



## **Second Periodic Review**

Lowes Hardware  
Facility/Site ID # 34311112  
Cleanup Site ID # 1496  
1200 Walla Walla Avenue  
Wenatchee, Washington 98801

Prepared by:  
Washington State Department of Ecology  
Central Regional Office  
Toxics Cleanup Program

April 2013

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## 1.0 INTRODUCTION

This document is the Washington State Department of Ecology's second periodic review of post-cleanup site conditions and monitoring data to assure that human health and the environment are being protected at the Lowes Hardware site (Site). The cleanup at this Site was implemented under the Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC). The first periodic review for this Site was completed in June 2008. This periodic review will evaluate the period from 2008 through 2013.

Cleanup activities at this Site were completed through the Voluntary Cleanup Program. The cleanup actions resulted in residual concentrations of lead and arsenic that exceed MTCA Method A cleanup levels for soil established under WAC 173-340-740(2). As a result of residual contamination, institutional controls were required for the Site to be eligible for a no further action (NFA) determination. WAC 173-340-420(2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action;
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree;
- (c) Or, as resources permit, whenever the department issues a no further action opinion;
- (d) And one of the following conditions exists:
  - 1. Institutional controls or financial assurance are required as part of the cleanup
  - 2. Where the cleanup level is based on a practical quantitation limit
  - 3. Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions;
- (b) New scientific information for individual hazardous substances or mixtures present at the Site;
- (c) New applicable state and federal laws for hazardous substances present at the Site;
- (d) Current and projected Site use;
- (e) Availability and practicability of higher preference technologies; and
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

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## 2.0 SUMMARY OF SITE CONDITIONS

### 2.1 Site History

The Site is currently occupied by a Lowe's Hardware store, which is a commercial operation selling hardware, building materials, and home landscape supplies. The Site is approximately 9.8 acres, and is located at 1200 Walla Walla Avenue, Wenatchee, in Chelan County. A Site plan is available as Appendix 6.1 and a vicinity map is available as Appendix 6.2.

Prior to construction of the hardware store, all but the extreme southeast corner of the Site had been cultivated extensively as a pear orchard since the late 1800s. Prior to 1948, pear and apple orchards used lead arsenate as a pesticide to control the codling moth. By 1948, lead arsenate use generally ceased because the codling moth had developed resistance to the arsenate compound, and dichlorodiphenyltrichloroethane (DDT) was found to be a much more effective control agent.

The application of lead arsenate over several decades resulted in the accumulation of lead and arsenic in surface soils at levels that are hazardous to human health and the environment. Lead and arsenic are relatively immobile in soil and generally remain in the top 12 inches of the soil column, even though application ceased prior to 1950.

### 2.2 Site Investigations

As part of a combined Phase I and Phase II site assessment completed in 1996, soil was sampled at 6 inches, 12-18 inches, 36 inches and 60 inches below ground surface (bgs) at the Site. Samples contained lead, arsenic and DDT above the Washington Department of Ecology (Ecology) Method A cleanup levels. Soil samples at 36 inches bgs only contained arsenic in three of seven samples at concentrations exceeding MTCA Method A cleanup levels. Further investigation was recommended into potential residual pesticide contamination in surface soils at the Site.

Additional soil sampling was conducted in 1997 as part of an independent remedial action. Soil samples indicated the presence of lead, arsenic, DDT, DDE, DDD, and Dieldrin at concentrations exceeding MTCA Method A cleanup levels to a depth of 36 inches bgs. Contamination was not detected above MTCA Method A cleanup levels below 60 inches bgs. Groundwater is estimated to be located at approximately 50 feet bgs at the Site, therefore it was determined that pesticide contamination in shallow soils was not likely to pose a threat to human health and the environment.

Two potential petroleum releases were also investigated at the Site. The first was associated with an unregulated underground storage tank (UST) located near the original orchard shop building in the southeast corner of the Site. That UST was removed in April 1996. Confirmation samples collected from the limits of the excavation did not contain contamination

at concentrations above MTCA Method A cleanup levels. An above-ground heating oil tank was also removed from the Site by the previous owner. Any associated surface spills were small in volume and did not require remediation.

### **2.3 Cleanup Levels and Point of Compliance**

WAC 173-340-704 states that MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used.

MTCA Method A cleanup levels for unrestricted land use were determined to be appropriate for contaminants at this Site. The cleanup actions conducted at the Site were determined to be 'routine', few hazardous substances were found at the Site, and numerical standards were available in the MTCA Method A table for each hazardous substance. The MTCA Method A cleanup level for arsenic is 20 ppm and the MTCA Method A cleanup level for lead is 250 ppm.

For soil, the point of compliance is the area where the soil cleanup levels must be attained. For this Site, the point of compliance is established as soils throughout the Site.

### **2.4 Remedial Actions**

Protective capping was selected as the remedial action for the pesticide contamination at the Site. Several inches of crushed rock sub-grade capped by asphalt were used to cover the majority of the Site that does not fall under the building footprint. In areas where soil was to remain exposed due to landscaping, native soils were excavated to a depth of 36 inches and used as backfill under impervious surfaces elsewhere on the Site. Confirmation samples were collected from the clean soil that was imported for use in landscaped areas. Residual pesticides were not detected above MTCA Method A cleanup levels in these imported soils.

### **2.5 Institutional Controls**

Because contamination was capped at the Site at concentrations exceeding MTCA Method A Cleanup levels, institutional controls were required for the Site to be eligible for a NFA determination. A NFA determination was issued for the Site in May 1997, contingent on the implementation of institutional controls. Institutional controls in the form of a restrictive covenant were implemented at the Site in August 1998. The conditions of the restrictive covenant are available below:

1. The State of Washington Department of Ecology has authority under RC 70.105D.030 to enforce this Restrictive Covenant.
2. Any activity on the Site that may result in the exposure of hazardous substances to human health and the environment is prohibited.

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3. The Owner of the Property must give written notice to the Department of Ecology, to a successor agency, of the Owner's conveyance of any interest in the Property.
  4. The Owner must require compliance with this Restrictive Covenant whenever interest in the Property is conveyed by title or an easement or lease is granted. The Owner the Property must furnish a copy of the No-Further-Action Letter to any transferee such real property interest.
  5. The Owner of the Property must notify and obtain approval from the Department Ecology, or from a successor agency, prior to any use of the property that inconsistent with the terms of this Restrictive Covenant. The Department of Ecology or its successor agency may approve an amendment to the Restrictive Covenant following public notice and comment on the Owner's request.
  6. The Owner must allow designated representatives of the Department of Ecology, successor agency, to enter the Property at reasonable times given reasonable notice for the purpose of evaluating compliance with the No-Further-Action Letter or reviewing the effectiveness of the Cleanup Action.
  7. The Owner may request the Department of Ecology to remove the Restrictive Covenant or certain restrictions contained within the Restrictive Covenant whenever the residual hazardous substances remaining at the Property are reduced in concentration such that the method A cleanup levels, established under WAC 173-340-740 are met without a conditional point of compliance. The Department Ecology will remove the Restrictive Covenant or other restrictions if the department after public notice and opportunity for comment, agrees with the Owner's request.

A copy of the restrictive covenant is available as Appendix 6.3.

## **3.0 FIVE-YEAR REVIEW**

### **3.1 Effectiveness of completed cleanup actions**

Based upon the Site visit conducted on May 2, 2008, no repair, maintenance or contingency actions have been required. The asphalt and clean soil cap on the Site continues to eliminate the human exposure pathways (ingestion, contact) to contaminated soils. A photo log is available as Appendix 6.4.

The restrictive covenant for the Site was recorded and remains active. There is no evidence that another instrument has been recorded that rescinds, or renders the restrictive covenant ineffective. This restrictive covenant prohibits activities that will result in the release of contaminants contained as part of the cleanup without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenant. This restrictive covenant serves to assure the long term integrity of the cap.

Conclusions:

Soils with residual pesticide concentrations higher than Method A cleanup levels are still present. However, the asphalt cap and the clean soil cap prevent human exposure to residual pesticides by ingestion and direct contact with soils. The Restrictive Covenant for the property will ensure that the integrity of the caps will be protected through maintaining the current use of the Site.

### **3.2 New scientific information for individual hazardous substances for mixtures present at the Site**

There is no new scientific information for the petroleum contaminants related to the Site.

### **3.3 New applicable state and federal laws for hazardous substances present at the Site**

This cleanup is governed by Chapter 173-340 WAC. This regulation was amended in 2001. Although some cleanup levels changed as a result of this modification, contamination remains at the Site above MTCA Method A cleanup levels.

### **3.4 Current and projected Site use**

The Site is currently used for commercial purposes. There have been no changes in current or projected future Site or resource uses.

### **3.5 Availability and practicability of higher preference technologies**

The remedy implemented included removal/recycling of hazardous substances as well as containment, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

### **3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels**

The analytical methods used at the time of the remedial action were capable of detection well below MTCA Method A cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

## 4.0 CONCLUSIONS

- The cleanup actions completed at the Site is protective of human health and the environment.
- Soils cleanup levels have not been met at the Site; however, under WAC 173-340-740(6)(d), the cleanup action is determined to comply with cleanup standards, since the long-term integrity of the containment system is ensured and the requirements for containment technologies in WAC 173-340-360(8) have been met.
- The restrictive covenant for the property is in place and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this five-year review, the Department of Ecology has determined that the requirements of the Restrictive Covenant are being met. No additional remedial actions are required by the property owner. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the cap is maintained.

## 5.0 REFERENCES

J-U-B Engineers, Inc... *Phase I/II Environmental Assessment for Eagle Hardware and Garden, Inc.* January 1996.

J-U-B Engineers, Inc. *Independent Remedial Action Report.* February 1997.

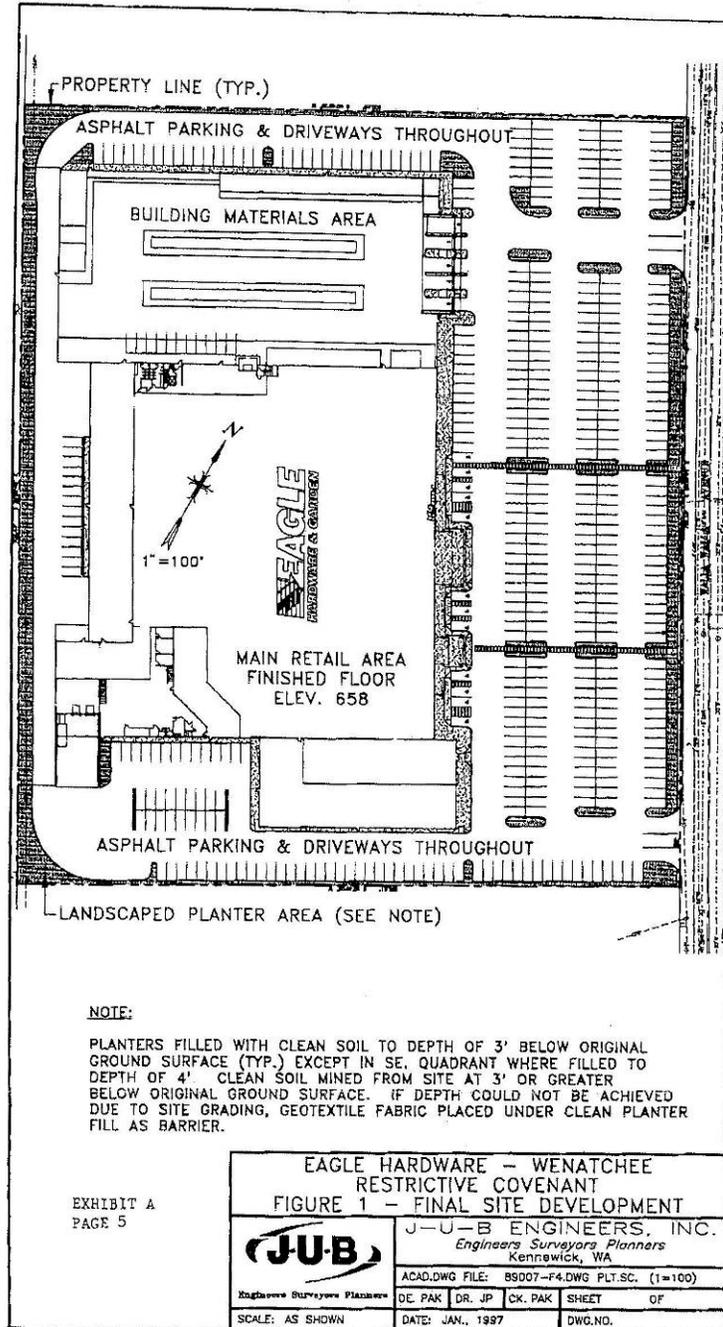
Ecology. *No Further Action Determination Letter.* May 15, 1997.

J-U-B Engineers, Inc. *Restrictive Covenant.* August 21, 1998.

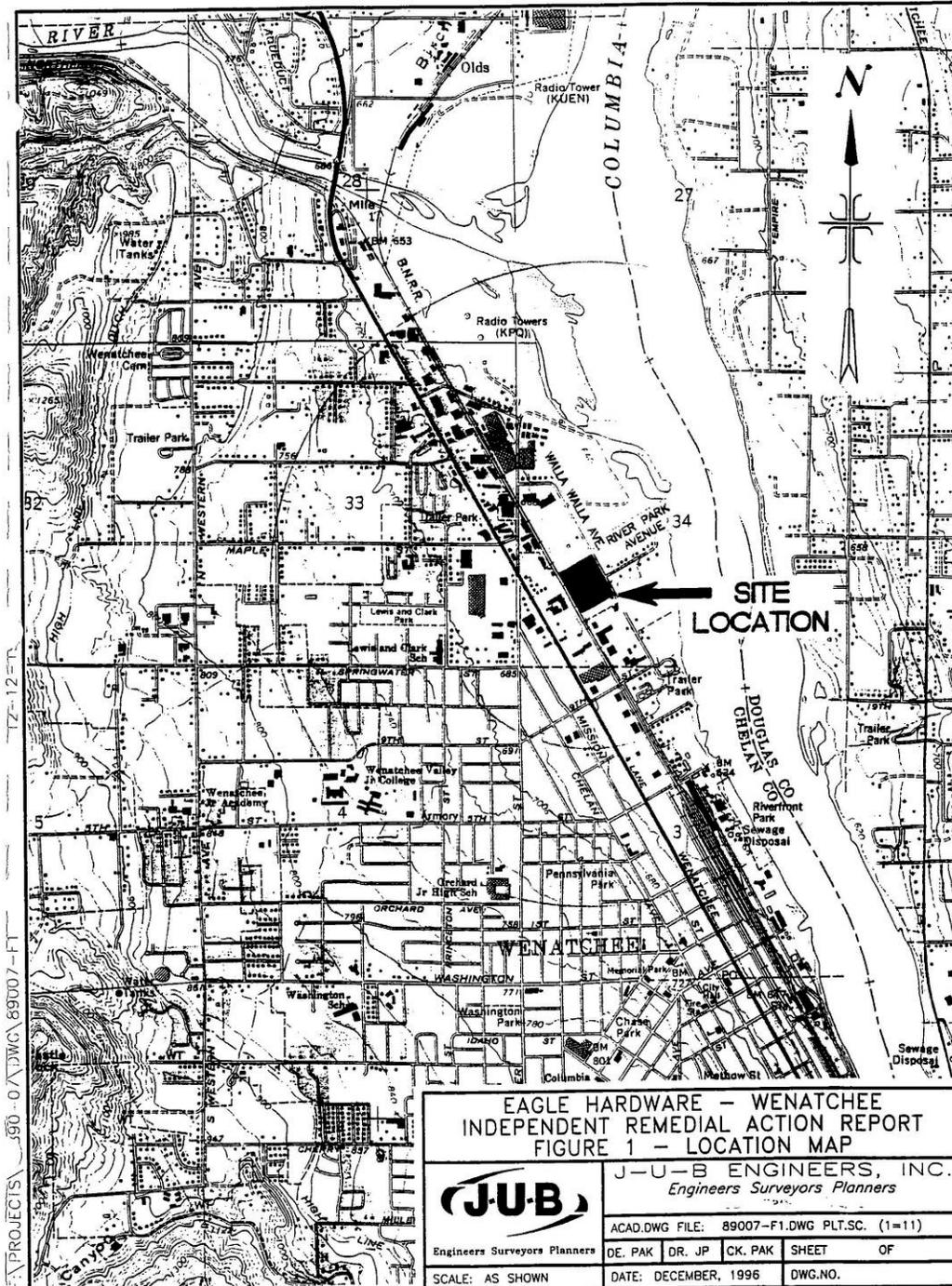
Ecology. *Periodic Review.* May 14, 2008.

## **6.0 APPENDICIES**

### 6.1 Site Plan



## 6.2 Vicinity Map



### 6.3 Restrictive Covenant

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2035070  
Page 1 of 6  
88/21/1998 83-14P  
Chelan Co, WA

POOR COPY MAY NOT REPRODUCE

063888-21  
RETURN ADDRESS  
Name Paul A. Kiss, P.E. JUB ENGINEERS, INC.  
Address 1250 Ironwood Drive, Suite 220  
City, State, Zip Coeur d'Alene, ID 83814

Document Title(s) (or transactions contained therein):  
1. Restrictive Covenant  
2.  
3.  
4.

Reference Number(s) of Documents assigned or released: N/A  
(on page \_\_\_\_ of document(s))

Grantor(s) (Last name first, then first name and initial(s))  
1. EAGLE HARDWARE & GARDEN, INC.  
2.  
3.  
4.  
5.  Additional names on page \_\_\_\_ of document

LAND TITLE COUNTY: CHelan-CHelan County Inc  
has placed this document of record in a regional courtney and accepts no liability for the accuracy or validity of this document

Grantee(s) (Last name first, then first name and initial(s)) N/A  
1.  
2.  
3.  
4.  
5.  Additional names on page \_\_\_\_ of document

Legal Description (abbreviated: i.e., lot, block, plat or section, township, range)  
Lots 1, 2 and 3, Block 9, Second Suburban Home Addition; and Lots 1, 2 and 3, Block 1, and Lots 3 and 4, Block 2, Smith Park.  
 Additional legal is on page 2 of document.

Assessor's Property Tax Parcel/Account Number 232034857005  
 Additional legal is on page \_\_\_\_ of document.

The Auditor/Recorder will rely on the information provided on the form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

WASHINGTON STATE COUNTY AUDITOR/RECORDER'S  
INDEXING FORM (Cover Sheet)



**RESTRICTIVE COVENANT**

Notice is hereby given that the property which is the subject of this Restrictive Covenant and is legally described as:

Lots 1, 2 and 3, Block 9, Second Suburban Home Addition to Wenatchee, Chelan County, Washington, according to the plat thereof recorded in Volume 1 of Plats, Page 23,

AND

Lots 1, 2 and 3, Block 1, and Lots 3 and 4, Block 2, Smith Park of Wenatchee, Chelan County, Washington, according to the plat thereof recorded in Volume 1 of Plats, Pages 39 and 40

("Property"), was the subject of remedial action under Chapter 70.105D RCW. The work done in the remedial action ("Cleanup Action") is described in the report dated February, 1997 under the Independent Remedial Action Program and in the exhibits included in the report. The report is kept in the central files at the Washington State Department of Ecology, Central Regional Office.

This Restrictive Covenant is required by WAC 173-340-440 because some of the subsurface soil remaining on the Property contains concentrations of lead, arsenic and DDT based pesticides contamination which exceed Model Toxics Control Act method A cleanup levels established under WAC 173-340-740. Accordingly, certain engineering controls have been put in place on the Property to deal with such soil and are described in Exhibit A attached hereto.

The undersigned Eagle Hardware & Garden, Inc. is the fee owner ("Owner") of the Property and makes the following declaration as to limitations, restrictions, and uses to which the Property may be put. The Owner intends that these declarations will constitute covenants to run with the land, as provided by law, and will be binding on all parties and all persons claiming under them, including current and future owners who acquire any portion of or interest in the Property.

Potential purchasers and lessees of the Property are put on notice that:

1. The State of Washington Department of Ecology has authority under RC 70.105D.030 to enforce this Restrictive Covenant.
2. Any activity on the site that may result in the exposure of hazardous substances to human health and the environment is prohibited.
3. The Owner of the Property must give written notice to the Department of Ecology, to a successor agency, of the Owner's conveyance of any interest in the Property.
4. The Owner must require compliance with this Restrictive Covenant whenever interest in the Property is conveyed by title or an easement or lease is granted. The Owner the Property must furnish a copy of the No-Further-Action Letter to any transferee such real property interest.



5. The Owner of the Property must notify and obtain approval from the Department of Ecology, or from a successor agency, prior to any use of the property that is inconsistent with the terms of this Restrictive Covenant. The Department of Ecology or its successor agency may approve an amendment to the Restrictive Covenant following public notice and comment on the Owner's request.
6. The Owner must allow designated representatives of the Department of Ecology, or its successor agency, to enter the Property at reasonable times given reasonable notice for the purpose of evaluating compliance with the No-Further-Action Letter or reviewing the effectiveness of the Cleanup Action.
7. The Owner may request the Department of Ecology to remove the Restrictive Covenant or certain restrictions contained within the Restrictive Covenant whenever the residual hazardous substances remaining at the Property are reduced to a concentration such that the method A cleanup levels, established under WAC 17340-740 are met without a conditional point of compliance. The Department of Ecology will remove the Restrictive Covenant or other restrictions if the department, after public notice and opportunity for comment, agrees with the Owner's request.

Executed this 19th day of August, 1998.

EAGLE HARDWARE & GARDEN, INC.

By:   
Charles L. Hall  
Senior Vice President - Real Estate



STATE OF WASHINGTON        )  
  )        ss.  
COUNTY OF KING            )

I certify that I know or have satisfactory evidence that Charles L. Hall is the person who appeared before me, and said person acknowledged that said person signed this instrument, on oath stated that said person was authorized to execute the instrument and acknowledged it as the Senior Vice President of Eagle Hardware & Garden, Inc., to be the free and voluntary act of such corporation for the uses and purposes mentioned in the instrument.

Dated this 19<sup>th</sup> day of August, 1998.



Diane G. Wellborn  
Signature of Notary

Diane G. Wellborn  
(Legibly Print or Stamp Name of Notary)

Notary public in and for the state of  
Washington, residing at Renton  
My appointment expires 10-15-00



Soil contamination exists at the Eagle Hardware and Garden, Inc. property in Wenatchee, Washington. Constituents of concern in the soil are total lead, total arsenic and DDT derivatives above the Model Toxics Control Act "Method A" clean-up levels, WAC 173-340-740. Contamination resulted from the agronomic application of pesticides to a pear orchard. Contamination was generally limited to the top 24-36 inches and dispersed throughout the site by the agricultural activities prior to the construction of the Eagle store in 1996. The constituents of concern are not readily mobile within the soil column.

To assure protection to human health and the environment, protective capping of the contaminated soil with building slabs or paving was the chosen remedial action for the subject site. In areas where soil is to remain exposed due to landscape plantings, the native soils were excavated to a depth of at least 36 inches and used as backfill under impervious surfaces elsewhere on the site. Fruit trees, roots, grasses and other organic debris were burned at the subject site prior to development of the Eagle Store. The residues from the on-site burning were spread throughout the site, incorporating them into the native soils.

The southeast quadrant of the site had contamination at a slightly deeper level (to approximately 48 inches). Consequently, native soils in the southeast quadrant of the site were removed to a depth of 48 inches below original ground surface. Due to the regrading of the Eagle site, the interior planters between the east side of the Eagle store and the property line could not be excavated to a depth of four feet below original ground surface. In those areas, the planters were excavated to a depth of three feet below finish grade and layer of geotextile fabric was placed at the bottom of the excavation to indicate a separation between clean fill material and potentially contaminated native soils.

Clean soil was mined from on-site by stripping the native soil to a depth of at least 36 inches before mining soils for the planter areas. Soils were mined at convenient locations around the site, primarily on the north half and western perimeters. Contaminated soil excavated from the planter areas was utilized as fill material elsewhere on the site and placed under impermeable concrete and asphalt surfaces.

Stormwater infiltration has been limited to the clean soil in the planter areas which constitute about 6.5% of the property, or 0.65 acres. The majority of the stormwater is piped directly to the City of Wenatchee's stormwater conveyance system.

The attached Figure 1 shows the final site development for the Eagle Hardware and Garden store in Wenatchee.

Eagle Hardware and Garden, Inc.  
Wenatchee, Washington

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Restrictive Covenant  
Exhibit A

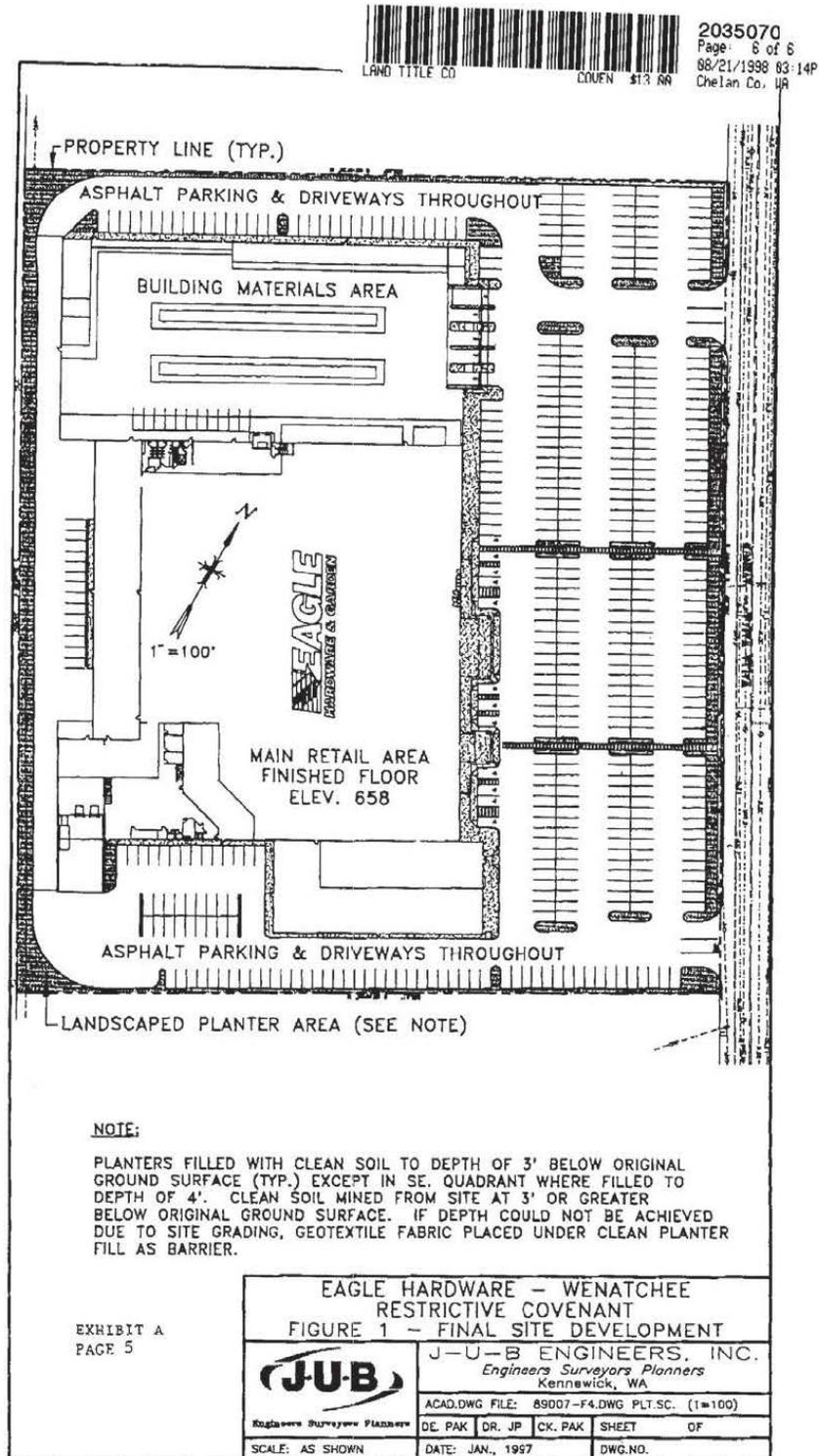


EXHIBIT A  
PAGE 5

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## 6.4 Photo log

**Photo 1: Main Parking Lot East of Building - from the south**



**Photo 2: Typical Landscaping Units in Parking Area - from the east**



**Photo 3: West Side of Building Bordering Railroad Tracks - from the North**



**Photo 4: Lowe's Hardware Building and Parking - from north**

