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August 27, 2010

Mr. John E. Cantú  
Environmental Manager  
City of San Antonio  
Capital Improvement Management Services Department  
Environmental Management Division  
111 Soledad, Suite 675  
San Antonio, Texas 78205

Via e-mail: [john.cantu@sanantonio.gov](mailto:john.cantu@sanantonio.gov)

Re: Proposal for Soil Removal Activities - Revised  
SAMMs Shelter Land Acquisition  
928 West Commerce  
San Antonio, Bexar County, Texas 78207

Dear Mr. Cantú:

Weston Solutions, Inc. (WESTON<sup>®</sup>) is pleased to provide this proposal for environmental support services for the Capital Improvement Management Services (CIMS) Department of the City of San Antonio (COSA) Environmental Management Division. Our proposed scope of work, key personnel, and cost estimate are provided for your review.

### **BACKGROUND**

Phase I and II Environmental Site Assessments (ESAs) were previously completed for the above-referenced subject property. Two areas of concern (AOCs) were identified with concentrations of chemicals of concern (COCs) above the Texas Risk Reduction Program (TRRP) Tier 1 residential human health protective concentration levels (PCLs). COCs detected at the AOC located at the west side of the property include polycyclic aromatic hydrocarbons (PAH), arsenic, and lead. COCs detected in the other AOC located at the east side include PAH, lead, and mercury.

Several metals, including arsenic, beryllium, cadmium, lead, and mercury were detected in soil samples from across the property at concentrations exceeding both the applicable Texas-specific background level and TRRP Tier 1 soil-to-groundwater PCLs (which are based on groundwater protection). These metal concentrations do not exceed the Tier 1 human health PCLs and can potentially be addressed by developing Tier 2 PCLs or conducting Synthetic Precipitation Leaching Procedure (SPLP) analyses.

Concentrations of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, and silver were detected in at least one sample above Texas-specific background levels across the property.



COSA has requested a proposal with a scope of work that considers the following options:

**Option 1** - Removal of soils that include COCs detected in soil that pose a threat to human health and environment under a residential land use scenario.

**Option 2** - Removal of soils that include COCs detected in soil that pose a threat to human health and environment under a commercial/industrial land use scenario.

**Option 3** - Removal of soils that include COCs detected in soil above background concentrations.

The scope of work for each option assumes that COSA provides notification of the release to the Texas Commission on Environmental Quality (TCEQ) and that COSA desires a no further action letter from the TCEQ Corrective Action Section and not the Voluntary Cleanup Program.

### **SCOPE OF WORK**

A description of the various options is provided below.

#### **Option 1 – Soil Removal to Human Health PCLs – Residential Land Use**

This option includes the removal of soil from the two AOCs at the site. Both AOCs were identified as having concentrations of COCs above the TRRP Tier 1 residential human health PCLs. COCs detected at the AOC at the west side of the property include PAH, arsenic, and lead. COCs detected at the AOC at the east side include PAH, lead, and mercury.

TCEQ guidance for this option states that an evaluation of groundwater must be conducted. The collection of a groundwater sample for analyses is required. Based on the information provided in the ESA reports, a temporary well was installed to a depth of 20 feet; no evidence of groundwater was observed. TCEQ guidance also requires the analyses of soil samples for SPLP for those COCs that exceed the residential soil-to-groundwater PCL. These metals include antimony, arsenic, barium, beryllium, cadmium, lead, mercury, selenium, and silver. In the event that an SPLP result exceeds the residential PCL, then the site would be subject to TRRP and an Affected Property Assessment Report (APAR) would be required.

Onsite soils impacted by COCs above the residential human health PCLs that are located entirely within vadose zone and can be removed and disposed within 60 days from the date that the release was reported to the TCEQ are not be subject to TRRP and will not require an APAR.



### **Task 1 – Soil Excavation, Transportation, and Disposal**

Prior to conducting the removal activities, a Work Plan will be prepared that will outline work activities, sampling and analytical protocols, and health and safety procedures to be followed during all field activities. WESTON will also prepare the TCEQ notification document to be submitted by COSA. WESTON will contract a remediation subcontractor to conduct the removal activities listed below:

- Prior to the start of field activities, a site-specific health and safety plan will be prepared.
- WESTON anticipates that the soil will be characterized in-place using the metals data previously collected at the site and landfill approval will be received so that all excavated soil can be loaded directly into dump trucks and transported for disposal as Class 2 nonhazardous waste.
- Notification for utility locates will be conducted.
- Surface asphalt will be removed and properly disposed.
- The two AOCs will be excavated. One area is approximately 10,300 square feet; the other area is 2,000 square feet. It is assumed both areas will be excavated to a depth of 2.8 feet below ground surface (bgs). An estimated 1,700 loose cubic yards of soil will be transported and disposed at a local landfill by the subcontractor. It is assumed that these activities can be completed in 5 days.
- WESTON will collect soil confirmation samples from the excavations. We estimate that 12 soil samples will be analyzed for PAH and 15 soil samples for nine metals (antimony, arsenic, barium, beryllium, cadmium, lead, mercury, selenium, and silver). After sampling has been completed, the excavation will be left open pending laboratory results.
- Samples with the highest concentrations of the nine metals that exceed the residential soil-to-groundwater PCLs will be collected and analyzed by SPLP.
- During excavation activities, additional soil samples will be collected from the AOC located at the east side of the site. This AOC is where the highest PAH concentrations were detected at a depth of 2 feet and significantly exceeded human health PCLs. Analyses will be requested to determine the vertical extent of PAH in soil if the confirmation sample(s) collected from the bottom of the excavation still exceed PCLs. The additional samples will be collected at depths of 3 and 5 feet bgs in the area of soil boring locations B-52 and B-53. Samples will be submitted for PAH analysis with instructions to “hold” the analyses pending the results of the bottom excavation samples in this area.
- Three soil samples will be collected at the site using a hand auger or similar for pH analyses for possible Tier 2 calculations. Tier 2 calculations will only be required if the site is subject to TRRP and an APAR is required.
- Following the receipt of acceptable analytical results (assuming approximately 5 days turnaround time for receipt of laboratory results) subcontractor and WESTON will



remobilize to site and backfill the excavation with base material that is compacted with the excavation equipment.

- In the event that concentrations of COCs still exceed PCLs, a contingency is included to over excavate and dispose of an additional 150 cubic yards of soil and collect confirmation samples (1 day of excavation and 1 day of backfilling). It is assumed that an additional five sets of soil samples for PAH and nine metals will be collected and analyzed.

## **Task 2 – Reporting/Project Management**

WESTON will prepare a report presenting the results of the soil removal activities. The report will summarize field activities performed, provide a map showing the sample locations, include copies of waste manifests, and present the analytical results in comparison to published TRRP Tier 1 PCLs and Texas-specific background concentrations. An electronic copy of the draft report will be submitted via e-mail to COSA for review and comments. Three hard copies of the final report will be submitted with electronic PDF version on two CDs.

The scope of work assumes the following:

- Structures that require removal during excavation activities will not be reinstalled or replaced. Every effort will be made not to damage these structures; however, WESTON and its subcontractor will not be responsible for damage that may occur during removal and relocated onsite. This may include, but is not limited to concrete benches, concrete parking bumpers, interior fences, landscaping, playground area, and the gazebo. It is assumed that the buildings and outer perimeter fence will not require removal.
- Trees that are located within the excavation areas will not be removed. The amount of soil to remain around the trees will be determined by a COSA representative. WESTON and its subcontractor will not be responsible for any tree damage that may occur.
- Utility maps for property will be provided by COSA. Utilities that are not identified by a locate service (such as Texas One Call) must be identified by COSA. WESTON will assume no responsibility for costs or work required to perform repairs to utilities that may be damaged and not identified by others.
- No resurfacing of the excavated area will be required and the removed asphalt will not be saw cut.
- Removal and disposal of the existing concrete slabs is not included.
- Compaction testing will not be conducted.
- Since the data may be used for subsequent reporting to the TCEQ, analyses and reporting will be performed in accordance with TRRP guidance (TRRP-13); however, a TRRP data usability summary will not be conducted. Laboratory analyses will be conducted at standard turnaround time.



- Reporting will be conducted in accordance with TCEQ-required formats as appropriate. Although it may not be required, it is assumed that the reports for each option will be in a combined APAR/Response Action Completion Report (RACR) format.
- It has been assumed that the preparation of the APAR will not need to consider potentially affected groundwater, sediment, or surface water. Also, the scope of work assumes that the additional assessment data and results of the verification samples will be sufficient to support a conclusion that a groundwater investigation is not required and that the TCEQ does not request the installation and sampling of monitoring well(s).

### **Option 2 – Soil Removal to Human Health PCLs – Commercial/Industrial Land Use**

This option includes the removal of soil from the two AOCs at the site as previously described for Option 1 but to the TRRP Tier 1 commercial/industrial human health PCLs. COCs detected above the commercial/industrial standards at the AOC at the west side of the property include PAH and lead. COCs detected at the AOC at the east side include PAH, lead, and mercury. Since this option pursues a commercial/industrial land use, the site and activities will be subject to TRRP including the completion of an APAR/RACR and deed recordation.

The scope of work and assumptions for this option are the same as Option 1 except for the following:

- A Self Implementation Notice (SIN) will be prepared and submitted to the TCEQ central and regional offices to provide the required notification of COSA's intent to address environmental conditions in accordance with TRRP Remedy Standard A. The SIN will be submitted to TCEQ following review of the Draft SIN by COSA.
- The two AOCs will be excavated. One area is approximately 8,600 square feet; the other area is 2,000 square feet. It is assumed both areas will be excavated to a depth of 2.8 feet bgs. An estimated 1,460 loose cubic yards of soil will be transported and disposed at a local landfill by the subcontractor. It is assumed that these activities can be completed in 5 days.
- WESTON will collect soil confirmation samples from the excavations. We estimate that 12 soil samples will be analyzed for PAH and 12 soil samples for lead and mercury. After sampling has been completed, the excavation will be left open pending laboratory results.
- In the event that concentrations of COCs still exceed PCLs, a contingency is included to over excavate and dispose of an additional 150 cubic yards of soil and collect confirmation samples (1 day of excavation and 1 day of backfilling). It is assumed that an additional five sets of soil samples for PAH and six sets of samples for metals will be collected and analyzed.
- Metals concentrations detected in previous samples that exceed the Tier 1 soil-to-groundwater PCLs will be further evaluated by calculating Tier 2 PCLs using the site-specific pH data. Tier 2 calculations will be conducted for antimony, arsenic, barium,



beryllium, cadmium, lead, mercury, selenium, and silver. The results will be summarized in the report.

- As required by TRRP, a walking receptor survey will be conducted to identify potential receptors such as underground utilities, water wells, surrounding property use, water bodies, and any other potential receptors within 500 feet of the site. The receptor survey will include a records search for water wells located within ½ mile of the site and a review of well completion, age, use, and status.
- Following TCEQ closure, a Texas-licensed land surveyor to conduct a survey and metes and bounds description of the area that will require a deed notice for commercial/industrial land use. A draft of the deed notice will be provided to COSA for review and comments prior to being filed in the Bexar County records by WESTON.

### **Option 3 – Soil Removal to Background Concentrations**

This option includes the removal of soil identified with concentrations of COCs detected above the Texas-specific background levels. Metals detected in at least one soil sample above background include antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, and silver. The scope of work and assumptions for this option are the same as Option 1 except for the following:

- The area to be excavated is approximately 30,300 square feet. It is assumed that the area will be excavated to a depth of 2.8 feet bgs. An estimated 4,110 cubic yards of soil will be transported and disposed at a local landfill by the subcontractor. It is assumed that these activities can be completed in 10 days.
- WESTON will collect soil confirmation samples from the excavations. We estimate that 12 soil samples will be analyzed for PAH and 58 soil samples will be analyzed for metals (antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, and silver). After sampling has been completed, the excavation will be left open pending laboratory results.
- In the event that concentrations of COCs still exceed PCLs, a contingency is included to over excavate and dispose of an additional 150 cubic yards of soil and collect confirmation samples (1 day of excavation and 1 day of backfilling). It is assumed that an additional five sets of soil samples for PAH and 10 sets of samples for metals will be collected and analyzed.



**SCHEDULE**

WESTON proposes the following schedule:

<i>Option</i>	<i>Activity</i>	<i>Duration (working days/week)</i>	<i>Schedule*</i>
1-Soil Removal to Residential Human Health PCLs	Profile waste, obtain landfill approval, and mobilize to the site	3 to 4 weeks	12 to 17 weeks
	Soil removal and confirmation sampling	1 week	
	Laboratory analyses and evaluation of data	7 days	
	Overexcavating, confirmation sampling, laboratory analyses, and evaluation of data (if necessary)	8 days	
	Backfill excavations	2 days	
	Draft Report	4 to 8 weeks	
	Final Report (assumes 2 week review of draft by COSA)	1 week following receipt of COSA comments	
2-Soil Removal to Commercial/ Industrial Human Health PCLs	Prepare and submit SIN	2 weeks	18 to 19 weeks
	Profile waste, obtain landfill approval, and mobilize to the site	3 to 4 weeks	
	Soil removal and confirmation sampling	1 week	
	Laboratory analyses and evaluation of data	7 days	
	Overexcavating, confirmation sampling, laboratory analyses, and evaluation of data (if necessary)	8 days	
	Backfill excavations	2 days	
	Draft Report	8 weeks	
	Final Report (assumes 2 week review of draft by COSA)	1 week following receipt of COSA comments	
	Following TCEQ Approval, prepare deed notice documents	60 days	2 months
3-Soil Removal to Background Concentrations	Profile waste, obtain landfill approval, and mobilize to the site	3 to 4 weeks	13 to 18 weeks
	Soil removal and confirmation sampling	2 weeks	
	Laboratory analyses and evaluation of data	7 days	
	Overexcavating, confirmation sampling, laboratory analyses, and evaluation of data (if necessary)	8 days	
	Backfill excavations	3 days	
	Draft Report	4 to 8 weeks	
	Final Report (assumes 2 week review of draft by COSA)	1 week following receipt of COSA comments	

\*The provided range of schedule does not include the time for COSA to review and comment on draft documents.



**ESTIMATED COST**

WESTON proposes to complete the scope of work described in this proposal on a Time and Materials Basis for the estimated costs provided below for each Option:

- Option 1 - Soil Removal to Human Health PCLs-Residential ..... \$ 167,531.25**
- Option 2 - Soil Removal to Human Health PCLs-Commercial/Industrial ..... \$ 144,881.43**
- Option 3 - Soil Removal to Background Concentrations ..... \$ 318,769.60**

The cost estimate is provided as Attachment 1. The work will be performed in accordance with the proposed agreement between the City of San Antonio and Weston Solutions, Inc. for *On-Call Professional Environmental Consulting Services*. Unit rates provided are subject to change based on the executed agreement.

**CLOSING**

You may signify your acceptance of this proposal by signing in the space provided below and returning the signature page via e-mail to ([b.wik@westonsolutions.com](mailto:b.wik@westonsolutions.com)) or by fax (210-308-4329). Please contact me at 210-308-4312 with any questions or comments you might have regarding this proposal.

Sincerely,

**WESTON SOLUTIONS, INC.**

Bruce D. Wik, P.G.  
Project Manager

**Authorization to Proceed:**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

# Attachment 1 Proposal Cost Estimate

	Unit Rate	OPTION 1-TASK 1 Soil Excavation/ Transportation/Disposal		OPTION 1-TASK 2 Reporting/Project Management		OPTION 2-TASK 1 Soil Excavation/ Transportation/Disposal		OPTION 2-TASK 2 Reporting/Project Management		OPTION 3-TASK 1 Soil Excavation/ Transportation/Disposal		OPTION 3-TASK 2 Reporting/Project Management	
		Units	Amount	Units	Amount	Units	Amount	Units	Amount	Units	Amount	Units	Amount
<b>Labor Estimate (per hour)</b>													
Project Principal/Sr. Engineer	\$160.00			3.0	\$ 480.00								
Sr. Project Manager/Sr. Environmental Geologist	\$145.00	30.0	\$ 4,350.00	40.0	\$ 5,800.00	30.0	\$ 4,350.00	40.0	\$ 5,800.00	40.0	\$ 5,800.00	45.0	\$ 6,525.00
Project Manager/Geologist/Scientist	\$90.00	153.0	\$ 13,770.00	182.0	\$ 16,380.00	153.0	\$ 13,770.00	182.0	\$ 16,380.00	223.0	\$ 20,070.00	174.0	\$ 15,660.00
Technician	\$75.00	2.0	\$ 150.00			2.0	\$ 150.00			2.0	\$ 150.00		
CADD/GIS Technician	\$75.00			37.0	\$ 2,775.00			37.0	\$ 2,775.00			86.0	\$ 6,450.00
Subcontractor Coordinator	\$80.00	3.0	\$ 240.00			3.0	\$ 240.00			3.0	\$ 240.00		
Project Administrator	\$75.00			6.0	\$ 450.00			6.0	\$ 450.00			8.0	\$ 600.00
Clerical	\$60.00			26.0	\$ 1,560.00			26.0	\$ 1,560.00			26.0	\$ 1,560.00
<b>Labor Total</b>			<b>\$ 18,510.00</b>		<b>\$ 27,445.00</b>		<b>\$ 18,510.00</b>		<b>\$ 27,445.00</b>		<b>\$ 26,260.00</b>		<b>\$ 31,595.00</b>
<b>Subcontractor Costs</b>													
Excavate, Disposal, and Backfill (4110 cu yds)			\$ -		\$ -		\$ -		\$ -		\$ 225,681.75		\$ -
Excavate, Disposal, and Backfill (1700 cu yds)			\$ 98,325.00		\$ -		\$ -		\$ -		\$ -		\$ -
Excavate, Disposal, and Backfill (1460 cu yds)			\$ -		\$ -		\$ 72,565.00		\$ -		\$ -		\$ -
Surveying			\$ -		\$ -		\$ 3,496.00		\$ -		\$ -		\$ -
Additional Excavation/Backfill (2 days/150 cu yds)			\$ 14,035.75		\$ -		\$ 16,585.30		\$ -		\$ 14,035.75		\$ -
<b>Subcontractor Total</b>			<b>\$ 112,360.75</b>		<b>\$ -</b>		<b>\$ 92,646.30</b>		<b>\$ -</b>		<b>\$ 239,717.50</b>		<b>\$ -</b>
<b>Analytical Services</b>													
pH (7-10 Bday)	\$11.50	3	\$ 34.50		\$ -	3	\$ 34.50		\$ -		\$ -		\$ -
PAH (7-10 Bday)	\$172.50	21	\$ 3,622.50		\$ -	21	\$ 3,622.50		\$ -	21	\$ 3,622.50		\$ -
RCRA 8 Metals+3 (7-10 Bday)	\$222.81		\$ -		\$ -		\$ -		\$ -	68	\$ 15,151.25		\$ -
SPLP Metals-each (7-10 day)	\$51.75	9	\$ 465.75		\$ -		\$ -		\$ -		\$ -		\$ -
Metals (2) (7-10 Bday)	\$51.75		\$ -		\$ -	18	\$ 931.50		\$ -		\$ -		\$ -
Metals (9) (7-10 Bday)	\$143.75	24	\$ 3,450.00		\$ -		\$ -		\$ -		\$ -		\$ -
<b>Analytical Services Total</b>			<b>\$ 7,572.75</b>		<b>\$ -</b>		<b>\$ 4,588.50</b>		<b>\$ -</b>		<b>\$ 18,773.75</b>		<b>\$ -</b>
<b>Travel Costs</b>													
POV Mileage (miles)	\$0.50	440	\$ 253.00		\$ -	440	\$ 253.00	25	\$ 14.38	640	\$ 368.00		\$ -
<b>Travel Total</b>			<b>\$ 253.00</b>		<b>\$ -</b>		<b>\$ 253.00</b>		<b>\$ 14.38</b>		<b>\$ 368.00</b>		<b>\$ -</b>
<b>External ODCs</b>													
Courier	\$11.50		\$ -	1	\$ 11.50		\$ -	1	\$ 11.50		\$ -	1	\$ 11.50
Bexar County Fees	\$34.50		\$ -		\$ -		\$ -	1	\$ 34.50		\$ -		\$ -
Misc. Field Supplies	\$27.60	8	\$ 220.80		\$ -	8	\$ 220.80		\$ -	14	\$ 386.40		\$ -
Water Well Search	\$287.50		\$ -	1	\$ 287.50		\$ -	1	\$ 287.50		\$ -	1	\$ 287.50
<b>External ODC Total</b>			<b>\$ 220.80</b>		<b>\$ 299.00</b>		<b>\$ 220.80</b>		<b>\$ 333.50</b>		<b>\$ 386.40</b>		<b>\$ 299.00</b>
<b>Internal ODCs</b>													
Copying	\$0.07		\$ -	5,285	\$ 369.95		\$ -	5,285	\$ 369.95		\$ -	5,285	\$ 369.95
PID (day)	\$100.00	5	\$ 500.00		\$ -	5	\$ 500.00		\$ -	10	\$ 1,000.00		\$ -
<b>Internal ODC Total</b>			<b>\$ 500.00</b>		<b>\$ 369.95</b>		<b>\$ 500.00</b>		<b>\$ 369.95</b>		<b>\$ 1,000.00</b>		<b>\$ 369.95</b>

<b>Estimated Cost</b>	<b>\$ 139,417.30</b>	<b>\$ 28,113.95</b>	<b>\$ 116,718.60</b>	<b>\$ 28,152.83</b>	<b>\$ 286,505.65</b>	<b>\$ 32,263.95</b>
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Option 1 Total Estimate: \$ 167,531.25      Option 2 Total Estimate: \$ 144,881.43      Option 3 Total Estimate: \$ 318,769.60

