



August 5, 2011

Maryland Square Shopping Center, LLC
Herman Kishner Trust
c/o Mr. Tom Vandenburg
Dongell Lawrence Finney LLP
707 Wilshire Boulevard, Suite 4500
Los Angeles, California 90017

RE: **WASTE MANAGEMENT PLAN, ADDENDUM TO THE CORRECTIVE ACTION PLAN FOR SOURCE AREA SOIL**
MARYLAND SQUARE PCE-SITE
3661 SOUTH MARYLAND PARKWAY
LAS VEGAS, NEVADA
FACILITY ID No. H-000086

Dear Mr. Vandenburg:

Enclosed please find one copy of the Waste Management Plan, Addendum to the Corrective Action Plan for Source Area Soil for the above referenced project. This report is being provided to the Nevada Division of Environmental Protection Bureau of Corrective Action (NDEP BCA) in both hard copy and electronic Adobe Acrobat format on this date, August 5, 2011.

If you have questions or require additional information, please do not hesitate to contact me at 619.321.6748. Thank you for your time and consideration in this matter.

Sincerely,
Tetra Tech Inc.

A handwritten signature in black ink, appearing to read 'Robert L. Manriquez'.

Robert L. Manriquez, PG
Program Manager

Enclosure(s) (1) Waste Management Plan, Addendum to the Corrective Action Plan for Source Area Soil

Dist: 1/Addressee
1/NDEP, Carson City, NV, Attn: Ms. Mary Siders
1/General Growth Properties, Inc., Attn: Ms. Lynne Stella

**WASTE MANAGEMENT PLAN
ADDENDUM TO THE CORRECTIVE ACTION PLAN
FOR SOURCE AREA SOIL
MARYLAND SQUARE PCE SITE
3661 SOUTH MARYLAND PARKWAY
LAS VEGAS, NEVADA**

SUBMITTED TO
NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF CORRECTIVE ACTIONS
901 SOUTH STEWART STREET, SUITE 4001
CARSON CITY, NEVADA 89701-5249

PREPARED FOR
HERMAN KISHNER TRUST
C/O MR. TOM VANDENBERG, ESQ.
707 WILSHIRE BOULEVARD, 45TH FLOOR
LOS ANGELES, CALIFORNIA 90017

PREPARED BY



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August 5, 2011

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1 SAMPLING AND ANALYTICAL SUMMARY

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A Drawings

1.0 INTRODUCTION

The Corrective Action Plan for Source Area Soil at the Maryland Square Shopping Center (CAP) specifies the corrective action for tetrachloroethene (PCE)-contaminated soil in the source area above the water table (Tetra Tech 2010). Nevada Division of Environmental Protection (NDEP) concurred with the CAP (NDEP 20011a) and subsequently approved the schedule for corrective action (NDEP 2011b, c). The CAP specifies removal of contaminated soil and disposal of it at a licensed hazardous waste disposal facility. However, as the design for the corrective action progressed, alternatives more suitable than disposal as hazardous waste surfaced. Tetra Tech began discussions regarding these options with the NDEP, and in an email dated July 12, 2011, NDEP asked for submittal of a Waste Management Plan (WMP) as an addendum to the CAP (NDEP 2011d).

2.0 BACKGROUND

The CAP requires removal and disposal of soil containing PCE at concentrations exceeding the remediation goal of 550 micrograms per kilogram ($\mu\text{g}/\text{kg}$). During the corrective action design process, results of a geotechnical investigation and slope stability analysis necessitated expanding the horizontal limits of the excavation in order to ensure that excavation slopes would remain stable. Consequently, some clean soils would be excavated (that is, soils that do not contain PCE at levels exceeding the remediation goal).

Drawing C2 (Appendix A) shows the excavation plan. Zones A1, A2, and B indicate the known extents of contaminated soils slated for removal and disposal. Zone C indicates the extent of clean soil that must be removed in order to maintain stability of the excavation. Disposals of Zones A1 and A2 spoils will be as hazardous waste; Zone B soils will be recycled at a licensed facility, and Zone C spoils will be reused on site as excavation backfill. This WMP therefore details how spoils will be segregated and handled in accordance with their respective ranges of PCE contamination.

3.0 CLASSIFICATION OF SPOILS

Drawings C2 and C100 (Appendix A) delineate soils to be excavated:

- Zone A1 - PCE concentration in soil may exceed 60,000 $\mu\text{g}/\text{kg}$.
- Zone A2 - PCE concentration in soil may range from 6,000 $\mu\text{g}/\text{kg}$ (inclusive) to 60,000 $\mu\text{g}/\text{kg}$ (exclusive).
- Zone B - PCE concentration in soil may range from 550 $\mu\text{g}/\text{kg}$ (inclusive) to 6,000 $\mu\text{g}/\text{kg}$ (exclusive).
- Zone C - PCE concentration is below 550 $\mu\text{g}/\text{kg}$.

Soils excavated from Zones A1 and A2 will be considered hazardous waste because these soils contain F002 waste as defined by Title 40 *Code of Federal Regulations* (CFR) 261.31. Moreover, Zone A1 spoils may be subject to land disposal restrictions stipulated by 40 CFR 268.49(c)(1).

Soil excavated from Zone B will be considered recyclable material. This is based on a “contained-in determination” (see Section 4.0) that NDEP has agreed to provide for these spoils.

Soil excavated from Zone C will be considered clean unless proven otherwise through testing. This is based on a contained-in determination that NDEP has agreed to provide for these spoils.

4.0 CONTAINED-IN DETERMINATION

The determination that any given volume of contaminated media does not contain or no longer contains hazardous waste is called a “contained-in determination.” NDEP is authorized by the U.S. Environmental Protection Agency (EPA) to provide a contained-in determination on a case-by-case basis for media contaminated with listed wastes.

NDEP has agreed to provide contained-in determinations for:

- Spoils with PCE concentrations below 6,000 µg/kg so that these spoils may be taken to a licensed recycler for thermal treatment.
- Spoils with total PCE concentration below 550 µg/kg and PCE concentration in synthetic precipitation leaching procedure (SPLP) leachate below 5 micrograms per liter (µg/L). These criteria are conservative, health-based levels derived assuming direct exposure to contaminated media. The total PCE criterion is the remediation goal for soil at the site, and is EPA’s residential regional screening level (RSL) for exposure to PCE in soil. The criterion for PCE in leachate is the federal drinking water maximum contaminant level (MCL) for PCE. Spoils meeting both criteria may be used on site as excavation backfill.

5.0 MANAGEMENT OF SPOILS

Excavation spoils will be characterized, and then disposed of or reused.

Zone A1 Spoils

The estimated in-situ volume of Zone A1 spoils is 15 cubic yards. Soil excavated from Zone A1 will be containerized in covered roll-off bins. One representative composite sample will be collected from each roll-off bin and analyzed for PCE. If the PCE concentration is found to exceed 60,000 µg/kg, the spoils will be taken to US Ecology’s facility in Beatty, Nevada, for treatment followed by disposal in a Resource Conservation and Recovery Act (RCRA) Subtitle C landfill. If the PCE concentration is found not to exceed 60,000 µg/kg, the spoils will be handled as Zone A2 spoils. Disposal documentation will include waste manifests and delivery tickets provided by the disposal facility. These disposal documents will be submitted to NDEP as part of the Corrective Action Report that will document the corrective action.

Zone A2 Spoils

The estimated in-situ volume of Zone A2 soil is 30 cubic yards. Soil excavated from Zone A2 will be containerized in covered roll-off bins. One representative composite sample will be collected from each roll-off bin and analyzed for PCE. If the PCE concentration is found not to exceed 60,000 µg/kg, the spoils will be taken to US Ecology’s facility in Beatty, Nevada, for direct disposal in a RCRA Subtitle C landfill. Disposal will be documented through waste manifests and delivery tickets provided by the disposal facility, and these documents will be submitted to NDEP as part of the Corrective Action Report.

Zone B Spoils

The in-situ volume of Zone B soil is estimated at 850 cubic yards. Data from previous investigations indicate that these soils do not contain PCE at concentrations above 6,000 µg/kg. If acceptable to the receiving facility, spoils from Zone B may be characterized using these existing data. Alternately, further sampling and analysis may be conducted to satisfy the requirements of the receiving facility. Consequently, these spoils may either be directly loaded into trucks for transport off site, or stockpiled on site for further characterization. If these spoils are stockpiled on site, they will be containerized in covered roll-off bins. These spoils will be taken to Las Vegas Paving’s facility in North Las Vegas for thermal treatment. Disposal will be documented through bills of lading and delivery tickets provided by the recycling facility, and these documents will be submitted to NDEP as part of the Corrective Action Report.

Zone C Spoils

The in-situ volume of Zone C soil is estimated at 1,150 cubic yards. These spoils are considered clean and will be stockpiled on site for characterization prior to reuse. The stockpiles will be placed on plastic liners and surrounded by temporary structures to contain sediment and prevent stormwater contamination. The size of each stockpile will be limited to 100 cubic yards. The height of the stockpile and controls to minimize wind erosion will comply with the requirements of the Clark County dust control permit. One representative composite sample will be collected from each stockpile. One half of the sample will be analyzed for total PCE, and the other half will be subjected to the SPLP followed by analysis for PCE in leachate. If the results demonstrate that the total PCE concentration is less than 550 µg/kg, and the dissolved PCE concentration in SPLP leachate is less than 5 µg/L, the stockpile will be reused on site as excavation backfill. If either one of these conditions is not met, the stockpile will be managed as Zone B spoils. Analytical results for stockpiles used as excavation backfill will be submitted to NDEP as part of the Corrective Action Report.

5.1 Sampling and Analysis

A single composite sample will be used to characterize the spoils in a single stockpile or container. Composite samples will be prepared by collecting five grab samples and homogenizing them.

Grab samples from Zone A1 and Zone A2 roll-off bins will be collected from at least 6 inches below the surface. The grab samples will be homogenized in a manner that minimizes volatilization. The resulting composite will be transferred into a sample container. The sample container will be filled to the brim, sealed, labeled, placed in a sample cooler, and sent to the analytical laboratory on the same day. In the event the sample cannot be sent to the analytical laboratory on the day it is collected, it will be refrigerated at 4 degrees Centigrade until the next business day. The holding time for samples will be limited to 14 days.

Any additional sampling and analysis that may be performed for characterization of Zone B spoils will be performed in accordance with the requirements of the receiving facility.

Grab samples from Zone C stockpiles will be collected as the stockpile grows. One grab sample will be collected from every 20 cubic yards of soil that is excavated. Because it may take a few hours for a stockpile to grow to capacity, each grab sample will be immediately transferred into a sample container. The sample container will be filled to the brim, sealed, labeled, and stored at 4 degrees Centigrade. When the final grab sample has been collected from a stockpile, it will be homogenized with the other grab samples in a manner that minimizes volatilization. The resulting composite will then be transferred into a sample container. The sample container will be filled to the brim, sealed, labeled, placed in a sample cooler, and sent to the analytical laboratory on the same day. The holding time for samples will be limited to 14 days, counting from the time the first grab sample is prepared.

One blank sample will be stored in the sample storage cooler or refrigerator, and will be replaced twice a week. One trip blank will be analyzed for every five samples transported to the analytical laboratory. Table 1 lists estimated sample quantities based on the estimated volumes of soil to be excavated. The actual quantities may vary.

Analytical services will be provided by a Nevada-certified laboratory. The SPLP will be conducted in accordance with EPA Method 1312. Analyses for PCE in soil and SPLP leachate will be conducted in accordance with EPA Method 8260B. Table 1 summarizes the analyses to be performed.

TABLE 1
SAMPLING AND ANALYTICAL SUMMARY

Sample Medium	Estimated Quantity			Analytical Method	
	Composites	Storage Blank	Trip Blank	8260B	1312
Zone A1 Spoils	1	-	-	x	-
Zone A2 Spoils	2	-	-	x	-
Zone B Spoils	AR	AR	AR	AR	-
Zone C Spoils	12	2	3	x	x

Notes:

Only Zone C spoils will be tested for leachability

AR As required

6.0 REFERENCES

Nevada Division of Environmental Protection (NDEP). 2011a. Letter on the Corrective Action Plan for Source Area Soil, Maryland Square Shopping Center. From: Ms. Mary Siders, NDEP. To Mr. Irwin Kishner and Mr. Tom Vandenberg. January 5.

NDEP. 2011b. Letter on the Proposed Schedule for Implementation of the Corrective Action Plan for Source Area Soil, Maryland Square Shopping Center. From: Ms. Mary Siders, NDEP. To Mr. Irwin Kishner and Mr. Tom Vandenberg. February 11,

NDEP. 2011c. Letter on the Revised Proposed Schedule for Implementation of the Corrective Action Plan for Source Area Soil, Maryland Square Shopping Center. From: Ms. Mary Siders, NDEP. To Mr. Irwin Kishner and Mr. Tom Vandenberg. February 25,

NDEP. 2011d. Email regarding Soil CAP, management of waste. From Ms. Mary Siders, NDEP. To Ms. Tamara Pelham, Tetra Tech. July 12.

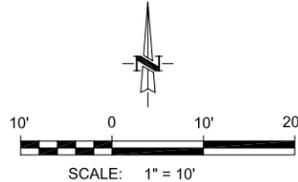
Tetra Tech. 2010. Corrective Action Plan for Source Area Soil. Maryland Square Shopping Center. 3661 South Maryland Parkway, Las Vegas, Nevada. December 14.

APPENDIX A
Drawings

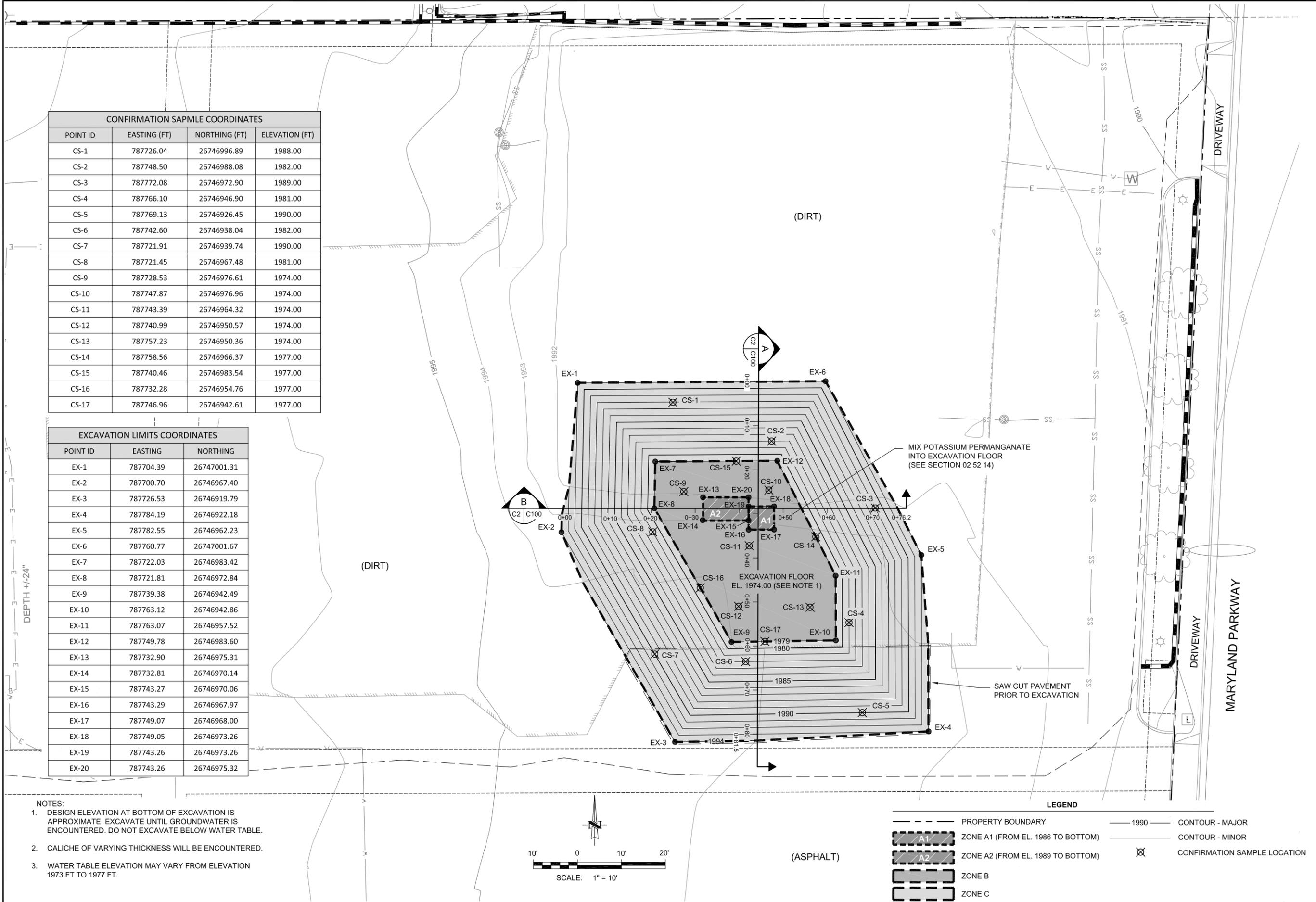
CONFIRMATION SAMPLE COORDINATES			
POINT ID	EASTING (FT)	NORTHING (FT)	ELEVATION (FT)
CS-1	787726.04	26746996.89	1988.00
CS-2	787748.50	26746988.08	1982.00
CS-3	787772.08	26746972.90	1989.00
CS-4	787766.10	26746946.90	1981.00
CS-5	787769.13	26746926.45	1990.00
CS-6	787742.60	26746938.04	1982.00
CS-7	787721.91	26746939.74	1990.00
CS-8	787721.45	26746967.48	1981.00
CS-9	787728.53	26746976.61	1974.00
CS-10	787747.87	26746976.96	1974.00
CS-11	787743.39	26746964.32	1974.00
CS-12	787740.99	26746950.57	1974.00
CS-13	787757.23	26746950.36	1974.00
CS-14	787758.56	26746966.37	1977.00
CS-15	787740.46	26746983.54	1977.00
CS-16	787732.28	26746954.76	1977.00
CS-17	787746.96	26746942.61	1977.00

EXCAVATION LIMITS COORDINATES		
POINT ID	EASTING	NORTHING
EX-1	787704.39	26747001.31
EX-2	787700.70	26746967.40
EX-3	787726.53	26746919.79
EX-4	787784.19	26746922.18
EX-5	787782.55	26746962.23
EX-6	787760.77	26747001.67
EX-7	787722.03	26746983.42
EX-8	787721.81	26746972.84
EX-9	787739.38	26746942.49
EX-10	787763.12	26746942.86
EX-11	787763.07	26746957.52
EX-12	787749.78	26746983.60
EX-13	787732.90	26746975.31
EX-14	787732.81	26746970.14
EX-15	787743.27	26746970.06
EX-16	787743.29	26746967.97
EX-17	787749.07	26746968.00
EX-18	787749.05	26746973.26
EX-19	787743.26	26746973.26
EX-20	787743.26	26746975.32

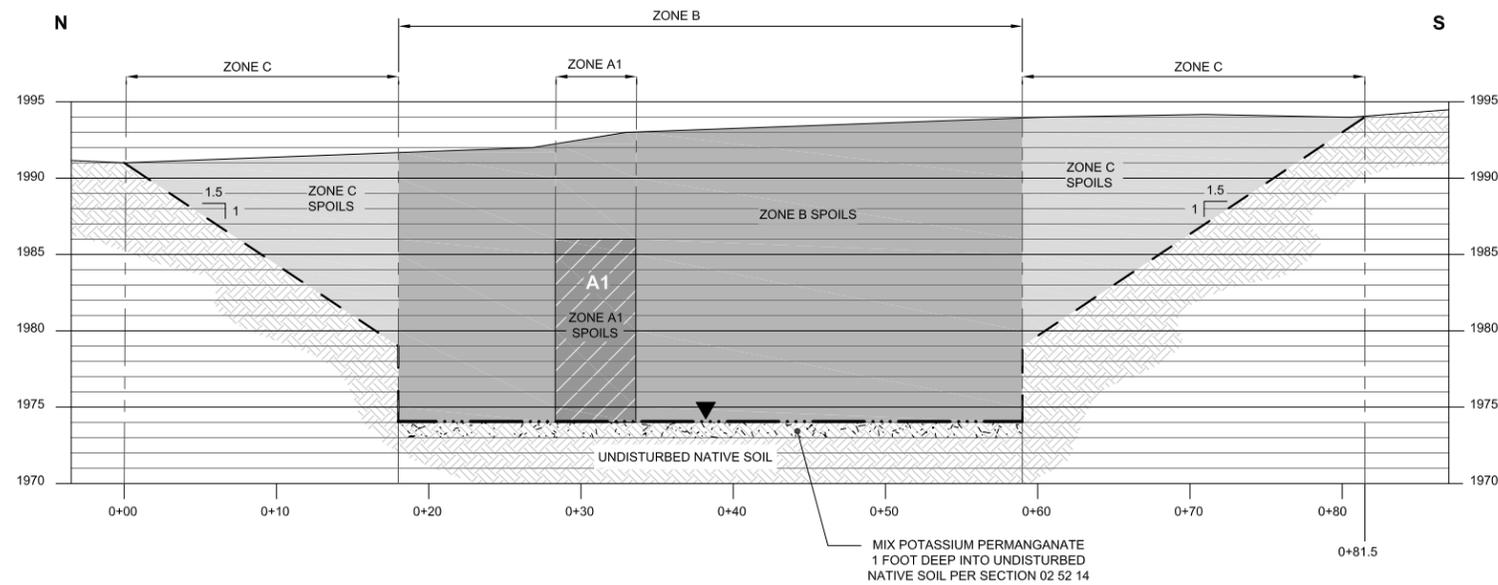
- NOTES:
- DESIGN ELEVATION AT BOTTOM OF EXCAVATION IS APPROXIMATE. EXCAVATE UNTIL GROUNDWATER IS ENCOUNTERED. DO NOT EXCAVATE BELOW WATER TABLE.
 - CALICHE OF VARYING THICKNESS WILL BE ENCOUNTERED.
 - WATER TABLE ELEVATION MAY VARY FROM ELEVATION 1973 FT TO 1977 FT.



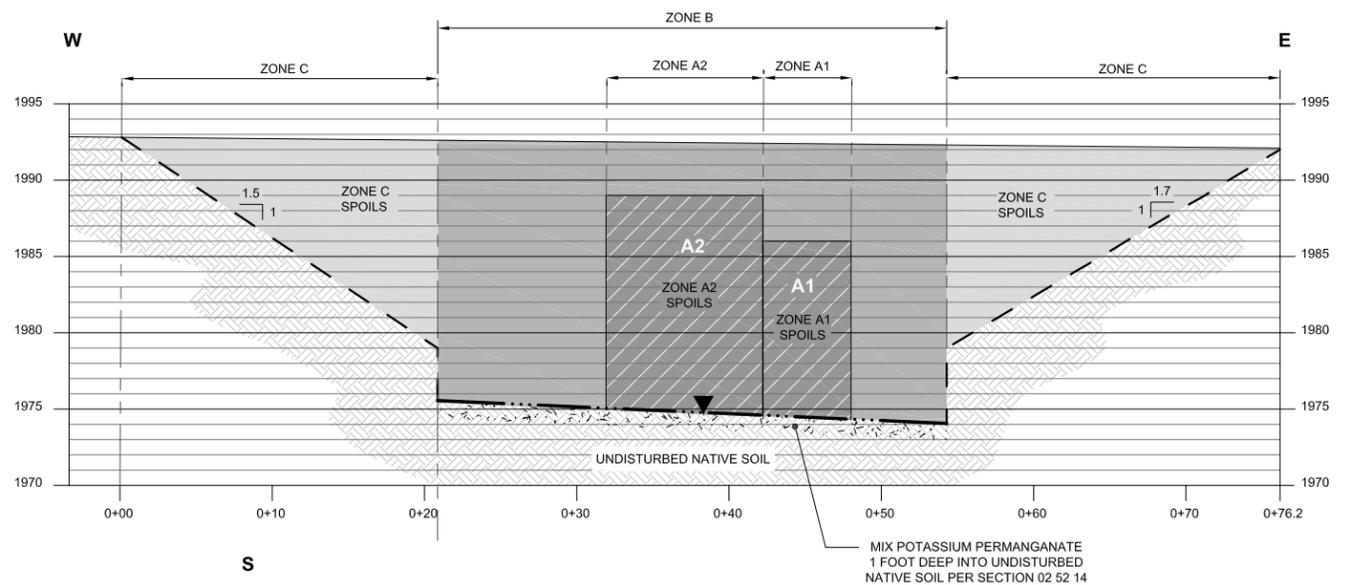
LEGEND	
	PROPERTY BOUNDARY
	ZONE A1 (FROM EL. 1986 TO BOTTOM)
	ZONE A2 (FROM EL. 1989 TO BOTTOM)
	ZONE B
	ZONE C
	1990 CONTOUR - MAJOR
	CONTOUR - MINOR
	CONFIRMATION SAMPLE LOCATION



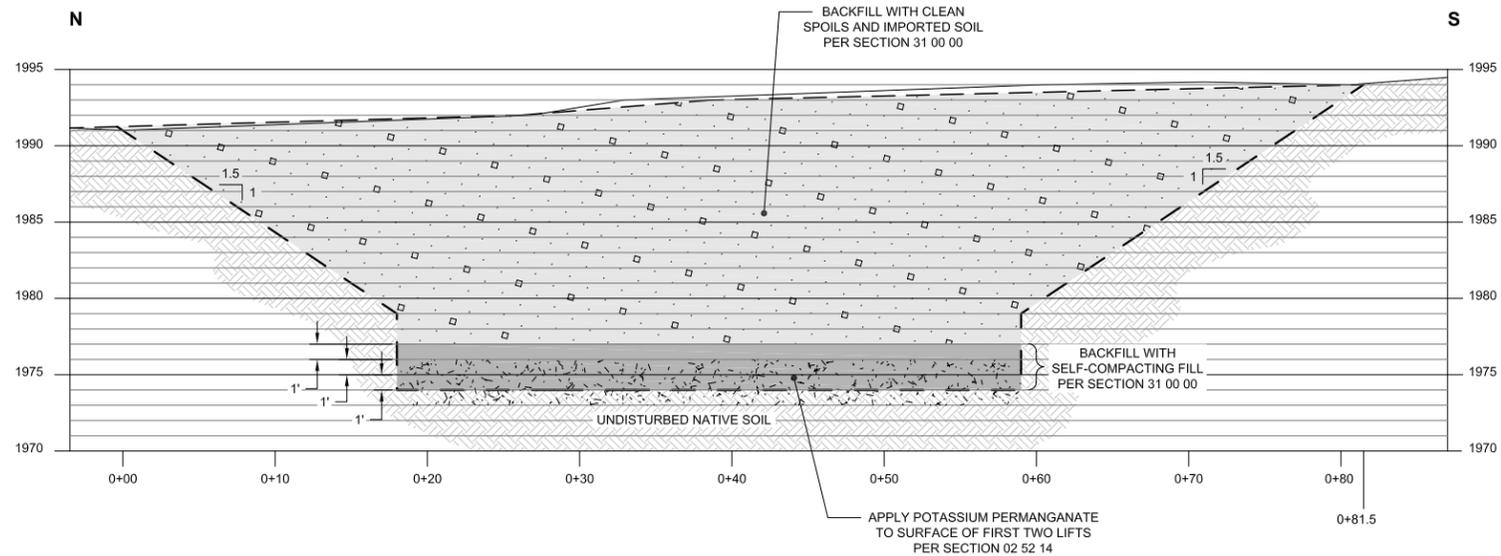
REVISIONS	REV.	DATE	DRWN	REMARKS
DRAWING SIZE D IF BORDER IS LESS THAN 20" X 31.5" IT IS A REDUCED PRINT REDUCE SCALE ACCORDINGLY				
PREPARED BY: TETRA TECH	DESIGNED BY: CC	RECHECKED BY: JVB	APPROVED BY: DMF	
	DRAWN BY: DMF	CHECKED BY: LM	DATE: 07/15/2011	
ISSUED FOR CONSTRUCTION				
MARYLAND SQUARE PCE SITE Las Vegas, Nevada EXCAVATION AND POTASSIUM PERMANGANATE APPLICATION PLAN				
DRAWING NO.: C-2				
SHEET 3 OF 5				



A
C2 | C100
CROSS SECTION
SCALE: 1" = 5'-0"



B
C2 | C100
CROSS SECTION
SCALE: 1" = 5'-0"



C
C3 | C100
CROSS SECTION
SCALE: 1" = 5'-0"

LEGEND

	EXISTING SURFACE
	FINAL SURFACE
	EXCAVATION SURFACE
	ZONE A1 SPOILS
	ZONE A2 SPOILS
	ZONE B SPOILS
	ZONE C SPOILS
	CLEAN FILL
	SELF-COMPACTING FILL
	POTASSIUM PERMANGANATE
	NATIVE SOIL
	WATER TABLE

REV.	DATE	DRWN	REVISIONS

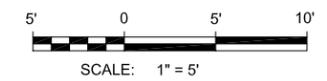
DRAWING SIZE D
IF BORDER IS LESS THAN 20" X 31.5" IT IS A REDUCED PRINT
REDUCE SCALE ACCORDINGLY

	PREPARED BY: JVB RECHECKED BY: JVB APPROVED BY: JVB DATE: 07/15/2011
	DESIGNED BY: CC DRAWN BY: DMF CHECKED BY: LM

ISSUED FOR CONSTRUCTION

MARYLAND SQUARE PCE SITE
Las Vegas, Nevada
CROSS SECTIONS

- NOTES:**
- ELEVATION OF WATER TABLE SHOWN HERE MAY VARY. DO NOT EXCAVATE BELOW WATER TABLE.
 - ELEVATION OF EXCAVATION BOTTOM SHOULD MATCH WATER TABLE ELEVATION ENCOUNTERED IN THE FIELD.



DRAWING NO.: **C-100**
SHEET 5 OF 5

R:\Clients\Maryland Square, Las Vegas NV\Soil Remediation Design\C100 Maryland Square Cross Section.dwg 07/15/2011 deborahford DN