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August 6, 2017

Ms. Nancy Sawka
Oregon Dept. of Environmental Quality
4026 Fairview Industrial Drive
Salem, Oregon 97302

RE: Addendum #1 to Remedial Action Work Plan
Proposed Northstar Development
Salem, Oregon
AGI Project #1503.00

Dear Ms. Sawka:

This document presents the first addendum to the Remedial Action Work Plan for the proposed Northstar Development in Salem, Oregon. This addendum describes in detail the dust control measures and temporary soil stockpiling procedures that are to be employed during excavation of dieldrin-contaminated soils at the Northstar site.

The following sections (Sections 4.4 and 4.5) should be added to the Remedial Action Work Plan:

4.4 Dust Control - General

The term "contaminated cell" in this section refers to cells in which the soil contains dieldrin in excess of the Oregon residential risk-based concentration (RBCs) for the *soil ingestion, dermal contact, and inhalation exposure* pathway. The term "non-contaminated cell" refers to cells in which the soil contains dieldrin below residential RBCs, including soils in which dieldrin was not detected above laboratory reporting limits.

Exposed soil may be susceptible to wind erosion and generation of dust. While some dust emissions are inevitable, activities that disturb soils from contaminated cells will be managed in the following manner to minimize emissions:

1) Prior to disturbing the soil in a contaminated cell, the soils will be pre-wetted with water using water trucks and/or sprinklers. The water will be obtained from on-site wells, therefore the water trucks will remain on site for the duration of the project without the need to move off site for water.

2) Soils will be kept moistened with water as needed during excavation, loading, scraping and grading of soil as needed to minimize visible dust emissions. Two water trucks will be on site to perform watering activities. Workers will take precautions while working and driving on both contaminated and non-contaminated cells to minimize dust emissions.

A Certified Industrial Hygienist will be on site during all work involving excavation, loading, hauling and/or dumping of soil from contaminated cells. The CIH will evaluate work practices and dust suppression practices as they relate to worker exposure and public exposure to dieldrin, The CIH will also perform daily exposure air monitoring for workers and monitoring of ambient air around boundaries of the work site to assess the potential exposure of persons off-site to dieldrin.

With prior notification and approval by DEQ, the CIH will have the authority to stop site activities until work practices or engineering controls are implemented that are designed to reduce human exposure to the contaminant. Air monitoring may be suspended if, in the opinion of the CIH, it is warranted based on the measured airborne levels of dieldrin.

4.4.1 Dust Control – Phase I

Phase I of the excavation involves removal of soil from cells 8,9,10, 13, 14, 15 and 33 using scrapers. The soil will be hauled to cells 19 and 26 for temporary stockpiling.

1) The contaminated soil will be removed from cells 8,9,10, 13, 14, 15 and 33 using scrapers.
2) The scrapers will run between the contaminated cells and the stockpile area on non-contaminated cells on a designated haul road. Water will be used for dust suppression during scraping, hauling and dumping. The haul road will also be kept watered for dust suppression.

4.4.2 Dust Control – Phase II

Phase II of the excavation involves removal of soil from the contaminated cells and transporting the soils off-site to the disposal location at 6848 Windsor Island Road.

1) The truck loading area will consist of a temporary roadway covered with clean crushed rock. The trucks will remain on the roadway at all times they are on the work site.
2) The trucks will be carefully loaded, taking care to minimize spillage of soil onto the exterior of the truck and roadway surface. Upon completion of the loading, the exterior of the truck will be inspected by the driver and all loose soil will be removed. The trucks will proceed through an overhead wash bar which will rinse the exterior of the truck and provide additional

moisture to the soils in the truck bed. The amount of water applied to the truck and soil will be minimized to prevent excess water that may accumulate in the truck bed. Runoff of the rinse

3) Water will not be captured, rather it will be allowed run onto the temporary road surface and seep into the ground.
4) Prior to leaving the Northstar site, the load will be covered securely with a tarp.
5) At the soil disposal site, the soils will be moistened with water during unloading and grading as needed to minimize visible dust emissions.
6) After dumping the load of contaminated soil, the truck bed will be swept clean of residual soil in the unloading area by the driver before obtaining clean rock for delivery to the project site.

4.5 Temporary Soil Stockpile

In August 2017, soil exceeding residential risk-based concentrations on the east half of the Northstar site (portions of cells 8, 9, 10, 13, 14, 15, and all of cell 33) will be removed using scrapers and temporarily stockpiled in the general areas of sections 19 and 26, located on the west area of the Northstar site. The approximate stockpile location is shown on Figure 6 (attached). This phase of work is referred to as Phase I.

The reason for the temporary stockpiling of soil is to allow clearing of the east half of the site so construction can begin in that area while public comments are addressed regarding the transportation of contaminated soil on public roadways and disposal of the material at the Zielinski farm. The stockpiled soil will be removed along with the other contaminated soil on the Northstar site during Phase II of the project in 2018 after the off-site disposal site has been approved.

For Phase I of the work, scrapers will remove soil from the contaminated cells. The loaded material will be wetted with water trucks, using side sprayers as needed to direct the water to specific locations. All of the scrapers will remain on the Northstar site on temporary haul roads. The scrapers will travel over designated haul roads located on contaminated and non-contaminated cells. The loads will not be covered since the trucks are travelling only short distances (maximum distance: 2,500 feet), they will not be traveling over public roads, and the loads will be wetted. If visible dust is observed from the loaded soil, the watering practices will be modified or the loads will be covered, as necessary.

Prior to leaving contaminated cells and crossing onto non-contaminated cells, loose soil will be removed from the exterior of the heavy equipment. Soil tightly embedded into steel track treads and rubber tire treads will not be removed until the excavation is completed in these cells.

Scrapers will cross over the drainage ditch only in areas where the ditch is culverted underground. The ground surface over the culvert will be reinforced as needed to prevent damaging the culvert by the equipment.

After the soil removal is completed, the upper 2-3 inches of soil will be removed from the haul roads and placed in the soil stockpile area as contaminated soil. All heavy equipment will be decontaminated as described in the Remedial Action Work Plan upon completion of Phase I excavation.

The contaminated soils placed in cells 19 and 26 will be spread evenly over an area of approximately four acres, to a thickness of approximately 3 feet. While awaiting laboratory results for the final confirmation samples, the stockpile will be watered using sprinklers or water trucks as needed to maintain dust suppression.

After the results of the final confirmation samples are obtained from the excavated cells, the finished surface and sides of the stockpile will immediately be hydroseeded with 120#/acre of 80/20 perennial rye grass/fescue blend with 15#/acre "Quick Guard" quick-germinating wheatgrass for early erosion control. The seed will be applied with 2,000#/acre hydromulch with tackifier applied as the initial erosion control until the vegetation becomes established.

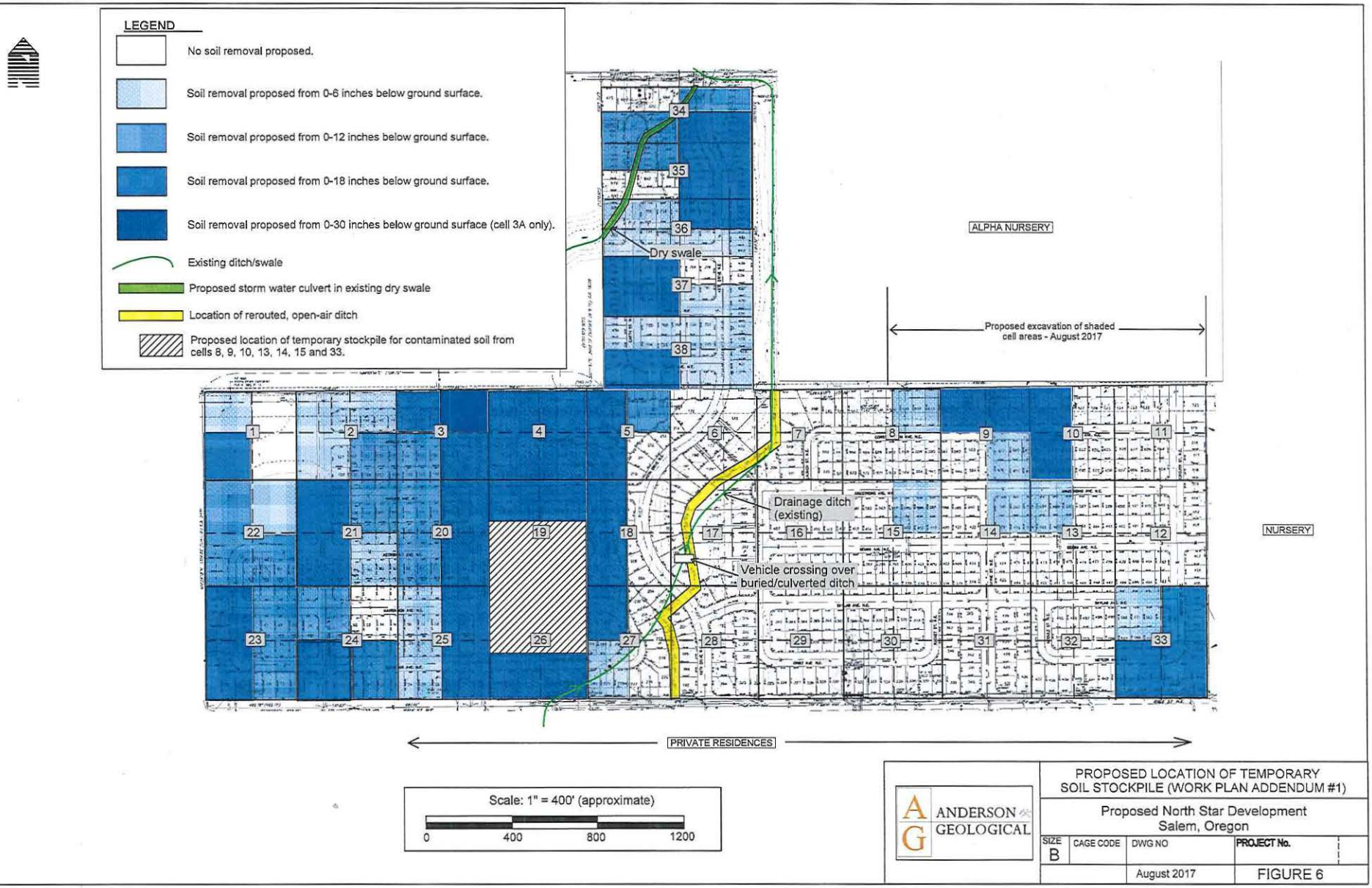
A silt fence will be in place along both sides of the drainage ditch to the east for erosion control from the stockpile, as required by the project's 1200-C construction stormwater permit. Additional silt fence will be placed adjacent to the downhill side of the temporary stockpile.

The stockpile will be inspected monthly, or following periods of heavy, prolonged precipitation. Any areas of bare or eroded soil will be noted and immediately repaired (soil replaced and re-seeded).

Respectfully,

Erik Anderson, R.G.
Hydrogeologist

Attachment: Figure 6 – Proposed Location of Temporary Soil Stockpile



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PROPOSED LOCATION OF TEMPORARY SOIL STOCKPILE (WORK PLAN ADDENDUM #1)

Proposed North Star Development
Salem, Oregon

SIZE	CAGE CODE	DWG NO	PROJECT No.
B		August 2017	FIGURE 6