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WAYNE COUNTY AIRPORT AUTHORITY

Construction/Demolition on the AOA with Asbestos Liability a comprehensive approach

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Safety moment



Safety Means Awareness
Responsibility Teamwork

Agenda for today



Asbestos



Building Decommissioning Assessment



Implementation, Documentation
& Monitoring



Summary



Closing Q&A



Asbestos



Asbestos

is a naturally-occurring silicate mineral used widely in construction and other materials until health risks were identified

- Microscopic fibers can be inhaled or ingested, causing multiple forms of cancer
- Use has been phased out since the 1980s
- Renovation and demolition of buildings during Airport Modernization Project must address asbestos as a potential environmental and health concern
- Asbestos and its presumed presence is a liability concern under all circumstances but especially during the renovation or removal of structures at public facilities such airports

Asbestos | NESHAP Permit

Demolition of structures in the U.S. requires that a permit be filed under Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP)

- The NESHAP permit application identifies the type and amount of asbestos-containing materials (ACM) within the structure requiring removal (abatement)
- The ACM survey must be conducted by a licensed asbestos professional to sample all suspected ACM
- Samples are submitted to a licensed laboratory for testing using approved EPA-protocol to determine the percent of asbestos fibers present
- The results of the survey determines the presences of various types and amounts of ACM that must be abated prior to or in conjunction with demolition



Asbestos

- Asbestos is categorized based on the type of material and its ability to become friable (release fibers to the atmosphere) or non-friable
- Demolition Plan must include approach to abate the structure removing friable ACM and account for the proper handling and disposal of all ACM
- Asbestos abatement must be planned, managed, and implemented by a licensed, experienced abatement contractor
- Air monitoring of personnel and the immediate area is conducted to document personal protection and containment of the abatement materials
- Disposal of the asbestos waste, including abatement materials and personal protective equipment, is regulated and must be documented

Asbestos

Asbestos is a sensitive and highly regulated environmental issue.

Asbestos may be “presumed” to present in materials or dust by regulators and the general public.

Case Study : Vermiculite

- Michigan Department of Environmental Quality determined that any material containing vermiculite must be considered as ACM
- WCAA conducted testing of spray-on fireproofing containing vermiculite
- Test results, which exceeded federal testing requirements and included transmission electronic microscopy, identified that fire proofing did NOT contain asbestos fibers
- Abatement of the fireproofing as ACM would have exceeded \$1M
- WCAA petitioned US EPA and the federal testing protocol for ACM was upheld, thereby supporting WCAA’s removal of the fireproofing as a non-regulated activity

Building Decommissioning Assessment



Building Decommissioning Assessment

Airport Modernization includes:

- Structures to be removed are typically of an age that may contain potential areas and materials of environmental concern
- Structures are frequently located within or by airport operations or tenants (car rental and airline maintenance)
- Structures such as terminals and hangars may be located in part or fully on the AOA
- Modernization activities occur within public view and may require vehicle and passenger traffic flow changes



Building Decommissioning Assessment

- Asbestos identification is part of a comprehensive Building Decommissioning Assessment (BDA)
- BDA mitigates liability through evaluation of:
 - Risk management
 - Regulatory compliance
 - Health and safety (facility, community, and environment)
 - Asset Recovery
 - Security and infrastructure
- WCAA utilizes a “common process” to conduct and implement the BDA
- Integration of all WCAA stakeholders in project design considerations

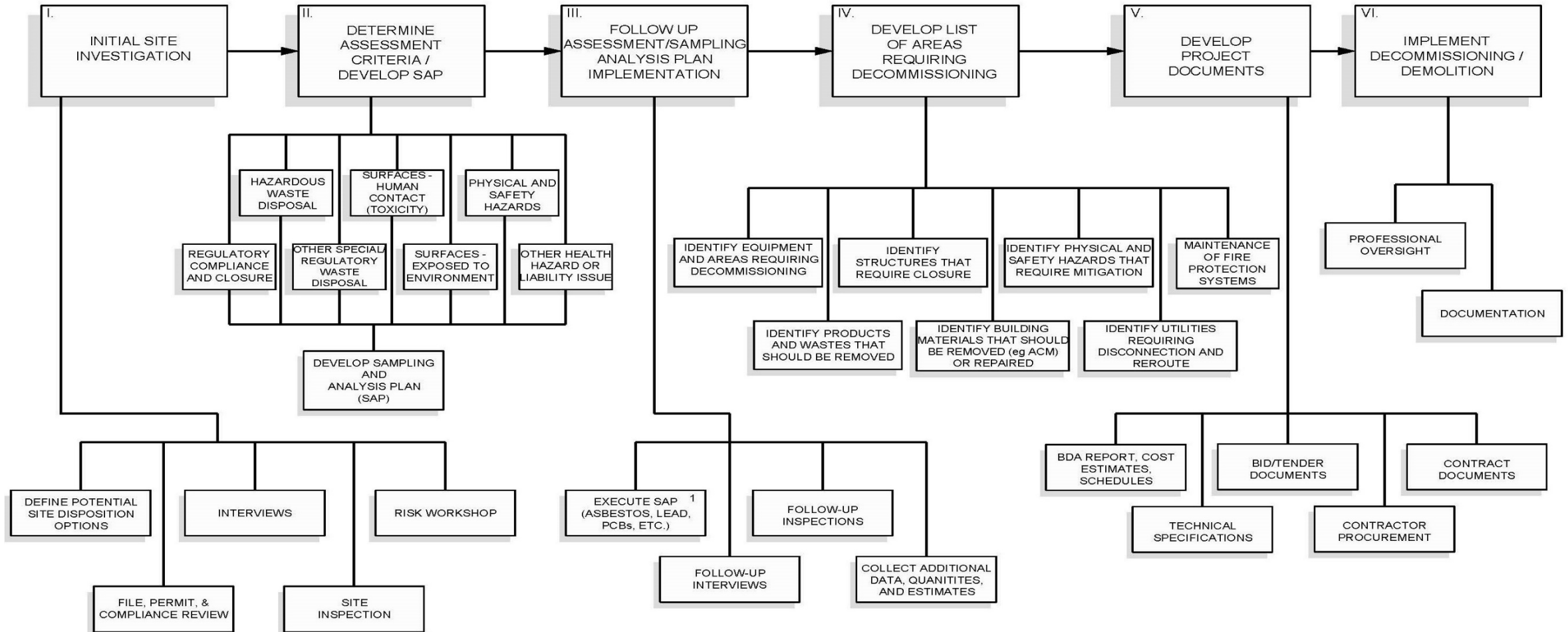


Building Decommissioning Assessment Approach

- Planning/initial property assessments
- Disposition alternatives (reuse, renovate, demolish)
- Asset/scrap valuation and management
- Utility disconnection/continuation engineering
- Sampling of Areas/Materials of Concern (ACM, PCBs, LBP, etc.)
- Waste management, reduction, and reuse
- Regulatory compliance and agency liaison
- Specifications, bidding, and contracts
- Decommissioning and demolition implementation
- Environmental remediation/brownfield redevelopment
- Civil engineering and surveying
- Health and safety, industrial hygiene
- Construction management
- Public relations support

Building Decommissioning Assessment

THE BUILDING DECOMMISSIONING ASSESSMENT PROCESS



Building Decommissioning Assessment

Complete Hazard Assessment

Determine Assessment
Criteria / Develop SAP

RCRA
Compliance &
Closure

RCRA
Hazardous
Waste Disposal

Surfaces –
Human Contact
(Toxicity)

Physical
Hazards

TSCA
Compliance &
Closure

TSCA Waste
Disposal

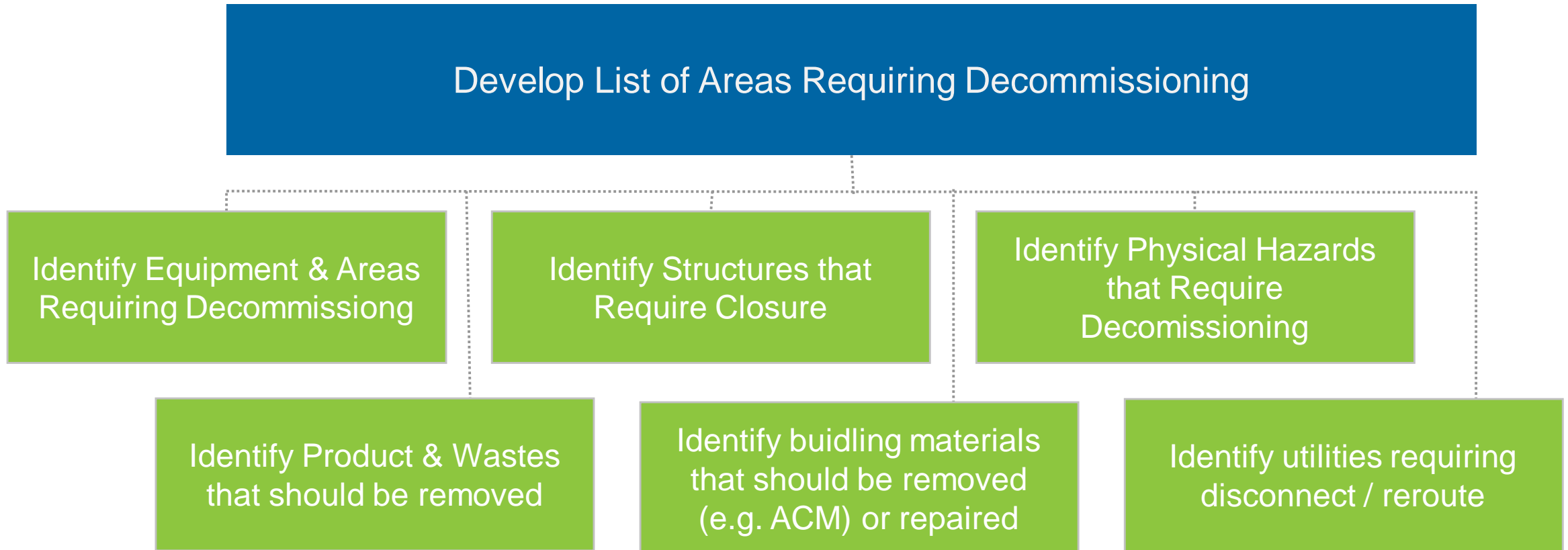
Surfaces –
Exposed to
Environment

Other Health
Hazard or
Liability Issue

Develop Sampling &
Analysis Plan

Building Decommissioning Assessment

BDA determines the Decommissioning Scope of Work

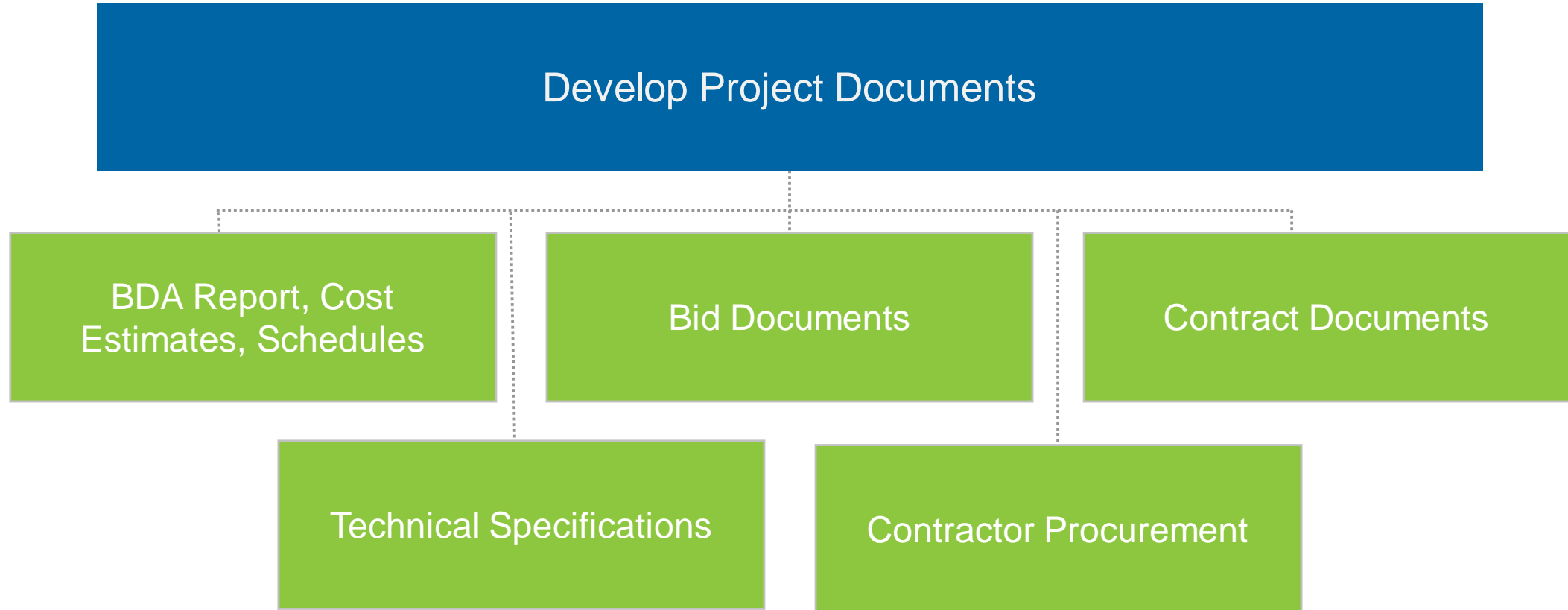


Implementation, Documentation & Monitoring



Implementation, Documentation & Monitoring

Project Documents are designed to be protective of Airport liability and document compliance



Implementation, Documentation & Monitoring

Third party oversight provides contract administration & field monitoring

Implement Decommissioning & Demolition

Professional Oversight

Documentation

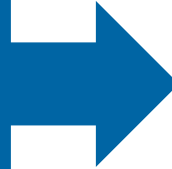


Implementation, Documentation & Monitoring

- Risk and Liability occur both on and off the AOA
- Daily project monitoring and reporting is integral to mitigating risk and liability

RISKS AND LIABILITY

- a. Site Incursion
- b. Public Liability
- c. Airfield Operations
- d. FOD and Dust
- e. Environmental impacts



MITIGATION MEASURES

- a. AOA and Construction Site Fencing
- b. Movement of Traffic and Pedestrians Plans
- c. Contractor Safety Compliance Plan
- d. Dust control enforcement and screening
- e. Perimeter Air Monitoring

Implementation, Documentation & Monitoring Demolition & Asbestos Liability

- Public perception is that dust from a demolition project is dangerous and a personal exposure to building contamination
- WCAA has been previously notified of tenant concerns
- WCAA implemented a *Standard of Practice* issuing a Limited Notice to Proceed with Demolition after receiving documentation that all building decommissioning activities are complete
- Demolition is allowed to proceed only with the implementation of WCAA's Demolition Air Monitoring Program



Implementation, Documentation & Monitoring WCAA Demolition Air Monitoring Plan

- Utilizes a minimum of four real-time dust monitoring locations
- Locations are sited both upwind and downwind of demolition activities
- Stations are moved daily in conjunction with wind and site activities
- Monitoring is digital and continuous
- Daily composite air samples are taken and analyzed from all four stations for asbestos, lead, and silica
- Results are monitored daily and logged to project record



Implementation, Documentation & Monitoring Liability and Risk Mitigation

- BDA sampling and analysis outlines areas and materials of concern
- Decommissioning and demolition specifications outline contractor requirements and scope to remove all regulated materials
- Third party oversight and contract administration document that scope was implemented and performed
- A Limited Notice to Proceed with Demolition is issued by WCAA only after documentation is provided that the decommissioning is complete
- Demolition is performed within specified controls for FOD and dust and in accordance with the approved Demolition Plan
- Perimeter air monitoring is conducted at active demolition zone with dust monitoring and composite air samples

Summary



Construction/Demolition on the AOA

Liability Mitigation

- Asbestos and other environmental issues are a significant liability when implementing airport modernization programs
- Conducting a comprehensive Building Decommissioning Assessment and developing project plans and specifications address the environmental issues
- Implement the project with stakeholder buy-in and third party monitoring
- Document all project activities and waste disposal
- Release the structure for demolition only after all regulated material decommissioning is complete
- Conduct oversight and perimeter monitoring throughout demolition



Closing Q&A





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