



GENERAL SURVEY - DRAWING NOTES

THE OBJECTIVE OF THIS GEOPHYSICAL SURVEY WAS THE NON-INVASIVE SUBSURFACE SEARCH, DETECTION AND MAPPING OF SUBSURFACE UTILITIES, RELATED STRUCTURES AND FEATURES WITHIN THE GEOPHYSICAL SURVEY AREA IN ACCORDANCE WITH ASCE 38-02 SUBSURFACE UTILITY ENGINEERING (SUE) QUALITY LEVEL "B". THE BOUNDARIES OF THE GEOPHYSICAL SURVEY AREA ARE DEPICTED AND LABELED HEREON. SURFACE CIVIL FEATURES IN THE IMMEDIATE VICINITY ARE DEPICTED FOR FIELD REFERENCE. THIS GEOPHYSICAL SURVEY SHALL BE CONSIDERED "EXPIRED" AND ONLY APPLICABLE FOR SUE QUALITY LEVEL "D" INFORMATION 60 DAYS AFTER THE LAST FIELD SURVEY DATE.

GEOPHYSICAL TECHNOLOGIES UTILIZED TO PERFORM THIS SURVEY INCLUDED THE DEPLOYMENT OF A GEOPHYSICAL SURVEY SYSTEMS, INC. (GSSI) SYSTEM 4000 GROUND PENETRATION RADAR (GPR) AND 3M CORPORATION DYNATEL 4420L METALLIC PIPE/CABLE TRACER.

GPR, A CONTINUOUS GRAPHIC SUBSURFACE INTERFACE PROFILING INSTRUMENT, USED A 350 MHz DIGITAL ANTENNA ADJUSTED TO 60 ns TWO-WAY ELECTROMAGNETIC SIGNAL TRAVEL TIME. BASED ON AN ASSUMED CONVERSION FACTOR OF 7.5 ns/FT., THE VERTICAL RANGE OF INSTRUMENT DETECTION WAS PROGRAMMED AS A MAXIMUM DEPTH OF 8.0 FT. BELOW THE EXISTING GRADE. HOWEVER, ACTUAL RESOLUTION DEPTH WAS DETERMINED AS APPROXIMATELY 6.5 FT. BELOW THE EXISTING GRADE DUE TO SITE-SPECIFIC SUBSURFACE SOIL CONDITIONS. GPR PROFILES WERE PERFORMED AS PARALLEL IMAGES BI-DIRECTIONALLY AT TYPICAL 5 FT. INTERVALS WITHIN THE GEOPHYSICAL SURVEY AREA. ALL PROFILES WERE POST-PROCESSED USING GSSI RADAN SOFTWARE AND ANALYZED AND INTERPRETED FOR RELEVANCE TO THE PRESENCE OF SUBSURFACE UTILITIES, RELATED STRUCTURES AND FEATURES, AND ARCHIVED FOR FUTURE REFERENCE.

METALLIC PIPE/CABLE SEARCH AND DETECTION WAS PERFORMED BY MEANS OF RADIO FREQUENCY (RF) TECHNIQUES WITH A DYNATEL MODEL 4420L PORTABLE TRANSMITTER AND RECEIVER UNIT DEPLOYED IN VARIOUS MODES OF OPERATION: LOW FREQUENCY STRAY SIGNAL DETECTION, CONDUCTIVE (IMPOSED) SIGNAL DETECTION, AND REMOTE (INDUCED) SIGNAL DETECTION.

DEPTHS INDICATED BY THIS PLAN DRAWING ARE IN UNITS OF FEET AND DECIMALS THEREOF. DEPTHS REFERENCE THE UPPERMOST SURFACE OF THE UTILITY, RELATED STRUCTURE OR FEATURE DETECTED FROM THE EXISTING GRADE AND SHOULD BE REGARDED AS APPROXIMATE ONLY.

THIS GEOPHYSICAL SURVEY INCLUDED RESEARCH OF THE FOLLOWING AVAILABLE FACILITY DRAWINGS:

- 1) MOBILE CONTAINER TERMINAL DRAWINGS C-107, E-15, M-10, M-23
- 2) CITY OF MOBILE STORM DRAIN GIS RECORDS
- 3) MAWSS WATER AND SEWER GIS RECORDS

LOCATIONS OF FEATURES PRESENTED BY THIS PLAN DRAWING REFERENCE CONTROL POINTS ESTABLISHED BY GPS LAND SURVEYING TECHNIQUES. HORIZONTAL CONTROL IS BASED ON ALABAMA WEST STATE PLANE COORDINATES NORTH AMERICAN DATUM OF 1983. HORIZONTAL COORDINATES WERE ESTABLISHED FROM ALABAMA DEPARTMENT OF TRANSPORTATION CONTINUOUS OPERATING REFERENCE NETWORK USING TOPCON GPS. THIS PLAN DRAWING DOES NOT REPRESENT A LEGAL BOUNDARY OR TOPOGRAPHIC SURVEY AND SHOULD BE USED FOR REFERENCE ONLY.

THIS DRAWING IS INTENDED FOR MULTI-COLOR PRESENTATION. PHOTOCOPIING OF ALL OR PART OF THIS DRAWING IS NOT RECOMMENDED SINCE CERTAIN COLORS USED IN THE ORIGINAL MAY NOT REPRODUCE WITH CLARITY. THIS DRAWING WAS PREPARED IN ANSI "B" SIZE FORMAT. HOWEVER, IT IS ANTICIPATED AND RECOMMENDED THAT THIS DRAWING BE PLOTTED BY THE CLIENT AS A COLOR ANSI "C" OR ANSI "D" SIZE SHEET FOR OPTIMUM TEXT LEGIBILITY. THE USER SHOULD REFERENCE THE PROVIDED BAR SCALE FOR DIMENSIONAL PURPOSES.

FEATURES LABELED HEREON AS "UNKNOWN UTILITY" INDICATE THE CENTERLINE LOCATION OF POSSIBLE UTILITIES DETECTED BY GPR. THE DIAMETER, MATERIAL, PURPOSE OF, AND STATUS AS ABANDONED OR ACTIVE IS UNKNOWN.

SYMBOL REPRESENTATION OF IRREGULAR OR POORLY DEFINED SUBSURFACE FEATURE OF RELATIVELY SMALL SIZE. THESE FEATURES TYPICALLY HAVE GPR RESPONSE CHARACTERISTICS AS ANTICIPATED FOR A BURIED UTILITY. HOWEVER, THEY ARE DEPICTED AS ISOLATED OCCURRENCES DUE TO INCONCLUSIVE DATA INDICATING LATERAL CONTINUANCE. THE DEPTH TO THE UPPERMOST SURFACE OF THE ISOLATED FEATURES ARE LABELED ADJACENT TO THE SYMBOL.

- BOL : BOLLARD
- CPP : CORRUGATED PLASTIC PIPE
- FH : FIRE WATER HYDRANT/ MONITOR
- GA : GUY ANCHOR
- GP : GATE POST
- LP : LIGHT POLE
- MH : MANHOLE OR UTILITY ACCESS COVER
- RCP : REINFORCED CONCRETE PIPE
- SD : STORM DRAIN
- SS : SANITARY SEWER
- TPP : TIMBER POWER POLE
- UMP : UTILITY MARKER POST
- VB : VALVE BOX

Services and resulting interpretations provided by E.F. Thompson Geotechnologies, Inc. are performed with our best professional efforts. Because of the limitations of technology as may be pertinent to the survey areas performed, and interpretations are judgements based on inference from acquired GPR and/or other geophysical response or information, E.F. Thompson Geotechnologies, Inc. does not guarantee GPR or other geophysical technology performance or, accuracy or correctness of interpretations, and E.F. Thompson Geotechnologies, Inc. will not accept liability or responsibility for any loss, damages, injury, or expenses that may be incurred or sustained by any party of the owner, its contractors, or its representatives as related to any services or interpretations performed by E.F. Thompson Geotechnologies, Inc.

REFERENCE	DESCRIPTION	DEPTH (FT.)	COMMENTARY
001	ELEC. / COMM. CONDUITS / CABLES	1.2' - 2.0'	
002	4" DIA. GAS PIPING	1.4' - 2.1'	
003	6" DIA. GAS PIPING	1.4' - 2.1'	
004	3" DIA. IRRIGATION WATER PIPING	2.2' - 3.1'	
005	4" DIA. DOMESTIC WATER PIPING	2.2' - 3.1'	
006	4" DIA. WATER PIPING	2.5' - 3.8'	DIAMETER INDICATED PER LIMITED MAWSS RECORDS?
007	4" DIA. WATER PIPING?	1.9' - 2.5'	
008	10" DIA. FIRE WATER PIPING	2.2' - 3.1'	
009	16" DIA. WATER PIPING	2.2' - 3.1'	
010	8" DIA. ? STORM DRAIN PIPING	1.9' - 2.4'	DIAMETER INDICATED AS BEST DETERMINED.
011	18" DIA. RCP STORM DRAIN PIPING	4.5' - 4.8'	
012	CPP STORM DRAIN PIPING	2.5' - 3.5'	
013	30" DIA. RCP STORM DRAIN PIPING	3.1' - 3.6'	
014	48" DIA. RCP STORM DRAIN PIPING	2.6' - 3.3'	
015	3" DIA. SS FORCE MAIN	> 3.0'?	
016	4" DIA. SS FORCE MAIN	1.2' - 2.0'	
017	36" DIA. SS FORCE MAIN	3.2' - 4.9'?	LOCATION DEPICTED AS BEST DETERMINED.
018	48" DIA. SS PIPING	3.7' - 4.0'?	SEALED / PLUGGED IN MH
019	SS PIPING, UNKNOWN DIAMETER	1.3' - 1.7'	

REFERENCE	DESCRIPTION	DEPTH (FT.)	COMMENTARY
020	UNKNOWN UTILITY	1.8' - 2.7'	
021	UNKNOWN UTILITY	2.7' - 3.7'	
022	ANOMALOUS FEATURE	1.9' - 2.5'	
023	ANOMALOUS FEATURE	4.1' - 5.1'	
024	ANOMALOUS FEATURE	0.3' - 0.8'	POSSIBLE REINFORCED CONC. OR FORMER TROLLEY TRACK?
025	MATERIAL INTERFACE	1.3' - 1.6'	
026	STORM DRAIN MANHOLE	0.4' - 0.8'	

SPECIAL NOTE
 1. MANHOLE IS FILLED WITH WATER. THEREFORE, NO PIPES WERE ABLE TO BE OBSERVED TRAVERSING TO / FROM THIS MANHOLE. DEPTH TO THE BOTTOM OF THIS MANHOLE WAS MEASURED TO 8.2' FROM THE EXISTING GRADE. IT IS SUSPECTED THAT OTHER PIPES TRAVERSE TO / FROM THIS MANHOLE OTHER THAN WHAT IS DEPICTED HEREON.

GEOPHYSICAL SURVEY DETECTED FEATURES

**MOBILE CONTAINER TERMINAL
MOBILE, ALABAMA**

Field Survey Date: 3/23/2023 Dwg. No: 23-017A

Drawing By: FST/Review By: EFT Scale: 1" = 20' (ANSI "B" SIZE SHEET)

APTIM

Port Services, LLC



Revision No.:	Revision Date:	Revision By:	Revision No.:	Revision Date:	Revision By:	Revision No.:	Revision Date:	Revision By:	Revision No.:	Revision Date:	Revision By:	Revision No.:	Revision Date:	Revision By:
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