



Geological Resources, Inc.

April 2, 2019

Longdale Homes, LLC

Re: Phase I Environmental Site Assessment
2225 Longdale Drive
Charlotte, Mecklenburg County, North Carolina
Parcel ID No. 167-161-10 (1.03 Acres)
GRI Project No. 5089

Dear Mr.

Attached for your review is the Phase I Environmental Site Assessment Report for the above referenced property located in Charlotte, Mecklenburg County, North Carolina. The report is presented in accordance with ASTM Standard Practice E1527-13. GRI evaluated potential environmental conditions associated with this property. Based on our evaluation, no evidence of recognized environmental conditions was identified in connection with the property. No further assessment is recommended.

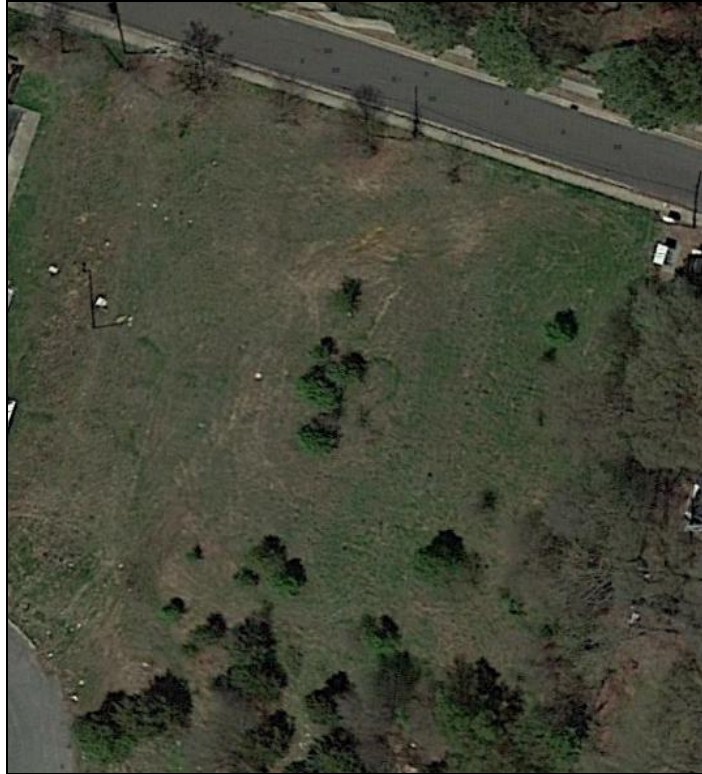
We appreciate the opportunity to provide these services to you. If you require additional information, please contact the undersigned at (704) 845-4010.

Sincerely,
Geological Resources, Inc.

James Wellons, P.G.
Project Manager

cc: file

**PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
VACANT LOT
2225 LONGDALE DRIVE
CHARLOTTE, NORTH CAROLINA
MECKLENBURG COUNTY
GRI PROJECT NO. 5089**



Prepared For:

Longdale Homes LLC

Prepared By:

Geological Resources, Inc.
3502 Hayes Road
Monroe, North Carolina 28110
(704) 845-4010

April 2, 2019

**Phase I Environmental Site Assessment
Vacant Lot
2225 Longdale Drive
Charlotte, North Carolina
GRI Job No. 5089**

Table of Contents

<u>Section</u>	<u>Page</u>
Executive Summary	1
1.0 Introduction.....	3
1.1 Purpose and Scope of Services.....	3
1.2 Methodology	4
1.3 Limitations and Exceptions of Assessment	5
1.4 Special Terms and Conditions	5
1.5 Data Gaps and Limitations	6
2.0 Site and Area Description	7
2.1 Site Description and Use.....	7
2.2 Site Structures and Improvements.....	7
2.3 Property Owner and Occupants.....	7
2.4 Vicinity Characteristics	8
2.5 Physical Setting.....	8
2.5.1 Topography	8
2.5.2 Geologic Setting	8
2.5.3 Hydrogeology	9
2.5.4 Storm Water and Flood Information	9
3.0 User Provided Information	11
3.1 Title Records	11
3.2 Environmental Liens or Activity and Use Limitations	11
3.3 Specialized Knowledge	11
3.4 Commonly Known or Reasonably Ascertainable Information.....	11
3.5 Valuation Reduction for Environmental Issues	12
3.6 Owner, Property Manager, and Occupant Information	12

3.7 Reason for Performing Phase I ESA.....	12
4.0 Review of Records	13
4.1 Standard Environmental Record Sources – Federal, State and Local	13
4.2 Regulatory Agency File and Records Review	15
4.3 Interviews.....	16
4.4 Historical Use Information.....	16
5.0 Site Reconnaissance.....	20
5.1 Hazardous Substances.....	20
5.2 Storage Tanks, Sumps/Drains, Oil Water Separators, Parts Washers, Hydraulic Lifts	20
5.2.1 Storage Tanks.....	20
5.2.2 Sumps and Drains.....	20
5.2.3 Oil Water Separators.....	20
5.2.4 Parts Washers and Hydraulic Lifts	21
5.3 Water and Wastewater Issues.....	21
5.4 Indications of PCBs	21
5.5 Indications of Waste Disposal	21
5.6 Surface Conditions.....	22
5.7 Soil Vapor Encroachment Concerns.....	22
6.0 Signatures of Environmental Professionals	24
7.0 Qualifications of Environmental Professionals Conducting the Phase I ESA.....	25
8.0 References.....	26

List of Figures

Figure 1	Site Location Map
Figure 2	Site Map

List of Appendices

Appendix A	Mecklenburg County Tax Records
Appendix B	User Questionnaire
Appendix C	EDR Environmental Database Reports
Appendix D	Other Environmental Documents
Appendix E	Owner Questionnaire and Environmental Screening Inspection Forms
Appendix F	Site Photographs
Appendix G	Curriculum Vitae

**Phase I Environmental Site Assessment
Vacant Lot
2225 Longdale Drive
Charlotte, North Carolina**

Executive Summary

Geological Resources, Inc. (GRI) has completed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of the American Society for Testing and Material (ASTM) Practice E 1527-13 at a vacant lot located at 2225 Longdale Drive in Charlotte, Mecklenburg County, North Carolina (subject site). Any exceptions to, or deletions from, this practice are described in this report. A brief summary of the current and former uses of the site and nearby area is provided below:

Subject Site

- The subject site consists of one parcel totaling approximately 1.03 acres. The parcel is identified in the Mecklenburg County Tax Record as Parcel Identification Number 167-16-110.
- The subject site was undeveloped from at least 1905 and agricultural from at least 1943 until becoming a grassy lot from prior to 1968 to the present.

Nearby Area

- The property to the north was agricultural from at least 1943 until partially wooded by 1988, then developed with apartments from prior to 2006 to the present. The properties to the northeast and east were agricultural from at least 1943 until residential development by 1976 to the present. The property to the southeast was agricultural from at least 1943 until residentially developed by 1968 to the present. The properties to the south were agricultural from at least 1943 until residential development by 1976. Commercial development began by 1996 to the present. The property to the west was agricultural from at least 1943 until partially wooded by 1988 and commercially developed by 1993 to the present.

Report Section #		No Further Action	REC	CREC	HREC	Comments
1.3	Limitations and Exceptions of Assessment	X				
1.5	Data Gaps	X				
2.0	Current On-site Operations	X				
2.4	Adjoining Properties	X				
4.0	Records Review	X				
4.4	Historical On-site Operations	X				
5.1	Hazardous Waste Generation	X				
5.2	Storage Tanks	X				
5.4	Electrical Transformers / PCBs	X				
5.7	Soil Vapor Encroachment	X				

REC – Recognized Environmental Condition

CREC – Controlled Recognized Environmental Condition

HREC – Historical Recognized Environmental Condition

GRI has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice 1527-13 of the subject site. Any exceptions to, or deletions from, this practice are described in **Section 1.3** of this report. This assessment has revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the property.

Recommendations

No further action or assessment is recommended.

1.0 Introduction

This report presents the results of a Phase I ESA conducted at a vacant lot located at 2225 Longdale Drive in Charlotte, Mecklenburg County, North Carolina. GRI conducted this assessment for Longdale Homes LLC in accordance with our authorized scope of work.

1.1 Purpose and Scope of Services

The purpose of this assessment was to identify, to the extent feasible pursuant to the processes prescribed herein, RECs, controlled RECs (CRECs), or historical RECs (HRECs) in connection with the property. RECs are the presence or likely presence of any hazardous substances or petroleum products in, on, or at the property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* conditions are not RECs or CRECs. ‘Release’ shall have the same meaning as the definition of ‘release’ as defined in Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 42 U.S.C. § 9601(22) and ‘environment’ shall have the same meaning as the definition of ‘environment’ as defined in CERCLA 42 U.S.C. § 9601(8). In this assessment, ‘migrate’ and ‘migration’ refers to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.

CRECs are recognized environmental conditions resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. A CREC is also considered a REC per Section 3.2.18 of ASTM Practice E 1527-13.

HRECs are defined as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

This ESA is intended to satisfy one of the requirements for the innocent landowner defense to CERCLA liability: that is, the practices that constitute “all appropriate inquiry into the previous ownership and uses of the Site consistent with good customary practice,” as defined in 42 U.S. Code Section 9601 (35)(B). The information contained in this report is intended to assist interested parties in deciding whether additional investigation or remediation of the site is required. The contents of this report should not be construed as a recommendation by GRI for or against purchase, sale, financing, or redevelopment of the site.

1.2 Methodology

GRI performed this Phase I ESA in general conformance with current ASTM Standard E 1527-13, *Standard Practice for ESAs: Phase I Environmental Site Assessment Process*. The Phase I ESA is also compliant with the statutory criteria for all appropriate inquiries currently accepted by the United States Environmental Protection Agency. The scope of services for the Phase I ESA includes the following tasks:

- records review – obtain and review records that will help identify RECs in connection with the property (e.g., review of environmental databases, provided records, etc.)
- site reconnaissance
- interviews – present and past owners, operators, and occupants of the property and local government officials
- reporting – data analysis and reporting

1.3 Limitations and Exceptions of Assessment

This Phase I ESA meets the requirements of the ASTM E1527-13 standard. The ASTM E1527-13 standard includes Non-scope Considerations that are not part of the required ASTM Phase I scope of work, such as:

- radon and indoor air testing
- asbestos, mold, or lead-based paint survey
- cultural, historical, and archaeological sites survey
- responsibilities of the User of this Phase I ESA to meet all appropriate inquiry as defined in ASTM E1527-13
- drinking water testing
- rare and endangered species survey
- wetlands verification/delineation

1.4 Special Terms and Conditions

The conclusions presented in this report are professional opinions, based solely upon visual observations of the site and vicinity and our interpretation of the available historical information, documents reviewed and analytical results as described in this report. They are intended exclusively for the purpose outlined herein and at the site location and the project indicated.

This report is intended for the sole use of Longdale Homes LLC. The report may not be relied upon by other parties without the express written consent of GRI and Longdale Homes LLC. The scope of services performed in execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or re-use of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user.

It should be recognized that this study was not intended to be a definitive investigation of contamination at the subject property. It is possible that currently unrecognized contamination

may exist at the site. Opinions and recommendations presented herein apply to site conditions existing at the time of our investigation and those reasonably foreseeable. They necessarily cannot apply to site changes of which GRI is unaware and has not had the opportunity to evaluate.

1.5 Data Gaps and Limitations

A data gap is a lack of or inability to obtain information required by the ASTM standard, despite good faith efforts to do so. Data gaps may result from incompleteness in any activity required by the ASTM standard. No data gaps occurred in connection with this report.

2.0 Site and Area Description

2.1 Site Description and Use

<i>Site Description:</i>	vacant lot
<i>Site Address:</i>	2225 Longdale Drive, Charlotte, Mecklenburg County, North Carolina
<i>Parcel Size:</i>	1.03 acres

A site location map is provided as **Figure 1** and a site map is provided as **Figure 2**.

2.2 Site Structures and Improvements

<i>Buildings:</i>	none
<i>Other Improvements:</i>	none
<i>Utilities:</i>	municipal water – Charlotte Mecklenburg Utility Department available municipal sewer – Charlotte Mecklenburg Utility Department available electricity – Duke Energy available natural gas – Piedmont Natural Gas available

2.3 Property Owner and Occupants

Based upon our site visit and a review of the Mecklenburg County tax records, GRI identified the following property owner and site occupant associated with the subject property:

<i>Property Owner:</i>	Elizabeth A Peckham and Chamberlain Development, LLC
<i>Parcel ID #:</i>	167-16-110 (Mecklenburg County, see Appendix A)
<i>Occupants:</i>	none; vacant lot

2.4 Vicinity Characteristics

The table below summarizes properties that surround subject property.

Location	Property Description
North	Longdale Drive with Colonial Village at South Tryon (Holliswood Court) beyond
Northeast	Longdale Drive with residence beyond (2212 Longdale Drive) beyond
East	residential (7600, 7618, 7626, and 7634 Altacrest Place)
South	Bo Jangles (7735 S Tryon Street)
West	Camile Beauty Salon, Soho Market/Phillips 76, Boost Mobile, Tobacco and Vapes, Cottage Express Chinese, Pizza Hut, and Lucky 7 Arcade (7705 S Tryon Street)

The address in bold face type is listed in databases in the EDR environmental database report and is further discussed in **Section 4.0**.

2.5 Physical Setting

2.5.1 Topography

<i>7.5-Minute Topographic Map:</i>	Charlotte West, NC 2013
<i>Site Elevation:</i>	618 feet above mean sea level
<i>Topographic Gradient:</i>	west

A copy of the USGS topographic quadrangle map is provided as **Figure 1**.

2.5.2 Geologic Setting

According to the 1985 Geologic Map of North Carolina, the site is located within the Charlotte Belt of the Piedmont Physiographic Province. In the Site area, underlying bedrock is composed of metamorphosed mafic rock.

In the Piedmont, the bedrock is overlain by a mantle of weathered rock termed saprolite or residuum. The saprolite consists of unconsolidated clay, silt, and sand with lesser amounts of rock fragments. Due to the range of parent rock types and their variable susceptibility to weathering, the saprolite ranges widely in color, texture, and thickness. Generally, the saprolite is thickest near interstream divides and thins toward streambeds. In profile, the saprolite normally grades from clayey soils near the land surface to highly weathered rock above the competent bedrock.

2.5.3 Hydrogeology

The occurrence and movement of groundwater in the Piedmont is typically within two separate but interconnected water-bearing zones. A shallow water-bearing zone occurs within the saprolite, and a deeper water-bearing zone occurs within the underlying bedrock.

Groundwater in the shallow saprolite zone occurs in the interstitial pore spaces between the grains comprising the saprolite soils. Groundwater in this zone is typically under water table or unconfined conditions. Groundwater movement is generally horizontal from recharge areas to small streams that serve as localized discharge points.

Secondary joints, fractures, faults, and dikes within the bedrock control the occurrence and movement of groundwater in the underlying water-bearing zone within the crystalline bedrock. On a regional scale, the direction of groundwater flow is typically from uplands to major streams and groundwater sinks. The saprolite has a higher porosity than the bedrock and serves as a reservoir that supplies water to a network of fractures in the bedrock.

2.5.4 Storm Water and Flood Information

Storm Water

Storm water at the site is infiltrate soils at the site. GRI observed no obvious environmental release concerns with regard to storm water on the subject site.

Flood Information

GRI reviewed Panel 370159 of FEMA Flood Insurance Rate Map Number 3710452100K dated September 2, 2015. The map indicates that the subject site is not located within the 100-year or 500-year flood plain.

3.0 User Provided Information

This section describes the information provided by the User, as defined in ASTM E 1527-13. The Users of this Phase I ESA is Longdale Homes LLC.

3.1 Title Records

As detailed in ASTM E 1527-13 Section 6.2, *Review Title and Judicial Records for Environmental Liens or Activity and Use Limitations* (AULs), land title records should be reviewed in order to determine if environmental liens or activity and use limitations have been recorded against the property. In accordance with the agreement between GRI and the User, title records were not reviewed as a part of this assessment.

3.2 Environmental Liens or Activity and Use Limitations

In accordance with the agreement between GRI and the User, environmental liens were not reviewed as a part of this assessment.

3.3 Specialized Knowledge

The user of this Phase I ESA has certain responsibilities to meet all appropriate inquiry as defined in ASTM E1527-13. A User Questionnaire was provided to Longdale Homes LLC, the user of the Phase I ESA, to complete. Mr. Sushanth Charabuddi completed an environmental questionnaire and reported no environmental concerns in regard to the subject site. A copy of the completed User Questionnaire is included as **Appendix B**.

3.4 Commonly Known or Reasonably Ascertainable Information

It is commonly known that the site has been an undeveloped-agricultural or grassy lot since at least 1943.

3.5 Valuation Reduction for Environmental Issues

There is no indication of a valuation reduction due to the vacant and undeveloped use of the site.

3.6 Owner, Property Manager, and Occupant Information

The property is owned by Elizabeth A Peckham and Chamberlain Development, LLC. Owner interviews are summarized in **Section 4.3**.

3.7 Reason for Performing Phase I ESA

This Phase I ESA has been conducted to provide due diligence for a property transfer and is intended to permit the User to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability.

4.0 Review of Records

4.1 Standard Environmental Record Sources – Federal, State and Local

GRI utilized EDR, an environmental database search service, for a cursory review of Federal and State regulatory database files regarding regulated sites within the ASTM-specified search radii. Federal, state, local, tribal, and EDR proprietary and historical databases were searched by EDR on March 25, 2019. The EDR reports are included as **Appendix C**.

Upon review of the EDR report, GRI identified and summarized the following information pertaining to the subject property, off-site properties, and unmappable orphan properties.

Subject Property

The subject site not was listed in databases searched by EDR.

Off-Site Properties

GRI reviewed the Federal, State, Local, Tribal, and/or EDR Proprietary database listings for off-site properties in the general vicinity of the subject site. Based upon our review of the databases, GRI determined the following nearby properties warranted further discussion based upon their close proximity to the subject site:

- *Silver Express 33-04* (a.k.a., *Silver Express 35-04* and *New Life Silver Express*; 7705-A South Tryon a.k.a. 7705 S Tryon Street) is located adjacent to the west of the subject site at a lower elevation and is identified on the Underground Storage Tank (UST), Leaking UST (LUST), LUST Trust, Institutional Control (Inst Control), Incident Management Database (IMD), Drycleaners, and EDR Exclusive Historical Gas Stations (EDR Hist Auto) databases. The site is a strip mall with several businesses; one of which is Silver Express 33-04. Three 8,200-gallon gasoline USTs were installed in 1989 and are in use. In May 1995, 32 gallons of gasoline were released (Incident 16920) when a driver drove off with the nozzle in their tank. The release was cleaned up, no ground water

contamination was detected, and the incident was closed in February 1997. In October 2015, a release to soil (Incident 40551) was reported and the incident was closed with land use restrictions in September 2016. The site was listed as Kim Bruce Silver Express (2005) and New Life Silver Express (2005 to 2008 and 2011 to 2014). Information related to the former on-site drycleaner (Arrowood Cleaners, Inc.) is provided below. Additional information is provided in **Section 4.2**. Based on area topography and the closed status of the incident, GRI does not consider Silver Express a REC relative to the subject site.

- *Arrowood Cleaners, Inc.* (7705 S Tryon St Suite F) is located adjacent to the west of the subject site at a lower elevation and is identified on the EDR Exclusive Historical Cleaners database. The site is listed at Alpine Cleaners/Arrowood Cleaners (1994, 1995, 1999, 2000 to 2003), Arrowood Dry Cleaners (1994, 1995, 1996 to 1999, 2000), Arrowood Cleaners, Inc. (2004 to 2010), and Gaytry Krupa, LLC (2011 to 2014). No dry cleaner solvents were detected above the laboratory method detection limit in a ground water sample collected from the property in March 2016. Based on the lack of ground water contamination and no reported releases associated with the dry cleaners, GRI does not consider Arrowood Cleaners to represent a REC relative to the subject site.
- *Crown Gas Station* (a.k.a., *Fast Fare NC 621*, *Fast Fare #621*, *Crown Central Petroleum Corp*, *Crown NC-621*, and *Arrowood Corner*; 7741 York Road) is located approximately 241 feet to the southwest of the subject site at a lower elevation and is identified on the UST, LUST, LUST Trust, Inst Control, IMD, Financial Assurance, and EDR Hist Auto and Resource Conservation and Recovery Act (RCRA) – Conditionally Exempt Small Quantity Generator databases. Three 12,000-gallon gasoline USTs and one 6,000-gallon diesel fuel UST were installed in June 1979. In July 1994, a release (Incident 12565) to soil and ground water was reported. The incident was closed with land use restrictions in July 2008. The site was listed as Fast Fare, Inc. (1993 to 1996), Crown Central Petroleum Corp (2000 to 2012), Sar Groups LLC (2010 to 2014), and Crown Gas Station

(2002 to 2014). No RCRA violations were reported. Based on the area topography, GRI does not consider Crown Gas Station to represent a REC relative to the subject site. The remaining off-site facilities listed in the EDR database search do not appear to have a significant potential to impact the subject site based on distance, topography, or lack of open incident.

Orphan Sites

There were no unmappable or orphan properties presented in the EDR database report.

4.2 Regulatory Agency File and Records Review

Regulatory Agency Files

Additional regulatory research was necessary for the Silver Express/Arrowood Cleaners property to the west. Therefore, GRI reviewed available in-house information and the North Carolina Department of Environmental Quality Dry-Cleaning Solvent Cleanup Act (DSCA) Program database. Arrowood Cleaners was listed in the DSCA database but no releases were reported. Summaries of the reviewed documents are provided below and copies of the reviewed documents are included in **Appendix D**. References to the information reviewed are included in **Section 8.0**.

Silver Express

Phase I Limited Site Assessment Report – Silver Express 35-04

GRI; April 20, 2016

Line leak tests in October 2015 indicated a potential gasoline line leak. A line leak and a release to soil was confirmed in October 2015. Soil samples collected during the installation of a monitoring well did not exceed soil-to-ground water maximum contaminant concentrations or residential standards. The concentration of lead reported in a ground water sample exceeded the maximum allowable concentration but was below the gross contaminant level. With the exception of an estimated concentration of methyl tertiary butyl ether below applicable standards, no volatile organic compounds were reported in the ground water sample. The release was classified as a low risk and closure with a notice of residual petroleum was recommended.

The notice was filed with land use restrictions for soil and ground water.

Fire Department

GRI contacted the Mecklenburg County Fire Marshal via email to obtain information regarding any responses to the site for fires or hazardous releases. Battalion Chief Tim Hartsell responded via email that there have been no responses to the subject site involving petroleum or other hazardous substances. A copy of the correspondence is included as **Appendix D**.

Health Department

GRI contacted the Mecklenburg County Health Department via email to obtain information regarding any responses to the site for environmental issues. Mr. Brett Morris of the health department responded via telephone and reported there have been no responses to the site. A copy of the correspondence is included as **Appendix D**.

4.3 Interviews

Property Owner

An Owner Questionnaire was provided to Mr. Daniel Cook of Chamberlain Development, LLC, subject site owner, to complete. Based on the information provided, Mr. Cook is not aware of any hazardous releases associated with the subject site. A copy of the completed Owner Questionnaire is included as **Appendix E**.

4.4 Historical Use Information

Aerial Photographs

GRI utilized the EDR Aerial Photo Decade Package to review aerial photographs of the subject site and the surrounding properties. All listed scales are considered to be approximate. Copies of

the EDR Aerial Photo Decade Package photographs are included in **Appendix C**. A summary of the findings of the aerial photograph review is provided in the table below:

Summary of Aerial Photograph Review

Year	Scale	Site Property	Surrounding Property
1943	1" = 500'	agricultural	N, S, W – agricultural E – agricultural and partially wooded
1949	1" = 500'	similar to 1943 aerial photo	similar to 1943 aerial photo
1951	1" = 500'	similar to 1949 aerial photo	similar to 1949 aerial photo
1956	1" = 500'	similar to 1951 aerial photo	similar to 1951 aerial photo
1965	1" = 500'	similar to 1956 aerial photo	similar to 1956 aerial photo
1968	1" = 500'	grassy lot	N – unpaved road and agricultural beyond SE – residential development remaining properties appear similar to 1965 aerial photo
1976	1" = 500'	similar to 1968 aerial photo	NE, E, SE, S – residential development remaining properties appear similar to 1968 aerial photo
1983	1" = 500'	similar to 1976 aerial photo	similar to 1976 aerial photo
1988	1" = 500'	similar to 1983 aerial photo	W – partially wooded remaining properties appear similar to 1983 aerial photo
1993	1" = 500'	similar to 1988 aerial photo	W – commercial development remaining properties appear similar to 1988 aerial photo
1996	1" = 500'	similar to 1993 aerial photo	S – commercial development remaining properties appear similar to 1993 aerial photo
2006	1" = 500'	similar to 1996 aerial photo	N – apartments remaining properties appear similar to 1996 aerial photo
2009	1" = 500'	similar to 2006 aerial photo	similar to 2006 aerial photo
2012	1" = 500'	similar to 2009 aerial photo	similar to 2009 aerial photo
2016	1" = 500'	similar to 2012 aerial photo	similar to 2012 aerial photo

Topographic Map Review

GRI utilized EDR historical topographic maps to review the subject site and surrounding area. A description of the site as shown on the maps is detailed below in chronological order. Copies of the topographic maps reviewed have been included as **Appendix C**.

Topographic Map Year	Site Description	Surrounding Areas
1905	no structures	N – no structures E – no structures S – no structures W – road with no structures beyond
1907	no structures	similar to 1905 topo
1942	no structures	similar to 1907 topo
1948	no structures	similar to 1942 topo
1949	no structures	similar to 1948 topo
1968	no structures	SE – residential development remaining properties similar to 1949 topo
1980	no structures	N – road with no structures beyond E – residential development S – residential development remaining properties similar to 1968 topo
1996	no structures	similar to 1980 topo
2013/2014	no structures	no structures

City Directories

GRI reviewed city directories as provided by EDR for select years between 1994 and 2014. The results of the review are provided in the table below and the EDR-City Directory Abstract is included in **Appendix C**.

Location	Address	City Directory Listing (Year)
Subject Site	2225 Longdale Drive	no listing (1994, 1999, 2005, 2010, 2014)
North	Holliswood Court	no listing (1994, 1999), Enclave South Tryon (2005, 2010, 2014), Colonial Village at S Tryon (2010, 2014)
Northeast	2212 Longdale Drive	not verified (1994), no listing (1999, 2005, 2010, 2014)
East	7600 Altacrest Place	not verified (1994), no listing (2010, 2014), residential (1999, 2005)

Location	Address	City Directory Listing (Year)
	7618 Altacrest Place	residential (1994, 1999, 2005), A Reflection of You, LLC (2010), no listing (2014)
	7626 Altacrest Place	residential (1994, 1999, 2005), no listing (2010, 2014)
	7634 Altacrest Place	residential (1994, 2005), no listing (1999, 2010, 2014)
South	7735 S Tryon Street	no listing (1994, 1999), Bojangles Famous Chicken (2005), BoJangles Restaurants, Inc. (2010, 2014)
West	7705 S Tryon Street	no listing (1994, 1999), US Tax Express, Silver Express, Pizza Hut, Lawans Soul Food Restaurant, Kutting Edge Barber & Styling, Beakerss, Arrowood Cleaners, Silver Executive (2005), Skeeters, Arrowood Cleaners, Inc., KL Enterprise, Inc., Taco Express, Kladams Enterprise, Inc., Mr. Taco, Inc., APC, Inc. (2010), Buffalo Wings and Hogies, New Life Silver Express, All Season Sneaker, Mr. Taco, Inc., APC, Inc., Gaytry Krupa, LLC (2014)

Fire Insurance Maps

Sanborn Fire Insurance Map coverage: no coverage (source – EDR Sanborn® Map Report; **Appendix C**)

Historical Use Summary

The subject site was undeveloped from at least 1905 and agricultural from at least 1943 until becoming a grassy lot from prior to 1968 to the present.

The property to the north was agricultural from at least 1943 until partially wooded by 1988, then developed with apartments from prior to 2006 to the present. The properties to the northeast and east were agricultural from at least 1943 until residential development by 1976 to the present. The property to the southeast was agricultural from at least 1943 until residentially developed by 1968 to the present. The properties to the south were agricultural from at least 1943 until residential development by 1976. Commercial development began by 1996 to the present. The property to the west was agricultural from at least 1943 until partially wooded by 1988 and commercially developed by 1993 to the present.

5.0 Site Reconnaissance

Mr. James Wellons of GRI conducted a visual reconnaissance of the subject site on March 25, 2019. The weather condition at the time of the site visit was cloudy with temperatures in the low 70s °F. Environmental Screening Inspection Forms are included as **Appendix E**. General images of the subject property are included in **Appendix F**.

5.1 Hazardous Substances

Hazardous Substances: none observed

5.2 Storage Tanks, Sumps/Drains, Oil Water Separators, Parts Washers, Hydraulic Lifts

During the site visit, GRI visually assessed the subject site for evidence of storage tanks, sumps/drains, oil water separators, parts washers, and hydraulic lifts as described below.

5.2.1 Storage Tanks

Underground Storage Tanks (USTs): none observed

Aboveground Storage Tanks (ASTs): none observed

5.2.2 Sumps and Drains

Sumps: none observed

Drains: none observed

5.2.3 Oil Water Separators

Oil Water Separator (OWS): none observed

5.2.4 Parts Washers and Hydraulic Lifts

Parts Washers: none observed

Hydraulic Lifts: none observed

5.3 Water and Wastewater Issues

Water

Water: Charlotte Mecklenburg Utility Department available

Water Supply Wells: none observed

Wastewater

Sanitary Sewage: Charlotte Mecklenburg Utility Department available

Septic System: none observed

5.4 Indications of PCBs

Polychlorinated biphenyls (PCBs) are sometimes found in mineral oils used in electrical equipment including transformers or in older hydraulic oils. PCBs are a potential environmental contaminant.

Transformers: none observed

5.5 Indications of Waste Disposal

Waste Containers: none observed

Debris Piles: observed

Debris associated with what appeared to be a homeless camp was observed near the south-central property boundary. GRI observed no obvious environmental concerns with regard to the debris.

5.6 Surface Conditions

Interior Surface Conditions: none

Exterior Surface Conditions: grass and wooded areas

No disposal pits, waste water lagoons, discolored soil or stressed vegetation was observed on the subject property.

5.7 Soil Vapor Encroachment Concerns

GRI completed an initial vapor encroachment screen to determine if a vapor encroachment condition (VEC) exists in the subsurface below any existing structures at the site from hazardous substances, petroleum, and petroleum products that can include volatile organic compounds (VOC), semi-VOCs (SVOC), and inorganic volatile compounds. The Tier 1, non-invasive vapor encroachment screen was performed for the chemicals of concern (COC) and the approximate recommended minimum search distances (MSA) included in ASTM E 2600-10, *Standard Guide for Vapor Encroachment Screening on Sites Involved in Real Estate Transactions*. The following MSDs are outlined in ASTM E 2600-10.

Area of Concern Approximate Minimum Search Distances Surrounding the Site (miles)		
Standard Environmental Record Sources (where available)	Chemicals of Concern	Petroleum Hydrocarbon Chemicals of Concern
Federal NPL	0.33	0.1
Federal CERCLIS	0.33	0.1
Federal RCRA CORRACTS	0.33	0.1
Federal RCRA non-CORRACTS TSD	0.33	0.1
Federal RCRA Generators	Site Only	Site Only
Federal Institutional Control/Engineering Control	Site Only	Site Only
Federal ERNS	Site Only	Site Only
State and Tribal-equivalent NPL	0.33	0.1
State and Tribal-equivalent CERCLIS	0.33	0.1
State and Tribal Landfill or Solid Waste Disposal Sites	0.33	0.1
State and Tribal LUST	0.33	0.1
State and Tribal UST	Site Only	Site Only
State and Tribal Institutional Control/Engineering Control	Site Only	Site Only


Area of Concern Approximate Minimum Search Distances Surrounding the Site (miles)		
State and Tribal Voluntary Cleanup	0.33	0.1
State and Tribal Brownfield	0.33	0.1

Based on the results of the initial vapor encroachment screening, facilities with chemicals of concern were that were identified in the EDR report as being within the MSD for the Tier 1 vapor encroachment screen would not affect the subject site based on a review of available information. Therefore, a VEC can be ruled out at the subject site. A copy of the EDR Vapor Encroachment Screen is included as **Appendix C**.

6.0 Signatures of Environmental Professionals

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312, and have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject Site. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth for the environmental professional in 40 CFR Part 312.

Environmental Professional:

A handwritten signature in black ink, appearing to read "James E. Wellons, III".

James E. Wellons, III, P.G.
Project Manager

Reviewed by:

A handwritten signature in black ink, appearing to read "Randy Smith".

Randy Smith, P.G.
Project Manager

7.0 Qualifications of Environmental Professionals Conducting the Phase I ESA

James Wellons, P.G., Project Manager, has over 22 years of experience in environmental site assessments, soil and ground water investigations, and nationwide emergency response facilitator of chemical releases

Randy Smith, P.G., Project Manager, has over 22 years of experience in conducting environmental site assessments, soil and ground water investigations and remediation across the United States.

Curriculum vitae for each individual are included in **Appendix G**.

8.0 References

Designation: E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

EDR Radius Map™ Report with GeoCheck® – Vacant Lot, 2225 Longdale Drive, Charlotte, NC 28217, Inquiry No. 05599678.2r, March 25, 2019.

EDR Aerial Photo Decade Package – Vacant Lot, 2225 Longdale Drive, Charlotte, NC 28217, Inquiry No. 5599678.8, March 25, 2019.

EDR Historical Topo Map Report – Vacant Lot, 2225 Longdale Drive, Charlotte, NC 28217, Inquiry No. 5599678.4, March 25, 2019.

EDR City Directory Abstract – Vacant Lot, 2225 Longdale Drive, Charlotte, NC 28217, Inquiry No. 5599678.5, March 25, 2019.

EDR Certified Sanborn® Map Report – Vacant Lot, 2225 Longdale Drive, Charlotte, NC 28217, Inquiry No. 5599678.3, March 25, 2019.

EDR Vapor Encroachment Screen – Vacant Lot, 2225 Longdale Drive, Charlotte, NC 28217, Inquiry No. 05599678.2r, March 29, 2019.

Geologic Map of North Carolina, Department of Natural Resources and Community Development; 1985.

FIRM Flood Insurance Rate Map North Carolina. Panel 370159, Map Number 3710452100K, September 2, 2015.

Phase I Limited Site Assessment Report – Silver Express 35-04, GRI, April 20, 2016.

Notice of Residual Petroleum – Silver Express 35-04, September 2, 2016.

Figures

Appendices

Appendix A

Mecklenburg County Tax Records

Appendix B

User Questionnaire

Appendix C

Environmental Database Reports

- EDR Radius Map™ Report with GeoCheck®
- EDR Aerial Photo Decade Package
- EDR Historical Topo Map Report
- EDR City Directory Abstract
- EDR Certified Sanborn® Map Report
- EDR Vapor Encroachment Screen

Appendix D

Other Environmental Documents

- FEMA Flood Insurance Map
- Phase I Limited Site Assessment Report – Silver Express 35-04, April 20, 2016
- Notice of Residual Petroleum – Silver Express 35-04, September 2, 2016
- Mecklenburg County Fire Marshal Correspondence
- Mecklenburg County Health Department Correspondence

Appendix E

Owner Questionnaire and Environmental Screening Inspection Forms

Appendix F
Site Photographs

Appendix G
Curriculum Vitae