



Remedial Action Work Plan
Stillwater Holdings Chevron Release
Walla Walla, Washington
SWC# 09321

Prepared for:

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A handwritten signature in black ink that reads "Timothy A. Shaw". The signature is written in a cursive style and is positioned above a solid black horizontal line.

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Appendices

Appendix A – Site Specific Health and Safety Plan (HASP)

Appendix B – Water Treatment System (WTS)

Appendix C – Vapor Removal Systems (VRS)

ACRONYMS

| | | |
|----------------|---|--------------------------------------------------------------|
| APEX | - | APEX Laboratory, Portland, Oregon |
| AST | - | Above ground Storage Tank |
| B106 | - | Building 106 |
| BTEX | - | Benzene, Toluene, Ethylbenzene, Xylenes |
| COC | - | Chain of Custody |
| COPC | - | Contaminates of Potential Concern |
| CSM | - | Conceptual Site Model |
| cy | - | cubic yard |
| DNR | - | Department of Natural Resources |
| DQO | - | Data Quality Objectives |
| DRO | - | Diesel Range Organics |
| ECS | - | Environmental Contracting Solutions, Inc. |
| fbgs | - | Feet Below Ground Surface |
| FD | - | Field Duplicate |
| GAC | - | Granulated Activated Carbon |
| GRO | - | Gasoline Range Organics |
| GW | - | Groundwater |
| HCl | - | Hydrochloric Acid |
| ID | - | Identification |
| kg | - | Kilograms |
| L | - | Liter |
| lbs | - | Pounds |
| LOD | - | Limits of Detection |
| LOQ | - | Limits of Quantification |
| m ³ | - | Cubic Meters |
| MDL | - | Method Detection Limit |
| ml | - | Milliliters |
| mg | - | Milligrams |
| MFOGAC | - | Mesh Filter, Organo-clay, Granulated Activated Carbon system |
| MGW | - | Migration to Ground Water |
| MW | - | Monitoring Well |
| MWH | - | Marcus Whitman Hotel |



ACRONYMS

| | | |
|-------|---|---------------------------------------------------------|
| NELAP | - | National Environmental Laboratory Accreditation Program |
| NWFF | - | NWFF Environmental |
| oz | - | Ounce |
| PAH | - | Polycyclic Aromatic Hydrocarbons |
| PID | - | Photo-Ionizing Detector |
| PM | - | Regulatory Agency Project Manger |
| ppb | - | Parts Per Billion |
| ppm | - | Parts Per Million |
| QA | - | Quality Assurance |
| QC | - | Quality Control |
| QEP | - | Qualified Environmental Professional |
| qty | - | Quantity |
| RRO | - | Residual Range Organics |
| SF | - | Square feet |
| SGS | - | SGS Laboratories, Inc. |
| SGSG | - | SGS - Galson Laboratories, Inc. |
| SHC | - | Stillwater Holdings Corporation |
| SI | - | Site Investigation |
| TBM | - | Temporary Benchmark |
| TOC | - | Top of Casing |
| µg | - | Micrograms |
| USCG | - | United States Coast Guard |
| UST | - | Underground Storage Tank |
| VES | - | Vapor Extraction System |
| VIG | - | Vapor Intrusion Guidance for Contaminated Sites |
| VOA | - | Volatile Organic Analysis |
| VOC | - | Volatile Organic Compound |
| VRS | - | Vapor Removal System |
| WA | - | Washington |
| WTS | - | Water Treatment System |

1.0. SUMMARY

In September of 2023 the Washington State Department of Ecology (Ecology) responded to gasoline odors in the basement of the Marcus Whitman Hotel (MWH). Odors were also reporting in Building 106 (B106). Vapor ventilation systems were installed into both buildings to address the gasoline vapor intrusion. Further investigation identified the Stillwater Holdings Chevron station (SHC), on the northeast corner of N. 2nd Avenue and E. Rose Street, as the source of the spill. Early in 2024 a water treatment system was set up in the B106 parking lot. This system is currently operational. It is a pump and treat granulated activated carbon (GAC) system. Water is pumped from the sump in the basement of B106 into a baffled holding tank. Water is also being trucked from two sumps in the basement of the MWH into the same holding tank. Contained water is then treated through the GAC system and contained into a discharge holding tank pending analysis. If the treated water meets the City of Walla Walla sanitary sewer water discharge permit, then the water is released to the sewer system. Ecology is continuing water monitoring in the monitoring well network around SHC.

Due to the open sumps and vapor intrusion, both B106 and MWH have reported gasoline vapors in their buildings. Vapor removal systems (VRS) are currently operating in both buildings. Recent air sampling indicates that gasoline vapors remain in B106.

1.1. *Project Objectives*

The primary objective is to replace the current water treatment and VRS systems, that were put in place as an emergency response with a similar temporary system to be maintained and operated by the Department of Ecology through contract with NWFF. The replacement systems are to be replaced as quickly as possible with similar systems that address treatment system footprints and logistical challenges and that remain temporary in nature. These systems will serve as temporary mitigation activities until Department of Ecology is able to contract and build a permanent vapor mitigation system and water treatment system to replace the temporary systems. Permanent systems will be designed and installed in a separate agreement with another contractor.

1.2. *Site Location and Description*

The Site are located in Walla Walla, Washington at the northeast corner of E. Rose Street and North 2nd Street. The release site address is: 7 East Rose Street. The impacted property directly adjacent to the release site is at 106 N. 2nd Ave. The impacted Marcus Whitman Hotel and Conference Center is located directly across 2nd Ave from the release site and the 106 building.

Other Site data:

- *Site Coordinates:* Latitude 46.067830° by Longitude -118.339911°
- *Site Address:* 6 East Rose Street, Walla Walla, Washington

1.3. Geology

The Site is in an area near the Columbia River and the Snake River join. The general geology near the surface consists of reworked sandy silts, gravels, and cobbles, consistent with fluvial and alluvial deposits. These deposits sit upon the Columbia River Basalts. The area was likely inundated by the Missoula Floods which occurred during the last ice age lending layers of sediment from above this area to the southern end of the Willamette Valley in Oregon.

1.4. Surface & Groundwater

The site is very near Mill Creek which flows through downtown Walla Walla. Near the site the creek flows completely underground. Monitoring wells associated with the Site indicate that there is a local groundwater table at 12 to 14-feet below ground surface (fbgs). A number of the monitoring well logs are on file with Ecology.

1.5. Climate

The climate is considered to be Warm Temperate, Csa on the Koppen Climate Classification with dry summers and mild, wet winters. Walla Walla tends to have short, dry, hot summers and a 3-to-4-month cold season between November and February. Summer temperatures tend to range from the 80's to 100 degrees. Winters can dip down into the 20's, with the coldest temperatures typically in the December. Heaviest rainfall is typically from November to February with an average of 3-inches per month with a total yearly average precipitation of 26.4 inches. Environmental Protections

1.6. Scope of Work

The scope of work for this project is to replace the current water treatment and VRS systems with systems configured to the allowable footprint while reducing or eliminating contamination impacts to the MWH, B106, and SHC properties. This workplan identifies a method to meet the project objectives and contractual scope of work.

2.0. GROUNDWATER TREATMENT

Current Water Treatment System: water is pumped from the sump in B106 through a hose that runs from the basement sump through the hallway, up the stairs, and out the back door to a 20,000-gallon baffled influent tank. The baffling in the tank allows for some separation of free product, if encountered, from the water. When treatment is initiated, water from the influent tank is pumped through a hydrocarbon mesh filter, then to an organo-clay filter, and then through two 2,000-lb GAC filters (collectively the MFOGAC system). After being processed through the first GAC filter the water is tested before being sent through the second stage filtration and subsequently pumped into a holding tank pending laboratory analysis for volatile organic compounds (VOCs). If the water tested meets water discharge permit parameters, the water is discharged into the sanitary sewer. If the water fails discharge cleanup levels the water that has already been run through a second filtration systems is tested out of the holding tank prior to discharge. Currently there is no specific data on the influent contamination levels or flow rate. For the design of the water treatment system, we are assuming that gasoline range organics are below 185-parts per million (ppm), the average water temperature is 50° Fahrenheit (F),

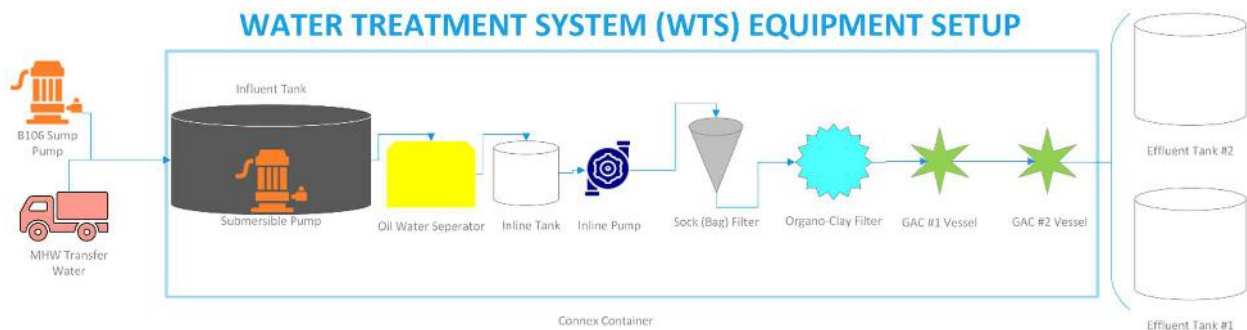
and that the flow rate from B106 is less than 4-gallons per minute (gpm). In recent months, no free product has been encountered in the MWH or B106 sumps.

Discussion during NWFF’s site visit in August indicated that the current system location and operational footprint (approximately 4,500-square feet (sf)) will not be available and an area of less than 1,000-sf will need to be utilized. Given that parameter of square footage change, significant modifications to the current water treatment system will be required. The area discussed is bound to the north by the south side of B106, to the east by the west side of the SHC building, to the west by N. 2nd Avenue, and to the south by the SHC west pump island. This new location will be on the west, opposite side of the SHC building from where the current influent pumping line is located which is at the east end of B106.

The placement of the new temporary water treatment system (WTS) will require a short term, traffic control plan while the effluent tanks are offloaded and positioned. The activity will be planned to occur in a single day. NWFF will submit a Traffic Control Plan, written by a WA certified Traffic Control Supervisor, and will have a Traffic Control Supervisor onsite during placement of the tanks.

The WTS will be entirely located on SHC property, but further investigation will be made into right-of-way and temporary building permitting. The new location will also require SHC to relocate the handicap parking space. SHC may also wish to build a façade around the WTS to increase the aesthetics of site. With approval from Ecology, NWFF will support any solutions derived between Ecology and SHC to implement a functional façade. Due to site constraints the WTS is housed within a heavy-duty vinyl tarp shelter that is 40-ft long, 8-ft wide, and 8-ft tall. It will be placed along the west wall of the SHC building. SHC will provide electricity for the pumps, sensors, lighting, and heating in the WTS.

WTS equipment parts will be placed on the existing walkway on that side of the building. The influent tank is a bladder tank and will require a support cage to support it on the bottom and sides. This cage will be a wood structure with smooth plywood siding inside the cage. A discharge pipe modification to the bottom of the cage will be necessary to allow access and connection to the sanitary sewer cleanout so the tank does not crush the pipe. The cleanout is located in the walkway approximately 5.5-feet south of B106 and 1.3-feet west of the SHC building west wall. The influent bladder tank is 7-ft wide by 12-ft long by 6-ft tall and will be set over the cleanout location. As such, before installing the influent tank, a pipe extension will be added to the sewer connection and a protective, wood, utilidor framed around and over the connection and pipe extension past the south end of the tank. No concrete or excavation work will be required. Appendix B contains diagrams of how the system will be set up on site. The flow chart below depicts the general process and parts of the water treatment system.



The owner of B106 has agreed to three access ports, two 4-inch diameter ports and one 3-inch diameter port, through the south wall of their building, see figures in Appendix B. The location of these ports on the southern wall will be where the B106 owner deems the least intrusive to his building and provides the necessary access needed for the WTS and VRS. These access ports will eliminate the need for running the WTS and VRS system lines through the B106 hallways and stairwells and out the back door.

The final design and construction of the ports will be completed by the property owner and will not be included as part of this work plan. A suggested size and configuration are presented in Appendix B. Note: It is the responsibility of the property owner to ensure these suggestions and the design for the port does not negatively impact the building (i.e. safety, access, structural integrity, etc.). The ports must be able to accommodate, at a minimum, a cam-locked, 1.5-inch inside diameter suction hose and a flexible duct work of the vapor extraction system to exit the building. This can be accomplished with one sufficiently large port or two individual ports. Ideally, access will be located approximately 2-ft above the outside ground level. The actual location and size will be determined by the structure of the building.

Following the completion of the ports, the property owner will notify NWFF of the final specifications of the ports prior to installing the temporary system. After the water hose and the VRS ducting is passed through their perspective ports NWFF will install stainless steel wool in the interstitial space for rodent control and fill the void area with expanding insulation spray foam.

After the water is treated, the water will be impounded into two interconnected 12,000-gallon poly tanks, 12-feet in diameter and 18-feet tall, to provide up to 24,000-gallons of effluent water storage. Upon laboratory results that meet discharge permit requirements, a temporary, 4-inch diameter effluent discharge line will be connected to the western most effluent tank and run into the sanitary sewer cleanout connection. It is anticipated that discharges will occur once a week, at a maximum rate of 25-gallons per minute (GPM), and will take 16-hours to discharge the effluent tanks (calculations based on the City of Walla Walla's discharge requirements, 02/07/2024). The entire discharge process will be overseen by on-site personnel.

Groundwater from the MWH sump will still require to be pumped and trucked from MWH to the SHC system for treatment. The truck is expected to offload the MWH water into the influent holding tank in less than ½-hour. The truck will not block traffic on the road and may, temporarily impede access to the west pump island. The truck will be brought to the site only when needed and otherwise will be parked offsite.

2.1. Sump Water Treatment System

The revised sump water treatment system (WTS) will be set up in and alongside the west wall of the SHC building with a footprint of 40-ft long by 8-ft wide and 8-ft tall. The two 12-ft diameter effluent tanks will be placed as far east as possible and next to the southern wall of B106. The footprint of the WTS will encroach heavily on the current handicap parking area on the west side of SHC, however, we believe this configuration will allow some if not full usage of the western SHC pump island. The WTS shelter will be heated and contain the WTS which consists of a 4,000-gallon influent water tank which will be pumped into an oil/water separator (OWS), gravity fed into a 60-gallon influent water holding tank that feeds an inline pump that will push the water through a sock filter vessel, followed by a 1,000-lb organo-clay vessel(OCV), then two, daisy-chained, in-line 1,000-lb granular activated carbon (GAC) filters. After the aforementioned filtration process the water will continue into the two, 12,000-gallon effluent

holding tanks. If inclement weather creates freezing issues, submersible water heaters may need to be placed into the effluent tanks.

Influent water will be pumped from the B106 sump directly into the WTS using an automated and remote-controlled system. When the influent tank is at 70% capacity the water will be pumped through the WTS. The WTS is a reduced size system and designed for easy change of the filter media. The organoclay and GAC filter vessels are half the size of the current vessels. Depending on actual influent contamination levels, the smaller system may require more frequent change outs, possibly twice as many as stated in the original scope of work. Changeouts, however, will require a smaller level of effort, so the net change is minimal.

The positioning of the new WTS will allow business access to SHC and B106, however, hoses will still be required through the building unless the property owners are able to provide access to through the exterior wall on the southwest side of the building. The new WTS location also allows clear access for vac truck deliveries from MWH with minimal disruption to SHC activities.

The functional working area of the current system is estimated to be 4,500-sf. The footprint of the current equipment only is estimated to be 2,200-square feet. This option moves and reduces the footprint of the water treatment system equipment only to approximately 800-sf. See Appendix B for diagrams of the placement and framework of the new water treatment system.

2.2. Remote Monitoring System

A sump pump with remote monitoring capabilities and customizable alarms will be installed to replace the current sump pump. The pump will automatically operate when water levels reach pre-set thresholds assigned to water level indicators. Flow rate monitors will be installed and monitored via a remote computer. Alarm thresholds will be programmed to send alerts via text message during times when technicians are not physically at the site. A remote vapor monitor will monitor for the presence of VOC's and flammability. In the B106 building, the vapor monitor will be placed in the basement hallway. The monitor is discrete and looks similar to other building system monitors. It can also be moved to the first and second floors if necessary for periodic monitoring of other areas.

In the MWH, the monitor will be stationed in the basement at the doorway. A wireless/cellular remote sensing system will monitor and control the system. It is desirable to set up the wireless communications system with access to the building Wi-Fi. NWFF included cellular service as a backup system should internet services be interrupted. If the building Wi-Fi is unavailable cellular service can be used as the primary, but there would not be a backup in case of weather-related cellular coverage failures. NWFF personnel will monitor systems in real time during business hours as part of daily maintenance operations and alarm thresholds will be sent to on-call response technicians after hours who will provide emergency response in under two hours if required.

3.0. VAPOR REMOVAL SYSTEM

Currently there are vapor removal systems (VRS) active in B106 and MWH. Vapors from B106 are being pumped with a ram fan with light weight ducting to the outside near the current water holding tanks. Two large negative air machines remove air from the MWH basement into an air duct that leads to and exhaust vent above the canopy on the southside, Rose Street side, of the MWH building, see picture in Appendix C. The elevator shaft of MWH has exhibited VOC vapors and a VRS consisting of a ram fan attached to duct work in the mechanical room on the roof of the building removes air from the elevator shaft. The ram fan pulls air from the elevator shaft and the exhaust is ducted to a west window in the mechanic room. These systems will be replaced with similar fans attached to the existing ducting and augmented with additional temporary ducting as necessary.

3.1. *B106 Vapor Removal System*

Benzene vapors in the 106 Building remain above the accepted levels for unrestricted use based on method B but are below acceptable levels using Method C calculations. While vapors are present on the 1st and 2nd floors that slightly exceed the Method B threshold, the levels are only slightly elevated. The direction from the Department of Ecology is to continue vapor intrusion mitigation measures until levels are below the unrestricted use threshold using Method B calculations. The mitigation system currently is a simple design consisting of an intrinsically safe pneumatic fan, and associated ducting. The limitation of the current system is the need for ducting run throughout the building. The objective with this system is the removal of VOCs and to eliminate the current VRS ducting running through the hallways and steps of the building. Two options are presented to meet both portions of the objective.

A negative pressure containment barrier will be installed over the ground penetrations in the basement to increase the effectiveness of vapor mitigation measures currently in place while reducing the ducting requirements throughout the building. The containment will be assembled in the smallest possible footprint to contain the openings in the floor that provide preferential pathways for vapors into the building. Containment will be constructed using 6 mil polyethylene walls using the existing concrete containment berm as a foundation. To ensure that containment is successful, some of the wood shelving around the berm will need to be moved. We will construct the cell such that the existing furnace will be outside of containment and accessible. A detailed diagram of the containment concept can be found in Appendix C. The containment area atmosphere will be evacuated through the use of a negative air machine, or similar such air handling unit. The exhaust from the air handling unit will be ducted through two 4-inch access ports to the outside. Outside the two 4-inch ports will be co-joined and routed to a safe exhaust position between the effluent tanks. VOC levels will be monitored and should the VOC levels become of concern a carbon filter will be installed on the air handling unit or at the exhaust point.

Alternatively, Due to the low levels of residual vapors the use of a localized air scrubber in identified hot spots outside of the containment area is a viable option to minimize the need for ducting throughout the building. Localized air scrubbers are the size and appearance of small dehumidifiers and run very quietly. If there are other points of intrusion, then additional VRS components maybe required. Air monitoring to ensure effectiveness will be done with a combination of a fixed remote monitor and routine facility checks during maintenance activities, an example is in Section 4.

Air monitoring with remote alarms will be installed to monitor potential vapor buildup inside of the containment area. Daily monitoring with a PPB meter will be done throughout the building until sufficient data exists to determine effectiveness. Subsequent weekly monitoring will be done to ensure filtration is efficient and vapor levels remain consistent. Continuous remote air monitoring will be conducted at the basement level outside the containment area to ensure efficacy of the containment barrier.

Setup up of containment can be done in a single day. Monitoring throughout the building will be done to establish baselines and compare those with the PPB readings from the most recent TO-15 results. This will be done prior to the setup of containment. Monitoring of areas in the building that showed elevated benzene levels will be conducted 24 – 48 hours after setup of containment to determine if hot spots exist that could benefit from the setup of localized air scrubbers.

3.2. MWH Vapor Removal System

The vapors in the MWH appear to be from an open sump and possibly the bare soil areas within the large basement area. To address these issues, we will encapsulate the bare soil areas with a bituthene or similar style membrane. This will provide a temporary vapor barrier that can either easily be removed or used as a bottom layer for a later permanent system. Further, we will erect a containment barrier around both floor openings that currently collect contaminated water. Negative air machine(s) will be used to remove air from the containment area and pump the air into the currently used exhaust duct which terminates over the canopy on Rose Street. A stand alone, constant read, volatile organic compound remote sensor will be installed within the containment area.

The aforementioned steps are expected to control VOC vapors in the basement and not allow them to enter the elevator shaft. NWFF will be monitoring the ambient air in the basement and will have a ram fan available should vapors once again permeate the elevator shaft. A diagram series depicting this system for MWH is attached in Appendix C.

4.0. DAILY SITE ACTIVITIES

There are two groundwater sources and two vapor reduction systems to monitor, inspect, and conduct periodic testing. Key system controls will be monitored and regulated through remote sensors and controls. Regular on-site inspections will be conducted to ensure the systems are functioning correctly and within parameters. Site inspections will utilize a specialized checklist, presented as Exhibit A, for documenting system data that may serve a usefulness to adjusting the remedial action systems to be more effective. This section outlines detailed daily site activities for each location as well as activities that will be conducted weekly and as needed based on findings from daily site activities and inspections. Site activities and inspections will be coordinated with the property owners and Ecology.

Exhibit A – Draft Visual Site Assessment Sheet

Stillwater

Visual Site Assessment Sheet

Assessor: _____

Date: _____

| | Assessment Item | Condition | | | Comments, Descriptions, Readings, Notes | |
|-------------------------------|--------------------------------|-----------------------------|------|------|-----------------------------------------|--------------------------|
| | | Good | Fair | Poor | | |
| Building 106 | Blower/Ventilation System | | | | | |
| | Sump Pump Condition | | | | | |
| | Flowmeter Condition | | | | Flowmeter Reading: | |
| | Water Transfer Hoses Condition | | | | | |
| | Petroleum Odors | | | | PID Readings: | |
| | Outside | | | | | |
| | Area 1 | | | | | |
| | Area 2 | | | | | |
| | Area 4 | | | | | |
| | Area 5 | | | | | |
| | Additional Assessment Item | | | | | |
| MWH | Blower/Ventilation System | | | | | |
| | Sump Pump Condition | | | | | |
| | Petroleum Odors: | | | | PID Reading Log: | |
| | Outside | | | | | |
| | Area 1 | | | | | |
| | Area 2 | | | | | |
| | Area 4 | | | | | |
| | Area 5 | | | | | |
| | | Additional Assessment Item | | | | |
| | SHC | System Filter Functionality | | | | Pressure Gauge Readings: |
| Flowmeter Condition | | | | | Flowmeter Reading: | |
| Frac Tank 1 Condition | | | | | Fluid Level: | |
| Frac Tank 2 Condition | | | | | Fluid Level: | |
| Frac Tank 3 Condition | | | | | Fluid Level: | |
| Oil/Water Separator Condition | | | | | | |
| GAC Vessel 1 Condition | | | | | Pressure Guage Reading: | |
| GAC Vessel 2 Condition | | | | | Pressure Guage Reading: | |
| Organoclay Vessel Condition | | | | | Pressure Guage Reading: | |
| | | Additional Assessment Item | | | | |
| Additional Notes: | | | | | | |

Contact the Project Manager as soon as possible with poor rated, immediate failures, or observed maintenance issues are present.

4.1. Building 106/Stillwater Holdings Chevron

4.1.1. Daily Site Assessments

NWFF will conduct daily site assessments to ensure equipment is functioning properly, there are no leaks, and that no environmental or human factors such as vandalism have occurred that could affect the functionality or integrity of the system.

Visual inspections on the SHC property will include:

- Inspection the WTS shelter,
- Exterior condition of the shelter,
- Temperature inside the shelter,
- Structural integrity of the shelter and all vessels inside,
- Structural integrity and functionality of oil water separator
- All hoses and pumps running from the building into and out of the shelter
- All connections from hoses to vessels.
- Flow meters.
- VOC meter operations and reading.

Visual inspections inside the 106 building will include:

- Sump and sump area.
- Hoses and connections running to the sump.
- Containment area.
- Water level meter.
- VOC meter operations and reading.

During the daily visual inspection, NWFF technicians will conduct air monitoring of the containment and surrounding areas. If no VOC readings are detected at the basement level, technicians will not do daily readings on the first and second floors. Once weekly, NWFF will conduct air monitoring of all floors. This can be coordinated for early in the morning before tenants arrive. Minor repairs such as tears in ducting or temporary patching of hoses will be done during daily inspections. Any repairs requiring additional equipment or replacement of parts will be communicated to Ecology and coordination will be done with the property manager for a convenient time to make repairs. VOC readings that warrant additional mitigation measures will be reported to Ecology immediately and additional measures will be discussed prior to implementation.

4.1.2. Weekly Sampling

NWFF will collect samples twice per week and will courier samples under proper chain of custody to a laboratory certified by the Department of Ecology for Method 8260D or EPA Method 624.1. Samples will be collected following the first stage filtration. Samples will be analyzed on a 24-hour turnaround time basis. Results will be compiled and sent to Ecology and the City of Walla Walla Public Works for their records. Water testing within parameters consistent with the issued discharge permit will be discharged directly to the city sewer system.

4.1.3. Carbon Change Outs

As needed, based on visual inspections, trends from analytical results, and manufacture specifications and recommendations, carbon change outs will be scheduled. NWFF technicians will ensure flow from the influent tanks to the filtration system is isolated prior to conducting the change out. Technicians will remove and containerize carbon media in 55-gallon reconditioned UN certified drums properly labeled and prepared for transport.

Samples will be collected on the first change out and submitted for characterization in order to submit a profile to the closest properly licensed disposal facility. Once the profile is approved, NWFF will transport under proper manifest to the appropriate facility. If sample results indicate hazardous waste, transportation will be completed by a CDL driver with hazardous materials endorsement and transport vehicle will be properly placarded.

4.2. Marcus Whitman Hotel

4.2.1. Daily Site Assessments

NWFF will conduct daily site assessments to ensure equipment is functioning properly and that there are no leaks. Visual inspections will include:

- Integrity of ducting.
- Functionality of negative air machines.
- Air flow meter and filters (if utilized) on negative air machines.
- Sump #1 and sump #2 area containments.
- Hoses and connections running from the sump.
- Water level meter
- VOC meter operation and readings

During the daily visual inspection, NWFF technicians will conduct air monitoring of the containment and surrounding areas. It is NWFF's intention to remove containment in the stairwells once containment areas are set up in the basement around the sump areas. NWFF will conduct air monitoring in the stairwells and on the upper floors daily. Minor repairs such as tears in ducting or temporary patching of hoses will be done during daily inspections. Any repairs requiring additional equipment or replacement of parts will be communicated to Ecology and coordination will be done with the property manager for a convenient time to make repairs. VOC readings that warrant additional mitigation measures will be reported to Ecology immediately and additional measures will be discussed prior to implementation.

4.2.2. Transport of Water

At intervals of approximately every three days, NWFF will coordinate a vac truck to collect water from the sump area and transport to the influent tank on the SHC property. Based on data from two separate sampling events, NWFF recommends that the Department of Ecology and the City of Walla Walla discuss the potential for direct discharge, which will reduce transportation of water and will reduce the amount of processing done on the SHC property of water not related to the 106 building. A smaller carbon unit and smaller holding tank can be placed in the basement of the MWH and directly discharged to the sewer system with permission from the city.

5.0. WASTE MANAGEMENT AND DISPOSAL

Waste streams associated with this project will be carbon filtration media, absorbent material, oily water, and personal protective equipment. Waste quantities expected are up to ninety 55-gallon drums. Characterization of waste will be done to determine if RCRA or WA Dangerous Waste accumulation timeframes are applicable in accordance with the generator status, which is assumed to be episodic. Waste will be labeled in accordance with the characterization and will be inspected weekly as required by RCRA and Dangerous Waste regulations. Waste will be transported to a properly permitted disposal facility under proper manifest in accordance with state and federal transportation regulations.

6.0. HEALTH & SAFETY PLAN

A site-specific health and safety plan (SSHSP) has been drafted and is attached in Appendix A. The current draft will be modified once the location and remediation system options are finalized.

7.0. COST & LEAD TIME

Exhibit B provides a detailed list of high cost and long lead time items for the implementation of water filtration and vapor mitigation systems outlined in this plan.

High Dollar/Long Lead Time Items

| Item | Cost | Lead Time | Comments |
|-------------------------------|----------|-----------|-----------------------------|
| Influent Tank (1) 4,000-gal | \$37,300 | 2 Weeks | Reduced cost and footprint. |
| Oil Water Separator | \$15,500 | 2 Weeks | |
| Hydrocarbon Sock Filter Unit | \$6,300 | 2 Weeks | |
| Organoclay Vessel | \$7,000 | 2 Weeks | |
| GAC Vessels (2) used | \$14,000 | 2 Weeks | |
| Air Compressor | \$14,950 | 1 Week | |
| Effluent Tanks (2) 12,000-gal | \$40,900 | 2 weeks | |
| Automation Equipment | \$13,980 | 2 weeks | |

8.0. CLOSURE

This work plan was developed based on currently available data and an in-person site walk. Modifications to this workplan should only be completed in conjunction with and at the direction of Ecology and NWFF.

APPENDIX A

Site Specific Health and Safety Plan

DRAFT

SITE-SPECIFIC HEALTH & SAFETY PLAN

Stillwater Holdings Chevron Immediate Mitigation Response Project

Marcus Whitman Hotel, 6 W. Rose St. Walla Walla, WA
Building 106, 106 N 2nd Ave. Walla Walla, WA

Prepared for:



Prepared by:



Prepared by: Tony T. Parkes, IH

NWFF Environmental
33979 Texas St SW
Albany, OR 97321
(541) 929-4884
NWFFENVIRO.COM

1.0

2.0 Table of Contents

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| | Figure 1: Map and Directions to Medical Center..... | Error! Bookmark not defined. |

KEY SAFETY POINTS

- ✦ Absolutely **NO** smoking on site.
- ✦ Eye protection, safety boots, and hard hat are required **at all times** while on-site.
- ✦ All personnel have stop work authority.
- ✦ Report any safety issues other than basic first aid to Site Safety Officer.
- ✦ **Call 911** for any emergency, then notify IC.

1.0 PROJECT INFORMATION

| | |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Project Name/Sites | Stillwater Holdings Chevron Immediate Mitigation Response Project |
| Location | Marcus Whitman Hotel, 6 W. Rose St. Walla Walla, WA Building 106, 106 N 2nd Ave. Walla Walla, WA |
| Project Owner | State of Washington, Department of Ecology/Stillwater Holdings Chevron |
| HASP Prepared by | Tony T. Parkes, IH 937-312-4675, NWFF |
| Incident Commander | Monique Lewis, CSP 907-654-5580, NWFF |
| Deputy Planning Section Chief | Tim Shaw, 907-250-0275, NWFF |
| Doc Unit Leader | Tony T. Parkes, IH 937-312-4675, NWFF |
| Safety Officer | Jason Storrs, CIH, CSP 206-966-1183, NWFF |
| Start Date | TBD |
| End Date | TBD |
| Site Team/Crew Size | TBD |
| Will Client, Agency or Other Personnel be On Onsite? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Work Hours | TBD |

Responsibilities of the Safety Officer

The Project Site Safety Officer (SSO) shall:

- Implement this HASP and report any observed deviations from site conditions anticipated in the plan.
- Verify that on-site personnel and visitors are working in a manner consistent with applicable environmental and H&S regulations, site work plans and this project HASP, advise the affected individual if a deviation is noted, and follow-up as appropriate.
- Verify that required personal protective, monitoring, and emergency equipment is used as required.
- Report observed accidents/incidents or inadequate work practices to the IC Deputy/Command.
- Report all accidents/incidents and findings regarding personnel exposure and work practices to the IC Deputy/Command.
- Conduct daily or pre-entry safety briefings.
- Complete a Job Hazard Analysis (JHA) for tasks that are not covered within this HASP.
- It should be noted that the SSO can and will be filled by varying personnel at NWFF.

2.0 SITE DESCRIPTION AND BACKGROUND

| | |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Impacted Site | Petroleum-contaminated groundwater and vapors at the Marcus Whitman Hotel (MWH) and the adjacent office building (Building 106) in Walla Walla, WA |
| Site Description | <p>6 W Rose St, Walla Walla, WA 46.06782335239818, -118.34103137111768 106 N 2nd Ave, Walla Walla, WA 46.068034313334735, -118.34004768815981</p> <p>BACKGROUND: This remediation project focuses on managing petroleum-contaminated groundwater and vapors at the Marcus Whitman Hotel (MWH) and the adjacent office building (Building 106) in Walla Walla, WA. It serves as an interim measure to mitigate impacts from ongoing contamination from an off-site source, the Stillwater Holdings Chevron site.</p> <p>Following complaints of petroleum odors in September 2023, an investigation revealed a leak from an underground storage tank at the adjacent gas station, prompting emergency actions from the Department of Ecology. Current temporary filtration and ventilation systems will be replaced with new ones designed to effectively treat contaminated water and vapors.</p> <p>At MWH, a new ventilation system will include a blower unit and ducting, while Building 106 will have units venting directly to the outside. The MWH sump water will be pumped regularly into a filtration system, with treated water discharged into the city sewer. Building 106 will manage its sump water similarly. This interim solution is expected to last up to 2.5 years, until a permanent system is installed.</p> <p>PURPOSE: The purpose of this project is to install and maintain systems to ventilate petroleum vapors, and pump and filter petroleum contaminated water affecting the MWH and Building 106. After the ventilation, and pump and filtration systems are installed, it is anticipated that daily on-site activities will require contractor staff to be on site for five (5) days per week and on call as needed. Daily activities will allow for daily assessment and field screening of systems and regular transport, filtration, and disposal of contaminated sump water.</p> |
| Special Conditions/Comments | <p>Site is an active remediation site.</p> <p>This plan only covers worker safety related to remediation activities and is not designed to serve as the Health and Safety Plan for other construction, environment, or non-related activities.</p> |
| Are Sources of Hazardous Substances Known to Have Been Released on Site? | <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><u>Known Chemicals of Release:</u> Gasoline 8006-61-9</p> |

3.0 PROJECT SCOPE OF WORK

SCOPE OF WORK

This Site-Specific Health and Safety Plan (HASP) is written in conjunction with the information provided to NWFF by Stillwater Holdings Chevron and the State of Washington Department of Ecology.

The purpose of this plan is to protect the persons in and around areas where the contaminated release has occurred and where remediation activities are taking place. This HASP identifies and assesses the potential hazards associated with exposure to contaminants that were identified at the site and describes the response actions necessary. This plan only pertains to worker safety related to the hazards associated with contaminants released at the site and subsequent remediation activities and is not designed to serve as the Health and Safety Plan for other construction or non-related activities or hazards. Environmentally sensitive areas and resources are not part of the scope of this document. NWFF follows geographic area contingency plans with regard to environmentally, culturally, and economically sensitive areas in any area where NWFF conducts operations.

Mobilization / Site Preparation

- Mobilize all personnel, equipment, and materials as required to the site.
- Inspect site prior to starting work to evaluate conditions.
- Establish work perimeter.
- Establish work zones (exclusion, decontamination reduction, and support zones).
- Establish equipment and supplies management locations.

Implement Monitoring and Control Measures

- Assure relevant and appropriate equipment (e.g. remediation supplies, monitoring equipment, etc.) is on site and functioning prior to remediation activities.
- Establish containment around work or decontamination areas as appropriate.

Conduct Daily Safety Meeting and Periodic Safety Evaluations

- Assure all personnel are briefed on the day's tasks, known hazards, and hazard mitigation strategies.
- Encourage reporting unforeseen / unanticipated physical, equipment, and / or chemical hazards – issue **STOP WORK AUTHORITY** when necessary and review with all personnel – update Daily Toolbox Safety Meeting sheet.

Exposure Monitoring

Initial exposure monitoring for all work areas where exposure to known contaminants is to be encountered. Monitoring will also be conducted:

- If there is a change in production, equipment, personnel, or control measure.
- An employee exhibits signs and symptoms of exposure, SSO will promptly monitor the affected individual's exposure.
- If individual monitoring levels exceed the PEL action level.

4.0 CHEMICALS OF CONCERN

| CHEMICAL / CAS | CHEMICAL PROPERTIES | EXPOSURE LIMITS | ROUTES OF ENTRY | SYMPTOMS |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gasoline 8006-61-9 | <ul style="list-style-type: none"> ▪ Flash Point: -45°F ▪ Odor: Characteristic ▪ LEL = 1.4% ▪ UEL = 7.6% | <ul style="list-style-type: none"> ▪ OSHA: TWA 300 ppm (900 mg/m³) ST 500 ppm (1500 mg/m³) | <ul style="list-style-type: none"> • Inhalation • Ingestion • Skin absorption • Skin and/or eye contact | <p>Inhalation: Repeated or prolonged overexposure to solvents can cause brain or other nervous system damage. The symptoms can include the loss of memory, the loss of intellectual capacity and the loss of coordination.</p> <p>Ingestion: Adverse symptoms may include the following: stomach pains nausea or vomiting.</p> <p>Skin Contact: Adverse symptoms may include the following: irritation, redness, dryness, or cracking.</p> <p>Eye Contact: Adverse symptoms may include the following: pain or irritation watering redness.</p> <p>Mucous membrane; dermatitis; headache, lassitude (weakness, exhaustion), blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonitis (aspiration liquid); possible liver, kidney damage; [potential occupational carcinogen]</p> |

5.0 PERSONNEL PROTECTIVE EQUIPMENT BY TASK

| TASK | Level | MASK /CARTRIDGE /AIR | ADDITIONAL PPE |
|-----------------------------------------------------------|------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Establish support area / prepare | D | N/A | Hardhats, safety glasses, protective outerwear as needed, gloves appropriate for the task, suitable work boots or removable boot covers or chemical resistant boots, high visibility vest. |
| Contaminated Exposure | C/D | Full/half face OV, P100 | Respiratory protection as needed, hardhats, safety glasses, protective outerwear as needed, gloves appropriate for the task, suitable work boots or removable boot covers or chemical resistant boots, high visibility vest. |
| Contamination handling | C/D | Full/half face OV, P100 | Respiratory protection as needed, hardhats, safety glasses, protective outerwear as needed, gloves appropriate for the task, suitable work boots or removable boot covers or chemical resistant boots, high visibility vest. |
| Caution zone work | D | N/A | Hardhats, safety glasses, chemical protective clothing as needed, protective outerwear, gloves appropriate for the task, suitable work boots or removable boot covers or chemical resistant boots, high visibility vest. |
| Hot zone work | C/D | Full/half face OV, P100 | Respiratory protection as needed, hardhats, safety glasses, protective outerwear as needed, gloves appropriate for the task, suitable work boots or removable boot covers or chemical resistant boots, high visibility vest. |
| Decontaminate equipment | D | N/A | Hardhats, safety glasses, protective outerwear as needed, gloves appropriate for the task, suitable work boots or removable boot covers or chemical resistant boots, high visibility vest. |
| Conduct daily safety meeting (before shift & after shift) | D | N/A | Hardhats, safety glasses, protective outerwear as needed, gloves appropriate for the task, suitable work boots or removable boot covers or chemical resistant boots, high visibility vest. |
| Site Preparation / site security / site postings | D | N/A | Hardhats, safety glasses, protective outerwear as needed, gloves appropriate for the task, suitable work boots or removable boot covers or chemical resistant boots, high visibility vest. |
| Inspect appropriate equipment each day | D | N/A | Hardhats, safety glasses, protective outerwear as needed, gloves appropriate for the task, suitable work boots or removable boot covers or chemical resistant boots, high visibility vest. |
| De-mobilize | D | N/A | Hardhats, safety glasses, protective outerwear as needed, gloves appropriate for the task, suitable work boots or removable boot covers or chemical resistant boots, high visibility vest. |

6.0 SAFETY EQUIPMENT AND PROCEDURES

| | |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Initial Level of Protection | Based on our evaluation of the work site, and the tasks that are to be completed, we have determined that Level D or Level C PPE to be adequate for conducting remediation activities. If site conditions change than PPE levels may need to be upgraded. |
| Training Requirements for Site Workers | HAZWOPER 40, Current 8 Hour Refresher, First Aid /CPR. |
| Medical Surveillance | <p>A medical surveillance plan will be developed for all personal involved in operations who meet any of the following:</p> <ul style="list-style-type: none"> • Are or may be exposed to hazardous substances or health hazards for at least 30 days a year, at or above the permissible exposure limits (PELs) or other published exposure levels • Wear a respirator for at least 30 days a year are injured, become ill, or develop signs or symptoms of possible overexposure to hazardous substances or health hazards • Are hazardous materials team (HAZMAT) members. <p>Medical examination will include the following information for each affected employee.</p> <ul style="list-style-type: none"> • A medical and work history, with special emphasis on symptoms related to handling hazardous substances and health hazards Information about fitness for duty including the ability to wear any personal protective equipment (PPE) under conditions that may be expected at the workplace. • Any additional information that is determined by the examining physician. |
| Decontamination Procedures | Boots and hands will be decontaminated with soap and water as necessary. |
| Health and Safety Equipment Checklist | |
| <input checked="" type="checkbox"/> Respirator with Cartridges | <input checked="" type="checkbox"/> Fire Extinguisher |
| <input checked="" type="checkbox"/> Protective Clothing (coveralls, FRCs) | <input checked="" type="checkbox"/> Drinking Water |
| <input checked="" type="checkbox"/> Chemical Protective Gloves | <input checked="" type="checkbox"/> Rain Gear |
| <input checked="" type="checkbox"/> Decontamination equipment | <input checked="" type="checkbox"/> High Visibility Vest |
| <input checked="" type="checkbox"/> Appropriate Footwear | <input checked="" type="checkbox"/> Cell Phone |
| <input checked="" type="checkbox"/> Disposable Boot Covers | <input checked="" type="checkbox"/> Radios |
| <input checked="" type="checkbox"/> Safety Glasses | <input checked="" type="checkbox"/> Tychem Coveralls |
| <input checked="" type="checkbox"/> Hard Hat | <input checked="" type="checkbox"/> Emergency Eye Wash Bottles |
| <input checked="" type="checkbox"/> Caution Tape, Traffic Cones, or Barriers | <input checked="" type="checkbox"/> First Aid Kit |
| <input checked="" type="checkbox"/> Air Monitoring Equipment | |

7.0 HAZARD EVALUATION

Hazard Communication

- All personnel working in or around the remediation site will be required to attend and successfully complete the Project's Site-Specific orientation before working on site.
- Workers working in and/or around the remediation site must have completed training meeting the requirements of a 40-Hour HAZWOPER course and certification must be current.
- All employees need to realize that they have a responsibility to themselves and others to use good judgment when working in all areas at the Site.
- Any areas where employees suspect contamination (smell, stained soils, etc.), it is important that the area is immediately vacated, and the employee's supervisor informed so that testing or evaluation can take place.
- If other potential contaminants are discovered onsite, work shall cease in this area and the IC shall be immediately notified.

PPE

- Appropriate (PPE) shall be worn by all individuals on the jobsite. Minimum PPE for this jobsite consists of:
 - Suitable work boots
 - Highly visible vest
 - Hard hats
 - Eye protection
 - Hearing protection when applicable

Additionally, personal protective equipment to be utilized by the onsite personnel will be determined based upon exposure assessments, and air monitoring.

Employees who are working in areas identified as Hot Zones and who are directly involved with the disturbance of contamination, must wear, at a minimum, the following PPE:

- Protective eyewear
- Protective Outerwear
- Outer gloves
- Chemical resistant boots
- Highly Visible Vest
- Hard hats
- Respiratory Protection (as necessary)

When employee exposure monitoring results indicate that airborne hazardous material concentrations are low in a designated Hot Zone, the zone may be re-classified, or when employees are working in a caution zone, the following PPE should be worn at a minimum:

- Protective eyewear
- Outer gloves
- Suitable work boots
- Highly visible vest
- Hard hats

Air Monitoring (if applicable)

Air monitoring shall be conducted to identify and quantify airborne levels of hazardous substances and to document exposure levels within the Site during remediation activities. This information will be utilized to determine the effectiveness of engineering controls and work practices. Results of air monitoring will be submitted to the ICS Safety Officer with any exposure results above the action level will be noted and corrective action taken prior to next work shift.

All employers are directly and completely responsible for protecting their employees. Employees most likely to experience the highest potential exposure to hazardous substances and health hazards shall be monitored by their HAZWOPER Supervisor during all excavating and soil disturbance of contaminated soil or during the collection of absorbent materials. Employers are also responsible for providing all necessary monitoring and service of their equipment.

The goal of air quality monitoring is to detect and control off-site fugitive emissions of toxic air contaminants and should fulfill these objectives:

- Protect human health and the environment from airborne contamination.
- Monitor perimeter air quality during remediation activities.
- Identify the requirement for dust suppression systems.
- Comply with regulatory and recommended guidelines.
- Provide risk management and public confidence.
- Reduce project owner's potential for liability.

Summary of Action Levels:

| Analyte | Action Level | Field Action | Instrument | Detection Limit |
|-----------------|------------------------|---------------------------------------|--------------|-----------------|
| VOCs | 0-25 ppm | No respiratory protection is required | MultiRAE | 0.1 ppm |
| | 25-250 ppm (sustained) | Level C | RKI GX-6000 | 0.1 ppm |
| | >250 ppm (sustained) | Stop Work and Reevaluate Methods | MiniRAE Lite | 0.1 ppm |
| Oxygen | <19.5% | Stop Work and Reevaluate Methods | MultiRAE | 0.1% Volume |
| | >22.0% | | RKI GX-6000 | 0.1% Volume |
| LEL | 10% LEL | Stop Work and Reevaluate Methods | MultiRAE | 1% |
| | | | RKI GX-6000 | 1% |
| Carbon Monoxide | 12.5 ppm | Stop Work and Reevaluate Methods | MultiRAE | 0.1 ppm |
| | | | RKI GX-6000 | 1 ppm |

Hazard Assessment

| ITEM | HAZARD | PREVENTION |
|----------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient weather / PPE load | Heat stress Dehydration | <ul style="list-style-type: none"> Implement heat stress plan for personnel for any of the following temperature. <ul style="list-style-type: none"> 52° - Nonbreathing clothes including vapor barrier clothing or PPE such as chemical resistant suits. 77° - Double-layer woven clothes including coveralls, jackets and sweatshirts. 89° - All other clothing. Provide shaded rest area for personnel. Shall provide one quart of water per employee per hour for drinking for the entire shift. Supervisor to track site temperature conditions to monitor for weather. |
| Mobilization to site | Site Security Slips, Trips, Falls Traffic Overhead Hazards | <ul style="list-style-type: none"> Clear & Mark off drop off area with barrier tape (if required). Visual barriers will be in place during work hours, and when site is unattended. Limit all walking and access to designated paths / destinations. |
| Air monitoring | Inhalation | <ul style="list-style-type: none"> Ensure current calibration of equipment. Fresh air calibration. |

| ITEM | HAZARD | PREVENTION |
|----------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Over exposure | <ul style="list-style-type: none"> • Monitor work zone area. • Monitor work area perimeter. |
| General work area | Slip / trip / fall | <ul style="list-style-type: none"> • Designated pathways. • Maintain pathways cleared of debris. • Enforce good construction housekeeping. |
| General work area – lifting | Lifting | <ul style="list-style-type: none"> • Plan and stage to minimize long distance carrying. • Split heavy loads into smaller loads. • Use mechanical lifting aids (i.e. forklift or excavator bucket) where possible and can be done safely. • Use assistant for heavy (>30 lbs.) or awkward load. • Use proper lifting techniques with good footing. |
| General work area – traffic | Struck by | <ul style="list-style-type: none"> • Set up visible barricades on access roads. • Wear high visibility safety vests (except in exclusion zone). |
| Traffic | Struck by | <ul style="list-style-type: none"> • Set up visible barricades. • Wear high visibility safety vests. • Only authorized personnel in work zones. • Set of Traffic Control and flagging if work is performed in the right of way. |
| Break time | Ingestion | <ul style="list-style-type: none"> • Thoroughly wash hands before eating, drinking, smoking. |
| Delivery of site equipment & supplies | Back Strains, Hand Injuries | <ul style="list-style-type: none"> • Do not throw equipment from truck. • Lift any object over 30lbs with assistance. If in doubt of the weight, ask for HELP first. • Lift properly with legs and maintain footing. |
| Loading, moving, and transportation activities (on-site) | Struck by Noise | <ul style="list-style-type: none"> • Level D/C PPE. • Hearing protection. • Back up alarms or rotating beacons. • Keep unauthorized personnel out of operating areas. • Train personnel on working safely around equipment. • Wear Reflective Vests. • Make eye to eye contact between operator/driver. • Signal or communicate movements. • Equipment operator controls movement of personnel in and out of swing zone or equipment travel area. • Stay clear of swing zone of equipment. |
| Use of hand tools | Pinch points Strain-sprain | <ul style="list-style-type: none"> • Use proper holding and supporting techniques when turning wrenches, screwdrivers, and other torque-enhancing tools. |

| ITEM | HAZARD | PREVENTION |
|-----------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Difficult-positions Cut hazards | <ul style="list-style-type: none"> • Ensure proper direction and grip on plumbing fixtures prior to use of full body weight for counterbalance – use proper footing stance. • Verify correct pipelines prior to disassembly. |
| Confined space entry | Illness Death | <ul style="list-style-type: none"> • Not expected to be necessary, modify plan if required. |
| Falling | Bodily injury Death | <ul style="list-style-type: none"> • Fall protection will be used while accessing and egressing the trenches. • Ensure a 5,000lb anchor point is available. • Only authorized personnel will be allowed in fenced areas where fall hazards exist. |
| Dust Mitigation (if required) | Dust levels visible | <ul style="list-style-type: none"> • Water will be sprayed periodically over exposed work area. |
| Debris Removal /Material Handling | Struck by Overhead Skin irritation | <ul style="list-style-type: none"> • Establish visual contact with operator prior to any movement of excavator bucket. • Ground personnel to wear high visibility vest. • Avoid inhalation, skin/eye contact, absorption, and ingestion. |

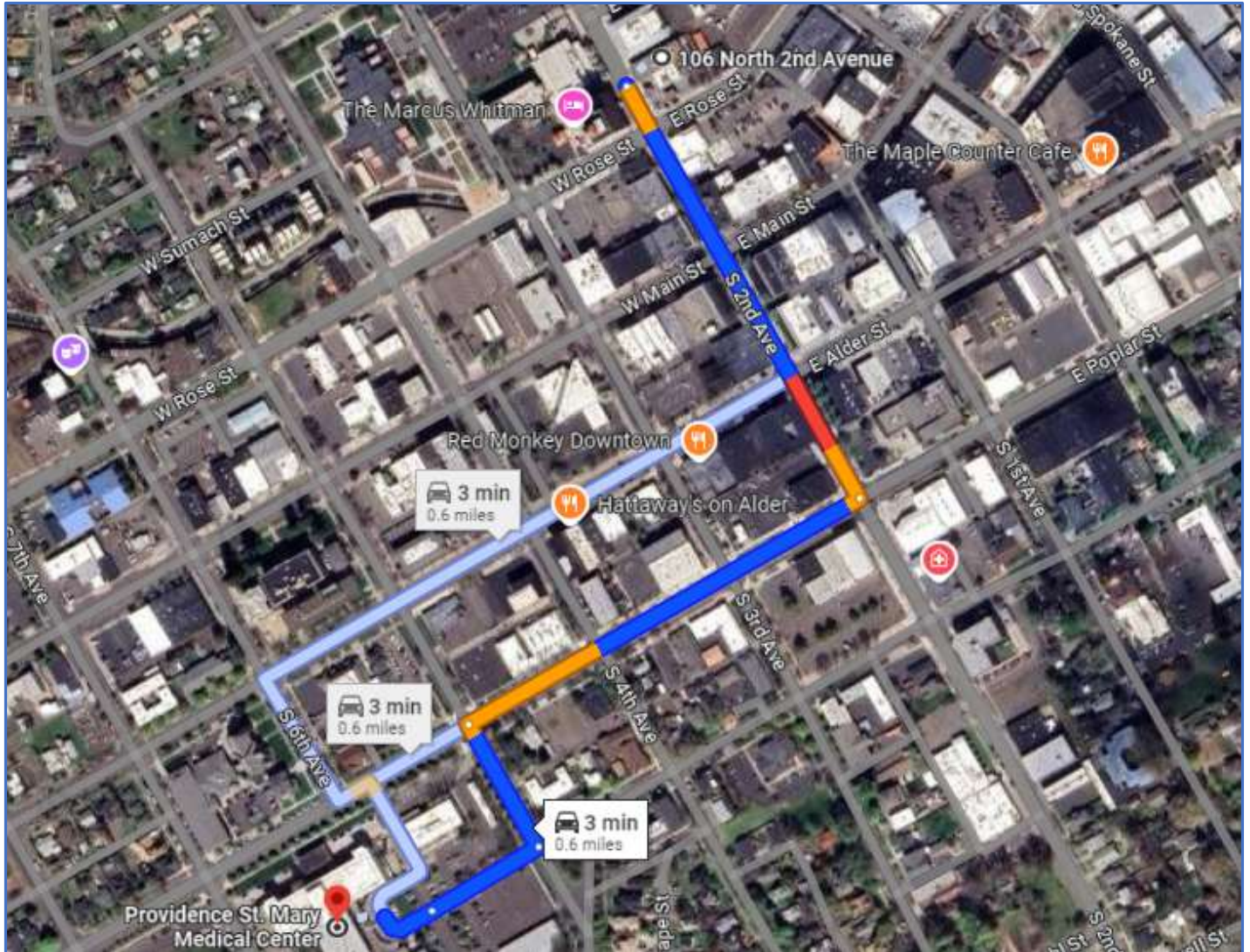
8.0 ACCIDENT/EXPOSURE PROCEDURES

| TYPE CONTACT | FIRST AID |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eyes | <ul style="list-style-type: none"> • Flush each eye continuously for 15-30 minutes. • Tilt head to side to ensure liquid runs onto floor not in the other eye. • Refer to EMT for evaluation. |
| Skin | <ul style="list-style-type: none"> • Remove contaminated clothing immediately. • Wash skin continuously for 15-30 minutes. • Refer to physician if redness, swelling, or pain persists after washing. |
| Not Breathing | <ul style="list-style-type: none"> • Call 911. • Remove to fresh air immediately if respiratory distress develops. • Begin CPR until EMT arrives. |
| Ingestion | <ul style="list-style-type: none"> • Aspiration hazard. • Do not induce vomiting. • Do not give anything by mouth. |
| Emergency Contact Information | <ul style="list-style-type: none"> • Providence St. Mary Medical Center +15098973320 • Fire/Ambulance: (911) • Police: (911) |
| Accident Reporting | <ul style="list-style-type: none"> • Employees immediately report all accidents or incidents to the Site Safety Officer • Safety Officer will relay information as needed. • Notify Client immediately in the event of any incident |

9.0 EMERGENCY RESOURCES AND PROCEDURES

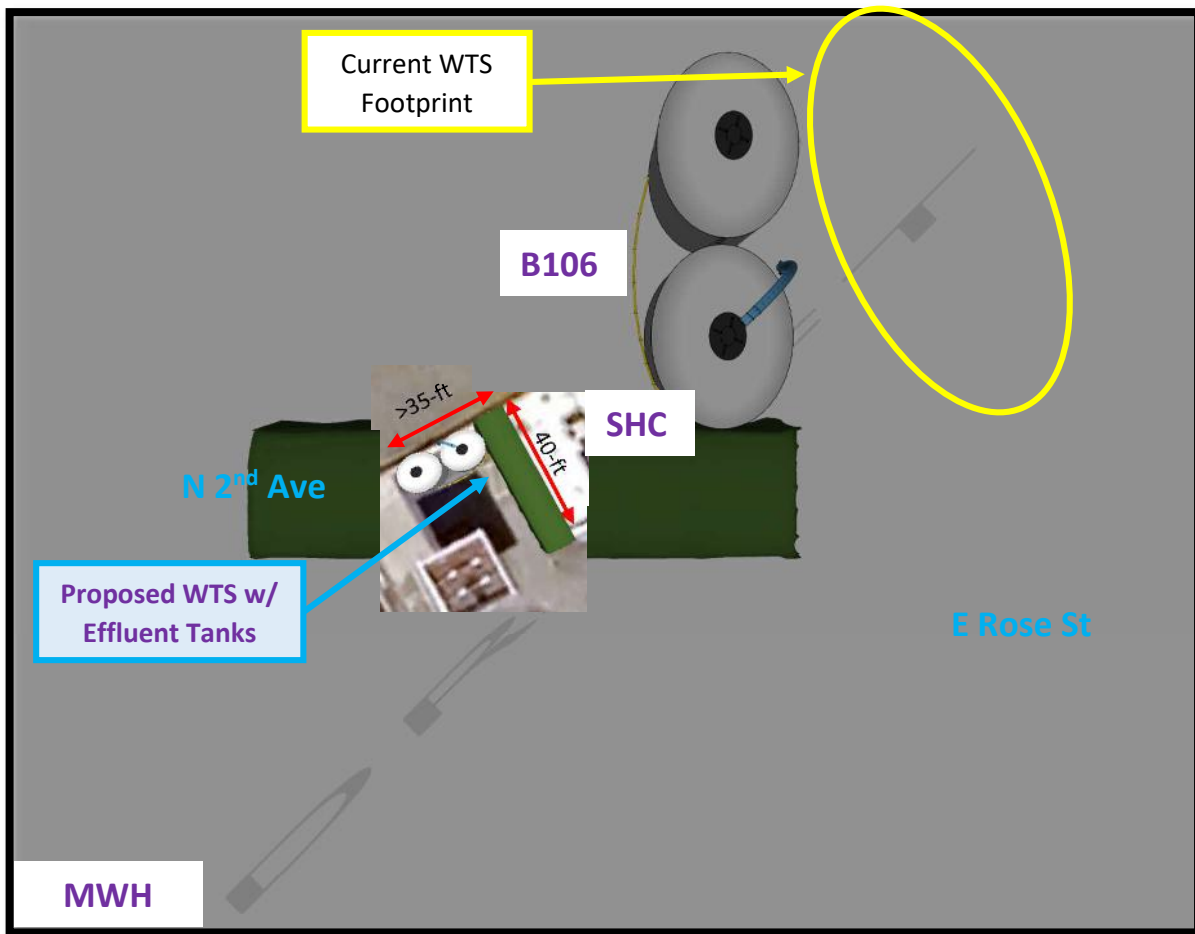
| ELEMENT | LOCATION, SPECIFICATION OR REASON FOR USE |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| NEAREST HOSPITAL | Hospital: Providence St. Mary Medical Center 401 W Poplar St., Walla Walla, WA 99362 +15098973320 |
| NEAREST PHONE | Locations to be determined during initial safety meetings. |
| FIRST AID KIT | Locations to be determined during initial safety meetings. |
| FIRE EXTINGUISHER | Locations to be determined during initial safety meetings. |
| EYEWASH STATION AND EMERGENCY SHOWER | Locations to be determined during initial safety meetings. |

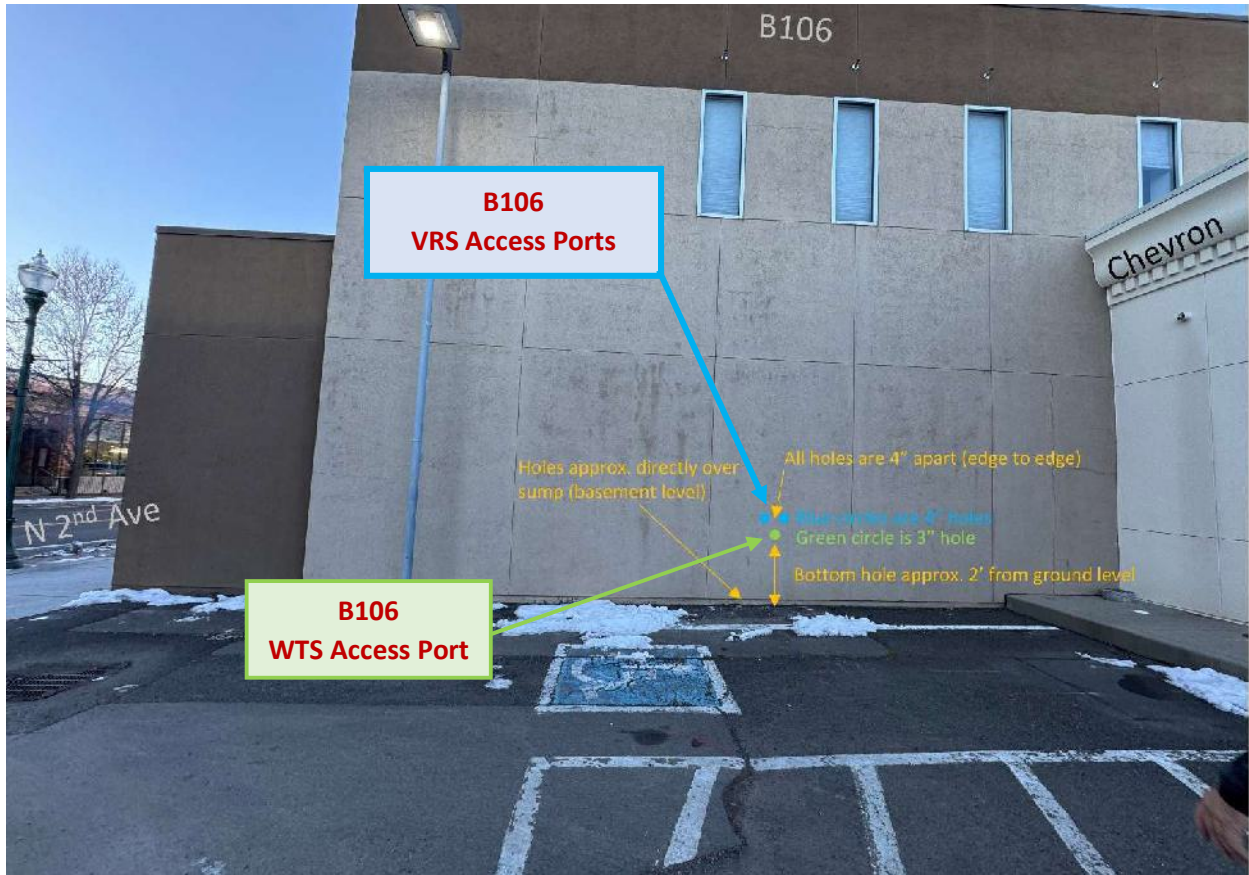
Figure 1: Map and Directions to Medical Center



APPENDIX B

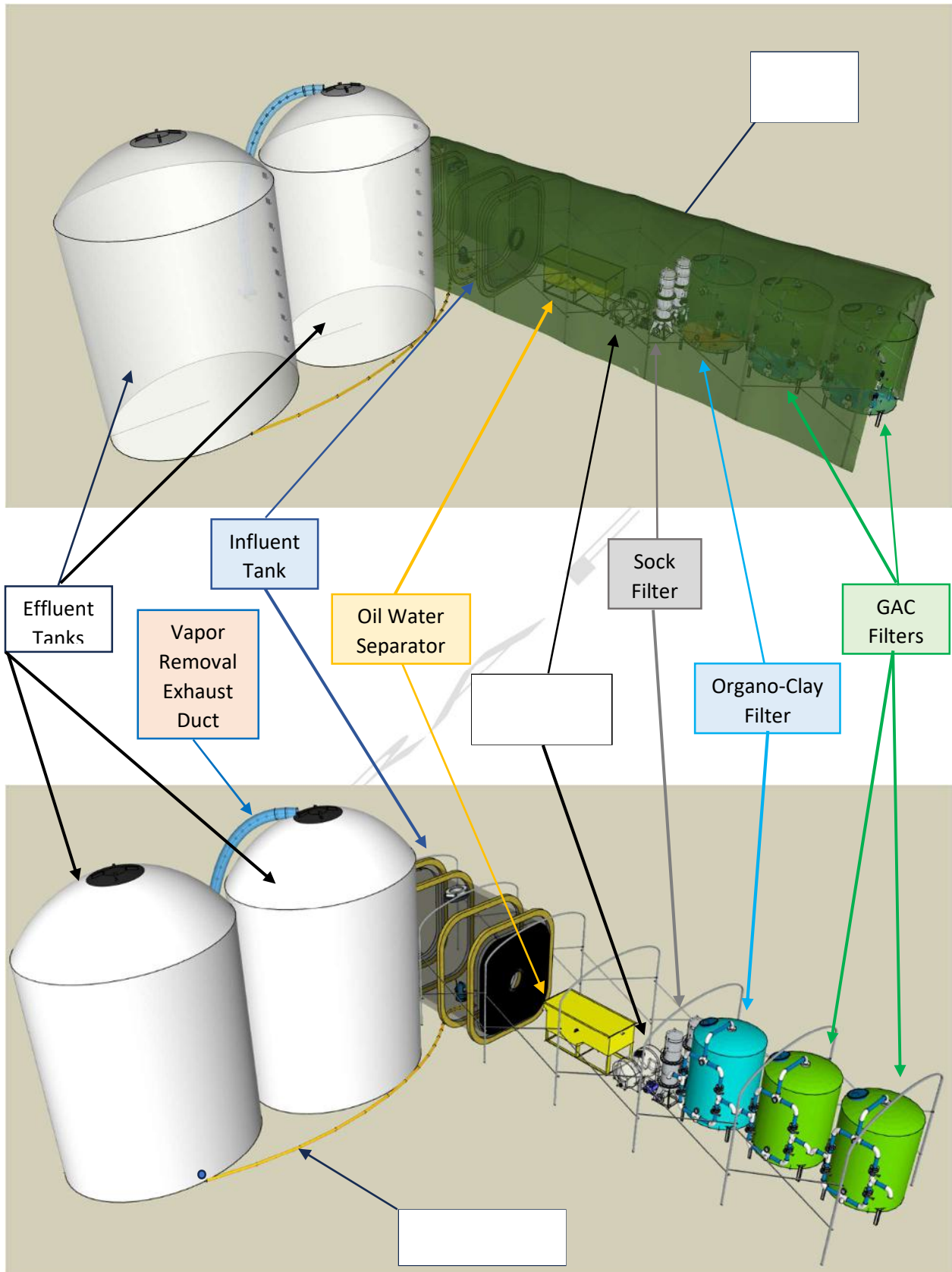
Water Filtration System

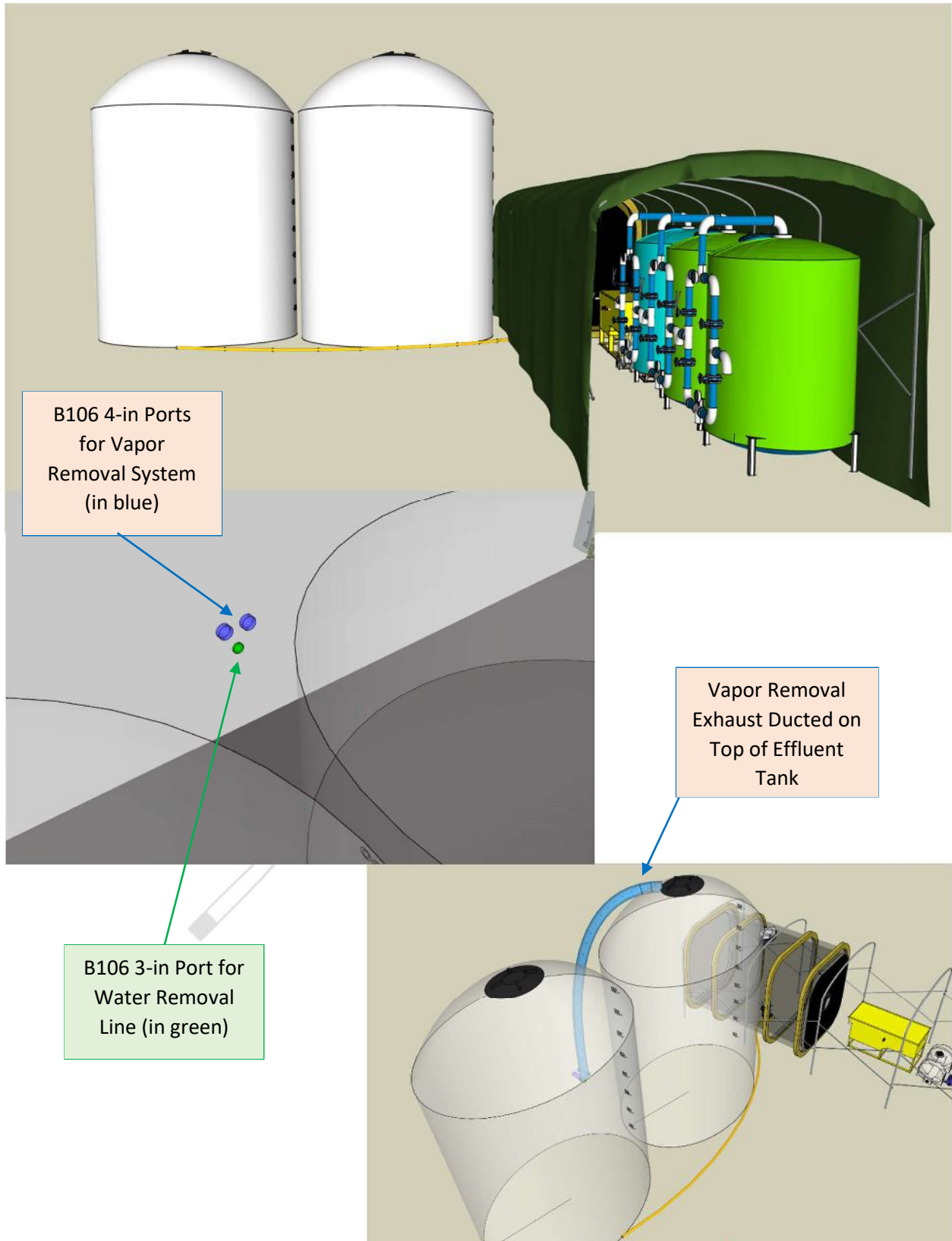




BUILDING 106 ACCESS PORT LOCATIONS

(picture provided by B106 owners)



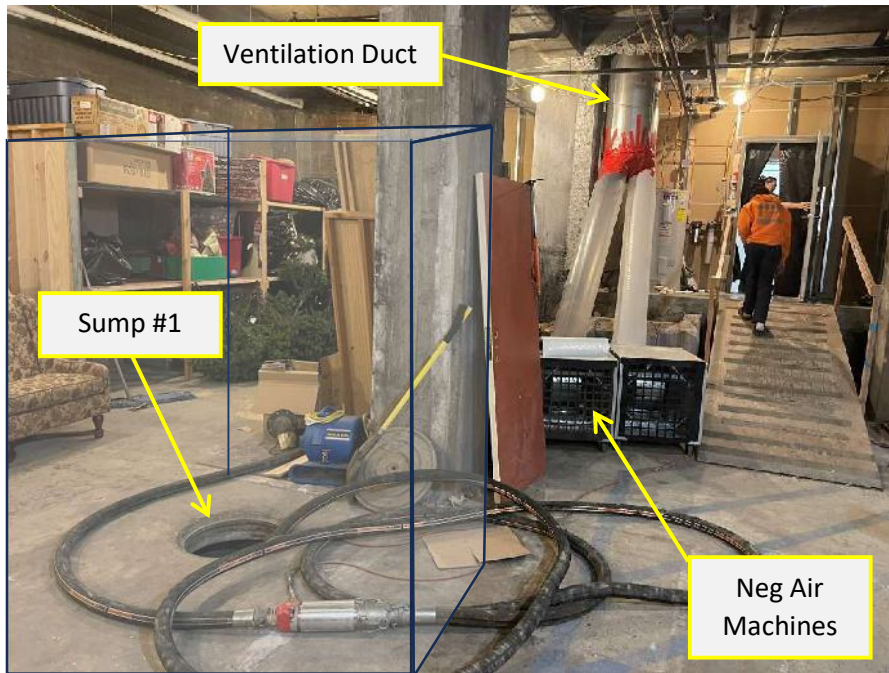


APPENDIX C

MWH Vapor Removal System

This picture depicts a containment enclosure similar to what is intended to cover the sump area in the MWH basement of MWH. It will be constructed with ¾-inch PVC pipe framing that will be total enclosed with 6-mil thick or better clear visqueen. Seams will be overlapped and duct taped inside and out. The containment will have a one-way intake valve for make up air that is removed from inside the enclosure. The valve will automatically close if the air pumps shut down. The enclosure will have an exhaust port connected to an intrinsically safe negative air mover to pull air from the enclosure and up the ventilation shaft that is currently being used.





Picture of sump #1 where water is removed. The above enclosure would be placed over this sump (rough outline in the picture). Appropriate penetrations through the enclosure will be made for the make up air valve, air extraction exhaust port, water pumping, and overhead ducting from the Sump #2 enclosure. A remote access volatile organic compound (VOC)

sensor will be located within the enclosure.

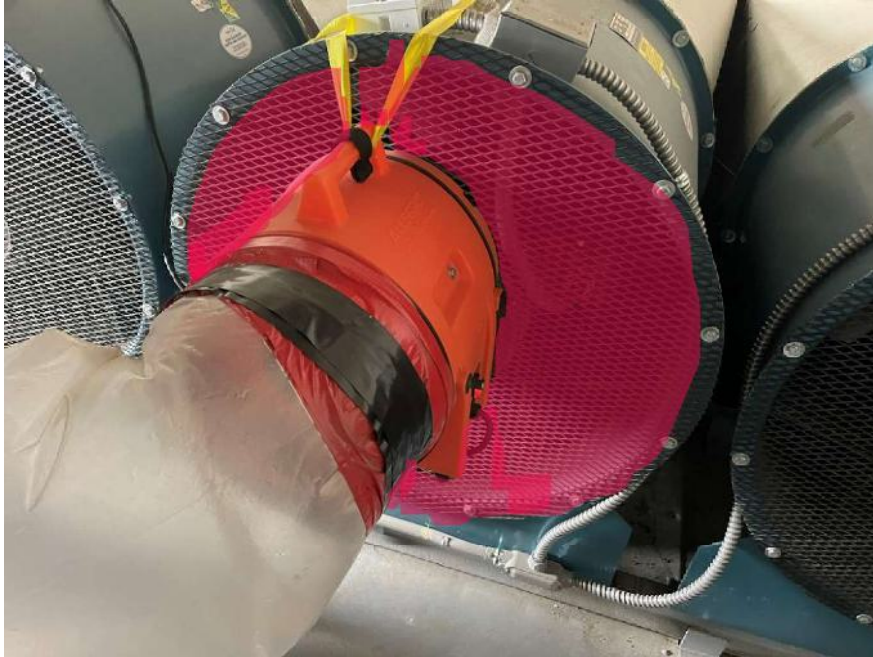


Sump #2 is located to the bottom right of the stairs seen in the previous picture. Sump #2 will also be enclosed similarly to Sump #1 with temporary air ducting between the two sumps being hung from overhead to minimize disruption to MWH activities.

There is an area in the MWH basement that has exposed ground. This is a potential for vapor intrusion. The proposal is for covering the exposed ground with a 10-mil or better geomembrane that blocks or significantly retards gasoline vapors. A valved monitoring port will be installed through the geomembrane to monitor VOCs. Should VOCs be found to be accumulating under the barrier it may be necessary to place a pipe under the barrier that leads to the Sump #2 enclosure so the vapors under the geomembrane can be evacuated. These suggested vapor control and removal processes are expected to allow the vapor barriers over the basement stairwell and service elevator access to be safely removed. This will afford MWH staff normal and unhindered access to and throughout the basement.



These pictures show where the current basement vapor removal system exhaust is located at. The upper picture is from across Rose Street with 2nd Avenue on the right side of the picture. The insert is a close up of the metal exhaust duct with screening located above the sidewalk canopy.



In the mechanical room, at the very top and south side tower of the Hotel, are the air ducts that serve the building. The duct pictured leads to the elevator shaft. The orange portable ventilation fan (ramfan) that is intrinsically safe is pulling air out of the shaft and out the west window.

The containments in the basement should render this system unnecessary, however, we will be

poised to implement such a system should significant levels of VOCs be detected in the shaft.



Our system, if implemented, would involve covering the end of the duct fan with visqueen (see the highlighted area in previous photo) and cutting an appropriately sized hole to match the intake of the ramfan to better control the air coming up the duct from the basement. dtThe current ramfan mounting pulls air from the duct and sends it through the

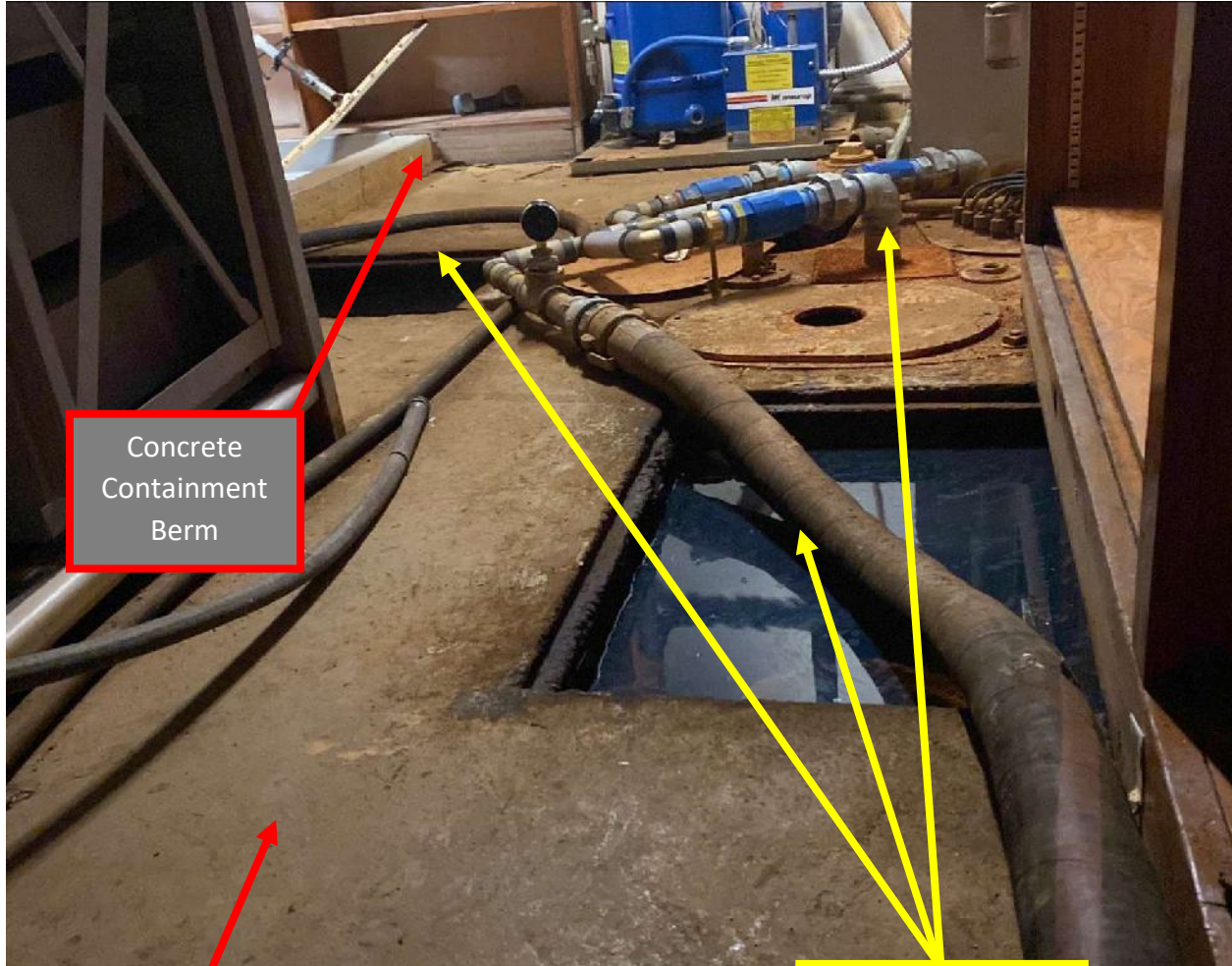
clean plastic vent tubing to a window on the west side and near the northwest corner of the tower.

This picture shows where the flex ducting from the ramfan travels to the window on the west side of the tower near the northwest corner of the tower. Currently the ducting travels along the floor, this can be changed to hanging it from the ceiling so it does not create a tripping hazard along the stairs.



View from a window on the west side of the MWH tower. The West Wing of the Hotel is at the bottom right corner of the photo.

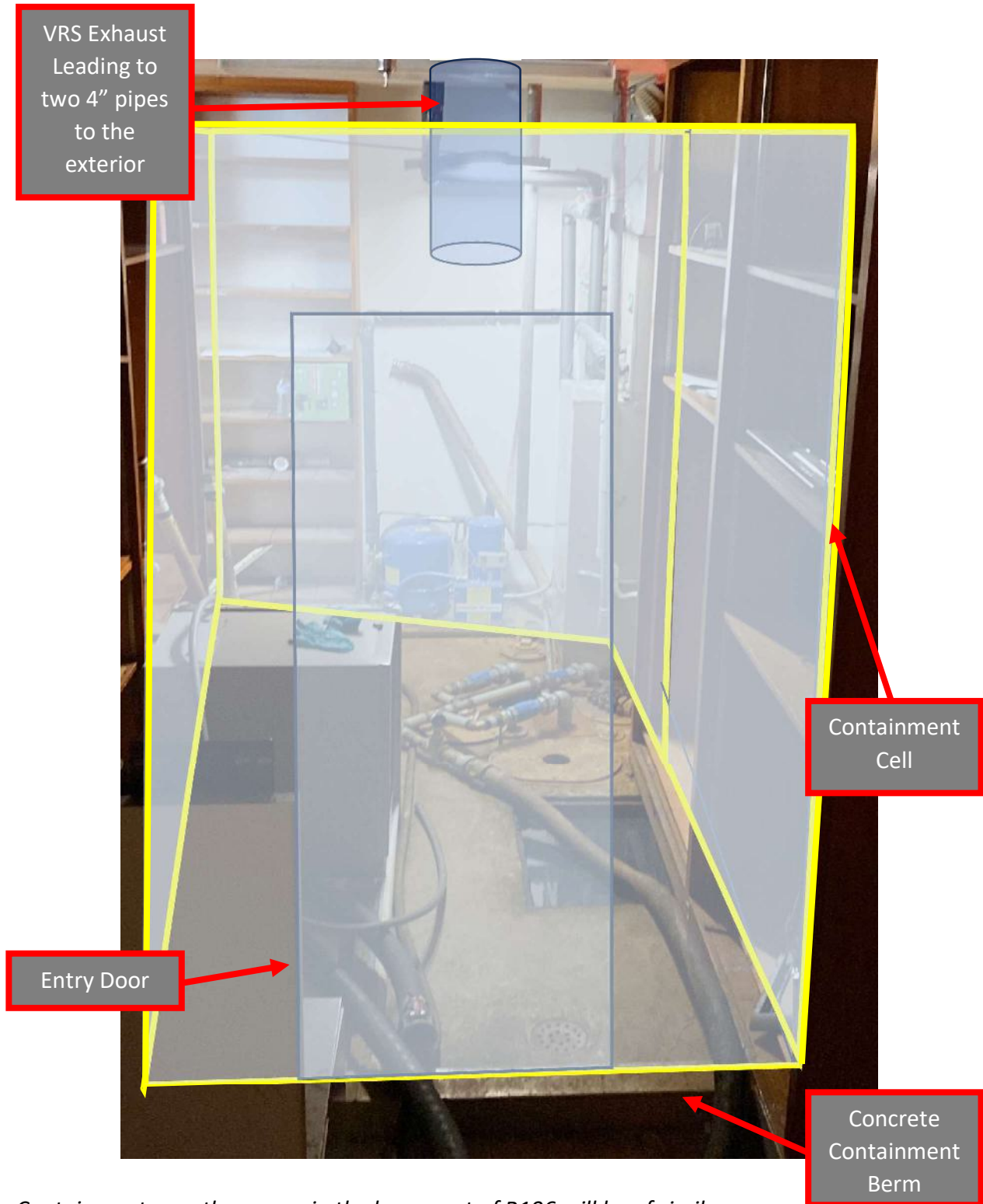
Building 106 VRS Containment Cell



Concrete
Containment
Berm

Existing Concrete
Containment Area

B106 Sump Access



Containment over the sumps in the basement of B106 will be of similar construction as in MWH. The wood shelving will be moved to the east to reveal the concrete containment berm which will be the foundation of the new VRS containment cell.

