1201 3rd Avenue, Suite 2600
Seattle, Washington 98101
206.287.9130

ANCHOR QEA

# Memorandum

June 30, 2020

To: Dale Myers, Washington State Department of Ecology

From: Stephen Strehl, Halah Voges, PE, and Nathan Soccorsy

cc: Valerie Fairwell and Louis Russell, Cascadia Law Group

**Re: Vapor Intrusion Evaluation Work Plan Addendum: Carson Cleaners, Inc.**

## Introduction

As part of an environmental cleanup of the former Chevron 90129 gas station located at 4700 Brooklyn Avenue NE in Seattle, Washington, halogenated volatile organic compounds (HVOCs) were discovered in the southwest portion of the Chevron property and its perimeter along NE 47th Street. In a letter dated November 7, 2019, the Washington State Department of Ecology (Ecology) subsequently asked Tahn Associates, LLC, the current owner of the property located at 4701 Brooklyn Avenue NE that formerly operated as a dry cleaner under the name Carson Cleaners, Inc. (Carson Cleaners), to investigate potential Vapor Intrusion (VI) risks at the following four Subject Properties depicted in Figure 1:

- Former Carson Cleaners facility, located at 4701 Brooklyn Avenue NE (Ecology Facility/Site No. 15518216; CSID 14878)
- Christ Episcopal Church, located at 4548 Brooklyn Avenue NE
- Bank of America Financial Center, located at 4701 University Way NE
- Mixed commercial and residential unit, located at 4557 University Way NE

In accordance with the Ecology request, a VI Evaluation Work Plan (VI WP) was prepared on behalf of Tahn Associates, LLC, by Anchor QEA and approved by Ecology on January 14, 2020 (Anchor QEA 2020). The VI WP detailed the characterization methods for ambient, shallow soil, sub-slab, and indoor air at the Subject Properties. However, reconnaissance of the Subject Properties was required to determine the actual sampling locations. This memorandum describes the reconnaissance conducted and proposed sample locations for Ecology's review and approval. Immediately following approval, sampling coordination activities will commence to implement the utility locating, sampling, and analysis in accordance with the approved VI WP.

## Reconnaissance Summary

Anchor QEA staff completed the field reconnaissance, including a chemical inventory, on May 28, 2020, at the four Subject Properties. The site visit activities, timing, and observations made at each Subject Property are described in this section.

## *Christ Episcopal Church*

Visited May 28, 2020, from 0800-0945.

Anchor QEA staff signed into the church property and proceeded on a guided tour starting on the northwest basement floor and moved from room to room to the southeast side of the basement. A floorplan sketch of the basement is provided in Figure 2.

The northwest basement storage room, which is currently not being accessed, was discussed as a potential location that would be undisturbed and would facilitate a concrete surface for sub-slab penetration with minimal impact to the building.

Tile floor in the hallway was suggested to potentially contain asbestos. The basement restrooms are on an elevated slab and contain tile floors. The basement rooms on the north and south sides of the hallway are primarily used for storage or as classrooms. All storage rooms have carpeted floors. None are currently in use. Some basic sanitizing chemicals were seen in storage rooms.

At the eastern end of the basement, the nursery room has a closest space containing cleaning and sanitation products. A hand-written note in the room recommended not to drill in the walls because of the potential for asbestos; this was mentioned in 2009 when the water pipes in the walls were replaced.

The area outside of the nursery room has a storage closest with a sink containing cleaning chemicals and used or unused painting products. The specific paint brands contain volatile organic compounds (VOCs). South of the nursery room is the boiler room, a concrete room at the lowest grade in the basement. The room contained a floor drain that appeared to be rusted. Petroleum-based lubricants and chemicals were observed.

South of the boiler room is the Sexton's office, which contained most of the cleaning and maintenance equipment. VOC-containing products including aerosols, graffiti removal products, paint products, petroleum products, and other chemicals were shelved in the Sexton's office.

We proceeded up the stairs to the ground-level floor. The ground floor contains the entrance, gathering areas, offices, a study, a kitchen, restrooms, and a chapel. It is mostly open floor, with general sanitizing and cleaning products observed. Flooring was either wood, tile, or carpet.

The top floor contained carpeted offices, restrooms, a kitchen space, and conference room. Only general sanitizing and cleaning products were observed. Flooring was either wood, tile, or carpet.

We proceeded downstairs to the courtyard. There was discussion that the church grounds historically had a gas station, and the courtyard contained an oil tank. It was mentioned that fire code maps discuss the historical gas station. No evidence of a tank or disturbed soil areas were observed in the courtyard. The courtyard was mostly vegetated and no visual impacts or odors were observed.

On the exterior of the property, a monitoring well was observed on the sidewalk on the north side of the church, outside of the entrance. On the west side of the church there is a sidewalk and garden area. No utilities are present overhead. The garden area appears to cover the area about 3 to 4 feet from the church exterior, allowing a potential location for an exterior shallow soil boring.

Moving south from the northwest corner, the church sanctuary entrance is located up concrete stairs. To the south of the church sanctuary is a large parking lot where several monitoring wells were observed. To the east of the church is an asphalt alley running north to south. Only garbage sanitation services were observed using the alley.

## *Bank of America Financial Center*

Visited May 28, 2020, from 0945-1100.

Anchor QEA staff met on the ground floor and were guided through the building, starting on the west side of the basement floor and moving east. A floorplan sketch of the financial center basement is provided in Figure 3. A stairwell is located at the westernmost point of the basement that connects to the main floor. In the northwest corner of the basement is the boiler and mechanical room. The room is concrete and graded about 2 feet below the basement floor. A compressor is present in the northeast corner of the room, with petroleum-based chemicals near it. Adjacent to the compressor are circular rust stains, potentially from 55-gallon drum storage. Near the drum storage was a small metal pipe, extending from the concrete floor, and cut about 1 inch above floor surface. No odors were observed near the exposed pipe. Several cracks were observed in the flooring. Mechanical staining was observed on the floor near a floor drain.

Exiting the boiler room to the south is a janitorial room with cleaning products including paints. To the east of the janitorial room is a locked storage area. Moving south from the janitorial room is the hallway extending to the east. Directly south of the janitor's closet, across the hallway, is a storage room with carpeted floors. To the east of the storage room is a larger carpeted room that has a kitchen area with a sink on the east side, and storage in the rest of the room. This kitchen area is accessed by employees and therefore an appropriate location for indoor air sampling.

Moving farther south in the basement is a janitorial closet, used for maintenance supplies and containing various cleaners and chemicals, as well as a sink. Outside the southeast janitorial closet, the hallway leads north. The rooms on the east side of the hallway are mostly used for storage, including one room with a sleeping cot, and another with primarily empty shelves. To the west of the hallway is a large storage room, with a concrete floor that has some visible floor cracks. Some paints are stored in this room. In the northeast corner of the basement is an exit that leads upstairs to the east. The hallway leads west toward the elevator, and adjacent to the elevator is the elevator mechanical room. The mechanical room has a concrete floor that is slightly abraded. A petroleum

odor was observed in the mechanical room, and petroleum-impacted rags were disposed in a cardboard box. A 5-gallon bucket of hydraulic oil was observed.

We proceeded to the main ground-level floor, which is an open floor containing open cubicle offices and the walled-off banking operation. Flooring was mostly carpet with the center containing a wood-like flooring. Stairs are located north of the ground floor.

Proceeding up the stairs to the upper floor, we observed a carpeted floor with empty cubicles. On the west side in a corner, a janitorial cart was observed with basic cleaning chemicals.

We then proceeded downstairs to the parking garage. The below-surface parking garage slopes to the north. The exit and entrance are located at the southeast corner of the parking garage.

The exterior south side of the building contains elevated garden beds, an entrance, and an ATM area. The elevated garden bed on the southwest corner of the building contains a monitoring well. The southwest corner also has traffic control pillars, extending across the sidewalk. The south sidewalk is brick and contains several landscaped trees. A monitoring well was also observed in the road to the south of the sidewalk. The exterior on the east side of the building contains an ATM area, an entrance, and the parking garage entrance. The sidewalk is concrete. To the north of the building is an asphalt alley. To the east of the building is a concrete alley. Ongoing construction at the building to the east (former Chevron) was observed, with operations in the eastern alley.

## *Mixed Commercial and Residential Building*

Visited May 28, 2020, from 1100-1200.

Anchor QEA staff met outside of the building and were guided through the building starting on the west side of the basement floor and moving east and back. Discussion with the property owner revealed the building is over 100 years old. A floorplan sketch of the building's basement is provided in Figure 4. The entire basement is concrete flooring. In the southwest corner of the basement, a sealed oil tank cap was observed. An oil tank was discussed as potentially connecting to the former brick furnace. The owner believes the oil tank was not removed and likely just sealed in place. North of the sealed oil tank cap are storage rooms. The most northwest corner is storage, and the storage room to the south contains a sink with a drain.

To the east of the oil tank cap, there is a boiler room approximately 2 to 3 feet below basement grade. The boiler room contains the former brick furnace, altered with venting for the current furnace system. The boiler is in the southwest corner of this room. On the floor is a sump, which was saturated, covered with plastic, adjacent to a sink.

Exiting the boiler room, a hallway leads north. Paints were stored in the hallway. On the east side of the hallway is a narrow chemical storage room with paints, lubricants, petroleum-based chemicals,

aerosols, graffiti removal tools, maintenance equipment, and tools. Several of the chemicals contain VOCs. To the north is a locked restroom no longer in use. To the east of the locked restroom we observed a saturated floor drain with no cover. An approximately 3-inch-wide trough runs along the entire edge of the basement footprint and is used to drain water accumulation. The entire east side of the basement is an open floor with various storage. The concrete floor has several cracks and stains. Most of the ceiling in the basement was significantly worn.

We proceeded to the main floor and former seafood store. The seafood store closed in December 2019 and contains only some disinfectant and cleaning products. A small office is also located within the seafood store. Refrigeration systems were empty.

We then proceeded to the alley and exterior of the building. The alley is shared with the Episcopal Church. Immediately adjacent to the entrance of the apartment complex in the northwest corner of the building is a monitoring well. The entrance leads upstairs. Some units currently have tenants, and some are vacant. A restaurant is on the eastern side of the building on the ground floor, although no access was allowed. Another monitoring well was observed on the northeast end of the building, on the sidewalk outside of the restaurant.

## *Former Carson Cleaners*

Visited May 28, 2020, from 1200-1330.

Anchor QEA staff met on the interior of the former Carson Cleaners building. A floor plan sketch is provided in Figure 5. We walked through the main storage areas and continued into the kitchen. The building looked recently renovated. No past use as a dry cleaner was observed. The entrance has an open wood floor used as a seating area with chairs and tables. A hallway leads to the west. At the end of the hallway are two restrooms. The northern storage room has wood floors and desks and a wall-mounted air conditioner. The kitchen area is tiled and spans most of the southern to southwest side of the building. Several sinks and floor drains were observed. Only basic cleaning and sanitation products were observed. Based on the historic floor plan, the kitchen area is located where the dry cleaning operation formerly took place.

We proceeded on to the exterior of the building and alleys. Outside of the entrance on the southeast corner of the building is an approximately 2-foot-wide area of disturbed asphalt leading east to the sidewalk. Several feet away to the northeast a monitoring well is located in the sidewalk. To the north of the property are the gated stairs to the apartments above the building. Surrounding the building to the east and south is an asphalt parking area. In the southeast corner is an elevated pole with a sign. On the southwest exterior of the building is a gated area with an electrical meter. Several used hypodermic needles and trash were observed in this area. An asphalt alley slopes up to the north on the west side of the building. A concrete alley runs east-west on the north side of the building.

## Proposed Sample Location Summary for Subject Properties

This section describes the sample locations proposed based on our site reconnaissance and records review. One item currently being assessed is if there are any street use permits or city coordination that may be required for shallow vapor borings outside of the Subject Property buildings.

All locations were selected consistent with Ecology guidance. Proposed sample locations are in the lowest building level, away from regular use, and distant from VOC-containing materials in storage. The following are the proposed sample locations by Subject Property.

### *Christ Episcopal Church (Figure 2)*

**Sub-Slab and Interior Air Location:** Northwest basement, basic storage room farthest away from any chemical storage. Currently not being accessed, allows for undisturbed samples. Concrete floor allows sub-slab penetration, no damage to carpet or tile, and has electricity for equipment and space for an indoor air sample. The main hallway has tile that "may have asbestos" and the other rooms are carpeted or tiled. If a central location is required, cutting through carpet would be necessary. While the boiler room concrete floor is at a slightly lower elevation, it was not selected due to proximity to petroleum products, the relatively large chemical storage room to the south in the Sexton's office, and storage of VOCs to the north in the janitor's closet and nursery closet.

**Exterior Shallow Soil Boring Location:** Garden bed as depicted in Figure 2. There is a space about 10 feet south of the northwest corner of the property where 3 to 4 feet of garden soil is exposed and mostly clear of vegetation.

### *Bank of America Financial Center (Figure 3)*

**Indoor Air Location:** Kitchen/storage area. While the boiler room is the lowest level of the building in the northwest corner, there are floor drains, previous drum storage staining, and cracks in the floor. Given the presence of fuel and indications of staining, we do not recommend sampling the boiler room. However, the kitchen/storage area for employees would be an appropriate location to obtain a representative sample of air conditions in a working area. The kitchen/storage area is distant from both janitorial closets and has few products that could cause sample interference. The area would allow for monitoring when the bank is closed.

**Exterior Shallow Soil Boring Location:** Alley. The alley appears be the best location for the boring. The entire front of the building is brick and has trees. A monitoring well is in the garden area to the southwest. Barriers separate the alley sidewalk to the bank sidewalk. The alley currently hosts construction workers for the building to the west (former Chevron).

### *Mixed Commercial and Residential Building (Figure 4)*

**Sub-Slab and Interior Air Location:** Boiler room. The concrete is at its lowest level in the boiler room. There is a floor sump with a pump cut into the floor where the sub-slab boring will be drilled. The indoor summa canister can be placed on the sink or shelf.

**Exterior Shallow Soil Boring Location:** Northern end of the alley, depending on the utilities located. There are two monitoring wells installed on the northern sidewalk: one on the northwest corner in front of the apartment entrance, and one to the northeast. This area is heavily trafficked. However, the alley separating the church and mixed-use building has low traffic and allows an exterior sample between two of the Subject Properties.

### *Former Carson Cleaners (Figure 5)*

**Sub-Slab and Interior Air Location:** Kitchen. The interior air sample can be placed on a countertop in the kitchen area. The sub-slab boring location can be in the southwest kitchen in the area of the former dry cleaning operations. The sub-slab boring would be installed through tile and would likely need professional repair.

**Exterior Boring:** Parking lot. For an exterior boring, the asphalt parking lot surrounding the property provides a large footprint for sampling. After utilities are marked, the sign in the southeast corner needs to be avoided due to overhead hazard. The exterior boring will ideally be placed in the southeast region of the asphalt parking area near the sign, allowing distance from the monitoring well on the eastern sidewalk.

**Ambient Air Sample:** Storefront. The roof or overhang of the storefront would be good for an ambient air sample to remain undisturbed. Tenant stairs are located nearby. Access would need to be granted, or a ladder can be used.

## Schedule

Anchor QEA has obtained concurrence with the proposed sampling locations from the Subject Property representatives. Upon obtaining Ecology approval of the sampling locations proposed in this memorandum, Anchor QEA will commence utility locating to enable sample collection and testing as soon as practicable.

## References

Anchor QEA, 2020. *Vapor Intrusion Evaluation, Work Plan Revision 1*. Prepared for Tahn Associates, LLC. February 2020.

EPA (U.S. Environmental Protection Agency), 1991. *A Guide to Principal Threat and Low Level Threat Wastes*. Superfund Publication 9380.3-06FS. November 1991.

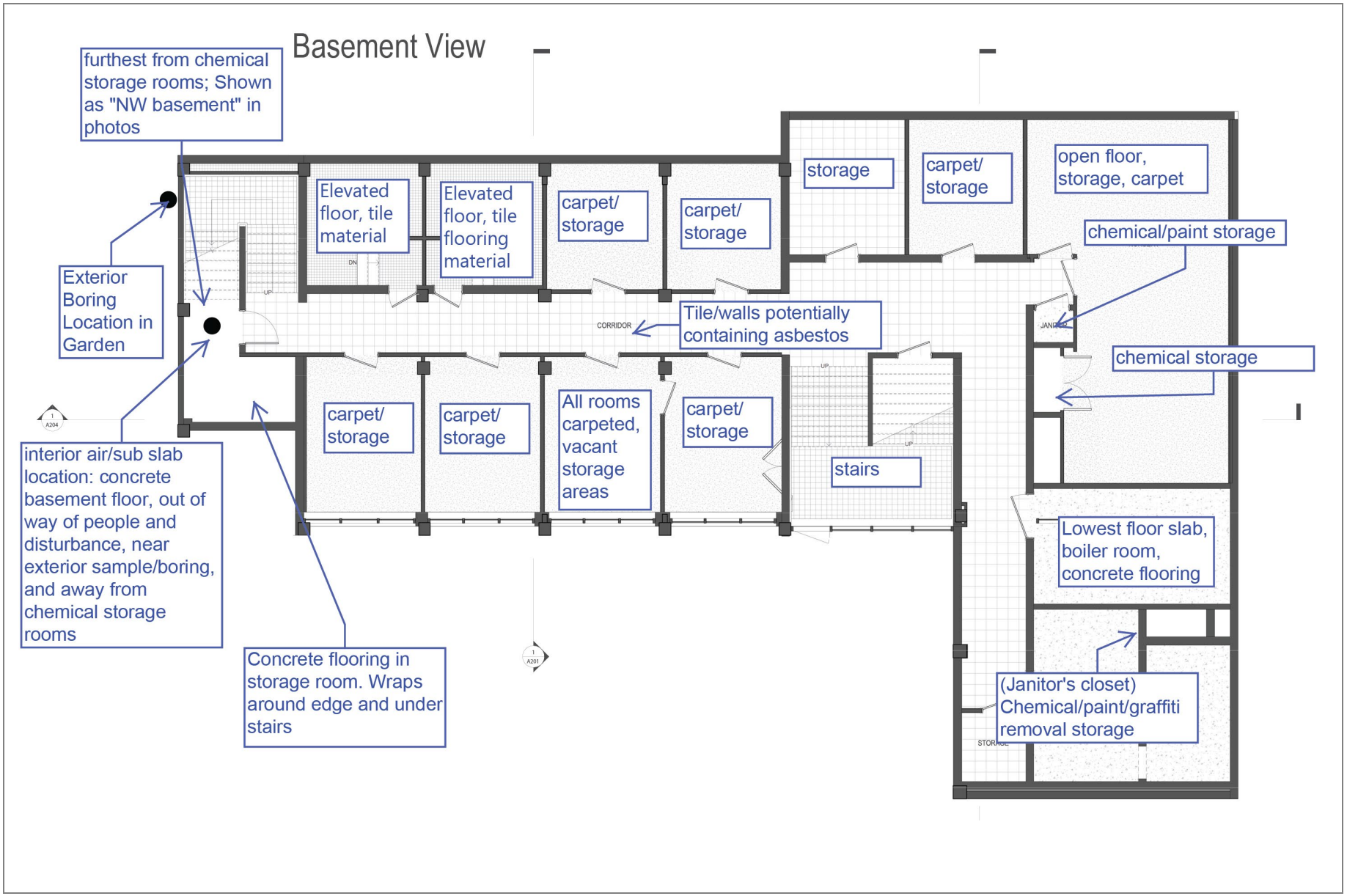
EPA, 2005. *Contaminated Sediment Remediation Guidance for Hazardous Waste Sites*. EPA Office of Solid Waste and Emergency Response. EPA-540-R-05-012; OSWER 9355.0-85. December 2005.

# Figures


Publish Date: 2020/01/02, 5:12 PM | User: jquinley
Filepath: \\orcas\GIS\Jobs\CascadiaLawGroup_0544\FormerCarsonCleaners\Maps\Workplan\AQ_Fig01_SiteLocation.mxd

ANCHOR QEA

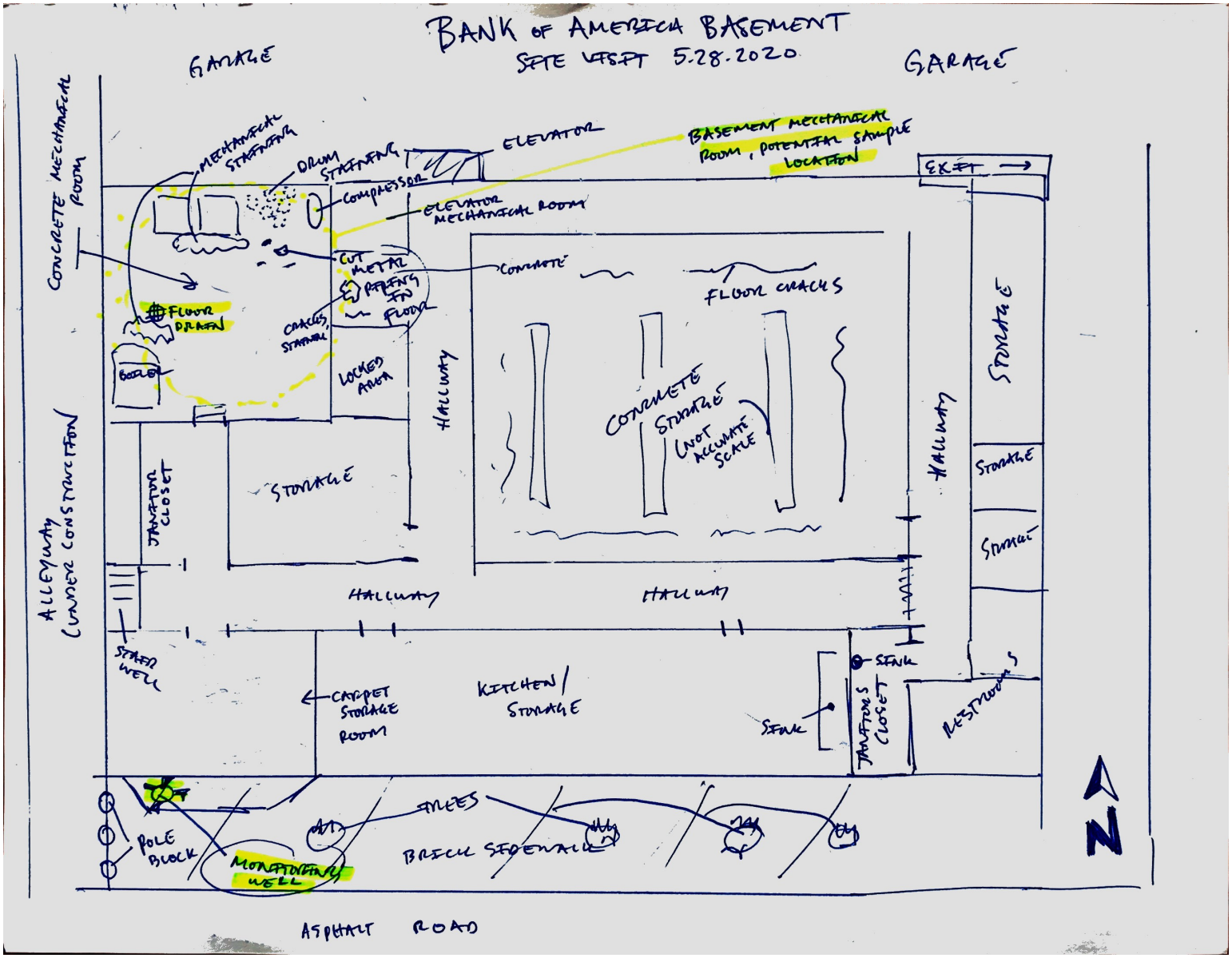
**Figure 1**
**Subject Properties and Area of Concern**
VI Evaluation Work Plan




Filepath: \\fuji\anchor\Projects\Tahn Assoc\Cascadia Law Group\Carson Cleaners\Work Plan Addendum 6-2020\Figure Source Files\Fig 2_Crist Epis Church.docx

ANCHOR QEA

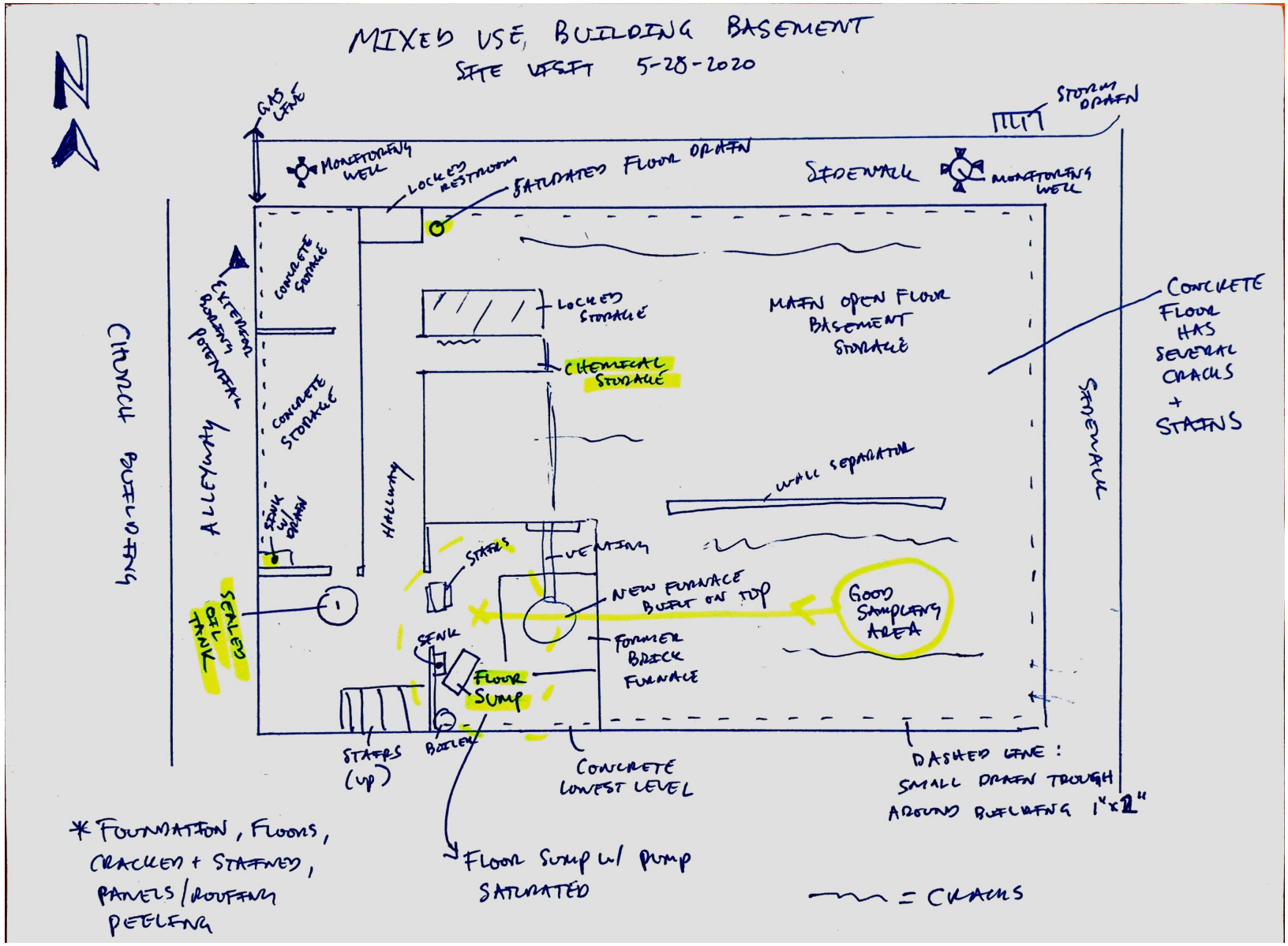
**Figure 2**
**Christ Episcopal Church**
VI Evaluation Work Plan



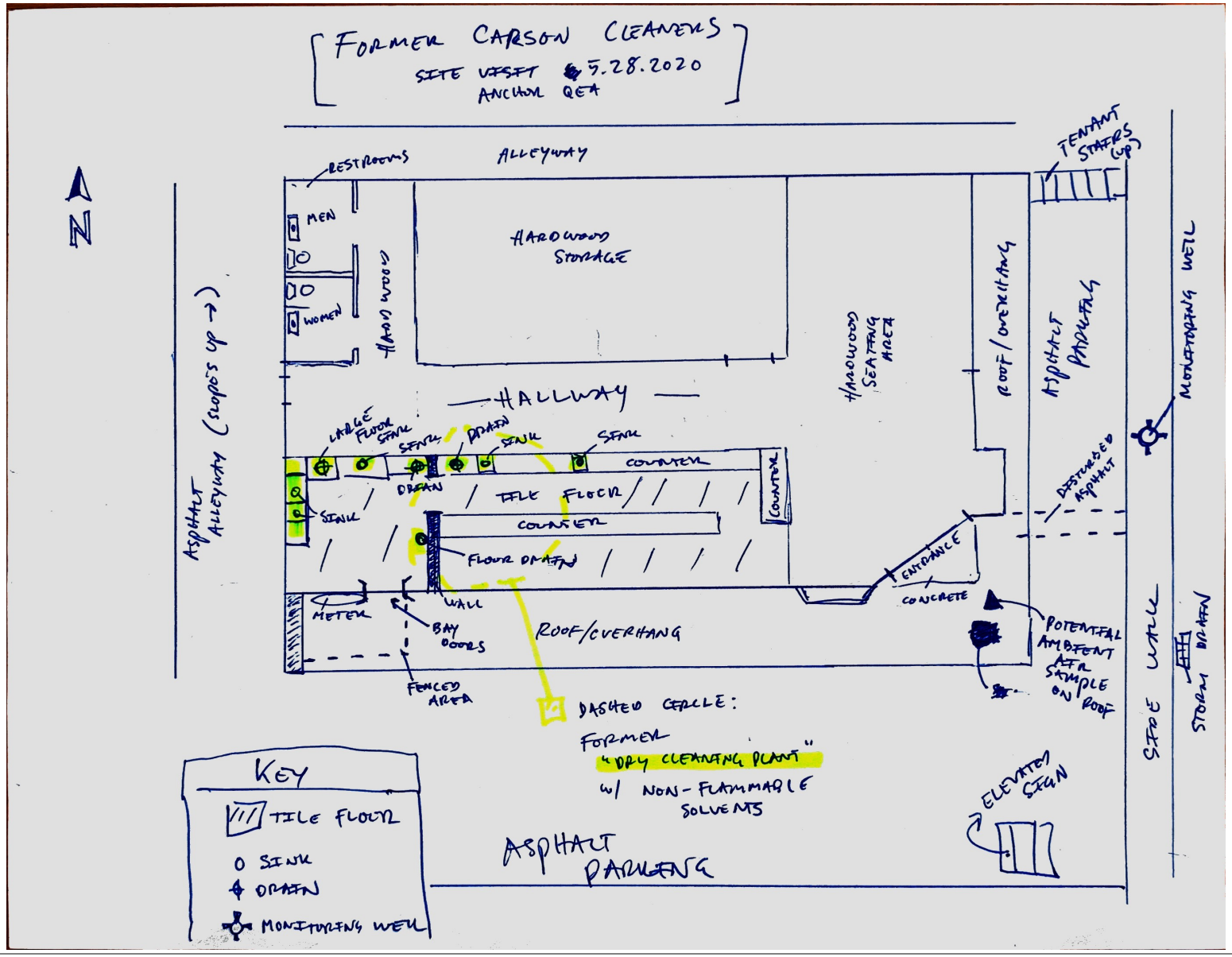

Filepath: \\fuji\anchor\Projects\Tahn Assoc\Cascadia Law Group\Carson Cleaners\Work Plan Addendum 6-2020\Figure Source Files\Fig 3_Bank of America.docx

ANCHOR QEA

**Figure 3**
**Bank of America Financial Center**
VI Evaluation Work Plan




Filepath: \\fuji\anchor\Projects\Tahn Assoc\Cascadia Law Group\Carson Cleaners\Work Plan Addendum 6-2020\Figure Source Files\Fig 4_Mixed Comm Res Bldg.docx




Filepath: \\fuji\anchor\Projects\Tahn Assoc\Cascadia Law Group\Carson Cleaners\Work Plan Addendum 6-2020\Figure Source Files\Fig 5_Former Carson Cleaners.docx

ANCHOR QEA

**Figure 5**
**Former Carson Cleaners**
VI Evaluation Work Plan