Imagine the result

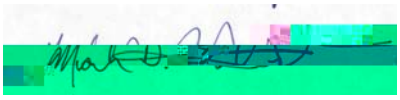
Lockheed Martin Corporation

Airdock Pavement Debris Removal

Project Report
Akron, Ohio

October 14, 2008

ARCADIS



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Airdock Pavement Debris Removal

Akron, Ohio

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1. Introduction and Background

Since 2003 Lockheed Martin has undertaken a remediation program to address historical solid particle releases of non-liquid PCB contained in the siding material used on the exterior of the Akron Airdock. The strategy for the remediation program is to work from the source of the release outward by first removing or coating the siding material on the Airdock, removing soil near the Airdock with elevated PCB concentrations and removing debris from the pavement surface and the storm water drainage system. The Airdock siding has been removed or coated and soil with elevated concentrations has been excavated and disposed off-site. This project was undertaken to complete the next phase of the exterior strategy which is to remove residual PCBs from the pavement surfaces surrounding the Airdock.

The work area includes the paved area surrounding the Airdock as outlined in Figure 1. Due to weathering and routine use, the asphalt and concrete pavement surfaces developed cracks and the condition degraded to varying degrees. Debris collected in the cracks of the pavement surface may contain PCB particles, so the purpose of this project is to remove as much of this debris as feasible.

Prior to the initiation of the Pavement Debris Removal activities, a Pavement Debris Removal Work Plan (April 18, 2008) was developed and submitted to Lockheed Martin for review and approval. The work plan described the processes and procedures to be followed in order to complete the various tasks required to remove debris located in the cracks and on the surface of the parking areas surrounding the Airdock.

During the course of the remedial construction project, ARCADIS maintained an On-Site Construction Supervisor to oversee the project. Project activities were performed by ARCADIS' subcontractor, Terra Contracting, LLC (Terra).

Lockheed Martin currently leases the Akron Airdock (Plant A) and 19 acres of fenced in area immediately surrounding Plant A from Summit County Port Authority who is the current owner of the property. This project also included property owned by other organizations surrounding Plant A. This includes pavement west of Plant A towards Plant E, east towards Plant B and to the south of Plant A. Access permission was obtained from the property owners prior to the start of work.

2. Scope of Work

Remedial construction activities lasted approximately 9 weeks between May and June, 2008. The scope of work included the following tasks:

- Debris removal from cra

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The vacuum truck was equipped with HEPA filters and a bag house to remove all air and debris and prevent release of fine particles from the vacuum exhaust. Two mobile chambers were operated from a single compressor and vacuum truck combination. A photograph of this unit as described above is shown in Photo 1.

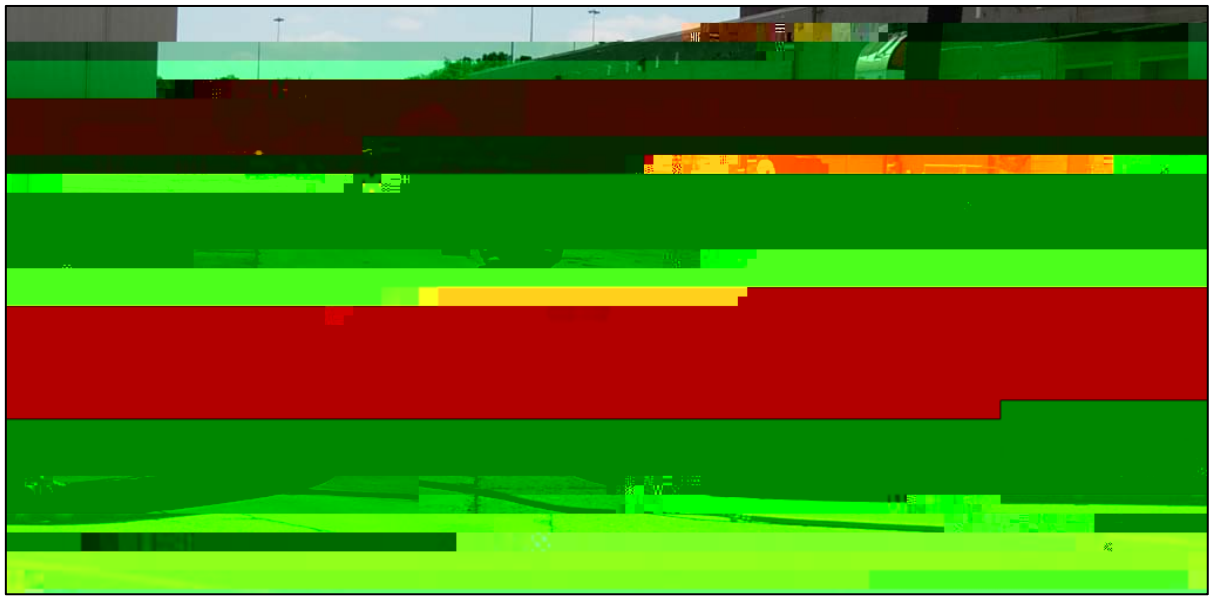


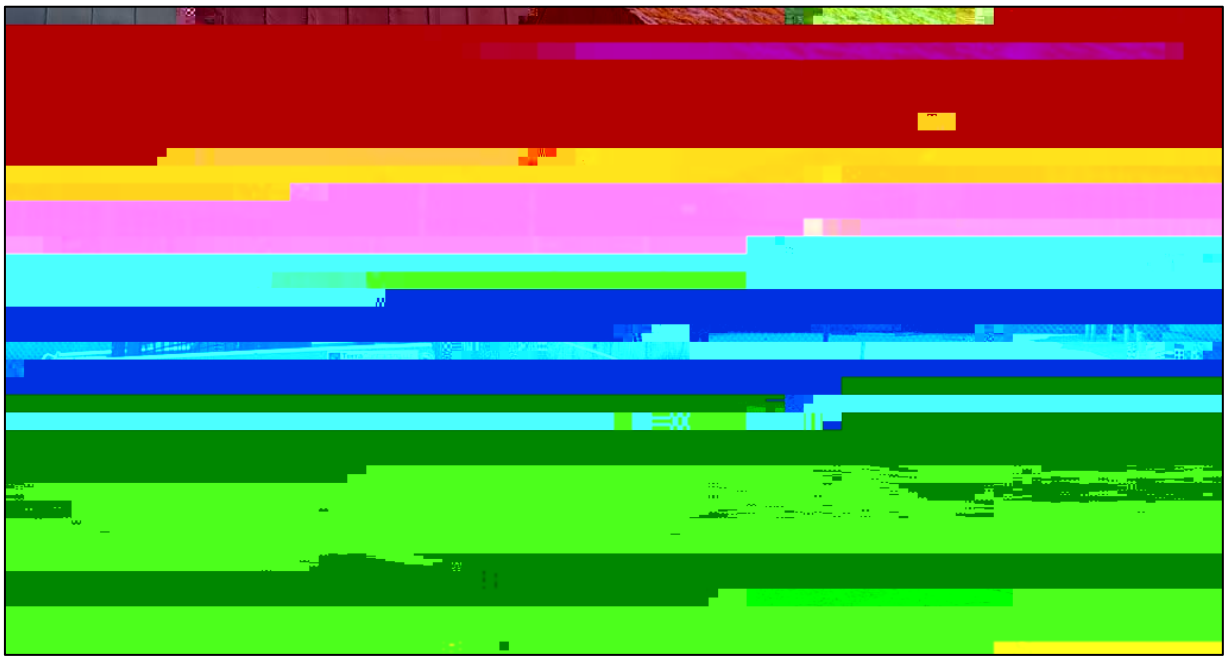
Photo 1 – Debris removal with shrouded mobile chambers

3.2 Removal of Poorly Adhered Asphalt

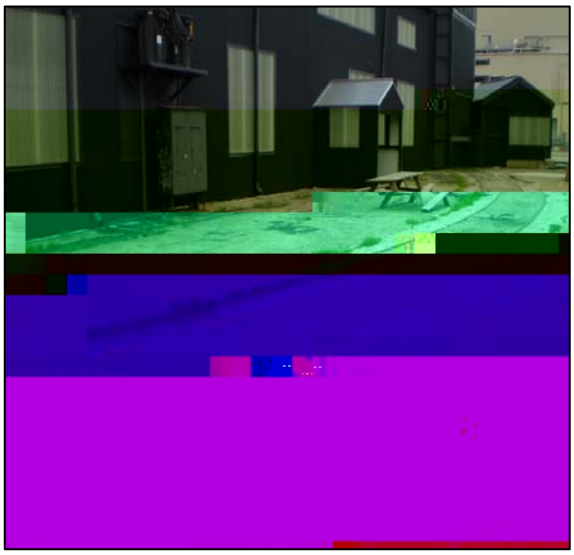
In order to gain access to debris in degraded concrete pavement in areas where a thin layer of asphalt pavement had previously been applied and was poorly adhered, the following process was implemented. First the asphalt surface was scraped utilizing a skid steer and the loose asphalt was removed and recycled. The asphalt was held in a staging area located in the northwest corner of the project area as identified in Figure 1. Once the poorly adhered asphalt had been removed, a vacuum truck equipped with a hand-vacuum lance was utilized to remove the debris left behind during the scraping operations.

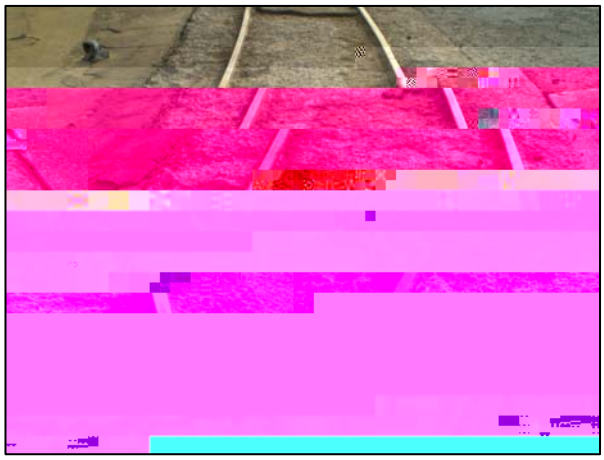
3.3 Surface Debris Removal

Once scraping activities were completed, the skid steer, mounted with a power broom equipped with a water mister to prevent dust generation as shown in Photo 2 was used to collect most of the remaining loose debris generated during the scraping operations.



Before and after examples of the results obtained by the cleaning technique are depicted in Photos 4a and 4b.





3.4 Waste Management

Because PCB's originating from the Airdock siding are contained in small particles and Lockheed Martin has previously sampled and characterized the concrete and asphalt pavement as containing less than one mg/kg of PCB's, the collected debris was screened to remove larger pieces of pavement from the finer debris (1 inch square in size). This was accomplished by passing the debris over a stationary screen. The finer material was disposed to a TSCA disposal facility (Wayne Disposal Inc. Site 2 Landfill in Belleville Michigan) and the larger material was recycled as non-PCB material at (Eslich Wrecking). Collected asphalt was sent to a recycling facility. The amount of waste disposed at the TSCA facility was 286 tons.

3.5 Decontamination

At the conclusion of the pavement debris removal activities equipment such as the hose from the Vac-Truck, sweeper bags, and theco