ECOLOGY-LED INVESTIGATION AND CLEANUP AGREEMENT

This Ecology-Led Investigation and Cleanup Agreement (Agreement) is entered into by and between the Marcus Whitman Holdings LLC (MWH) and the Washington State Department of Ecology as well as its contractors and authorized agents (collectively, Ecology) to allow Ecology to conduct certain investigation and remedial activities on the property as described herein.

MWH is the owner of real property located at 6 W Rose St, Walla Walla, WA 99362 (Property). The Property is located at Walla Walla County parcel number 360720720103.

This Agreement facilitates investigation and cleanup of a release or threatened release of a hazardous substance from the adjacent Stillwater Holdings Chevron property located at 7 East Rose Street in Walla Walla, WA (Stillwater Property) that has come to be located on and beneath the Property and that would otherwise not be cleaned up in a reasonable timeframe. Ecology has requested that MWH provide access to the Property to conduct remedial actions required by Ecology, subject to the terms and conditions of this Agreement

As authorized by RCW 70A.305.030, it is anticipated that Ecology will conduct remedial actions at the Property as detailed in the Enforcement Order dated June 18, 2024, the Enforcement Order Amendment dated September 17, 2024, and their Exhibits that were issued to Stillwater Holdings LLC, as well as the NWFF Environmental Remedial Action Work Plan dated February 24, 2025, attached as Exhibit A. The investigation and cleanup will be conducted pursuant to Washington's Model Toxics Control Act (MTCA), RCW 70A.305 and its implementing processes and standards, WAC 173-340.

GENERAL INFORMATION

MWH agrees to cooperate with Ecology and further agrees not to interfere with remedial actions performed by Ecology at the Property.

MWH shall refrain from using the Property in any manner that Ecology reasonably determines will (i) pose an unacceptable risk to human health or the environment due to exposure to hazardous substances or (ii) interfere with or adversely affect the implementation, integrity, or protectiveness of remedial actions at the Property.

Ecology will not reimburse MWH for business interruption or business loss due to work conducted by Ecology under this Agreement.

Whenever Ecology enters the Property, is present at the Property, and/or conducts investigative or remedial work at the Property, Ecology shall, consistent with its responsibilities under applicable law, use reasonable efforts to minimize interference with MWH's operations at the Property.

The employees agents, contractors, consultants, and/or representatives of each party who are engaged in the performance of activities under this Agreement will continue to be employees agents, contractors, consultants, and/or representatives of that party and will not for any purpose be employees agents, contractors, consultants, and/or representatives of the other party.

ACCESS

For the duration of this Agreement, MWH shall allow Ecology access to the Property at reasonable times for the purpose of conducting and overseeing investigative and remedial action work under this Agreement. Ecology and its authorized agents shall have access to enter and freely move about at areas necessary to conduct the investigative or remedial work at the Property that MWH either owns, controls, or has access rights to at reasonable times for the purposes of, inter alia: overseeing or conducting work under this Agreement; conducting such tests or collecting such samples as Ecology may deem necessary under this Agreement; and using a camera, sound recording, or other documentary-type equipment to record work done under this Agreement.

MWH shall secure access rights for Ecology for areas or premises at the Property leased to third parties where investigative or remedial activities will be performed pursuant to this Agreement. MWH and Ecology shall inform a lessee at the Property of the activities that Ecology or its agents will be performing in those areas or premises and the time of those activities. MWH shall ensure that its lessee does not interfere with work being conducted by Ecology or its agents under this Agreement. MWH will provide Ecology with the contact information, and a copy of the lease, for any lessee on areas or premises at the Property where activities will be performed under this Agreement.

Ecology shall give reasonable notice (at least 72 hours) before entering the Property unless an emergency prevents such notice. In non-emergency situations, Ecology shall provide a Scope of Work and project plans prior to performance of any remedial activities. All persons who access the Property pursuant to this section shall comply with applicable health and safety plan(s) maintained and provided by MWH. Ecology shall not be required to sign any liability release or waiver as a condition of Property access.

Ecology and their agents and representatives, including NWFF, shall be accompanied by or escorted by a representative of the MWH at all times while performing remedial activities on the Property.

CONVEYANCE OF ANY INTEREST

MWH shall provide written notice to Ecology of conveyance of any ownership interest in any part of the Property. The notice must be provided at least thirty (30) days in advance of the conveyance, when known, or as soon as reasonably known if that time is less than thirty days in advance.

COMPLIANCE WITH APPLICABLE LAWS

Ecology and MWH agree to comply fully with all applicable federal, state and local laws, orders, regulations, and permits related to the performance of remedial activities pursuant to this Agreement.

RECIPIENT certifies full compliance with all applicable state insurance requirements which may be applicable to the performance of remedial activities.

Ecology shall have the right to immediately terminate for cause this Agreement as provided herein if the RECIPIENT fails to comply with applicable federal, state and local laws, orders, regulations, and permits related to the performance of remedial activities. If any provision of this Agreement violates any statute or rule of law of the state of Washington, the Agreement is considered modified to conform to that statute or rule of law.

COST RECOVERY

Ecology reserves its right to file an action against "potentially liable person" as defined in MTCA, to recover the remedial actions costs incurred by Ecology for any investigative and/or remedial actions at the Site. RCW 70A.305.050(3); WAC 173-340-550. Notwithstanding this reservation of rights, Ecology hereby fully and finally releases MWH from any and all costs, expenses, charges, and fees for the Work that Ecology conducts pursuant to this Agreement provided MWH is not named as a potentially liable person.

DISPUTE RESOLUTION

When there is a dispute with regard to the extent and character of the remedial activities to be performed by Ecology, or any other matter related to this Agreement, MWH shall have the right to enter a dispute resolution process as provided for below:

A. MWH notifies Ecology of a dispute resolution request.

B. Dispute resolution request must be in writing and state the disputed issue(s).

C. MWH has the opportunity to be heard by Ecology's Section Manager and offer evidence in support of its issue.

D. Ecology's Section Manager reviews MWH's appeal.

E. After concluding the review, Ecology's Section Manager sends a written answer.

The decision of Ecology on the dispute will be final and conclusive, unless within thirty (30) days from the date of such decision, MWH furnishes to Ecology's Toxics Cleanup Program Manager a written appeal. The decision of the Program Manager or duly authorized representative will be final and conclusive. The parties agree that this dispute resolution process will precede any action by Recipient in a judicial or quasi-judicial tribunal.

Pending final decision of a dispute, MWH agrees to proceed diligently with the performance of this Agreement and in accordance with the decision rendered.

Nothing in this Agreement will be construed to limit the parties' choice of another mutually acceptable method, in addition to the dispute resolution process outlined above.

EMERGENCY ACTION

In the event that MWH becomes aware of any action or occurrence that causes or threatens a release of hazardous substances, pollutants, or contaminants at or from the Property that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, MWH shall immediately take all appropriate action. This immediate and appropriate action shall be to prevent, abate, or minimize such release or threat of release, and shall, in addition to complying with any applicable notification requirements under MTCA or any other law, immediately notify Ecology of such release or threatened release.

INDEMNIFICATION

MWH agrees to indemnify and save and hold Ecology harmless from any and all claims or causes of action for death or injuries to persons or for loss or damage to property arising directly from acts or omissions of MWH, its employees, agents, or contractors in implementing this agreement. However, MWH shall not indemnify nor save nor hold Ecology harmless from any claims or causes of action arising out of the negligent acts of Ecology in implementing investigation or remedial activities pursuant to this Agreement.

COMMUNICATION

MWH and Ecology shall make every effort to maintain effective communications with each other and each other's agents and designees, as well as all affected local, state, or federal jurisdictions, and any interested individuals or groups.

MWH shall inform Ecology of any known or likely archeological, cultural or historic resources at the Property.

SUSPENSION OR TERMINATION OF AGREEMENT

A. Suspension of Agreement

Ecology may at any time, and without cause, suspend this Agreement or any portion thereof for a temporary period by written notice from Ecology to MWH.

B. Termination of Agreement for Cause

Ecology may terminate for cause this Agreement with a seven (7) calendar days prior written notification to MWH, at the sole discretion of Ecology, for MWH's failing to perform an Agreement requirement or for a material breach of any term or condition. If this Agreement is so terminated, the parties shall be liable only for performance rendered or costs incurred prior to the effective date of termination.

Ecology's performance of its obligations are dependent upon MWH's performance of its obligations of access and cooperation under this Agreement. In the event MWH fails to perform any obligation of access or cooperation required of it by this Agreement, Ecology may refuse to conduct any further work, terminate the Agreement in whole or in part, and exercise any other rights under this Agreement.

Despite the above, MWH shall not be relieved of any liability to Ecology for damages sustained by Ecology and the State of Washington because of any breach of this Agreement by MWH.

C. Termination of Agreement for Convenience

Ecology may terminate for convenience this Agreement, in whole or in part, for any reason when it is the best interest of Ecology, with a thirty (30) calendar days' prior written notification to MWH, except as noted below. If this Agreement is so terminated, the parties shall be liable only for performance rendered or costs incurred prior to the effective date of termination.

Non-Allocation of Funds. Ecology's ability to conduct work under this Agreement is contingent on availability of funding. In the event funding from state, federal or other sources is withdrawn, reduced, or limited in any way after the effective date and prior to the completion or expiration date of this Agreement, Ecology, at its sole discretion, may elect to terminate the Agreement, in whole or part, or renegotiate the Agreement, subject to new funding limitations or conditions. Ecology may also elect to suspend performance of the Agreement until Ecology determines the funding insufficiency is resolved. Ecology may exercise any of these options with no notification or restrictions, although Ecology will make a reasonable attempt to provide notice.

MWH CONTACTS

Project Manager	Jacob Coburn Title: MWH Superintendent Email: jacob@abeja.net Phone: 509.540.4450 Chuck Hill Title: SVP, Columbia Hospitality Email: chill@columbiahospitality.com Phone: 206.239.1872 Gary Fluhrer Title: Counsel – Columbia Hospitality Email: gary.fluhrer@foster.com Phone: (206) 447-8896

ECOLOGY CONTACTS

Project Manager	Name: Beth Kercher Title: Site Manager Email: bker461@ecy.wa.gov Phone: (509) 385-5443
Technical Advisor	Name: Nick Acklam Title: Section Manager Email: nack461@ecy.wa.gov Phone: (509) 818-7457

ADDITIONAL PROVISIONS

MWH acknowledges that they had the opportunity to review this entire Agreement, including all the terms and conditions of this Agreement, the NWFF Environmental Remedial Action Work Plan and incorporated or referenced documents, as well as all applicable laws, statutes, rules, regulations, and guidelines mentioned in this Agreement. Furthermore, MWH has read, understood, and accepts all requirements contained within this Agreement.

This Agreement contains the entire understanding between the parties, and there are no other understandings or representations other than as set forth, or incorporated by reference, herein.

No subsequent modifications or amendments to this Agreement will be of any force or effect unless in writing, signed by authorized representatives of the MWH and Ecology and made a part of this agreement. Ecology and MWH may change their respective staff contacts without the concurrence of either party.

No right or claim of MWH arising under this Agreement shall be assigned by MWH.

This Agreement is entered into pursuant to and under the authority granted by the laws of the State of Washington. The provisions of this Agreement shall be construed to conform to those laws. This Agreement shall be construed and interpreted in accordance with the laws of the State of Washington, and the venue of any action brought hereunder shall be in the Superior Court for Thurston County.

If any provision of this Agreement or any provision of any document incorporated by reference shall be held invalid, such invalidity shall not affect the other provisions of this Agreement which can be given effect without the invalid provision, and to this end, the provisions of this Agreement are declared to be severable.

This Agreement shall be subject to the written approval of Ecology's authorized representative and shall not be binding until so approved.

The signatories to this Agreement represent that they have the authority to execute this Agreement and bind their respective organizations to this Agreement.

Neither this Agreement, nor anything stated herein is intended to constitute, shall constitute, or shall be interpreted as constituting an admission of liability of any sort.

This Agreement shall not be construed or interpreted to create a partnership or joint venture between Ecology and MWH, and neither party shall have the authority to bind the other.

This Agreement is not intended for the benefit of any third party and is not enforceable by any third party.

This Agreement shall be modified or amended only by written agreement of all parties.

This Agreement may be executed in counterparts, and all such counterparts once so executed shall together be deemed to constitute one final agreement, as if one document had been signed by all parties, and each such counterpart, upon execution and delivery, shall be deemed a complete original, binding on the parties. An email copy of an original signature shall be deemed to have the same force and effect as the original signature.

IN WITNESS WHEREOF: the parties hereto, having read this Agreement in its entirety, including all attachments, do agree in each and every particular and have thus set their hands hereunto.

MARCUS WHITMAN HOLDINGS LLC	WASINGTON STATE DEPARTMENT OF ECOLOGY
Authorized Signature 	Authorized Signature 
Print Name Chuck Hill	Print Name Nicholas Acklam
Title Authorized Representative	Title Section Manager Toxics Cleanup Program
Date February 28, 2025	Date February 28, 2025

Remedial Action Work Plan

Stillwater Holdings Chevron Release

Walla Walla, Washington

SWC# 09321

Prepared for:

Washington State
Department of Ecology
Toxics Cleanup Program,
Eastern Regional Office
Spokane, WA 99201

Prepared and submitted by:

NWFF Environmental

2135 Henderson Loop
Richland, WA 99352

Timothy A Shaw, *Sr. Environmental Scientist*

February 24, 2025

NWFF ENVIRONMENTAL

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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),

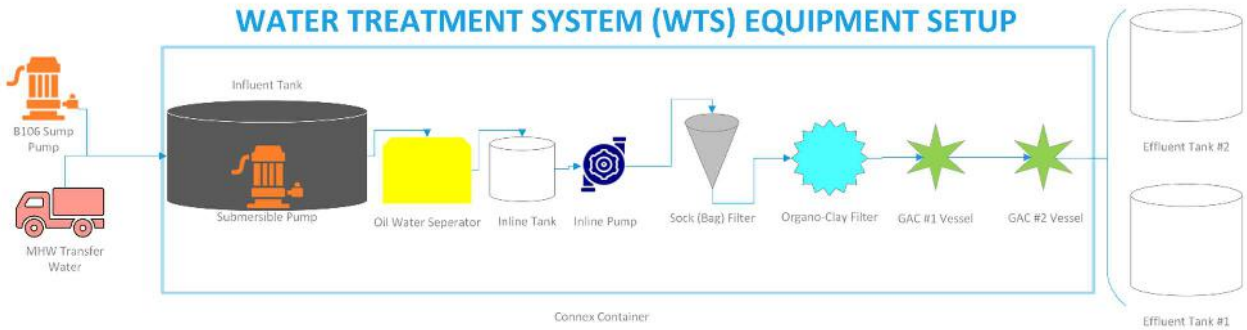
and that the flow rate from B106 is less than 4-gallons per minute (gpm). In recent months, no free product has been encountered in the MWH or B106 sumps.

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				

	Assessment Item	Condition			Comments, Descriptions, Readings, Notes
		Good	Fair	Poor	
MWH	Blower/Ventilation System				
	Sump Pump Condition				
	Petroleum Odors:				PID Reading Log:
	Outside				
	Area 1				
	Area 2				
	Area 4				
	Area 5				
	Additional Assessment Item				

	Assessment Item	Condition			Comments, Descriptions, Readings, Notes
		Good	Fair	Poor	
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 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

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:

DEPARTMENT OF ECOLOGY
State of Washington

Prepared by:

NWFF ENVIRONMENTAL

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

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?	☐ Yes ☐ 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	6 W Rose St, Walla Walla, WA 46.06782335239818, -118.34103137111768 106 N 2nd Ave, Walla Walla, WA 46.068034313334735, -118.34004768815981 **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. 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. 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. **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.
Special Conditions/Comments	Site is an active remediation site. 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.
Are Sources of Hazardous Substances Known to Have Been Released on Site?	☒ Yes ☐ No Known Chemicals of Release: Gasoline 8006-61-9

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 contaminates 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	▪ Flash Point: -45°F ▪ Odor: Characteristic ▪ LEL = 1.4% ▪ UEL = 7.6%	▪ OSHA: TWA 300 ppm (900 mg/m ^{3}) ST 500 ppm (1500 mg/m ^{3})	• Inhalation • Ingestion • Skin absorption • Skin and/or eye contact	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. Ingestion: Adverse symptoms may include the following: stomach pains nausea or vomiting. Skin Contact: Adverse symptoms may include the following: irritation, redness, dryness, or cracking. Eye Contact: Adverse symptoms may include the following: pain or irritation watering redness. 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]

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	A medical surveillance plan will be developed for all personal involved in operations who meet any of the following: • 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. Medical examination will include the following information for each affected employee. • 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	
☒ *Respirator with Cartridges*	☒ *Fire Extinguisher*
☒ *Protective Clothing (coveralls, FRCs)*	☒ *Drinking Water*
☒ *Chemical Protective Gloves*	☒ *Rain Gear*
☒ *Decontamination equipment*	☒ *High Visibility Vest*
☒ *Appropriate Footwear*	☒ *Cell Phone*
☒ *Disposable Boot Covers*	☒ *Radios*
☒ *Safety Glasses*	☒ *Tychem Coveralls*
☒ *Hard Hat*	☒ *Emergency Eye Wash Bottles*
☒ *Caution Tape, Traffic Cones, or Barriers*	☒ *First Aid Kit*
☒ *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% >22.0%	Stop Work and Reevaluate Methods	MultiRAE	0.1% Volume
			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
		• Implement heat stress plan for personnel for any of the following temperature.
		  ○ 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	• 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	• Ensure current calibration of equipment. • Fresh air calibration.

ITEM	HAZARD	PREVENTION
	Over exposure	• Monitor work zone area. • Monitor work area perimeter.
General work area	Slip / trip / fall	• Designated pathways. • Maintain pathways cleared of debris. • Enforce good construction housekeeping.
General work area – lifting	Lifting	• 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	• Set up visible barricades on access roads. • Wear high visibility safety vests (except in exclusion zone).
Traffic	Struck by	• 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	• Thoroughly wash hands before eating, drinking, smoking.
Delivery of site equipment & supplies	Back Strains, Hand Injuries	• 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	• 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	• Use proper holding and supporting techniques when turning wrenches, screwdrivers, and other torque-enhancing tools.

ITEM	HAZARD	PREVENTION
	Difficult-positions Cut hazards	• 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	• Not expected to be necessary, modify plan if required.
Falling	Bodily injury Death	• 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	• Water will be sprayed periodically over exposed work area.
Debris Removal /Material Handling	Struck by Overhead Skin irritation	• 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	• 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	• Remove contaminated clothing immediately. • Wash skin continuously for 15-30 minutes. • Refer to physician if redness, swelling, or pain persists after washing.
Not Breathing	• Call **911.** • Remove to fresh air immediately if respiratory distress develops. • Begin CPR until EMT arrives.
Ingestion	• Aspiration hazard. • Do not induce vomiting. • Do not give anything by mouth.
Emergency Contact Information	• Providence St. Mary Medical Center **+15098973320** • Fire/Ambulance: **(911)** • Police: **(911)**
Accident Reporting	• 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.

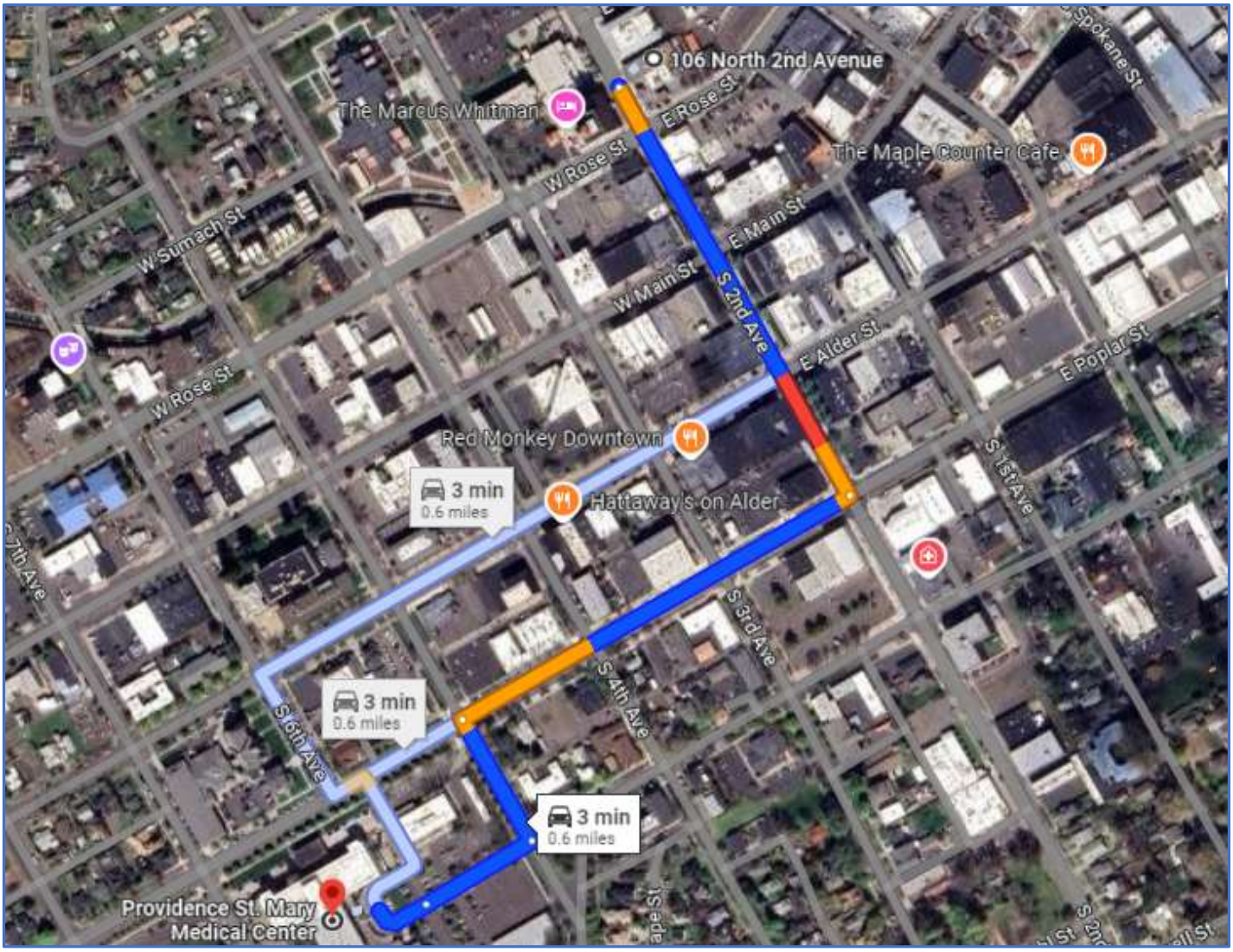
10.0 SIGNATURE PAGE

I have read and understand the attached Site-Specific Health & Safety Plan and agree to comply with the requirements described within.		
Date	**Print Name**	**Signature**

11.0 LIMITATIONS

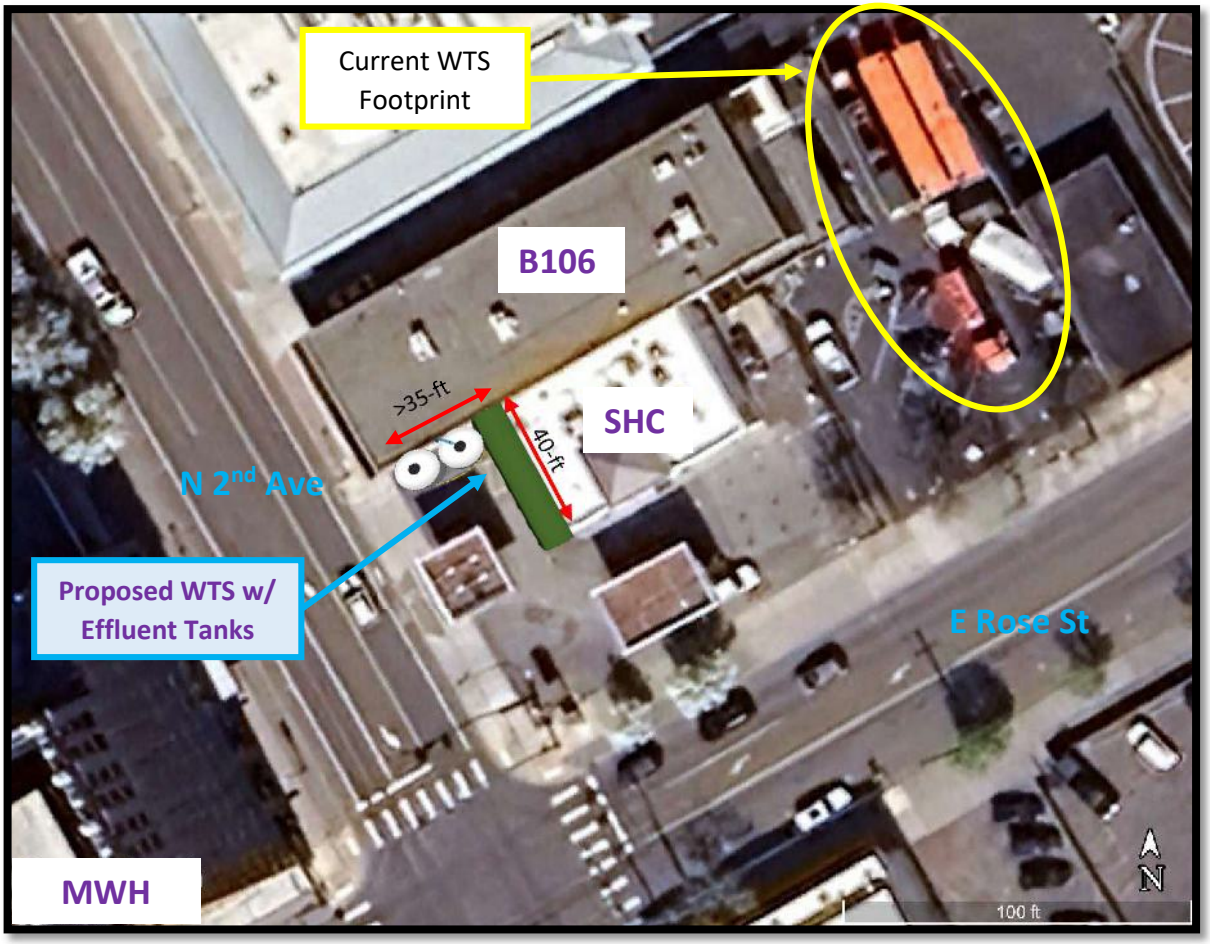
This site-specific Health and Safety Plan (HASP) has been prepared based on knowledge and data relating to site conditions as of the date indicated in Section 1.0. This HASP was not designed to identify all potential concerns or to address all risks associated with construction, waste disposal, or environmental issues. Evaluation of other risks not specifically described this HASP have not been included. For example, the following risks were not assessed: structural integrity, engineering loads, electrical, mechanical, slope stability, and building settlement. The intent of this HASP is to provide baseline information and a framework from which Job Hazard Analysis can be developed for individual tasks on the remediation project. If additional information becomes available regarding the site-specific conditions, this HASP may be revised/updated and resubmitted.

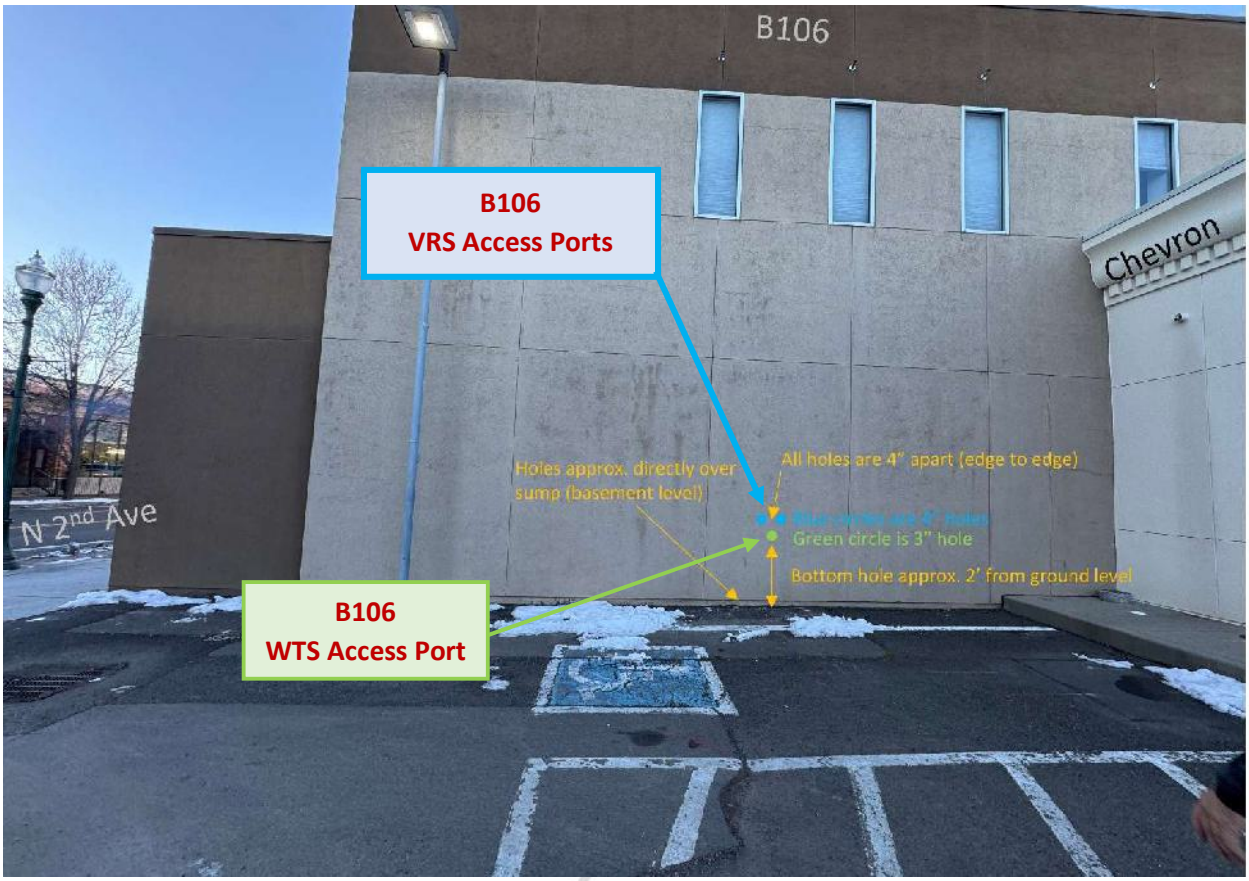
Figure 1: Map and Directions to Medical Center



APPENDIX B

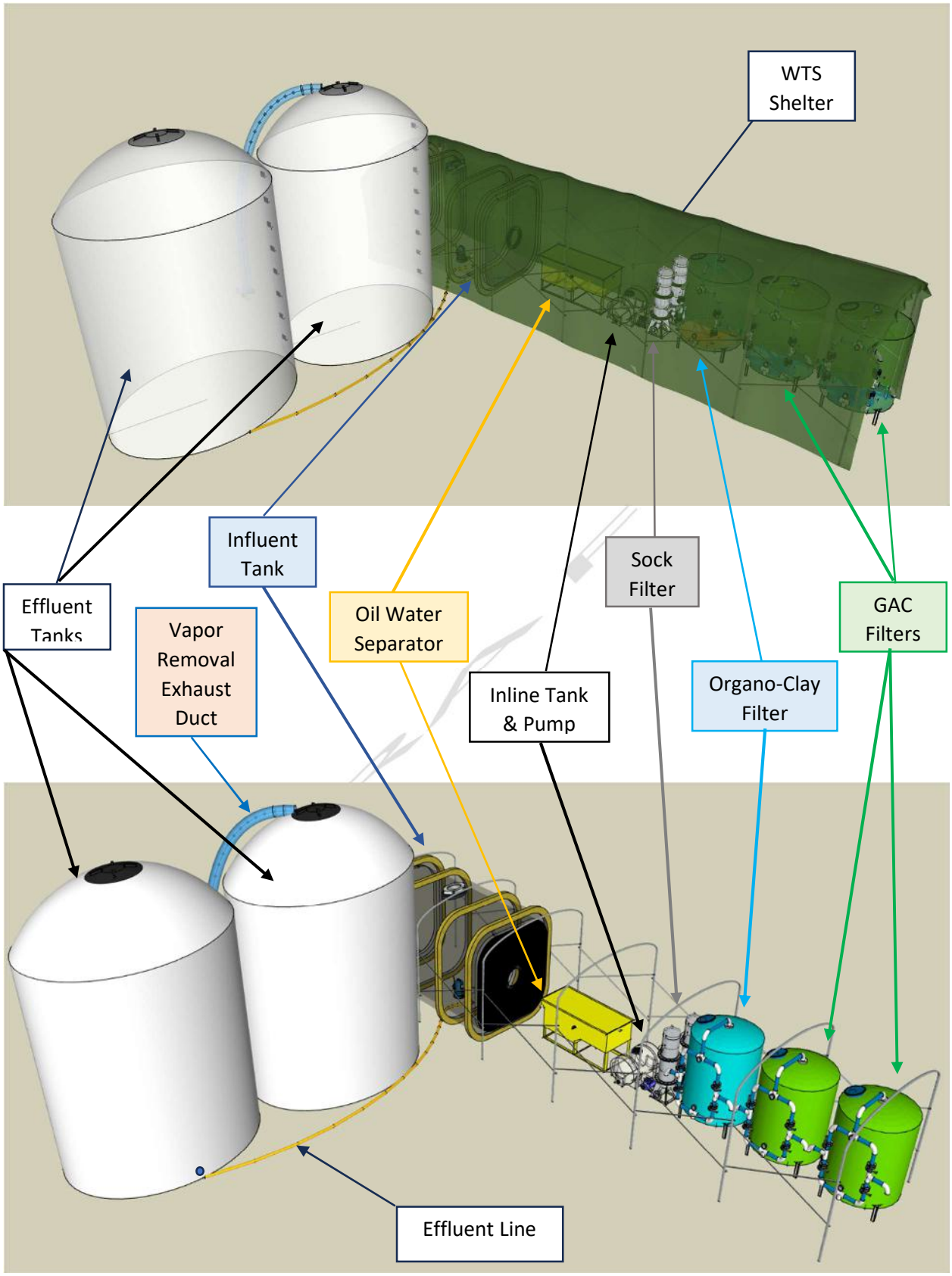
Water Filtration System

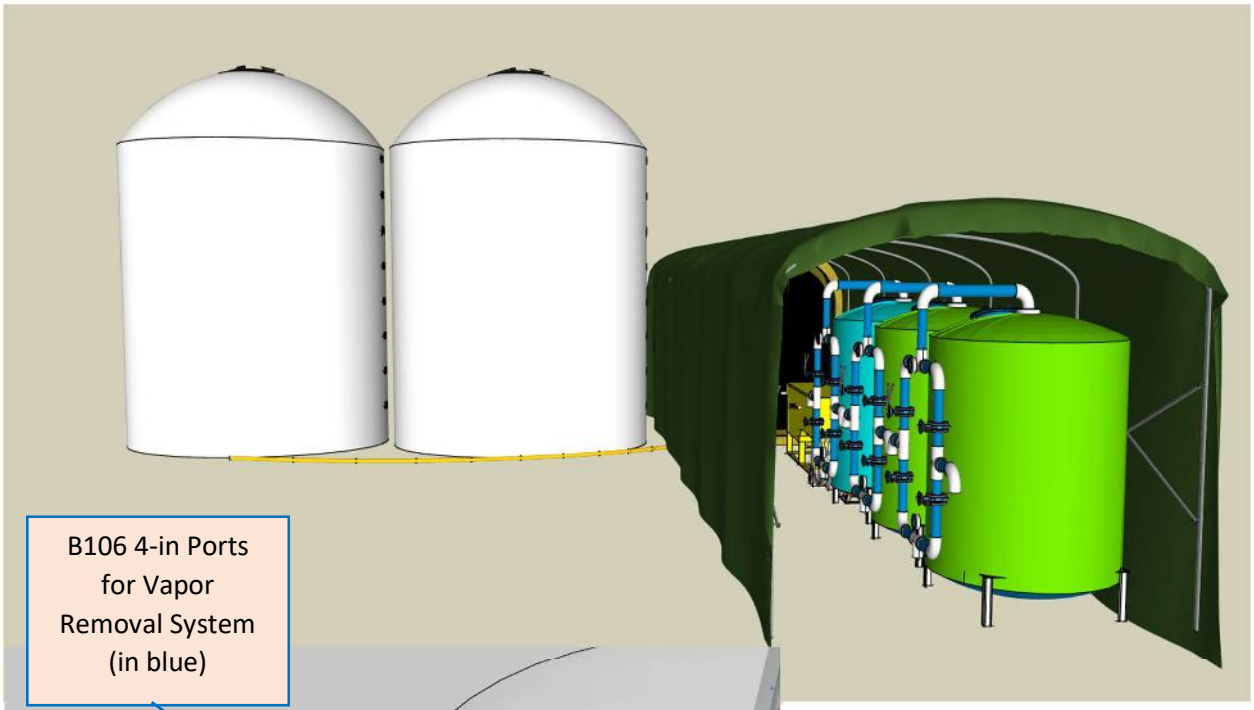




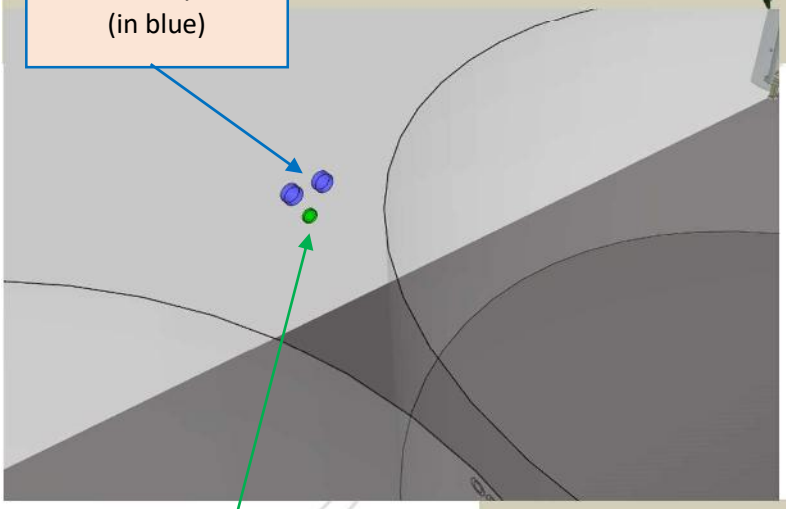
BUILDING 106 ACCESS PORT LOCATIONS

(picture provided by B106 owners)

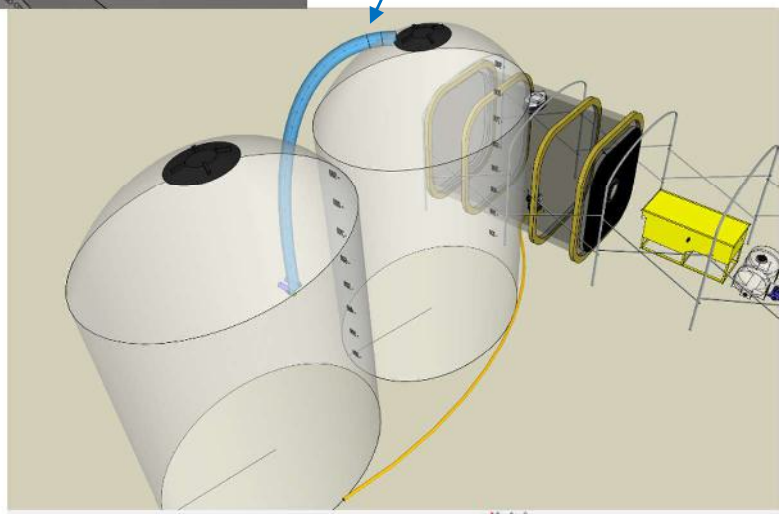

WTS Shelter
Influent Tank
Effluent Tanks
Vapor Removal Exhaust Duct
Oil Water Separator
Inline Tank & Pump
Sock Filter
Organo-Clay Filter
GAC Filters
Effluent Line



B106 4-in Ports for Vapor Removal System (in blue)



Vapor Removal Exhaust Ducted on Top of Effluent Tank

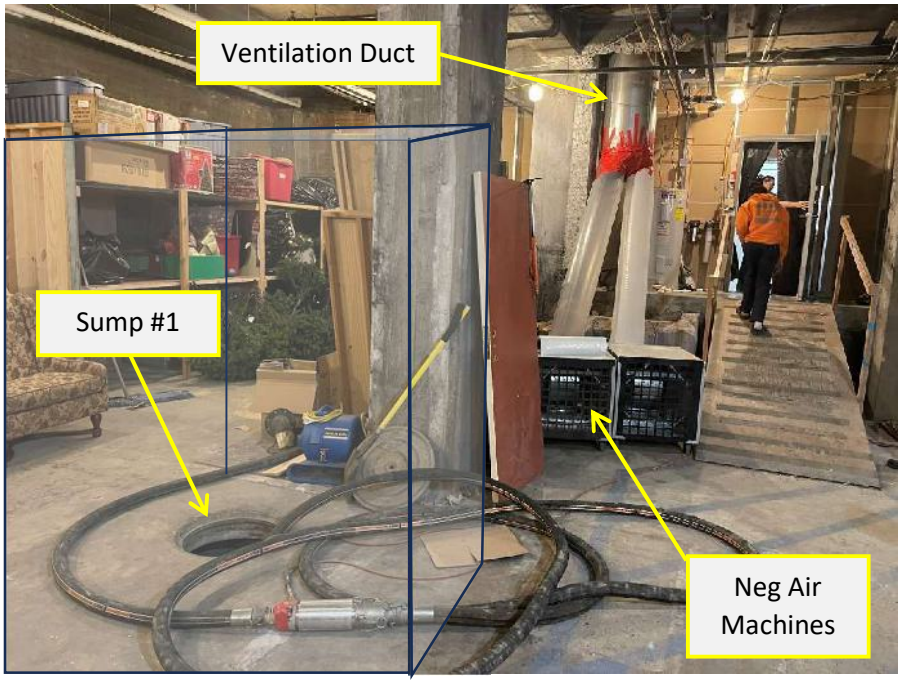


B106 3-in Port for Water Removal Line (in green)

APPENDIX C

MWH Vapor Removal System

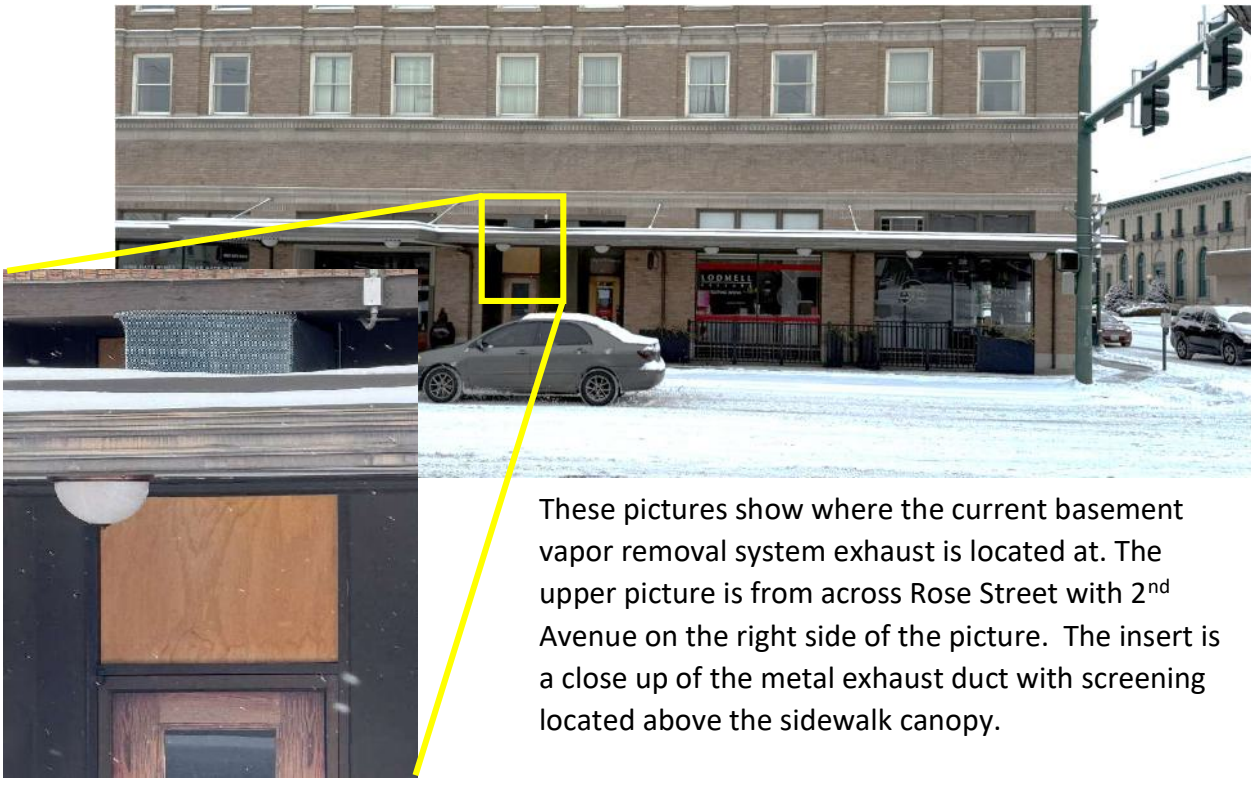
This picture depicts a containment enclosure similar to what is intended to cover the sump area in the MWH basement of MWH. It will be constructed with ¾-inch PVC pipe framing that will be total enclosed with 6-mil thick or better clear visqueen. Seems will be overlapped and duct taped inside and out. 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.



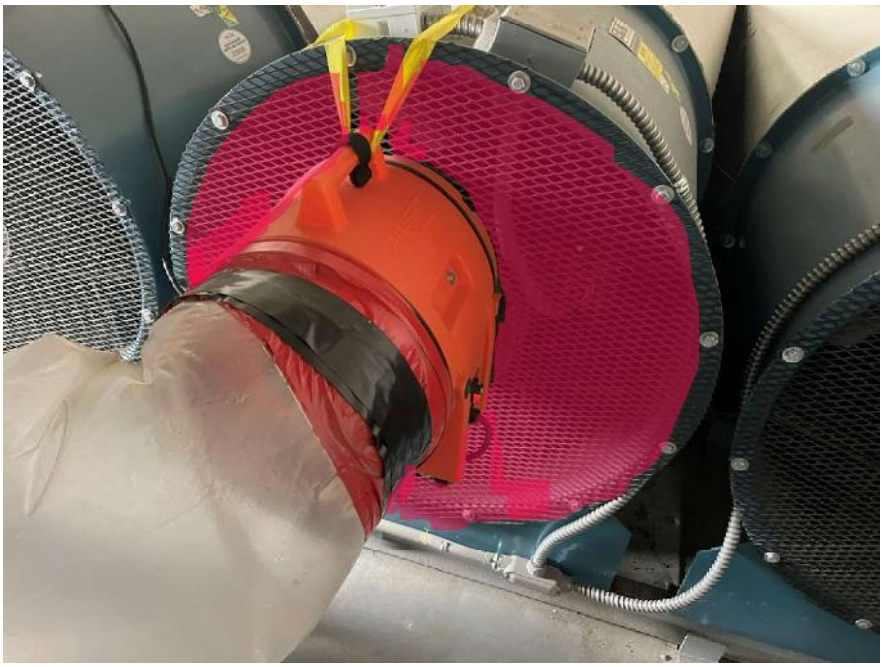
Picture of sump #1 where water is removed. The above enclosure would be placed over this sump (rough outline in the picture. Appropriate pentrations through the enclosure will be made for the make up air valve, air extraction exhaust port, water pumping, and overhead ducting from the Sump #2 enclosure. 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 instrusion. The proposal is for covering the exposed ground with a 10-mil or better geomembrane that blocks or significantly retards gasoline vapors. A valvedmonitoring 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.

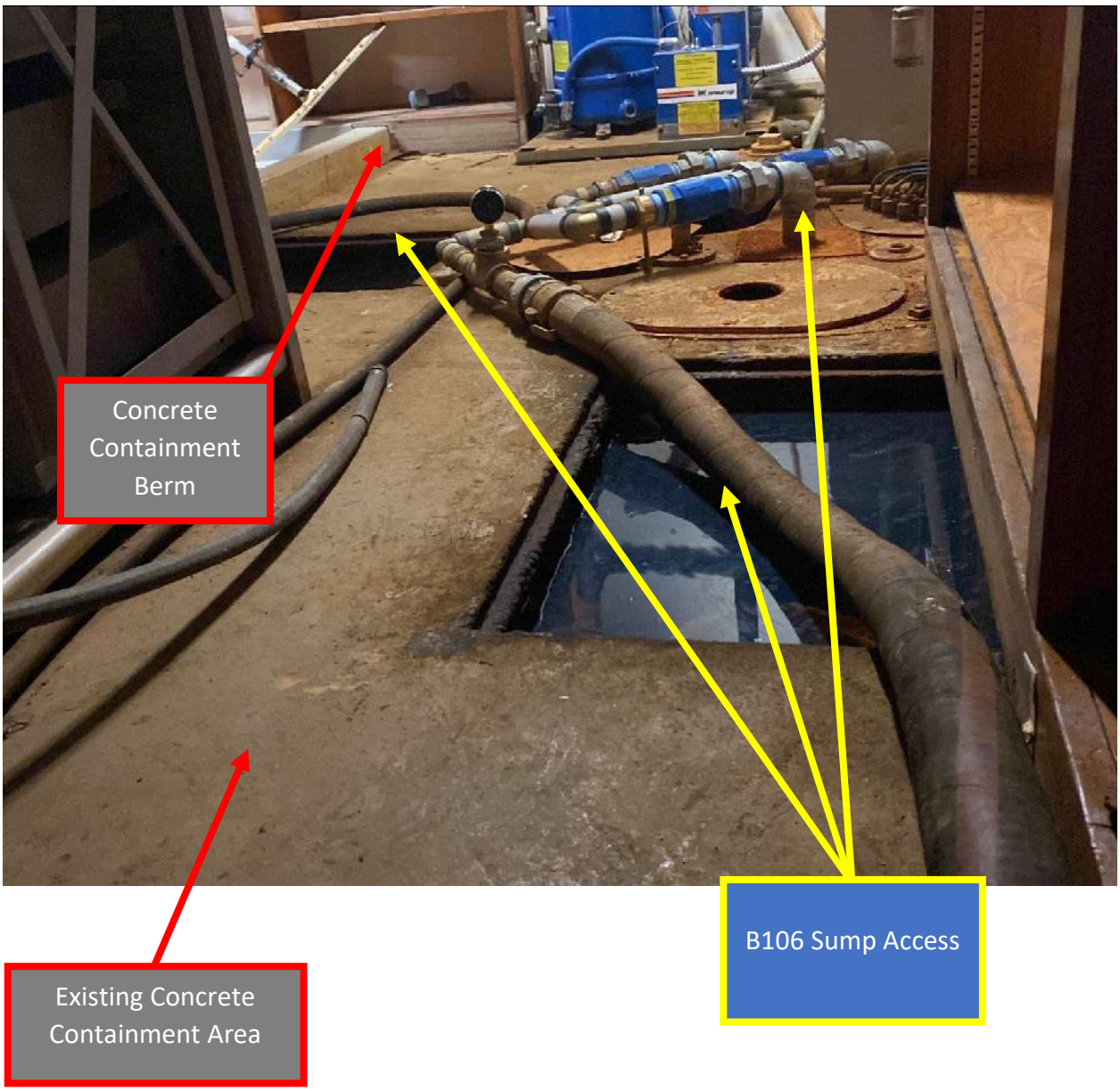
The containments in the basement should render this system unnecessary, however, we will be poised to implement such a system should significant levels of VOCs be detected in the shaft.

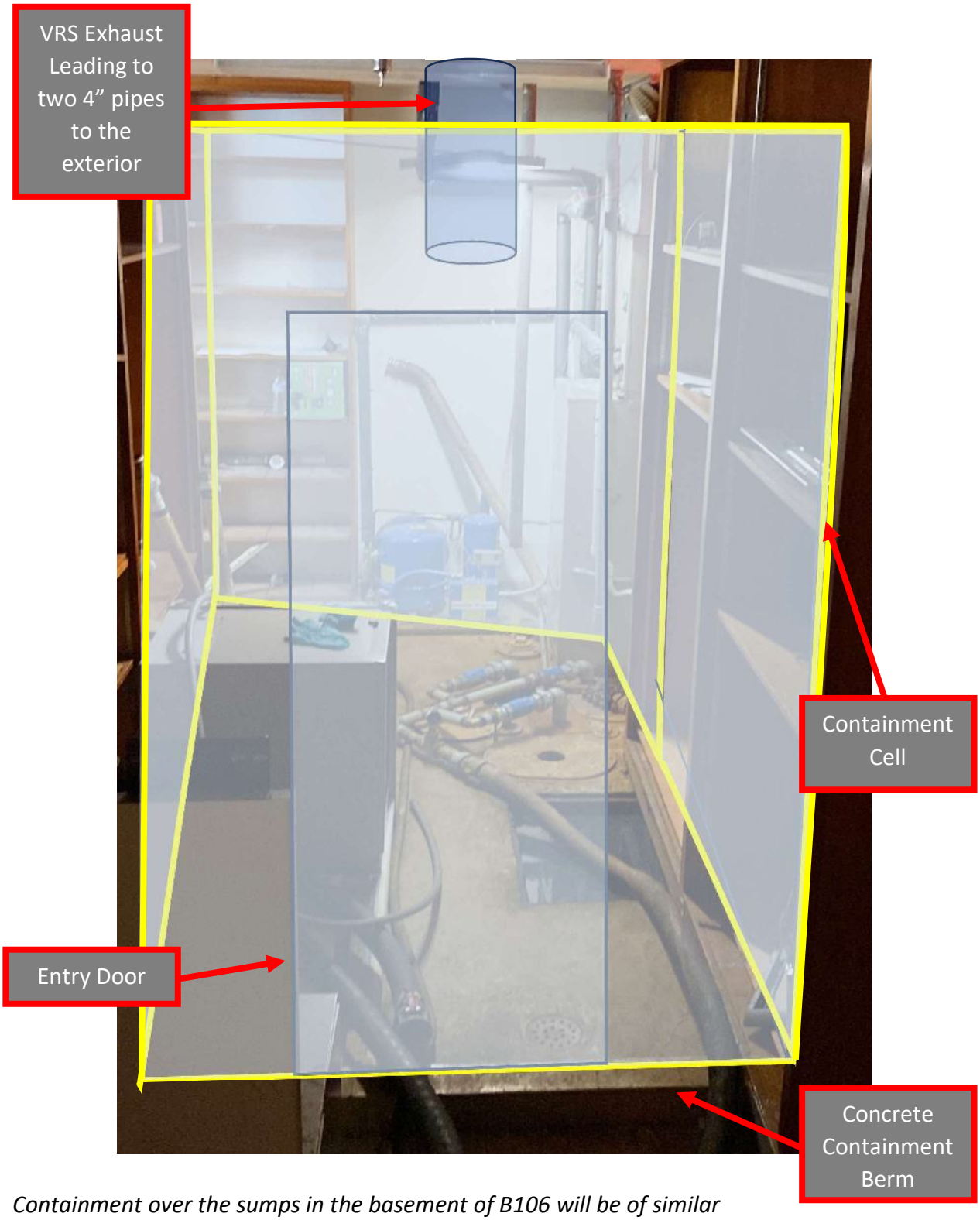
Our system, if implemented, would involve covering the end of the duct fan with visqueen (see the highlighted area in previous photo) and cutting an appropriately sized hole to match the intake of the ramfan to better control the air coming up the duct from the basement. dtThe current ramfan mounting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

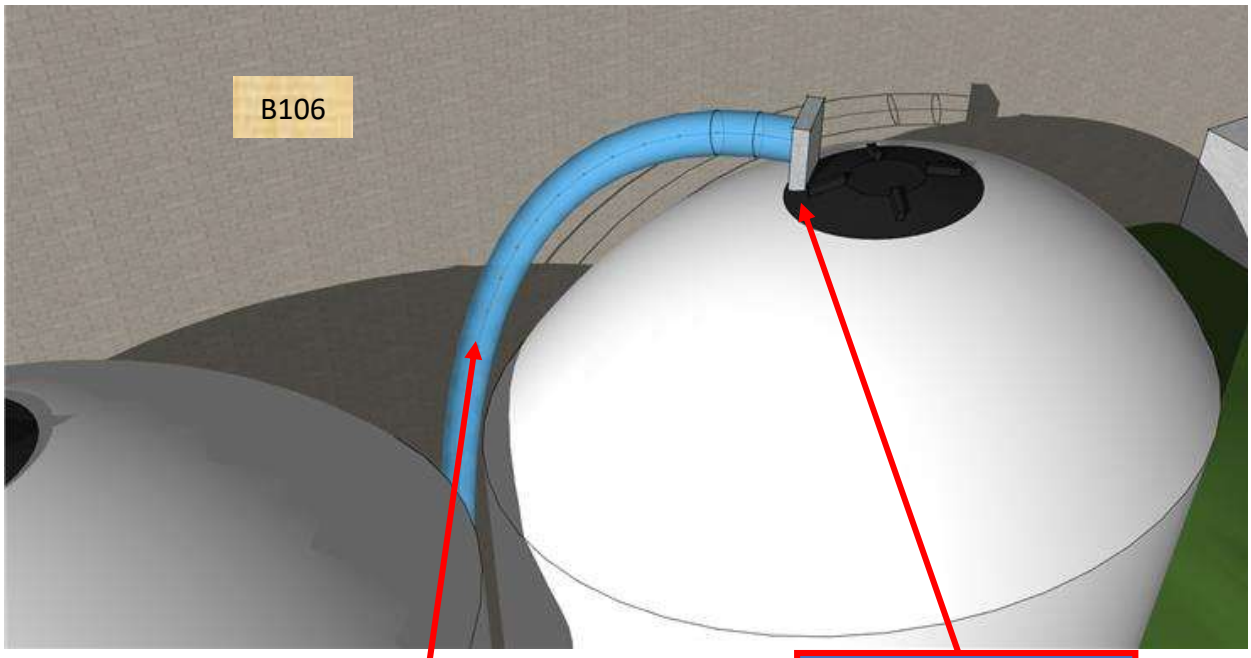
View from a window on the west side of the MWH tower. The West Wing of the Hotel is at the bottom right corner of the photo.

Building 106 VRS Containment Cell

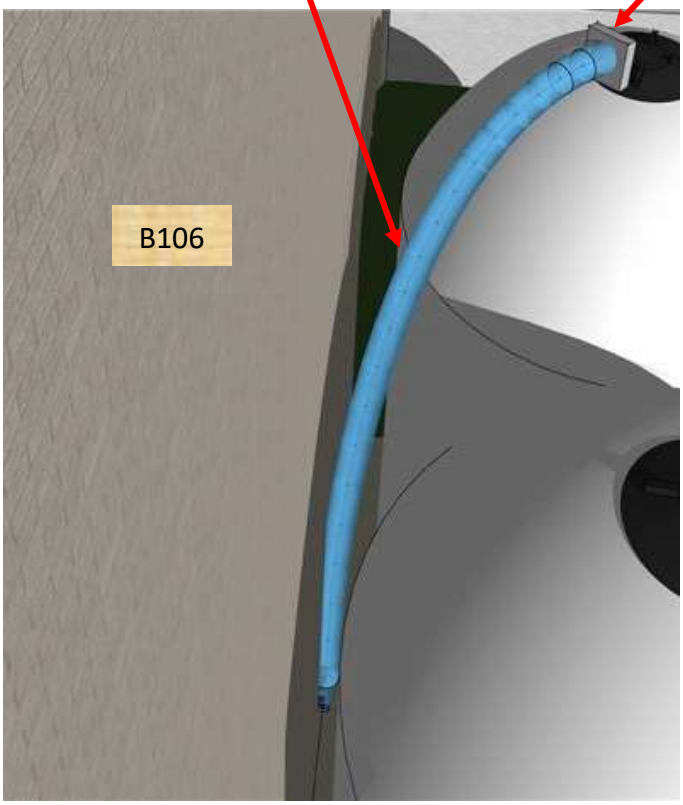




Containment over the sumps in the basement of B106 will be of similar construction as in MWH. The wood shelving will be moved to the east to reveal the concrete containment berm which will be the foundation of the new VRS containment cell.



C



The two VRS ports coming out of B106 will be joined into one duct and be exhausted at the top of the east Effluent Tank. Should VOC vapors reach a level of concern for straight exhaust a carbon filter can be added at either end of the VRS ducting.