generally flows toward the south and east into storm drain inlets in the athletic field and east parking lot. Surface run-off from the sloped areas after implementing the RA will flow into a concrete brow-ditch with drains located at the top of the retaining wall that will either drain into the storm drains or into the planter areas along the sidewalk.

Surface water runoff resulting from precipitation that has not infiltrated into the site will flow into the street and into the storm drain system. The storm drain inlets will be periodically observed for the presence of sediment to ensure that burned wastes are not entering the drain system. The drain system will be observed for the presence of possible breaches and joint separations that could result in leakage during a major storm event.

The storm drain system will carry the runoff into a Stormceptor[®] unit in the parking lot that will remove sediments prior to entering buffer ponds adjacent to the Famosa Slough, the nearest surface water body, approximately 0.04-mile to the northeast. The site is primarily non-irrigated with the exception of the immediate areas surrounding the permanent class-

rooms and the playing fields. Subsurface utilities are located throughout the developed portions of the school site; however, based upon the information provided by a representative of the District, the utilities present within the O&M area are irrigation lines, a sewer line, and a storm drain with the associated Stormceptor[®] unit. The Stormceptor[®] unit extends to a depth of approximately 25 feet bgs (SDUSD, 2007); however, a representative of the District indicated that the remaining utility lines are generally 10 feet bgs or less.

Best management practices will be implemented as necessary to control erosion of the cover soils. These may include utilizing sand/gravel bags, straw wattles, straw bales, and other devices to dissipate storm water flow and potential sediment transport. Due to the relatively flat nature of the surface topography within the playing fields, erosion is not anticipated to be a major problem in that area.

The sloped areas will be examined for evidence of excessive erosion/rilling and surficial slumping. Should wastes become exposed through excessive erosion or if surficial slumping or ponded water are noted, the DTSC and the LEA will be notified and measures such as adding additional cover material and/or re-grading will be implemented to correct the problem. Temporary measures may be implemented such as using berms, ditches, and straw mulch in damaged areas as a means to limit erosion of the Cap caused by settlement and/or runoff. Maintenance may include repairing eroded surfaces, re-mulching or re-seeding the slope if necessary. Repair may also include removal of loose soils and re-compaction or additional corrective measures depending on the extent of erosion.

5.4. Landfill Gas Monitoring and Landfill Gas Control System

The site does not contain a landfill gas control system or perimeter gas monitoring probes/wells. Since waste disposal practices involved burning wastes, landfill gas is not considered an issue at the site.

5.5. Leachate Control System

The site is not equipped with a leachate control or collection system. Leachate typically is not associated with sites where the waste disposal methods included burning of wastes.

5.6. Groundwater Monitoring System

The site does not contain a groundwater monitoring system, and based on previous analytical data, the DTSC concurred that impacts to groundwater are not considered an issue at the site (Ninyo & Moore, 2008 and 2011; DTSC, 2008).

5.7. Irrigation

The playing fields are currently being irrigated and the sloped areas will be irrigated after the RA is implemented to facilitate vegetative growth. The water lines should be inspected monthly and include the following design features: flexible connectors, secondary containment, moisture sensors within secondary containment, rain sensors, and automatic shutoff valves. The water lines should be maintained, inspected monthly, and subject to annual leak testing.

5.8. General Inspection and Monitoring Schedule

In general, the overall inspection and monitoring schedule for the site is as presented on the following table:

Table 4 – General Reporting Requirements

Item	Following Heavy Rain	Monthly	Quarterly
Site security (fences, gates, locks)	X	X	
Cover fill and final grading	X		X
Surface drainage and erosion control	X		X
Irrigation system control	X	X	
Landfill gas monitoring and control system	NA	NA	NA
Leachate control system	NA	NA	NA
Groundwater monitoring	NA	NA	NA
Note: NA - Not applicable			

5.9. Post-Closure Land Use

Post-closure land use is not anticipated to change from the current uses and consists of playing fields on a middle school campus. Although not anticipated at this time, a Report of Waste Discharge (RWD) will be prepared and provided to the DTSC and LEA at least 120 days prior to implementing a change in land use. In addition, excavation within the waste disposal footprint, relocation/consolidation of wastes on site, or other actions that may result in changes to the waste configuration will need to be documented in a RWD. Any change in land use will also need to comply with the LUC.

6. O&M INSPECTIONS

The District will assign qualified personnel to act as the O&M Professional responsible for conducting inspections to identify potential deficiencies or problems with the Cap. The O&M Coordinator will be responsible for coordinating corrective measures with respect to the components of this Plan, including maintenance of site security, cover and final grading, surface drainage and erosion control, and irrigation system control.

6.1. Periodic Inspections

Site inspections will be conducted quarterly using the inspection form provided in Appendix C of this Plan. Some components will be inspected monthly and additional inspections will be conducted after periods of heavy rainfall. In general, the site will be inspected for those items described in Section 5 of this Plan including site security, cover and final grading (adequacy of Cap), surface drainage and erosion, and irrigation system control. The inspection checklist will assist with ensuring inspections are complete and required areas are inspected. Once completed by the O&M Professional, the checklist will be reviewed and signed by the O&M Coordinator.

The O&M Professional assigned to conduct the O&M inspections will be responsible for identifying areas requiring action, as applicable; documenting any changes in site conditions or usage; providing descriptions of on-site construction activities, as applicable; and recording any other relevant and significant information relating to effectiveness of the Cap

systems including but not limited to cracks in caps or sloped areas, soil movement, rills, run-on or run-off, worn vegetative areas, low lying areas that collect surface water, and exposed wastes. Each inspection will be documented with photographs.

The O&M Professional will address preventative and corrective repair needs as promptly after identification as possible, which will follow the work order approval process. The O&M Professional or SSD will provide a verbal or written work order to the Physical Plant Operations Office of the District. The maintenance system has flagged this site to indicate that any intrusive work conducted must be forwarded to the O&M Professional for approval prior to conducting the work; therefore, the work order clerk will forward the order to the O&M Professional, who will evaluate whether the work will be conducted inside the waste footprint or within 1,000 feet of the waste footprint (as required by the LEA). Please note that all locations on the school site are within 1,000 feet of the waste footprint. The LEA and DTSC will be notified, as appropriate, and once approval of the work is provided, the O&M Coordinator will inform the SSD of any restrictions for conducting the work, including whether an SMP or SOPs need to be followed.

The O&M Coordinator will be responsible for follow-up review to ensure that any identified actions/repairs are conducted and completed on schedule and will sign-off in the completion blocks of the inspection reports. Copies of periodic inspection reports will be included in the Annual Inspection Summary Reports and Five-Year Reviews submitted to DTSC and LEA. Periodic inspection reports will be maintained at the school, and in the District administrative files. Inspection records will be available for DTSC, LEA, and public review.

In addition to the O&M Professional (and O&M Coordinator) inspecting the site, the LEA currently conducts semi-annual site inspections and submits the Closed Disposal Site Inspection Report to CalRecycle, RWQCB, and the District. The O&M Coordinator will notify the DTSC and LEA if there are changes to the surface cap materials such as the hardscape or landscape cap systems (e.g. decomposed granite cover, grass, trees, etc.).

6.2. Inspections for Unplanned Events

In addition to the scheduled inspections, the O&M Professional will conduct inspections of the Cap during or immediately following unplanned events, including but not limited to heavy rains, significant seismic events that adversely affect the site (e.g., fires, broken utility lines, etc.) where the Cap may be compromised and burned wastes/impacted soils may be exposed. Interim measures as described previously in Section 5 will be implemented, as necessary.

The O&M Coordinator will document each inspection and as applicable, any required repairs or maintenance, and incorporate this information and documents into the Annual Inspection Summary Report. The O& M Coordinator will notify DTSC and the LEA in writing within 14 days of discovery if the integrity of the Cap is compromised. The notification will include a proposed schedule for completion of required repairs and maintenance. Section 10.5.2 describes the procedures for written notification.

6.3. Annual Inspections

The O&M Coordinator will notify DTSC and LEA personnel a minimum of 14 days prior to each annual inspection. Inspections will be scheduled to be approximately one year apart with the first annual inspection to be completed by December 31, 2015 and each subsequent inspection by December 31 of each year.

The Cap will be inspected annually by the O&M Professional. The O&M Coordinator may accompany the O&M Professional during the annual inspection. The purpose of this inspection is to comply with post closure maintenance; identify and review completion of any required repairs or changes in site conditions or usage; and describe any on-site construction activities or any other significant information relating to the Cap that may have taken place over the previous twelve months. The annual inspections will include an evaluation of the adequacy of the Cap system overlying burned wastes/impacted soils.

During inspections, items flagged for required maintenance will have a specified action date for completion of required repairs. The O&M Coordinator is responsible for follow-up review to ensure that identified repairs are completed on schedule, and will sign off in the completion blocks of the inspection reports. The O&M Coordinator will notify DTSC and the LEA in writing of any failures of the ICs that are not repaired within 14 days of discovery; such notifications will include a proposed schedule for completion of required repairs and maintenance.

The Annual Inspection Summary Report will be submitted to DTSC and the LEA for review and approval within 60 days after completion of each annual inspection, in accordance with reporting and notice requirements specified in Section 10 of this Plan.

7. FIVE-YEAR REVIEW

Five-year reviews will be conducted by the O&M Professional who will evaluate the effectiveness of the Cap. The primary purpose of the five-year inspection is to identify and review completion of required repairs, if any; changes in site conditions or usage, if any; descriptions of any on-site construction activities; or any other significant information relating to the effectiveness of the Cap and ICs that may have taken place over the previous five years. The five-year review will evaluate whether the Cap and ICs remain protective of human health and the environment; are functioning as planned/designed; and are maintained appropriately by O&M activities. As part of the five-year review, a topographic survey will be conducted at the site using the controls and monuments established during the baseline survey performed after the implementation of the RA activities. The survey results will be included in the Five-Year Review Report.

The O&M Coordinator will notify DTSC and the LEA personnel a minimum of 14 days prior to conducting each Five-Year Review inspection. It is anticipated that the first Five-Year Review inspection will be completed by December 31, 2020, and subsequent annual inspections will be completed by December 31 of every fifth year.

The Cap will be inspected by the O&M Professional in the same manner as the annual inspection (Section 6). During inspections, all items flagged for required maintenance will have a specified action date for completion of required repairs. The O&M Coordinator is responsible for follow-up review to ensure that identified repairs are completed on schedule, and will sign-off in the completion blocks of the inspection reports. The O&M Coordinator will notify DTSC and the LEA in writing of any failure of the Cap within 14 days of discovery; such notifications will include a proposed schedule for completion of required repairs and maintenance.

The O&M Professional will prepare a report of the completed response actions no less often than once every five years after DTSC issuance of site certification, as provided in CEC §97293.2(d)(2). The O&M Professional will prepare and sign the report summarizing their findings and conclusions.

The Five-Year Review Report will be submitted to DTSC and the LEA for their review and approval within 60 days following completion of each fifth-year inspection, in accordance with reporting requirements specified in Section 10 of this Plan. The District will perform additional investigation, monitoring, and/or mitigation if required by DTSC or LEA based upon the findings of each Five-Year Review report.

8. EMERGENCY RESPONSE PROCEDURES

This section describes the Emergency Response Procedures (ERPs) for the site, including the personnel to be notified and actions to be taken to minimize the effects should there be a catastrophic event such as vandalism, fire, explosion, earthquake, flooding, landsliding, that comprises the integrity of the Cap and/or results in exposed burned wastes/impacted soils.

When personnel discover or witness an event that constitutes an emergency, that person will immediately attempt to determine the source, nature, and location of the emergency situation and immediately report the occurrence to the O&M Coordinator. The O&M Coordinator will notify the proper response agencies and implement the general response procedures listed in Section 9.1. In addition to the O&M Coordinator notifying the LEA and DTSC, additional actions will be implemented as described in this Plan section.

8.1. General Response Actions

This section identifies the general response actions that will be conducted in the unlikely event that the Cap is vandalized and/or in the event of a surface release, geologic event, or other occurrence that damages the Cap. The activities listed are not exhaustive and additional activities may be added or some activities may not be conducted. At a minimum, ERPs will include the following; however, the O&M Coordinator will conduct other emergency response actions necessary to minimize the effects of an emergency event.

- Remove non-essential personnel from the location of the incident and restrict access to the incident area.
- Remove non-essential equipment, as necessary and to the extent feasible.
- Identify the nearest source(s) of available assistance, which may include public agencies, District personnel, equipment, or materials.
- The O&M Coordinator will record the events and conduct follow up actions including completing injury reports and documenting emergency actions.
- The O&M Coordinator will notify the LEA and DTSC in writing within 24 hours of discovering the event/incident.
- The O&M Coordinator will conduct surveillance of the incident area and document findings in writing and with photographs. In addition, any necessary reconnaissance will be conducted to assess whether the incident affected adjacent areas of the site and/or off-site properties.
- In the event of slope failure along Famosa Boulevard or Valeta Street, a temporary plastic covering or vinyl sheeting will be placed over the slide materials as an interim measure to reduce future erosion. Sand bags will be placed at the foot of the slide to reduce or inhibit further movement. The O&M Coordinator will notify the LEA and DTSC of the slope failure regardless of whether wastes were exposed as a result of the slide. Permanent repair of the Cap will begin as soon as possible after the DTSC and/or LEA has approved the planned response action.
- The O&M Coordinator will have reasonable access to, at a minimum, a first aid kit, empty sandbags, plastic or vinyl sheeting, and a shovel.
- The O&M Coordinator will document in writing and with photographs, site conditions before, during, and after repairs and include this information in the annual site inspection report.

8.2. Flooding

The site is not located within a flood plain or natural drainage area. It is not anticipated that the site will be subject to large volumes of surface water flow other than from a severe rain event. If severe flooding occurs, sandbags will be placed at appropriate locations to divert surface water flow away from the Cap and reduce slope erosion. The O&M Coordinator will document site conditions in writing and with photographs before, during, and after repairs and include this information in the annual site inspection report.

8.3. Earthquake

The following procedures will be followed if an earthquake occurrence adversely impacts the site.

- The O&M Coordinator will contact the O&M Professional and the entire site will be inspected for evidence of cracks or fissures in the Cap and slumping or slides in the sloped area of the site. The locations of cracks, fissures, or a slide will be recorded and documented with photographs.
- Small cracks will be promptly filled with “clean” soil and the surface brought to matching grade. In the event that more extensive cracks, fissures, or slides have occurred, corrective action will be implemented in accordance with the site grading plan and engineering specifications.
- The O&M Coordinator will document in writing and with photographs, site conditions before, during, and after repairs and include this information in the Annual Site Inspection Report.

8.4. Fire and Explosions

Landfill gas is not a concern at the site because the wastes were burned prior to disposal. Therefore, fire and explosions related to the buried wastes are not likely. However, if a fire or explosion occurs at the site, personnel will immediately contact the City of San Diego Fire Department. The O&M Coordinator will document in writing and with photographs, site conditions before, during, and after repairs and include this information in the Annual Site Inspection Report, as applicable.

8.5. Other Emergency Procedures

In the event of any emergency, the appropriate emergency response personnel should be contacted such as the City of San Diego Fire Department, City of San Diego Police department, and depending on the emergency, the Hazardous Materials Management Team. The O&M Coordinator will provide the emergency response team(s) with site-specific information such as the locations of equipment, hazards, and evacuation procedures and routes.

During and after an incident requiring emergency response, the O&M Coordinator, in conjunction with the emergency response agency(s), will assess the potential for injury to persons on and as necessary, adjacent to the site. If the assessment concludes that an imminent threat to public health or safety exists, then the site and/or surrounding areas, as applicable, will be evacuated.

Immediate steps will be taken if an emergency results in personal injury to determine the cause and extent of injury and render first aid. Should treatment other than first aid be required, the injured person will be transported to the nearest hospital.

9. INTRUSIVE WORK ACTIVITIES

A combination of a soil barrier cap (referred to as the Cap) and ICs will be implemented to reduce exposure to the burned wastes/impacted soils. This section describes the protocol for conducting intrusive work at the site and specifies that such work conducted in areas in the waste footprint or within 1,000 feet of the waste footprint, as required by the LEA, needs to be performed in accordance with the procedures indicated in this Plan. The entire school campus is located within 1,000 feet of the waste footprint; therefore, any intrusive work at the site needs to be performed in accordance with this Plan.

9.1. Pre-Design/Construction

The District maintains a library of archived construction specifications and drawings for each school site at its Physical Plant Operations Center. These construction specifications and drawings provide a record of existing and historical conditions at each school site. Prior to initiating

construction work at the site, the files for this campus will be retrieved and reviewed by the work order clerk, who will then provide them to contractor personnel and others. In order to notify a reviewer that building restrictions exist at the site, the file has been flagged, and a notification sheet will be placed on the top sheet of each drawing package. The sheet will include information indicating restrictions to construction activities as follows:

CONSTRUCTION RESTRICTION

There are restrictions on construction related activities due to the presence of a historic burn site underlying portions of the Correia Middle School. Please contact the O&M Professional prior to initiating any construction/building activities.

Planned construction or maintenance work order requests will be submitted by the SSD, or assistant, verbally or in writing to the work order clerk. Because the file is flagged, the work order clerk will be required to notify the O&M Coordinator, who will evaluate whether or not the planned activities are considered intrusive work activities. Intrusive work activities include, but are not limited to digging, trenching, excavating, drilling, grading, and other soil movement activities. If the planned work involves general maintenance activities and intrusive activities will not occur, the O&M Coordinator will approve the work order without notifications to the LEA or DTSC.

If the planned work involves excavation or other intrusive activities and is determined not to be intrusive to the Cap (e.g., outlying the waste footprint), the LEA will review the scope of work and site map indicating where the work is scheduled to occur. The LEA will respond in writing regarding whether the work is approved to proceed and the O&M Coordinator will notify the LEA at least 24 hours in advance of the start of work. In addition, following LEA review, the SSD will be notified by the O&M Coordinator whether the work can commence as planned, if there are any restrictions promulgated by the LEA, and if the SMP and/or SOPs need to be implemented.

Construction, repair, and/or maintenance activities at the school site are restricted by DTSC in accordance with this Plan when conducted in areas in close proximity to or within the waste footprint (Figure 2). Potential intrusive work activities include construction or maintenance work activities that may disturb or cause exposure of the burned wastes/impacted

soils, including but not limited to: digging, trenching or excavating; drilling; grading; and other soil movement that may penetrate or otherwise compromise the Cap, thereby creating potential pathway(s) for possible human exposures to burned wastes/impacted soils. Both the LEA and DTSC will be notified of intrusive work overlying or within close proximity to the waste footprint. Both agencies will provide their approval in writing, indicating any specific procedures requiring implementation during the work and whether their personnel will be required to be on site during the activities.

The O&M Coordinator will notify the SSD, or assistant, once approval has been granted from the LEA and DTSC for intrusive activities within or in close proximity to the waste footprint, indicate whether the SOPs (Appendix F) and/or SMP (Appendix G) will need to be implemented, and ensure work practices are followed as specified in applicable sections of this Plan. The O&M Coordinator will provide advance notice of scheduled work to the DTSC and LEA in accordance with provisions in this Plan.

9.2. Intrusive Work in Areas Outlying the Waste Footprint

Intrusive work in areas outlying the waste footprint is defined as including construction, repairs, and/or maintenance activities at the school site where exposure to burned wastes/impacted soils is not anticipated and where the Cap, cover fill and ICs, such as hardscaped or landscaped caps, are not compromised. Typically, this work can be carried out during normal school hours. Work that would be disruptive to the classroom would be carried out when the students and staff are not present on site. Notification to the school community and public is not necessary for intrusive work in areas outlying the waste footprint.

Depending on the nature of the work, the following procedures will be implemented when conducting intrusive work in areas outlying the waste footprint.

- The O&M Coordinator will provide information including figures and cross sections indicating the waste footprint, locations and types of cap systems to selected contractors and O&M personnel to minimize the likelihood of intruding into the burned wastes/impacted soils.

- The O&M Professional will conduct inspections during construction and/or maintenance activities to ensure the work is being carried out in areas outlying the waste footprint. School maintenance staff will not be responsible for carrying out work to minimize the likelihood of exposure to burned wastes, unless they are properly trained in the procedures set forth in this Plan.
- In the event that burned wastes/impacted soils are inadvertently disturbed or the integrity of the Cap and ICs is compromised, the O&M Coordinator will be responsible for notifying DTSC and the LEA and implementing the appropriate procedures in accordance with the provisions described in this Plan, including the SMP and SOPs.

9.3. Intrusive Work in Areas in Close Proximity to or within the Waste Footprint

Intrusive activities conducted in areas underlain by burned wastes/impacted soils could result in the potential for increased human health risk and safety issues. The O&M Coordinator is responsible for notifying persons working in this potentially contaminated area of the construction restrictions and control procedures, so that the potential for exposures is limited.

Planned work intrusive to the Cap and within the waste footprint will be overseen by the O&M Professional and conducted in accordance with this Plan. The work will be carried out at times when school is not in session, and when students/staff are not on site. Public access will be restricted using fencing, signs, and caution tape, as appropriate. In addition, this work will be conducted by personnel trained to recognize burned wastes and who are familiar with the procedures to be followed should burned wastes be encountered. School maintenance staff will not be responsible for carrying out work to minimize the likelihood of exposure to burned wastes, unless they are properly trained. Following completion of the intrusive work, a Completion Report (Appendix H) will be prepared summarizing the intrusive work and will be incorporated into the Annual Inspection Summary Report to be submitted to DTSC and the LEA.

The following procedures are required by the District when performing intrusive work including construction, maintenance, or repair activities in areas within the waste footprint.

- Ensure that safeguards are in place to prevent or minimize exposures of burned wastes/impacted soils to persons at the school site.

- Prevent untrained or unauthorized personnel from performing intrusive work in areas underlain by burned wastes/impacted soils.
- Restore the integrity of the Cap if impaired or compromised by such activities.

The O&M Professional will oversee the following activities for intrusive work conducted in areas at the site underlain by burned wastes/impacted soils on behalf of the District.

- Provide information regarding the locations and types of Cap systems in place and cross-sectional views and locations of underlying burned wastes/impacted soils (i.e., waste footprint area) to the selected contractor(s).
- Advise construction workers, as appropriate, on recognizing subsurface conditions indicative of contamination such as burned wastes/impacted soils.
- Verify that contractors and their employees are appropriately trained and OSHA 40-hour HAZWOPER certified and will comply with federal and state OSHA requirements.
- Require contractors that are involved with the planned intrusive work follow established site-specific and community health and safety requirements while conducting intrusive work. Such contractors must have current 40-hour HAZWOPER training certification and annual 8-hour updates.
- Require construction and maintenance work be performed under and in accordance with a DTSC-approved SOP (Appendix F).
- Evaluate timelines, school, and work schedules to ensure that the planned intrusive work is completed at times that will minimize exposure risks.
- Require work be conducted using reasonable restrictions to school site access to reduce exposures to non-workers.
- Manage burned waste/impacted soils brought to the surface as a result of the intrusive activities, in accordance with the SOPs, SMP (Appendix G), and in compliance with applicable, relevant, and appropriate provisions of state and federal law.
- Comply with applicable, relevant, and appropriate federal, state, and local requirements.

9.3.1. Standard Operating Procedures

Intrusive work within or adjacent to the waste footprint will be conducted in accordance with a DTSC-approved SOP (Appendix F). The SOP should be reviewed and revised, as necessary, to be project-specific. Except in unplanned situations, the DTSC and the LEA will be provided with advance notification.

A general SOP is included in Appendix F of the Plan and includes the following items.

- Information pertaining to site access, maintenance, and security.
- Appropriate worker training and health and safety.
- Air monitoring requirements for workers.
- Required notifications to DTSC and the LEA.
- Management of excavated wastes and soils including stockpile segregation and dust control.
- Decontamination procedures for excavation equipment and workers.
- Descriptions of the planned Cap repair or fill replacement procedures including temporary measures, as applicable.
- Evaluation and use of fill materials.
- Appropriate figures indicating the area(s) of planned intrusive work in relation to the waste footprint, and the areas and types of Cap materials.

If site conditions have been modified and/or are not adequately addressed in the approved SOP, modifications or revisions to the existing SOP may be required detailing the planned procedures. These revisions will be submitted to the DTSC and the LEA in advance of conducting the activities.

9.3.2. Health and Safety Requirements

The District will designate an HSO responsible for maintaining compliance with the HASP when intrusive work is conducted in areas within and in close proximity to the waste footprint. The HSO will be a CIH with 40-hour HAZWOPER and 8-hour super-

visor training and field experience involving environmental investigations and remediation. Site-specific health and safety requirements will be identified by the CIH in accordance with the most current OSHA requirements including Title 29 CFR 1910.120 and Title 8 CCR Section 5192.

Site-specific health and safety requirements will be addressed in the HASP that describes the proposed intrusive activities, site characteristics, current conditions, site history, anticipated physical and chemical hazards, and methods of handling and controlling burned wastes/impacted soils to prevent or minimize exposures. All personnel who perform intrusive work must follow the site-specific HASP requirements. Contractors performing fieldwork in association with this Plan will either adopt and abide by these site-specific requirements or develop their own health and safety plans, which, at a minimum, meet the site-specific requirements. A "Plan Acceptance Form" will be included in the HASP and all on-site personnel will be required to read the HASP and sign the form indicating they understand and will comply with the provisions of the HASP prior to commencing intrusive work in areas within the waste footprint.

The HSO should be capable of and has the authority to:

- Identify existing and potential conditions in the work area, which are potentially hazardous, dangerous, or unsanitary.
- Identify potential hazards associated with the planned work and select appropriate control strategies to minimize exposures.
- Implement prompt corrective measures to eliminate such identified hazards.

Personnel performing the O&M activities as specified in this Plan will be responsible for operating in compliance with applicable portions of the most current requirements in the following documents.

- Title 29 CFR §1910.120, "Standards for Hazardous Waste Operations and Emergency Response (HAZWOPER)" and Title 8 CCR Section 5192 "Hazardous Waste Operations and Emergency Response."

- County of San Diego, DEH, Site Assessment and Mitigation Manual.
- Other pertinent requirements (e.g., local ordinances, etc.).

10. REPORTING AND RECORD KEEPING

This section of the Plan provides information on the reporting and record keeping requirements.

10.1. Reporting Requirements

The O&M Coordinator will compile appropriate information, prepare, and submit within the required timeframe, the following reports to the DTSC and the LEA:

- Annual Inspection Summary Reports,
- Completion Reports for intrusive work conducted in areas within the waste footprint, and
- Five-Year Review Reports.

10.2. Annual Inspection Summary Reports

Annual Inspection Summary Reports will summarize the periodic inspections and document completions, delays, or failures to repair any items identified as needing repairs. The report will be signed by the O&M Professional and O&M Coordinator, and will be submitted by the O&M Coordinator to the DTSC and the LEA for their review and approval no later than 60 days after the annual inspection has been conducted. Annual Inspection Summary Reports will follow the format outlined in Appendix I, and will be included and maintained in files at the school site and at the District.

Annual Inspection Summary Reports will generally include the following:

- Copies and a summary of the signed periodic inspection checklists completed since preparation of the previous Annual Inspection Summary Report.
- Results of the annual visual inspections and an evaluation of the condition of the Cap system.

- Descriptions of actions taken since completion of the previous O&M annual inspection including:
 - Identification of any repairs to the Cap and repair methods.
 - Any significant changes in site conditions or usage (e.g., grading, paving, utility trenching, playgrounds, or picnic areas).
 - Any additional on-site construction or other significant information that may relate to the Cap or impact the Cap function (e.g., installation of portable buildings or maintenance facilities, etc.).
- Copies of work orders and Completion Reports for intrusive work conducted in areas within the waste footprint since the previous O&M annual inspection.
- Descriptions of any maintenance or repairs identified or conducted during the O&M annual inspection.
- Descriptions of recommendations for Plan modifications.
- Description of actions planned or expected to be undertaken before the next O&M annual inspection that will impact the Cap and/or ICs.
- Recommendations concerning any required repairs to the Cap that were not completed.
- Photographs documenting site conditions pertaining to the Cap, annotated with captions relevant to the photograph.
- Conclusions regarding the ongoing effectiveness of the Cap.
- As applicable, documentation of additional investigation, monitoring, and/or mitigation activities required by DTSC and/or the LEA.

10.3. Completion Report for Intrusive Work

Within 60 days of completing intrusive work activities within or in close proximity to the waste footprint, a Completion Report will be prepared by the O&M Professional that summarizes the work conducted and include the following information:

- Dates when the work was conducted.
- Work locations indicated on appropriate maps and figures.
- Summary of work performed, including restoration of Cap systems, as applicable.

- Work practices implemented to prevent potential exposures of workers and others to potential contamination.
- Modifications, if any, to the approved SOP.
- Summary of site conditions in the area evaluated following completion of work.

The O&M Professional will incorporate the Completion Reports for intrusive work conducted during the year into the Annual Inspection Summary Report. The format for Completion Reports will follow the outline in Appendix H.

10.4. Five-Year Review Reports

The first Five-Year Review Report will be completed five years after DTSC approval of the RAW and this Plan. Subsequent five-year review reports will be completed by December 31 of every fifth year. The O&M Coordinator will submit the Five-Year Review report to the DTSC and the LEA for their review and approval within 60 days after completion of each scheduled Five-Year Inspection. Five-Year Review Reports will be maintained in files at the school site and the District.

The Five-Year Review report will generally follow the outline in Appendix J and will identify any incidents or problems with the Cap, and will evaluate system and component performance, effectiveness, and protectiveness. The Five-Year Review Report will provide conclusions and recommendations for any changes that may need to be implemented to maintain Cap effectiveness. In general, the Five-Year Review Reports will include, but not be limited to the following information: general information (e.g., purpose, summary of Cap systems, changes since the previous five-year review, etc.), narrative of observations, summary of topographic survey results, technical assessment issues (a summary of the information provided in the four previous Annual Inspection Summary Reports), conclusions, and recommendations. The Five-Year Review Report will include a technical assessment and evaluation of the ongoing protectiveness of the Cap during the five-year review. The format for five-year review reports will follow the outline in Appendix J. This evaluation will address the following issues:

- Whether the Cap is functioning as initially intended.

- Whether the RA objectives, goals, and criteria used at the time of the remedy selection remains valid.
- Whether there have been any significant changes to the distribution or concentrations of the subsurface materials at the school site, as applicable.
- Any new information that could possibly affect the protectiveness of the Cap.
- Whether modifications are needed to make this Plan more effective.

10.5. Notification and Reporting of Intrusive Work

Activities that are conducted in areas within or in close proximity to the waste footprint are restricted by DTSC and the LEA in accordance with this Plan. The O&M Coordinator will submit written notice to the DTSC and the LEA prior to conducting intrusive activities at the site regardless of whether they are within or outlying the waste footprint. Intrusive work within or adjacent to the waste footprint will be conducted in accordance with a DTSC-approved SOP, which is provided in Appendix F. Advance notification to DTSC and the LEA is required if the approved SOP is modified or substantially rewritten.

10.5.1. Notification Timeframes

Notification to DTSC and the LEA by the O&M Coordinator is required for the following activities and reports will be submitted to the DTSC and LEA as follows:

- Notify DTSC and the LEA 14 days in advance of any intrusive activities regardless of whether it will be conducted in areas within or outlying the waste footprint and when the work will be performed in accordance with the DTSC-approved SOP or will follow a modified SOP. DTSC approval of the modified SOP will be obtained prior to implementing the work.
- Notify DTSC and the LEA at least 30 days in advance of any intrusive activities regardless of whether it will be conducted in areas within or outlying the waste footprint when the work will be performed in accordance with a new SOP. DTSC approval of the modified SOP will be obtained prior to implementation of work.
- Notify DTSC and the LEA of unplanned events (e.g., slope failure, rilling, etc.) if not repaired within 14 days and submit a Completion Report within 60 days after completion of work.

- Completion Reports will be provided to the DTSC and the LEA within 60 days of completing the work and will be included in the Annual Inspection Summary Report.
- Annual Inspection Summary Reports and Five-Year Review Reports will be submitted to the DTSC and the LEA within 60 days of the inspection.

10.5.2. Electronic Mail Notice Format

Written communication to DTSC and the LEA may be submitted via e-mail. The e-mail notification to the DTSC or LEA project manager and unit supervisor will include information regarding where the work will be performed, including a site plan showing work area(s) in relation to the waste footprint, reason(s) for performing the work, a description of methodologies to conduct the work, expected subsurface conditions based on available information, a statement regarding whether the work is within the waste footprint, whether the work will be conducted in accordance with the SOP, and contact information for the O&M Coordinator and/or O&M Professional.

10.6. Record Keeping and Retention

All documentation records (e.g., data, reports, and other documents) prepared under this Plan will be maintained by the O&M Coordinator at the school site and in the District administrative offices. The records will be available for inspection upon request by the public, DTSC and LEA representatives. The records will include, but are not limited to:

- Inspection checklists; Annual Inspection Summary Reports; Five-Year Review Reports; Completion Reports for intrusive work conducted within or in close proximity to the waste footprint, and photographic documentation.
- Records of public inquiries for information about the burned wastes/impacted soils underlying a portion of the school site.
- Site investigation and mitigation documents (e.g., PEA, RAW, Removal Action Completion Report, O&M Agreement and Plan, SOP, SMP, etc.) for the site including photographs, design specifications, and as-built drawings.

All records will be retained by the O&M Coordinator for a minimum of seven years after the conclusion of each relevant activity. The O&M Coordinator will notify DTSC and the LEA in writing at least six months prior to destroying any documents prepared pursuant to this Plan. If requested by DTSC, the O&M Coordinator will make requested documents available for review or copy.

Because of the potential volume of paper that could be generated or stored, the O&M Coordinator may elect to maintain paper copies of the more recent Annual Inspection Summary Report and Five-Year Review Report, if applicable, and keep the rest as electronic files. The DTSC's Administrative Record for the school site is available for public inspection during office hours at the following DTSC location:

DTSC
5796 Corporate Avenue
Cypress, California 90630

11. SITE ACCESS

Upon request, access to the school site will be arranged and provided by the O&M Coordinator at reasonable times to DTSC and LEA representatives or O&M personnel.

12. VARIANCE, MODIFICATION AND TERMINATION OF THE O&M PLAN

The O&M Coordinator may seek variance, modification, and/or termination of this Plan at any time during the life of the Cap. For this Plan, variance refers to possible release from specific individual Plan requirements for a limited time, while modification refers to permanent revision of specific individual Plan requirements. The DTSC and the LEA may allow variance, modification, or termination of this Plan if they determine:

- it is protective of public health and safety and the environment, and
- it is neither feasible nor appropriate to continue this Plan for the existing Cap.

12.1. O&M Plan Variance

The O&M Coordinator may apply to DTSC and the LEA for a written variance from the provisions of this Plan. The DTSC and the LEA will evaluate each request and will grant a variance request only after determining that such a request would be protective of human health and the environment.

12.2. O&M Plan Modifications

When long-term performance of the selected Cap remedies has been confirmed, the O&M Coordinator may apply to the DTSC or the LEA to modify the requirements of this Plan based on site-specific conditions. Additionally, the DTSC and the LEA reserve the right to independently initiate appropriate Plan modifications. As a result, the DTSC and the LEA may require the following Plan modifications:

- Changes in the frequency of O&M activities.
- Modification, replacement, or addition of components to the Plan if the activities fail to achieve the O&M objectives of protecting public health, safety, and the environment.
- Evaluation, design, construction, and/or operation of additional remedial measures to achieve the O&M objectives.

12.3. Termination of O&M Plan

Based on review of a Five-Year Review Report or a subsequent Annual Inspection Summary Report, the DTSC and the LEA may determine the Cap has met either of the following performance criteria required for termination of O&M activities:

- Availability of new scientific information resulting in changes or modifications to the DTSC's technical criteria for evaluating unacceptable risk levels associated with lead and dioxins in soils.
- Although unanticipated, change in land use, where the school site is no longer used as an educational facility.

As required by HSC §25359.7, prior to the sale, lease or sublease of the site, or any portion thereof, the O&M Coordinator will provide the buyer, lessee, or sub-lessee with notice that burned wastes/impacted soils underlie a portion of the site. The LUC describes the restrictions associated with the site, and provides information regarding changes in site use and/or land transfers.

The DTSC and LEA will notify the O&M Coordinator in writing when continued O&M activities for the Cap are no longer required. Because the Cap is not anticipated to have any adverse impacts on building foundation systems or other components, removal and/or decommissioning of the Cap following termination of the O&M activities will not be required.

13. LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not described in this report may be encountered during subsequent activities. The background information described and relied upon for the preparation of this Plan is limited to the accuracy and availability of the sources reviewed.

This document is intended to be used only in its entirety. No portion of the document by itself is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

It should be understood that the conditions of the site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the District. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than those noted is undertaken at said parties' sole risk.

14. REFERENCES

- Agency for Toxic Substances and Disease Registry, 1999, ATSDR's Toxicological Profiles on CD-ROM. CRC Press, LLC.
- CalRecycle, 1998, LEA Advisory #56, Process for Evaluating and Remediating Burn Dump Site: dated November 4.
- CalRecycle, 2014, <http://www.calrecycle.ca.gov/SWFacilities/Directory/37-AB-0014/Detail/>; accessed in November.
- City of San Diego, 2003, Cleator Community Park Soil Sampling and Analysis Summary: undated.
- City of San Diego, 2007, Report on Activities and Findings from Sampling of a Portion of Study Area 3 within Cleator Community Park (DTSC Site Code 404627; CIWMB SWIS#37-AB-0014): dated July 10.
- Department of Toxic Substances Control, 2007, Approval of Study Area 3 Report, Western Boundary of Correia Middle School, San Diego, California (Site Code 404627): dated October 4.
- Department of Toxic Substances Control, 2008, E-mail Re: Summary of Groundwater Sampling Results for Correia Middle School (Site Code 404627-11): dated May 19.
- Department of Toxic Substances Control, 2014, Envirostor Website: <http://www.envirostor.dtsc.ca.gov/public/>; accessed in November.
- Kennedy, M.P., and Tan, S.S., 2008, Geologic Map of the San Diego 30' x 60' Quadrangle, California Geological Survey, Regional Geologic Map No. 3, Scale 1:100,000.
- Kleinfelder, 2002a, Draft Phase I Environmental Site Assessment, Correia Junior High School, San Diego, California: dated November 12.
- Kleinfelder, 2002b, Summary Report of Eroded Slope Review, Correia Junior High School, 4302 Valeta Street, San Diego, California: dated March 7.
- Kleinfelder, 2003a, Report of Preliminary Site Assessment of Surface Soils, Correia Middle School, San Diego, California: dated March 10.
- Kleinfelder, 2003b, Site Assessment Report, Correia Middle School, 4302 Valeta Street, San Diego, California: dated July 11.
- Kleinfelder, 2004, Burn Ash Management Plan, Correia Middle School, 4302 Valeta Street, San Diego, California: dated July 19.
- Ninyo & Moore, 2006, Preliminary Environmental Assessment Report, Correia Middle School, 4302 Valeta Street, San Diego, California: dated August 18.
- Ninyo & Moore, 2007, Revised Technical Memorandum for Supplemental Soil Sampling, Study Area 3, Correia Middle School, 4302 Valeta Street, San Diego, California: dated February 23.

Ninyo & Moore, 2007a, Technical Memorandum Report, Study Area 3, Correia Middle School, 4302 Valeta Street, San Diego, California: dated revised September 28.

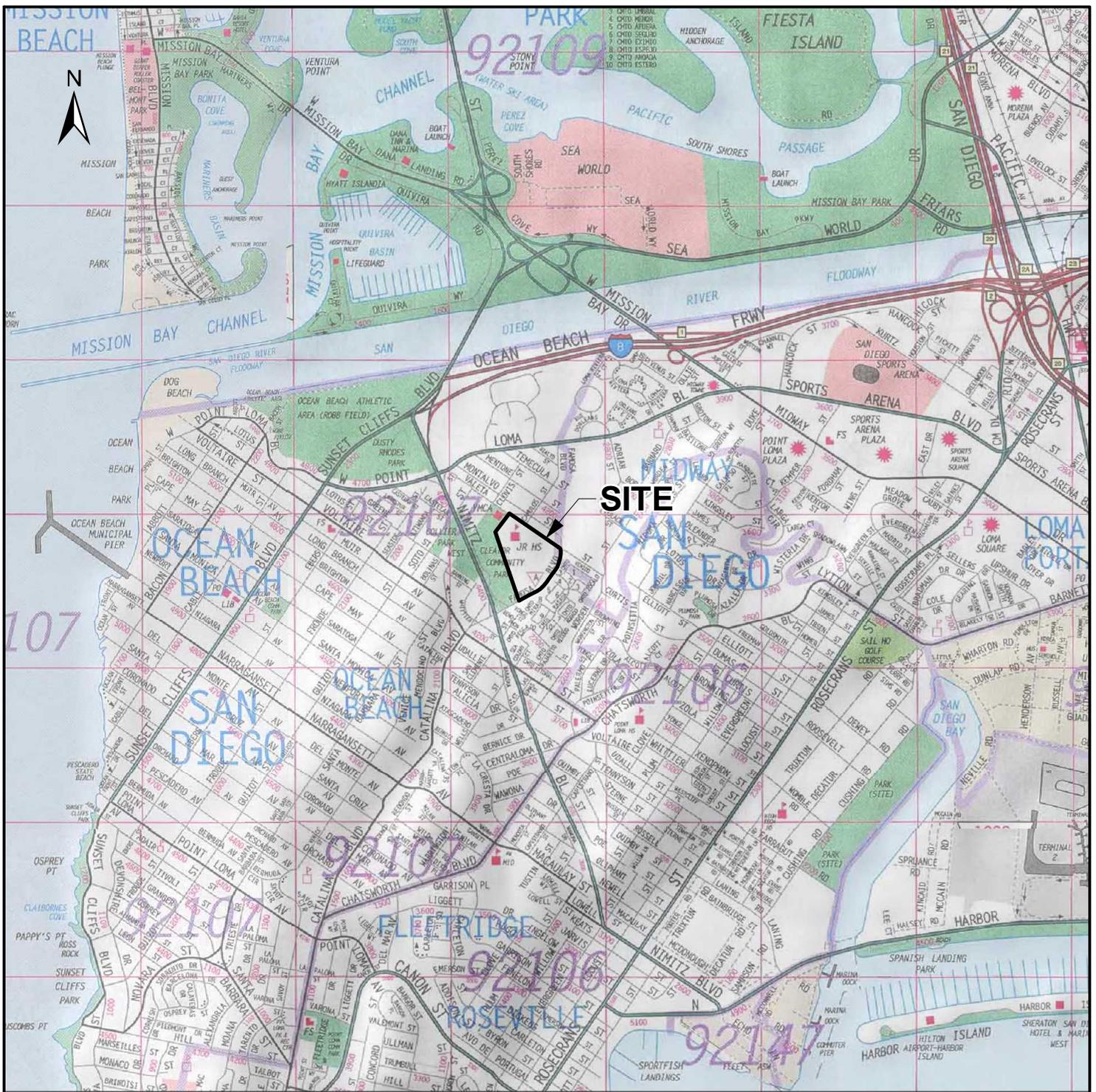
Ninyo & Moore, 2007b, Soil Management Plan, Correia Middle School, 4302 Valeta Street, San Diego, California: dated December 5.

Ninyo & Moore, 2008, Summary of Groundwater Sampling Results, Correia Middle School, 4302 Valeta Street, San Diego, California: dated May 2.

Ninyo & Moore, 2011, Final Removal Action Work Plan, Correia Middle School, 4302 Valeta Street, San Diego, California: dated June 3.

San Diego Unified School District, 2007, Correia Junior High School, Storm Water Quality Improvements: dated February 22.

United States Geological Survey, 1996, Point Loma Quadrangle, California: 7.5-minute series (topographic), Scale 1:24,000.



SOURCE: 2008 Thomas Guide for San Diego County, Street Guide and Directory; Map © Rand McNally, R.L.07-S-129

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE



1_105338103_SL.mxd 11/14/2014 JDJL



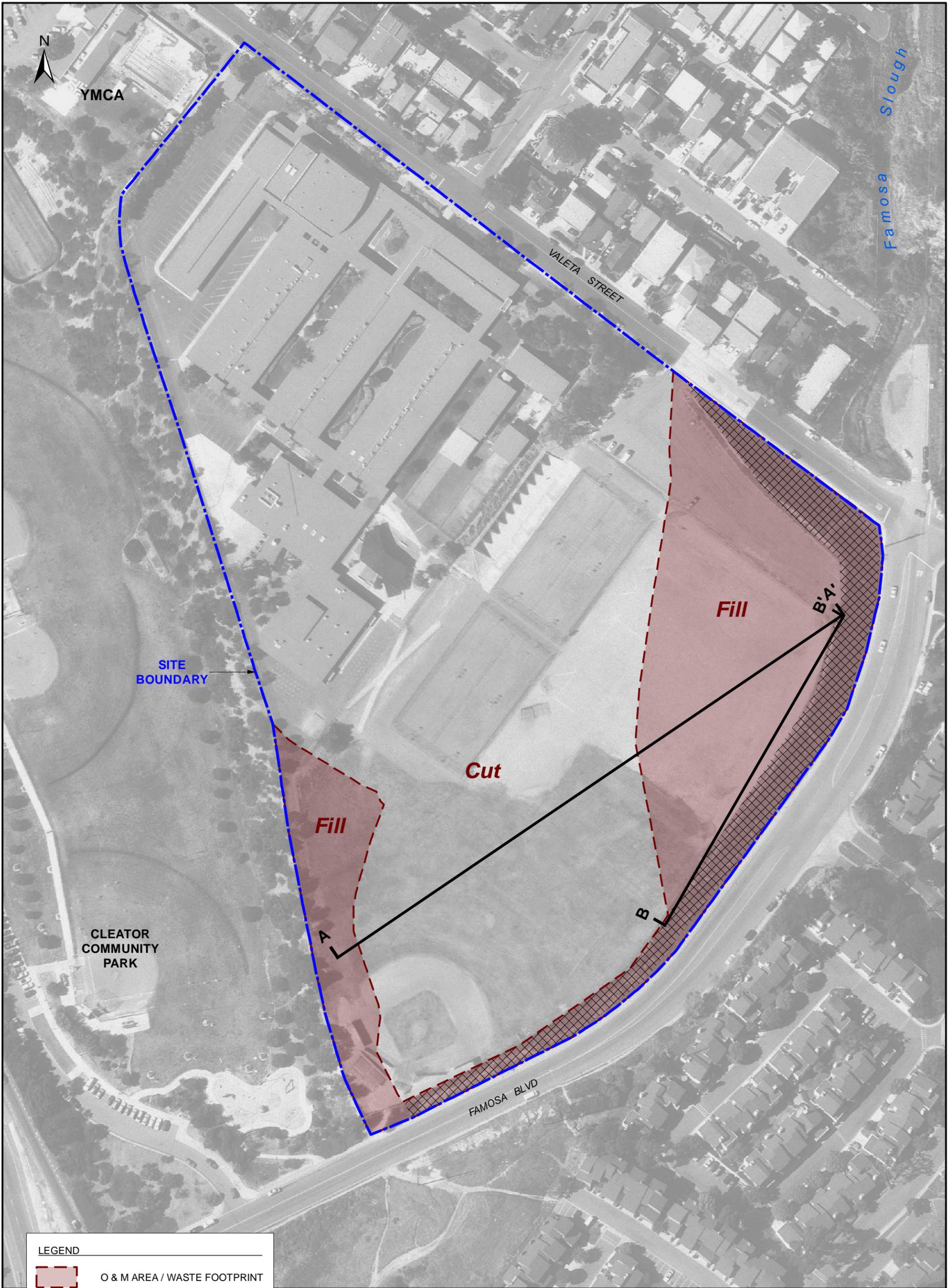
SITE LOCATION

FIGURE

PROJECT NO.	DATE
105338103	11/14

CORREIA MIDDLE SCHOOL
SAN DIEGO, CALIFORNIA

1



Source: Aerial Photograph April 2004-105338064_Rem_Action.mxd

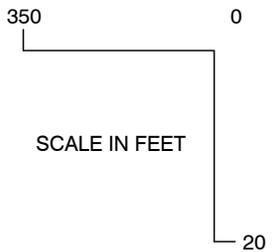
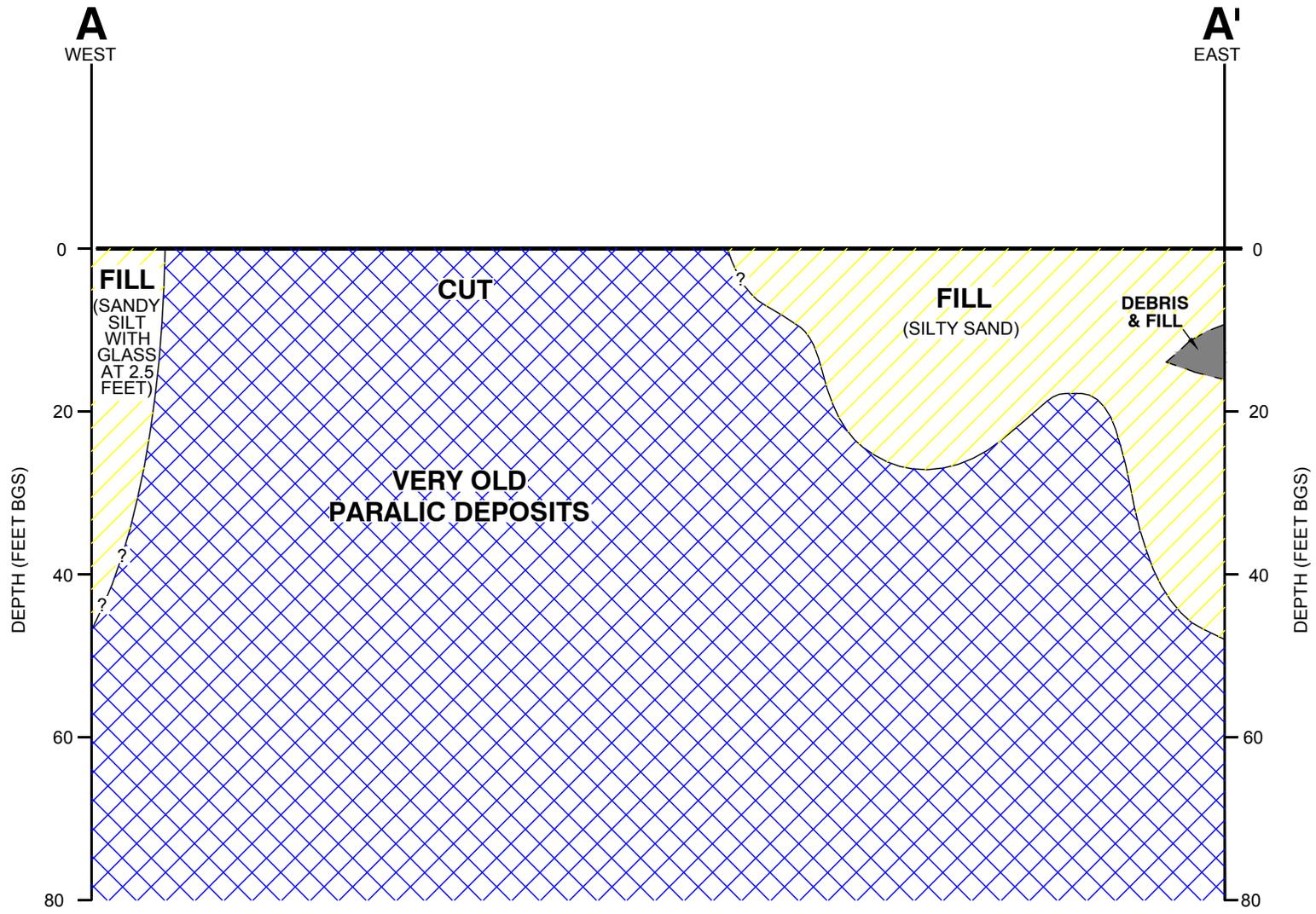
LEGEND

-  O & M AREA / WASTE FOOTPRINT
-  SLOPED AREA
-  CROSS SECTION



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

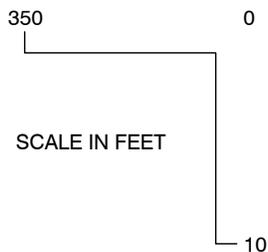
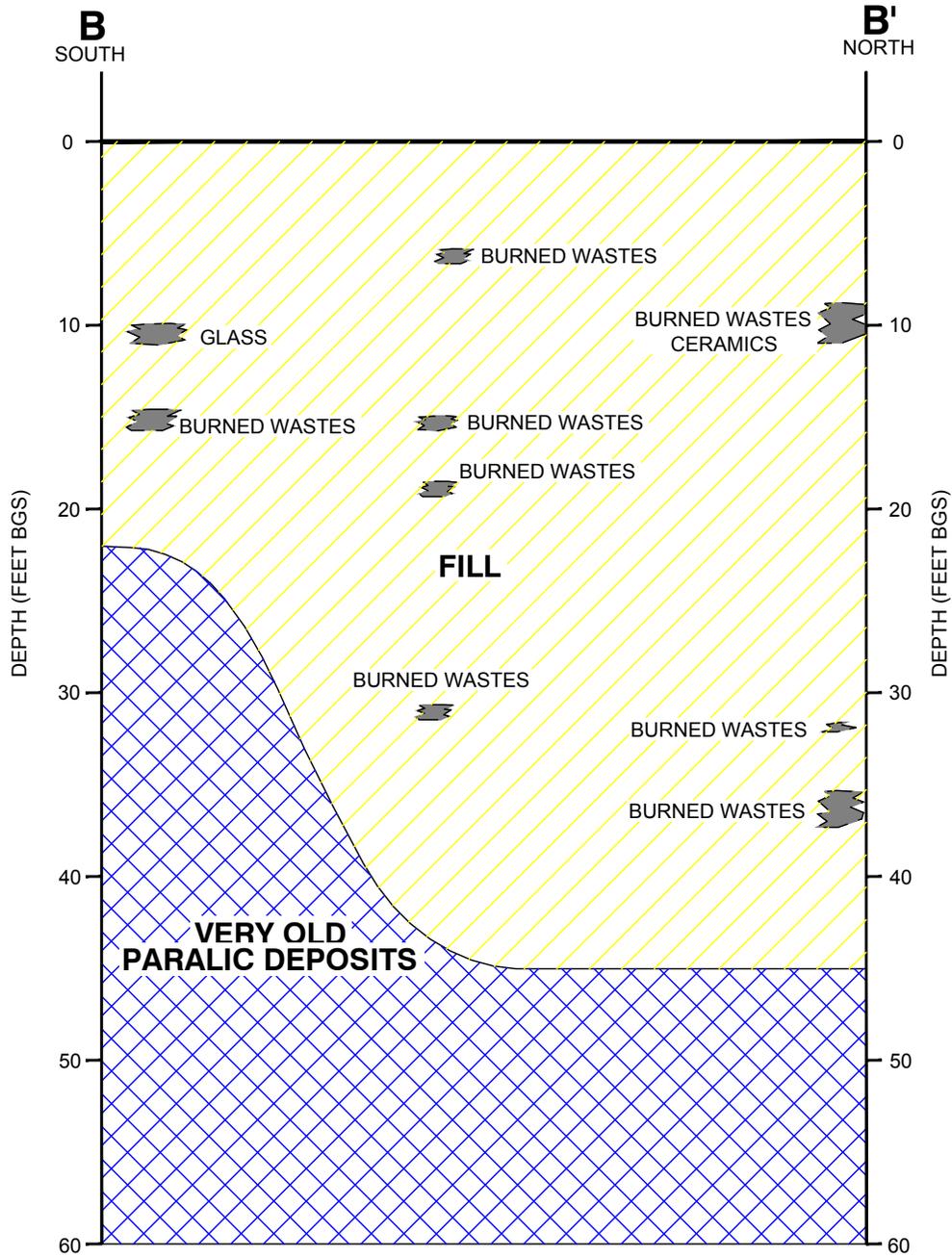
Ninyo & Moore		SITE PLAN	FIGURE
PROJECT NO.	DATE	CORREIA MIDDLE SCHOOL SAN DIEGO, CALIFORNIA	2
105338103	11/14		



NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

<i>Ninyo & Moore</i>		CROSS SECTION A-A'	FIGURE 3
PROJECT NO.	DATE	CORREIA MIDDLE SCHOOL SAN DIEGO, CALIFORNIA	
105338103	11/14		

3 105338103 xsec a-a'.dwg



NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore

CROSS SECTION B-B'

FIGURE

PROJECT NO.
105338103

DATE
11/14

CORREIA MIDDLE SCHOOL
SAN DIEGO, CALIFORNIA

4



Source: Aerial Photograph April 2004-105338064_Rem_Action.mxd

LEGEND	
	APPROXIMATE LOCATION OF PROPOSED RETAINING WALL
	APPROXIMATE LOCATION OF PROTECTIVE SOIL BARRIER CAP
	APPROXIMATE LOCATION OF PROPOSED SLOPE STABILIZATION
	ASPHALT PAVING
	DECOMPOSED GRANITE (DG)
	GRASS / VEGETATION



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore		CAP MATERIALS AND REMEDIAL ACTION AREA	FIGURE 5
PROJECT NO. 105338103	DATE 11/14		

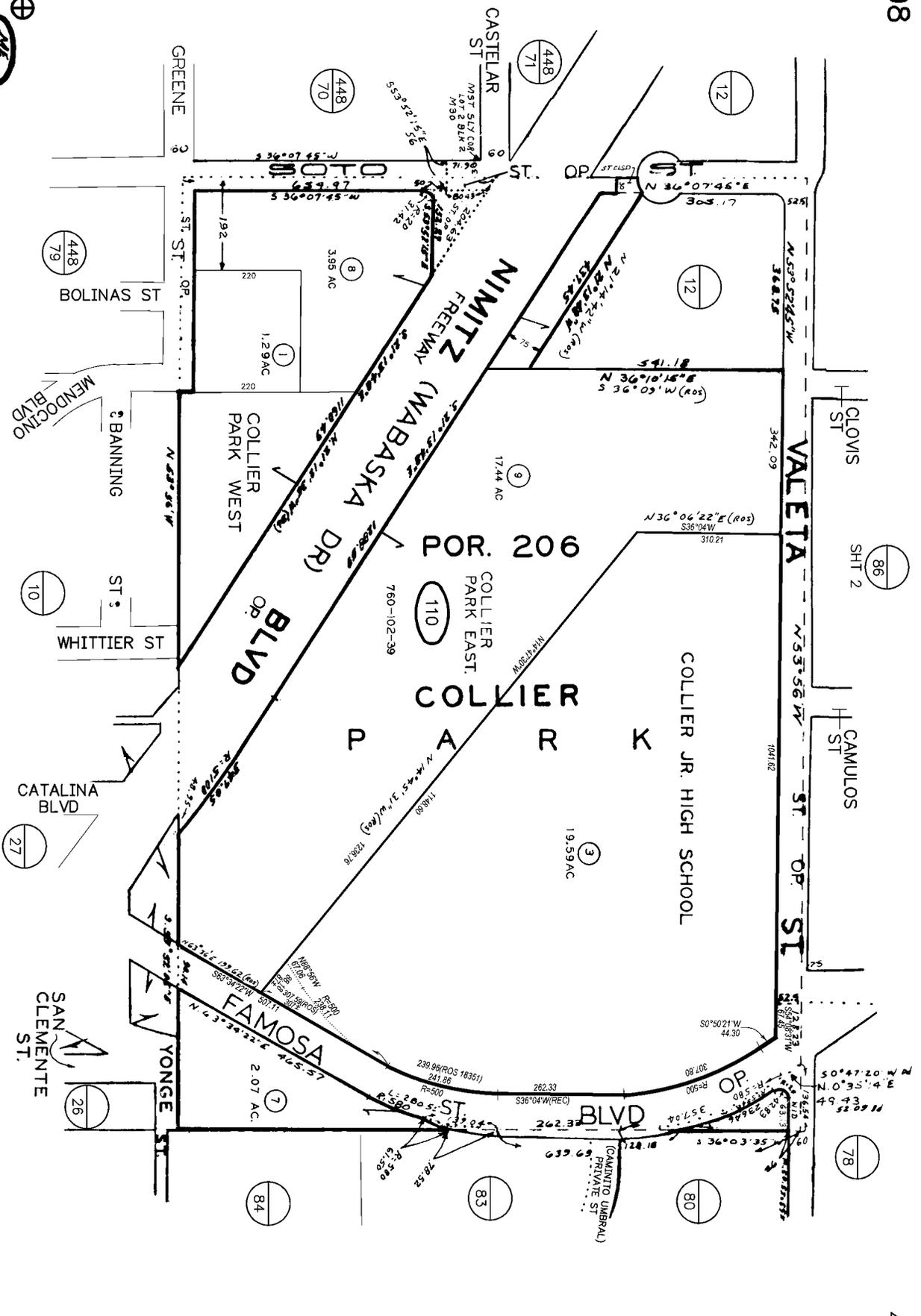
5_105338103_CM_RA.mxd 11/14/2014 JDL

APPENDIX A
SAN DIEGO COUNTY ASSESSOR'S MAP

SAN DIEGO COUNTY
ASSESSOR'S MAP
BOOK 449 PAGE 11

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR ANY ERRORS OR OMISSIONS. THE ASSessor'S OFFICE IS NOT RESPONSIBLE FOR ANY LOCAL SUBDIVISION OR BILLING CHANGES.

MN 36 - PUEBLO LANDS
LS 56, ROS, 8805, 9690, 18351



02/08/2005 RZ ✓

1"=200'

CHANGES	
BLK OLD	NEW/CUT
110	4 58116 13 16666
5	617 82 2416
6	843 99 1805

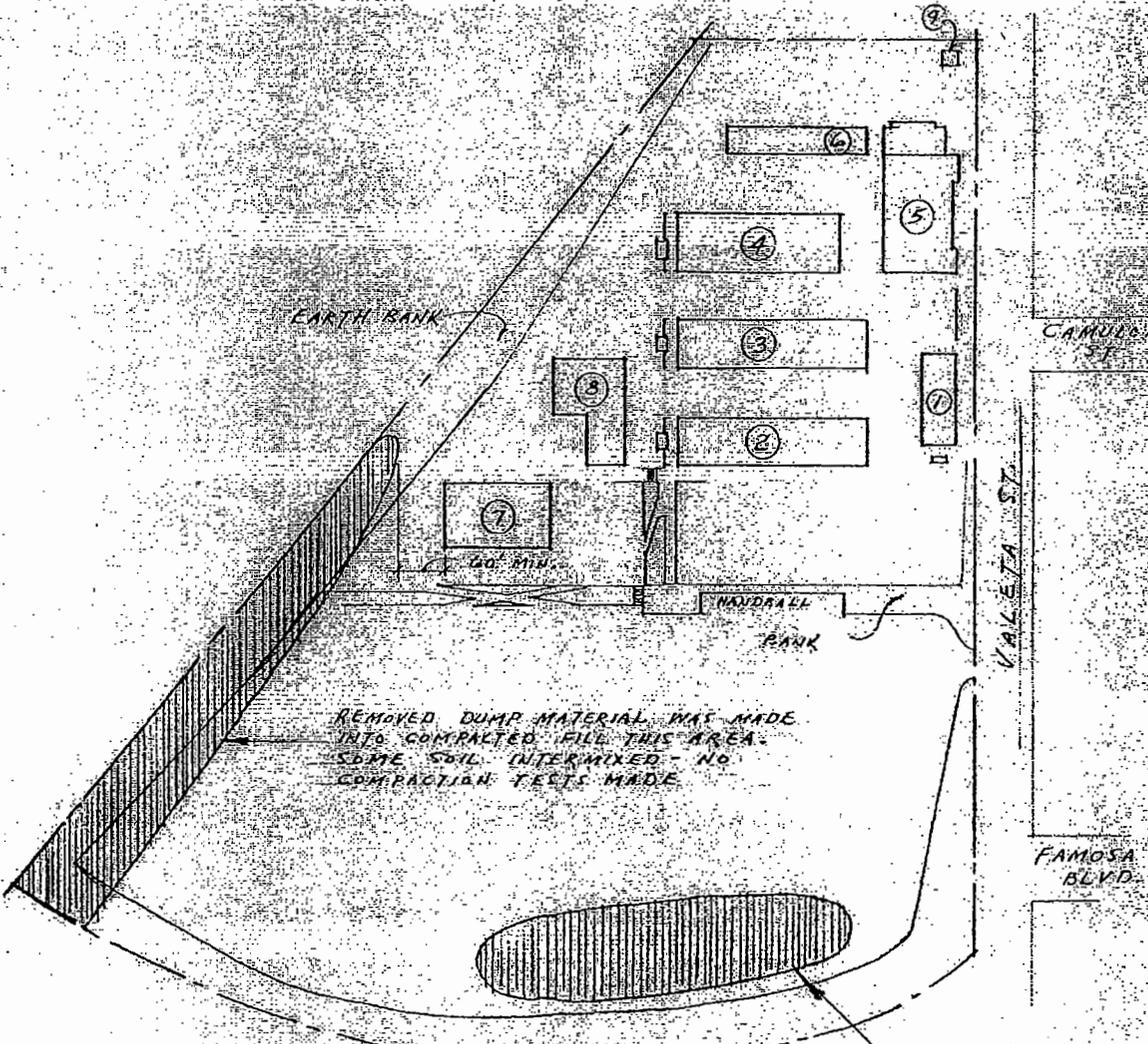
APPENDIX B
O&M PERSONNEL ROLES AND RESPONSIBILITIES

O&M Personnel Roles and Responsibilities

Task	O&M Coordina- tor	O&M Profes- sional	School Site Designee	Health and Safe- ty Officer
1. Training				
Coordinate training and refresher requirements for District administrators, faculty and maintenance personnel	✓			
Track and schedule training and refresher requirements for District staff	✓			
Coordinate O&M training for designated contractors working at site	✓			
2. Inspections, Maintenance, and Repairs				
Direct monthly/annual/5-year inspections of engineered controls and completion of the inspection checklists in compliance with this Plan	✓	✓		
Monitor onsite maintenance activities for compliance with dust mitigation and air monitoring requirements		✓		✓
Direct and oversee maintenance activities involving disturbance of the Cap to ensure that SOP is followed		✓		✓
Direct and oversee implementation of a contingency plan in compliance with this Plan; obtain DTSC approval of work plan when required		✓		
Notify District staff and parents regarding this Plan; respond to questions			✓	
Perform inspections, maintenance and repairs		✓		
3. Record Keeping and Checklists				
Maintain records of all O&M-related activities	✓			
Document activities that will potentially disturb the Cap	✓			
Maintain and conduct monthly review of site files of maintenance reports	✓			
Complete and submit maintenance reports and records for agency review	✓			
Document HAZWOPER training for designated contractors and staff	✓			✓
Complete inspection checklist and file checklist	✓	✓		
Complete inspection checklist and file checklist	✓	✓		
4. Record Keeping and Checklists				
Coordinate reporting to regulatory agencies	✓			
Notify regulatory agencies of planned activities that disturb the Cap, but conducted pursuant to SOP	✓			
Notify regulatory agencies of planned or unplanned activities conducted in accordance with a work plan approved by DTSC	✓			
Develop, complete and submit periodic/annual/5-year reports	✓			

APPENDIX C
CAP INSPECTION LIST

APPENDIX D
AS-BUILT GRADING PLAN



--- A SMALL AMOUNT OF DUMP MATERIAL WAS MIXED WITH
 --- CLEAN SOIL AND MADE INTO COMPACTED FILL THIS AREA.
 --- COMPACTON TESTS WERE MADE AND RESULTS WERE
 --- ALL ABOVE 50

PLAN SHOWING DISPOSITION OF
EXCAVATED DUMP MATERIAL DESCRIBED
IN CHANGE ORDER #1

CLYDE HUFBAUER • ARCHITECT
 1075 FIFTH AVENUE - SAN DIEGO 1, CALIFORNIA

Clyde Hufbauer

CHANGE SHEET
 COLLIER JUNIOR HIGH SCHOOL
 VALETA ST. AT CAMULOS ST., SAN DIEGO
 SAN DIEGO UNIFIED SCHOOL DISTRICT

APPL. # 16004

DATE FEB. 11, 1958

HILKUP-LINEU

FEB 03 1958

APPENDIX E
SLOPE STABILIZATION AND RETAINING WALL DESIGN PLANS
(PENDING)

APPENDIX F
STANDARD OPERATING PROCEDURES

**STANDARD OPERATING PROCEDURES
CORREIA MIDDLE SCHOOL
4302 VALETA STREET
SAN DIEGO, CALIFORNIA**

PREPARED FOR:
San Diego Unified School District
Physical Plant Operations
4860 Ruffner Street
San Diego, California 92111

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
5710 Ruffin Road
San Diego, California 92123

December 27, 2011
Project No. 105338072

TABLE OF CONTENTS

	<u>Page</u>
1. INTRODUCTION	1
1.1. Objectives	1
1.2. Hazard Summary	1
1.3. Intrusive Work	2
1.3.1. Areas Outlying the Waste Footprint	2
1.3.2. Areas within the Waste Footprint	3
1.4. Operations and Maintenance Coordinator	4
1.5. Operations and Maintenance Professional	5
1.6. Contractor Qualifications	6
1.7. Modified or New Standard Operating Procedures	7
2. NOTIFICATION	7
2.1. Notification to Department of Toxic Substances Control	7
2.1.1. Intrusive Work Duration	7
2.1.2. Implementation of Modified or New SOP	7
2.1.3. Notice of Contingence or Emergencies	8
2.2. Public Right to Know	9
2.2.1. Notification to School Community Members	9
2.2.2. Notification to Contractor	9
3. WORK ORDER	9
4. APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS	10
4.1. Heath and Safety Requirements	10
4.1.1. Competent Person	10
4.1.2. Exposure Assessment	10
4.1.3. Personal Protective Equipment	11
4.1.4. Medical Surveillance	11
4.1.5. Other	11
4.2. Dust Control	12
4.2.1. Dust Mitigation Plan	12
4.2.2. Engineering Controls	12
4.2.3. Cease Operation	13
4.3. Run-on and Run-off Control	13
4.3.1. Storm Water Pollution Prevention Plan	13
4.3.2. Run-on and Run-off Control	13
4.4. Soil Management Plan	14
5. IMPLEMENTATION OF SOP	14
5.1. Field Documentation	14
5.1.1. Field Logs	14
5.1.2. Photographs	15
5.2. Site Preparation	15
5.2.1. Work Area Delineation and Security Measures	15

5.2.2.	Utility Survey and Clearance	15
5.2.3.	Permits and Plan.....	16
5.3.	Field Work.....	16
5.3.1.	Confined Space Entry Requirements	16
5.3.2.	Intrusive Work Activities.....	17
5.4.	Decontamination.....	17
5.4.1.	Work Area.....	17
5.4.2.	Decontamination of Workers	17
5.4.3.	Decontamination of Equipment and/or Trucks	17
5.5.	Backfill, Compaction, and Site Restoration	17
5.6.	Work Completion and Inspection.....	18

1. INTRODUCTION

These standard operating procedures (SOP) are intended for use by registered professionals, or persons under their supervision, for general guidance during intrusive work conducted at Correia Middle School (site). The site is located at 4302 Valeta Street in San Diego, California. This SOP details the procedures to be implemented should intrusive work be necessary within or in close proximity to the waste footprint at the site.

1.1. Objectives

The purpose of this SOP is to prevent uncontrolled exposures of burned wastes/impacted soils and protect the health of students, faculty, staff, Operations and Maintenance (O&M) personnel, and visitors at the school site. This SOP may be modified and/or updated as needed, to reflect current site conditions and/or to address the specific intrusive activities planned to be conducted; however, the procedures employed should be documented on daily field reports and included in the final project report. For the purposes of this SOP, intrusive activities include activities that involve the disturbance of the Cap and underlying wastes/soils (e.g., slope repair, borings, trenching, grading, etc.)

1.2. Hazard Summary

The media of concern for the site are burned wastes and soils containing chemicals of concern (COCs) and/or contaminants of potential concern (COPCs). The COCs at the site are lead and dioxin as 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). The COPCs for the site are antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, silver, vanadium, zinc, naphthalene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)pyrene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, and indeno(1,2,3-c,d)pyrene, most of which are typically associated with burned wastes.

Previous investigations evaluated the chemical characteristics of the burned wastes and cover fill and identified the COCs in the waste footprint as lead and dioxin (as 2,3,7,8-TCDD toxic equivalent). The maximum concentrations of lead and dioxin in burned wastes was 69,100 milligrams per kilogram at a depth of 2.5 feet below ground surface (bgs) and

59.9 parts per trillion at a depth of 5 feet bgs, respectively, on the west side of the playing field at the top of the slope leading down to Cleator Community Park.

1.3. Intrusive Work

The site is separated into two areas, which include areas outlying the waste footprint and areas within the waste footprint, as described below.

1.3.1. Areas Outlying the Waste Footprint

Intrusive activities at the school site are restricted by Department of Toxic Substances Control (DTSC) only when exposures of burned waste/impacted soils are reasonably anticipated or when releases occur. Notification to DTSC of intrusive activities is not required unless burned wastes/impacted soils or the Cap systems are expected to be disturbed, or are inadvertently disturbed. Intrusive work outlying the waste footprint includes construction, repairs, and/or maintenance activities where exposures to burned wastes/impacted soils is not anticipated and where the integrity of the engineered controls are not compromised.

The O&M Plan requires that the following procedures occur when conducting intrusive work outlying the waste footprint:

- O&M Coordinator will provide information including figures and cross sections indicating the waste footprint and locations and types of Cap systems to selected contractors and O&M personnel to minimize the likelihood of unknowingly intruding into the burned wastes/impacted soils.
- O&M Professional will conduct inspections during construction and/or maintenance activities to ensure the work is being carried out in areas outlying the waste footprint. School maintenance staff will not be responsible for carrying out work to minimize the likelihood of exposure to burned wastes/impacted soils, unless they are properly trained in the procedures set forth in the O&M Plan.
- In the event that burned wastes/impacted soils are inadvertently disturbed or the integrity of the Cap and Institutional Controls are compromised, the O&M Coordinator will be responsible for notifying DTSC and the City of San Diego Solid Waste Local Enforcement Agency (LEA) and implementing the appropriate procedures in accordance with the provisions described in the O&M Plan.

1.3.2. Areas within the Waste Footprint

Intrusive activities conducted in areas underlain by burned wastes/impacted soils could result in the potential for increased human health risk and safety issues. The O&M Coordinator is responsible for notifying persons working in this potentially contaminated area of the construction restrictions and control procedures, so that the potential for exposures is limited.

Planned work intrusive to the Cap and within the waste footprint or in close proximity to the waste footprint will be overseen by the O&M Professional and conducted in accordance with the O&M Plan. The work will be carried out at times when school is not in session, and when students/staff are not on site. Public access will be restricted using fencing, signs, and caution tape, as appropriate.

The following procedures are required by the San Diego Unified School District (District) when performing intrusive work including construction, maintenance, or repair activities in areas within the waste footprint.

- Ensure that safeguards are in place to prevent or minimize exposures of burned wastes/impacted soils to persons at the school site.
- Prevent untrained or unauthorized personnel from performing intrusive work in areas underlain by burned wastes/impacted soils.
- Restore the integrity of the Cap if impaired or compromised by such activities.

The O&M Professional will oversee the following activities for intrusive work conducted in areas at the site underlain by burned wastes/impacted soils on behalf of the District.

- Provide information regarding the locations and types of Cap systems in place and cross-sectional views and locations of underlying burned wastes/impacted soils (i.e., waste footprint area) to the selected contractor(s).
- Advise construction workers, as appropriate, on recognizing subsurface conditions indicative of contamination such as burned wastes/impacted soils.

- Require contractors to perform work in accordance with the Soil Management Plan prepared by Ninyo & Moore, dated December 5, 2007 that is included as Appendix G to the O&M Plan.
- Require contractors that are involved with the planned intrusive work follow established site-specific health and safety requirements while conducting intrusive work. Such contractors must have current 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training certification and annual 8-hour updates.
- Verify that contractors and their employees are appropriately trained and Occupational Health and Safety Administration (OSHA) 40-hour HAZWOPER certified and will comply with federal and state OSHA requirements.

1.4. Operations and Maintenance Coordinator

This section identifies the O&M Coordinator, provides contact information, and indicates the responsibilities of the person assigned this role.

O&M Coordinator

Mr. Don Webb

Director, Construction Management Department

School District Name Address

San Diego Unified School District
Physical Plant Operations Center
Construction Management Office
4860 Ruffner Street
San Diego, California 92111

Telephone Numbers

(858) 573-5712 (office)

(858) 573-5881 (fax)

Electronic Mail Address

dwebb1@sandi.net

The responsibilities of the O&M Coordinator will generally include the following:

- Implementing the O&M Plan.
- Familiarizing themselves with site conditions, locations, and compositions of the Cap.

- Evaluating work orders to determine whether proposed work will impact or intrude into the Cap (i.e., within the waste footprint), and potentially disturb the underlying burned wastes/impacted soils.
- Overseeing implementation of this SOP for intrusive work that will impact or intrude into the Cap and potentially disturb underlying burned wastes/impacted soils.
- Coordinating and conducting communications between the DTSC and on behalf of the District for the site including receiving and submitting notices, comments, documents, reports, approvals, decisions, and other communications.
- Overseeing provisions of inspection training.
- Accompanying the O&M Professional during annual inspections.
- Submitting the O&M Plan and subsequent reports, including Annual Inspection Summary Reports, Five-Year Review Reports, and Intrusive Work Completion/Incident Reports for work conducted in areas underlain by burned wastes/impacted soils.
- Ensuring that issues pertaining to O&M are brought to the attention of the District's Board as appropriate, including requests for ongoing appropriations of funds and notification in the event that any exposures of burned wastes/impacted soils occurs at the site.
- Contacting appropriate regulatory agencies such as the City of San Diego LEA and DTSC prior to conducting intrusive work that will impact or intrude into the Cap and potentially disturb underlying burned wastes/impacted soils or in the event of Cap failure.

1.5. Operations and Maintenance Professional

This section provides contact information and responsibilities of the O&M Professional. Pursuant to Business and Professions Code, Chapters 7 and 12.5, and the California Code of Regulations (CCR), Title 16, Chapters 5 and 29, the O&M Professional is a California-registered professional (e.g., engineer, geologist), with knowledge of the evaluation and maintenance of Cap systems at former burn sites/landfills, and is familiar with the Cap at the site. The O&M Professional also has expertise and experience with slope stability issues, and more specifically the maintenance of cover systems on slopes. The District may also elect to contract to an outside environmental professional to serve as the O&M Professional. The currently designated O&M Professional is:

O&M Professional

Mr. Loren Chico (*California Professional Engineer C-55411*)

Company Name

San Diego Unified School District
Maintenance & Operations Center
4860 Ruffner Street
San Diego, California 92111

Telephone Numbers

(858) 573-5731 (office)
(619) 606-1031 (cell)
(858) 573-1772 (fax)

Electronic Mail Address

lchico@sandi.net

The responsibilities of the O&M Professional will generally include the following:

- Conducting monthly, quarterly, annual and five year inspections and reviews.
- Preparing and signing Annual Inspection Summary Reports and Five-Year Review Reports.
- Directing oversight of intrusive cap work within the waste footprint.
- Providing professional environmental services, as necessary pertaining to the Cap at the site. Environmental services may include collecting samples and laboratory analysis if burned wastes/impacted soils are observed.

1.6. Contractor Qualifications

Contractors conducting intrusive work within the waste footprint will have 40-hour HAZWOPER training and annual 8-hour updates, as well as field experience involving environmental investigations and remediation. Site-specific health and safety requirements will be identified by the certified-industrial hygienist (CIH) in accordance with the most current OSHA requirements including Title 29 Code of Federal Regulations (CFR) 1910.120.

Training provided to contractors will supplement the HAZWOPER training and shall include, but not be limited to, the following subjects: methods of recognizing burned wastes/impacted soils, location of waste footprint, health effects associated with burned

wastes exposure, appropriate hazard controls and work practices to prevent exposures to burned wastes/impacted soils.

1.7. Modified or New Standard Operating Procedures

It is the responsibility of the O&M Coordinator to notify the DTSC if there is any change to the SOP whether or not the change is permanent or temporary. It is required that the DTSC be notified of any modifications to the SOP 14 days prior to conducting intrusive work within the waste footprint regardless of the duration of the project. The DTSC requires 30 days prior notice of a new SOP regardless of the duration of the project.

2. NOTIFICATION

This section provides information on notification procedures to be followed if intrusive work is being conducted at the site.

2.1. Notification to Department of Toxic Substances Control

The following sections describe the notifications to DTSC.

2.1.1. Intrusive Work Duration

Prior to the start of a project, the O&M Coordinator will submit a written request for review to DTSC, which will include a scope of work and duration of the project. The DTSC may elect to have personnel on-site during the work activities based on the scope and duration of the project.

2.1.2. Implementation of Modified or New SOP

The O&M Coordinator is responsible for providing the O&M Professional and contractors with a copy of the project-specific SOP. The O&M Professional, under the supervision of the O&M Coordinator, will be responsible for ensuring that the SOP is correctly implemented.

2.1.3. Notice of Contingence or Emergencies

When personnel discover or witness an event that constitutes an emergency (as described in Section 8 of the O&M Plan), if safe to do so that person will immediately attempt to determine the source, nature, and location of the emergency situation and immediately report the occurrence to the O&M Coordinator. The O&M Coordinator will notify the proper response agencies and implement the general response procedures listed below.

- Remove non-essential personnel from the location of the incident and restrict access to the incident area.
- Remove non-essential equipment, as necessary and to the extent feasible.
- Identify the nearest source(s) of available assistance, which may include public agencies, District personnel, equipment, or materials.
- The O&M Coordinator will record the events and conduct follow up actions including completing injury reports, as necessary, and documenting emergency actions.
- The O&M Coordinator will notify the LEA and DTSC in writing within 24 hours of discovering the event/incident.
- The O&M Coordinator will conduct surveillance of the incident area and document findings in writing and with photographs. In addition, any necessary monitoring will be conducted to assess whether the incident affected adjacent areas of the site and/or off-site properties.
- In the event of slope failure, a temporary plastic covering or vinyl sheeting will be placed over the slide materials as an interim measure to reduce future erosion. Sand bags will be placed at the foot of the slide to reduce or inhibit further movement. The O&M Coordinator will notify the LEA and DTSC of the slope failure regardless of whether wastes were exposed as a result of the slide. Permanent repair of the Cap will begin within ten working days after the DTSC and/or LEA has approved the planned response action.
- The O&M Coordinator will have immediate access to, at a minimum, a first aid kit, empty sandbags, plastic or vinyl sheeting, and a shovel.
- The O&M Coordinator will document site conditions before, during, and after repairs and include this information in the Annual Site Inspection Report.

2.2. Public Right to Know

The following sections describe public outreach activities that will occur prior to conducting intrusive work within the waste footprint.

2.2.1. Notification to School Community Members

School community members will be notified in writing prior to intrusive work within the waste footprint. The correspondence will include the type of work, location, scheduled dates, and duration of the project. In addition, it will be noted that the work will be performed during non-school hours (e.g., weekends, holidays, breaks).

2.2.2. Notification to Contractor

Contractors hired to perform intrusive work within the waste footprint (or in close proximity) will be trained and have experience in recognizing burned wastes/impacted soils. Specifications provided to the contractor for intrusive activities will include information regarding the site history and potential to encounter burned wastes/impacted soils. The contractor will be provided with documents specific to the burned wastes/impacted soils at the site, including this SOP or a revised project-specific SOP and the soil management plan (SMP).

3. WORK ORDER

Intrusive activities at the school site are restricted by DTSC in accordance with the O&M Plan when conducted in areas overlying or in close proximity to the waste footprint. Planned intrusive work to the Cap includes construction or maintenance work activities that may disturb or cause exposure of the burned wastes/impacted soils, including but not limited to: digging, trenching or excavating; drilling; grading; and other soil movement that may penetrate or otherwise compromise the Cap, thereby creating potential pathway(s) for possible human exposures to burned wastes/impacted soils.

The School Site Designee (SSD), or assistant, will submit a work order to the Physical Plant Operations Office at the District. The work order clerk will submit the order to the O&M Coordinator, who will subsequently notify the LEA and DTSC of intrusive work overlying (or in

close proximity to) the waste footprint, as necessary. Both agencies will provide their approval in writing, indicating any specific procedures requiring implementation during the work and whether their personnel will be required to be on site during the activities.

The O&M Coordinator will notify the SSD once approval has been granted from the LEA and DTSC, indicate whether these SOPs and/or SMP will need to be implemented, and ensure work practices are followed as specified in applicable sections of the O&M Plan. The O&M Coordinator will provide 48-hour advance notice of scheduled work to the DTSC and LEA in accordance with provisions in the O&M Plan.

4. APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

This section discusses selected applicable or relevant and appropriate requirements associated with this SOP.

4.1. Health and Safety Requirements

The following sections describe the health and safety requirements associated with intrusive work within the waste footprint. A separate project-specific health and safety plan will be prepared for prior to intrusive work activities.

4.1.1. Competent Person

According to 29 CFR 1926.32 (f), a competent person is defined as one who is capable of identifying burned wastes/impacted soils and selecting the appropriate control strategy for exposure to these materials and who has the authority to take prompt corrective measures to eliminate hazards.

4.1.2. Exposure Assessment

A competent person conducts an exposure assessment immediately before or at the initiation of the planned activities to ascertain expected exposures during that operation. The assessment must be completed in time to provide information necessary to assure

that all control systems planned are appropriate for that operation and will work properly.

4.1.3. Personal Protective Equipment

Personal protective equipment will be required during intrusive work activities, as indicated in the following table.

Personal Protective Equipment (potential or actual chemical exposure)

Task	Hazard	Level	Body	Respirator	Skin	Other
Excavation of burned wastes/ impacted soils	Inhalation	C or D	Normal work clothes Long pants Tyvek®, if necessary	Half-face with HEPA ^a and OV ^b	Latex or nitrile gloves	Hard hat Safety glasses
Decontamination of equipment	Skin contact	D	Normal work clothes Long pants Tyvek®, if necessary	Half-face with HEPA ^c and OV ^d ready for use	Latex or nitrile gloves	Hard hat Safety glasses
Notes: ^a HEPA – high-efficiency particulate air ^b OV – organic vapor filter						

4.1.4. Medical Surveillance

All site personnel will be required to participate in their employer’s medical surveillance program before being allowed to work at the site within or in close proximity to the waste footprint. Subcontractors will be required to demonstrate, by document submittal, their maintenance of OSHA-compliant programs and to maintain records as required by the applicable contract. Specific exceptions to the medical surveillance requirements may be granted by the Site Health and Safety Officer for site access by specialty subcontractors performing non-intrusive activity.

4.1.5. Other

Mechanical safety hazards and other hazards associated with the various work activities that workers may face with regards to the operation of personal vehicles, trucks, and other

heavy equipment shall be addressed in a site-specific health and safety plan and an Injury and Illness Prevention Program. These items will not be addressed in this document.

4.2. Dust Control

The following sections describe the protocol to be followed during intrusive work and management of excavated/stockpiled materials, as applicable

4.2.1. Dust Mitigation Plan

Dust suppression will be accomplished by spraying or misting the active work areas with water, as needed. The volume of water added to suppress dust will not exceed the moisture-holding capacity of the materials. For excavation related activities, water mist may also be applied to the burned wastes/impacted soil stockpiles, and as applicable, in the transport trucks, and the on-site truck routes. In addition, after the materials are loaded into the transport trucks, they will be covered with tarps that are adequately secured to ensure that burned wastes/impacted soils cannot spill or be blown out of the truck during transport to the disposal facility.

If materials are temporarily stockpiled on site, they will be situated in an area shielded from the prevailing wind, where practical, and covered with secured plastic sheeting. For dust control purposes, efforts will be made to minimize the drop height from the excavator's bucket onto the stockpile and/or into the transport trucks. If adequate room is available, the excavator will be positioned to load or stockpile from the upwind side. If sustained wind speeds exceed 15 miles per hour (mph) for a period of 15 minutes, excavation activities will cease until the wind speed is below 15 mph.

4.2.2. Engineering Controls

As necessary, low visibility, low permeability windscreen will be installed on the construction fencing that borders the excavation areas. Trucks and equipment driving on the site during intrusive work activities will travel at slow speeds to avoid creating dust.

4.2.3. Cease Operation

When sustained wind speeds result in visible dust emissions that leave the property despite the application of dust suppression measures, activity except the application of water shall be suspended.

4.3. Run-on and Run-off Control

The following sections describe run-on and run-off control methods for the site.

4.3.1. Storm Water Pollution Prevention Plan

The State of California Water Resources Control Board, in conjunction with the National Pollutant Discharge Elimination System, has adopted a statewide General Permit to Discharge Stormwater Associated with Construction Activity (General Permit) to address discharges of storm water run-off associated with applicable construction activities. The Regional Water Quality Control Board is the responsible agency for implementing and enforcing General Permit provisions. The General Permit requires all dischargers where construction activity disturbs one acre or more to develop and implement a Storm Water Pollution Prevention Plan which specifies Best Management Practices (BMPs) to prevent discharge of sediments to the storm drains and drainages in the area.

4.3.2. Run-on and Run-off Control

For erosion and sediment control to be effective, it is essential that effective BMPs be implemented for both storm water and non-storm water pollutants through the life of the project.

The following principles should be followed to the maximum extent practicable to control pollutants from the construction site:

- Direct runoff away from disturbed areas.
- Retain existing vegetation in the construction area to the extent feasible.
- Fit grading to the surrounding terrain. Contour slopes in accordance with soil type and natural response.

- Time grading operations to minimize burned wastes or soil exposures in the rainy season.
- Emphasize soil or burned waste control by vegetating and mulching, or otherwise stabilizing disturbed areas.
- Keep run-off velocities low, using energy dissipating control measures.
- Trap sediment on site using a combination of effective erosion and sediment control measures.
- Inspect and maintain control measures before and after each rainstorm.

4.4. Soil Management Plan

A SMP has been prepared for this site and approved by the DTSC. A copy of the SMP is provided as Appendix G to the O&M Plan.

5. IMPLEMENTATION OF SOP

The following sections describe the implementation of the SOP.

5.1. Field Documentation

Documentation of field activities will be recorded in field logbooks, chain-of-custody forms, and through the use of photographs.

5.1.1. Field Logs

Field logbooks will be maintained by field personnel to document their observations, activities performed, and methodologies. Logbook entries will be complete and accurate enough to permit reconstruction of field activities. All entries will be legible and language will be factual, objective, and free of personal opinions or other terminology, which might prove inappropriate. If an error is made, corrections will be made by crossing a line through the error and entering the correct information. Corrections will be dated and initialed. No entries will be obliterated or rendered unreadable.

Entries in the field logbook will include at a minimum the following for each day of field work:

- date,
- site name and address,
- recorder's name,
- other personnel at the site,
- a summary of on-site meetings, and
- levels of safety protection.

5.1.2. Photographs

Photographs will be taken at representative locations and at other areas of interest. They will serve to document information entered in the field logbook. When a photograph is taken, the following information will be written in the logbook or will be recorded in a separate field photography log:

- time, date, location, and, if appropriate, weather conditions,
- description of the subject photographed, and
- name of person taking the photograph.

5.2. Site Preparation

Site preparation activities are described in the following sections.

5.2.1. Work Area Delineation and Security Measures

Prior to intrusive work activities, the areas to be disturbed will be measured and clearly marked or staked at the site. Hazard warning signs for potential contamination, written in English and Spanish, will be posted along the perimeters of the impacted areas.

5.2.2. Utility Survey and Clearance

Utility maps should be obtained, if possible, and reviewed prior to conducting intrusive work. In addition, Underground Service Alert (USA) will be contacted at least 48 hours in advance of fieldwork to identify the locations of utilities that enter the property. Proposed intrusive areas will be clearly marked with white paint or surveyor's flagging as

required by USA. USA will contact utility owners of record near the site and notify them of the intent to excavate. Utility owners of record will be expected to clearly mark the position of their utilities on the ground surface throughout the designated areas.

In addition, a geophysical survey will be conducted, if warranted, in the areas where intrusive activities are planned to help identify possible subsurface obstructions. Potential geophysical methods that may be used are magnetics, electromagnetics, ground penetrating radar (GPR), and/or electromagnetic line location. Magnetic and electromagnetic methods are used to identify underground tanks, drums, and conduits, which are detected because of the ferrous and electrically conductive material of their construction. GPR is used as a follow-up technology to characterize identified magnetic or electromagnetic anomalies.

5.2.3. Permits and Plan

Depending upon the location and type of the work activities, permits including, but not limit to traffic control, boring, and grading permits, and plans may be necessary. Permits and plans will be prepared and submitted in accordance with applicable local, state, and federal regulations.

5.3. Field Work

Fieldwork activities are described in the following sections.

5.3.1. Confined Space Entry Requirements

A confined space is defined by OSHA as a space that is large enough and configured so that an employee can enter to perform assigned work, but has limited or restricted means for entry or exit. It is also a space that is not designed for continuous employee occupancy. In 1993, OSHA promulgated a final rule for Permit Required Confined Spaces (29CFR 1910.146) and California OSHA revised its existing space regulations to now require a permit for confined space entry operations (CCR Title 8 5156, 5157, 1558).

5.3.2. Intrusive Work Activities

If excavated burned wastes/impacted soils are disturbed, the burned wastes/impacted soils will be managed in accordance with the SMP prepared by Ninyo & Moore, dated December 5, 2007 (Appendix G of the O&M Plan). The SMP summarizes the protocols for intrusive work activities within or in close proximity to the waste footprint including wastes/soils handling, intrusive work monitoring, waste segregation, soil stockpiling, waste transportation, waste disposal, dust control, and BMPs.

5.4. Decontamination

Decontamination procedures are described in the following sections.

5.4.1. Work Area

An equipment decontamination area will be set up as required in the site-specific health and safety plan. Measures will be implemented as necessary, including brushing loose soil from vehicle tires, to minimize the dispersal of burned wastes/impacted soil. Truck decontamination zones will be established in the areas where trucks will be exiting the work area.

5.4.2. Decontamination of Workers

Clean, potable water shall be available in the immediate work area to provide washing of the face, lower arms, and hands of workers at the end of each work period.

5.4.3. Decontamination of Equipment and/or Trucks

Vehicular decontamination procedures shall include washing the tires at the site to prevent tracking burned wastes/impacted soils onto paved and non-paved access roads.

5.5. Backfill, Compaction, and Site Restoration

If performing excavations, they will be backfilled or covered as soon as practicable; however, should the excavations remain open, the areas will be cordoned off with caution tape and remain separated from the public by the locked chain link fencing. Excavations will be

backfilled with “clean” fill material approved by the DTSC and LEA. The backfill will be placed and compacted, and the surface material will be restored to its original condition.

5.6. Work Completion and Inspection

Upon completion of the intrusive activities, the O&M Coordinator shall inspect the site repairs or improvements to ensure that the scope of work has been completed, and will determine whether the area is safe for occupancy. An inspection checklist will be reviewed and signed by the O&M Coordinator, and the activities will be documented in the Annual Inspection Report, as specified in the O&M Plan.

APPENDIX G
SOIL MANAGEMENT PLAN

**SOIL MANAGEMENT PLAN
CORREIA MIDDLE SCHOOL
4302 VALETA STREET
SAN DIEGO, CALIFORNIA**

PREPARED FOR:
San Diego Unified School District
Facilities Management
4860 Ruffner Street
San Diego, California 92111

PREPARED BY:
Ninyo and Moore
Geotechnical and Environmental Sciences Consultants
5710 Ruffin Road
San Diego, California 92123

December 5, 2007
Project No. 105338044

December 5, 2007
Project No. 105338044

Mr. Loren Chico
San Diego Unified School District
Facilities Management
4860 Ruffner Street
San Diego, California 92111

Subject: Soil Management Plan
Correia Middle School
4302 Valeta Street
San Diego, California

Dear Mr. Chico:

In accordance with your request, Ninyo & Moore has prepared a Soil Management Plan for the Correia Middle School site. It is our understanding that the plan will be utilized during a storm water quality improvement project.

We appreciate the opportunity to be of service to you on this project.

Respectfully submitted,
NINYO & MOORE


E. Lauren Hedges
Senior Project Geologist


Beth S. Abramson-Beck, P.G. 4580
Principal Geologist

ELH/BAB/gg

Distribution: (3) Addressee
(1) Christopher Frost, Department of Toxic Substances Control, Cypress

TABLE OF CONTENTS

	<u>Page</u>
1. INTRODUCTION	1
2. SITE LOCATION AND DESCRIPTION	1
3. PROJECT DESCRIPTION	1
4. SITE CHARACTERIZATION	2
4.1. Operational History and Status	2
4.2. Groundwater	3
4.3. Surface Water	3
4.4. Waste Categories	4
4.5. Contaminants of Concern	4
5. REGULATORY FRAMEWORK	5
5.1.1. County of San Diego Solid Waste Local Enforcement Agency	5
5.1.2. Department of Toxic Substances Control	5
6. PROJECT TEAM	5
6.1. Awarding Authority	5
6.2. General Contractor	6
6.3. Health and Safety Manager	6
6.4. Subcontractors	6
6.5. Project Environmental Consultant	6
6.5.1. Project Manager	7
6.5.2. Field Geologist/Engineer/Scientist	7
6.6. Project Geotechnical Consultant	7
7. HEALTH AND SAFETY PLANS	7
8. SOIL EXCAVATION	8
8.1. Material Reuse or Disposal	9
8.2. Intrusive Work Monitoring	9
9. SEGREGATION AND STOCKPILING	10
9.1. Stockpile Management	10
9.2. Best Management Practices	10
9.3. Dust Control	11
10. UNKNOWN CONTAMINATION	11
11. STOCKPILE CHARACTERIZATION	11
11.1. Stockpile Sampling	12
11.2. Analytical Testing Program	13
12. TRANSPORT AND DISPOSAL	14
13. DOCUMENTATION	14
14. LIMITATIONS	15

15. SELECTED REFERENCES17

Table

Table 1 – Analytical Testing Program.....13

Figures

Figure 1 – Site Location Map

Figure 2 – Site Plan

Appendix

Appendix A – Storm Water Quality Improvement Plans

1. INTRODUCTION

This Soil Management Plan (SMP) has been prepared to summarize the protocol for excavation, trenching, temporary stockpiling/storage, handling, and re-use and/or off-site disposal of soil within the construction envelope for the storm water quality improvement project at Correia Middle School (site). Work performed under this plan shall be in compliance with the project specifications, a site-specific health and safety plan, the California Water Quality Control Board San Diego Region (Water Board) Order No. 97-11, and applicable state and federal statutes and regulations.

2. SITE LOCATION AND DESCRIPTION

The Correia Middle School site is located at 4302 Valeta Street (Figure 1). The school site encompasses approximately 19 acres of land, occupied by school buildings on the northeastern portion of the property and athletic fields on the southwestern portion of the property. A baseball field with grass turf is located on the western side of the athletic field, and the eastern side consists of a decomposed granite fill surface (Figure 2).

3. PROJECT DESCRIPTION

The Storm Water Quality Improvement Plan (Appendix A) was prepared in response to the Water Board's requirement to prepare a mitigation plan that would eliminate the deposition of sediments from the site into the nearby Famosa Slough. The San Diego Unified School District (SDUSD) received a notice from the Friends of Famosa Slough regarding the amount of sediment being generated and impacting the Famosa Slough, which is located approximately 900 feet northeast of the site. The improvement plan includes a subsurface infiltration and interceptor system (Stormceptor), which will capture and treat water from underground and surface water flow at the site.

The excavation and installation of the Stormceptor will occur in an area characterized by fill soil that is known to have scattered burned waste material. Based on previous investigations, the burned waste in this area of the site is limited; however, potential to encounter burned waste during excavation activities exists. Therefore, this document provides recommendations to reduce exposure to workers and the public to site contaminants, if encountered.

4. SITE CHARACTERIZATION

Previous investigations have been performed at the site and are summarized in the Draft Removal Action Work Plan (Ninyo & Moore, 2007). The following subsections briefly describe the environmental data obtained from site characterization activities that are relevant to this plan.

4.1. Operational History and Status

The school is constructed on a mesa with cut and fill slopes. The east-northeast and west-southwest areas of the site, including the slopes were filled in with material cut from other portions of the site. According to a 1958 site plan prepared by Clyde Hufbauer Architects, “miscellaneous dumped material” was reported to be mixed with the fill soil used in the athletic field areas during construction.

The City of San Diego Solid Waste Local Enforcement Agency (LEA) has indicated that several historic refuse disposal sites were located in the vicinity of Correia Middle School and Cleator Community Park. It is believed that debris from a nearby refuse disposal site was mixed with fill material during construction of the school site.

Previously, SDUSD proposed to install a new fire main across the athletic fields and through the suspected fill area to connect with the water main located in Famosa Boulevard. During a site walk conducted in February 2003 by Kleinfelder and the LEA, indicators of burned waste (e.g., fused glass and ceramic shards) were observed along the slopes adjacent to Famosa Boulevard as well as the sloped area between the site’s athletic fields and Cleator Community Park. Based on the visual observations during the site walk, the LEA issued a cease and desist order to SDUSD to restrict them from installing the fire main pipeline in the proposed configuration. SDUSD redesigned the pipeline route to connect to an alternate location in Valeta Street. Thus, the suspected fill area was not disturbed as a result of the pipeline project. In addition, the LEA required site assessments to evaluate the nature and extent of the fill, including surface sampling, drilling of borings to collect deeper samples, and the preparation of a Burn Ash Management Plan for the site. Several investigations were conducted to address the issues raised by the LEA. Since June 2005, the Department of Toxic Substances Control (DTSC) has been designated as

the lead regulatory agency to address impacts from the burned waste that may be present in fill material at the school site. A Preliminary Environmental Assessment (PEA) was prepared in 2006 (Ninyo & Moore, 2006) to supplement the previous investigations, and a Removal Action Work Plan is currently being prepared for the site.

4.2. Groundwater

During the PEA field activities in December 2005, groundwater was encountered at approximately 48 feet below ground surface (bgs) at the top of the slope at the southeast corner of the athletic field, and at 14 feet bgs at the bottom of the slope along Famosa Boulevard. However, groundwater levels can fluctuate due to seasonal variations, groundwater withdrawal or injection, and other factors. Based on the local and regional topography, groundwater in the site vicinity is anticipated to flow toward the north or west-northwest.

According to the Water Board Basin Plan, the site is located in the Mission San Diego Hydrologic Subarea. Beneficial uses of groundwater in this subarea include agricultural, industrial, and processing, as well as potential use for municipal. However, these beneficial uses do not apply to areas located west of Interstate 5, which includes Correia Middle School; therefore, the site is exempt from beneficial uses.

4.3. Surface Water

There is no documentation of historical hazardous substance releases to surface waters from the site. Based on our limited reconnaissance and review of the United States Geological Survey (USGS), Point Loma quadrangle map, named natural surface water bodies, such as streams, rivers, ponds, and lakes, are not situated on, or immediately adjacent to the site. Famosa Slough is located approximately 900 feet northeast of the site.

Currently, surface drainage from the site's building area appears to flow west towards Cleator Community Park and south into storm drains along the northern perimeter of the athletic fields. Surface drainage from the athletic fields generally flows toward the south and east into storm drain inlets in the athletic field and east parking lot. Surface water runoff resulting

from precipitation that has not infiltrated into the site flows into the street and into the storm drain system. The storm drain system carries the runoff to buffer ponds adjacent to the Famosa Slough. It is unlikely that drainage potentially affected by contamination at the site would reach these surface water bodies in sufficient quantities to affect them because the majority of the contaminant of potential concern (COPC)-impacted soil is at a depth of 2.0 feet or greater. The existing beneficial uses of surface water in this area include agricultural, industrial, recreational, warm water habitat, cold water habitat, wildlife habitat, and rare species habitat. Surface waters within the watershed are exempted from municipal supply.

4.4. Waste Categories

Burned waste/impacted soils may be encountered during excavation activities associated with construction of the Stormceptor. Excess fill or burned waste that cannot be reused on-site, or material not considered suitable for reuse, will require off-site disposal. The waste classification of fill or burned waste designated for off-site disposal will depend on the results of stockpile sampling and testing.

- Resource Conservation and Recovery Act (RCRA)-hazardous waste will be disposed of at a Class I landfill facility. This waste may require pretreatment prior to Class I disposal based on the levels of contaminants in the waste. Burned waste/impacted soils may fall into this classification.
- Non-RCRA (California) hazardous waste may be disposed of at a Class I landfill facility. However, California-hazardous waste would likely be disposed out-of-state as non-RCRA hazardous waste, based on classification in the state where the receiving facility is located. Previous analytical testing indicates that some of the burned waste/impacted soils may fall in this category.
- Non-hazardous waste will be disposed of at a Class III solid waste facility, or used as daily cover at such a facility, as appropriate. This would include non-impacted soil, impacted soil and possibly burned waste that does not fall into the two classifications listed above.

4.5. Contaminants of Concern

The contaminants of concern (COCs) and COPCs identified during the previous investigations are related to the burned waste that is mixed with fill. The COC for the site is lead in burned

waste/impacted soils. In addition, the COPCs for the site include those chemicals commonly associated with burn sites (e.g., other metals, polynuclear aromatic hydrocarbons [PAHs], dioxins, and furans). The protocol for sampling and analytical testing is discussed in later sections.

5. REGULATORY FRAMEWORK

Two regulatory agencies are currently providing oversight for the site. The roles and responsibilities of these agencies are described in the sections below.

5.1.1. City of San Diego Solid Waste Local Enforcement Agency

The LEA has the primary responsibility of conducting periodic site inspections ensuring the correct closure and maintenance of solid waste facilities to ensure protection of human health in accordance with applicable portions of California Code of Regulations (CCR) Title 27. SDUSD maintains an annual permit with the LEA, since they have the responsibility to inspect and monitor solid waste facilities, including former burn sites, in accordance with applicable portions of CCR Title 27.

5.1.2. Department of Toxic Substances Control

The DTSC is currently responsible for providing regulatory oversight at the site to ensure the protection of human health and the environment in accordance with the Health and Safety Code and California Education Code.

6. PROJECT TEAM

This section describes the project team relevant to the excavation, handling, transportation, reuse, and disposal of waste from the site.

6.1. Awarding Authority

SDUSD is the awarding authority. The SDUSD will also serve as the point of contact and will coordinate with the involved parties.

6.2. General Contractor

The Contractor shall be responsible for project construction in accordance with project documents. The Contractor's scope, subject to the bid documents, will include excavation, temporary stockpiling, material reuse, and off-site disposal, including measures to protect worker and public health, and the environment, from impacts caused by the Contractor's activities. The Contractor shall be responsible for assigning qualified personnel to execute the work, and for selecting and supervising the work of other subcontractors assigned to the project.

The Contractor shall provide a site Superintendent, who will be responsible for site activities. The site Superintendent's responsibilities will include oversight of equipment, labor, materials, and resources needed to complete the project.

6.3. Health and Safety Manager

The SDUSD shall retain a Health and Safety Manager (HSM), who shall be a Certified Industrial Hygienist (CIH), or under the direct supervision of a CIH, with the appropriate training, certificates, and experience. The HSM shall prepare and sign a Site Health and Safety Plan (HSP) and a Community Health and Safety Plan (CHSP) for the project. The HSP shall list the various safety-related Contractor personnel and their duties and responsibilities. The plans are discussed in further detail in Section 7. SDUSD may elect to include this task in the Project Environmental Consultant's scope of work.

6.4. Subcontractors

The Contractor may utilize subcontractors retained to execute subtasks of this project, subject to approval by the SDUSD. The supervision, inspection, and approval of subcontractor work will be the responsibility of the Contractor.

6.5. Project Environmental Consultant

The SDUSD has retained Ninyo & Moore to provide the services for the environmental oversight of excavation activities. The Environmental Consultant will notify underground

surface alert a minimum of 48 hours prior to commencing field activities, monitor excavation activities, provide guidance to the Contractor on segregation of materials, as necessary, and assist in characterizing and profiling contaminated materials, if encountered. The Environmental Consultant's staff is described below.

6.5.1. Project Manager

The Environmental Consultant shall provide a Project Manager to assist the SDUSD Project Manager in overseeing the environmental aspects of the project. The Project Manager shall be a California-Registered Civil Engineer, California-Registered Geologist, or a California Certified Engineering Geologist.

6.5.2. Field Geologist/Engineer/Scientist

The Environmental Consultant shall assign a Field Geologist/Engineer/Scientist to perform excavation monitoring, sampling and analysis (if waste characterization and profiling is in the Environmental Consultant's scope of work), and document the stockpiling and transportation of waste from the project areas, if necessary.

6.6. Project Geotechnical Consultant

The SDUSD will retain or assign a qualified geotechnical consultant to serve as the Project Geotechnical Consultant. The Geotechnical Consultant will evaluate the geotechnical suitability of excavated material to be reused on site, as necessary, and oversee backfilling of the excavation, as requested.

7. HEALTH AND SAFETY PLANS

Prior to site mobilization, the HSM shall prepare the HSP and CHSP that provide policies, information, requirements, and guidelines to be followed while conducting excavation activities, temporary stockpiling/storage, reuse, handling, and disposal of waste from the site. The HSP shall be prepared in accordance with the Federal and State OSHA Hazardous Waste Operations

and Emergency Response (HAZWOPER) Standards: 29 Code of Federal Regulations (CFR) 1910.120 and 8 CCR Section 5192.

The HSP shall provide for contingencies and be structured to handle a variety of situations that may arise, but be concise enough so that site workers understand the hazards and are able to follow the procedures to reduce the level of risk. Site personnel working within the exclusion zone shall be trained and current in accordance with the standards provided by HAZWOPER (40-hour initial training with annual updates). Appropriate management personnel shall have eight-hour supervisor training. Additional training will be required for personnel engaged in specialized tasks, as appropriate.

Field personnel shall be required to review the HSP and provide written acknowledgement of their review and understanding of the plan and willingness to abide by its requirements. In addition, the Contractor's site Superintendent will perform a daily tailgate safety meeting held at the beginning of each workday to discuss relevant task-specific safety issues.

The objective of the CHSP will be to promote a safe and healthy environment for the public by minimizing community exposure to hazards from site activities and/or releases that may migrate off site.

8. SOIL EXCAVATION

The Contractor is responsible for excavation, trenching, handling, reuse, and temporary stockpiling of materials in accordance with project specifications, the health and safety plans, this plan, and all applicable local, state, and federal statutes, regulations, and guidelines. Excavation and handling of fill impacted with burned wastes will be done in a manner that prevents the release of contamination, if present, to other on-site and off-site areas.

The Consultant's Field Geologist/Engineer/Scientist will observe excavation activities, and use appropriate field screening procedures and indicators and project-specific experience to guide the Contractor in segregating the waste.

8.1. Material Reuse or Disposal

The geotechnical suitability of excavated materials will be evaluated by the Geotechnical Consultant. Based on this evaluation, the materials will be segregated, stockpiled, sampled, and analyzed. The results of the geotechnical evaluation and analytical testing will be used to make one of the following determinations for reuse or off-site disposal:

- the excavated material is suitable for reuse,
- the excavated material is not suitable for reuse, and should be disposed of off-site.

Groundwater is not anticipated to be encountered during excavation activities. Water generated during excavation activities from spraying for dust suppression will be controlled in a manner consistent with the project Storm Water Pollution Prevention Plan (SWPPP) that should be prepared by the Contractor. The Contractor shall be responsible for implementing Best Management Practices (BMPs) specified in the SWPPP.

The Contractor shall ensure that water draining from excavated materials will not be allowed to flow into any existing drainage systems or onto the ground surface unless the surface is protected with a High Density Polyethylene (HDPE) geomembrane. Surface water runoff will be handled according to the site-specific SWPPP, national pollution discharge elimination system requirements, and other pertinent statutes and regulations. The Contractor is responsible for the management and disposal of surface water runoff in accordance with the SWPPP and other applicable permits.

8.2. Intrusive Work Monitoring

The Environmental Professional will observe intrusive work activities, and use appropriate field screening procedures and indicators, such as the presence of burned waste and suspected contaminated material, distinctive discoloration and odor, as well as project specific experience to identify and to minimize construction delays.

9. SEGREGATION AND STOCKPILING

If the excavated burned waste/impacted soils are not directly loaded onto trucks, the subcontractor will transport the materials to a pre-determined temporary stockpile staging area. Excavated materials evaluated as suitable for on-site reuse by the Consultant will be placed by the subcontractor into a “Reuse” stockpile. The Contractor shall segregate and place excavated materials not suitable for reuse into the stockpiles listed below based on directions from Consultant:

- a “Burned Waste” stockpile, containing primarily burned waste, and
- a “Burned Waste/Potentially Impacted Soil” stockpile containing soil and minor amounts of burned waste.

9.1. Stockpile Management

The staging area and the temporary stockpiles will be managed by the subcontractor in accordance with this document, the project specifications, and the project SWPPP. In general, the stockpiled material will be:

- placed on a relatively impervious surface, such as asphalt, concrete, or on a 30-millimeter (mil) or thicker HDPE liner,
- sprayed or misted with water to minimize dust emissions during stockpiling, if necessary,
- securely covered with a 6-mil or thicker HDPE liner to minimize runoff from rain, and
- configured in such a manner that surface water runoff, if present, from the stockpile does not carry stockpiled materials beyond the stockpile area.

The Consultant will assist SDUSD to ensure that stockpiles will be removed from the site in a timely manner to avoid nuisance complaints. Materials classified as hazardous wastes will be stockpiled on-site by the Contractor in accordance with hazardous waste regulations and removed by SDUSD with assistance from the Consultant within 90 days of intrusive activities.

9.2. Best Management Practices

The Contractor shall implement BMPs to protect the temporary stockpiles from erosion and storm water run-on and run-off. The BMPs include the following:

- erosion control,
- storm water drainage control,
- secondary containment (as applicable),
- fugitive emission control,
- wind dispersion control, and
- spill prevention.

9.3. Dust Control

The Contractor will mitigate dust with water, either with a hand held sprayer or by water trucks, as needed, on the surface of active work areas. Care will be exercised to minimize the overuse of water so as not to create surface water runoff or excessively saturated conditions.

10. UNKNOWN CONTAMINATION

This section presents a general protocol regarding unknown contamination that may be encountered during intrusive work activities.

If hazardous substances or conditions are encountered which present an immediate threat of injury to human health or water quality, the Contractor shall secure the area and shall notify the SDUSD immediately. The Contractor shall call "911" to summon the emergency services, as necessary.

If previously unknown hazardous substances or conditions are encountered that do not present an immediate threat to human health or water quality, the Contractor shall immediately notify the Consultant and SDUSD. As necessary, the area surrounding the discovery of unknown contamination will be isolated and secured by the Contractor with markings, fencing, or a suitable barrier so that construction activities can be excluded from the zone of impact. The Consultant and SDUSD will then decide whether immediate excavation, segregation, stockpiling, containerization, or other activities are warranted.

11. STOCKPILE CHARACTERIZATION

This section discusses the stockpile sampling procedures. Stockpile sampling, analytical testing, and reporting shall be the responsibility of the Environmental Professional.

11.1. Stockpile Sampling

The stockpile sampling shall be done in general conformance with the United States Environmental Protection Agency (EPA) SW-846 requirements. Only discrete soil samples shall be collected because of the potential dilution of contaminants. Composite samples shall not be collected for characterizing material stockpiles.

Samples shall be collected randomly on a three-dimensional grid using a random number generator. As discussed in Section 9, there may be up to three distinct stockpiles, a “Re-use” stockpile and two stockpiles for off-site disposal: “Burned Waste” and “Burned Waste/Potentially Impacted Soil.”

Based on results of the stockpile sampling and analysis, additional sampling may be required to meet the confidence levels specified in SW-846; therefore, archiving of samples may be appropriate. Archived samples must be appropriately preserved and analyzed within the maximum holding time specified in SW-846. The minimum number of discrete samples initially required is listed below.

- Stockpiles of less than 10 cubic yards (cy): a minimum of two samples must be collected, one from each half of the stockpiles.
- Stockpiles from 10-20 cy: a minimum of three samples must be collected, one from each third of the stockpile.
- Stockpiles from 20-200 cy: a minimum of four samples must be collected, one from each quarter of the stockpile.
- Stockpiles from 100-500 cy: a minimum of one sample from each 25 cy, or portion thereof, must be collected (e.g., a 130-cy stockpile would require six samples). Section the stockpile into 25 cy portions and obtain a sample from each 25 cy portion.
- Stockpiles over 500 cy: sample as per a 500 cy stockpile and collect an additional sample for each additional 500 cy, or portion thereof.

11.2. Analytical Testing Program

Analytical testing requirements will be based on whether or not the materials will be reused at the site or disposed of off-site. Materials approved for on-site reuse by the Environmental and Geotechnical Consultants will be tested in accordance with the criteria listed below.

- The samples will be analyzed for Title 22 metals by the Synthetic Precipitation Leaching Procedure (SPLP) using deionized water.
- PAHs.

Materials that do not meet geotechnical or environmental requirements for reuse (i.e., requiring off-site disposal) will be tested according to the criteria listed below.

- Title 22 Metals or total threshold limit concentrations (TTLC).
- PAHs.
- Samples containing one or more metal concentrations less than the TTLC but greater than ten times the soluble threshold limit concentrations (STLC) will be analyzed for soluble metal concentrations by the waste extraction test (WET) method.
- Burned waste/impacted soils will additionally be analyzed for pH.

Table 1 – Analytical Testing Program

Constituent	Detection Limit	Analytical Test Method
<i>MATERIALS PLANNED FOR ON-SITE REUSE</i>		
PAHs	0.5 mg/kg	EPA test method 8270C
Title 22 Metals by SPLP	various from 0.005 to 0.01 mg/ℓ	EPA test method 6010B/7471A
<i>MATERIALS PLANNED FOR OFF-SITE DISPOSAL</i>		
PAHs	0.5 mg/kg	EPA test method 8270C
Title 22 Metals (TTLC) ¹	various from 0.005 to 0.01 mg/kg	EPA test method 6010B/7471A
Title 22 Metals (WET)	various from 0.005 to 0.01 mg/ℓ	EPA test method 6010B/7471A
pH ²	Not applicable	EPA test method 9040
Notes: ¹ If the sample contains one or more metal concentrations less than the TTLC but greater than ten times the STLC then it will be additionally analyzed for soluble metal concentrations by the WET method ² For burned waste samples mg/ℓ = milligrams per liter µg/kg = micrograms per kilogram mg/kg = milligrams per kilogram		

12. TRANSPORT AND DISPOSAL

Transporters and disposal facilities used must be appropriately licensed and/or permitted and properly insured. The Consultant will manage the transportation and disposal of wastes to the appropriate treatment and disposal or recycling facilities. The Consultant shall prepare waste profiles and manifests for review and signature by the SDUSD, and then forward them to the appropriate disposal/recycling facility for acceptance. The Consultant shall schedule shipments of wastes after notice of acceptance and at the direction of the SDUSD.

Vehicles and vessels entering the site for loading of wastes slated for disposal shall be tracked and decontaminated, with assistance from the Consultant, as necessary, prior to their departure from the site. Care shall be taken to avoid materials being tracked off-site.

Hazardous wastes transported off-site for disposal or recycling shall be performed in accordance with Department of Transportation (DOT) Hazardous Material Transportation regulations 49 CFR Parts 171 and 180, 40 CFR Part 262, Subpart B, and Title 22 CCR Section 66262, which involve packaging, placarding, labeling, and manifesting requirements. Hazardous wastes transported shall also have appropriate certification notices per 40 CFR Par 268 and Title 22 CCR Section 66268. Personnel having the required DOT-training shall perform DOT-related functions, if required.

Wastes that have been characterized as non-hazardous and does not exhibit the DOT hazard class characteristics (i.e., explosives, gases, flammable/combustible liquids, flammable solids/spontaneously combustible materials/dangerous when wet materials, oxidizers and organic peroxides, toxic materials and infectious substances, radioactive materials, and corrosive materials) is not regulated under DOT rules for hazardous materials transportation.

13. DOCUMENTATION

The Environmental Consultant shall prepare a report summarizing monitoring activities, site observations, volumes of materials reused on-site or disposed off-site, placement locations of reused materials, and information regarding the discovery, location, characterization, handling, and disposition of burned waste/impacted soils if encountered during intrusive activities. The

report will be signed by the Environmental Consultant or a registered professional (e.g., Professional Geologist, Professional Engineer).

In addition, the report will include the following information:

- an estimate of the volume of material in each stockpile,
- a description of the sampling methodology and sample location/selection process,
- a plot plan detailing the stockpile and sample locations,
- a copy of the sample results, chain-of-custody documents, and quality assurance/quality control supporting data,
- a summary of the laboratory results of the stockpile sampling,
- statistical calculations for all stockpiles greater than 20 cy,
- placement location, if the materials were reused,
- an accounting of the materials transported and disposed of off-site, including weight tickets and waste manifests, and
- health and safety monitoring records, including air monitoring analytical data and procedures used to mitigate odors and dust.

14. LIMITATIONS

This plan has been prepared in general accordance with current regulatory guidelines and the standard-of-care exercised in preparing similar plans in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this plan. Variations in site conditions may exist and conditions not observed or described in this plan may be encountered during subsequent activities. Please also note that this plan did not include an evaluation of geotechnical conditions or potential geologic hazards.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this plan, are based on limited subsurface assessments. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may

be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and/or groundwater conditions will exist beyond the points explored.

The environmental interpretations and opinions contained in this plan are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject site, and on work performed by others. The testing and analyses have been conducted by independent laboratories, which are certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis or work performed by others. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results and work performed by others.

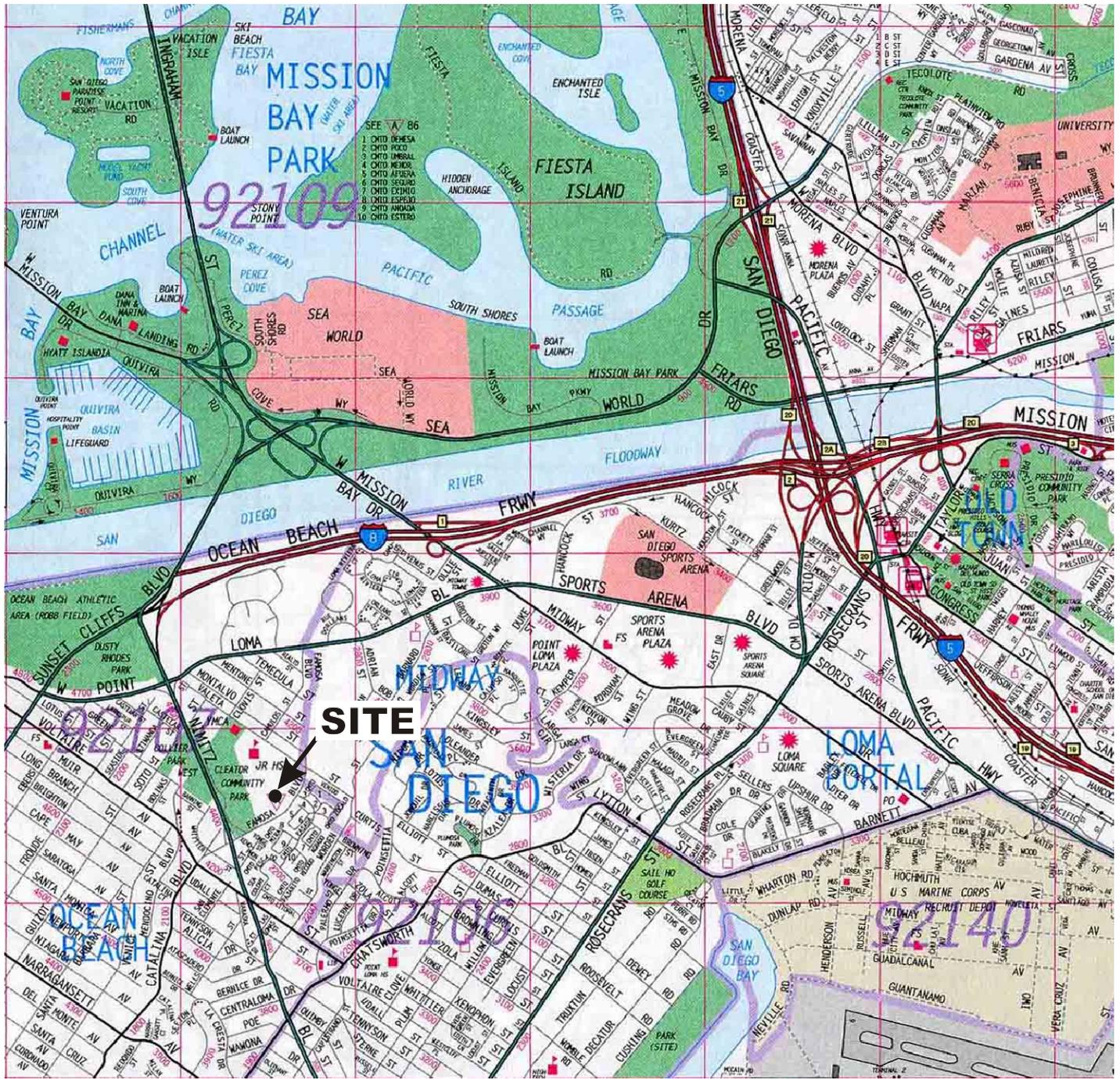
Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions and work performed by others. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this plan may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

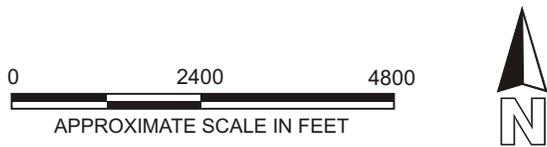
This plan is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this plan by parties other than the client is undertaken at said parties' sole risk.

15. SELECTED REFERENCES

- California Department of Conservation, 2005, Geologic Map of the San Diego 30' X 60' Quadrangle, California, Scale 1:100,000.
- California Water Quality Control Board, San Diego Region, 1997, Order No. 97-11, General Waste Discharge Requirements for Post-closure Maintenance of Inactive Non-hazardous Waste Landfills within the San Diego Region: dated April 9.
- California Water Quality Control Board, San Diego Region, 2000, Addendum No. 1 to Order No. 97-11, General Waste Discharge Requirements for Post-closure Maintenance of Inactive Non-hazardous Waste Landfills within the San Diego Region: dated June 14.
- Ninyo & Moore, 2006, Draft Final Preliminary Environmental Assessment, 4302 Valeta Street, San Diego, California: dated August 18.
- Ninyo & Moore, 2007, Draft Removal Action Work Plan, Correia Middle School, 4302 Valeta Street, San Diego, California: dated February 5.
- United States Geological Survey, 1967, Point Loma Quadrangle, California: 7.5-minute series (topographic), Scale 1:24,000: Photorevised 1975.



REFERENCE: 2005 THOMAS GUIDE FOR SAN DIEGO COUNTY, STREET GUIDE AND DIRECTORY.



NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

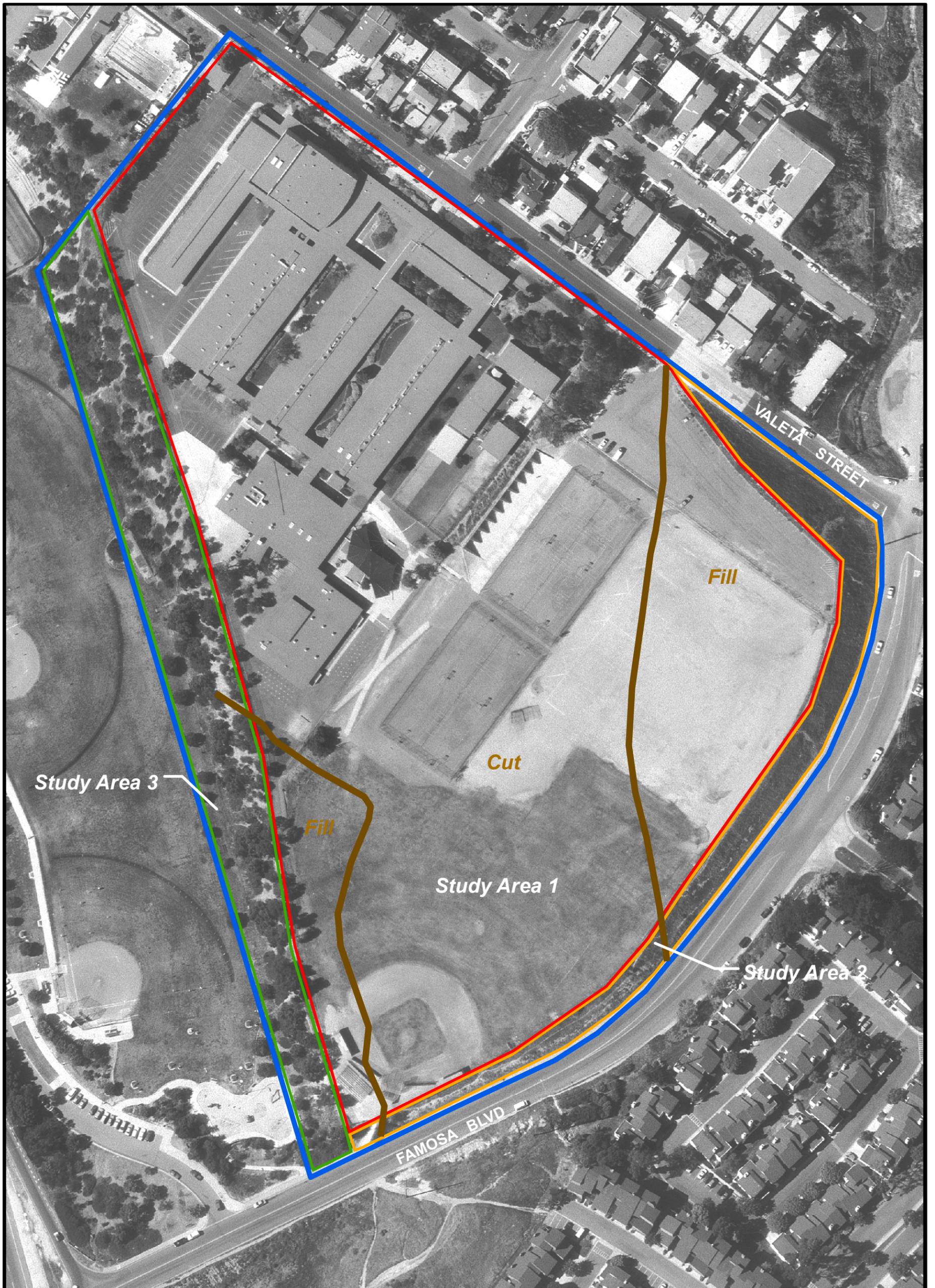
SITE LOCATION MAP

FIGURE

PROJECT NO.	DATE
105338044	12/07

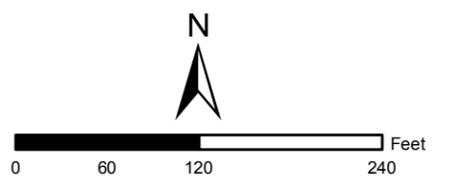
CORREIA MIDDLE SCHOOL
SAN DIEGO, CALIFORNIA

1



Legend

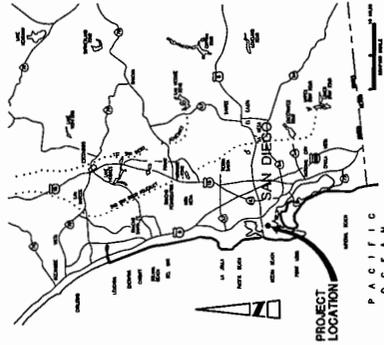
- Approximate location of Study Area 1
- Approximate location of Study Area 2
- Approximate location of Study Area 3
- Site boundary
- Approximate location of cut/fill boundary projected from grading plan (1958), Kleinfelder (2003), and current study



Ninyo & Moore		SITE PLAN	FIGURE
PROJECT NO.	DATE	CORREIA MIDDLE SCHOOL SAN DIEGO, CALIFORNIA	2
105338044	12/07		

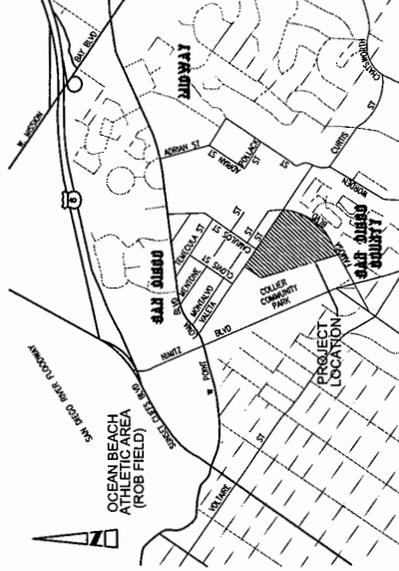
APPENDIX A
STORM WATER QUALITY IMPROVEMENT PLANS

SAN DIEGO UNIFIED SCHOOL DISTRICT CORREIA JUNIOR HIGH SCHOOL STORM WATER QUALITY IMPROVEMENTS



SHEET INDEX

SHEET NO.	DESCRIPTION	SHEET NAME
1	CONCRETE SHEETS & LEGEND	C-1
2	GENERAL NOTES & LEGEND	C-2
3	PROPOSED STORM WATER COLLECTION SYSTEM	C-3
4	AREA D REPAIR PLAN	C-4
5	AREA D REPAIR PROFILE	C-5
6	SLOPE REPAIR DETAILS	C-6
7	STORM DRAIN PROFILE	C-7
8	EROSION CONTROL PLANS	C-8
9		
10		



LIST OF 1999 CALIFORNIA CODE OF REGULATIONS

APPLICABLE CODES AS OF JAN. 1, 1999
 1998 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
 1998 CALIFORNIA ELECTRICAL CODE (CEC), PART 9, TITLE 24 C.C.R.
 1998 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
 1999 TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

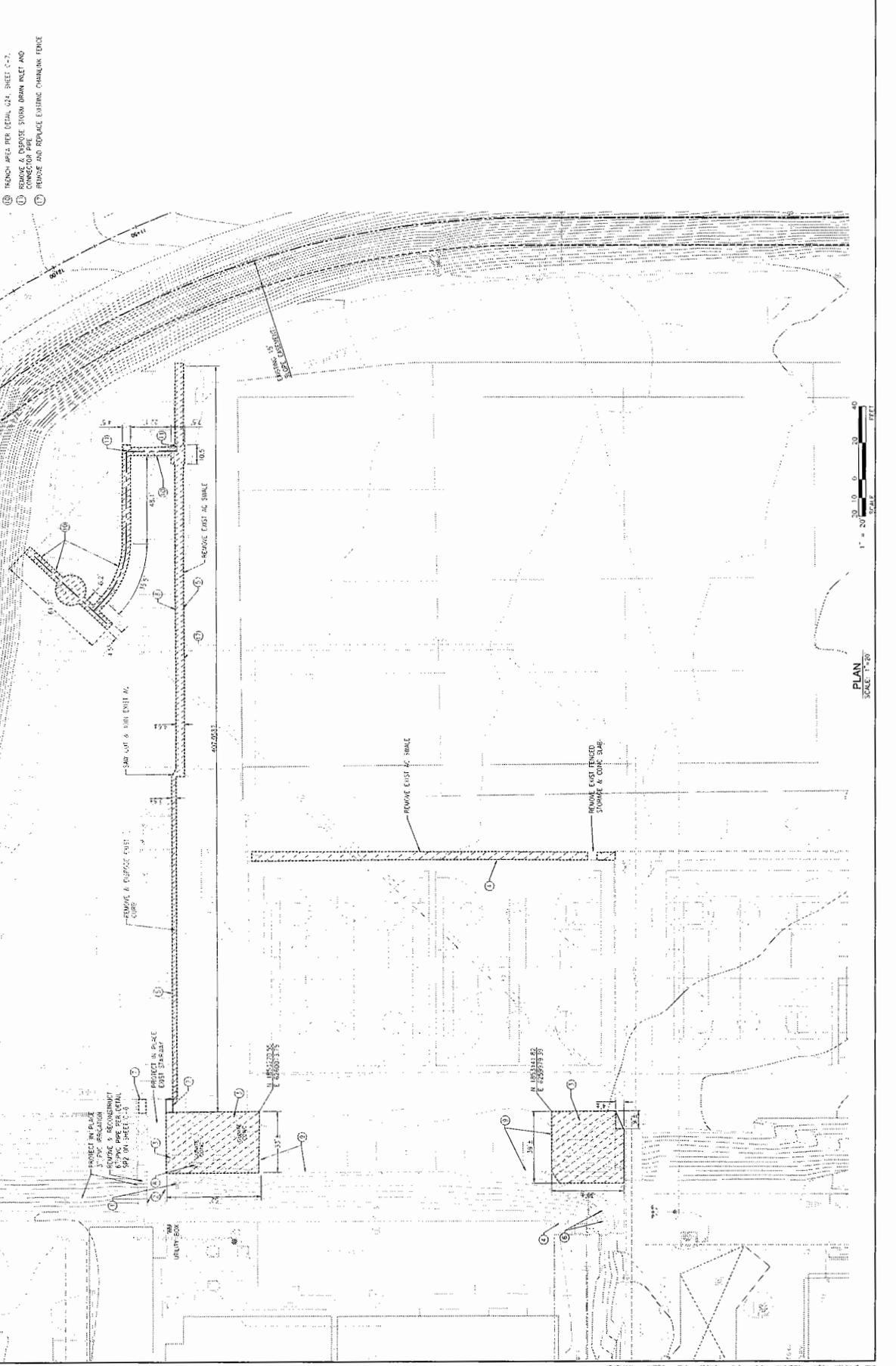
ESSENTIAL LIST OF APPLICABLE STANDARDS
 MFR 1.3 AUTOMATIC SPRINKLER SYSTEMS
 MFR 1.4 STANDPIPE SYSTEMS

1998 EDITION
 1998 EDITION

INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REMEDIATION OR REPAIR OF EXISTING STORM WATER COLLECTION SYSTEMS SHALL BE CONFORMANT WITH THE APPLICABLE REGULATIONS, A CHANGE ORDER, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS. BEHIND AND BEFORE THE WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF STATE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

				BOARD OF EDUCATION SAN DIEGO UNIFIED SCHOOL DISTRICT SAN DIEGO, CALIFORNIA	
COVER SHEET		CORREA JUNIOR HIGH SCHOOL STORM WATER QUALITY IMPROVEMENT		PROJECT NO. DATE DRAWN BY CHECKED BY APPROVED BY	
11/24/2000		G-1		1 OF 8 SHEETS	

- KEYED CONSTRUCTION NOTES**
- EXISTING TREE TO REMAIN & PROTECT IN PLACE.
 - EXISTING CONCRETE STAIRWELL TO REMAIN & PROTECT IN PLACE.
 - REMOVE AND DISPOSE EXISTING DRIVE CONCRETE.
 - EXISTING CHAIN LINK FENCE TO REMOVE & REELECT IN PLACE.
 - REMOVE AND DISPOSE EXISTING 4" DIAMETER FRENCH AREA PER DETAIL 024, SHEET C-7.
 - REMOVE & DISPOSE EXISTING TREE(S).
 - REMOVE & DISPOSE SODWALK PER DETAIL 011, SHEET C-7.
 - EXIST REINFORCING WALL TO REMAIN & PROTECT IN PLACE.
 - FRENCH AREA PER DETAIL 024, SHEET C-7.
 - REMOVE & DISPOSE STORM DRAIN INLET AND CONNECTOR PIPE.
 - REMOVE AND REPLACE EXISTING CHAINLINK FENCE.

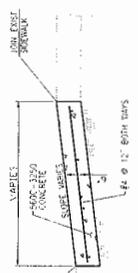
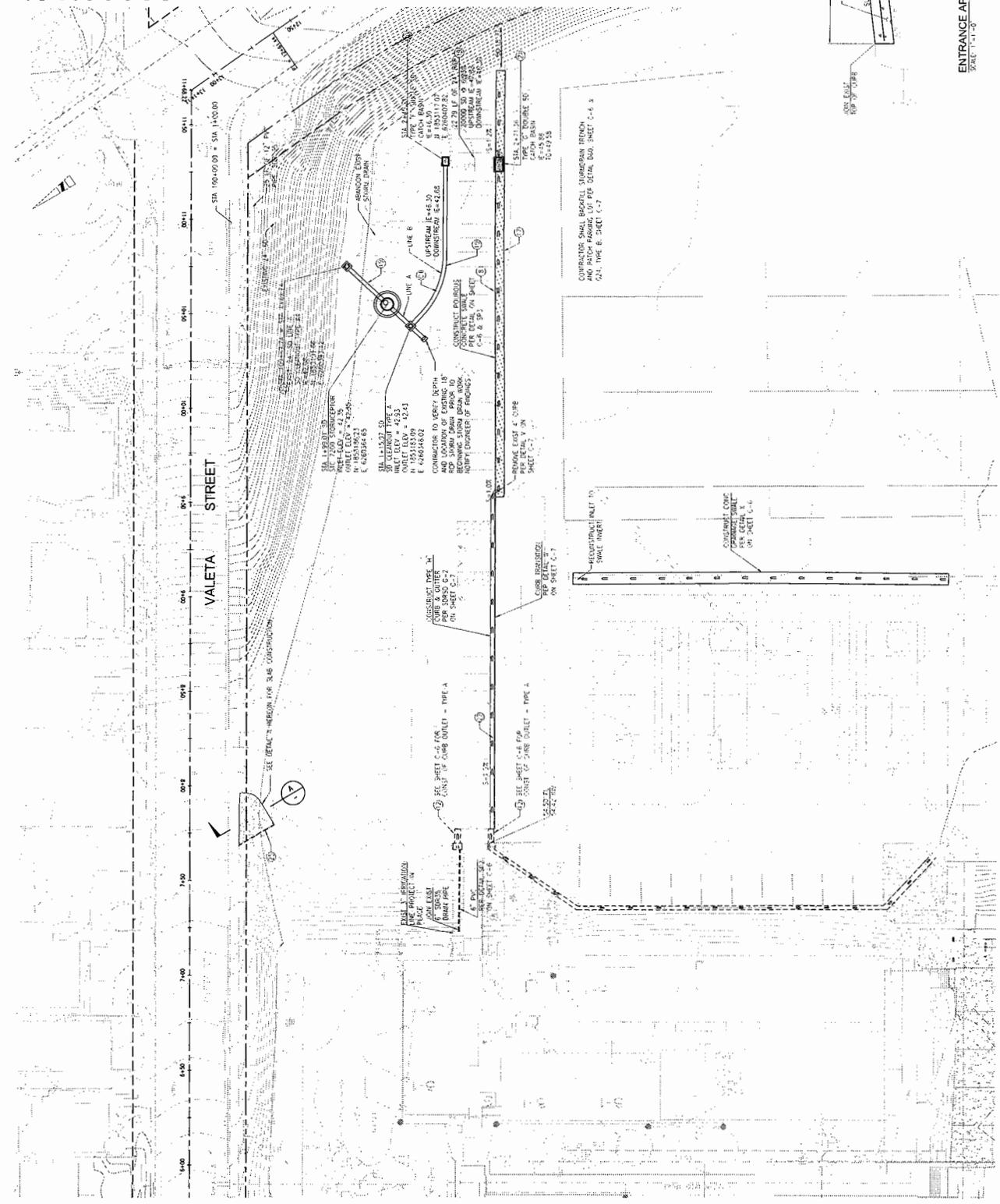


STORM DRAIN PLAN
CORREA JUNIOR HIGH SCHOOL
STORM WATER QUALITY
IMPROVEMENT

FORWARD FOR THE
BOARD OF EDUCATION
 SAN DIEGO UNIFIED SCHOOL DISTRICT
 SAN DIEGO, CALIFORNIA
 PREPARED BY THE
BOYLE
 SAN DIEGO, CALIFORNIA
 PHONE: (619) 444-8800
 FAX: (619) 444-8800

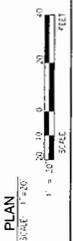


- KEYED CONSTRUCTION NOTES**
1. EXIST CONCRETE CURB TO REMAIN & PROTECT IN PLACE.
 2. CONSTRUCT 18" DIA. PIPE - TYPE A PER DETAIL C-2, SHEET C-4.
 3. REMOVE AND REPLACE EXISTING CHANNEL FENCE.
 4. CONSTRUCT 24" RCP (ID-2000).
 5. CONSTRUCT STORM DRAIN CATCH BASIN (ADDRESSES).
 6. CONSTRUCT STORM DRAIN CATCH BASIN (TYPE C).
 7. PER DETAIL C-6, SHEET C-6.
 8. CONSTRUCT RETAINING WALL AS DIRECTED PER CS, 11-27, SHEET C-7.
 9. PER DETAIL C-2 ON SHEET C-7.

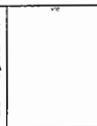


STORM DRAIN CURB DATA TABLE

CURVE	FRADIUS	LENGTH	DELTA	TANGENT
C1	45.00'	35.53'	43°04'15"	17.76'



DATE	10/11/11
BY	W. J. BOYLE
CHECKED BY	
APPROVED BY	
PROJECT NO.	11-00000000
SHEET NO.	1



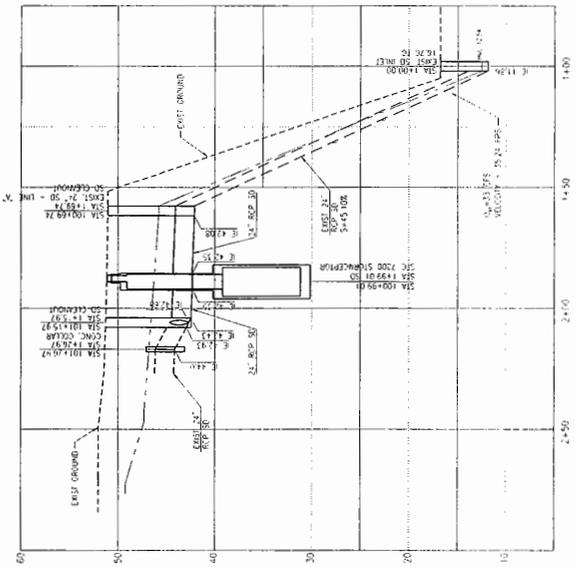
PREPARED FOR THE
BOARD OF EDUCATION
 SAN DIEGO UNIFIED SCHOOL DISTRICT
 SAN DIEGO, CALIFORNIA



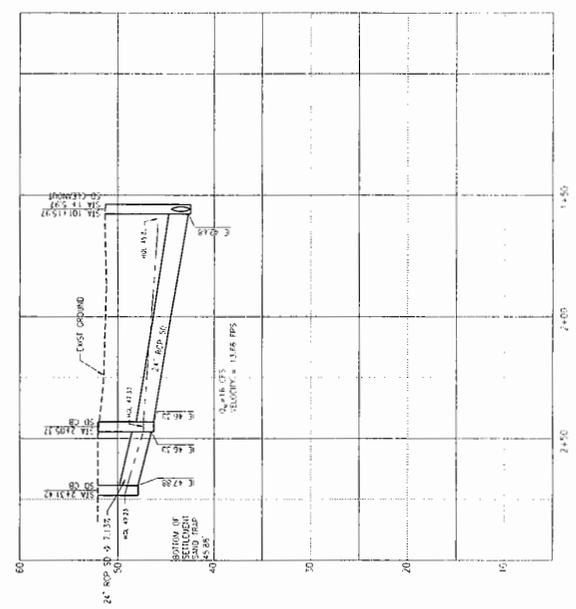
PREPARED BY THE
BOYLE
 1001 COMMERCE STREET, SUITE 200
 SAN DIEGO, CALIFORNIA 92101
 PHONE: (619) 594-8800
 FAX: (619) 594-8801
 WWW.BOYLEINC.COM

PROJECT NO. 11-00000000
 SHEET NO. 1
 DATE 10/11/11
 DRAWN BY W. J. BOYLE
 CHECKED BY
 APPROVED BY

STORM DRAIN PROFILE
 CORREA JUNIOR HIGH SCHOOL
 STORM WATER QUALITY
 IMPROVEMENT
 C-5
 OF 6 SHEETS



STORM DRAIN LINE "A"
 PROFILE
 SCALE: HORIZ. 1"=20'
 SCALE: VERT. 1"=5'



STORM DRAIN LINE "B"
 PROFILE
 SCALE: HORIZ. 1"=20'
 SCALE: VERT. 1"=5'

APPENDIX H
INTRUSIVE WORK COMPLETION REPORT OUTLINE

INTRUSIVE WORK COMPLETION REPORT OUTLINE

- 1.0 GENERAL INFORMATION
- 2.0 PUBLIC NOTIFICATION ACTIVITIES (IF APPLICABLE)
- 3.0 SUMMARY OF WORK ORDER
 - 3.1 Work Location
 - 3.2 Description of Work Activities
- 4.0 SITE PREPARATION
 - 4.1 Field Documentation
 - 4.1.1 Field Logbooks
 - 4.1.2 Photographs
 - 4.2 Site Preparation and Security Measures
 - 4.2.1 Work Area Delineation and Security Measures
 - 4.2.2 Exposure Control
 - 4.2.3 Permits and Plans (If applicable)
- 5.0 REPAIR, MAINTENANCE, AND SITE RESTORATION
 - 5.1 Excavation
 - 5.1.1 Soil Staging, Segregation, and Storage Operations
 - 5.1.2 Excavation Plan
 - 5.1.3 Decontamination
 - 5.2 Repair or Maintenance
 - 5.3 Compliance with Health and Safety Requirements
 - 5.4 Dust Control
 - 5.5 Transportation Plan for Offsite Disposal (if applicable)
 - 5.6 Backfill and Site Restoration
- 6.0 FIELD VARIANCE OR CHANGE ORDER (IF APPLICABLE)
- 7.0 SIGNATURE

Appendices

- Appendix A – Site Location
- Appendix B – Site Plan
- Appendix C – Photographic Documentation

APPENDIX I
ANNUAL INSPECTION SUMMARY REPORT OUTLINE

ANNUAL INSPECTION REPORT OUTLINE

- 1.0 GENERAL INFORMATION
- 2.0 NARRATIVE OF OBSERVATIONS
 - 2.1 Purpose of Current Annual Inspection
 - 2.2 School Site Walkthrough/Changes Since Previous Annual Review
 - 2.3 Annual Inspection Checklist
 - 2.4 Discussion
 - 2.4.1 Hardscape Areas – Cap Integrity
 - 2.4.2 Landscape Areas – Cap Integrity
- 3.0 CONCLUSIONS AND RECOMMENDATIONS
 - 3.1 Conclusions
 - 4.1 Recommendations
- 5.0 SIGNATURE

Appendices

- Appendix A – Site Location
- Appendix B – Site Plan (indicating waste footprint)
- Appendix C – Periodic (monthly) Inspection Checklists
- Appendix D – Training Records
- Appendix E – Intrusive Work Completion Reports
- Appendix F – Annual Inspection Checklist and Field Notes
- Appendix G – Photographic Documentation

APPENDIX J
FIVE-YEAR REVIEW REPORT OUTLINE

FIVE-YEAR REVIEW REPORT OUTLINE

- 1.0 GENERAL INFORMATION
 - 1.1 Purpose of Current Five-Year Review and Inspection
 - 1.2 Citation and Location of Previous Annual and Five Year Reviews
 - 1.3 Summary of Cap Systems
 - 1.4 Changes since Previous Five-Year Review
- 2.0 NARRATIVE OF OBSERVATIONS
 - 2.1 Site Walkthrough
 - 2.2 Annual Inspection Checklist and Field Log
 - 2.3 Topographic Survey
 - 2.3 Discussion
 - 2.3.1 Hardscape Areas – Cap Integrity
 - 2.3.2 Landscape Areas – Cap Integrity
- 3.0 TECHNICAL ASSESSMENT
- 4.0 CONCLUSIONS AND RECOMMENDATIONS
- 5.0 SIGNATURE

Appendices

- Appendix A – Site Location
- Appendix B – Site Plan (indicating waste footprint)
- Appendix C – Periodic (monthly) Inspection Checklists
- Appendix D – Training Records
- Appendix E – Intrusive Work Completion Reports
- Appendix F – Annual Inspection Checklist and Field Notes
- Appendix G – Photographic Documentation
- Appendix H – Topographic Survey Data