

## **Electronic Copy**

## STATE OF WASHINGTON

## DEPARTMENT OF ECOLOGY

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May 7, 2019

Ron King, President 3 Kings Environmental, Inc. PO Box 280 Battle Ground, WA 98604

Re: **Contract C1800176** – (Aladdin Plating Site Remediation Project, Tacoma, Washington) Rejection of Claim-02 Associated with Quantity Overages and Positive Shoring

Dear Ron King:

This letter is the Washington State Department of Ecology's (Ecology) response to 3 Kings' March 11, 2019, written claim (Claim-02) for quantity overages and shoring costs. Ecology makes this response in accordance with Section 00 72 00 – General Conditions 8.01 D of the Project Manual.

In Claim-02, you request to allow adjustment of the contract sum from Contract # C1800176 (Contract) for \$71,530.00 due to material/soil overages on the Aladdin Plating Project and for \$4,400.00 for the remaining costs for positive shoring. Ecology has reviewed Claim-02 and found it provides no new information justifying 3 Kings' soil quantity overage or positive shoring claims. Therefore, Ecology rejects Claim-02.

In the last five months, Ecology provided two responses toward your claim for soil quantity overage and positive shoring and they are as follows:

- 1. In a December 20, 2018 letter from Ecology to 3 KINGs, Ecology approved final payment of \$3,600, which was determined to be 45% of the \$8,000 allocated for positive shoring in the contract. As noted in Ecology's December 20 letter, 3 Kings installed and subsequently removed only 45% of the positive shoring specified in the Contract.
- 2. In a February 13, 2019 letter from Ecology to 3 KINGs, Ecology made a final offer of \$5,600 to 3 Kings, in response to 3 Kings' December 5, 2018 Change Order-2 for \$71,536 regarding alleged soil quantity overages. Ecology's final offer was for \$5,600, which equates to the difference of 40 tons between our calculations for volume overages and your claim for excavation, stockpiling, loading, hauling, and disposal of soil from the site.

Ron King May 7, 2019 Page 2

I have attached copies of the above referenced Ecology correspondence for your information. If you have any questions or concerns please contact me at (360) 407-6256 or <a href="mailto:mohsen.kourehdar@ecy.wa.gov">mohsen.kourehdar@ecy.wa.gov</a>

Sincerely,

Mohsen Kourehdar, P.E., Project Manager

Toxics Cleanup Program Southwest Regional Office

Enclosure: Ecology's Correspondence

By certified mail: 9489 0090 0027 6066 6733 21

cc: Iain Wingard, GeoEngineers, Tacoma Office

John Zinza, P.E., Contract Officer, Ecology TCP

John Level, Attorney General's Office



## STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

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February 13, 2019

Ron King, President 3 Kings Environmental, Inc. PO Box 280 Battle Ground, WA 98604

Re: Contract C1800176 – (Aladdin Plating Site Remediation Project, Tacoma, Washington) Final Offer Change Order 2 (Equitable Adjustment for Quantity Overruns)

Dear Ron King:

The Washington State Department of Ecology (Ecology) is providing this Final Offer, Notice of Equitable Adjustment CO-2, to 3 Kings, who requests an additional contract sum of \$71,530 and contract time of 7 days for additional quantities of soil removed and installed for the project. Ecology's Final offer is \$5,600 in additional Contract Sum and no additional Contract Time. An explanation of the Final Offer is provided below.

## Summary of 3 Kings Request for Equitable Adjustment in CO-2

3 Kings states in CO-2 that the density of subsurface soil was far greater than surface soil at the site. CO-2 states that no adjustment is warranted for surface soil since the density of surface soil that comprised the top 2.5 feet of soil at the site was approximately 1.5 tons per cubic yard, which matched the density used in the Project Manual to develop quantities for the project.

CO-2 states that the denser subsurface soil was present from 3 to at least 16 feet below ground surface, and 3 Kings has stated that the density of the glacially derived material comprising the subsurface soil generally ranges from 1.8 to 2.1 tons per cubic yard. 3 Kings claims that the greater density of the subsurface soil, over what was specified in the Project Manual, explains the increase in the subsurface soil quantity from 330 tons (specified in the Project Manual) to 620 tons, disposed of by 3 Kings.

CO-2 states that 3 Kings considers 20 percent (%) of the increased volume to be associated with over-excavation (i.e., extra excavation) for installation of the shoring selected for the project by 3 Kings. 3 Kings did not provide documentation in CO-2 for their consideration of how 20% was determined to be the quantity associated with extra excavation to install shoring.

Ron King 3 Kings Environmental February 13, 2019 Page 2

### Summary of the Evaluation of Subsurface Soil Quantities

An evaluation was performed to identify the source(s) of soil that contributed to the quantity removed by 3 Kings from the site. The results of the evaluation are presented in enclosed Table 1 and on Figure 1. The evaluation has determined that all but a limited amount of the difference between the quantity specified in the Project Manual (330 tons) and what was disposed of by 3 Kings (620 tons) was due to the actual volume of material removed by 3 Kings as extra excavation for installation of shoring and sloping that 3 Kings elected to use for the project.

Note that Pay Item M, Excavation Support and Protection (Section 00 41 43, Summary of Pay Items and Quantities) in the Project Manual includes Contractor costs for extra excavation. The evaluation has identified that there was approximately 40 tons of soil that may have been attributed to slightly denser subsurface soil or that may have been due to over-excavation or extra excavation that was not identified in the evaluation.

The project manual specified the area and depth of excavation of subsurface soil at six locations. The area, depth, and quantities specified in the Project Manual are summarized in Table 1. The density used to calculate the quantity of subsurface soil requiring disposal presented in the Project Manual Summary of Pay Items and Quantities was 1.5 tons per cubic yard.

As shown in Table 1 and on Figure 1, the extra excavation performed by 3 Kings for sloping and to install the shoring 3 Kings elected to use includes the following:

- Extra excavation consisting of sloping of un-shored excavations at remediation areas A1 and B1.
- Extra excavation resulting from the surface area encompassed by the shoring 3 Kings elected to use for excavation at areas A2, A3, B2 and B3.
- Extra excavation due to 3 Kings methods used to install the shoring used for the project.
- Extra excavation that included re-excavation of soil backfill at areas A1, B1, and B3 as a result of the overlapping surface area encompassed by the shoring 3 Kings elected to use.
- Extra excavation where 3 Kings dug to a depth greater than specified in the Project Manual.

The volume of subsurface soil excavated by 3 Kings that is attributable to the extra excavation described above and presented in Table 1 and on Figure 1 totaled 167 cubic yards. The tonnage of subsurface soil excavated by 3 Kings that is attributable to extra excavation based on the density of soil utilized in the Project Manual (1.5 tons per cubic yard) is 250 tons. The quantity of soil removed by 3 Kings as extra excavation (167 cubic yards/250 tons) was an increase of 76% over the quantity specified in the Project Manual (220 cubic yards/330 tons), not 20% as stated in 3 Kings' CO-2. The costs associated with a 76% increase in the soil quantity attributed

Ron King 3 Kings Environmental February 13, 2019 Page 3

to 3 Kings' extra excavation is included in Pay Item M. Therefore, no additional Contract Sum or Contract Time is warranted for 3 Kings' extra excavation.

Pay Item M also specifies that the contractor shall supply an equal quantity of backfill to replace soil removed as a result of extra excavation. Therefore, no additional Contract Sum or Contract Time is warranted for 3 Kings' for backfilling the areas of extra excavation.

The total quantity of subsurface soil excavated from the site based on the density of soil used in the Project Manual (1.5 tons/cubic yard) is 580 tons. 3 Kings' records identify that 620 tons of soil were disposed off-site. Therefore, there is 40 tons of subsurface soil that is not accounted for based on the evaluation. The 40 tons may be due to greater density of subsurface soil or may be due to additional excavation or extra excavation that has not been identified. The 40 tons of soil is an increase of approximately 7% over total quantity (580 tons) based on the density used in the Project Manual. The 7% increase, if it was due to increased density, would result in an average increased density of 0.1 tons per cubic yard for subsurface soil. Therefore, the average density of subsurface soil may be 1.6 tons per cubic yard.

3 Kings has stated that the subsurface soil at the site consisted of glacially derived, cemented material with a density ranging from 1.8 to 2.1 tons per cubic yard. However, the Nalley Valley, where the site is located, consists of 20+ feet of recessional outwash known as the Steilacoom Gravels.

Recessional outwash, by definition, is not glacially compacted/cemented which was consistent with what was observed during the subsurface excavations. Furthermore, standard penetration tests with blow counts were performed to record the density in the soil borings completed at the subsurface excavation locations at the site.

The blow count values recorded indicate that the soil density did not significantly change between the surface and 15 feet below ground surface. The blow counts indicate that the density increased at 15 feet below grade, which comprised the lower 1-foot of one of the excavation areas (A3). The data provided by the standard penetration tests confirm that the density was not a significant contributor to the quantity of subsurface soil removed from the site.

#### Cost Increase Evaluation

The list of costs associated with subsurface soil excavation, stockpiling, loading, hauling, and disposal is provided in 3 Kings' Final Schedule of Values, dated October 8, 2018. The total cost for these activities listed in the Schedule of Values is \$80,000. Based on the evaluation presented above, the increase in tonnage that may be attributed to increased soil density is 7%, which would increase the total cost for handling and disposal of subsurface soil from \$80,000 to \$85,600. Therefore, an increase in the Contract Sum of \$5,600 is the Final Offer for excavation, stockpiling, loading, hauling, and disposal of subsurface soil.

Additionally, the quantity of imported soil was dependent on the volume of the excavations and not the density of the excavated soil. The volume of soil removed from the site over what was

Ron King 3 Kings Environmental February 13, 2019 Page 4

specified in the Project Manual was the result of the methods of shoring and sloping performed by 3 Kings; therefore, the quantity of imported soil that was installed greater than what was specified in the Project Manual is included in the Pay Item M. The increase in the excavated quantity of subsurface soil (40 tons) would not significantly affect the total number of days required to complete the work; therefore, no increase in contract time is warranted.

If you have any questions or concerns please contact me at (360) 407-6256 or mohsen.kourehdar@ecy.wa.gov.

Sincerely,

Mohsen Kourehdar, P.E.

Project Manager

Southwest Regional Office Toxics Cleanup Program

Enclosures

ce: Iain Wingard, GeoEngineers, Tacoma Office

John Zinza, P.E., Contract Officer, Ecology TCP

#### Table 1

#### Subsurface Excavation Quantities Specified in Project Manual

Former Aladdin Plating Site Tacoma, Washington

Excavation Area	Excavation Surface Area (sf) <sup>1</sup>	Excavation Depth (ft)	Excavation Volume (cf)	Excavation Volume (cy)	Calculated Tonnage at 1.5 tons/cy	Project Manual Volume (cy)	Project Manual Tonnage (tons)
A1	157.54	2.5	393.86	15	22	, ,	
A2	162.77	8.5	1,383.54	51	77		
A3	168.72	13.5	2,277.77	84	127		, ,
B1	89.95	2.5	224.88	8	12	1	
B2	96.36	6.5	626.31	23	35		
B3	157.25	6.5	1,022.15	38	57		1
1	Total Quantities				329	220	330

3 Kings Subsurface Excavation Quantities Including Extra Excavation

3 Kings Subsurface Excavation Quantities including Extra Excavation										
Excavation Area	Unshored Excavation Surface Area (sf) <sup>2</sup>	Shored Excavation Surface Area (sf) <sup>3</sup>	Excavation Area Outside Shoring (0.5 ft observed) (sf) <sup>4</sup>	Clean Backfill Excavated and Disposed of with Contaminated Soil (sf) <sup>5</sup>	Average Excavation Depth by Area (ft) <sup>6</sup>	Calculated Excavation Volume (cf)	Calculated Excavation Volume (cy)	Calculated Tonnage at 1.5 tons/cy	Exported Tonnage <sup>7</sup> (tons)	Difference of Calculated and Exported Tonnage (tons)
A1	219.36	0.00	0.00	32.13	2.69	677	25	. 38		
A2	0.00	201.75	14.45	0	9.10	1,967	73	109		
A3	0.00	260.02	16.48	0	13.70	3,788	140	210		
B1	103.28	0.00	0.00	19.73	3.16	389	14	22		
B2	0.00	210.25	35.05	0	6.48	1,590	59	88		
. В3	0.00	263.13	21.47	9.43	6.91	2,032	75	113		
	322.64	935.15	87.45	61.29		Total Quantities	387	580	620	40

	Increased Volume from Shoring and Extra Excavation <sup>8</sup> (cy)	Increased Tonnage from Shoring and Extra Excavation <sup>9</sup> (tons)	Difference Between Calculated and Exported Tonnage <sup>10</sup> (tons)	Density Based on Additional Tonnage <sup>13</sup> (tons/cy)
Increased Quantities From 3 Kings Shoring and Extra Excavation	167	250	40	1.60
Percentage Increase from Project Manual Volume/tonnage From 3 Kings Shoring and Extra Excavation	76%		7% <sup>12</sup>	1.00

#### Notes:

- <sup>1</sup> Surface area with 6 inch setbacks from the property lines as specified in Project Manual.
- <sup>2</sup> Extra excavation where shoring was not installed.
- .3 Excavation surface area based on 3 Kings selected shoring and extra excavation approach which was greater than area identified in Project Manual.
- 4 3 Kings excavated an average of 6-inches beyond the limits of the shoring area within the site (on 3 sides) to install shoring. Shoring was installed against the east property boundary.
- <sup>5</sup> Areas where shoring or excavations overlapped and clean backfill was removed and hauled away as export.
- <sup>6</sup> Average excavation depth by area based on 3 Kings survey.
- Tonnage exported based on weigh tickets provided by 3 Kings.
- 8 Calculated excavation volumes based on 3 Kings shoring and extra excavation minus volume in Project Manual (387 cy 220 cy = 167 cy).
- 9 Calculated tonnage using 1.5 tons/cy and volume based on 3 Kings shoring and extra excavation minus tonnage in Project Manual (580 tons 330 tons = 250 tons).
- <sup>10</sup> Difference (i.e., subtraction) of total calculated tonnage based on 3 Kings shoring and extra excavation and total tonnage exported by 3 Kings (620 tons 580 tons = 40 tons).
- 11 Percentage increase in volume and tonnage based on 3 Kings shoring and extra excavation (167 cy/220 cy = 0.76 and 250 tons/330 tons = 0.76 or 76%).
- Percentage difference between calculated total tonnage and exported total tonnage (1-[580 tons/620 tons] = 0.07 or 7%).
- <sup>13</sup> An evaluation of density that could be associated with the difference in tonnage indicated that the density of subsurface soil could be an average of 1.6 tons per cubic yard. However the difference in tonnage may also be associated with over-excavation by 3 Kings that is not included in previous calculations.
- sf = square feet
- ft = feet
- cf = cubic feet
- cy = cubic yards
- tons = 2,000 pounds

Survey Measurements Completed by David Evans and Associates and Provided to Ecology by 3 Kings Average Depths of Subsurface Excavation Areas were Determined by Subtracting the Surveyed Surface Excavation Depth from the Surveyed Subsurface Excavation Depth for Each Survey Point. The Average Depth for each Excavation Area Includes All of the Survey Points within Each Excavation Area. xcavation Depths in Feet Below Original Average Excavation Depths in Feet for Subsurface Excavation Areas\*\* Locations of Clean Backfill that was Re-Excavated Locations of Contractor Unshored Excavations checked by lain Wingard project no. 0504-095-04 Locations of Original Excavation Areas of Contractor Shoring Excavation Area Identification ASPHALT PARKING Surveyed Excav Ground Surface Property BULLDING of Legend: 13.70 A1 ~ sheet BILLBOARD BILLBOARD **TJAH92A** 2/13/2019 A2 942 ASPHALT PARKING date STREET project Ecology Aladdin Plating SIDEWALK 69 CENTER B.6. by Aaron Waggoner NO1°26'27"E 100.00" SOUTH ALASKA STREET





# STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

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December 20, 2018

Mr. Ron King, President 3 Kings Environmental, Inc. PO Box 280 Battle Ground, WA 98604

Re: Contract C1800176 - (Aladdin Plating Site Remediation Project, Tacoma, Washington)

Dear Mr. King:

The Washington State Department of Ecology (Ecology) is providing a response to the following outstanding items:

- 3 Kings Proposed Change Order 2
- 3 Kings Delay Claim due to Force Majeure
- 3 Kings Contract Requirements For Site Fencing
- Reduction of Contract Sum to Account for the Portion of Positive Shoring that was not Installed/Removed.

## Proposed Change Order 2

3 Kings submitted proposed Change Order 2 requesting additional Contract Sum and Contract Time associated with quantities for excavation, stockpiling, loading, hauling and disposal of subsurface soil and backfilling of subsurface excavations and additional Contract Sum and Contract Time for restoration of top soil. Ecology agrees to additional Contract Sum for restoration of top soil but does not agree to additional Contract Sum or Contract Time for quantities for excavation, stockpiling, loading, hauling and disposal of subsurface soil and backfilling of subsurface excavations as described below.

Section 00 41 43 Bid Item M, Excavation Support and Protection, specified that the Contractor design excavation shoring and extra excavation to enable completion of the subsurface excavation specified in the Contract Documents. Bid Item M is full compensation for completion of the Contractor designed excavation shoring and extra excavation. Additionally, Bid Item M states that the Contractor shall supply an equal quantity of approved backfill to replace extra excavation soil under the bid item, 3 Kings' proposed Change Order 2 identifies quantities of

subsurface soil and backfill for which they are requesting additional Contract Sum and Contract Time that are the direct result of the excavation shoring and extra excavation they chose for completing the subsurface excavations specified under Bid Item M. Therefore, 3 Kings request is not approved for additional Contract Sum or Contract Time associated with excavation, stockpiling, loading, hauling and disposal of subsurface soil and backfilling of subsurface excavations requested in proposed Change Order 2.

3 Kings submitted a Request for Interpretation (RFI 11) dated August 20, 2018 that identified that the quantity of top soil specified in the Contract Documents was lower than the calculated quantity for the dimensions provided in the Construction Drawing Sheet 8. The estimated quantity in the Contract Documents was 10.5 cubic yards. The revised quantity of top soil required for restoration specified in the Contract Documents is 26 cubic yards based on the area (30 feet by 35 feet) and depth (8 inches), 3 Kings provided their interpretation that 23.63 cubic yards of topsoil would be needed based on the dimensions on Sheet 8. Ecology acknowledged in their response to RFI 11 on August 22, 2018 that an adjustment would be negotiated in accordance with Section 00 72 00 General Conditions Part 7 - Changes. The quantity of top soil now requested by 3 Kings as part of proposed Change Order 2 is 45 cubic yards, well in excess of the quantity required for restoration. Based on field observations, the excess was spread outside the project limits west of the property boundary adjacent to the South Alaska Street rightof-way. Additionally, during a site visit 3 Kings personnel stated that a portion of the excess topsoil (approximately I cubic yard) was donated to an adjacent property owner. Therefore, Ecology is providing an adjustment to the top soil quantity from 10.5 cubic yards to 30 cubic yards. Ecology does not agree that any additional change to the contract sum or any change in the contract time for restoration of top soil.

## Delay Claim Due To Force Majeure

3 Kings sent a letter in response to Ecology's letter denying 3 Kings' request for additional contract time (3 Kings letter dated November 20, 2018 in response to Ecology letter dated September 7, 2018). The letter states that it is 3 Kings' opinion that the project was delayed due to circumstances beyond their control, "stemming from a lack of Ecology's notice to the City of Tacoma associated with the project permitting and Cultural Resource Notice...". 3 Kings stated that "the delay meets the definition of Force Majeure as defined in Section 00 72 00...". Ecology continues to assert that any delays related to project permitting were within the sole control of 3 Kings, and not related to any action or inaction by Ecology, and any such delay did not meet the definition of Force Majeure. The paragraphs below summarize the major project milestone dates related to permitting and compares the date of receipt of permits to the date 3 Kings completed contract required pre-construction submittals as evidence that permitting activities did not delay 3 Kings from mobilizing to the site and starting on-site construction work

The Contract Documents clearly specify that 3 Kings was required to obtain and comply with all project related permits. Section 01 10 00, General Requirements, specifies that the Contractor is to "Apply for and obtain all necessary City of Tacoma permits prior to start of work." Section 01 41 00, Regulatory Requirements, specifies that the "Contractor shall apply for and pay for, obtain, maintain, and conform to" permits prior to the start of construction. Therefore, permitting was solely the responsibility of 3 Kings.

3 Kings applied for the permits on July 10, 2018 and received authorization for payment and pickup of the permits by August 10, 2018 as documented by the City of Tacoma. This was a

one-month permit period which is a reasonable period of time for the permitting needed for this project and under the contract period of 120 days to Substantial Completion. In 3 Kings request for time extension date August 23, 2018, it was stated that the permits were received from the City of Tacoma on August 21, 2018. Thus, it appears that 3 Kings incurred 11 days of lost time solely do to 3 Kings failure to pick up the permits, an action that was solely in 3 Kings control. The loss of 11 days was in no way due to any action or inaction by Ecology.

As additional evidence that permitting activities did not cause a delay to 3 Kings, 3 Kings was required by this contract to provide submittals to Ecology for review and response prior to the scheduling of a Pre-Construction Meeting. The last of the submittals provided by 3 Kings to satisfy this requirement was the Positive Shoring Plan submitted on August 28, 2018. As a result of 3 Kings timing of the preparation and submittal of these contract required documents, the Pre-Construction Meeting could not have taken place before August 28, 2018. This is seven calendar days after the date when 3 Kings states they acquired the permits and 17 calendar days after the City has stated that the permits were authorized for payment and pickup.

As a result, there were a minimum of 17 days that were within 3 Kings control for permitting and pre-construction submittal completion. 3 Kings achieved Substantial Completion on November 14, 2018, which is 134 days after project Notice to Proceed dated July 2, 2018. This duration is 14 days in excess of the allowed Contract Time for Completion of 120 Days. As established above, 3 Kings through its own actions delayed the project 17 days, and therefore, no change in the contract time is warranted as requested in 3 Kings proposed Change Order 2.

## Access Control Fencing

There are multiple outstanding items associated with completion of the work for the Access Control Fencing required in the Contract Documents.

Section 32 31 13, Fences and Gates, of the Contract Documents clearly specifies the requirements for establishing access control fencing around all sides of the property using existing temporary type chain link fencing. Section 32 31 13 Part 3 specifies that the Contractor is responsible for purchasing the existing fence and providing Ecology with documentation of fence purchase and cessation of Ecology's rental contract for the fencing. Part 3 additionally specifies that the contractor repair damaged sections of the fence, provide additional fencing materials as needed, install sandbags on the base feet and install fence braces. Damages that are preexisting or the result of the Contractor's actions are the sole responsibility of the Contractor as specified in Section 32 31 13 Part 3.

The Department of Ecology has been provided copies of invoices for "Sale" and repair of the rental chain link fencing at the Aladdin Plating Site. These invoice amounts are \$4,756.32 for "Sale" and \$1,664.71 for repair, respectively. The services included on the invoices were ordered by Brett MacDonald of 3 Kings

The invoice dated December 4, 2018 for \$4,756.32, identifies that 240 feet of 6 foot temporary panels was a "Sale with Install". It is not clear if 3 Kings has paid this invoice as 3 Kings has not provided proof of purchase of the fence as required in Part 3. The invoice for "Sale", ordered by Brett MacDonald, specifically states "MUST REPLACE 84" OF 240" ONSITE W/ NEWER MATERIAL. 84" DAMAGED TO BE CHARGED TO DEPT OF ECOLOGY RA".

Ecology received an invoice from National Fence Rental for 84 linear feet of 6 foot by 12 foot damaged temporary fence panels. As the Contract Documents specify that repair of damaged fencing is the responsibility of 3 Kings, the invoice was forwarded by Ecology on December 6,

2018 to Brett MacDonald at 3 Kings for payment. Mr. MacDonald responded the same day in an email by stating that "3 Kings has completed all responsibilities regarding fence installation, including purchasing the fence and replacing all apparently damaged fence panels with new ones." As the Contract Documents specifies that repair of damaged fencing is the responsibility of 3 Kings, and 3 Kings has not paid for the damaged fencing, the cost of the fence repair has been held back from 3 Kings' payment.

Additionally, the requirements of Section 32 31 13 have not been completed. The fence is not secured on the northwest and southeast corners of the project site. The fence, as it was observed on December 7, 2018, a total of 22 panels which was less than what was present on site when the project began which was 27 panels. As a result, the northwest and southeast corners of the site are not secured at the property boundaries. This is an unacceptable condition and requires corrective action by 3 Kings. Finally, Section 32 31 13 specifies placement of 2 sandbags on each stabilizing foot and installation of bracing per every 2 fence sections which have not been completed. 3 Kings is required to install the sandbags and bracing prior to final payment or will not be paid for the Install Access Control Fencing bid item.

### Positive Shoring

As an additional element of determining the final payment amount due to 3 Kings, Ecology has determined that 3 Kings did not install the quantity of Positive Shoring listed as the Basis of Bid in Section 00 41 43, Summary of Pay Items and Construction Drawing Sheet 5. The Basis of Bid quantity for Positive shoring was 90 linear feet to support excavation to a depth of 16 feet along the eastern property boundary. This results in a minimum of 1,440 square feet of positive shoring that was specified to be installed. 3 Kings chose to implement a positive shoring design and plan that resulted in installation of a total of 605 square feet of positive shoring. The design and plan chosen by 3 Kings resulted in installation of approximately 45 percent (%) of the total shoring specified in the Contract Documents. As only 45% of the positive shoring specified in the Contract Documents was installed and subsequently removed, Ecology is approving final payment for positive shoring in the amount of \$3,600, determined as 45% of \$8,000 which is the total payment for installation and removal of positive shoring in 3 Kings schedule of values. Ecology is not adjusting the payment for the for Design/Permit Positive Shoring and Monitor/Maintain Positive Shoring as the required work for these tasks is not directly dependent on the quantity of positive shoring installed.

Ecology is proposing to meet or hold a conference call with 3 Kings to discuss the project items described above.

If you have any questions or concerns please contact me at (360) 407-6256 or Mohsen. Kourehdar@ecv.wa.gov

Sincerely,

Mohsen Kourehdar, P.E., Project Manager

Toxics Cleanup Program, Southwest Regional Office