

**From:** M Muthig IPGX <mgm.ipgx@gmail.com>  
**Sent:** Friday, August 31, 2018 5:22 AM  
**To:** Hornosky, Tim  
**Subject:** vapor intrusion assessment plans

Tim,

Message received. We plan to incorporate vapor intrusion monitoring into the next round of assessment. Below is a general description of planned activity.

Sub-slab vapor samples will be collected per the U.S. Environmental Protection Agency's (USEPA) Office of Solid Waste and Emergency Response (OSWER) Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air (OSWER Publication 9200.2-154; June, 2015). Three (3) sub-slab vapor samples will be collected approximately 50 feet apart along the northeast corner of the office building at 4210 Azalea Drive (approximate locations shown in the attached figure).

Sub-slab vapor samples will be collected from a depth of 4 feet, approximately one foot above the water table. An extendable AMS gas vapor sampler (inverted approximately 30° - 45° from vertical) with expendable drive points and screens will be used to collect samples. The drive-point sampler will be connected to the Summa canister via appropriately sized Teflon tubing. A hydrated 6-inch bentonite seal will be placed around the drive-point sample rod to prevent short-circuiting with atmospheric air and avoid false positives in samples. Leak detection in sample analysis will be achieved by placing a rag saturated with isopropyl rubbing alcohol over the bentonite seal. The sample train were purged via hand pump prior to opening the Summa canister valve.

Samples will be collected in cleaned/certified 1-liter stainless steel Summa canisters with fill valves set for sample intake of 15-minutes/sample. Summa canisters will be submitted to a SC-certified laboratory for analysis of volatile organic compounds in air collected in specially-prepared canisters and analyzed via gas chromatography/mass spectrometry per EPA method Toxic Organics-15 (TO-15).

Analytical results will be compared to USEPA OSWER Subslab Soil Gas Vapor Intrusion Screening Levels (VISL) for industrial and residential structures. EPA prescribed building slab attenuation factors will be applied as a conservatively prediction of potential indoor air concentrations. A report will be prepared summarizing sample collection and analytical results.

Feel free to email if you would like additional information.

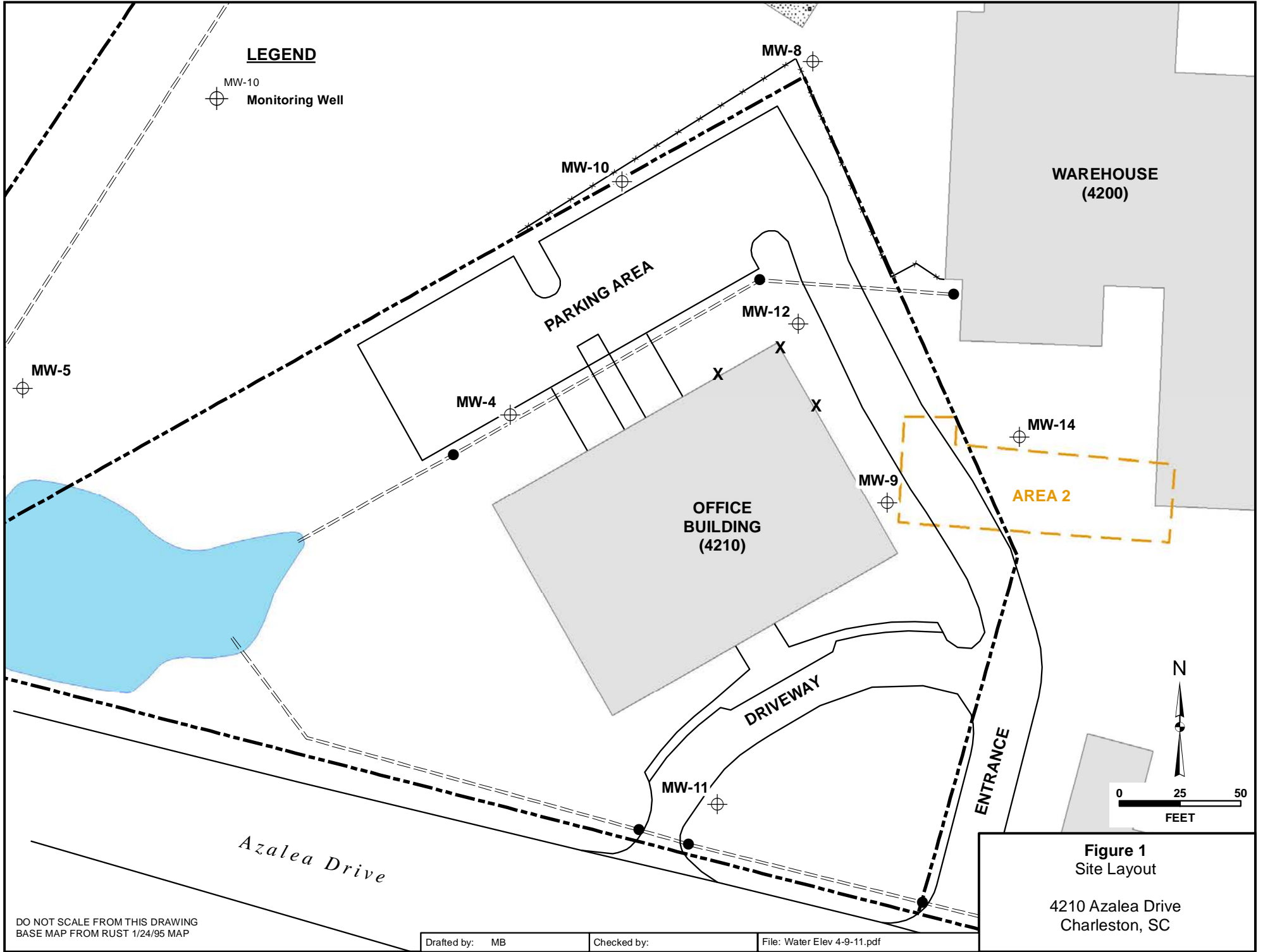
Regards,

Michael

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**LEGEND**

MW-10  
Monitoring Well



**Figure 1**  
Site Layout  
4210 Azalea Drive  
Charleston, SC

DO NOT SCALE FROM THIS DRAWING  
BASE MAP FROM RUST 1/24/95 MAP

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