SHANNON & WILSON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

March 16, 2021

Mr. Brian Haderlie
PACCAR Inc
PACCAR Building
777 106th Avenue NE
Bellevue, WA 98004

RE: SPECIFICATIONS FOR REMOVAL OF POLYCHLORINATED BIPHENYL-CONTAINING CAULKING IN CONCRETE PAVING JOINTS AT A DESIGNATED WORK AREA OF THE 8801 PROPERTY, AGREED ORDER 6069

Dear Brian:

This letter provides the specifications necessary to implement a subset of interim remedial actions that were selected for the property at 8801 East Marginal Way S., Tukwila, Washington (8801 property) in the Feasibility Study[1] and further described in the Interim Action Work Plan (IAWP).[2] This subset of remedial actions includes the removal of polychlorinated biphenyl (PCB)-containing caulking from joints between concrete pavement in a small area of the 8801 property (Work Area). The location of the 8801 property is shown in Figure 1. The location of the designated Work Area is shown in Figure 2.

The 8801 site consists of an upland portion (the 8801 property) and the adjoining sediments in the Lower Duwamish Waterway (LDW). The 8801 site is subject to two separate Agreed Orders (AOs): AO No. 6069, which applies to the 8801 property, and AO No. 3599, which applies to the adjoining LDW sediments. This report is one of multiple documents that fulfills the Final Engineering Design Report requirements discussed in Task C of AO No. 6069.

[1] Shannon & Wilson, 2020a, Final feasibility study, 8801 East Marginal Way S, Tukwila, Wash.: Report prepared by Shannon & Wilson, Inc., Seattle, Wash., 21 1-12567-021, for PACCAR Inc, Bellevue, Wash., July 27, available https://apps.ecology.wa.gov/gsp/DocViewer.ashx?did=93568.

[2] Shannon & Wilson, 2020b, Final interim action work plan, 8801 East Marginal Way S, Tukwila, Wash.: Report prepared by Shannon & Wilson, Inc., Seattle, Wash., 21 1 12567-021, for PACCAR Inc, Bellevue, Wash., July 27, available https://apps.ecology.wa.gov/gsp/DocViewer.ashx?did=93570.

BACKGROUND

PCBs have been detected in groundwater at groundwater monitoring wells MW-16A and MW-34A. PCBs have not been detected in monitoring wells downgradient from MW-16A and MW-34A. The presence of PCBs in groundwater at MW-16A and MW-34A is likely related to the PCBs in the joint compound between concrete slabs near the monitoring wells which impacts water quality when the wells are opened and sampled due to flakes being entrained from the PCB containing joint compound.

REMEDIAL ACTION

This section includes specifications for saw cutting of concrete slabs, removal of PCB-containing joint compound, and backfill of removed pavement. The purpose of these actions is to remove a potential source of PCBs that may be contributing to concentrations of PCBs in groundwater at MW-16A and MW-34A.

Preparation and Mobilization

The Contractor will develop and implement a site-specific Health and Safety Plan prior to starting work. The Health and Safety Plan will include the following:

- Workers will be appropriately trained to perform work on sites with PCB contamination and other hazardous materials.
- Workers will wear disposable coveralls with foot covers and/or rubber boots and half-face respirators with P-100 cartridges, rubber gloves, and other standard construction personal protective equipment.
- A barrier will be established around the Work Area to prevent unauthorized personnel from entering.
- Other requirements developed and implemented by the Contractor.

Stormwater catch basins located within 25 feet of the Work Area will be blocked using plastic sheeting and sandbags to prevent liquid or solid wastes from entering the stormwater system.

Removal of Joint Material and Backfill

Six hundred (600) linear feet of PCB-containing joint compound will be removed. A sawcutting machine will be used to cut through the full depth of the concrete slab. Cuts will be made parallel to the joints at approximately 1 inch from the joint on each side. The

sections of joint material and concrete will be cut perpendicular to the joint alignment to allow for lifting and removal from the slab. It is anticipated that 3.6 tons of joint material and associated concrete will be removed.

Water will be used to cool and lubricate the cutting area and to limit dust generation. The slurry of water and concrete dust will be vacuumed immediately after it is generated. The removed sections will either be backfilled with controlled density fill or covered with wood since the remaining concrete slab will be removed as part of building demolition and property redevelopment approximately one month after joint compound removal.

Disposal

All non-disposable equipment and tools will be decontaminated before leaving the Work Area. The concrete dust/water slurry and decontamination water will be placed into Washington State Department of Transportation-approved drums, characterized, and disposed of at an off-site facility permitted to receive such wastes. The removed sections will be disposed of at a Subtitle D licensed landfill because historical sampling has indicated that concentrations of PCBs in the caulking are less than 50 parts per million.

Performance Monitoring

Performance monitoring is discussed in the Compliance Monitoring Plan (CMP), which is a companion document to multiple engineering design reports and will be submitted for review by the Washington State Department of Ecology (Ecology).[3] During proposed redevelopment work at the 8801 property monitoring wells MW-16A and MW-34A will be decommissioned and replaced after construction is completed at the property (approximately nine months after the removal of the wells). Performance monitoring will be undertaken at the replacement monitoring wells MW-16A(R) and MW-34A(R), as shown in Figure 2.

Contingency

The low concentration of PCBs detected in groundwater in the area of monitoring wells MW-16A and MW-34A are anticipated to decline to below the analytical detection limit after the PCB containing joint compound is removed. This is because the joint compound is

[3] Shannon & Wilson, 2021, compliance monitoring plan, 8801 East Marginal Way S, Tukwila, Washington, agreed order no 6069: Report prepared by Shannon & Wilson, Seattle, Wash., 21-1-12567-024, for PACCAR Inc, Bellevue, Wash., March.

thought to have contributed weathered flakes to the groundwater during well construction and during times of monitoring. If removal of the joint compound does not lead to a decline in the PCB concentration in the two replacement monitoring wells, MW-16A(R) and MW-34A(R), a discussion will be held with Ecology to determine if other remedial actions in the area are required. These alternative actions might include additional investigation, in situ treatment, or excavation.

LIMITATIONS

Shannon & Wilson has reviewed historical records and conducted subsurface explorations of the 8801 site. We have examined and relied on documents referenced in this letter and made assumptions for the design and operation of equipment. We have not conducted an independent examination of all facts contained in referenced materials and statements. We have assumed that these documents are genuine, and that the information provided in these documents and statements is true and accurate. We have no knowledge or indication to the contrary unless otherwise stated in the body of this letter.

The data presented in this letter are based on limited research and sampling at the site, and other areas of contamination that were not identified during investigations could be present at the site. Conditions referenced in this letter may change over time.

Sincerely,

SHANNON & WILSON

RYAN BEAU PETERSON STATE OF WASHINGTON 56673 REGISTERED PROFESSIONAL ENGINEER

Ryan Peterson
Digitally signed by Ryan Peterson
Date: 2021.03.16 14:18:49 -07'00'

Meg Strong
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Date: 2021.03.16 14:33:02 -07'00'

Ryan Peterson, PE
Environmental Engineer

Meg Strong, LHG
Vice President

RBP:MJS/rbp

Enc. Figure 1 – Vicinity Map
Figure 2 – Work Area to Remove PCB-Containing Caulk

0 500 1,000

Approximate Scale in Feet

8801 East Marginal Way South
Tukwila, Washington

VICINITY MAP

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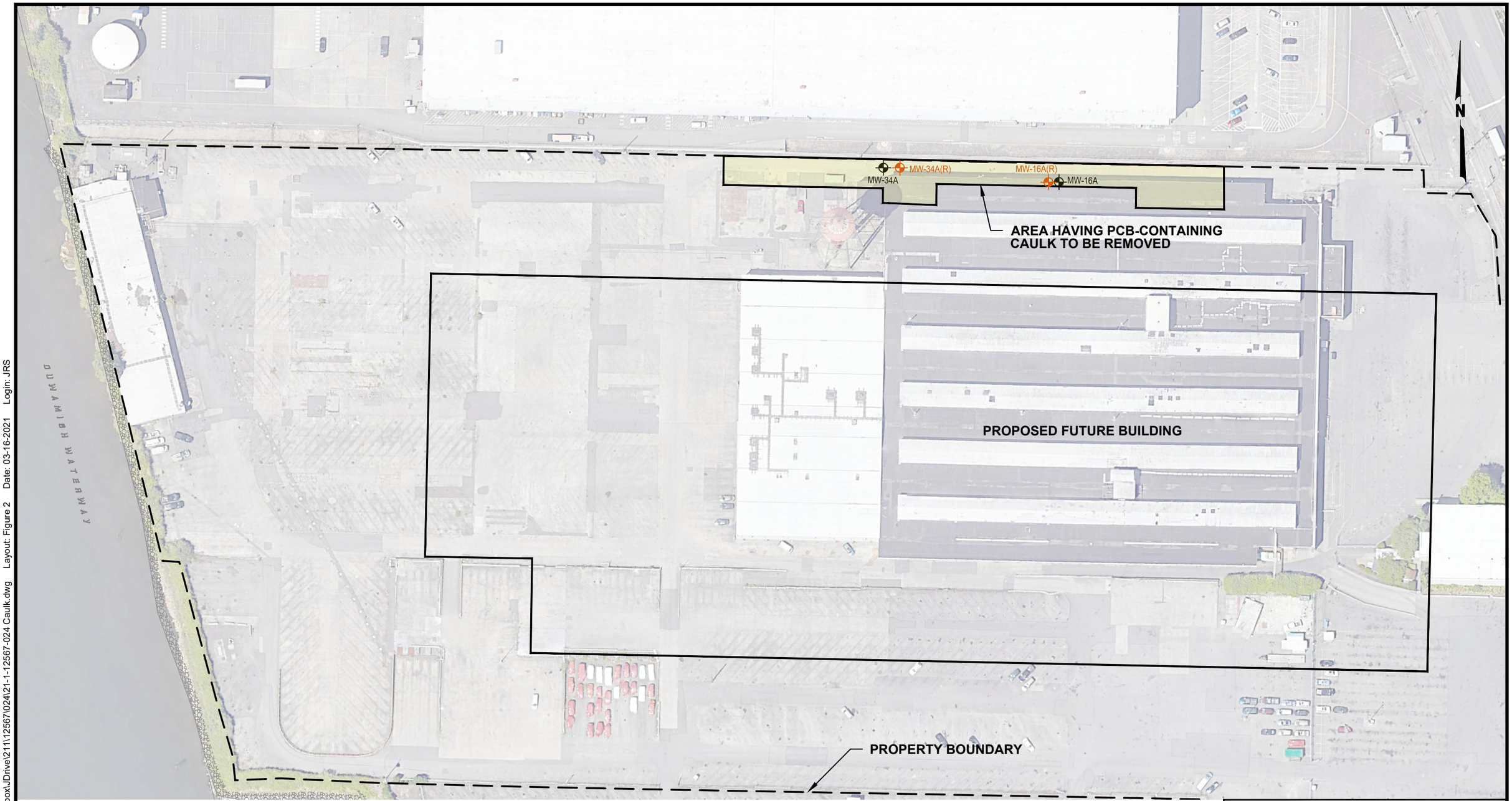
FIG. 1

Filename: C:\Users\jrs\CAD Group Dropbox\JDrive\211\12567\024\21-1-12567-024 Vicinity Map.dwg Date: 03-16-2021 Login: JRS



LEGEND

- PCB-Containing Caulk Removal Area
- MW-16A — Monitoring Well Designation and Approximate Location
- MW-16A(R) — Replacement Well Designation and Tentative Location

0 100 200

Scale in Feet

8801 East Marginal Way South
Tukwila, Washington

WORK AREA TO REMOVE PCB-CONTAINING CAULK

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FIG. 2

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