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Pavement Debris Removal Work Plan

Akron, OH

March 2008

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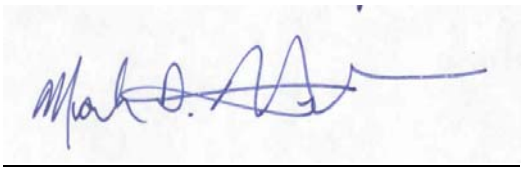

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Pavement Debris Removal Work Plan

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1. Introduction

The following Work Plan describes the processes and procedures to be followed to complete the various tasks required to remove debris from the surface of the parking areas surrounding the Akron Airdock (Airdock). The Work Plan was developed based on the scope of services required for the project and a Debris Collection Pilot Study conducted by ARCADIS in 2007. The Work Plan in conjunction with the Health and Safety Plan (HASP) provide a comprehensive framework for the execution of the debris removal activities.

1.1 Background

During the week of September 24, 2007, ARCADIS successfully completed a Debris Collection Pilot Study on the west side of the Airdock. A Vac-Truck was used to clean up loose material, sediment, railroad ballast and other debris in several areas. The Pilot Study was performed at four separate work areas. Based on the results obtained from the pilot study, ARCADIS learned the following information.

- Using a Vac-Truck for debris clean-up was an effective approach, but was a labor intensive process for loose debris removal. The vacuum hose was only capable of picking up loose debris, requiring a great deal of manual digging and manipulation of the debris with hand tools. An electric hammer drill was used to loosen up railroad ballast which was effective and could possibly be used in other areas.

- A significant amount of large debris was created during the debris clean-up. The debris was too large to be sucked through the Vac-Truck hose, and had to be picked up manually or with equipment. A skid steer would probably be an effective piece of equipment for performing this work. A skid steer could also be used to clean up heavily damaged asphalt on the north and east sides of the Airdock before initializing vacuuming.

- Although the Vac-Truck minimized airborne dust during the collection process, dust was created when the truck was unloaded. The same would probably occur when the debris would be loaded into a roll-off box for disposal. Dust suppression material (water) would have to be applied to the debris as it is handled and being placed in roll-off boxes to minimize dust generation.

- Wet weather slows the vacuuming process significantly. Water weighs down sediment and debris making it difficult to suck up and more likely to clog the Vac-Truck hoses. It rained the second and third days of the Pilot Study and hoses had to be unclogged several times. Future work would have to be conducted during dryer conditions.

- A pressure washer should be used to decontaminate the Vac-Truck. Water used in the decontamination process would be absorbed by the debris therefore eliminating generation of liquid waste. A pressure washer would be more effective at cleaning versus cleaning the Vac-Truck manually. A cleaning solvent could be used for a final wipe-down.

1.2 Description of Work Area

The work area (Figure 1) includes the parking and drive areas surrounding the Airdock. The subject areas are currently paved with asphalt or concrete. Weathering and natural "wear and tear" has left the asphalt and concrete cracked throughout the subject area. Debris containing PCB's is located in the cracks and construction joints throughout the parking and drive areas.

1.3 Objectives

The purpose of this activity is to remove any remaining loose debris from the surface of paved areas surrounding the Airdock. This will allow the facility property owners to be able to conduct routine construction and repair activities with no special requirements related to PCB's from the Airdock. The objectives of this project are as follows:

- Remove PCB contaminated debris from the various cracks and construction joints throughout the identified work area to a visible standard.

- Utilize mechanical means to remove accumulated debris in areas where the cracking has advanced to the point that the asphalt no longer has sufficient adhesion to the underlying pavements and can easily be removed.

- Remove debris that has accumulated on the surface of the asphalt or concrete using scraping, sweeping, and vacuuming techniques.

1.4 Work Plan Outline

The Work Plan is organized into the following Sections:

- Section 2 describes the Health and Safety requirements;
- Section 3 describes the Project Team;
- Section 4 describes Project Methodology;
- Section 5 describes Decontamination activities;
- Section 6 describes Demobilization activities;
- Section 7 describes the Project Timeline;
- Section 8 describes the Report activities.

2. Health and Safety

It is the policy of ARCADIS to provide a safe and healthful work environment. No aspect of operations is of greater importance than injury and illness prevention. A fundamental principle of safety management is that all injuries, illnesses, and incidents are preventable. ARCADIS will take every reasonable step to eliminate or control hazards in order to minimize the possibility of injury, illness, or incident.

A site specific Health and Safety Plan (HASP) will be prepared for the work to be completed. The HASP will prescribe the procedures that must be followed during activities at the Site. Operational changes that could affect the health and safety of personnel, the community, or the environment will not be made without the prior approval of the Project Manager (PM) and the Health and Safety Officer (HSO). The HASP will be reviewed periodically to ensure that it is current and technically correct. Changes in site conditions or the scope of work will require a review and modification to the HASP. Such changes will be completed in the form of an addendum or a revision to the plan. ARCADIS will also follow Lockheed Martin health and safety requirements.

3. Project Team

3.1 ARCADIS Personnel

ARCADIS will maintain an On-Site Construction Supervisor during the project. The Construction Supervisor will be responsible for providing project status updates to the ARCADIS Project Manager, providing oversight of daily project activities, documenting of the project activities, supervising the safety program for the project, conducting safety meetings, complete safety audits when necessary, and for monitoring work activities for compliance with the HASP. The On-Site Construction Supervisor will have authority to stop or alter work if an unsafe condition exists.

3.2 Subcontractor Personnel

Project activities will be performed by Terra Contracting, LLC (Terra). Terra will provide equipment and personnel necessary to complete the project activities. Terra will have a 5-6 man crew onsite performing the activities along with a full time project manager conducting supervisory and oversight activities during the course of the project.

3.3 Lockheed Martin Personnel

Lockheed Martin maintains overall project responsibility including security, property access and health and safety. Lockheed Martin is also responsible for sample analysis, debris disposal, coordination with the various land owners and approval that the visual standard for debris removal has been achieved.

A list of key project management personnel is provided below:

Company/Organization	Title	Name	Phone Number
Lockheed Martin	Project Coordinator	David Gunnarson	(330) 796-8751 (Akron) / (703) 367-5022
	Onsite Coordinator	Steve Vardavas	(703) 367-2185
Arcadis	Project Officer	Richard Difiore	(315) 446-2570 x265
	Project Manager	Mark Hurban	(412) 231-6624 x566
	Assistant Project Manager	Brian Hornyak	(412) 231-6624 x564
	Field Manager	Mike Courtney	(248) 761-8137
	Quality Assurance (QA) Coordinator	Keith Stang	(412) 231-6624 x573
Terra Contracting, LLC	President	Steve Taplin	(269) 375-9595
TestAmerica-Canton, OH	Project Manager	Mark Loeb	(330) 966-9387

4. Project Methodology

The project tasks listed below will be taking place concurrently. The activities in the subject areas surrounding the Airdock, as shown in Figure 1, have been set up into approximately 80 feet x 80 feet grids for means of tracking progress of the project. Project activities will begin on the west side the Airdock. The west side work will begin west of the fence line and continue toward Plant E working from the south end to the north end of the Airdock. Work on the west side of the Airdock will include the slit trench (approximately 5 feet wide and approximately 11 inches deep) which contains highly compacted sediment. The slit trench will require the use of a spud bar or pneumatic tools to loosen the material which will be vacuumed with the Vac-Truck once the material is loosened. Work will then begin on the east side of the west fence line and continue from the south end to the north end of the Airdock. Once the west side grids are complete, the project will continue on the south end side of the Airdock. At the completion of the south end grids, work will continue on the east side grids working from the south doors to the north doors. Because accumulation of sediment is more substantial on the north end of the Airdock, this area will be the final area to complete along with the debris removal at two (2) catch basins.

4.1 Management of Waste

Waste streams generated during the course of the project will be classified into two types of debris as outlined below. ARCADIS understands that Lockheed Martin will cover costs associated with the transportation and disposal of the waste streams. ARCADIS will assist Lockheed Martin with the coordination and scheduling of the disposal.

- C&D Debris – This is material that cannot be collected by vacuumming due to its large size. C&D debris will be stockpiled at the northwest corner of the project area as referenced in Figure 1. At the conclusion of project, these materials will be handled as non-TSCA waste and direct loaded by ARCADIS into dump trailers.

- Toxic Substances Control Act (TSCA) Debris – This is material that can be vacuumed because of its smaller size and includes debris vacuumed during the crack and construction joint debris removal. Once the debris has been vacuumed from cracks and accumulation on the asphalt and concrete, the debris will be placed at the TSCA debris staging area as illustrated on Figure 1. A

minimal amount of water will be used for dust suppression control when the Vac-Truck is being emptied. The TSCA debris will then be collected by a skid steer and loaded into roll-off boxes at the TSCA staging area as illustrated on Figure 1. No free liquids will be generated as a result of the dust suppression. Roll-off boxes will be equipped with bows and tarps and will be managed in accordance with TSCA. Equipment associated with the TSCA debris, as referenced in Section 7, will be placed into the roll-off boxes as well. Trucks will transport the roll-off boxes to a designated landfill for disposal.

4.2 Project Tasks

4.2.1 Crack and Construction Joint Debris removal

In order to remove debris from the cracks and construction joints, a small shrouded mobile chamber, similar in shape to a push lawn mower, will be equipped with a series of air nozzles. These air nozzles will be directed strategically in order to provide the best debris removal results. A compressed air line will be attached to the chamber along with a 4" vacuum line extending from a vacuum truck. As the debris is loosened from the cracks and construction joints, it will immediately be vacuumed into the truck.

A 400 scfm compressor will be used as the air feed to the chamber. A vacuum truck capable of moving 5,000 scfm and equipped with a baghouse will be attached to the chamber to remove all air and debris. Since the vacuum rate far exceeds the compressed air supply, a negative pressure between the interior of the chamber and the ambient air will be maintained. Two mobile chambers can be operated from a single compressor and vacuum truck combination.

4.2.2 Removal of Poorly Adhered Asphalt

In order to remove the poorly adhered asphalt, the following process will be implemented. First the 'orange peel' debris will be scrapped free utilizing a skid steer or similar piece of equipment and loaded in a dump truck. The dump truck will transport the debris to the staging area as identified in Figure 1. This location is positioned at the northwest corner of the project area. The debris will be placed at the staging area and will be stockpiled and covered for future disposal as referenced in Section 4.1.

Once the poorly adhered asphalt has been scraped, a vacuum truck equipped with a hand-vacuum lance will be utilized to remove the excess asphalt left behind during the scraping operations.

4.2.3 Removal of Debris Accumulated on the Surface of Asphalt and Concrete

Once scraping activities are complete, the skid steer will be mounted with a power broom that is equipped with a water mister to suppress dust generated when going over the areas again. The use of the skid steer with the broom attachment will windrow the debris with the previous scraped materials.

In order to remove the latent debris, the area will be vacuumed using a vacuum truck equipped with a mobile chamber once the sweeping activities are concluded as described above. The windrow will be removed at the conclusion of vacuuming operations using the vacuum truck equipped with a hand lance.

5. Decontamination

At the conclusion of the pavement debris removal activities equipment such as the hose from the Vac-Truck, sweeper bags, and the sweeping brush from the skid steer will be placed with the TSCA debris waste for disposal as TSCA waste as referenced in Section 4.1. Equipment such as hand tools, air compressors will be wiped down and decontaminated using a liquid to be approved by Lockheed Martin. Once equipment has been decontaminated ARCADIS will conduct wipe sampling of the tools and equipment and analyze for the presence of PCB's. ARCADIS understands that costs associated with the sample analysis will be incurred by Lockheed Martin.

6. Demobilization

Upon completion of the work associated with the surface and crack debris removal, ARCADIS will demobilize equipment, materials, and personnel from the project site.

7. Project Timeline

7.1 Schedule

The project is estimated to take approximately 5 weeks to complete. The project team will be working up to 11 hour days for 6 days per week.

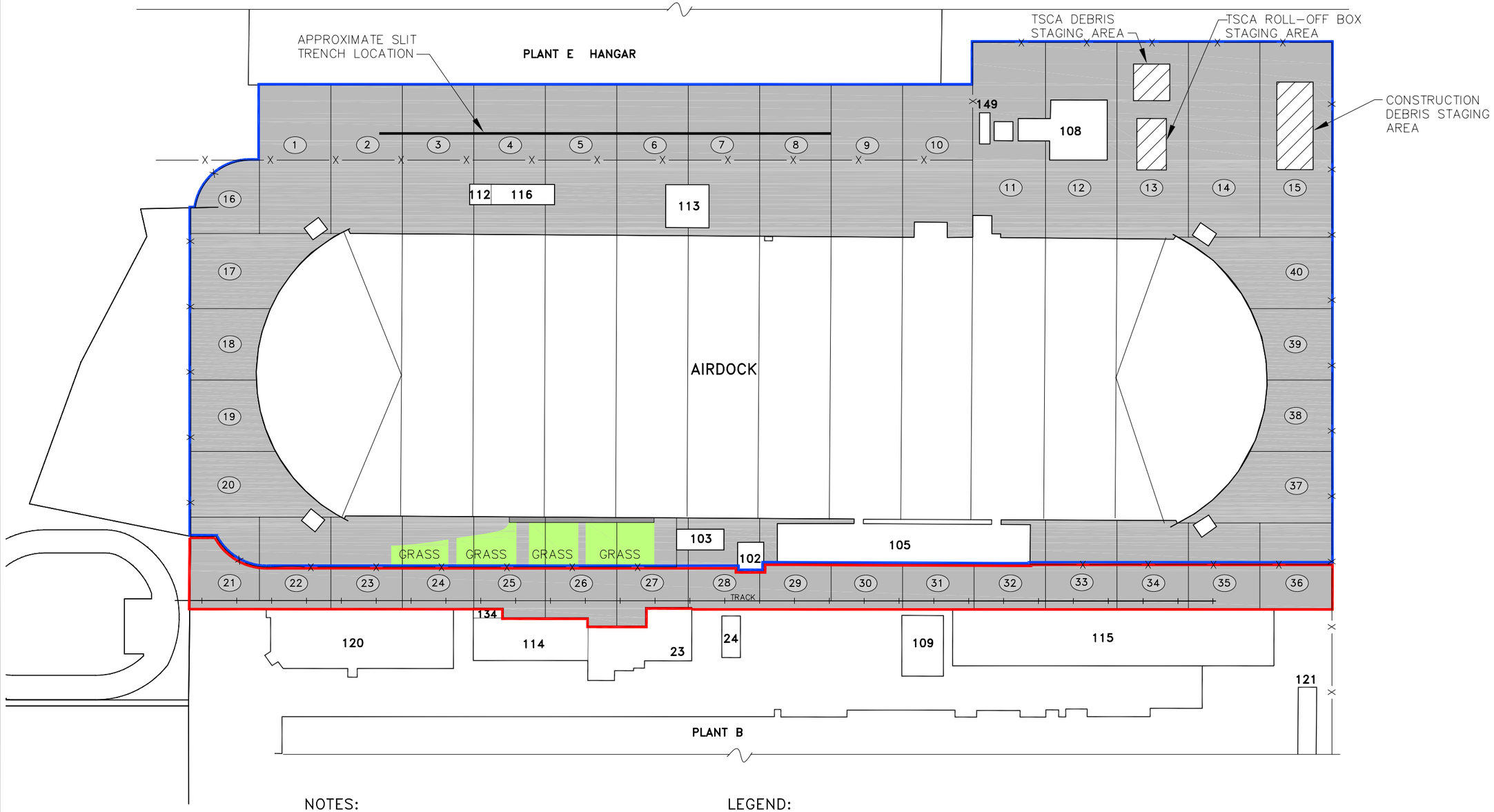
7.2 Weather Delays

In the event of inclement weather, days lost will be may be made up by working additional hours during the week.

8. Report

Within 60 days of the field work being completed, ARCADIS will provide Lockheed martin with a report containing a description of the pavement debris removal project and such illustrations, photos, sample results, maps and any other pertinent information for properly documenting all aspects of the project.

Figure



NOTES:

1. BASE MAP IS DIGITIZED FROM A COMPILATION OF SCANNED IMAGES FROM DRAWINGS OBTAINED FROM GOODYEAR AEROSPACE CORPORATION, PLANT ENGINEERING, DATED SEPTEMBER 1979, BY GPD, INC. @ 1"=20'.
2. FEATURES IN THE SOUTHWESTERN AREA ARE FROM A WESTON SOLUTIONS UNNAMED MAP, DATED MAY 04.
3. ALL LOCATIONS ARE ASSUMED APPROXIMATE ONLY.

LEGEND:

- FENCELINE
- 120 — BUILDING NUMBER AND OUTLINE
- TRACK
- (30) — GRIDS TO BE CLEANED
- OWNED BY MEGGITT
- OWNED BY LMA COMMERCE LLC

LOCKHEED MARTIN CORPORATION
AKRON AIRDOCK FACILITY
AKRON, OHIO
PAVEMENT DEBRIS CLEANING

GRID LOCATION MAP

ARCADIS

FIGURE 1

CITY:(SYR) DIV/GROUP:(085) DB:(RCB PGL WLJ) LD:(Opt) PIC:(Opt) PM:(Read) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\CAD\ACTIB\003801500000000\IDWG\380158\20.DWG LAYOUT: 1 SAVED: 4/9/2008 2:49 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---
XREFS: IMAGES: PROJECTNAME: ---
PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 4/9/2008 2:49 PM BY: JONES, WENDY