From:	Degenhart, Mark
To:	document.control
Subject:	FW: CRC FEA Drums
Date:	Wednesday, August 31, 2011 2:09:52 PM
Attachments:	CRC FEA HASP.pdf

Please file this attachment under the Drilled Shaft and pile test program. This safety plan is for the Focused Environmental Assessment, related to sole source aquifer.

From: Morrow, Steve
Sent: Wednesday, August 31, 2011 8:52 AM
To: Degenhart, Mark
Cc: Francis, Carley
Subject: FW: CRC FEA Drums

Mark:

Here it is. Sorry I didn't get this from them before they started work. My bad.

Steve Morrow
Environmental Coordinator
Columbia River Crossing
700 Washington Street, Suite 300
Vancouver, WA 98660
(360) 816-8892
morrows@columbiarivercrossing.org

From: Ingmar Saul [mailto:ISaul@parametrix.com]
Sent: Wednesday, August 31, 2011 8:49 AM
To: Morrow, Steve
Cc: Rick Malin
Subject: RE: CRC FEA Drums

Attached you will find the Health and Safety Plan for the CRC FEA Drilling. Let me know if there is anything else you need.
Thanks,
Ingmar Saul, R.G.
phone: 503.416.6171
fax: 503.233.4825
cell: 971.219.3080
isaul@parametrix.com

Parametrix
inspired people – inspired solutions – making a difference

From: Morrow, Steve [mailto:morrows@columbiarivercrossing.com]
Sent: Monday, August 29, 2011 3:31 PM
To: Ingmar Saul
Cc: Rick Malin

Subject: RE: CRC FEA Drums

Ingmar & Rick:

Just following up some paperwork issues – can you email me a copy of the safety plan for the FEA Work Plan sampling effort? Thank you!

Steve Morrow
Environmental Coordinator
Columbia River Crossing
700 Washington Street, Suite 300
Vancouver, WA 98660
(360) 816-8892
morrows@columbiarivercrossing.org

From: Ingmar Saul [mailto:ISaul@parametrix.com]
Sent: Friday, August 26, 2011 9:48 AM
To: Morrow, Steve
Cc: Rick Malin
Subject: CRC FEA Drums

I received your phone message from Rick and pending any extensive follow ups with the analytical the drums should be off site in three weeks, four at the most. Let me know if you have any additional questions or concerns.

Thanks,
Ingmar Saul, R.G.
phone: 503.416.6171
fax: 503.233.4825
cell: 971.219.3080
isaul@parametrix.com

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inspired people – inspired solutions – making a difference

*** eSafe scanned this email for malicious content ***
*** IMPORTANT: Do not open attachments from unrecognized senders ***

Health and Safety Plan
CRC FEA
Drilled Shaft Test Program

NOTE:

A COPY OF THIS HEALTH AND SAFETY PLAN AND ALL APPLICABLE ATTACHMENTS MUST BE KEPT AT THE SITE DURING ALL FIELD ACTIVITIES

• ATTACH UPDATES AS NECESSARY •

Prepared for

Columbia River Crossing
700 Washington St, Suite 300
Portland, Oregon 978660

Prepared by

Parametrix
700 NE Multnomah, Suite 1000
Portland, OR 97232
(503) 233-2400
www.parametrix.com

August 2011

Project No. 273-3012-004

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF FIGURES

REGULATORY AND LEGAL CONSIDERATIONS ASSOCIATED WITH THIS PLAN

This plan applies only to employees of Parametrix ("employer"). Federal and State regulations require that the employer provide relevant health and safety information, including but not limited to this Health and Safety Plan, to contractors, subcontractors, or their representatives personnel.

However, any party other than Parametrix remains responsible for providing its own site-specific Health and Safety Plan that addresses its own Site-specific activities, which may differ from those addressed in this Plan for Parametrix staff. Hence, Parametrix assumes no responsibility or liability for the use or misuse of its Health and Safety Plan by such other party, its employees, agents, or subcontractors. Such other party must develop and implement its own Health and Safety Plan.

The Drill Shaft Test Program is an element of the Columbia River Crossing (CRC) Project to determine load bearing capacities and constructability of deep and /or large diameter shafts. A portion of the shaft construction work will occur over the Troutdale aquifer system sole source aquifer (TSSA). Drag down of existing contamination, if present, has been identified as a potential adverse effect related to the TSSA from shaft construction. An identified mitigation measure is to evaluate existing subsurface soil and groundwater environmental conditions at the drilled shaft test locations to determine the presence of contaminants, if any.

1. KEY PERSONNEL

1.1 AUTHORIZED PARAMETRIX HEALTH AND SAFETY PERSONNEL

1.1.1 Parametrix Project Health and Safety Officer

The Parametrix Project Health and Safety Officer for the CRC FEA Drilling sites is Ingmar Saul. The responsibilities of the Parametrix Project Health and Safety Officer include:

- Implementation and update of the Parametrix Site-specific Health and Safety Plan for the project field activities
- Coordination with the Project Manager, Field Team Leader, and other project staff

1.1.2 Parametrix Site Safety Officer

The Parametrix Site Safety Officer (and designated alternates) for each of the planned field activities listed in Section 2.2 (Description of Planned Field Activities) is Ingmar Saul. The responsibilities of the Parametrix Site Safety Officer(s) include:

- Day-to-day onsite implementation of the Parametrix Site-specific Health and Safety Plan for the assigned field activities. Examples of such day-to-day implementation include ensuring the availability of required health and safety equipment, selection of appropriate levels of protection for the day's fieldwork (based on the guidelines in the Site-specific Health and Safety Plan), and supervision of decontamination procedures.
- Day-to-day communication with the Project Manager, Field Team Leader, and other project staff to ensure efficient coordination of health and safety activities with other planned field activities.
- Implementation of the Health and Safety Plan's requirements for environmental sampling, including documentation of air monitoring measurements for review and reevaluation of the Site-specific Health and Safety Plan.

1.1.3 Parametrix Health and Safety Equipment Manager

The Parametrix Health and Safety Equipment Manager is Ingmar Saul. The responsibilities of the Parametrix Health and Safety Equipment Manager include:

- Day-to-day coordination of health and safety supplies, including reordering of parts and accessories for required field equipment
- Inspection, calibration, maintenance, and repair of field instrumentation (for example, air monitoring instruments).

1.2 AUTHORIZED PARAMETRIX PROJECT PERSONNEL

1.2.1 Parametrix Contract Manager

The Parametrix Project Planning and Coordination (PPC) Contract person is Rick Malin. The responsibilities of the PPC include:

- Is responsible for administrative coordination to ensure timely and successful completion of the focused environmental assessments.

1.2.2 Parametrix Field Team Leader

The Parametrix Field Team Leader (and designated alternates) is Ingmar Saul. The field team leader may also be the designated Site Safety Officer. The responsibilities of the Parametrix Field Team Leader include:

- Day-to-day onsite coordination of all project-related field activities
- Day-to-day onsite coordination of project-related field activities with the Parametrix Site Safety Officer

1.3 AUTHORIZED PROJECT CONTACTS

The following people are authorized contacts with significant responsibility for work to be conducted.

Steve Morrow
Environmental Coordinator
700 Washington St, Suite 300
Vancouver, WA 98660
(360) 816-8892

Rick Malin
Parametrix
700 NE Multnomah, Suite 1000
Portland, OR 97232
(503) 233-2400

2. SITE SAFETY AND HEALTH RISK ANALYSIS

The information and data obtained from the FEA work will be used to update the Health and Safety Plan for any future work.

2.1 LOCATIONS (SEE FIGURE, TEST SHAFT LOCATIONS)

- Marine Drive/I-5 South interchange,
- Hayden Island/ODOT office, and
- SR 14/I-5 South Interchange.

2.2 DESCRIPTION OF PLANNED FIELD ACTIVITIES

Parametrix is conducting environmental investigations at these sites. The field activities to be conducted by Parametrix staff include:

- Soil and Groundwater sampling at the three locations during drilling.

2.3 DURATION OF PLANNED FIELD ACTIVITIES

Field activities are scheduled for the week of August 15, 2011 and will be completed in two field days.

2.4 SITE TOPOGRAPHY AND ACCESSIBILITY BY ROAD AND OFF ROAD

The Sites are located in the new CRC bridge alignment at the Marine Drive interchange, Hayden Island ODOT Permit Facility parking lot, and SR-14 Interchange.

2.5 SAFETY AND HEALTH HAZARDS EXPECTED AT THE SITE

Site hazards include known or potential chemical contaminants and physical hazards that may occur during field activities. One of the inherent characteristics of all chemicals is the ability to produce injury or death under some exposure conditions, therefore, there is no such thing as a "safe" chemical in the sense that it will be free of injurious effects under all conditions of exposure. The production of adverse effects does not occur unless a chemical or its products reach appropriate sites in the body at a concentration, and for a length of time sufficient to produce toxic effects. Whether or not a toxic response occurs is dependent on the chemical and physical properties of the agent, the exposure situation, and the susceptibility of the biologic system or subject.

Physical risks potentially include the following hazards:

- Heavy Equipment
- Falls/Trips
- Noise

The greatest hazards are from exposure to contaminants of concern and heavy machinery and moving vehicles.

2.5.1 Pathways and Chemical Hazards

There are four major routes by which a toxic agent can enter the body: inhalation, skin (or eye) absorption, ingestion, and injection.

An important exposure route of concern at a hazardous waste site is inhalation. The lungs are extremely vulnerable to chemical agents. Even substances that do not directly affect the lungs may pass through lung tissue into the bloodstream where they are transported to the vulnerable areas of the body. Some toxic chemicals present in the atmosphere may not be detected by human senses, i.e. they may be colorless, odorless, and their toxic effects may not produce any immediate symptoms. Respiratory protection is therefore extremely important if there is a possibility that the work-site atmosphere may contain such hazardous substances. Chemicals can also enter the respiratory tract through punctured eardrums.

Direct contact of the skin and eyes by hazardous substances is another important route of exposure. Some chemicals directly injure the skin. Some pass through the skin into the bloodstream where they are transported to vulnerable organs. Skin absorption is enhanced by abrasions, cuts, heat, and moisture. The eye is particularly vulnerable because airborne chemicals can dissolve in its moist surface and be carried to the rest of the body through the bloodstream. Team members will wear protective equipment, such as gloves, to minimize the contact with liquid and solid chemicals.

Although ingestion should be the least significant route of exposure at a site, it is important to be aware of how this type of exposure can occur. To preclude providing a route of entry for chemicals, eating, drinking, gum or tobacco chewing, or application of cosmetics within the work zone is prohibited. Good personal hygiene and decontamination practices will be followed at all times on site. The Site Safety Officer is responsible for enforcing these provisions and to ensure that the spread of contamination is prevented; all workers shall obey directives from the Site Safety Officer immediately.

The last primary route of chemical exposure is injection, whereby chemicals are introduced into the body through puncture wounds (for example, by stepping or tripping and falling onto contaminated sharp objects). All workers on site will wear safety shoes, avoid physical hazards, and take common sense precautions to protect against injection.

The Permissible Exposure Limit (PEL), which is the concentration of the chemical averaged over an 8-hour work day which Occupational Safety and Health Agency (OSHA) has determined should not pose an adverse health response in the average worker.

Possible contaminants at the site include petroleum hydrocarbons, VOCs, PAHs, PCBs, and metals. The contaminants may be related to past operations on the properties. The concentrations of such contaminants are expected to be low. However, some contaminants, such as PAHs, may pose an increased risk due to carcinogenic toxicity as detailed below.

Carcinogenic PAH Toxicity

PAHs are a group of chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like charbroiled meat. Most PAHs do not dissolve easily, though leaching to groundwater can occur. Typically, PAHs tend to attach to particulates in water or adsorb to

soil. Human intake of PAHs occurs through inhalation, incidental ingestion, and dermal contact. Most PAHs tend to have lower volatilization potentials, therefore, inhalation intake usually occurs through intake of PAHs adsorbed to particulates rather than through volatilization.

Benzo(a)pyrene is the most extensively studied PAH and is ranked as a B2 probable human carcinogen. However, the data linking benzo(a)pyrene to a human carcinogenic effect are lacking. Lung cancer in humans has been shown to be induced in humans by various mixtures of PAHs known to contain benzo(a)pyrene, including cigarette smoke, roofing tar, and coke oven emissions. However, this data is insufficient to classify benzo(a)pyrene as a human carcinogen. The B2 carcinogen rating is based on data indicating that benzo(a)pyrene is a complete carcinogen when applied to the skin of mice, rats and rabbits.

2.5.2 Physical Hazards

2.5.2.1 Heavy Machinery

Use of heavy machinery on site poses hazards that need to be addressed. Only licensed, experienced operators will operate the equipment and machinery at the site. All equipment will have operating backup alarms. Additionally, all equipment will be safe for use and be free from damage and defects.

2.5.2.2 Falls/Trips

Caution will be exercised to prevent slips on slick surfaces. Workers will not be on elevated platforms without fall protection. Mud and grease should be cleaned from boots prior to mounting any platforms.

2.5.2.3 Noise

Use of heavy machinery may lead to excessive noise exposure. Personnel in the immediate area must use hearing protection, such as foam ear plugs, if the noise levels exceed 85 db, or if the noise level is uncomfortable to the individual. Earplugs used appropriately in the air operation area will eliminate the chance of ear damage.

3. EMPLOYEE TRAINNG PROGRAM

3.1 HEALTH AND SAFETY TRAINING FOR HAZARDOUS WASTE OPERATIONS

All field team members must be certified in accordance with the regulations listed below, which provide minimum requirements for:

- Initial training
- Management and supervisor training
- Refresher training

Specific requirements are detailed below.

3.1.1 Initial Training

- General site workers (such as equipment operators, general laborers and supervisory personnel) engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards shall receive 40 hours of instruction off the site, and a minimum of three days actual field experience under the direct supervision of a trained, experienced supervisor. OSHA, 29 CFR Part 1910.120(e)(3)(i).
- Workers onsite only occasionally for a specific limited task (such as, but not limited to, groundwater monitoring, land surveying, or geophysical surveying) and who are unlikely to be exposed over PEL and published exposure limits shall receive a minimum of 24 hours of instruction off the site, and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor. OSHA, 29 CFR Part 1910.120(e)(3)(ii).

3.1.2 Management and Supervisor Training

Onsite management and supervisors directly responsible for, or who supervise employees engaged in, hazardous waste operations shall receive 40 hours of initial training and at least eight additional hours of specialized training at the time of job assignment on such topics as, but not limited to, the employer's safety and health program and the associated employee training program, personal protective equipment program, spill containment program, and health hazard monitoring procedure and techniques.

3.1.3 Refresher Training

Employees, managers, and field supervisors shall receive eight hours of refresher training annually, critique of incidents that have occurred in the past year that can serve as training examples of related work, and review other relevant topics.

3.2 FIRST AID AND CPR TRAINING

At least one field team member will be currently certified in first aid and cardiopulmonary resuscitation (CPR) through the American Red Cross or equivalent program.

3.3 HEALTH AND SAFETY MONITORING EQUIPMENT TRAINING

All field team members will receive training in the proper usage and interpretation of readings from the equipment required in Section 4.1 (Air Monitoring) of this Health and Safety Plan.

3.4 REVIEW OF TRAINING RECORDS

Training records will be reviewed before the start of fieldwork to verify that field personnel have received the appropriate level of training, as specified in this Health and Safety Plan. Additional review of training records will take place on an as-needed basis to verify the qualifications for any additional employees assigned to conduct fieldwork at this Site.

3.5 DAILY SITE SAFETY MEETINGS

Site safety meetings (pre-entry briefings) will be held before initiating any site activity (that is, before each day's fieldwork), and at such other times as necessary, to ensure that employees are familiar with the provisions of this Health and Safety Plan.

4. PERSONAL PROTECTION EQUIPMENT AND WORK PRACTICES

Personal protective equipment and work practices will be implemented in accordance with this section to protect employees from exposure to hazardous substances and safety and health hazards.

4.1 SELECTION OF PERSONAL PROTECTION EQUIPMENT (PPE)

Equipment to protect the body against contact with known or anticipated toxic chemicals has been divided into four categories according to the degree of protection afforded. The level of protection selected is based on the type and measured concentration of the chemical substance in the ambient atmosphere and its toxicity; and the potential for exposure to substances in air, splashes of liquids, or other direct contact with material due to work being done. In situations where the type of chemical, concentration and possibilities of contact are not known, the appropriate level of protection must be selected based on professional experience and judgement until the hazards can be better identified.

The CRC FEA site is classified as a Level D site. There is limited risk of workers being in contact with contaminants, and work functions preclude splashes, immersion, or potential for unexpected inhalation of any chemicals. The PPE during drilling or excavation activity includes:

- Hard hat (ANSI Z89.1 approved)
- Steel toed and shank boots (ANSI Z41.1 approved)
- Safety glasses (ANSI Z87.1 approved)
- Gloves
- Close fitting clothing
- Hearing protection (optional)

It is anticipated that chemical exposure will be low; however, if excessive soil vapors are encountered or if there are high levels of dust, the Site Safety Officer may require Level C - respiratory protection. Use of gloves will prevent dermal exposure of workers to contaminated soil, and will minimize decontamination concerns.

Environmental and personal monitoring will be conducted to evaluate the level of contamination to which the site personnel or the surrounding environment are being exposed. The results of the monitoring will form the basis by which the Site Safety Officer will determine the level of PPE required for a particular operation. Results from previous sampling may be used as part of the data on which to base this decision. The Site Safety Officer has the responsibility for implementing this section and making the evaluations.

The Photo Ionization Detector (PID) can be used to detect the presence of many organic vapors or gases either as single compounds or mixtures. Dial readings are frequently referred to, especially with unidentified substances, as total vapor and gas concentrations (in parts per million). More correctly they are deflections of the needle on the dial indicating an instrument response, and do not directly relate to total concentrations in the air. As a guide to selecting levels of protection based on dial readings response, the following values could be used. They should not be the sole criteria for selecting levels of protection.

Dial Reading	Level of Protection
Background to 5 ppm above background	D
5 ppm – 500 ppm above background	C
500 ppm – 1000 ppm above background	B

The PID also detects the concentration of organic gases as well as a few inorganic gases. A direct reading instrument for detecting volatile compounds such as a PID can be used at all borings according to the following guide:

0 to 20 units above background	Continue work
20 to 50 units above background	Investigate cause and continue work if PPE adequate
Over 50 units above background	Stop work and investigate; use ventilation to reduce levels

4.2 GENERAL SAFE WORK PRACTICES

Personnel working on the site will work in a safe manner at all times. This includes, but is not limited to, the following points:

- There will be no eating, drinking, gum, or tobacco chewing within the exclusion zones. Good personal hygiene and decontamination practices, as outlined in the Plan, will be followed at all times. The Site Safety Officer is responsible for enforcing these provisions and to ensure that the spread of contamination is prevented; all workers shall obey directives from the Site Safety Officer immediately.
- If required by the Site Safety Officer, persons will wear respirators.
- All injuries/accidents, including exposure incidents, shall be immediately reported to the Site Safety Officer. If directed to be evaluated by a physician, the affected worker shall immediately report for examination and follow all of the doctor's recommendations.

Personnel are responsible for the proper maintenance, cleaning, and storage of their respirator, and for the proper use of all required PPE. Report equipment problems to the Site Safety Officer at once. Grossly contaminated PPE is to be disposed of properly (as contaminated waste). Normally, the disposable PPE will go into regular trash.

All visitors must have prior approval from the Project Manager before being admitted to the site. Visitors must read and acknowledge understanding of the Plan.

All personnel at the site must have completed the 40-hour training required by 29 CFR 1910.120 or the 24-hour infrequent site visitor training, and have up-to-date refresher training, documentation of which will be provided to the Site Safety Officer prior to being allowed to work at the site. A copy of course completion certificates will be maintained in a file at Parametrix. Workers new to the site must have at least one day orientation under the direction of an experienced supervisor before being allowed to work unsupervised at the site.

Prior to the start of work, each worker at the site will be given informal training on how the project will progress. The Site Safety Officer will conduct this training. Topics may include the following:

- Provisions of the Plan
- Dry runs of the emergency procedures section of the Plan
- Dry runs of the decontamination procedures to be used at each area, including equipment decontamination procedures
- Chemical exposures expected at the site, as well as safety hazards anticipated
- Site lay-out and zone demarcation
- Buddy system explained
- Medical surveillance program
- Location of medical facilities and procedures for reporting illness/injury
- Warning signals and evacuation procedures
- Specific prohibitions:
  - No facial hair interfering with respirator fit. Check fit of respirator each time it is put on
  - No eating, smoking, etc. within exclusion zones
  - No drugs, alcohol, or firearms

The Site Safety Officer will be responsible for ensuring all workers have had any required respirator training and fit testing and the their respective companies have a written respirator program (required by 29 CFR 1910.134). Visitors shall be given instruction/fit testing of respirators if they will go into an exclusion zone requiring one.

Daily, prior to starting work, the Site Safety Officer should hold a short safety meeting to go over any problems perceived and to direct how the project will proceed that day, with regard to health and safety matters.

All personnel entering the site will sign a statement attesting to their having read and understood the Plan. Personnel agree in writing to follow the Plan; all questions must be answered to their satisfaction prior to entering the site.

If a worker uses a respirator he or she must first be evaluated by a licensed physician, who must provide a written statement that the worker may safely use the respirator. If workers may be exposed to concentrations above the current PEL for any chemical (unlikely at this site) for 30 or more days a year, a full medical exam, described in 29 CFR 1910.120, is required. These medical evaluations must be renewed annually, and the physician must provide a written statement of worker fitness for duty. A copy of all medical fitness statements will be kept in a file at the office.

If a worker becomes exposed to a chemical, or if that worker experiences suspicious symptoms, an incident physical is mandatory. This should be done as soon as possible, but in no case later than 72 hours form the incident. The physician will be given a list of all suspected chemicals the worker may have contacted, and any information which may prove useful to the physician in evaluating the worker. The worker will not be allowed back on the site until a fitness for duty statement is issued by the physician.

All work on the site will be conducted in a manner to eliminate any possibility of contaminated dust migrating off the site. Techniques such as using water spray to keep down dust, covering the excavated soil, etc. can be employed. If weather conditions, such as high winds, appear to be encouraging the

migration of contaminated dirt off the site, operations will be curtailed until conditions are more favorable. At no time will any visible emissions of dust into the atmosphere be allowed.

5. EMERGENCY RESPONSE/CONTINGENCY PLAN

In the unlikely event of a fire or explosion, or uncontrolled release of contaminant into the environment, prompt action to limit the extent of impact will be required. The Site Safety Officer shall evaluate all emergency situations and inform all personnel by use of the signal horn, visual or verbal instructions, as appropriate. All personnel must know ahead of time what their duties shall be during any emergency. The emergency section of the Plan will be practiced on a periodic basis so that if an actual emergency develops, the plan will be effectively implemented.

5.1 COMMUNICATIONS

A system of hand and audible signals will be used to communicate conditions at the site. A car horn can be used to alert personnel. The sound signals will have the following meaning:

Audible Signals and Meanings	
Five short blasts	DANGER: Evacuate at once and go to the staging area
One long blast	Attention signal
Two long blasts	All Clear; danger past, return to work

Hand signals will have the following meanings:

Hand signals and Meanings	
Clutching throat	Cannot breathe; out of air
Thumbs up	OK; affirmative
Thumbs down	Trouble; negative
Hands on top of head	Need help

All requests by media or outsiders for information will be politely referred to the Project Manager.

5.2 MEDICAL EMERGENCIES

For fire, police, or ambulance call **911** and give requested information. For medical emergencies, call **911** or the following number:

Hospital/Clinic:	**Phone #:**
Southwest Washington Medical 3400 Main Street Vancouver, WA 98663-2223	(360) 696-5022

The location of the hospital is shown on Figure 1. All medical emergencies must be reported to the Project Manager and the Corporate Health and Safety Manager. If a worker must go for medical attention, it is the policy of Parametrix that another worker, if possible, accompany the patient. If in any

doubt as to the need for a doctor's opinion, it is the policy that medical attention must be received. For minor cuts and bruises, the team member should utilize the first aid kit available in the field vehicle.

WARNING – If a worker collapses on the site, think before you react! Activate the EMS system as quickly as possible. Maintaining personal safety is the first priority. Situations may exist where it is more detrimental to attempt to help.

5.3 CONTAMINATION (PERSONNEL)

5.3.1 Minor Skin Contact

If site personnel are exposed to contaminated media on the skin, rinse with copious amounts of soap and water. All contaminated clothing should be removed, and the victim should be moved to a support zone, using normal decontamination procedures as much as practical. Provide medical attention if required.

5.3.2 Eye Contact

Flush eyes for at least 15 minutes with clean water, if available. Transport to medical facility.

5.3.3 Ingestion

If proper personal hygiene and decontamination practices are followed, this route of entry is extremely unlikely. Nevertheless, ingestion of toxic materials has happened in the past. Do not induce vomiting in a ingestion accident. Have victim drink 1 to 2 glasses of milk or water. Transport to hospital. Alert hospital personnel as to contaminant(s) thought to have been ingested.

5.3.4 Inhalation

Inhalation of petroleum hydrocarbons may be irritating to the eyes, ears, and respiratory system. Remove the exposed person to fresh air; restore and/or support breathing as needed. If breathing has stopped, initiate rescue breathing immediately. Trained medial professionals should administer oxygen as required. Techniques such as using water spray to keep down dust, covering the excavated soil, etc. can be employed. If weather conditions, such as high winds, appear to be encouraging the migration of contaminated dirt off the site, and exposure to workers on-site, operations will be curtailed until conditions are more favorable. At no time should any visible emissions of dust into the atmosphere be allowed.

5.4 CONTAMINATION (ENVIRONMENT)

If the environment becomes contaminated, the following agencies must be immediately informed:

DEQ – Portland	(503) 229-5263
Dept. of Ecology – Vancouver	(360) 690-7171
National Response Center:	1-800-424-8802

5.5 FIRE OR EXPLOSION

Dry chemical, foam, or carbon dioxide should be used to extinguish fires, water may be ineffective. Parametrix will attempt to fight only very small fires; anything else requires intervention by the fire department. Use these steps:

1. Sound the evacuation alarm (five or more short blasts on the horn).

2. Personnel – gather at the agreed upon staging area

3. Project Manager or his representative - inform personnel of problem and if possible, for small fires only, plan to fight it with due regard for personnel safety at all times.

4. It will be the personal responsibility of the project manager or the senior supervisor present to lead any fire fighting efforts.

5. Notify fire dept. by calling 911.

6. Meet arriving engines at the site entry; help as requested by fire department personnel, otherwise keep out of the way.

5.6 WEATHER

Strong winds or heavy water runoff likely to move contaminated soil off the site will require the activities at the site to be curtailed. Do not allow the clean areas to become contaminated.

Hypothermia may be a problem if work takes place during cool weather. The following guide should be followed in the event a worker becomes hypothermic:

- Bring victim into a warm area after decontamination
- Remove all wet/cold garments
- Dry victim and cover with blanket

5.6.1 Heat Stress

Use of Personal Protective Equipment (PPE) while conducting field activities increases the wearer's physical stress. If the ambient temperature is greater than 70 degrees Fahrenheit, this condition may occur while wearing PPE during intensive physical exertion. The effects of heat stress may be exaggerated if liquid intake is deficient. Alcohol, coffee, tea, and other caffeinated drinks should be avoided. The Site Safety Officer shall determine if heat stress poses a particular risk during the project, and, if necessary, shall monitor the workers' temperature or pulse rate at the start of each break period when heat stress potential is high.

ACKNOWLEDGEMENT

I acknowledge that I have reviewed the information contained in this Health and Safety Plan and understand the potential hazards at the site, the worker safety precautions to be followed, and the protocols for emergency response.

_____	_____
_____	_____
_____	_____
_____	_____

mapquest

Trip to:
3400 Main St
Vancouver, WA 98663-2223
4.66 miles
8 minutes

Notes

To investors who want to retire comfortably.

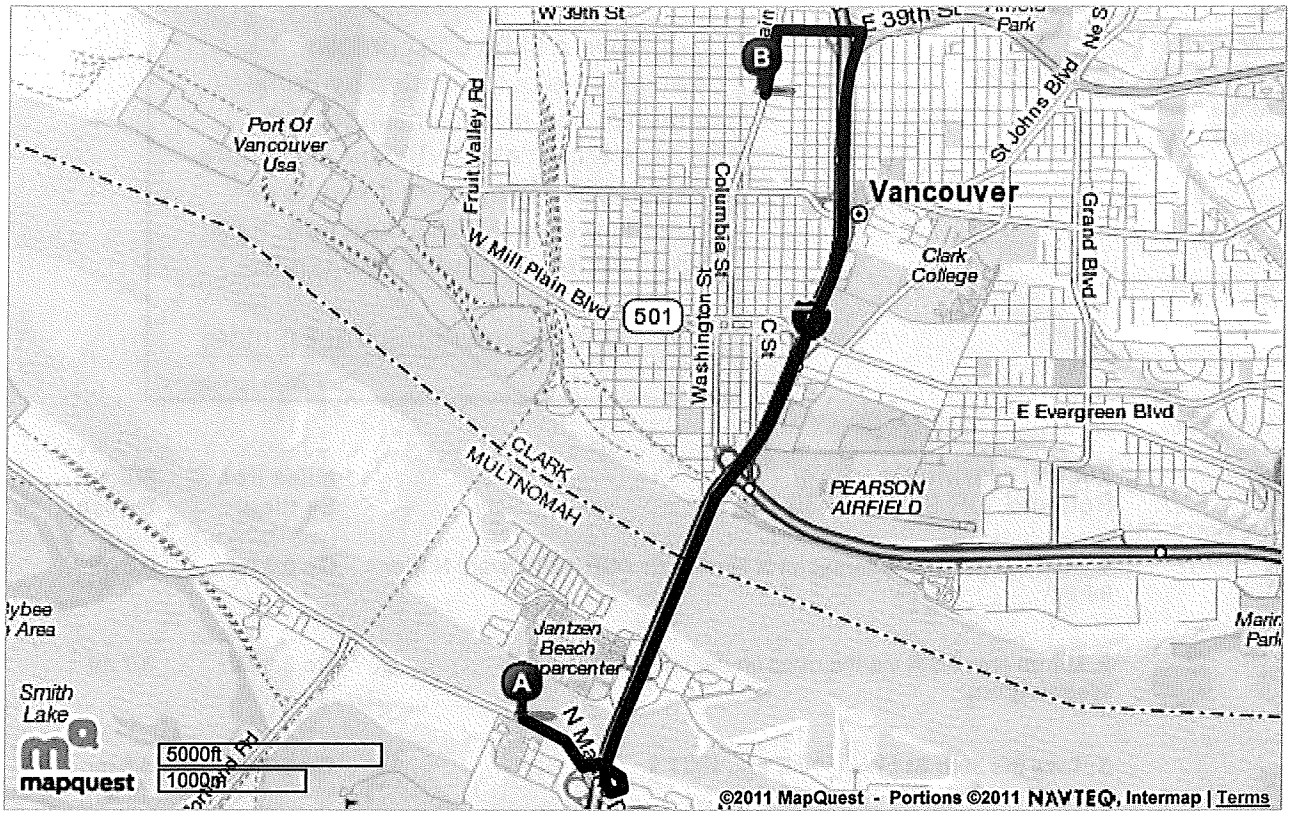
If you have a $500,000 portfolio, download the guide written by *Forbes* columnist and money manager Ken Fisher's firm. It's called **"The 15-Minute Retirement Plan."** Even if you have something else in place right now, it *still* makes sense to request your guide!

Click Here to Download Your Guide!

FISHER INVESTMENTS

		Miles Per Section	Miles Driven
A	**2060 N Marine Dr** Portland, OR 97217-7736		
●	1. Start out going **southeast** on **N Marine Dr / OR-120** toward **N Pier 99 St**.	**Go 0.3 Mi**	0.3 mi
NORTH 5	2. Merge onto **I-5 N** via the ramp on the **left** (Crossing into **Washington**).	**Go 3.3 Mi**	3.7 mi
2 EXIT	3. Take the **39th St / WA-500 E** exit, **EXIT 2**.	**Go 0.2 Mi**	3.9 mi
EXIT	4. Take the **39th St.** exit on the **left**.	**Go 0.2 Mi**	4.0 mi
↰	5. Turn **left** onto **E 39th St**. *If you reach I-5 N you've gone about 0.2 miles too far*	**Go 0.4 Mi**	4.4 mi
↰	6. Turn **left** onto **Main St**. *If you reach NW Creston Ave you've gone a little too far*	**Go 0.3 Mi**	4.7 mi
■	7. **3400 MAIN ST** is on the **right**. *Your destination is just past E 35th St* *If you reach E 33rd St you've gone a little too far*		4.7 mi
B	**3400 Main St** Vancouver, WA 98663-2223	**4.7 mi**	**4.7 mi**

Total Travel Estimate: **4.66 miles - about 8 minutes**



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