

Prepared for:

North Carolina Department of Transportation
Geotechnical Engineering Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Preliminary Site Assessment Report

Cliett, Inc. C/O Bridgestone Am Holding, Inc.

Parcel # 69

1001 N Wesleyan Blvd

Rocky Mount, Nash County, North Carolina

Rocky Mounty –US 301 Bypass from NC 43-48 (Benvenue Rd.) to SR 1836

TIP Number: U-3330

WBS Element: 36596.1.1



10610 Metromont Parkway, Suite 206
Charlotte, North Carolina 28269

October 2, 2015

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10610 Metromont Parkway, Suite 206
Charlotte, North Carolina 28269

Prepared by:

A handwritten signature in blue ink, appearing to read 'Troy L. Holzschuh'.

Troy L. Holzschuh
Assistant Project Manager

Reviewed by:

A handwritten signature in blue ink, appearing to read 'Kathleen Roush'.

Kathleen Roush, L.G. RSM
Division Manager
NC Geologist License No. 1353



October 2, 2015

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Appendix D	UVF Hydrocarbon Analysis Results

1.0 INTRODUCTION

This report presents the results of a Preliminary Site Assessment (PSA) for the North Carolina Department of Transportation (NCDOT) Parcel 69 performed by Apex Companies, LLC (Apex) on behalf of the NCDOT. The subject site of this PSA report is to be affected by the realignment of N Wesleyan Blvd. The Site is located on 1001 N Wesleyan Blvd. and is identified as Parcel 69, Cliett, Inc. C/O Bridgestone Am Holding, Inc., within the NCDOT U-3330 design project. The property is located on the eastern side of N Wesleyan Blvd., as shown in the Vicinity Map, **Figure 1**. This is in Rocky Mount of Nash County, North Carolina. The investigation was conducted in accordance with Apex Company's Technical and Cost proposal dated May 28, 2015.

NCDOT contracted Apex to perform the PSA within the proposed right-of-way (ROW) and/or easement due to the potential presence of contamination at the site and the fact that excavation and grading may occur within the area. The PSA was performed to evaluate if soils have been impacted as a result of past and present uses of the property within the proposed investigation area, if buried underground storage tanks (USTs) are present in the area of investigation, and if groundwater is impacted.

The following report summarizes a geophysical survey in the investigation area, and describes the subsurface field investigation at the site. The report includes the evaluation of field screening, as well as field analyses with regards to the presence or absence of soil contamination within the area of investigation across Parcel 69. **Appendix A** includes a Photograph log for the site.

1.1 Site History

Parcel 69 operates as a Firestone and is located in the northeast quadrant of N Wesleyan Blvd and Independence Drive. Apex personnel investigated the North Carolina Department of Environment and Natural Resources (NCDENR) UST Database registry and did not find a facility ID for this address. The facility however, does have an oil water separator located on the right side of the building. The facility also has nine hydraulic lifts and one alignment rack all of which contain hydraulic fluid.

Apex personnel searched the NCDENR database for Incident Management and Registered Facilities and no incidents are associated with this property.

1.2 Site Description

The site is located in a commercial area of Rocky Mount in Nash County. Firestone Complete Auto Care is a single story brick building with 10 bay doors. The building is located in the central portion of the parcel. The front half of the parcel is asphalt and grass. The investigation area is predominantly grass. The northern edge of the property is bordered by N Wesleyan Blvd with Golden East Crossing Mall across the street. The southern and western edge of the parcel is bordered by Independence Dr. and a wooded lot just beyond. The wooded lot has a stream flowing southeast through the center of the parcel. Western Sizzlin Steak House borders the property to the northeast.

The geophysical surveyor, Taylor Wiseman and Taylor, did not identify possible USTs or tanks within the area of investigation.

2.0 GEOLOGY

2.1 Regional Geology

The site is located within the Eastern Slate Belt. This belt contains slightly metamorphosed volcanic and sedimentary rocks similar to those in the Carolina Slate Belt. The rocks are poorly exposed and partially covered by Coastal Plain sediments. The metamorphic rocks, 500-600 million years old, are intruded by younger, approximately 300 million year old, granitic bodies. Gold was once mined in the belt, and small occurrences of molybdenite, an ore of molybdenum, have been prospected here. Crushed stone, clay, sand and gravel are currently mined in this belt.

2.2 Site Geology

Site geology was observed through the drilling and sampling of five direct push probe soil borings onsite. **Figure 2** presents the boring locations and site layout. Borings did not exceed a total depth of ten feet below ground surface (bgs) since that depth was the maximum excavation depth for proposed drainage features. Soil consisting predominantly of tan to an orange and tan marbled clayey silt was observed across the parcel. Soil displayed varying degrees of moisture. Groundwater was not encountered during the assessment of this parcel. Boring logs are presented in **Appendix B**.

3.0 FIELD ACTIVITIES

3.1 Preliminary Activities

Prior to commencing field sampling activities at the site, several tasks were accomplished in preparation for the subsurface investigation. The Health and Safety Plan (HASP) was modified to include the site-specific health and safety information necessary for the field activities. North Carolina-One-Call was contacted on July 15, 2015 to report the proposed drilling activities and subsequently notify all affected utilities for the parcel. Apex subcontracted Taylor Wiseman & Taylor (TWT) to locate subsurface utilities and other subsurface drilling hazards as well as to perform a geophysical survey. Regional Probing Services of Wake Forest, North Carolina was retained by Apex to perform the direct push sampling for soil borings. QROS was contacted for acquisition of a rented UVF Hydrocarbon Analyzer and Eastern Solutions was contacted for rental of a Photoionization Detector (PID). Boring locations were strategically placed in a pattern within the area of investigation to maximize the opportunity to encounter potentially contaminated soil.

3.2 Site Reconnaissance

Apex personnel performed a site reconnaissance on July 24, 2015. During the site reconnaissance, the area was visually examined for the presence of USTs and/or areas/obstructions that could potentially affect the subsurface investigation. The number of boring locations and placement were developed prior to boring activity which began on July 28, 2015. Apex personnel also used the site visit as an opportunity to contact the property manager/owner to inform them of upcoming field activities.

3.3 Geophysics Survey Results

The geophysical survey of the site occurred the week of July 13th, 2015. TWT performed an electromagnetic (EM) survey followed by ground penetrating radar (GPR) survey. Their Geophysical Report is presented in **Appendix C**. No unknown EM features were identified.

3.4 Well Survey

Apex personnel did not observe water supply wells or monitoring wells within the investigation area.

3.5 Soil Sampling

Apex conducted drilling activities at the site on July 28, 2015. Apex drilling subcontractor Regional Probing Services advanced five direct push soil borings within the proposed expanded NCDOT ROW. These five boring locations were placed in a pattern to maximize the likelihood of intercepting potential soil contamination. **Figure 2** presents the Site Map with boring locations and identifications.

The purpose of soil sampling was to determine if a petroleum release has occurred within the ROW and/or easement of the parcel, and if so, to estimate the volume of impacted soil that might require special handling during construction activities.

Soil sampling was performed utilizing direct push methods accompanied by field screening and onsite quantitative analyses. Apex conducted field screening of the soil borings utilizing a photoionization detector (PID) that was used to screen recovered soil. One to two intervals of the soil boring, possibly exhibiting elevated PID readings, were selected for onsite quantitative analysis of total petroleum hydrocarbons (TPH) in soil via ultraviolet fluorescence (UVF) utilizing a QROS-QED Hydrocarbon Analyzer. The analysis was performed onsite by Troy Holzschuh, a certified QED UVF technician with Apex. The UVF results were generated concurrent with soil boring activities so that real-time decision making could be utilized for strategic boring placement.

4.0 SAMPLING RESULTS

4.1 Soil Sampling Results

Based on PID field screening and onsite UVF hydrocarbon analysis from the July 2015 soil sampling there is no evidence of petroleum hydrocarbon contamination onsite, within the area of investigation. Elevated PID readings, above ten parts per million (ppm), were not observed in the five borings conducted at the site. Measured PID readings ranged from 0.1 to 2.0 ppm. The PID field screening results are provided on the boring logs in **Appendix B**.

Soil concentrations of TPH gasoline range organics (GRO) and diesel range organics (DRO) measured using the onsite UVF unit are presented in **Table 1**, with instrument generated tables and chromatographs in **Appendix D**. **Figure 3** presents the GRO and DRO results at each boring.

Based on the UVF analyses GRO was not detected above the instrument reporting limits. DRO concentrations were identified on Parcel 69, however the concentrations do not exceed the regulatory action level of 10 milligram per kilogram (mg/kg).

5.0 CONCLUSIONS

Based on site observations and onsite UVF analysis, petroleum-impacted soil contamination was not identified on this parcel.

The following bulleted summary is based upon Apex's evaluation of field observations and onsite quantitative analyses of samples collected from the Site on July 28th, 2015.

- Results of the geophysical survey produced no evidence of a possible UST.
- Five soil borings were performed and soil samples were collected from each boring. The analyzed samples were generally collected from one foot intervals at the midsection and deepest section of the boring. Each sample was analyzed via UVF in the field utilizing a QROS QED Hydrocarbon Analyzer.
- All GRO values were either non detectable or below the NCDENR Action level of 10 mg/kg.
- All DRO values were either non detectable or below the NCDENR Action level of 10 mg/kg.

6.0 RECOMMENDATIONS

Based on these PSA results, Apex does not recommend further assessment or soil sampling in the area of investigation.

TABLES

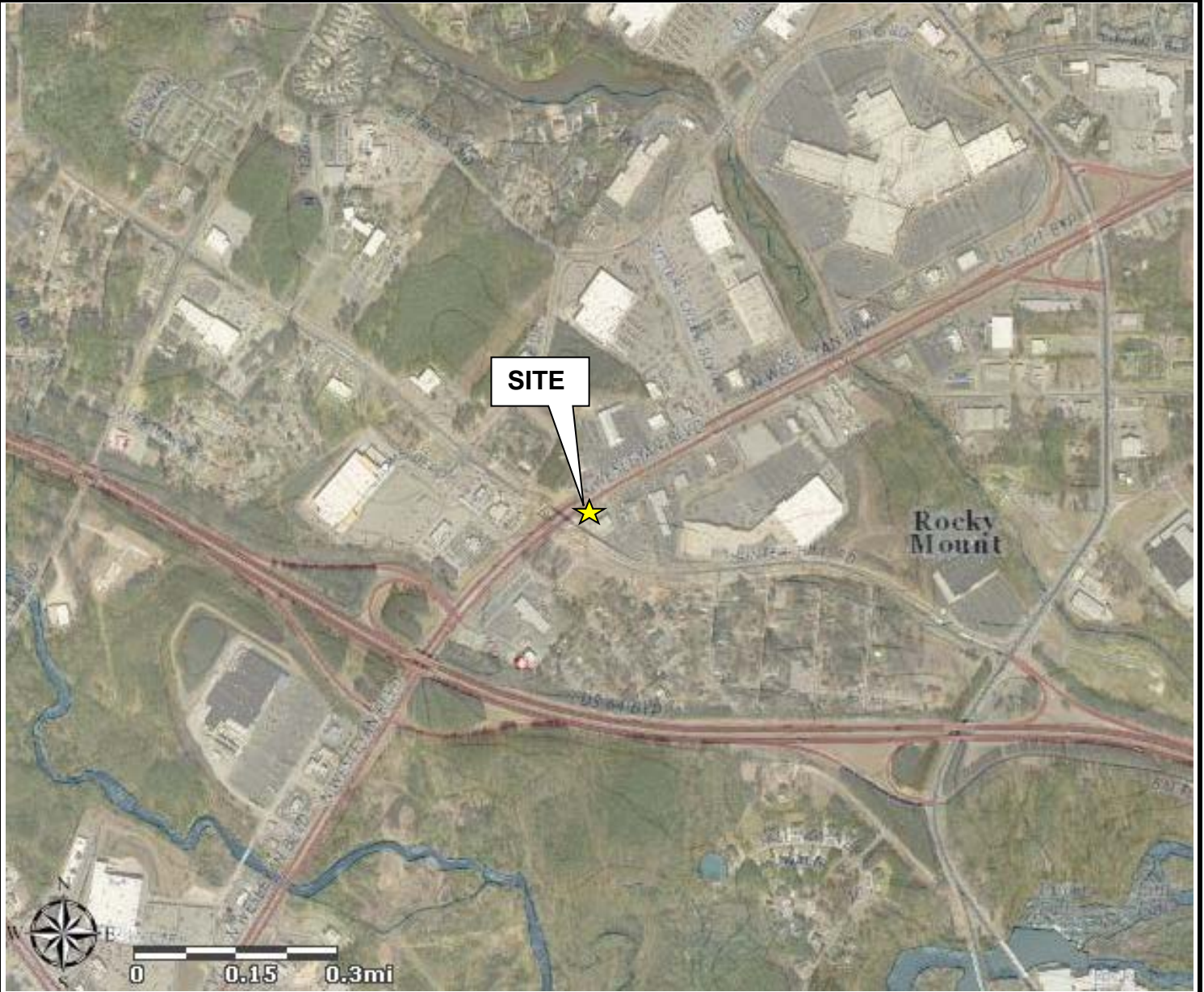
Table 1
UVF Onsite Hydrocarbon Analytical Soil Data from July 2015
U-3330, Parcel 69, Cliett, Inc. Property (Firestone)
Rocky Mount, North Carolina

Sample ID Number	Sample Date	Sample Depth (ft bgs)	GRO (mg/kg) (C5-C10)	DRO(mg/kg) (C10-C35)
P69-B1	7/28/2015	4 to 5	<0.45	9.8
P69-B1	7/28/2015	7 to 8	<0.48	2.7
P69-B2	7/28/2015	4 to 5	<0.42	<0.17
P69-B2	7/28/2015	7 to 8	<0.51	0.71
P69-B3	7/28/2015	4 to 5	<0.46	0.68
P69-B4	7/28/2015	4 to 5	<0.56	9.9
P69-B4	7/28/2015	7 to 8	<0.45	0.18
P69-B5	7/28/2015	4 to 5	<0.42	<0.17
P69-B5	7/28/2015	7 to 8	<0.43	<0.17
<p>NOTES: (mg/kg) = Millograms per kilogram GRO = Gasoline Range Organics DRO = Diesel Range Organics ft bgs = feet below ground surface Bold Concentrations indicate an exceedance of NCDENR Action Level of 10 mg/Kg</p>				

FIGURES

**Figure 1
Site Location Map**

**Parcel #69
Firestone Car Care
1001 N. Wesleyan Blvd.
Rocky Mount, North Carolina**



USGS, National Geospatial Program
1) Topographic Map, Rocky Mount, NC,
7.5 Minute
Year: 2013
2) Orthoimagery, USGS EROS Ortho 1
Foot
Year: 2011



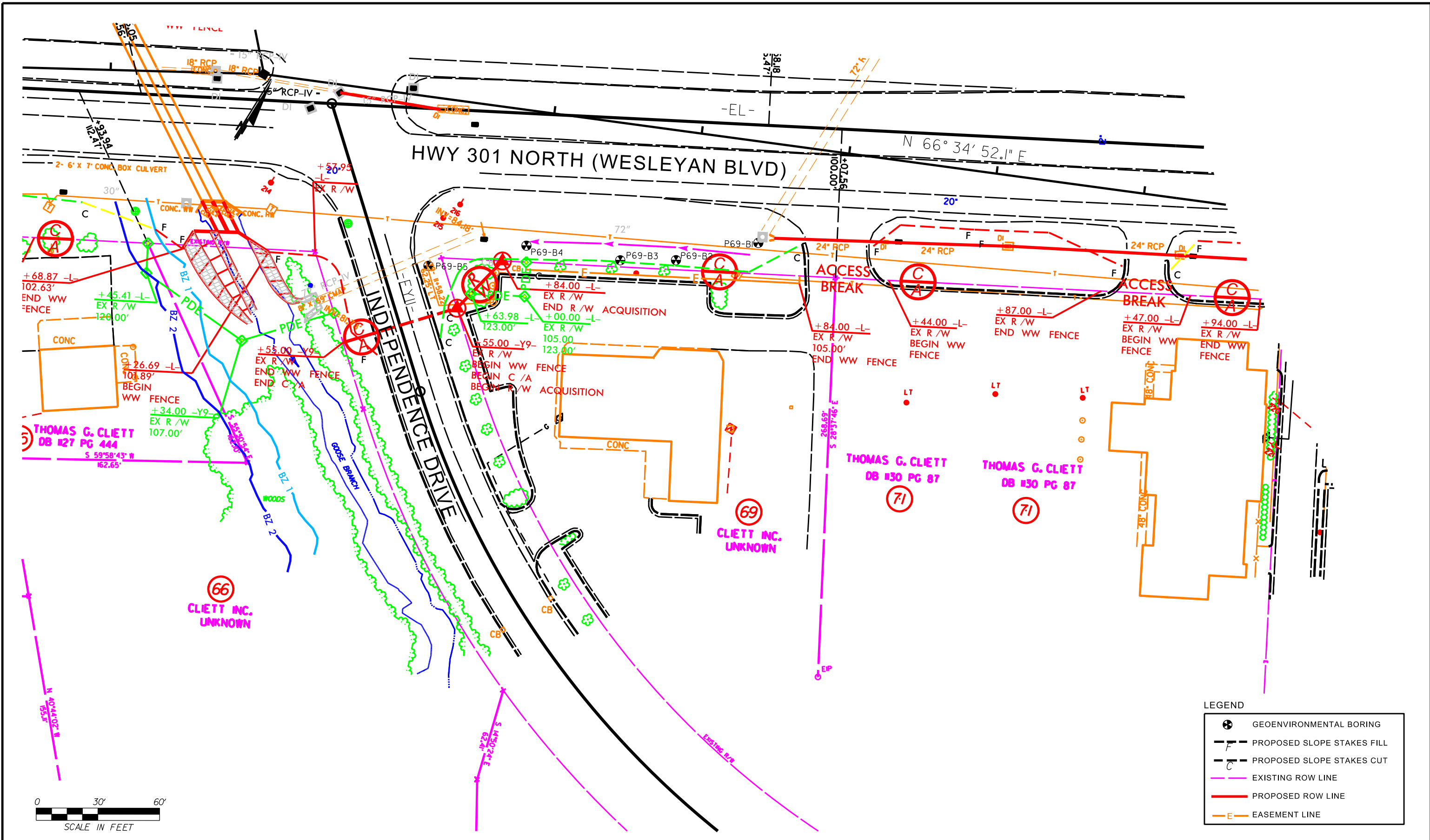
10610 Metromont Parkway, Suite 206
Charlotte, NC
Telephone: (704) 799-6390

Project:
NCDOT – Nash Co.

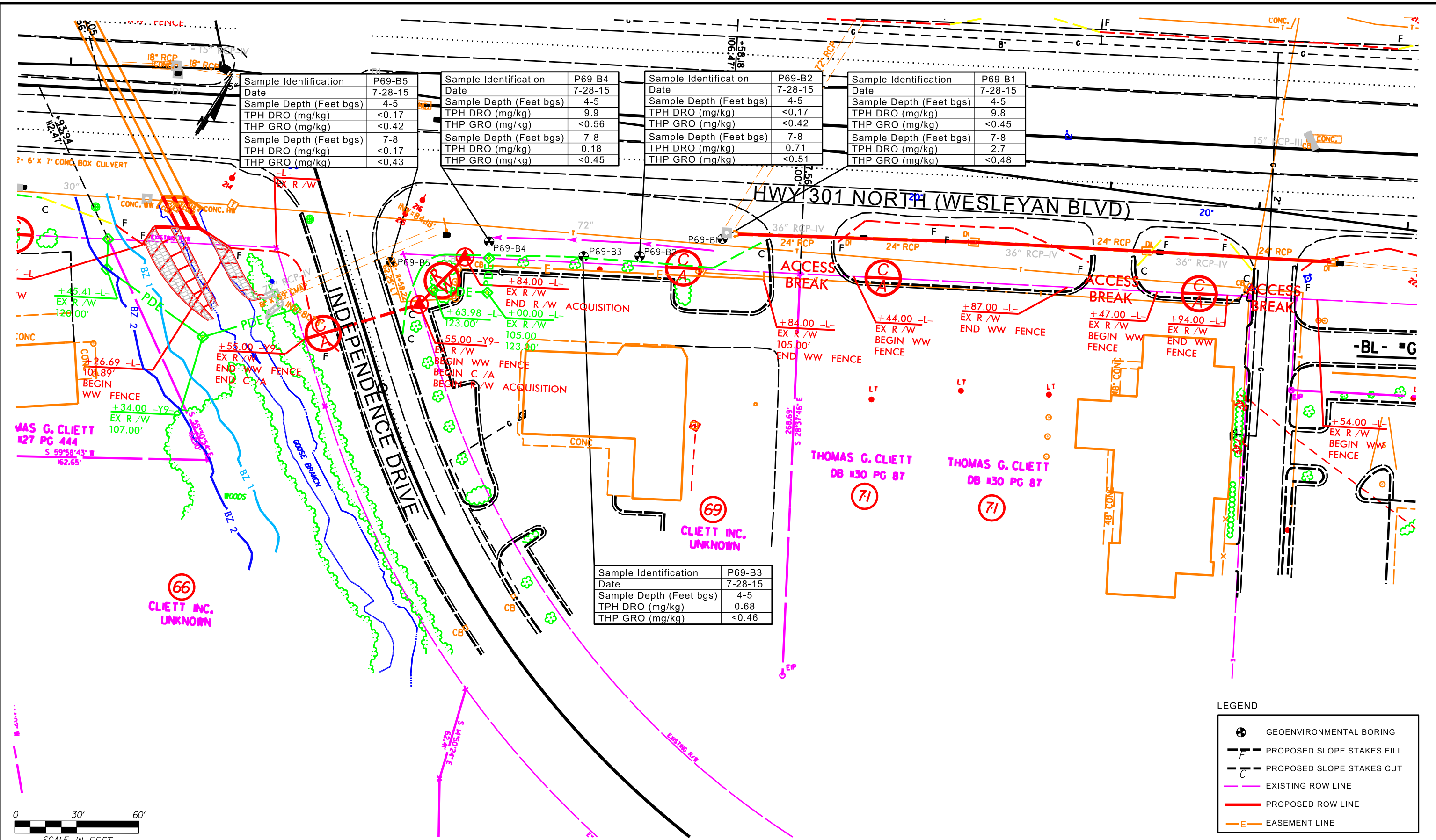
Apex Job #: 510424-001

Date: August 2015





**FIGURE 2
PARCEL 69
SITE MAP WITH
SOIL BORING LOCATIONS**



Sample Identification	P69-B5
Date	7-28-15
Sample Depth (Feet bgs)	4-5
TPH DRO (mg/kg)	<0.17
THP GRO (mg/kg)	<0.42
Sample Depth (Feet bgs)	7-8
TPH DRO (mg/kg)	<0.17
THP GRO (mg/kg)	<0.43

Sample Identification	P69-B4
Date	7-28-15
Sample Depth (Feet bgs)	4-5
TPH DRO (mg/kg)	9.9
THP GRO (mg/kg)	<0.56
Sample Depth (Feet bgs)	7-8
TPH DRO (mg/kg)	0.18
THP GRO (mg/kg)	<0.45

Sample Identification	P69-B2
Date	7-28-15
Sample Depth (Feet bgs)	4-5
TPH DRO (mg/kg)	<0.17
THP GRO (mg/kg)	<0.42
Sample Depth (Feet bgs)	7-8
TPH DRO (mg/kg)	0.71
THP GRO (mg/kg)	<0.51

Sample Identification	P69-B1
Date	7-28-15
Sample Depth (Feet bgs)	4-5
TPH DRO (mg/kg)	9.8
THP GRO (mg/kg)	<0.45
Sample Depth (Feet bgs)	7-8
TPH DRO (mg/kg)	2.7
THP GRO (mg/kg)	<0.48

Sample Identification	P69-B3
Date	7-28-15
Sample Depth (Feet bgs)	4-5
TPH DRO (mg/kg)	0.68
THP GRO (mg/kg)	<0.46



LEGEND	
	GEOENVIRONMENTAL BORING
	PROPOSED SLOPE STAKES FILL
	PROPOSED SLOPE STAKES CUT
	EXISTING ROW LINE
	PROPOSED ROW LINE
	EASEMENT LINE

APEX
 APEX COMPANIES, LLC
 10610 METROMONT PARKWAY
 SUITE 206
 CHARLOTTE, NC 28117
 PHONE: (704) 799-6390

**FIGURE 3
 PARCEL 69
 ONSITE UVF HYDROCARBON
 ANALYSIS RESULTS**

Date:	8/1/15	MONTGOMERY WARD 1 TARRYTOWN MALL AKA 2320 SUNSET AVENUE ROCKY MOUNT, NC 27801			
Proj. #:	510424.001				
CAD File:	parcel_69.dgn	Project Title:			
Approx. Scale:	1" = 60'	Drawn by:	MJO	Client:	NC DOT

APPENDIX A
PHOTOGRAPH LOG



Photo 1

Viewing Parcel 69 Prior to Drilling Activities.



Photo 2

Photo is taken on the north side of the Parcel looking south along N Wesleyan Rd. Photo shows the drainage ditch is steep and over grown with vegetation.



Photo 3

Preparing to start drilling activities.



Photo 4

Photo is taken from the Firestone Parking lot looking west. Photo shows the drainage ditch is steep and over grown with vegetation.

**APPENDIX B
BORING LOGS**

APPENDIX C
GEOPHYSICAL REPORT



Taylor Wiseman & Taylor

ENGINEERS | SURVEYORS | SCIENTISTS

3500 Regency Parkway, Suite 260 – Cary, NC 27518

Office: (919) 297-0085 Fax: (919) 297-0090

August 26, 2015

TWT # 70668.5002.00

Apex Companies, LLC
Attn: Ms. Katie Lippard
10610 Metromont Parkway
Suite 206
Charlotte, NC 28269

RE: SUE Geophysical Assessment
NCDOT Project U-3330
US 301 Bypass
Rocky Mount, NC (Nash County)

Ms. Lippard:

Taylor Wiseman & Taylor (**TWT**) is submitting this Subsurface Utility Engineering (SUE) Geophysical Assessment report to document services performed under Subcontracting Services Agreement number 51-315, dated 7/8/2015, for Apex Job number 510424.001. TWT was subcontracted by Apex Companies, LLC to perform a utility mark-out and underground storage tank (UST) investigation with electromagnetic designating equipment and ground penetrating radar (GPR). These services were performed at six (6) locations that are defined as follows:

- 1) Parcel 20 (Greene) – 1921 Stone Rose Avenue/Drive – see Figure 1
- 2) Parcel 37 (National) – 770 N Wesleyan Blvd – see Figure 2
- 3) Parcel 45 (Medlin) – 829 Hunter Hill Road – see Figure 3
- 4) Parcel 49 (Bishop Partners) – 921 N. Wesleyan Blvd – see Figure 4
- 5) Parcel 69 (Cliett, Inc.) – 1001 N. Wesleyan Blvd – see Figure 5
- 6) Parcels 22,23,24 & 25 (Tarrytown) – 2320 Sunset Avenue – see Figure 6

The limits and findings for each investigation are documented on the Figures attached hereto. As noted on the Figures, TWT utilized a Vivax Pro Loc 2, and Vivax Metrotech 810 for the electromagnetic designation and a Mala X3M GPR with a 250 MHz antenna. There were some areas at the sites where the GPR cart could not be pushed. Steep slopes, ditches and wooded areas presented some of these limitations. Each Figure clearly identifies the areas where GPR could not be performed.

Each Figure shows the underground utility lines that were detected by way of the electromagnetic designating. Each Figure shows any anomalies that were detected with the GPR.

Parcel 20 (refer to Figure 1) is the only parcel where the GPR detected an anomaly. The anomaly was not characteristic of a UST and has been duly noted that way on the Figure.

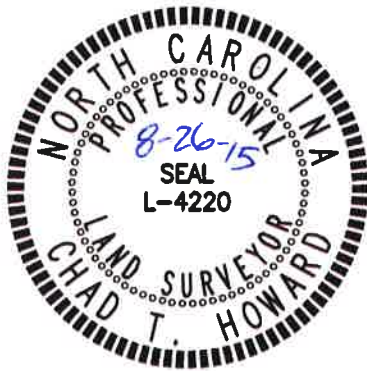
The conclusions for this geophysical assessment submitted herein are based upon the data obtained from non-invasive testing. As such, even within the surveyed area, the survey cannot be considered 100 percent accurate due to inherent method limitations, survey limitations, site features, and/or unforeseen site-specific conditions. Accordingly, the possibility exists that not all subsurface, man-made features have been located.

Properties of the subsurface materials (e.g., clay content, moisture, etc.) can have a significant impact on the effective depth of penetration of the GPR survey. Accordingly, non-metallic tanks, tanks at depths below about 5 feet, and tanks outside of the survey area may not have been detected using the

geophysical techniques. In addition, due to interference, there may be areas within the proposed survey area where an interpretation of subsurface features was not feasible.

Regardless of the thoroughness of a geophysical study, there is always a possibility that actual conditions may not match the interpretations. The results should be considered accurate only to the degree implied by the methods used and the method's limitations and data coverage. Accordingly, the possibility exists that not all subsurface features at a project site will be located due to either subsurface soil conditions or the occurrence of features outside the lateral limits and below the depth of penetration of the methods used. The location and/or determination (or the lack thereof) of potential USTs is based on our review of provided information and of the geophysical survey. Under no circumstances does TWT assume any responsibility for damages resulting from the presence of subsurface features that may exist but were not identified by our survey.

TWT welcomes the opportunity to assist you with future geophysical survey needs. Should you have any questions regarding this report, please call or email.

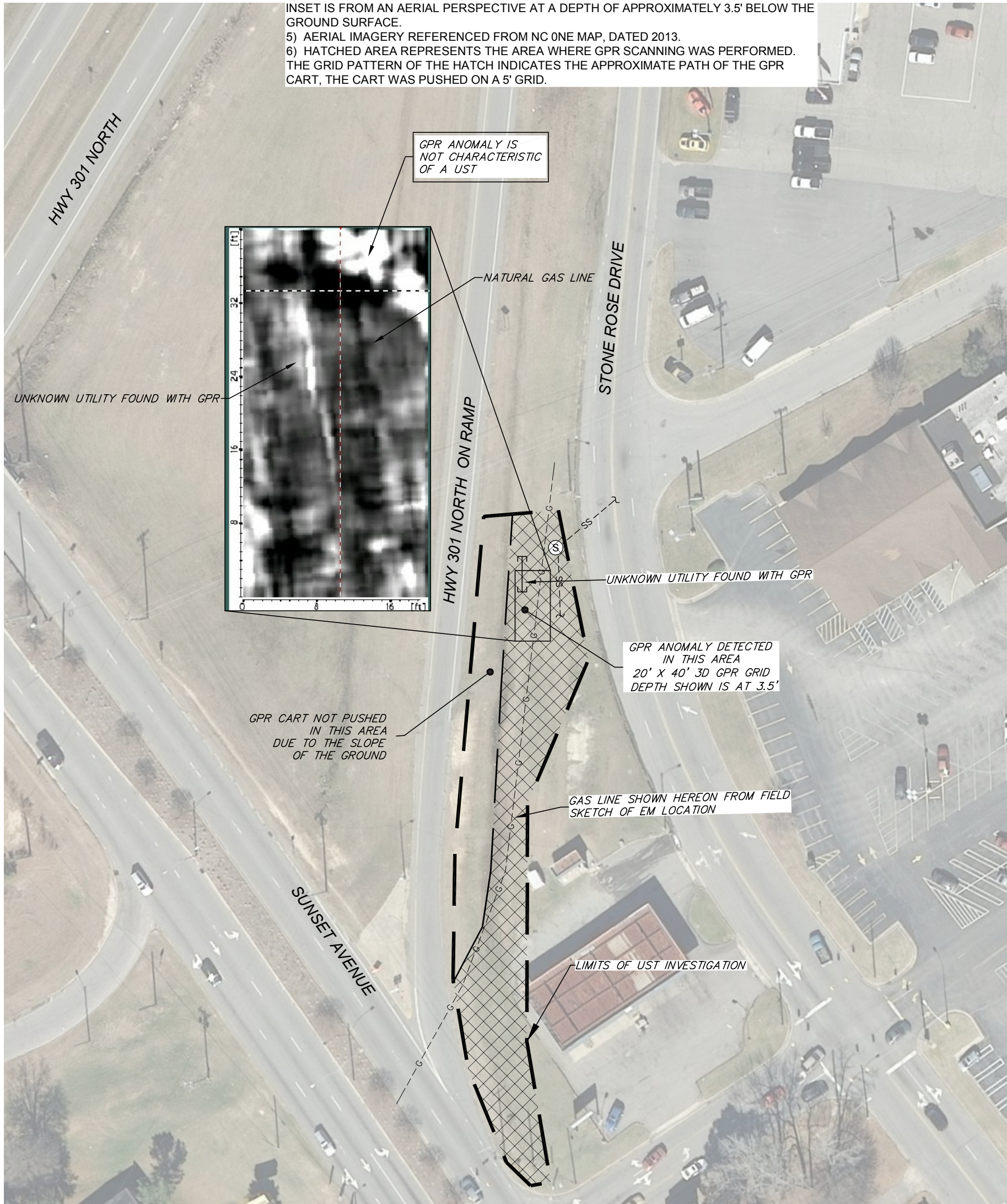
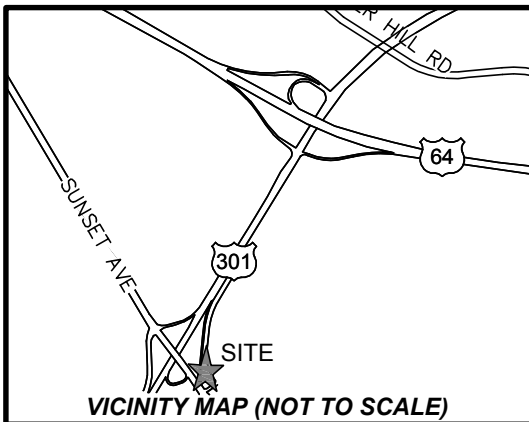
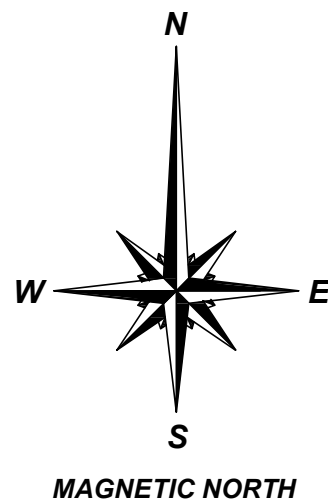


Best regards,

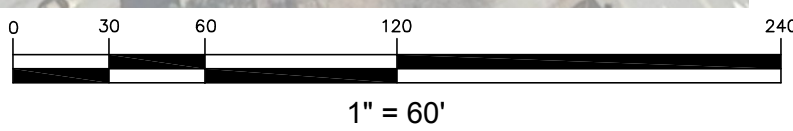
Chad T. Howard, PLS
Survey & SUE Division Manager
Taylor Wiseman & Taylor
(919) 215-1472
howard@taylorwiseman.com

GENERAL NOTES

- 1) THE PURPOSE OF THIS MAP IS TO DISPLAY UNDERGROUND UTILITIES DESIGNATED BY TAYLOR WISEMAN & TAYLOR'S SUBSURFACE UTILITY ENGINEERING DEPARTMENT, UTILIZING VIVAX PRO LOC 2, AND VIVAX METROTECH 810 FOR ELECTROMAGNETIC DESIGNATION, AND A MALA X3M GROUND PENETRATING RADAR WITH A 250 MHZ ANTENNA.
- 2) ALL UNDERGROUND UTILITIES SHOWN HEREON WERE LOCATED IN ACCORDANCE WITH QUALITY LEVEL "B" SUBSURFACE UTILITY ENGINEERING STANDARDS. THIS QUALITY LEVEL DOES NOT GUARANTEE THE LOCATION OF ALL UNDERGROUND UTILITIES THAT MAY EXIST WITHIN THE LIMITS OF THIS SURVEY. THIS MAP SHOULD NOT BE RELIED UPON AS A COMPLETE DEPICTION OF ALL UNDERGROUND UTILITY APPURTENANCES THAT MAY EXIST WITHIN THE LIMITS OF THIS SURVEY. NOT ALL UNDERGROUND UTILITY APPURTENANCES CAN BE DETECTED AND TRACED WITH OUR EQUIPMENT. USE OF THIS MAP DOES NOT NEGATE ANY PARTY'S RESPONSIBILITY TO CONTACT "ONE-CALL" PRIOR TO PERFORMING EXCAVATIONS INSIDE THE LIMITS OF THIS SURVEY.
- 3) THE LOCATION OF THE UTILITIES SHOWN HEREON SHOULD BE CONSIDERED APPROXIMATE. THIS DOCUMENT IS A SKETCH; IT IS NOT A SURVEY; NO FIELD SURVEYING WAS PERFORMED.
- 4) THERE WAS ONE AREA WITHIN THE LIMITS, THAT THE GPR FOUND AN ANOMALY. THE INSET IS FROM AN AERIAL PERSPECTIVE AT A DEPTH OF APPROXIMATELY 3.5' BELOW THE GROUND SURFACE.
- 5) AERIAL IMAGERY REFERENCED FROM NC ONE MAP, DATED 2013.
- 6) HATCHED AREA REPRESENTS THE AREA WHERE GPR SCANNING WAS PERFORMED. THE GRID PATTERN OF THE HATCH INDICATES THE APPROXIMATE PATH OF THE GPR CART, THE CART WAS PUSHED ON A 5' GRID.



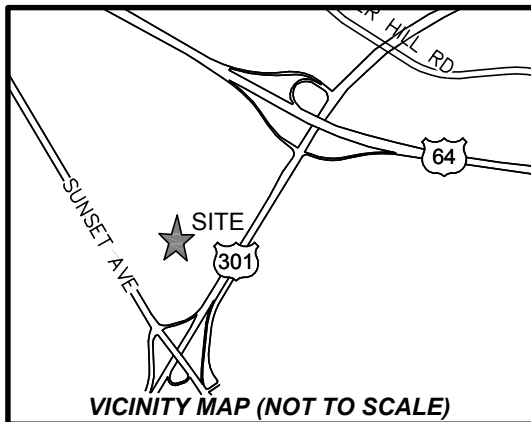
THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS



TAYLOR WISEMAN & TAYLOR
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 SUBSURFACE UTILITY ENGINEERS
 3500 REGENCY PARKWAY
 SUITE 260, CARY, NC 27518
 PHONE (919) 297-0085 FAX (919) 297-0090
 NORTH CAROLINA LICENSE NUMBER: F-0362

GEOPHYSICAL ASSESSMENT
 for APEX COMPANIES LLC.
 NCDOT PROJECT U-3330, PARCEL 20
 1921 STONE ROSE DRIVE
 NASH COUNTY - ROCKY MOUNT, NC

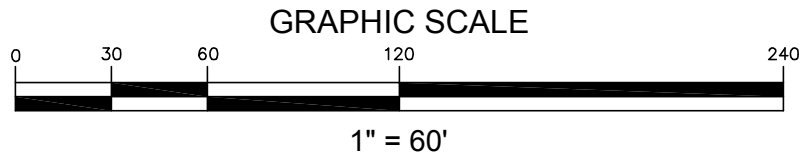
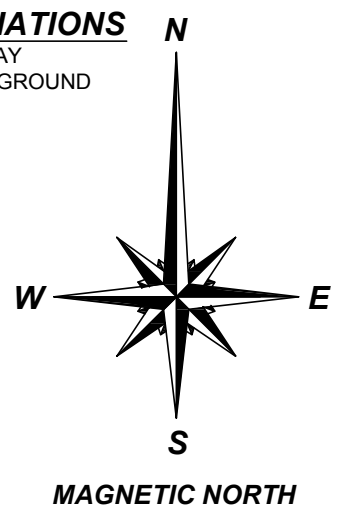
REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 60'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	1	SHEET: 1 / 1



LINE LEGEND		
---	FO	U/G FIBER OPTIC (SKETCH)
---	T	U/G TELEPHONE (SKETCH)
---	UE	U/G ELECTRIC LINE (SKETCH)

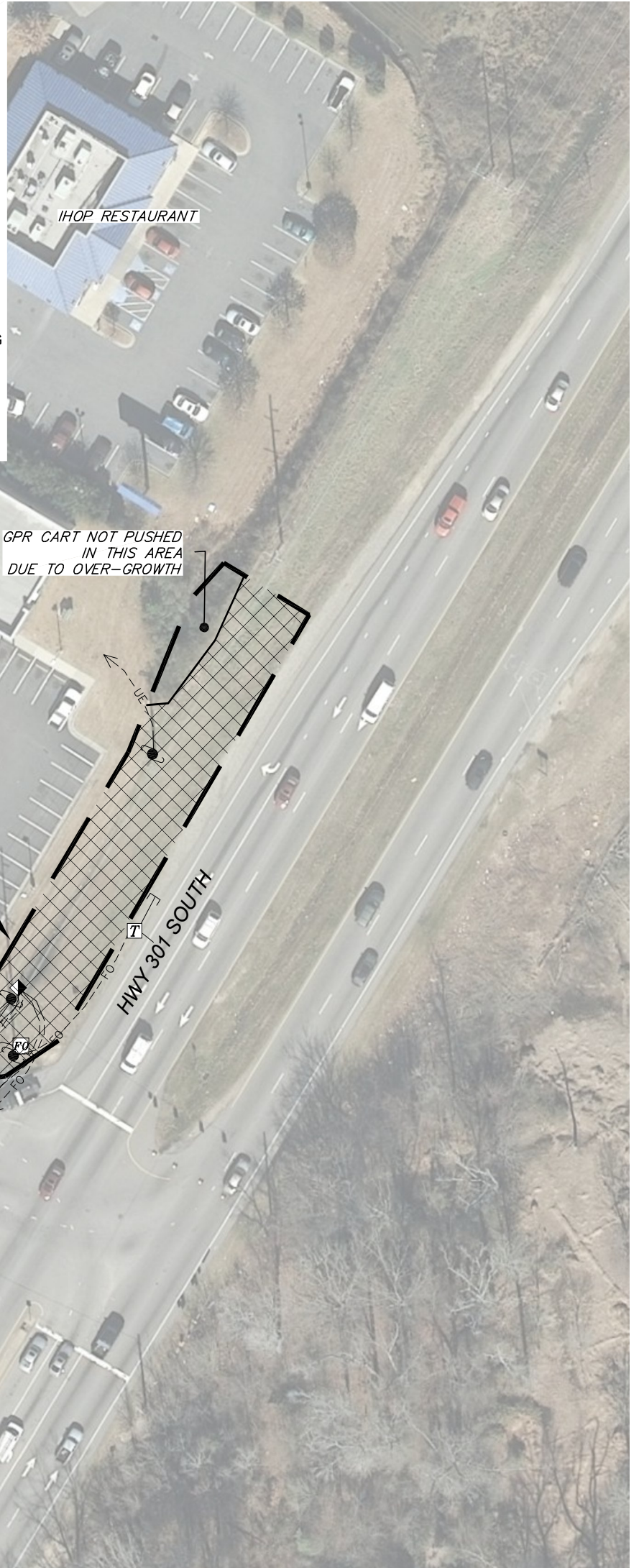
ABBREVIATIONS

HWY HIGHWAY
U/G UNDERGROUND



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- 4) NO ANOMALIES WERE FOUND BY THE GPR WITHIN THE PROJECT LIMITS.
- 5) AERIAL IMAGERY REFERENCED FROM NC ONE MAP, DATED 2013.
- 6) HATCHED AREA REPRESENTS THE AREA WHERE GPR SCANNING WAS PERFORMED. THE GRID PATTERN OF THE HATCH INDICATES THE APPROXIMATE PATH OF THE GPR CART, THE CART WAS PUSHED ON A 5' GRID.



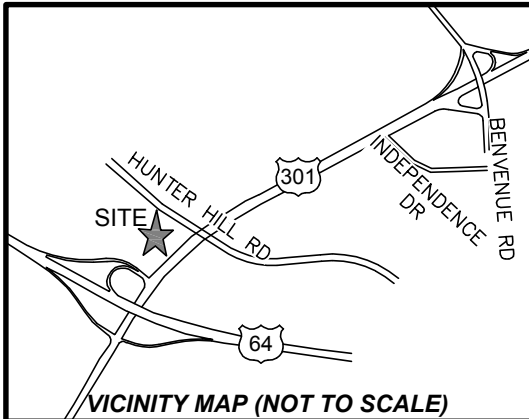
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NORTH CAROLINA LICENSE NUMBER: F-0362

GEOPHYSICAL ASSESSMENT
for APEX COMPANIES LLC.
NCDOT PROJECT U-3330, PARCEL 37
770 N. WESLEYAN BLVD
NASH COUNTY - ROCKY MOUNT, NC

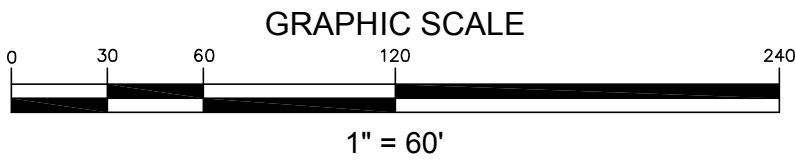
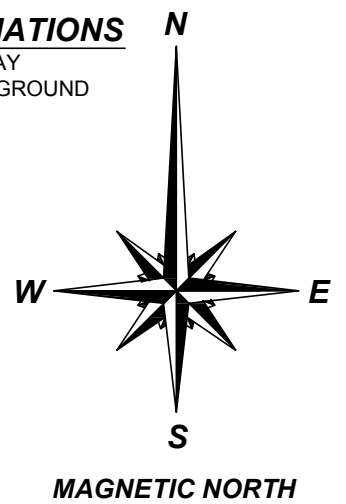
REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 60'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	2	SHEET: 1 / 1



LINE LEGEND	
---G---G---	U/G GAS (SKETCH)
---FO---FO---	U/G FIBER OPTIC (SKETCH)
---T---T---	U/G TELEPHONE (SKETCH)
---UE---UE---	U/G ELECTRIC LINE (SKETCH)

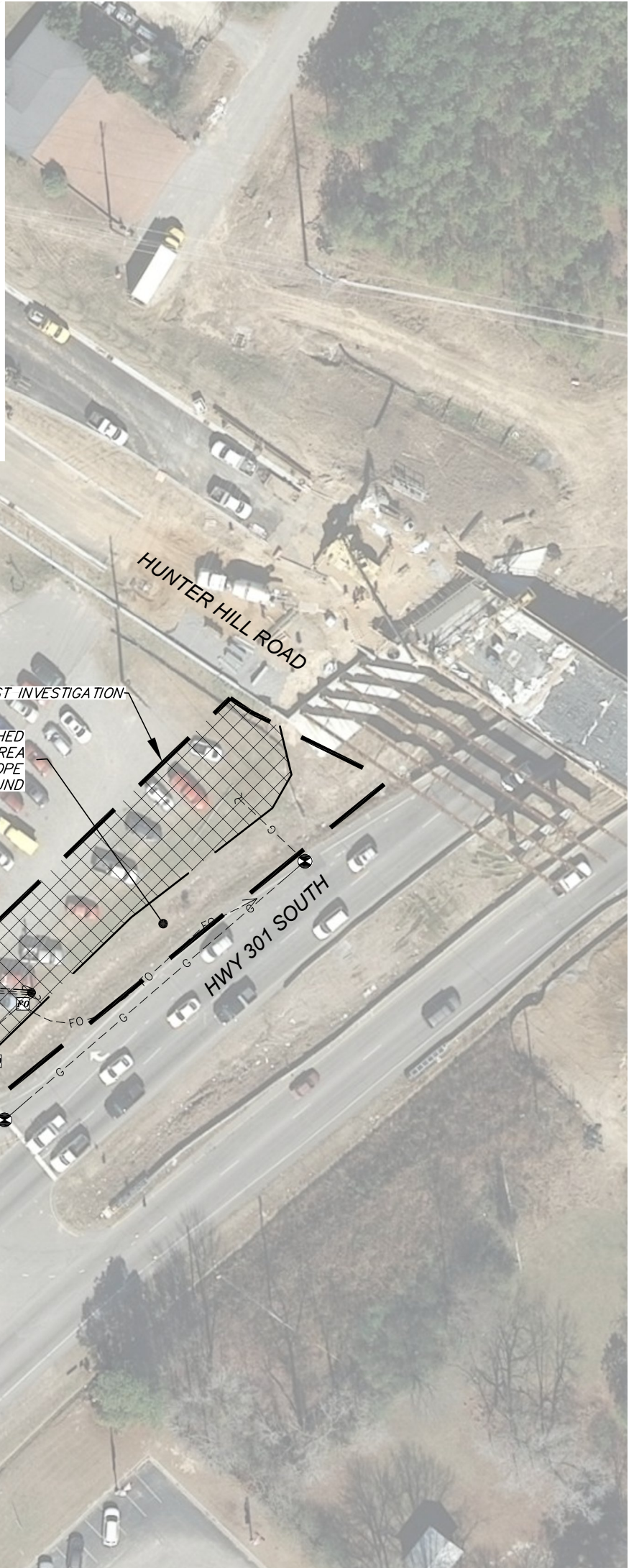
ABBREVIATIONS

HWY HIGHWAY
U/G UNDERGROUND



GENERAL NOTES

- 1) THE PURPOSE OF THIS MAP IS TO DISPLAY UNDERGROUND UTILITIES DESIGNATED BY TAYLOR WISEMAN & TAYLOR'S SUBSURFACE UTILITY ENGINEERING DEPARTMENT, UTILIZING VIVAX PRO LOC 2, AND VIVAX METROTECH 810 FOR ELECTROMAGNETIC DESIGNATION, AND A MALA X3M GROUND PENETRATING RADAR WITH A 250 MHZ ANTENNA.
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- 4) NO ANOMALIES WERE FOUND BY THE GPR WITHIN THE PROJECT LIMITS.
- 5) AERIAL IMAGERY REFERENCED FROM NC ONE MAP, DATED 2013.
- 6) HATCHED AREA REPRESENTS THE AREA WHERE GPR SCANNING WAS PERFORMED. THE GRID PATTERN OF THE HATCH INDICATES THE APPROXIMATE PATH OF THE GPR CART, THE CART WAS PUSHED ON A 5' GRID.



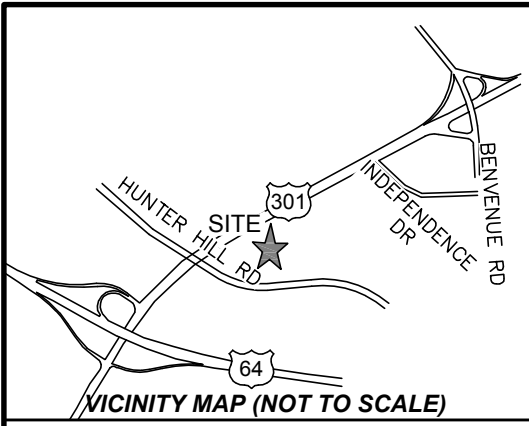
THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS



TAYLOR WISEMAN & TAYLOR
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NORTH CAROLINA LICENSE NUMBER: F-0362

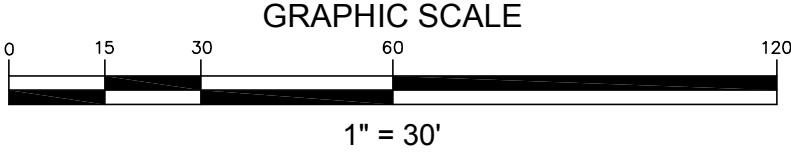
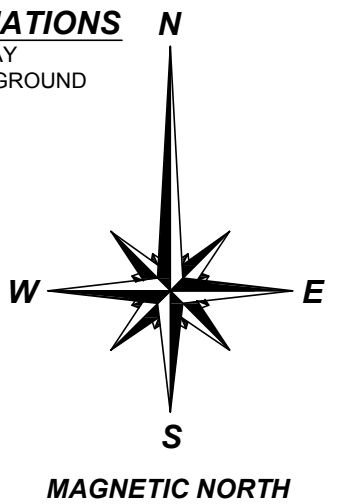
GEOPHYSICAL ASSESMENT
for APEX COMPANIES LLC.
NCDOT PROJECT U-3330, PARCEL 45
829 HUNTER HILL ROAD
NASH COUNTY - ROCKY MOUNT, NC

REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 60'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	3	SHEET: 1 / 1



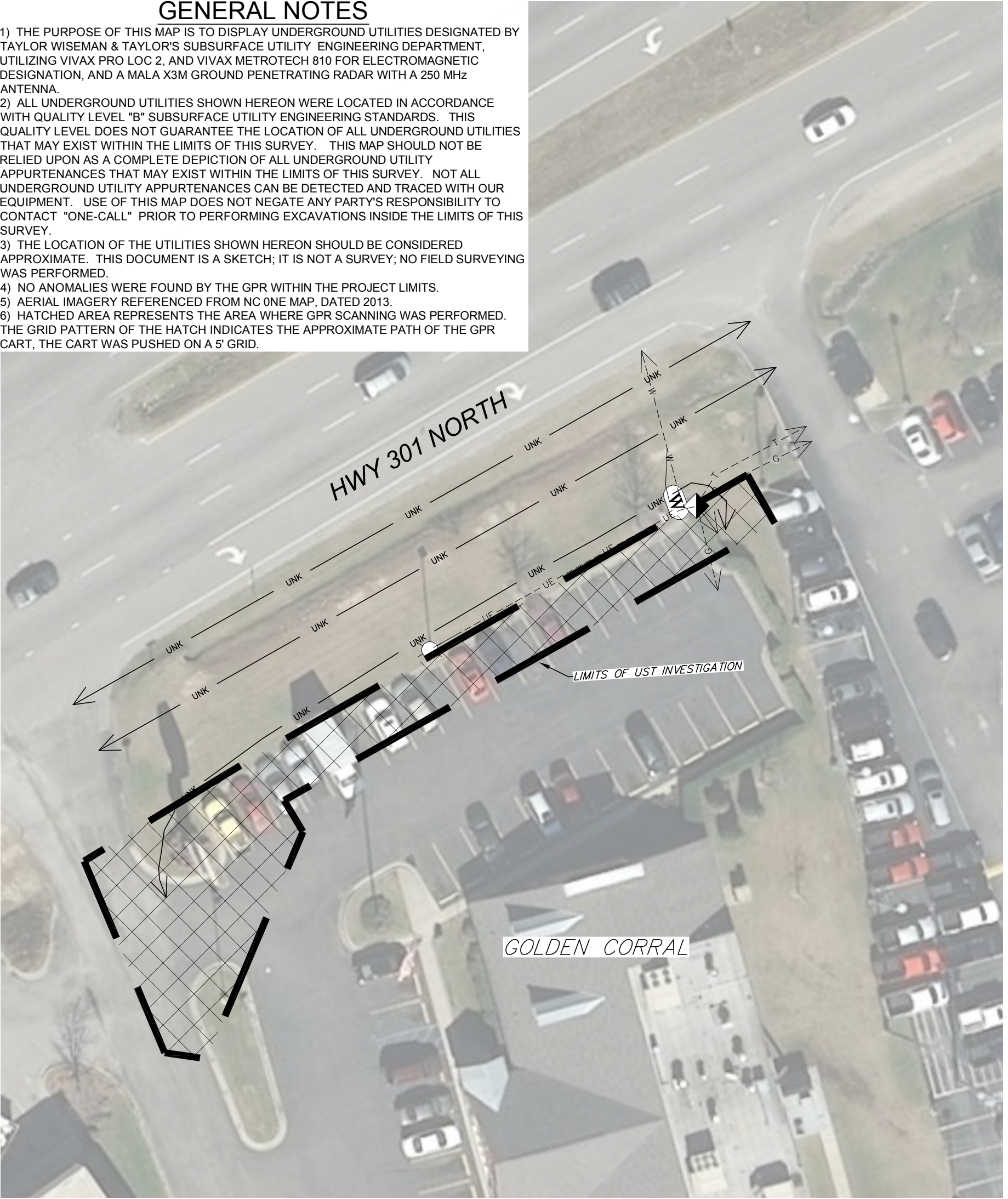
LINE LEGEND	
-----T-----T-----	U/G TELEPHONE (SKETCH)
-----W-----W-----	U/G WATER LINE (SKETCH)
-----UE-----UE-----	U/G ELECTRIC LINE (SKETCH)
-----G-----G-----	U/G GAS (SKETCH)
-----UNK-----UNK-----	UNKNOWN U/G UTILITY

ABBREVIATIONS
 HWY HIGHWAY
 U/G UNDERGROUND



GENERAL NOTES

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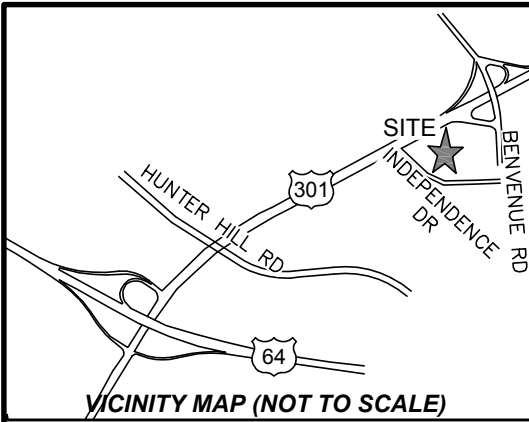
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 NORTH CAROLINA LICENSE NUMBER: F-0362

GEOPHYSICAL ASSESMENT
 for APEX COMPANIES LLC.
 NCDOT PROJECT U-3330, PARCEL 49
 921 N. WESLEYAN BLVD
 NASH COUNTY - ROCKY MOUNT, NC

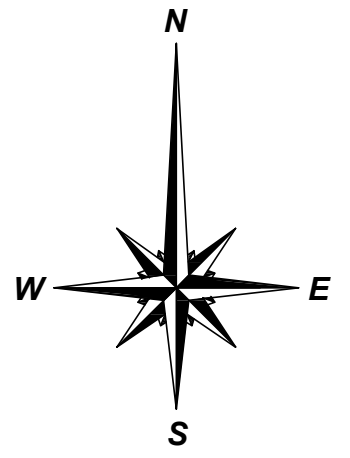
REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 30'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	4	SHEET: 1 / 1



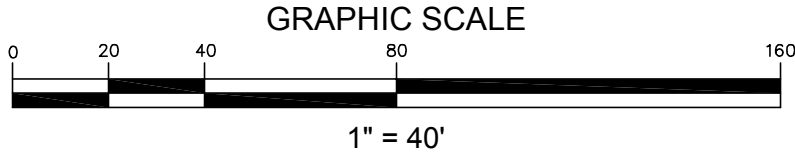
LINE LEGEND	
---T---T---	U/G TELEPHONE (SKETCH)
---W---W---	U/G WATER LINE (SKETCH)

ABBREVIATIONS

HWY HIGHWAY
U/G UNDERGROUND



MAGNETIC NORTH



GENERAL NOTES

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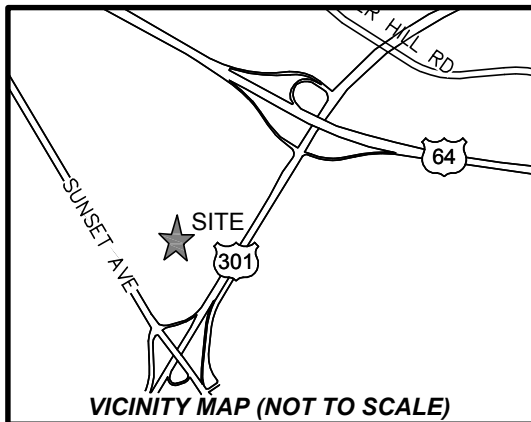
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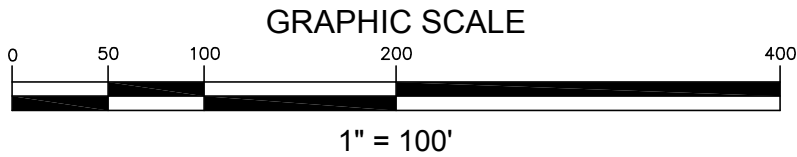
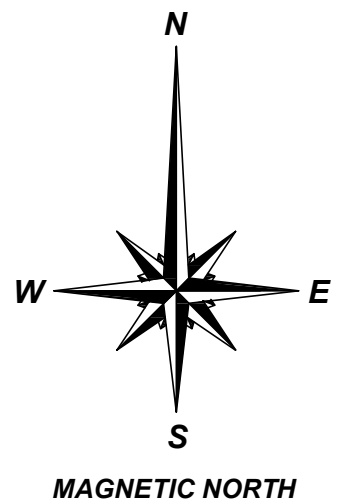
GEOPHYSICAL ASSESMENT
for APEX COMPANIES LLC.
NCDOT PROJECT U-3330, PARCEL 69
1001 N. WESLEYAN BLVD
NASH COUNTY - ROCKY MOUNT, NC

REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 40'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	5	SHEET: 1 / 1



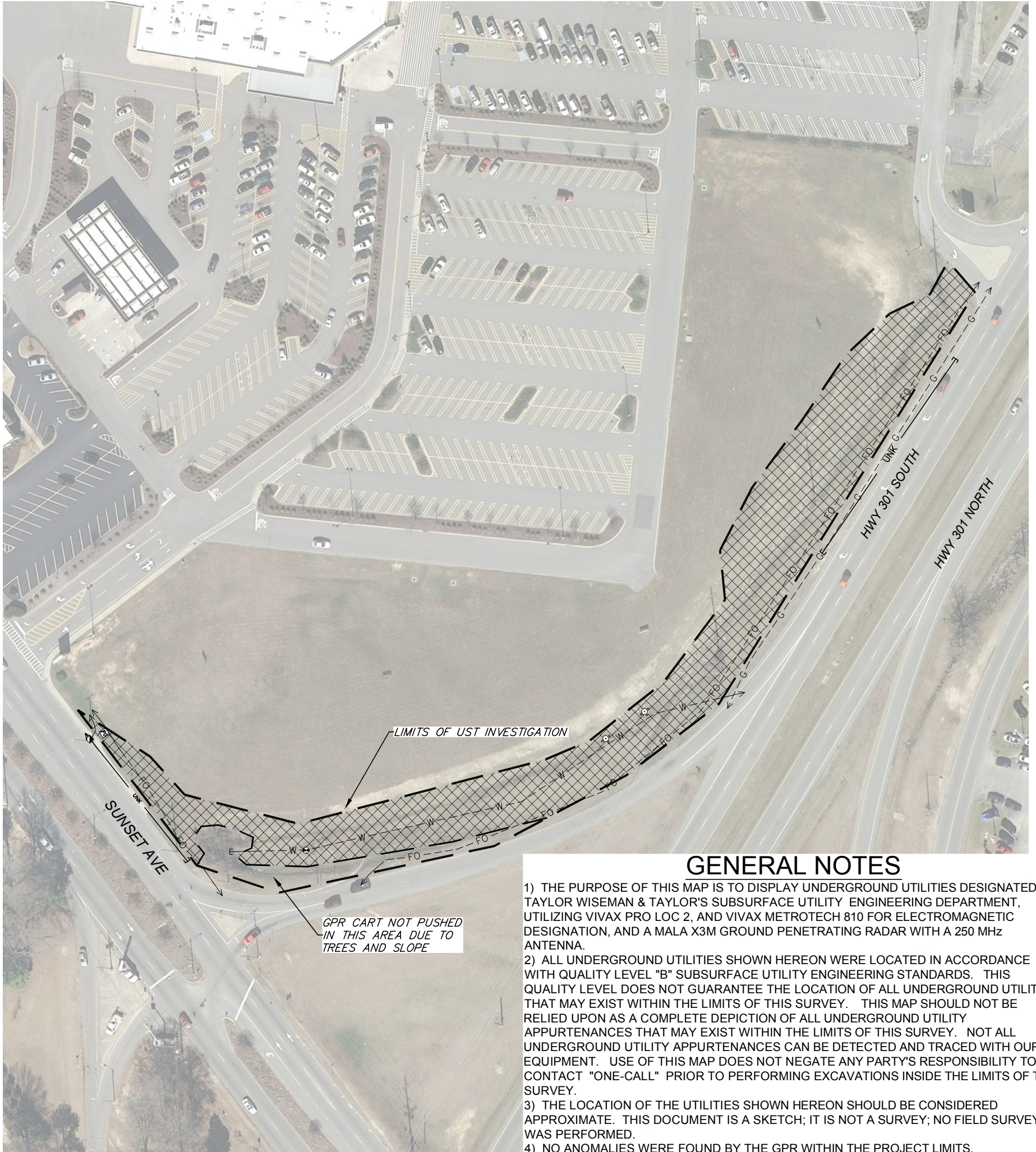
VICINITY MAP (NOT TO SCALE)

LINE LEGEND	
---	U/G TELEPHONE
---	U/G WATER LINE
---	U/G FIBER OPTIC LINE)
---	U/G GAS
---	UNKNOWN U/G UTILITY



ABBREVIATIONS

HWY HIGHWAY
U/G UNDERGROUND



GENERAL NOTES

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NORTH CAROLINA LICENSE NUMBER: F-0362

GEOPHYSICAL ASSESMENT
for APEX COMPANIES LLC.
NCDOT PROJECT U-3330, PARCELS 22-25
2320 SUNSET AVENUE
NASH COUNTY - ROCKY MOUNT, NC

REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 100'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	6	SHEET: 1 / 1

APPENDIX D
HYDROCARBON ANALYSIS RESULTS



Hydrocarbon Analysis Results

Client: NCDOT
Address: 1001 N Wesleyan Blvd

Samples taken Tuesday, July 28, 2015
Samples extracted Tuesday, July 28, 2015
Samples analysed Tuesday, July 28, 2015

Contact: Gordon Box

Operator Troy L. Holzschuh

Project: U-3330

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	P69-B1 (4-5)	17.9	<0.45	<0.45	9.8	9.8	9.2	0.43	0.006	0	88	12	V.Deg.PHC (FCM) 86.1%
s	P69-B1 (7-8)	19.1	<0.48	<0.48	2.7	2.7	2.4	0.12	0.003	0	69.2	30.8	V.Deg.PHC (FCM) 66.6%
s	P69-B2 (4-5)	16.9	<0.84	<0.42	<0.17	<0.42	<0.08	<0.02	<0.008	0	0	100	Match not possible (FCM)
s	P69-B2 (7-8)	20.3	<0.51	<0.51	0.71	0.71	0.64	0.03	0.01	0	67.4	32.6	V.Deg.PHC (FCM) 57.9%
s	P69-B3 (4-5)	18.6	<0.93	<0.46	0.68	0.68	0.56	0.06	<0.009	0	63.7	36.3	Pyrogenic HC (FCM) 55.6%
s	P69-B4 (4-5)	22.4	<1.1	<0.56	9.9	9.9	4.7	0.17	0.011	0	95.3	4.7	V.Deg.Diesel (FCM) 81.2%
s	P69-B4 (7-8)	17.9	<0.9	<0.45	0.18	0.18	<0.17	<0.02	<0.009	0	63.9	36.1	V.Deg.PHC (FCM)
s	P69-B5 (4-5)	16.7	<0.83	<0.42	<0.17	<0.42	<0.08	<0.02	<0.008	0	0	100	Match not possible (FCM)
s	P69-B5 (7-8)	17.1	<0.86	<0.43	<0.17	<0.43	<0.09	<0.02	<0.009	0	0	100	Match not possible (FCM)

Initial Calibrator QC check OK

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content
 Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library
 (SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present

