

UST Investigation Activities NC DOT Property - Parcel 5B

Charlotte, Mecklenburg County
North Carolina

H&H Job No. ROW-504
State Project P-3800
WBS Element #32213
May 15, 2015



SMARTER ENVIRONMENTAL SOLUTIONS

Via 2nd Day Federal Express

May 15, 2015

NC DOT Geotechnical Engineering Unit
1020 Birch Ridge Drive
Raleigh, North Carolina 27610

Attention: Mr. Gordon Box, LG

Re: UST Investigation Activities
NC DOT Property – Parcel 5B
Charlotte, Mecklenburg County, NC
State Project P-3800
WBS Element # 32213
H&H Job No. ROW-504

Dear Gordon:

1.0 Introduction and Background Information

Hart & Hickman, PC (H&H) has prepared this letter report documenting underground storage tank (UST) investigation activities recently conducted at NC DOT property Parcel 5B located at 517 W. Trade Street in Charlotte, Mecklenburg County, North Carolina. A site location map is provided as Figure 1. UST investigation activities were conducted on behalf of the North Carolina Department of Transportation (NC DOT) in accordance with H&H's February 26, 2015 proposal.

Parcel 5B and several adjacent parcels may be used by NC DOT to facilitate a trade for a separate parcel related to the construction of the Charlotte Multimodal Rail Station (State Project P-3800). A parking lot currently occupies parcel 5B. In January 2015, GEL Engineering of NC, Inc.

conducted geophysical surveys using electromagnetic (EM) induction technology and ground penetrating radar (GPR) to identify potential USTs on Parcel 5B and the adjacent parcels. Two possible USTs were identified on Parcel 5B. The possible UST locations are shown on Figure 1 from GEL's report dated February 25, 2015, which is included in Appendix A. The UST investigation activities are discussed below.

2.0 UST Investigation Activities

H&H mobilized to the site on March 26, 2015 to conduct UST exploratory excavation activities in the two possible UST locations on Parcel 5B. H&H contracted EVO Corporation (EVO) of Winston-Salem, North Carolina to perform the excavation activities. Prior to excavation activities, a Fire Department permit was obtained from the Charlotte Fire Department. The fire department permit is included in Appendix B.

During excavation activities in the possible UST location in the central portion of the property, no UST was encountered; however, bricks, concrete, and metal debris were identified in the excavation area between 2 ft and 6 ft below ground surface (bgs). The debris likely caused the GPR data to be interpreted as a possible UST. The excavation area is shown on Figure 2.

During the excavation activities, soils from the sidewalls and base of the excavation area were field screened for potential impacts using a photoionization detector (PID). Based on field screening with the PID, no impacted soils were encountered in the excavation. In addition, H&H did not observe soil staining or petroleum odors. Because there was no evidence of a UST and no suspected soil impacts, post-excavation soil samples were not collected for laboratory analysis.

During excavation activities in the possible UST location in the southern portion of the property, a heating oil UST was encountered approximately one ft bgs. The UST was approximately 1,000-gallons in size and constructed of steel. No piping or dispensers were identified near the UST. The UST excavation area is shown on Figure 2.

Prior to removal of the UST, approximately 600 gallons of residual liquids were pumped from the tank into a vacuum truck by EVO. The certificate of disposal and non-hazardous materials manifest for removed residual liquids are included in Appendix C. Following removal of the residual liquids, a lower explosion level (LEL) meter was utilized to monitor for explosive atmospheres until readings within the tank were less than 10% of the LEL.

Soil was then removed from the top and sides of the UST with an excavator so that the tank could be removed from the ground. Following removal, the UST was inspected for evidence of holes, pitting, and corrosion. The tank appeared to be in good condition. The steel UST was transported off-site by EVO to Triad Metal Recycling in Yadkinville, NC for proper disposal and recycling. The Tank Disposal Certificate is included in Appendix D.

After the UST was removed, soils from the sidewalls and base of the excavation area were field screened for potential impacts using a PID. Based on field screening with the PID, no impacted soils were encountered in the excavation. In addition, H&H did not observe soil staining or petroleum odors. Because there was no evidence of soil impacts, no post-excavation soil samples were collected for laboratory analysis in accordance with DENR UST Section *Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement for UST Releases*, March 1, 2007 Version, Change 5, Effective December 1, 2013 for non-regulated heating oil USTs.

Upon completion of excavation activities, the excavation areas were backfilled with the excavated soil and imported fill material. The soil was compacted with the bucket of the

3.0 Conclusions

H&H has completed UST exploratory investigation activities on NC DOT Parcel 5B. No UST was encountered in the excavation area in the central portion of the property. Bricks, concrete, and metal debris were identified in this excavation area. A 1,000-gallon heating oil UST was encountered and removed from the excavation area in the southern portion of the property. Based on field screening and visual observations, no impacted soil was identified in the excavation areas. Because there were no suspected impacts beneath the heating oil UST, no soil samples were collected for laboratory analysis. Upon completion of excavation activities, the excavation areas were backfilled with the excavated soil and imported fill material. If impacted soil is encountered in these areas during future site work, it should be properly managed and disposed at a permitted facility.

If you have any questions or need any additional information, please do not hesitate to contact us at (704) 586-0007.

Very truly yours,

Hart & Hickman, PC

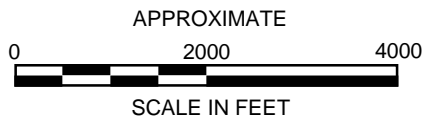
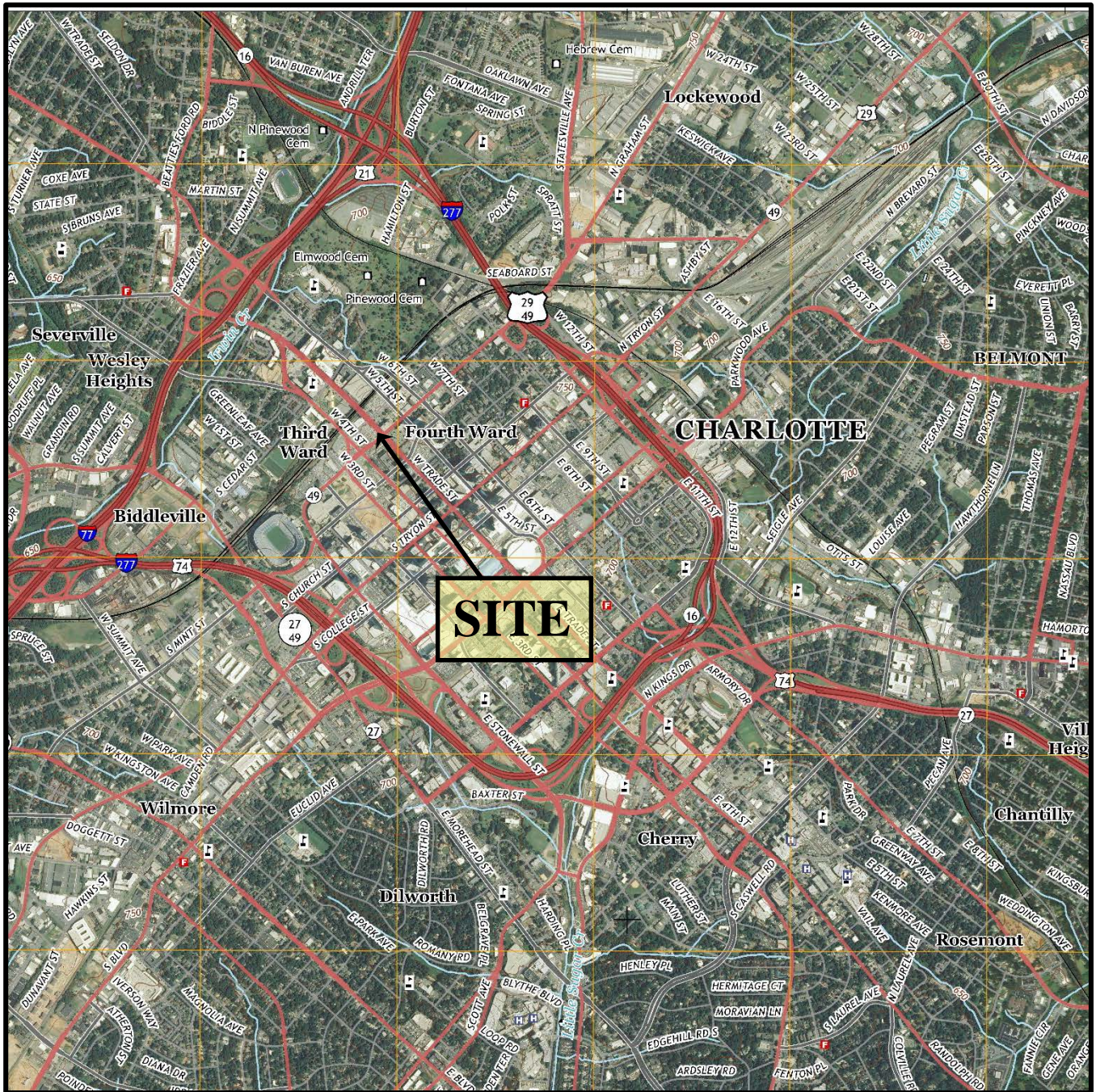


David Graham
Senior Project Geologist

Matt Bramblett, PE
Principal



Attachments

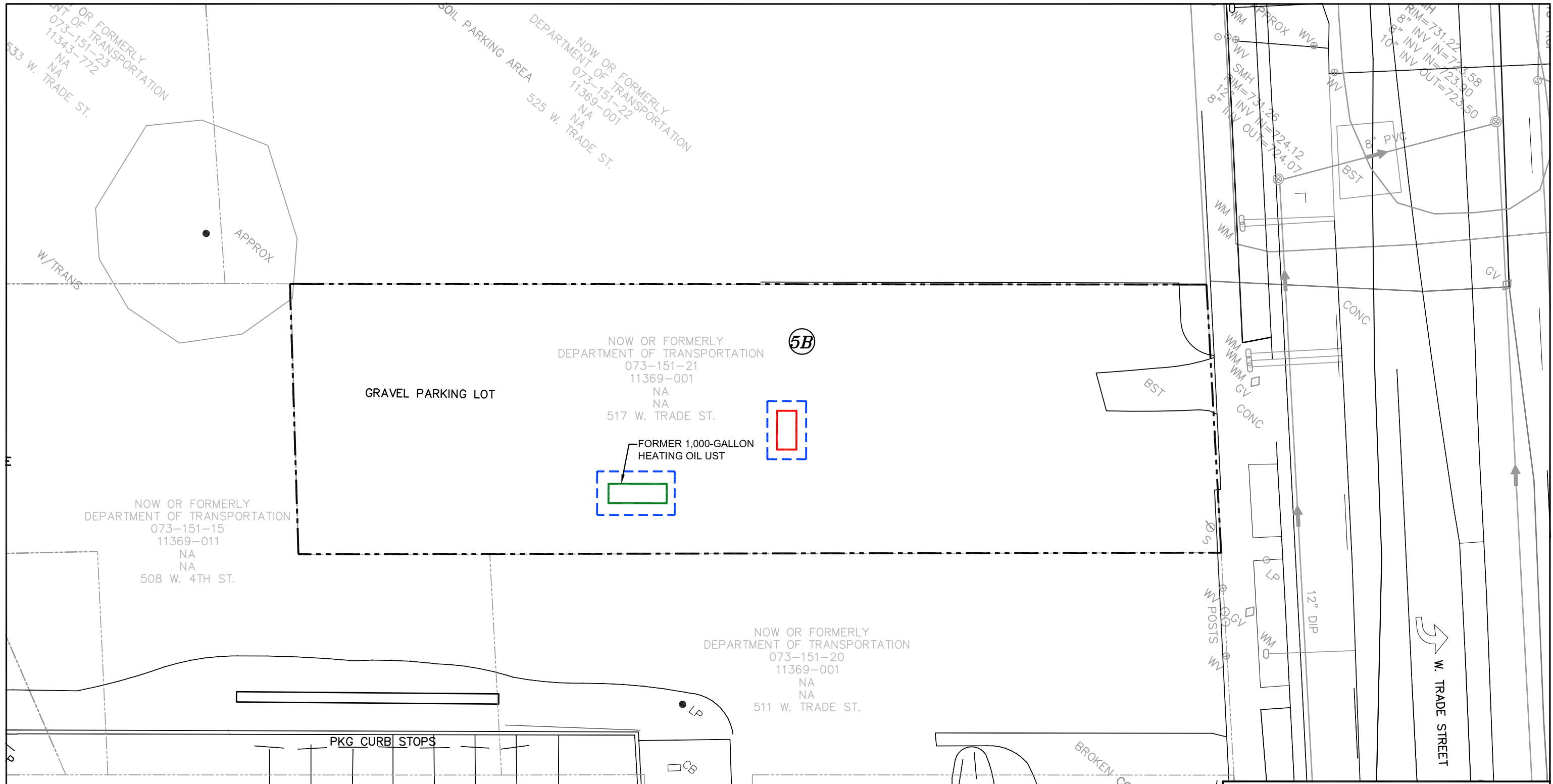


U.S.G.S. QUADRANGLE MAP
CHARLOTTE, NC 2013

QUADRANGLE
 7.5 MINUTE SERIES (TOPOGRAPHIC)

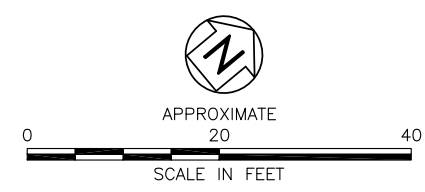
TITLE	SITE LOCATION MAP		
PROJECT	NCDOT PARCEL 5B 517 W. TRADE STREET CHARLOTTE, MECKLENBURG COUNTY, NC		
		2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007 (p) 704-586-0373 (f)	
	SMARTER ENVIRONMENTAL SOLUTIONS		
DATE:	4/1/15	REVISION NO:	0
JOB NO:	ROW-504	FIGURE:	1

S:\AAA-Master Projects\NC DOT Right-of-Way - ROW\ROW-500s\ROW-504 P-3800 Charlotte Rail Station\UST Removals\Reports\row-504 site maps (20150513).dwg, 5B, 5/15/2015 12:32:43 PM.



LEGEND

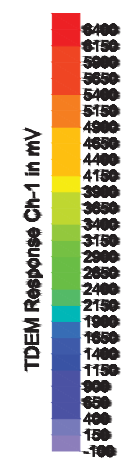
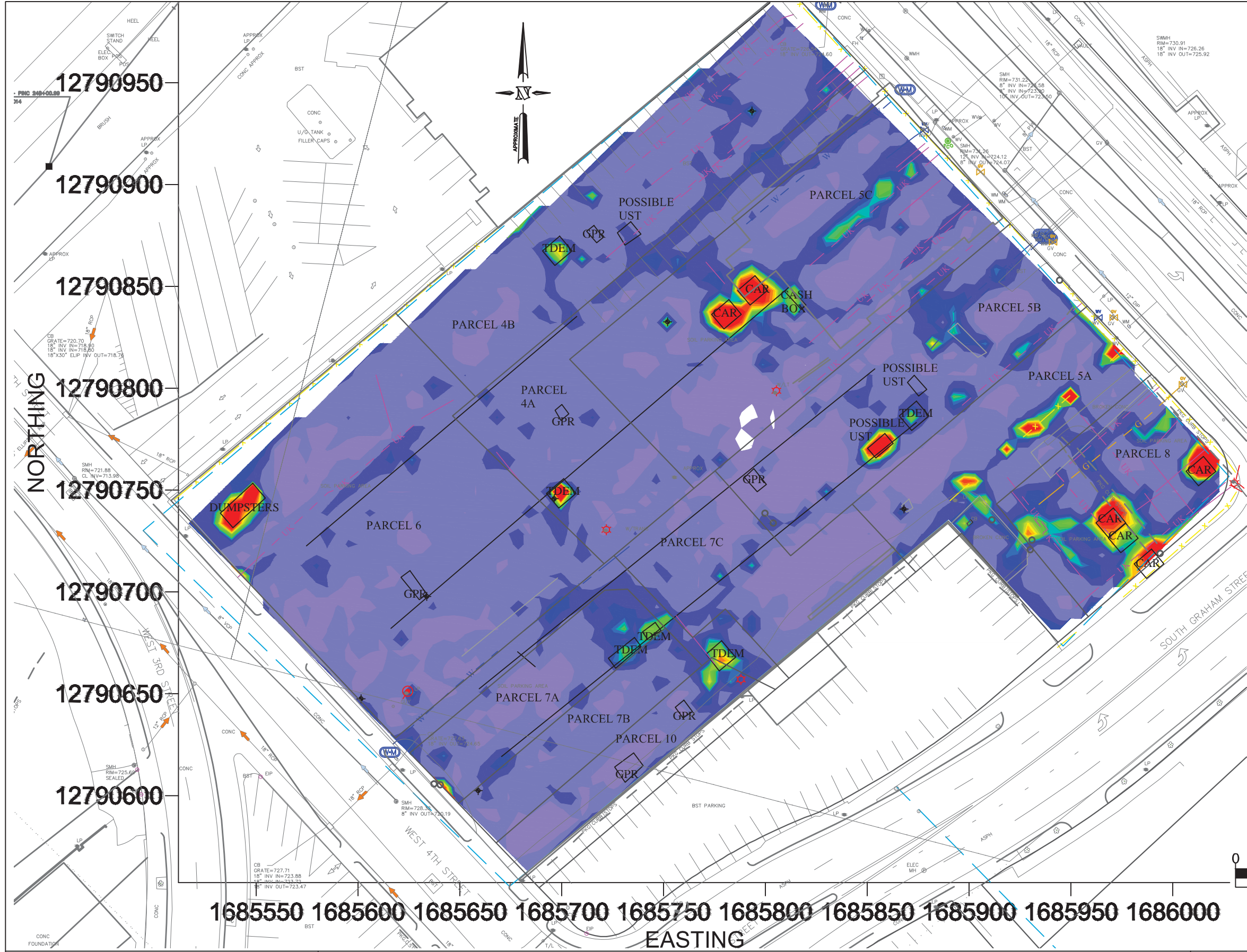
- SITE PROPERTY BOUNDARY
- PARCEL BOUNDARY
- NCDOT PARCEL NUMBER
- EXTENT OF EXCAVATION AREAS
- FORMER HEATING OIL UST
- POSSIBLE UST LOCATION



TITLE SITE MAP & EXCAVATION AREAS	
PROJECT NCDOT PARCEL 5B 517 W. TRADE STREET CHARLOTTE, MECKLENBURG COUNTY, NC	
2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology SMARTER ENVIRONMENTAL SOLUTIONS	
DATE: 04-16-2015	REVISION NO. 0
JOB NO. ROW-504	FIGURE NO. 2

Appendix A

Figure 1 from GEL's Geophysical Survey Report dated February 25, 2015

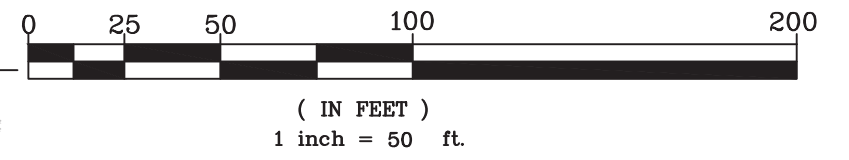


LEGEND	
	APPROXIMATE LOCATION OF SUSPECTED UNDERGROUND UNKNOWN UTILITY LINE
	APPROXIMATE LOCATION OF SUSPECTED UNDERGROUND WATER LINE
	APPROXIMATE LOCATION OF SUSPECTED STORMWATER DRAIN LINE
	APPROXIMATE LOCATION OF SUSPECTED UNDERGROUND GAS LINE
	APPROXIMATE LOCATION OF SUSPECTED UNDERGROUND ELECTRICAL POWER LINE
	CHAIN LINK FENCE
	END OF DESIGNATION OR UNKNOWN DESIGNATION
	POWER POLE
	METALLIC SURFACE FEATURE
	STORM DRAIN MANHOLE
	STORM DRAIN DROP INLET
	WATER VALVE
	WATER METER
	GAS VALVE
	GAS METER
	MONITORING WELL

NOTES

- 1) UNDERGROUND FEATURES WERE LOCATED USING VISUAL EVIDENCE, GROUND PENETRATING RADAR (GPR), RADIO-FREQUENCY ELECTROMAGNETIC (EM) AND TIME DOMAIN ELECTROMAGNETIC (TDEM) METHODS. OTHER BURIED UTILITIES AND STRUCTURES MAY EXIST BUT WERE NOT DETECTED DUE TO LIMITATIONS OF THE GEOPHYSICAL METHODS, SITE ACCESS, AND/OR HIGH TARGET CONGESTION. THEREFORE, DUE CAUTION SHOULD BE USED WHEN PERFORMING SUBSURFACE EXCAVATION ACTIVITIES WHERE POTENTIAL CONFLICTS EXIST. GEL GEOPHYSICS, LLC. IS NOT RESPONSIBLE FOR DAMAGES THAT MAY OCCUR. IDENTIFYING THE LOCATION OF SOME UTILITIES AND STRUCTURES MAY ONLY BE POSSIBLE WITH VACUUM OR OTHER EXCAVATION METHODS.
- 2) FIELD SURVEY CONDUCTED ON 1/17/15-1/18/15.
- 3) DATA FROM GEONICS, LTD. EM-61 MKII AND MALA GEOSCIENCE GROUND PENETRATING RADAR.
- 4) GEL GEOPHYSICS, LLC. IS NOT RESPONSIBLE FOR ACCURACY OF BASE MAP PROVIDED BY HART & HICKMAN.

GRAPHIC SCALE



GEL GEOPHYSICS, LLC
a Member of THE GEL GROUP, INC.
 P.O. BOX 30712 CHARLESTON, SC 29417
 2040 SAVAGE ROAD 29407
 (843) 769-7379 FAX (843) 769-7397
 WWW.GELGEOPHYSICS.COM

PROJECT: HAH00115
 UST INVESTIGATION OF
 11 PARCELS W. TRADE ST AND S. GRAHAM ST
 CHARLOTTE, NORTH CAROLINA
 NCDOT RAIL PSA PROJECT

DATE: FEBRUARY 25, 2015

RESULTS OF GEOPHYSICAL INVESTIGATION

DRAWN BY: WSD APPRV. BY: EJB

FIGURE
1

Appendix B
Fire Permit



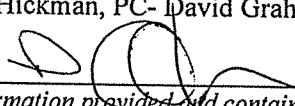
**CHARLOTTE FIRE DEPARTMENT
FIRE PREVENTION BUREAU
Tank Removal and Safeguarding Permit Application**

Applicant			
<i>This is the company name and mailing address of the tank removal company.</i>			
Name: Hart & Hickman, PC	Contacts: David Graham or Jake Whittle		
Address: 2923 S. Tryon Street	City/State: Charlotte	Zip Code: 28203	
Phone Number: (704) 586-0007	Cell Number: (704) 649-5999		

Location and Type of Project	
<i>This is the facility name and address of the tank removal project. If vacant property, indicate "Vacant" for facility name.</i>	
Facility Name: Vacant Parking Lot(s)	Address: 517 -537 W. Trade Street, Charlotte, NC
Type of Project: YES Tank Removal	<input type="checkbox"/> Tank Abandonment <input type="checkbox"/> Both A/G: <input type="checkbox"/> B/G: <input type="checkbox"/> up to 3 USTs

Tank Information			
<i>If more than 4 tanks, complete a separate sheet. TANK SIZES AND CONTENTS UNKNOWN AT THIS TIME</i>			
Tank 1) Product: UNKNOWN / TBD	Size: UNK	Tank 2) Product: UNK	Size: UNK
Tank 3) Product: UNK	Size: UNK	Tank 4) Product:	Size:
Tanks Transported To: Tank removal will be performed by H&H sub. USTs and contents will be disposed properly.			

Responsible Applicant

Name: <u>Hart & Hickman, PC- David Graham</u>	Title: <u>As NC DOT Agent</u>
Signature: 	Date: <u>3/17/2015</u>
<i>I certify that the information provided and contained herein is true and accurate to the best of my knowledge. The issuance of a permit shall not be deemed as approval to violate any provisions of the North Carolina State Fire Code. The code official has the right to inspect the site to ensure compliance with provisions of the fire code, and to issue a Stop Work Order for unsafe practices.</i>	

NOTE! A site plan of the job site shall be submitted with this application

Return the completed and signed application, site plan, and check to:

Charlotte Fire Department – Fire Prevention Bureau
500 Dalton Avenue
Charlotte, North Carolina 28206
Phone: 704-336-2101 Facsimile: 704-336-5190

Check Enclosed Payable to "The City of Charlotte"

If you wish to pay by credit card, contact the Fire Prevention Bureau Office to provide necessary information.

CFD Office Use Only

Permit Code: <u>16</u>	Fee: \$ _____	Permit No. _____
Check No. _____	Issue Date: ____ / ____ / ____	
Issued by Inspector: _____	Emp. #: _____	
Information Collected By: _____		
Entry Date: ____ / ____ / ____	Entered By: _____	

Appendix C

Certificate of Disposal and Non-Hazardous Materials Manifest (Liquid)



1703 Vargrave Street
Winston-Salem, NC 27107
ph 336-725-5844
fax 336-725-6244

CERTIFICATE OF DISPOSAL

Evo Corporation does hereby certify that 600 gallons of non-hazardous contaminated water received on 03/26/2015 from:

Generator: NC Department of Transportation

Originating at: Parcel 5B - 517 W. Trade St.
Charlotte, NC

EC Waste ID #: 031539

has been disposed of by Evo Corporation in a manner approved by the North Carolina Department of Environment and Natural Resources.

A handwritten signature in black ink, appearing to read "Thomas W. Hammett", is written over a horizontal line.

Signature

Thomas W. Hammett
CEO
Evo Corporation

EVO CORPORATION

1703 Vargrave Street, Winston-Salem, NC 27107
www.evocorp.net

NON-HAZARDOUS MATERIALS MANIFEST

Load #

Manifest No. **74122**

GENERATOR INFORMATION

Generator: **NC Dept of Transportation** Phone: **919-707-6859**
Site Address: **Parcel 5B-517 W. Trade St.**
City/State: **Charlotte, NC 28202** Contact: **Gordon Box**

MATERIAL DESCRIPTION / QUANTITY / WEIGHT

Gross Weight (lbs): _____ Material: **Water**
Empty Weight (lbs): _____ Contaminant: **Petroleum**
Net Weight (lbs): _____

Quantity

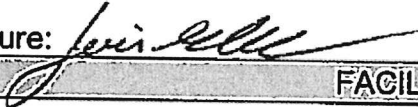
600 gallons

Tons Drums Pails Sacs Yards Other: _____

TRANSPORTER INFORMATION

Transporter: **Evo Corporation** Phone: **336-725-5844**
Truck #: **402** Contact: **Tony Disher**

As the transporter, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Driver Signature: 

Date: **3-26-15**

FACILITY INFORMATION

EVO CORPORATION
1703 Vargrave Street
Winston-Salem, NC 27107

Evo Project #: **031539**

Phone: **(336) 725-5844**

Contact: **Tony Disher**

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the State of North Carolina.

Facility Signature: 

Date: **03-26-2015**

White/Facility

Canary/Invoice

Goldenrod/Generator

Pink/Carrier

Appendix D
Tank Disposal Certificate



1703 Vargrave Street
Winston-Salem, NC 27107
ph 336-725-5844
fax 336-725-6244

TANK DISPOSAL CERTIFICATE

Tank Owner: ~~NC Department of Transportation~~ Orphan Tank

Site Address: Parcel 5B -- 517 W. Trade St.
Charlotte, NC

Description of Tanks:

<u>Tank Number</u>	<u>Size of Tank</u>	<u>Contents</u>
1	1,000 Gallons	#2 Fuel Oil

Transporter: Evo Corporation

EC Project #: 031539

Disposal Certification:

Evo Corporation does hereby certify that the above named storage tank was transported to Triad Metal Recycling in Yadkinville, NC for proper disposal and recycling.

Signature

Thomas W. Hammett
CEO
Evo Corporation

Appendix E
Photographs



Photograph 1: View of excavation area in the central portion of the property.



Photograph 2: View of heating oil tank removed from the southern portion of the property.