Risk Management Plan Carriage Fine Dry Cleaning DSCA ID No. 60-0015 8020 Providence Road Charlotte, Mecklenburg County North Carolina Dry-Cleaning Solvent Cleanup Act Program

H&H Job No. DS0-23

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2923 South Tryon Street Suite 100 Charlotte, NC 28203 704-586-0007

3334 Hillsborough Street Raleigh, NC 27607 919-847-4241

#C-1269 Engineering #C-245 Geology

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1.0 Introduction

Hart & Hickman, PC (H&H) has prepared this Risk Management Plan (RMP) to address drycleaning solvent contamination associated with the Carriage Fine Dry Cleaning site (DSCA Site #60-0015) on behalf of the North Carolina Department of Environment and Natural Resources (NCDENR) Dry-Cleaning Solvent Cleanup Act (DSCA) Program. The Carriage Fine Dry Cleaning site (the "site) is located in the Arboretum Shopping Center, a commercial strip shopping center located at 8020 Providence Road in Charlotte, Mecklenburg County, North Carolina. This RMP is intended to comply with the requirements of DSCA (N.C.G.S. 143-215.104A *et seqs*) and promulgated rules and follows the outline provided in the DSCA Program's risk-based corrective action (RBCA) guidance.

2.0 Objectives of RMP

H&H performed a Tier 1 and Tier 2 risk assessment and completed DSCA's Indoor Air Risk Calculator to evaluate the cumulative site-wide risk under industrial land use scenarios. The results of the Tier 1 and Tier 2 risk assessments and Indoor Air Risk Calculator indicate that site-wide risks do not exceed target risk levels. However, the evaluation was based on site-specific land use conditions that require an RMP. As such, the objective of this RMP is to ensure that those site-specific land use conditions remain valid in the future.

3.0 Summary of Approved Risk Assessment Report

H&H submitted an Updated Tier 1 and 2 Risk Assessment Report dated August 27, 2010 to DSCA documenting a risk assessment evaluation of contamination associated with the site. The Tier 1 risk assessment evaluation included the development of an exposure model that included

an on-site exposure unit. The model accounted for potential exposure pathways within the onsite exposure unit. Specifically, the exposure model consisted of the following complete exposure pathways:

- On-Site Non-Residential Worker Current and Future Conditions Groundwater (First Encountered Zone – Indoor Inhalation of Vapor Emissions
- On-Site Non-Residential Worker Current and Future Conditions Groundwater (First Encountered Zone – Outdoor Inhalation of Vapor Emissions
- On-Site Construction Worker Soil Up to Depth of Construction Combined Pathway
- On-Site Construction Worker Groundwater (First Encountered Zone) Outdoor Inhalation of Vapor Emissions

For each complete pathway, representative concentrations (RCs) of detected contaminants in groundwater were calculated and compared with Tier 1 Risk-Based Screening Levels (RBSLs) established by the DSCA Program. There were no exceedances of Tier 1 RBSLs identified.

In addition to these pathways, the Tier 1 risk assessment included an evaluation of the protection of groundwater use pathway. For this pathway, soil and groundwater source areas were determined and RCs of compounds detected in the source areas were calculated. A hypothetical point-of-exposure (POE) for the nearest possible future location of a water supply well was identified approximately 240 feet south and downgradient of the soil source area and 190 feet south and downgradient of the groundwater source area at the nearest downgradient property boundary. Tier 1 RBSLs for the protection of groundwater use pathway were obtained from Tables 7-1(d) and (e) of the DSCA Risk-Based Corrective Action guidance document, and a dilution attenuation factor of 27.77 was used for the protection of groundwater use pathway (based on the distance from the groundwater source area to the POE). There were no exceedances of Tier 1 RBSLs by the groundwater source area RCs.

Aside from a series of man-made ponds located approximately 900 feet south of the site, the nearest surface water bodies are tributaries of Rocky Branch Creek and Flat Branch Creek located approximately 2,400 ft northeast (upgradient) and 2,400 ft southwest (downgradient), respectively, of the groundwater source area. There are no other streams located within a one-

half mile radius of the site, and the groundwater contamination plume does not appear to extend off the site property. Thus, the protection of surface water pathway is not complete and was not included in the risk assessment evaluation.

To evaluate the indoor air inhalation pathway, H&H completed DSCA's Indoor Air Risk Calculator to evaluate the cumulative risk for an industrial worker based on indoor air samples collected from the two adjacent spaces located on either side of the facility, Merle Norman and Children's Place. The risk calculator was completed for each individual air sample collected in January and April 2010. The indoor air cumulative risk values calculated using the January 2010 data for Merle Norman and Children's Place were 3.71×10^{-6} and 2.80×10^{-6} , respectively. The cumulative risk levels for the April 2010 sampling were 8.10×10^{-7} and 5.71×10^{-7} for Merle Norman and Children's Place, respectively. The risk calculators are attached as Appendix A.

To incorporate the indoor air risk from the risk calculators into the site-wide risk evaluation, H&H completed a Tier 2 risk assessment. The Tier 2 was run without any indoor air pathways included. The cumulative risk from the Tier 2 risk assessment and the cumulative risk for indoor air from the risk calculators were then added together to arrive at the site-wide cumulative risk. An updated Tier 1 & 2 Risk Assessment report was submitted to DSCA on August 27, 2010 to document this site-wide cumulative risk evaluation. The site-wide cumulative risk levels were determined to be less than DSCA's allowable risk levels (<1 x 10^{-5} Cumulative Individual Excess Lifetime Cancer Risk and <1 Cumulative Hazard Index) under industrial land use scenarios for all receptors.

Based on the results of the Tier 1 and 2 evaluations and the Indoor Air Risk Calculators, H&H concluded that the release at the subject site does not pose an unacceptable risk and recommended site closure in accordance with the DSCA Program's risk-based rules.

4.0 RAP Components

4.1 Summary of Prior Assessment

The petitioner questionnaire indicates that the Carriage Fine Dry Cleaning facility was utilized for on-site dry-cleaning operations between September 1993 and April 2001. The facility is currently a dry-cleaning drop-off center. The site is located in a moderately populated area consisting primarily of commercial, office, and some residential properties. The site property is an approximately 9.8-acre parcel of land containing a commercial strip shopping center. The structure on the site is currently occupied by commercial businesses.

In March 1999, Engineering Consulting Services, LTD (ECS) collected two soil samples (SL-1 and MW-1) and installed and sampled one Type II monitoring well (MW-1) at the Carriage Fine Dry Cleaning site. No constituents of concern (COCs) were detected in the soil samples. PCE (0.002 mg/L) and cis-1,2-dichloroethylene (cis-1,2-DCE, 0.012 mg/L) were detected in the groundwater sample collected from MW-1. The PCE concentration exceeded the 2L Standard of 0.0007 mg/L. ECS sampled MW-1 again, on August 7, 1999 and February 19, 2000. In August 1999, cis-1,2-DCE, PCE, and TCE were detected at 0.096 mg/L, 0.014 mg/L, and 0.0027 mg/L, respectively. The cis-1,2-DCE and PCE concentrations exceeded 2L Standards (0.07 mg/L and 0.0007 mg/L, respectively). In February 2000, only cis-1,2-DCE was detected in MW-1 at a concentration of 0.020 mg/L, which is below the 2L Standard.

The site was certified into the DSCA Program on December 11, 2007. In May 2008, H&H conducted Prioritization Assessment (PA) activities at the site. The PA activities included the advancement of eleven soil borings (SB-1 through SB-11) and the installation and sampling of three temporary wells (GW-1A, GW-2, and GW-3). Ethylbenzene, toluene, TCE, and total xylenes were detected in SB-4 (2') at concentrations below their respective lowest DSCA Tier 1 RBSLs. PCE was detected above the 2L Standard in GW-1A (0.0043 mg/L) and GW-3 (0.0046 mg/L), and TCE was detected below the 2L Standard of 0.0028 mg/L in GW-1A (0.00076J mg/L) and GW-3 (0.00062J mg/L). Because PCE impacts in groundwater were above the 2L Standard, the site was assigned a Prioritization Ranking of 4.1.

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In July 2008, H&H installed and sampled four Type II monitoring wells (MW-2 through MW-5). Subsequently, H&H conducted quarterly groundwater monitoring events for monitoring wells MW-1 through MW-5 in October 2008, January 2009, and April 2009. H&H installed and sampled an additional Type II monitoring well (MW-6) in June 2009, and conducted two groundwater monitoring events for MW-1 through MW-6 in July 2009 and October 2009

Between October 2009 and April 2010, H&H conducted vapor intrusion assessment activities at the site. H&H collected sub-slab vapor samples inside the Carriage Fine Dry Cleaning facility and the two adjacent tenant spaces (Merle Norman and The Children's Place). H&H also completed two ambient air sampling events, which included collecting indoor air samples inside Merle Norman and The Children's Place and collecting outdoor, background air samples. Results of the sub-slab vapor sampling events indicated concentrations of PCE exceeding ten times the EPA Regional Screening Level (RSL) for industrial/commercial air in sub-slab vapor samples collected inside Carriage Fine Dry Cleaning (VMP-1) and Merle Norman (VMP-3). Results of the first ambient air sampling event indicated concentrations of PCE (5.8 μ g/m³ and 7.8 μ g/m³) above the EPA RSL for industrial/commercial air (2.1 μ g/m³) in The Children's Place (IAS-1) and Merle Norman (IAS-2), respectively. During the second sampling event, PCE was detected in both indoor samples (1.2 μ g/m³ for IAS-1 and 1.7 μ g/m³ for IAS-2) at concentrations below the EPA RSL.

4.2 Remedial Action

According to the DSCA Program's RBCA guidance, no remedial action is necessary if four site conditions are met: the dissolved plume is stable or decreasing; the maximum concentration within the exposure domain for every complete exposure pathway of any constituent of concern (COC) is less than ten times the RC of that COC; adequate assurance is provided that the land-use assumptions used in the DSCA Program's RBCA process are not violated for current or future conditions; and, there are no ecological concerns at the site. The subject site's compliance with these four conditions confirms that the contaminant concentrations are not likely to pose an unacceptable risk either at present or in the future. Land-use restrictions (LURs) and no

remedial action are recommended for the site. Each of these conditions and their applicability to the subject site are summarized below.

Condition 1: The dissolved plume is stable or decreasing.

Quarterly groundwater monitoring has been conducted at the site since October 2008. Monitoring wells MW-1 through MW-5 have been sampled more than four times, and monitoring well MW-6, which is not impacted above 2L Standards, has been sampled three times. Constituents detected in groundwater samples collected from the site include chloroform, cis-1,2-DCE, PCE, TCE, chloromethane, and methylene chloride. Only PCE and cis-1,2-DCE have been detected above the 2L Standard. However, cis-1,2-DCE was only detected above the 2L Standard once in MW-1 in August 1999. Therefore, H&H focused on PCE as the only COC for the site plume stability analysis.

PCE was detected above the 2L Standard in groundwater samples collected from MW-1 in March and August of 1999, but has not been detected in MW-1 since that time. PCE has been detected above the 2L Standard in MW-5 since quarterly groundwater monitoring began in October 2008. PCE was also detected below the 2L Standard in MW-6 in June 2009 after installation, but has not been detected during subsequent quarterly groundwater monitoring events.

To evaluate plume stability, H&H prepared PCE concentration versus time graphs for monitoring wells MW-1 and MW-5. As shown on the graphs in Appendix B, PCE concentrations appear to be stable or decreasing at the site over time. Based on this analysis, H&H concludes that PCE detections are stable and confined to the site property and that the concentrations in the source area are decreasing. Documentation of the plume stability evaluation, including a figure showing monitoring well locations, a table showing historical groundwater analytical data, and concentration versus time graphs are included in Appendix B.

Condition 2: The maximum concentration within the exposure domain for every complete exposure pathway of any COC is less than ten times the RC of that COC.

H&H calculated representative concentrations of COCs for each complete exposure pathway during the Tier 1 Risk Assessment evaluations. The maximum concentration of each COC was less than ten times the respective RC.

Condition 3: Adequate assurance is provided that the land-use assumptions used in the DSCA Program's RBCA process are not violated for current or future conditions.

The risk assessment conducted by H&H for the site assumed that usage of the site property will remain commercial/industrial and that groundwater from the site property will not be utilized in the future. As discussed in Section 6.0, LURs will be implemented for the site property to ensure that these assumptions remain valid.

Condition 4: There are no ecological concerns at the site.

H&H completed a Level 1 Ecological Risk Assessment for the site in accordance with the DSCA Program's RBCA guidance. The results of the evaluation indicate that the release does not pose an unacceptable ecological risk. The completed Level 1 Ecological Risk Assessment Checklists A and B are included in Appendix C.

The site's compliance with the four above-referenced conditions indicates that the contaminant concentrations are not likely to pose an unacceptable risk either at present or in the future. The plume is expected to naturally attenuate over time, and the appropriate remedial action is to implement LURs on the site property.

5.0 Data Collected During RMP Implementation

No further sampling or other data collection activities are proposed for the site. As such, this section is not applicable.

6.0 Land-Use Restrictions

The risk assessment for the site was based on assumptions that usage of the site property will remain commercial/industrial and that groundwater from the site property will not be utilized in

the future. LURs will be implemented for the site property to ensure that the land-use conditions are maintained and monitored until LURs are no longer required for the site. A Notice of Dry-Cleaning Solvent Remediation (NDCSR) was prepared for the site to comply with the LUR requirement. The NDCSR is included in Appendix D. A plat showing the locations and types of dry-cleaning solvent contamination on the property is included as an exhibit to the NDCSR. The locations of dry-cleaning solvent contamination are where contaminants have been detected above unrestricted use standards. As discussed in Section 4.2, PCE in groundwater is the only COC remaining above unrestricted use standards.

7.0 Long-Term Stewardship Plan

The NDCSR contains a clause requiring the owner of the site to submit a notarized "Annual DSCA Land-Use Restrictions Certification" to NCDENR on an annual basis certifying that the NDCSR remains recorded with the Register of Deeds and that the land-use conditions have not changed. An example of such a notice is included in Appendix E. Documents relating to this site will be maintained by NCDENR and made available for public access.

8.0 RMP Implementation Schedule

Since potential exposure to impacts at the site will be managed through the NDCSR and LURs, no additional site remedial activities are required to implement the RMP. A 30-day public comment period will be held to allow the community an opportunity to comment on the proposed strategy. Appendix F includes example documents used to announce the public comment period in the local newspaper and to inform local officials, nearby property owners, and interested parties. Upon completion of the public comment period and final approval of the RMP, the NDCSR will be filed with the Mecklenburg County Register of Deeds and will complete the RMP schedule.

9.0 Criteria for Demonstration of RMP Success

The RMP will be successfully implemented once the required LURs have been executed and recorded with the Mecklenburg County Register of Deeds. The NDCSR may, at the request of the property owner, be canceled by NCDENR after risk to public health and the environment associated with the dry-cleaning solvent contamination and any other contaminants included in the dry-cleaning solvent assessment and remediation agreement has been eliminated. If NCDENR is notified of a change in site conditions, per the notification requirements detailed in the NDCSR, the RMP will be reviewed to determine if the new site conditions have impacted the requirements set forth in the NDCSR and LURs, and if changes are required. Enforcement of the RMP will be maintained through receipt of the "Annual DSCA Land-Use Restrictions Certification" from the property owner as part of the NDCSR and LUR requirements.

10.0 Contingency Plan if RMP Fails

As discussed above, unless the DSCA Program is notified of a change in land-use conditions at the site, per the notification requirements detailed in this plan, the LURs specified in the NDCSR will remain in effect. Pursuant to N.C.G.S. 143-215.104K, if any of the LURs set out in the NDCSR are violated, the owner of the site property at the time the LURs are violated, the owner's successors and assigns, and the owner's agents who direct or contract for alteration of the site in violation of the LURs, shall be held liable for the remediation of all contaminants to unrestricted use standards.

11.0 Conclusions and Recommendations

H&H has prepared this RMP for the site on behalf of the DSCA Program. The risk assessment results indicated that contaminant concentrations at the site do not pose an unacceptable risk. Groundwater concentrations detected at the site appear to be stable and decreasing. This RMP specifies that the NDCSR and LUR requirements provide notification that the land-use

conditions observed during the risk assessment evaluation remain valid in the future. Based on the documentation contained in this report, H&H recommends issuance of a "No Further Action" letter.

Appendix A

DSCA Indoor Air Risk Calculators

DSCA ID No: 60-0015

Name/Address of Sample Location:

IAS-1 (1-27-10) The Childrens Place, 8020 Providence Rd, Charlotte, Mecklenburg County

Have multiple sampling events been conducted at this location: $\ensuremath{\boxdot}\ensuremath{\,v_{es}}\xspace$ $$$\square_{No}$$

If yes, how many: 2

Cumulative Risk Calculation for Indoor Air Pathway	/ (Industria	I)								
	Tetrachloroethene	Trichloroethylene	Vinyl Chloride	Benzene	Ethylbenzene	Naphthalene	MTBE			
Maximum Concentration Detected (µg/m ³)	5.8	0.23								
EPA Regional Screening Level (RSL) for Industrial Air (carcinogenic target risk = 1E-06) μg/m ³	2.10	6.10	2.8	1.6	4.9	0.36	47			
Ratio = Max Concentration ÷ EPA RSL	2.76	0.04	0.00	0.00	0.00	0.00	0.00			

CUMULATIVE RISK (sum of ratios x 10⁻⁶)

2.80E-06

Cumulative Hazard Index (HI) Calculation for Indoc	or Air Pathw	vay (Indust	rial)								
	Tetrachloroethene	trans - 1,2 -DCE	Vinyl Chloride	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE		
Maximum Concentration Detected	5.8										
EPA Regional Screening Level (RSL) for Industrial Air [noncancer Hazard Index (HI)=1] μg/m3	12000	260	440	130	22000	4400	440	13	13000		
Ratio = Max Concentration ÷ EPA RSL	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

CUMULATIVE HI (sum of ratios)

Notes:

1. RSLs available at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

2. Cis-1,2-DCE, trans-1,2-DCE, toluene and xylenes were not included in the cumulative risk calculation since they currently have no carcinogenic EPA RSLs.

0.00

3. Trichloroethylene and cis-1,2-DCE were not included in cumulative HI calculation since they currently have no noncancer EPA RSLs.

CONCLUSIONS

Risk is < 1E-06

✓ Risk is beteween 1E-06 and 1E-05

Risk is between 1E-05 and 1E-04

Risk is > 1E-04

- RECOMMENDATIONS (check all that apply)

 Collect confirmation samples

 Develop long-term monitoring schedule
- Evaluate for mitigation

No further action for indoor air

DSCA ID No: 60-0015

Name/Address of Sample Location:

IAS-1 (4-28-10) The Childrens Place, 8020 Providence Rd, Charlotte, Mecklenburg County

Have multiple sampling events been conducted at this location: $\ensuremath{\boxdot}\ensuremath{\,v_{es}}\xspace$ $$$\square_{No}$$

If yes, how many: 2

Cumulative Risk Calculation for Indoor Air Pathway	/ (Industria	I)								
	Tetrachloroethene	Trichloroethylene	Vinyl Chloride	Benzene	Ethylbenzene	Naphthalene	MTBE			
Maximum Concentration Detected (µg/m ³)	1.2									
EPA Regional Screening Level (RSL) for Industrial Air (carcinogenic target risk = 1E-06) μg/m ³	2.10	6.10	2.8	1.6	4.9	0.36	47			
Ratio = Max Concentration ÷ EPA RSL	0.57	0.00	0.00	0.00	0.00	0.00	0.00			

CUMULATIVE RISK (sum of ratios x 10⁻⁶)

 ISK (sum of ratios x 10°)
 5.71E-07

 ndex (HI) Calculation for Indoor Air Pathway (Industrial)

0.00

Cumulative Hazard Index (HI) Calculation for Indoc	or Air Pathy	vay (Indust	nai)								
	Tetrachloroethene	trans - 1,2 -DCE	Vinyl Chloride	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE		
Maximum Concentration Detected	1.2										
EPA Regional Screening Level (RSL) for Industrial Air [noncancer Hazard Index (HI)=1] μg/m3	12000	260	440	130	22000	4400	440	13	13000		
Ratio = Max Concentration ÷ EPA RSL	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

CUMULATIVE HI (sum of ratios)

Notes:

1. RSLs available at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

2. Cis-1,2-DCE, trans-1,2-DCE, toluene and xylenes were not included in the cumulative risk calculation since they currently have no carcinogenic EPA RSLs.

3. Trichloroethylene and cis-1,2-DCE were not included in cumulative HI calculation since they currently have no noncancer EPA RSLs.

CONCLUSIONS

Risk is < 1E-06

Risk is beteween 1E-06 and 1E-05

Risk is between 1E-05 and 1E-04

Risk is > 1E-04

- RECOMMENDATIONS (check all that apply)
 Collect confirmation samples
 Develop long-term monitoring schedule
- Evaluate for mitigation

✓ No further action for indoor air

DSCA ID No: 60-0015

Name/Address of Sample Location:

IAS-2 (1-27-10) Merle Norman, 8016 Providence Rd, Charlotte, Mecklenburg County

Have multiple sampling events been conducted at this location: $\ensuremath{\boxdot}\ensuremath{\,v_{es}}\xspace$ $$$\square_{No}$$

If yes, how many: 2

Cumulative Risk Calculation for Indoor Air Pathway	/ (Industria	I)								
	Tetrachloroethene	Trichloroethylene	Vinyl Chloride	Benzene	Ethylbenzene	Naphthalene	MTBE			
Maximum Concentration Detected (µg/m ³)	7.8									
EPA Regional Screening Level (RSL) for Industrial Air (carcinogenic target risk = 1E-06) μg/m ³	2.10	6.10	2.8	1.6	4.9	0.36	47			
Ratio = Max Concentration ÷ EPA RSL	3.71	0.00	0.00	0.00	0.00	0.00	0.00			

CUMULATIVE RISK (sum of ratios x 10⁻⁶)

3.71E-06

Cumulative Hazard Index (HI) Calculation for Indoc	or Air Pathv	vay (Indust	rial)								
	Tetrachloroethene	trans - 1,2 -DCE	Vinyl Chloride	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE		
Maximum Concentration Detected	7.8										
EPA Regional Screening Level (RSL) for Industrial Air [noncancer Hazard Index (HI)=1] μg/m3	12000	260	440	130	22000	4400	440	13	13000		
Ratio = Max Concentration ÷ EPA RSL	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

CUMULATIVE HI (sum of ratios)

0.00

Notes:

1. RSLs available at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

2. Cis-1,2-DCE, trans-1,2-DCE, toluene and xylenes were not included in the cumulative risk calculation since they currently have no carcinogenic EPA RSLs.

3. Trichloroethylene and cis-1,2-DCE were not included in cumulative HI calculation since they currently have no noncancer EPA RSLs.

CONCLUSIONS

Risk is < 1E-06

✓ Risk is beteween 1E-06 and 1E-05

Risk is between 1E-05 and 1E-04

Risk is > 1E-04

- RECOMMENDATIONS (check all that apply)

 Collect confirmation samples

 Develop long-term monitoring schedule
- Evaluate for mitigation

No further action for indoor air

DSCA ID No: 60-0015

Name/Address of Sample Location:

IAS-2 (4-28-10) Merle Norman, 8016 Providence Rd, Charlotte, Mecklenburg County

Have multiple sampling events been conducted at this location: $\ensuremath{\boxdot}\ensuremath{\,v_{es}}\xspace$ $$$\square_{No}$$

If yes, how many: 2

Cumulative Risk Calculation for Indoor Air Pathway	/ (Industrial	l)								
	Tetrachloroethene	Trichloroethylene	Vinyl Chloride	Benzene	Ethylbenzene	Naphthalene	MTBE			
Maximum Concentration Detected (µg/m ³)	1.7									
EPA Regional Screening Level (RSL) for Industrial Air (carcinogenic target risk = 1E-06) μg/m ³	2.10	6.10	2.8	1.6	4.9	0.36	47			
Ratio = Max Concentration ÷ EPA RSL	0.81	0.00	0.00	0.00	0.00	0.00	0.00			

CUMULATIVE RISK (sum of ratios x 10⁻⁶)

8.10E-07

Cumulative Hazard Index (HI) Calculation for Indoc	or Air Pathv	vay (Industi	rial)								
	Tetrachloroethene	trans - 1,2 -DCE	Vinyl Chloride	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE		
Maximum Concentration Detected	1.7										
EPA Regional Screening Level (RSL) for Industrial Air [noncancer Hazard Index (HI)=1] μg/m3	12000	260	440	130	22000	4400	440	13	13000		
Ratio = Max Concentration ÷ EPA RSL	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

CUMULATIVE HI (sum of ratios)

Notes:

1. RSLs available at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

2. Cis-1,2-DCE, trans-1,2-DCE, toluene and xylenes were not included in the cumulative risk calculation since they currently have no carcinogenic EPA RSLs.

0.00

3. Trichloroethylene and cis-1,2-DCE were not included in cumulative HI calculation since they currently have no noncancer EPA RSLs.

CONCLUSIONS

Risk is < 1E-06

Risk is beteween 1E-06 and 1E-05

Risk is between 1E-05 and 1E-04

Risk is > 1E-04

- RECOMMENDATIONS (check all that apply)
 Collect confirmation samples
 Develop long-term monitoring schedule
- Evaluate for mitigation

✓ No further action for indoor air

Appendix B

Documentation of Plume Stability Evaluation



MW-1 PCE Concentration vs. Time Graph Carriage Fine Dry Cleaning, Charlotte, NC

Note: Non-detect values are plotted as half of the detection limit.



MW-5 PCE Concentration vs. Time Graph Carriage Fine Dry Cleaning, Charlotte, NC

Note: Non-detect values are plotted as half of the detection limit.

Table 5: Analytical Data for Groundwater

	110 00	-0015																			
oundwater Sampling Point	mpling Date (mm/dd/yy)	1,1,1.Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethanae	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane (EDC)	Benzene	Benzo(a)pyrene	Carbon tetrachloride	Chloroform	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl tert-butyl ether (MTBE)	Naphthalene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride	Xylenes (total)
Ū	Sa					0.001		0.001			[mį	g/L]	0.001	5 X 4	N 7 4	0.00.40	0.001	0.001		0.001	0.001
GW-IA	5/7/08	NA	NA	NA	NA	<0.001	NA	<0.001	NA	NA	NA	<0.001	<0.001	NA	NA	0.0043	<0.001	<0.001	0.00076J	<0.001	<0.001
GW-2	5/7/08	NA	INA	INA NA	INA NA	< 0.001	NA	< 0.001	NA	INA NA	NA	<0.001	<0.001	NA	NA	<0.001	<0.001	< 0.001	<0.0007J	< 0.001	< 0.001
0-5	3/19/99	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001 NA	NA	<0.001	<0.001	0.012	<0.001	NA	NA	0.0040	<0.001 NA	<0.001	<0.00023	< 0.001	<0.003
	8/7/99	<0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	NA	NA	< 0.001	<0.001	0.096	NA	NA	NA	0.014	NA	<0.001	0.0027	<0.005	NA
	2/19/00	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	0.02	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.003
	7/21/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	0.02	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.003
MW-1	10/7/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	1/6/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	4/6/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	0.0015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	7/2/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	0.0021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	10/15/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	0.00054J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	7/21/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	0.02	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.003
	10/7/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	0.00091 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
MW-2	1/6/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
141 44 -2	4/6/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	0.0064	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	7/2/09	$<\!0.001$	< 0.001	< 0.001	< 0.001	< 0.001	$<\!0.001$	< 0.001	NA	< 0.002	0.012	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	10/15/09	$<\!0.001$	< 0.001	< 0.001	< 0.001	< 0.001	$<\!0.001$	< 0.001	NA	< 0.002	0.011	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	7/21/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	0.02	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.003
	10/7/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
MW-3	1/6/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	4/6/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	7/2/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	<0.002	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.002	<0.002	< 0.002	< 0.003
	7/21/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	10/7/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.003
	1/6/00	<0.001	<0.001	<0.001	< 0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
MW-4	1/0/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	7/2/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	10/15/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003

Table 5: A	Analytical	Data f	or Gro	undwat	ter															1	ADT 5
DSCA ID	No.: 60)-0015																			
oundwater Sampling Point	mpling Date (mm/dd/yy)	1,1,1.Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethanae	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane (EDC)	Benzene	Benzo(a)pyrene	Carbon tetrachloride	Chloroform	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl tert-butyl ether (MTBE)	Naphthalene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride	Xylenes (total)
Ū	Z/21/09	-0.001	-0.001	-0.001	<0.001	<0.001	-0.001	-0.001	NTA	-0.001	[mg	g/L]	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002
	10/7/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA NA	< 0.001	< 0.001	0.02	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.003
	1/6/09	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001	NA	<0.002	<0.001	<0.001	<0.001	< 0.001	<0.001	0.0012	<0.001	<0.002	<0.002	<0.002	<0.003
MW-5	4/6/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0013	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	7/2/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0033	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	10/15/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0013	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	6/1/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.00058 J	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
MW-6	7/2/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
	10/15/09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.003
NC 2L S	Standard	0.2	0.0002	NE	0.006	0.007	0.0004	0.001	5x10 ⁻⁶	0.0003	0.07	0.07	0.6	0.02	0.006	0.0007	0.6	0.1	0.003	3x10 ⁻⁵	0.5
Notes: 1. J flag indi	cates estima	ted conce	ntration l	below lab	oratory r	eporting l	imit and	above me	ethod det	ection lim	nit; NA d	enotes no	t analyze	d; ND de	notes not	detected				;	

2. Bold exceeds NC 2L Standard.

Table 5(1): Analytical Data for Groundwater (User Specified Chemicals) ADT 5(1)																	
DSCA ID No.: 60-0015																	
Groundwater Sampling Point	pling Date (mm/dd/yy)	Chloromethane	Methylene chloride														
	Sar										[mg	g/L]					
GW-1A	5/7/08	NA	NA														
GW-2	5/7/08	NA	NA														
GW-3	5/7/08	NA	NA														
MW-1	3/19/99	ND	ND														<u> </u>
	8/7/99	ND	ND														<u> </u>
	2/19/00	ND	ND														
	7/21/08	< 0.002	< 0.002														
	10/7/08	< 0.002	< 0.002														
	1/6/09	< 0.002	< 0.002														
	4/6/09	0.00073 J	<0.002														
	10/15/00	<0.002	<0.002														
	10/15/09	<0.0020	<0.0020									-					
	10/7/08	< 0.002	<0.002			-	<u> </u>		<u> </u>								
	1/6/00	<0.002	<0.002														
MW-2	1/0/09	<0.002	<0.002														
	7/2/09	<0.002	<0.002											 			
	10/15/09	<0.002	<0.002				ł – –		ł – –								
	7/21/08	< 0.002	< 0.002														
	10/7/08	< 0.002	< 0.002														
	1/6/09	< 0.002	< 0.002														
MW-3	4/6/09	< 0.002	< 0.002														
	7/2/09	< 0.002	< 0.002														
	10/15/09	< 0.0020	< 0.0020														
MW-4	7/21/08	< 0.002	< 0.002														
	10/7/08	< 0.002	< 0.002														
	1/6/09	< 0.002	< 0.002														
	4/6/09	< 0.002	< 0.002														
	7/2/09	< 0.002	< 0.002														
	10/15/09	< 0.0020	< 0.0020														

Table 5(1): Analytical Data for Groundwater (User Specified Chemicals)												AD	T 5(1)					
DSCA ID No.: 60-0015																		
Groundwater Sampling Point	Sampling Date (mm/dd/yy)	Chloromethane	Methylene chloride								ſms	<u>z/L]</u>						
MW-5	7/21/08	< 0.002	< 0.002															
	10/7/08	< 0.002	0.0037															
	1/6/09	< 0.002	0.0034															
	4/6/09	< 0.002	< 0.002															
	7/2/09	< 0.002	< 0.002															
	10/15/09	< 0.0020	< 0.0020															
	6/1/09	< 0.002	< 0.002															
MW-6	7/2/09	< 0.002	< 0.002															
	10/15/09	< 0.0020	< 0.0020															
NC 2L Standard 0.003 0.005																		
Notes: 1. J flag indicates estimated concentration below laboratory reporting limit and above method detection limit; NA denotes not analyzed; ND denotes not detected. 2. Bold exceeds NC 2L Standard.																		







LEGEND

LEGEN	2						
——————————————————————————————————————	ROPERTY BOUNDARY						
C	URRENT CLEANERS BUILDING						
F	ORMER CLEANERS BUILDING						
В	UILDING						
E	XPOSURE UNIT EXTENT						
G	ROUNDWATER SOURCE AREA						
S							
	ONITORING WELL						
O PO	DINT OF EXPOSURE						
(i)	N						
Υ.							
APPRO	DXIMATE						
0	50 100						
SCALE	IN FEET						
CHARLOTTE. MECK	LENBURG COUNTY						
Hart & Hickman	2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f)						
DATE: 06/08/10	REVISION NO. 0						

JOB NO: DS0-23

REVISION NO. 0 ATTACHMENT NO. 2 Appendix C

Level 1 Ecological Risk Assessment Checklists

Ecological Risk Assessment – Level 1 Checklist A – Potential Receptors and Habitat

Site / Location: 8020 Providence Rd, Charlotte, Mecklenburg County, NC H&H Project No.: DS0-23 DSCA Site ID: 60-0015

1. Are there navigable water bodies or tributaries to a navigable water body on or within one-half mile of the site?

Yes, a series of man-made ponds are located south of the site. The northernmost pond is located approximately 900 feet south of the site. These ponds discharge to Four Mile Creek which discharges into the Catawba River by way of McAlpine and Sugar Creeks.

2. Are there any water bodies anywhere on or within one-half mile of the site?

Yes, a series of man-made ponds are located south of the site. The northernmost pond is located approximately 900 feet south of the site.

3. Are there any wetland¹ areas such as marshes or swamps on or within one-half mile of the site?

Yes, according to the NWI map a persistent and emergent wetland is located at the northwestern corner of the closest man-made pond, located approximately 900 feet south of the site.

4. Are there any sensitive environmental areas² on or within one-half mile of the site?

No, the surrounding area is fully developed with commercial and residential properties. The NC Department of Natural Resources – One NC Naturally "Conservation Planning Tool" on-line map did not indicate any environmentally sensitive areas exist within a one-half mile radius of the site.

5. Are there any areas on or within one-half mile of the site owned or used by local tribes?

No. The Native American Consultation Database maintained by the National Park Service did not indicate any tribal areas are located within a one-half mile radius of the site.

6. Are there any habitat, foraging area, or refuge by rare, threatened, endangered, candidate and/or proposed species (plants and animals), or any otherwise protected species on or within one-half mile of the site?

No, the surrounding area is developed with commercial and residential properties.

¹ Wetlands are defined in 40 CFR 232.2 as "areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions." The sources to make the determination whether or not wetland areas are present may include, but not limited to, national wetland inventory available at <u>http://nwi.fws.gov</u>, federal or state agency, and USGS topographic maps.

 $^{^2}$ Areas that provide unique and often protected habitat for wildlife species. These areas typically used during critical life stages such as breeding, hatching, rearing or young and overwintering. Refer to Attachment 1 for examples of sensitive environments.

7. Are there any breeding, roosting, or feeding areas used by migratory species on or within one-half mile of the site?

Yes, migratory water fowl including Mallards, Canada Geese, and Belted Kingfishers were observed feeding from the man-made ponds.

8. Are there any ecologically³, recreationally, or commercially important species on or within one-half mile of the site?

No, the surrounding area is developed with commercial and residential properties.

9. Are there any threatened and/or endangered species (plant or animal) on or within one-half mile of the site?

No, the surrounding area is developed with commercial and residential properties.

If the answer is "Yes" to any of the above questions, then complete Level 1 Ecological Risk Assessment, Checklist B for Potential Exposure Pathways.

³ Ecologically important species include populations of species which provide a critical food resource for higher organisms. Ecologically important species include pest and opportunistic species that populate an area if they serve as a food source for other species, but do not include domesticated animals or plants/animals whose existence is maintained by continuous human interventions.

Level 1 Ecological Risk Assessment Checklist B for Potential Exposure Pathways

1A. Can chemicals associated with the site leach, dissolve, or otherwise migrate to groundwater?

Yes. The primary constituent of concern is tetrachloroethylene (PCE). Based on published references (EPA, 2006), PCE is leachable to ground water and is slightly soluble in ground water. Furthermore, impacted ground water has been confirmed at the site.

1B. Are chemicals associated with the site mobile in groundwater?

Yes. Chemical mobility is primarily influenced by the chemical solubility and soil-water partition coefficient. Based on these values, PCE is classified as moderately mobile (Fetter, 1988).

1C. Does groundwater from the site discharge to ecological receptor habitat?

Unlikely. The primary ecological receptor habitat associated with the site is a series of man-made ponds, the northernmost of which is approximately 900 feet south of the site. The extent of PCE contamination in ground water appears to be delineated to NC 2L Standards on the site property and is unlikely to discharge into the man-made ponds.

Question 1. Could chemicals associated with the site reach ecological receptors through groundwater?

Unlikely. As discussed above, the extent of PCE contamination in ground water appears to be delineated to NC 2L Standards at the site and is unlikely to discharge into the man-made ponds approximately 900 feet south of the site.

2A. Are chemicals present in surface soils on the site?

Yes. Chemicals associated with dry cleaning operations have been detected in on-site soils. However, concentrations are below the lowest DSCA RBSLs and the impacted area is covered by the footprint of the building.

2B. Can chemicals be leached from or be transported by erosion of surface soils on the site?

Unlikely. As mentioned above, impacted soils are covered by the footprint of the building.

Question 2. Could chemicals associated with the site reach ecological receptors through runoff or erosion?

Unlikely. Impacted soils are covered by the footprint of the building.

3A. Are chemicals present in surface soil or on the surface of the ground?

Yes. Chemicals associated with dry cleaning operations have been detected in surface soils. However, concentrations are below the lowest DSCA RBSLs and the impacted area is covered by the footprint of the building.

3B. Are potential ecological receptors on the site?

No. The site is developed with commercial and residential properties.

Question 3. Could chemicals associated with the site reach ecological receptors through direct contact?

Unlikely. Impacted soils and groundwater are covered by an asphalt parking lot and/or the footprint of the building.

4A. Are chemicals on the site volatile?

Yes. PCE is a volatile compound.

4B. Could chemicals on the site be transported in air as dust or particulate matter?

Unlikely. Impacted soils are covered by the footprint of the building.

Question 4. Could chemicals associated with the site reach ecological receptors through inhalation of volatilized chemicals or adhere chemicals to dust in ambient air or in subsurface burrows?

Unlikely. Impacted soils are covered by the footprint of the building.

5A. In Non-Aqueous Phase Liquids (NAPL) present at the site?

No. NAPL has not been encountered at the site.

5B. Is NAPL migrating?

No. NAPL has not been encountered at the site.

5C. Could NAPL discharge occur where ecological receptors are found?

No. NAPL has not been encountered at the site.

Question 5. Could chemicals associated with the site reach ecological receptors through migration of NAPL?

No. NAPL has not been encountered at the site.

6A. Are chemicals present in surface and shallow subsurface soils or on the surface of the ground?

Yes. Chemicals associated with dry cleaning operations have been detected in surface soils. However, concentrations are below the lowest DSCA RBSLs and the impacted area is covered by the footprint of the building.

6B. Are chemicals found in soil on the site taken up by plants growing on the site?

Unlikely. Impacted soils are covered by the footprint of the building.

6C. Do potential ecological receptors on or near the site feed on plants (e.g., grasses, shrubs, forbs, trees, etc.) found on the site?

Yes. It is possible that wildlife feed on the site's vegetation.

6D. Do chemicals found on the site bioaccumulate?

No. Based on published references (U.S. Agency for Toxic Substances and Disease Registry, 1997), PCE does not significantly bioaccumulate.

Question 6. Could chemicals associated with the site reach ecological receptors through direct ingestion of soil, plants, animals, or contaminants?

Unlikely. Impacted soils and groundwater are covered by an asphalt parking lot and/or the footprint of the building.



Appendix D

Notice of Dry-Cleaning Solvent Remediation

NOTICE OF DRY-CLEANING SOLVENT REMEDIATION

Property Owner: Arboretum Retail, LLC Recorded in Book _____, Page _____ Associated plat recorded in Plat Book _____, Page _____

This documentary component of a Notice of Dry-Cleaning Solvent Remediation (hereinafter "Notice") is hereby recorded on this _____ day of ______, 20____ by Arboretum Retail, LLC (hereinafter "Property Owner"). The survey plat component of the Notice is being recorded concurrently with this documentary component. The real property (hereinafter "Property") which is the subject of this Notice is located at 8020 Providence Road, Charlotte, Mecklenburg County, North Carolina, Parcel Identification Number (PIN) 22515101.

The Property is contaminated with dry-cleaning solvent, as defined at North Carolina General Statutes (hereinafter "N.C.G.S."), Section (hereinafter "§") 143-215.104B(b)(9) and other contaminants. This Notice has been approved by the North Carolina Department of Environment and Natural Resources, or its successor in function (hereinafter "DENR") under the authority of the Dry-Cleaning Solvent Cleanup Act of 1997, as amended, N.C.G.S. § 143-215.104A *et seq.* (hereinafter "DSCA"), and is required to be filed in the Register of Deeds' Office in the county or counties in which the land is located, pursuant to NCGS § 143-215.104M.

Groundwater at the Property is contaminated with dry-cleaning solvents associated with dry-cleaning operations at the Carriage Fine Dry Cleaning facility (DSCA Site 60-0015) located at 8020 Providence Road, Charlotte, in the Arboretum Shopping Center. Dry-cleaning operations were conducted on the Property from approximately 1993 to 2001.

Pursuant to N.C.G.S. § 143-215.104M, this Notice is being filed in order to reduce or eliminate the danger to public health or the environment posed by the Property. Attached hereto as **Exhibit A** is a reduction, to 8 1/2" x 11", of the survey plat component of the Notice required by N.C.G.S. § 143-215.104M. The survey plat has been prepared and certified by a professional

land surveyor and meets the requirements of G.S. 47-30, and contains the following information required by N.C.G.S. § 143-215.104M:

(1) A description of the location and dimensions of the areas of potential environmental concern with respect to permanently surveyed benchmarks; and

(2) The type, location and quantity of regulated dry-cleaning solvent contamination and other contaminants known to exist on the Property.

Attached hereto as **Exhibit B**, is a legal description of the Property that would be sufficient as a description in an instrument of conveyance.

Pursuant to NCGS § 143-215.104M, a certified copy of this Notice must be filed within 15 days of receipt of DENR's approval of the Notice or the effective date of the dry-cleaning solvent remediation agreement, whichever is later. Pursuant to NCGS § 143-215.104M, the copy of the Notice certified by DENR must be recorded in the grantor index under the names of the owners of the land.

LAND-USE RESTRICTIONS

NCGS § 143-215.104M requires that the Notice identify any restrictions on the current and future use of the Property that are necessary or useful to maintain the level of protection appropriate for the designated current or future use of the Property and that are designated in the dry-cleaning remediation agreement. The restrictions shall remain in force in perpetuity unless canceled by the Secretary of DENR, or his/her designee, after the hazards have been eliminated, pursuant to NCGS §143-215.104M. Those restrictions are hereby imposed on the Property, and are as follows:

- 1. The Property shall be used exclusively for retail, commercial or industrial purposes and related amenities (parking, landscape areas and walkways), and all other uses of the Property are prohibited except as approved in writing by DENR.
- 2. Without prior written approval from DENR, the Property shall not be used for:
 - a. child care centers or schools; or
 - b. mining or extraction of coal, oil, gas or any mineral or non-mineral substances.
- 3. No activities that encounter, expose, remove or use groundwater (for example, installation of water supply wells, fountains, ponds, lakes or swimming pools that use groundwater, or construction or excavation activities that encounter or expose groundwater) may occur on the Property without prior approval of DENR.
- 4. No activities that cause or create a vapor intrusion risk (for example, construction of sub-grade structures that encounter contaminated soil or construction that places building users in close proximity to contaminated groundwater) may occur on the Property without prior approval of DENR.

- 5. Prior to using the Carriage Fine Dry Cleaning facility building, as identified in Exhibit A, for any purpose other than dry-cleaning operations, including pick-up/drop-off services, the property owner must demonstrate to the satisfaction of DENR that the indoor air of the structure does not pose an unacceptable risk to occupants.
- 6. In January of each year, on or before January 31st, the owner of any portion of the Property shall submit a notarized Annual DSCA Land-Use Restrictions Certification to DENR certifying that this Notice remains recorded at the Register of Deeds' office, and that the Land-Use Restrictions are being complied with.
- 7. No person conducting environmental assessment or remediation at the Property or involved in determining compliance with applicable land-use restrictions, at the direction of, or pursuant to a permit or order issued by DENR may be denied access to the Property for the purpose of conducting such activities.
- 8. The owner of any portion of the Property shall cause the instrument of any sale, lease, grant, or other transfer of any interest in the property to include a provision expressly requiring the lessee, grantee, or transferee to comply with this Notice. The failure to include such a provision shall not affect the validity or applicability of any land-use restriction in this Notice.

EASEMENT (RIGHT OF ENTRY)

The property owner grants and conveys to DENR, its agents, contractors, and employees, and any person performing pollution remediation activities under the direction of DENR, access at reasonable times and under reasonable security requirements to the Property to determine and monitor compliance with the land-use restrictions set forth in this Notice. Such investigations and actions are necessary by DENR to ensure that use, occupancy, and activities of and at the Property are consistent with the land-use restrictions and to ensure that the structural integrity and continued effectiveness of any engineering controls (if appropriate) described in the Notice are maintained. Whenever possible, at least 48 hours advance notice will be given to the Property Owner prior to entry. Advance notice may not always be possible due to conditions such as response time to complaints and emergency situations.

REPRESENTATIONS AND WARRANTIES

The Property Owner hereby represents and warrants to the other signatories hereto:

i) that the Property Owner is the sole owner of the Property; **or** that the Property Owner has provided to DENR the names of all other persons that own an interest in or hold an encumbrance on the Property and have notified such persons of the Property Owner's intention to enter into this Notice;

- ii) that the Property Owner has the power and authority to enter into this Notice, to grant the rights and interests herein provided and to carry out all obligations hereunder; and
- iii) that this Notice will not materially violate or contravene or constitute a material default under any other agreement, document or instrument to which the Property Owner is a party or by which the Property Owner may be bound or affected.

ENFORCEMENT

The above land-use restrictions shall be enforceable without regard to lack of privity of estate or contract, lack of benefit to particular land, or lack of any property interest in particular land. The land-use restrictions shall be enforced by any owner of the Property. The land-use restrictions may also be enforced by DENR through the remedies provided in NCGS § 143-215.104P or by means of a civil action; by any unit of local government having jurisdiction over any part of the Property; and by any person eligible for liability protection under the DSCA who will lose liability protection if the restrictions are violated. Any attempt to cancel any or all of this Declaration without the approval of the Secretary of DENR (or its successor in function), or his/her delegate, shall be subject to enforce any of the above restrictions shall in no event be deemed a waiver of the right to do so thereafter as to the same violation or as to one occurring prior or subsequent thereto.

If a land-use restriction set out in this Notice required under NCGS § 143-215.104.M is violated, the owner of the Property at the time the land-use restriction is violated, the owner's successors and assigns, and the owner's agents who direct or contract for alteration of the contamination site in violation of a land-use restriction shall be liable for remediation of all contaminants to unrestricted use standards.

FUTURE SALES, LEASES, CONVEYANCES AND TRANSFERS

When any portion of the Property is sold, leased, conveyed or transferred, pursuant to NCGS § 143-215.104M the deed or other instrument of transfer shall contain in the description section, in no smaller type than that used in the body of the deed or instrument, a statement that the Property has been contaminated with dry-cleaning solvent and, if appropriate, cleaned up under the DSCA.

The Property Owner shall notify DENR at least fourteen (14) calendar days before the effective date of any conveyance, grant, gift, or other transfer, whole or in part, of the Owner's interest in the property, but such notification requirement does not apply with regard to the Property Owner's execution of a lease of any portion of the Property. This Notice shall include the name, business address and phone number of the transferee and the expected date of transfer.

PROPERTY OWNER SIGNATURE

IN WITNESS WHEREOF, Property Owner has caused this instrument to be duly executed this _____ day of ______, 20____.

Arboretum Retail, LLC

By:

Name of contact

NORTH CAROLINA

_____ COUNTY

I, ______, a Notary Public of the county and state aforesaid, certify that ______ personally came before me this day and acknowledged that he/she is a Member of Arboretum Retail, LLC, a North Carolina limited liability corporation, and its Manager, and that by authority duly given and as the act of the company, the foregoing Notice of Dry-Cleaning Solvent Remediation was signed in its name by him.

WITNESS my hand and official stamp or seal, this ____ day of _____, 20____.

Name typed or printed Notary Public

My Commission expires: ______ [Stamp/Seal]

APPROVAL AND CERTIFICATION

The foregoing Notice of Dry-Cleaning Solvent Remediation is hereby approved and certified.

North Carolina Department of Environment and Natural Resources

By:

Jack Butler, Chief Superfund Section Division of Waste Management

Date

LIMITED POWER OF ATTORNEY

I ______ "Property Owner", do hereby grant a limited power of attorney to DENR and to DENR's independent contractors, as follows:

DENR and DENR's independent contractors shall have the limited power of attorney to record this Notice, including its documentary and survey plat components, in accordance with N.C.G.S. § 143-215.104M on my "Property Owner" behalf. This limited power of attorney shall terminate upon completion of the recordation of the Notice.

Signature of Property Owner _____

Dated this ______, 20_____, 20_____,

STATE OF NORTH CAROLINA
COUNTY OF _____

I, _____, a Notary Public, do hereby certify that

personally appeared before me this day and signed this "Limited Power of Attorney".

WITNESS my hand and official stamp or seal, this ____ day of _____, 20___.

Name typed or printed Notary Public

My Commission expires: _____ [Stamp/Seal]

CERTIFICATION OF REGISTER OF DEEDS

The foregoing documentary component of the Notice of Dry-Cleaning Solvent Remediation, and the associated plat, are certified to be duly recorded at the date and time, and in the Book and on the Page(s), shown on the first page hereof.

Register of Deeds for Mecklenburg County

(signature)

By:

Date

Name typed or printed: _____ Deputy/Assistant Register of Deeds

EXHIBIT A REDUCTION OF SURVEY PLAT

EXHIBIT B PROPERTY LEGAL DESCRIPTION

EXHIBIT B

LEGAL DESCRIPTION PHASE I AND PHASE II

TO LOCATE THE POINT OF BEGINNING, commence at a nail located at the intersection of the centerline of N.C. Highway 51 (-L-) and N.C. Highway 16 (-Y3-) having North Carolina Grid coordinates of N= 496, 026. 758 and E=1, 467, 933. 300, as per Kimley Horn & Associates, and run thence S 53-31-8 W, 180.67 feet to a POINT OF BEGINNING, said Beginning Point also having North Carolina Grid Coordinates of N= 495, 919. 375 and E= 1, 467, 788. 065; thence from said Beginning Point along the southerly margin of Pineville Matthews Road/N.C. Highway 51 (right-of-way varies) the following five (5) courses and distances: (1) S 76-19-40 W, 280.07 feet to a point; (2) with the arc of a circular curve to the left having a radius of 2,794.79 feet, a chord bearing and distance of S 74-56-48 W, 134.75 feet an arc distance of 134.76 feet to a concrete monument; (3) N 17-13-05 W, 13.22 feet to a point; (4) N 16-06-21 W, 2.00 feet to an existing concrete monument; and (5) with the arc of a circular curve to the left having a radius of 2.835.28 feet, a chord bearing and distance of S 71-59-46 W, 187.59 feet, an arc distance of 187.62 feet to a point located in the northeastern corner of that property owned (now or formerly) by Chick-Fil-A, as described in Deed Book 6650 at Page 840, Mecklenburg County Public Registry; thence departing said southern right-of-way line and with the boundary of Chick-Fil-A property the following six (6) courses and distances: (1) S 27-58-25 E, 209.00 feet to a point; (2) S 67-45-54 W, 232.23 feet to a point; (3) with the arc of a circular curve to the right having a radius or 50.00 feet, chord bearing and distance of N 84-07-56 E, 28.18 feet, an arc distance of 28.57 feet to a point; (4) with the arc of a circular curve to the right having a radius of 126.16 feet, a chord bearing and distance of N 32-50-58 W, 21.46 feet, an arc distance of 21.49 feet; (5) N 27-58-25 W, 132.41 feet to a point; and (6) with the arc of a curve to the right having a radius of 48.57 feet, a chord bearing and distance of N 05-12-54 E, 53.17 feet, an arc distance of 56.26 feet to a point in the southerly margin of aforesaid NC Highway 51; thence along the southerly margin of NC Hwy. 51 the following two (2) courses and distances: (1) with an arc of a curve to the left having a radius of 2,835.28 feet, a chord bearing and distance of S 62-28-55 W, 291.63 feet, an arc distance of 291.76 feet to an existing concrete monument; (2) S 59-32-08 W, 715.38 feet to an existing #4 rebar; thence departing the southerly margin of NC Highway 51, S 29-13-24 E, 174.55 feet to an existing #4 rebar; thence N 60-13-36 E, 12.87 feet to an existing #4 rebar; thence S 29-46-24 E, 4.53 feet to a point thence N 60-13-36 E, 2.16 feet to a point; thence N 29-46-24 W, 4.53 feet to a point; thence with the arc of a circular curve to the right having a radius of 2.39 feet, a chord bearing and distance of S 75-03-19 E, 3.37 feet, an arc distance of 3.73 feet to an existing #4 rebar; thence N 62-14-48 E, 195.82 feet to an existing #4 rebar; thence S 47-50-07 E, 32.66 feet to an existing #4 rebar; thence with the arc of a circular curve to the right having a radius of 15.17 feet, a chord bearing and distance of S 67-38-02 E, 24.10 feet, an arc distance of 27.85 feet to an existing #4 rebar; thence S 15-01-23 E, 162.84 feet to an existing PK nail; thence S 32-21-51 E, 75.21 feet to a drill hole in brick; thence S 15-07-35 E, 161.14 feet to an existing PK nail; thence with an arc of a curve to the right having a radius of 32.81 feet, a chord bearing and distance of S 09-09-34 E, 6.82 feet, an arc distance of 6.83 feet to an existing #4 rebar; thence S 19-28-24 E, 139.05 feet to an existing #3 rebar located on the northerly margin of the 60 foot right-of-way of Willow Point Drive; thence with the northerly margin of Willow Point Drive, N 75-12-59 E, 37.75 feet to an existing #3 rebar; thence S 14-47-01 E, 60.00 feet to an existing #3 rebar; thence N 75-08-09 E 518.34 feet to an existing #4 rebar; thence S 14-48-51 E, 310.00 feet to a point thence N 75-08-09 E, 210.00 feet to an existing #4 rebar; thence S 14-48-51 E, 415.00 feet to a point; thence N 75-08-09 E, 218.30 feet to an existing #4 rebar located in the northerly margin of the 60 foot right-of-way of Wind Bluff Drive; thence with the northerly margin of the right-of-way of Wind Bluff Drive (3) three

calls as follows: (1) N 59-41-00 E, 81.27 feet to an existing #4 rebar; (2) with the arc of a circular curve to the right having a radius of 499.96 feet, a chord bearing and distance of N 67-25-35 E, 134.72 feet, an arc distance of 135.13 feet to an existing #4 rebar, and (3) N 75-10-09 E, 353.31 feet to an existing #4 rebar; thence N 43-27-59 E, 24.70 feet to an existing #4 rebar located in the westerly margin of the right-of-way of NC Highway 16; thence with the westerly margin of NC Highway 16 N 14-46-36 W, 82.00 feet to an existing #4 rebar; thence N 16-15-17 W, 321.29 feet to a point located in the southeast corner of that property owned (now or formerly) by BP Exploration & Oil, Inc as described in Deed book 6816, Page 130, Mecklenburg County Public Registry; thence with the southerly boundary of the BP Exploration & Oil, Inc. property with the arc of a circular curve to the right having a radius of 49.43 feet, a chord bearing and distance of N 51-57-56 E, 39.00 feet, an arc distance of 40.09 feet to a point; thence S 75-12-04 W, 214.71 feet to point; thence N 14-53-38 W, 117.00 feet to an existing PK nail; thence N 75-12-04 E, 248.16 feet to a point located in the westerly margin of the aforesaid N.C. Highway 16; thence along the westerly margin of N.C Highway 16, the following four (4) courses and distances; (1) N 16-15-17 W, 77.23 feet to a point; (2) N 14-33-45 W, 518.63 feet to a point; (3) S 75-57-48 W, 11.21 feet to a point; and (4) with the arc of a circular curve to the right having a radius 7,699.44 feet, a chord bearing and distance of N 13-53-58 W, 18.57 feet, an arc distance of 18.57 feet to a point located in the southeast corner of that property owned (now or formerly) by Taco Bell as described in Deed Book 7127 at Page 144, Mecklenburg County Public Registry; thence with the southerly line of Taco Bell the following eight (8) courses and distances; (1) with the arc of a curve to the right having a radius of 49.13 feet, a chord bearing and distance of S 60-56-46 W, 23.88 feet, an arc distance of 24.12 feet to a point; (2) S 75-00-42 W, 40.02 feet to a set #4 rebar; (3) S 65-02-14 W, 104.26 feet to a point; (4) N 24-57-46 W, 9.66 feet to a point; (5) S 65-02-14 W, 2.00 feet to a point; (6) S 24-57-46 E, 9.66 feet to a point; (7) S 65-02-14 W, 7.46 feet to an "X" in concrete; and (8) S 75-10-57 W, 105.32 feet to a pk nail; thence N 14-49-03 W, 200.75 feet to a pk nail; thence N 75-10-57 E, 285.43 feet to an existing #4 rebar located on the western margin of Providence Road/NC Highway 16; thence with said western margin of Providence Road the following four (4) courses and distances; (1) with the arc of a circular curve to the right having a radius of 7,699.44 feet, a chord bearing and distance of N 11-12-09 W, 356.61 feet, an arc distance of 356.64 feet to a point; (2) N 26-16-13 W, 20.38 feet to a point; (3) N 65-29-18 W, 53.91 feet to a point and (4) S 86-55-11 W, 50.45 feet to the PLACE OR POINT OF BEGINNING. Containing approximately 48.6659 acres as shown on that ALTA/ACSM Survey of Arboretum Southwest, dated March 9, 1998, last revised March 25, 1998, prepared by ESP Associates, PA., by Joseph R. Bruno Jr., North Carolina Registered Land Surveyor No. L-3315, by reference incorporated herein. And as also shown on that ALTA/ACSM Survey of Arboretum Southwest, dated June 27, 2003, last revised July 8, 2003, prepared by ESP Associates, P.A. by Michael S. Miller, North Carolina Registered Land Surveyor No. L-3677, by reference incorporated herein.

TOGETHER WITH the rights, privileges, and easements appurtenant to the above described property under, pursuant to, and subject to and in accordance with the terms and provisions of, the following documents:

1. Grant of Cross-Easements and Declaration of Restrictive Covenants dated August 31,1990, between CK-Klein-Miller #2 Limited Partnership and Arboretum Joint Venture, recorded in Book 6340 at page 559 of the Mecklenburg County Registry, as amended and supplemented by Supplement to Grant of Cross-Easements and Declaration of Restrictive Covenants recorded in Book 6650 at page 846 of the Mecklenburg Public Registry (see Deed of Subordination recorded in Book 6650 at page 866 of said Registry); by First Amendment to Grant of Cross-Easements and Declaration of Restrictive Covenants

recorded in Book 6677 at page 157 of the Mecklenburg Public Registry; by Supplement to Grant of Cross-Easements and Declaration of Restrictive Covenants recorded in Book 6816 at page 94 of the Mecklenburg Public Registry (see Deed of Subordination recorded in Book 6816 at page 128 of said Registry); by Agreement Regarding Exercise of Discretionary Power Under Supplement to Grant of Cross-Easements and Declaration of Restrictive Covenants for 0.6663 Acre Outparcel Tract at the Arboretum Shopping Center recorded in Book 6825 at page 167 of the Mecklenburg Public Registry; and by Supplement to Grant of Cross Easements and Declaration of Restrictive Covenants recorded in Book 7127 at page 148 of the Mecklenburg Public Registry.

2. Slope Easement, Drainage Easement, Pond Improvement, Dam Improvement and Maintenance Agreement, dated May 3, 1988, between Raintree Homeowners Association, Inc., and Crow-Klein-Miller #2 Limited Partnership, recorded in Book 5770 at page 773 of the Mecklenburg Public Registry.

3. Berm Easement and Maintenance Agreement, dated March 30, 1989, between Raintree Homeowners Association, Inc., and CK-Klein-Miller #2 Limited Partnership, recorded in Book 6046 at page 407 of the Mecklenburg Public Registry.

LEGAL DESCRIPTION PHASE III

BEGINNING at a point located in the southerly margin of Pineville-Matthews Road (NC Highway 51) (right-of-way varies), said point being also located in the northwest corner at the property described in Phase I & Phase II hereon; thence from said beginning point with the westerly boundary of Phase I & Phase II S 29-13-46 E, 174.55 feet to an existing #4 rebar; thence N 60-13-36 E, 12.87 feet to an existing #4 rebar; thence S 29-46-24 E, 4.53 feet to a point; thence N 60-13-36 E. 2.16 feet to a point; thence N 29-46-24 W. 4.53 feet to a point; thence with the arc of a circular curve to the right having a radius of 2.39 feet, a chord bearing and distance of S 75-03-19 E, 3.37 feet, an arc distance of 3.73 feet to an existing #4 rebar; thence N 62-14-48 E, 195.82 feet to an existing #4 rebar; thence S 47-50-07 E, 32.66 feet to an existing #4 rebar; thence with the arc of a circular curve to the right having a radius of 15.17 feet, a chord bearing and distance of S 67-38-02 E, 24.10 feet an arc distance of 27.85 feet to an existing #4 rebar; thence S 15-01-23 E, 162.84 feet to an existing PK nail; thence S 32-21-51 E, 75.21 feet to a drill hole in brick; thence S 15-07-35 E, 161.14 feet to an existing PK nail: thence with an arc of a curve to the right having a radius of 32.81 feet, a chord bearing and distance of S 09-09-34 E. 6.82 feet, an arc distance of 6.83 feet to at existing #4 rebar; thence S 19-28-24 E. 139.05 feet to an existing #3 rebar located on the northerly margin of the 60 foot right-of-way of Willow Point Drive; thence with the northerly margin of Willow Point Drive the following four (4) courses and distances; (1) S 75-12-59 W. 485.40 feet to an existing #4 rebar; (2) with the arc of a circular curve to the left having a radius of 997.22 feet, a chord bearing and distance of S 69-18-50 W. 205.10 feet, an arc distance of 205.47 feet to an existing #4 rebar; (3) S 63-24-39 W 493.65 feet to an existing #4 rebar; and (4) with the arc of a circular curve to the right having a radius of 1,045.54 feet, a chord bearing and distance of S 65-55-11 W. 91.54 feet, an arc distance of 91.57 feet to an existing #4 rebar located in the southeast corner of the property owned (now or formerly) by Fairway Homeowners Assoc. as described in Deed Book 4947 at Page 189, Mecklenburg County Registry; thence with the easterly boundary of the Fairway Homeowners Assoc. property the following three (3) courses and distances: (1) N 26-44-47 W. 295.97 feet to an existing #5 rebar (2) N 28-12-21 W. 182.34 feet to an existing #3 rebar; and (3) N 30-27-21 W. 80.00 feet to an existing #4 rebar located in the southerly margin of Pineville-Matthews Road; thence following the southerly margin of Pineville-Matthews Road N 59-32-08 E. 1,105.49 feet to the POINT and PLACE Of BEGINNING. Containing approximately 18.2425 acres as shown on that ALTA/ACSM Survey of Arboretum Southwest, dated March 9, 1998, last revised March 23, 1998, prepared by ESP Associates, P.A., by Joseph R. Bruno, Jr., North Carolina Registered Land Surveyor No. L-3315 by reference incorporated herein. And as also shown on that ALTA/ACSM Survey of Arboretum Southwest, dated June 27, 2003, last revised July 2003, prepared by ESP Associates, P.A. by Michael S. Miller, North Carolina Registered Land Surveyor No L-3677, by reference incorporated herein.

TOGETHER WITH such rights and easements as are appurtenant to the above described property under the Grant of Cross Easements and Declaration of Restrictive Covenants recorded in Book 6340 at page 559 of the Mecklenburg Public Registry, as amended and supplemented by Supplement to Grant of Cross-Easements and Declaration of Restrictive Covenants recorded in Book 6650 at page 846 of the Mecklenburg Public Registry (see Deed of Subordination recorded in Book 6650 at page 866 of said Registry); by First Amendment to Grant Of Cross-Easements and Declaration of Restrictive Covenants recorded in Book 6677 at page 157 of the Mecklenburg Public Registry; by Supplement to Grant of Cross-Easements and Declaration of Restrictive Covenants recorded in Book 6816 at page 94 of the Mecklenburg Public Registry (see Deed of Subordination recorded in Book 6816 at page 128 of said Registry); by Agreement Regarding Exercise of Discretionary Power Under Supplement to Grant of Cross-Easements and Declaration of Restrictive Covenants for 0.6663 Acre Outparcel Tract at the Arboretum Shopping Center recorded in Book 6825 at page 167 of the Mecklenburg Public Registry; and by Supplement to Grant of Cross Easements and Declaration of Restrictive Covenants recorded in Book 7127 at page 148 of the Mecklenburg Public Registry.

Appendix E

Example Annual DSCA Land-Use Restrictions Certification

Site Name:Carriage Fine Dry CleaningSite Address:8020 Providence Road, Charlotte, Mecklenburg County, NCDSCA ID No:60-0015

ANNUAL CERTIFICIATION of LAND-USE RESTRICTIONS

Pursuant to Condition 5 in the Notice of Dry-Cleaning Solvent Remediation (Notice) signed by Arboretum Retail, LLC and recorded in Deed Book _____, Page _____ on <date> at the Mecklenburg County Register of Deeds Office, Arboretum Retail, LLC hereby certifies, as an owner of at least part of the property that is the subject of the Notice, that the Notice remains recorded at the Mecklenburg County Register of Deeds office and the land-use restrictions therein are being complied with.

Duly executed this _____ day of _____, 20__.

Arboretum Retail, LLC

By:_____ Name typed or printed:

NORTH CAROLINA

I, ______, a Notary Public of the county and state aforesaid, certify that ______ personally came before me this day and acknowledged that he/she is a Member of Arboretum Retail, LLC, a North Carolina limited liability corporation, and its Manager, and that by authority duly given and as the act of the corporation, the foregoing certification was signed in its name by him/her.

WITNESS my hand and official stamp or seal, this _____ day of _____, 20___.

Name typed or printed: Notary Public

My Commission expires: ______ [Stamp/Seal] Appendix F

Example Documents Announcing the Public Comment Period

Notice of Intent to Remediate a Dry-Cleaning Solvent Facility or Abandoned Site



North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue Governor Division of Waste Management Dexter R. Matthews Director

Dee Freeman Secretary

<Date>

<name>, <City Manager/County Health Director> <address> <city>, NC <zip>

Subj: Remediation of Dry-Cleaning Solvent Contamination DSCA Site # 60-0015 Carriage Fine Dry Cleaning, 8020 Providence Rd., Charlotte

Dear <name>:

The Dry-Cleaning Solvent Cleanup Act of 1997 (DSCA), North Carolina General Statutes (N.C.G.S.) Sections 143-215.104A through 143-215.104U, provides for the assessment and remediation of properties that may have been or were contaminated by chlorinated solvents. To satisfy the requirements of N.C.G.S. 143-215.104P, this letter serves as the **Notice of Intent to Remediate a Dry-Cleaning Solvent Facility or Abandoned Site** (NOI) approved by the North Carolina Department of Environment and Natural Resources (DENR).

The NOI must provide, to the extent known, a legal description of the location of the DSCA Site, a map showing the location of the DSCA Site, a description of the contaminants involved and their concentrations in the media of the DSCA Site, a description of the intended future use of the DSCA Site, any proposed investigation and remediation, and a proposed Notice of Dry-Cleaning Solvent Remediation (NDCSR) prepared in accordance with N.C.G.S. Section 143-215.104M. The required components of the NOI are included in the attached Risk Management Plan, and are available on our website at www.ncdsca.org, under "Public Notices" during the public comment period.

The DSCA Program is providing a copy of the NOI to all local governments having jurisdiction over the DSCA Site. A 30-day public comment period is being held from <date>, until <date>. Written comments may be submitted to DENR no later than <date>. Written requests for a public meeting may be submitted to DENR no later than <date>. All such comments and requests should be sent to:

Al Chapman, DSCA Remediation Unit Division of Waste Management, NC DENR 1646 Mail Service Center Raleigh, North Carolina 27699-1646

1646 Mail Service Center, Raleigh, North Carolina 27699-1646 Phone: 919-508-8400 \ FAX: 919-715-4061 \ Internet: www.wastenotnc.org



Remediation of Dry-Cleaning Solvent Contamination DSCA Site # 60-0015 Carriage Fine Dry Cleaning, 8020 Providence Rd., Charlotte Page 2

A Summary of the NOI is being published in the <newspaper of general circulation>, copies are being sent to owners of property within and contiguous with the area of contamination, and a copy of the Summary will be conspicuously posted at the Site during the public comment period.

If you have any questions, please feel free to contact me at (919)508-8580

Sincerely,

Al Chapman, Project Manager DSCA Remediation Unit <u>Al.Chapman@ncdenr.gov</u>

Attachments: Risk Management Plan

Cc: DSCA Site # 60-0015 File

An Equal Opportunity \ Affirmative Action Employer



Summary of the Notice of Intent

Public Notice

SUMMARY OF NOTICE OF INTENT TO REMEDIATE A DRY-CLEANING SOLVENT FACILITY OR ABANDONED SITE

Carriage Fine Dry Cleaning DSCA Site # 60-0015

Pursuant to N.C.G.S. §143-215.104L, on behalf of Arboretum Retail, LLC, the North Carolina Department of Environment and Natural Resources' (DENR's) private contractor has prepared a Notice of Intent to Remediate a Dry-Cleaning Solvent Facility or Abandoned Site (NOI). The purpose of this Summary of the NOI is to notify the community of the proposed remedy for the contamination site and invite comment on the proposed remedy.

Carriage Fine Dry Cleaning formerly conducted dry-cleaning operations at the Arboretum Shopping Center at 8020 Providence Road, in Charlotte, North Carolina. The facility is currently a dry-cleaning drop-off center. Dry-cleaning solvent contamination in ground water has been identified at the following parcel(s):

8020 Providence Road, in Charlotte; Parcel No. 22515101

An investigation of the extent of contamination has been completed. A risk assessment of the contaminated property concluded that the contamination poses no unacceptable risks at the Carriage Fine Dry Cleaning drop-off center. A Risk Management Plan has been prepared which proposes instituting land-use restrictions to prohibit the use of groundwater at the affected property.

The elements of the complete NOI are included in the Risk Management Plan (RMP) which is available online at <u>www.ncdsca.org</u>, under "Public Notices".

The public comment period begins ______, 20_, and ends ______, 20_.

Comments must be in writing and submitted to DENR no later than _______, 20___. Written requests for a public meeting may be submitted to DENR no later than _______, 20___. 20___. Requests for additional information should be directed to Al Chapman at (919)508-8580. All comments and requests should be sent to:

Al Chapman, DSCA Remediation Unit Division of Waste Management, NC DENR 1646 Mail Service Center Raleigh, North Carolina 27699-1646 Letter to Owners of Property Contiguous to the Contamination Site



North Carolina Department of Environment and Natural Resources

Division of Waste Management

Beverly Eaves Perdue Governor

Dexter R. Matthews Director

Dee Freeman Secretary

<Date>

<property owner> <address> <city, state, zip>

Subj: Dry-Cleaning Solvent Contamination 8020 Providence Road, Charlotte, NC

Dear <property owner>:

The Dry-Cleaning Solvent Clean-up Act (DSCA) Program has completed an assessment of the drycleaning solvent contamination associated with the Carriage Fine Dry Cleaning facility at 8020 Providence Road in Charlotte. The DSCA Program has prepared a remedial strategy to address the site contamination, and in accordance with our program's statutes, the community has an opportunity to review and comment on the proposed strategy. You are receiving this letter because your property is adjacent to the area contaminated with dry-cleaning solvents.

The attached Summary of the Notice of Intent to Remediate a Dry-Cleaning Solvent Facility or Abandoned Site (NOI) provides a brief description of the proposed remedy, a web link to the complete NOI, and the dates and procedures for commenting on the proposed remedy. If you do not have access to the internet, we ask that you contact us to request a hard copy of the complete NOI.

If you have questions, please contact me at (919) 508-8580, or Pete Doorn at (919) 508-8578.

Sincerely,

Al Chapman, Project Manager DSCA Remediation Unit <u>Al.Chapman@ncdenr.gov</u>

Attachments: Summary of the NOI

Cc: DSCA Site # 60-0015 File

