



**Document Solutions**

Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

**RECEIVED**  
By Alameda County Environmental Health 11:59 am, Dec 24, 2014

Re: ARC Document Solutions (Formerly City Blue Print)  
RWQCB Case#01-0210  
1700 Jefferson St  
Oakland CA, 94612

ARC has directed Applied Water Resources Corporation (AWR) to provide, on our behalf, professional environmental consulting services to the best of their ability. To the best of my knowledge, the information in this report is accurate and all local Agency and/or Regional Water Quality Control Board regulations and guidelines have been followed.

This report was prepared by AWR and ARC has relied on their advice and assistance. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Matt Westbrook - Asst. Corp. Controller  
Authorized Representative

Attachment: Report



December 21, 2015

Mr. Mark Detterman  
Alameda County Department of Environmental Health-LOP  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

RE: Work Plan Addendum  
1700 Jefferson Street, Oakland, California

Dear Mr. Detterman:

On behalf of ARC and based on phone conversations, email correspondence, and our on-site meeting with Lance Lo, the apartment building property owner, on July 31, 2015, this email provides the following as an addendum to the *2013 Conceptual Site Model and Work Plan for 1700 Jefferson Street, Oakland, California and Foundation Depth Survey Report*.

This addendum also adjusts the sampling depths to comply with the new DTSC Soil Gas Advisory, July 2015, which recommends sampling near the source area to model vapor intrusion risk. In practice, the actual sampling depth will be based on the actual depth to ground water when samples are collected. In addition, this addendum also biases sampling depth to more permeable materials.

This addendum includes the following:

- Table 1 provides the rationale, sample depths, and analyses for each soil boring.
- Table 2 provides the rationale, sample depths, and analyses for each soil vapor location.
- Figures 1 and 1a show the additional borings proposed to be advance.

This addendum proposes the following:

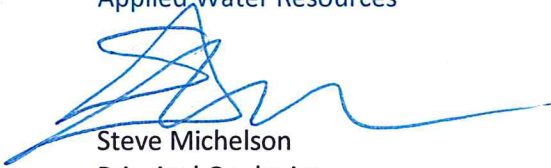
- Install 7 soil vapor wells at various depths adjacent to the neighboring apartment's courtyard and on the property,
- Advance 10 temporary soil vapor points within the on-site building, on Jefferson St, and on 18<sup>th</sup> Street to assess risks to occupants in the apartment building, on-site building, and neighboring properties,
- Advance one additional boring on-site adjacent to the courtyard to collect soil samples,
- Advance one additional boring on Jefferson Street to sample ground water; and
- Advancing one boring near MW-5, in the area of patch in the sidewalk to collect soil samples and two soil vapor samples from different depths.

Though not ideal, in lieu of an access agreement from the owner of the adjacent apartment building, borings adjacent to the courtyard will provide some information to help characterize potential risks to human health or environmental. All soil gas samples will be sampled in accordance with the July 2015 DTSC Soil Gas Advisory and AWR SOP's that have been provided in previous reports.

We hope this Addendum meets your needs. Please call with your comments or questions.

Regards,

Applied Water Resources



Steve Michelson  
Principal Geologist



**Distribution List**

Matthew Westbrook  
ARC Document Solutions  
1981 N. Broadway, Suite 385  
Walnut Creek CA 94596

**Figures:**

- Figure 1 - Proposed Sampling Locations
- Figure 2 - Proposed Sampling Locations Detail Map

**Tables**

- Table 1 – Proposed Sampling Points and Analyses



# TABLES



Table 1  
Proposed Sampling Points and Analyses  
1700 Jefferson St, Oakland, CA

Boring ID	Rationale for Sampling	Sample Depth (ft bgs)	TPHg	TPHd	TPHmo	BTEX	Naphthalene	LUFT-5 Metals	PAHs	Fuel Oxygenates	Lead Scavengers	Ethanol and Methanol
C1	Potential Location of Former Fuel Dispenser	3	X			X	X	X	X			
		8	X			X	X	X				
		Smear	X			X	X	X				
C2	Potential Location of Former Fuel Dispenser	3	X			X	X	X	X			
		8	X			X	X	X				
		Smear	X			X	X	X				
C3	Potential Location of Former Fuel Dispenser	3	X			X	X	X	X			
		8	X			X	X	X				
		Smear	X			X	X	X				
		GW	X			X				X	X	X
C4	"Pit" in 1939 Plan	3	X	X	X	X	X	X	X			
		8	X	X	X	X	X	X				
		Smear	X	X	X	X	X	X				
C5	Former UST Area	3	X			X	X	X	X			
		8	X			X	X	X				
		Smear	X			X	X	X				
C6	Former UST Area	3	X			X	X	X	X			
		8	X			X	X	X				
		Smear	X			X	X	X				
C7	Soil Delineation	12	X			X	X	X	X			
		Smear	X			X	X	X				
C8	Former UST Area	3	X			X	X	X	X			
		8	X			X	X	X				
		Smear	X			X	X	X				
C9	Former UST Area	3	X			X	X	X	X			
		8	X			X	X	X				
		Smear	X			X	X	X				
C10	Former UST Area	3	X			X	X	X	X			
		8	X			X	X	X				
		Smear	X			X	X	X				
C11	Plume Delineation/Risk to Indoor Air	3	X			X	X	X	X			
		8	X			X	X	X				
		Smear	X			X	X					
		GW	X			X				X	X	X
C12	Plume Delineation/Risk to Indoor Air	3	X			X	X	X	X			
		8	X			X	X	X				
		Smear	X			X	X					
		GW	X			X				X	X	X
C13	Plume Delineation/Risk to Indoor Air	Smear	X			X	X					
		GW	X			X				X	X	X
C14	Plume Delineation/Risk to Indoor Air	Smear	X			X	X					
		GW	X			X				X	X	X
C15	Plume Delineation	Smear	X			X	X					
		GW	X			X				X	X	X
C16	Plume Delineation/Connection to MW-5	Smear	X			X	X					
		GW	X			X				X	X	X
C17	Plume Delineation/Connection to MW-5	Smear	X			X	X					
		GW	X			X				X	X	X
C18	Plume Delineation	Smear	X			X	X					
		GW	X			X				X	X	X
C19	Possible UST Patch in Sidewalk	3	X	X	X	X	X	X	X			
		8	X	X	X	X	X	X				
		Smear	X			X	X					
C20	Plume Delineation	Smear	X			X	X					
		GW	X			X				X	X	X
C21	Plume Delineation/Risk to Indoor Air	Smear	X			X	X					
		GW	X			X				X	X	X

Smear: Capillary fringe and within the zone of ground water elevation fluctuation

GW: Ground Water Sample

Soil Sample

Ground Water Sample

**Soil samples at other depths may be collected and analyzed depending on field observations, PID readings, and odors.**

Table 2  
Proposed Vapor Points and Analyses  
1700 Jefferson St, Oakland, CA

Boring ID	Rationale for Sampling	Sample Depth (ft bgs)	Lithology	Temporary or Permanent	TO-15	Atmospheric Gases
SV1	Indoor Air Risk for Apartment Building/On-site Building	17	SP	Permanent	X	X
SV2	Indoor Air Risk for On-Site Building	6	SM	Permanent	X	X
SV3	Indoor Air Risk for Apartment Building/On-site Building	~20	SP	Permanent	X	X
SV4	Indoor Air Risk for On-Site Building	~5	SM	Permanent	X	X
SV5	Indoor Air Risk for Apartment Building/On-site Building	~22.5	SP	Temporary	X	X
SV6	Indoor Air Risk for On-Site Building	6	SM	Temporary	X	X
SV7	Indoor Air Risk for Neighboring Property/On-site Building	~22.5	SP	Temporary	X	X
SV8	Indoor Air Risk for Neighboring Property/On-site Building	~10	SW	Temporary	X	X
SV9	Indoor Air Risk for Neighboring Property/On-site Building	6	CL	Temporary	X	X
SV10	Indoor Air Risk for Apartment Building	17	SP	Temporary	X	X
SV11	Indoor Air Risk for Apartment Building	17	SP	Temporary	X	X
SV12	Indoor Air Risk for Apartment Building	11.5	SM	Temporary	X	X
SV13	Indoor Air Risk for Apartment Building	17	SP	Permanent	X	X
SV14	Indoor Air Risk for Apartment Building	11.5	SM	Permanent	X	X
SV15	Indoor Air Risk for Building near MW-5	19	SP	Temporary	X	X
SV16	Indoor Air Risk for Building near MW-5	6	SP	Temporary	X	X
SV17	Indoor Air Risk for Apartment Building	6*	SP	Permanent	X	X

\*: Depth below courtyard surface

SP: Poorly graded sand

SM: Silty sand

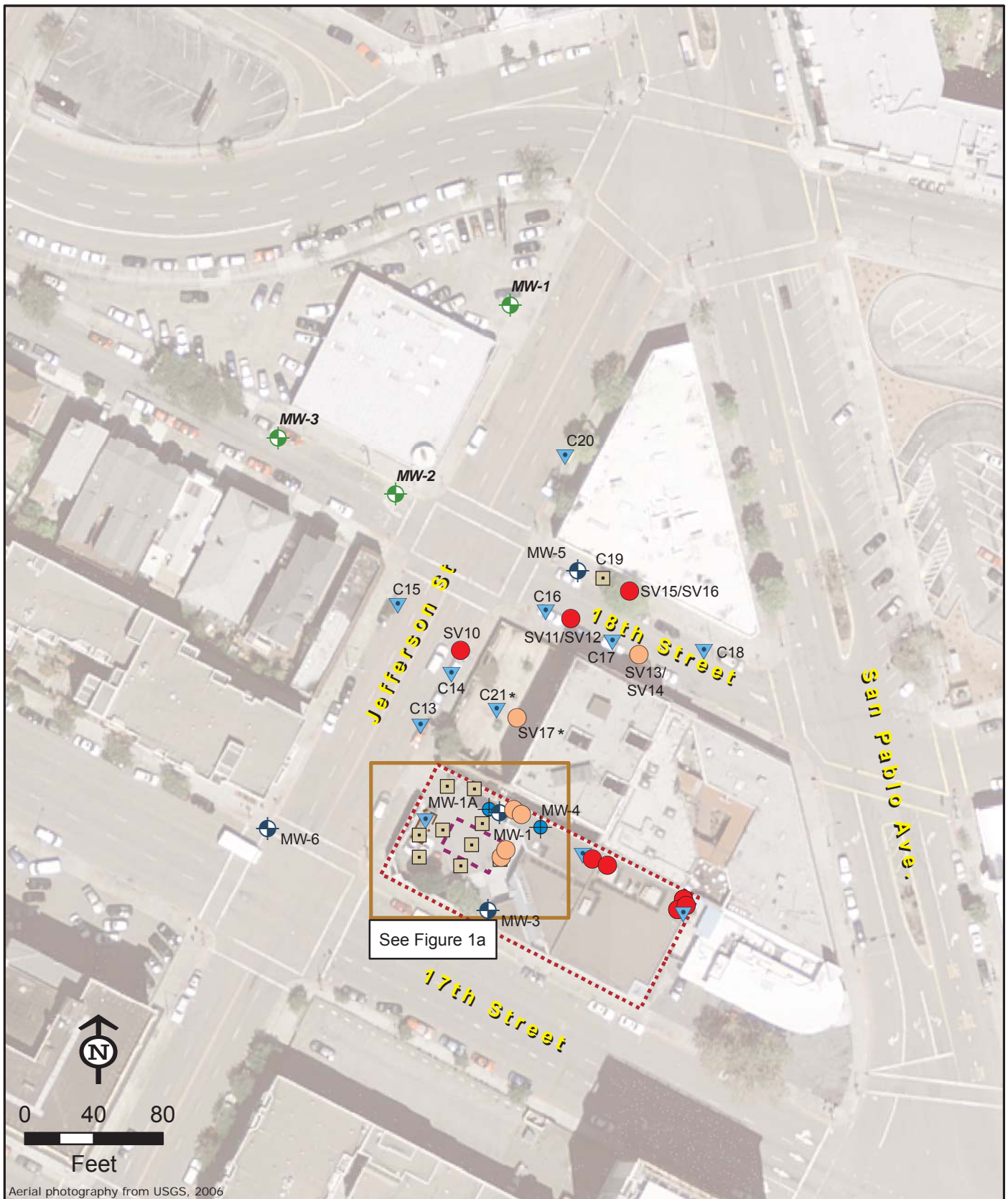
CL: Fat clay

SW: Well graded sand

**Depths may be adjusted depending on lithology/moisture encountered**

# FIGURES





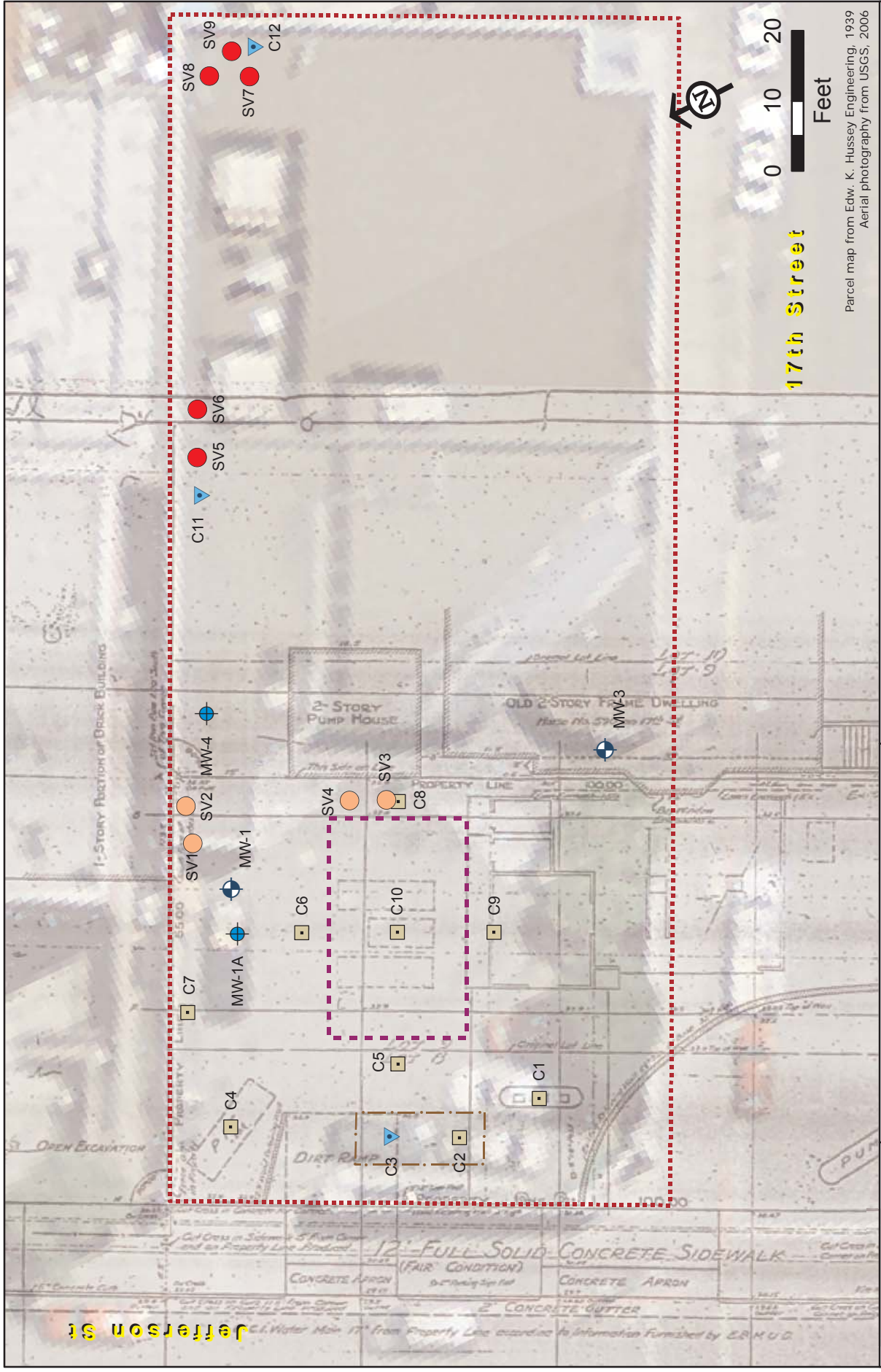
Aerial photography from USGS, 2006



**Figure - 1**  
**Proposed Sampling Locations**  
**1700 Jefferson Street, Oakland, CA**

- |  |  |  |
|--|--|--|
|  Proposed Soil Vapor Well               |  Monitor Well                             |  Former Dispenser Island (approx)       |
|  Proposed Soil Sample                   |  Extraction Well                          |  Tank Removal Excavation Area (approx.) |
|  Proposed Ground Water and Soil Samples |  612 18th Street Monitor Well (Destroyed) |  Property Boundary                      |
|  Proposed Temporary Soil Vapor Point    | <p>* = If Access Allowed</p>   |  |





Parcel map from Edw. K. Hussey Engineering, 1939  
 Aerial photography from USGS, 2006

APPLIED  
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**Figure - 1a**

**Proposed Sampling Locations**

**Detail Map**

**1700 Jefferson Street, Oakland, CA**

- Proposed Soil Vapor Well
- Proposed Soil Sample
- ▲ Proposed Groundwater and Soil Samples
- Proposed Temporary Soil Vapor Point
- Monitor Well
- Extraction Well
- Tank Removal Excavation Area (approx.)
- Property Boundary
- Former Dispenser Island (approx.)