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## MARTIN AND MARTIN, INCORPORATED

**Solid Waste Management** 

**Statement of Qualifications** 

# Prepared by:

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**EXHIBIT** 

**BLC 18** 

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#### BACKGROUND OF THE FIRM

Martin and Martin, Incorporated was formed in 1973 to serve those corporations, municipalities, and individuals in need of professional engineering and planning services completed in an efficient and competent manner. The firm's policy is to have all designs, plans and professional work performed by principals of the organization. Thus, the firm strives to maintain direct and personal contact with each client, and provide experienced professionals.

United States clients are located throughout the Country, including in Pennsylvania, Ohio, Florida, Connecticut, Texas, Alabama, Louisiana, Maryland, New Jersey, West Virginia, Missouri, Oklahoma, Arkansas, Virginia, Georgia, North Carolina, Kentucky and New York. Additionally, Martin and Martin, Incorporated has completed projects in Puerto Rico, Antigua, Canada, and Poland as well as a project for the European Union in Brussels, Belgium. Typical solid waste management projects include Comprehensive Solid Waste Studies, Landfill Designs, Transfer Facility Designs, Incinerator Designs, Leachate Collection and Treatment designs, Leachate and Sewerage Systems, Storm Water Control, Reclamation Projects, Computer Vehicle Routing, Liquid Waste Plans and Studies, Industrial Waste Reclamation, and Consulting Services to both government and private industry.

#### STAFF EXPERIENCE

The staff of Martin and Martin, Incorporated has demonstrated on several occasions the ability to perform innovative tasks. Among the more notable accomplishments in which staff participated are:

- 1. Participation in the design and development of a new structural member combining supporting features and aesthetic beauty and co-holder of the patent on said member.
- 2. Design of a digital computer program to route solid waste collection vehicles. (Published Journal Sanitary Engineering Division ASCE).
- 3. Presentation of a Paper titled "The Evaluation of Abandoned Strip Mines as Sanitary Landfills" at the Third Mineral Waste Utilization Symposium, Chicago, Illinois.
- 4. Presentation of suggested Solid Waste Regulations to the European Union in Brussels, Belgium.
- 5. Presentation of suggested solid waste practices to the U. S. Consulate General's Office and Officials of the City of Krakow, Poland.
- 6. Development of a Solid Waste Management Plan for the city of Krakow, Poland.

#### **EXPERIENCE**

The staff of Martin and Martin, Incorporated has had extensive experience in the planning, design, and operation of solid waste management systems in numerous states including New York, New Jersey, Ohio, Alabama, Missouri, Oklahoma, New Mexico, North Carolina, Arkansas, Pennsylvania, Kentucky and Maryland; as well as internationally. We are proud to be pioneers in the field of solid waste management, treatment, and disposal, including the management of stormwater run-off and leachate management. The relatively recent nation-wide concern over the problems caused by society's by-products has created a new environmental expertise. Martin and Martin, Incorporated personnel are recognized experts in this solid waste field. Among the many projects undertaken by personnel of Martin and Martin, Incorporated in the solid waste field are the following:

## Comprehensive Solid Waste Management Plans and Studies

Lanchester Landfill Operating Analysis - for Waste Resources, Incorporated Elk County Solid Waste Management Plan - Pennsylvania Franklin County Solid Waste Management Plan - Pennsylvania Adams County Solid Waste Management Plan - Pennsylvania Talbot County Solid Waste Management Plan - Maryland Queen Annes County Solid Waste Management Plan - Maryland Interim Landfill Site Studies - Dutchess County, New York Pyrolysis Market and Siting Plan - Dutchess County, New York Preliminary Engineering - Dutchess County Pyrolysis Facility - Dutchess, New York Lehigh, Northampton Counties Plan Update - Pennsylvania Bedford-Fulton-Huntingdon Solid Waste Authority - Consultant - Pennsylvania City of Krakow-Solid Waste Plan-Krakow, Poland

## **Hazardous Waste Management**

Sunny Farms - 400 acre hazardous waste disposal site - York County, Pennsylvania
Elwin Farms - 150 acre hazardous waste disposal site - Fayette County, Pennsylvania
GTE Sylvania - Hazardous Waste Closure Plan - Lycoming County, Pennsylvania
Jersey Shore Steel Company - Hazardous Waste Removal Plan and RCRA Closure Lycoming County, Pennsylvania
Bethlehem Wire Rope, Inc. - Waste Closure Plan - Lycoming County - Pennsylvania
Mohawk Flush Door, Inc. - Hazardous Waste Removal and Closure Plan - Northumberland County,
Pennsylvania

## Sanitary Landfill Designs

Greater Lebanon Refuse Authority
Knickerbocker Landfill
Rolling Hills Landfill
Y & S (Greenridge) Landfill
Blue Ridge Landfill
Community Refuse (Mountain View), Ltd.
Sandy Run Landfill
Lanchester Corporation Landfill
Arden Landfill

Lebanon County, PA
Chester County, PA
Berks County, PA
Westmoreland County, PA
Franklin County, PA
Franklin County, PA
Bedford County, PA
Chester & Lancaster Co., PA
Washington County, PA

Lavin Landfill Hawthorne Landfill Bellizio Landfill

Monroe Township Landfill

Fulkroad Landfill

City of Baltimore - Potee St. Landfill

Airport Landfill

Harlem Valley Landfill

Firestone Tire and Rubber Co. Landfill

D.W. Landfill, Inc.

Sanitary Landfill Company Landfill

M.C. Arnoni Landfill Welch Landfill Alliance Landfill

Pine Grove Landfill

Rolling Hills Sanitary Landfill

New Hanover Landfill ACMAR Landfill BackRidge Landfill

CBF Landfill

Carlin Landfill Closure County Landfill, Inc. Brunswick Landfill, Inc.

Northern Tier Solid Waste Authority

Champion Landfill Southern Plains Landfill

Farmer's Landfill Potomac Landfill RCC (Shade) Landfill Bethlehem Landfill

**Cumberland County Landfill** 

Sunflower Landfill Acorn Landfill McKean Landfill

Carroll County - Northern Landfill

West Kentucky Landfill

Morris County, NJ Gloucester County, NJ Middlesex County, NJ Gloucester County, NJ Dauphin County, PA Baltimore, MD

Dutchess County, NY Dutchess County, NY Montgomery County, PA Northumberland County, PA Westmoreland County, PA Allegheny County, PA

Allegheny County, PA
Washington County, PA
Lackawanna County, PA
Schuylkill County, PA
Harrison County, OH
Montgomery County, PA
St. Clair County, AL
Lewis County, MO
Fayette County, PA

Fayette County, PA
Centre County, PA
Clarion County, PA
Brunswick County, VA
Bradford County, PA
Champion Mills, NC
Lewis County, OK
Livingston County, MO
Prince William County, VA
Somerset County, PA
Northampton County, PA

Cumberland County, PA

Tallassee, AL Moody, AL

McKean County, PA Westminster, MD Mayfield, KY Among the post Subtitle D recently permitted facilities on which Martin and Martin, Inc. provided design and consulting services include:

Alliance Landfill Fulkroad Landfill, a Chambers Development

Rolling Hills Landfill

Pine Grove Landfill Bethlehem Steel Company Residual Waste

Landfill

Community Refuse (Mountain View), Ltd.

Cumberland County Landfill Blue Ridge Landfill

Bedford-Fulton-Huntingdon - Sandy Run

Landfill

County Landfill, Inc.

Greater Lebanon Refuse Authority Landfill

CBF Landfill

Carlin Landfill Closure

Facility

Brunswick Landfill Acmar Landfill

Southern Plains Landfill RCC (Shade) Landfill Bethlehem Landfill Sunflower Landfill West Kentucky Landfill

McKean County Landfill Western Berks Landfill

Chester County Solid Waste Authority -

Lanchester Landfill

Carroll County, MD - Northern Landfill

## **Demolition Waste Disposal Sites**

Martin and Martin, Incorporated has worked on the design and permitting of demolition waste disposal sites including:

Delta Demolition Site #4 Elk County, PA

Waymart Waste Lackawanna County, PA

Delta Demolition Site #7 Cambria County, PA Canestrale Contacting Washington County, PA Knickerbocker - Quarry B Montgomery County, PA

Limestone Township Landfill - Closure Lycoming County, PA Potomac Landfill Prince William County, VA

BRADS Landfill Schuylkill County, PA ERSI Landfill Lackawanna County, PA

# Construction Quality Assurance/Construction Management Services

Martin and Martin, Incorporated also provides complete construction quality assurance and construction management services relative to construction of lined sanitary landfills through its CQA Services, Inc. subsidiary. CQA provides complete soils testing services, including permeability, grain size, and density testing of both fine grained and coarse grained soils and stone products. Additionally, CQA tests synthetic membrane materials for conformance with specifications and tests field coupons for peal, shear, and tensile conformance. Complete surveying services and certification of installation are also available. Among the sites where CQA Services, Inc. provided inspection and certifications are:

### **CQA Inspections**

Southern Plains Landfill Blue Ridge Landfill - CM

County Landfill Alliance Landfill

Harrisburg Incinerator - Cell B-2

Acmar Landfill
RCC Landfill

New Hanover Landfill

Kness Landfill

Y & S (Greenridge) Maintenance Inc. Landfill

Lanchester Landfill

Empire Wrecking Construction/Demolition Waste Landfill

Kelly Run Landfill Tri-County Landfill Mt. Zion Landfill Northern Tier Landfill

Letterkenny Army Depot Waste Lagoon Closure

Valley Landfill

Bethlehem Steel Residual Waste Landfill Guilford Township Sanitary Landfill

Pioneer Crossing Landfill Mississippi County Landfill Fairmount Road Landfill John Owings Landfill Talbot County Landfill

City of St. Joseph Sanitary Landfill - CM

Blydenburgh Road landfill

**Brunswick Waste Management Facility** 

Ivy Sanitary Landfill

Russell County Sanitary Landfill

Sycamore Landfill

Western Berks Landfill – CM Carroll County – Northern Landfill

Farmer's Landfill CBF Landfill Rolling Hills Landfill

Cumberland County Landfill Greater Lebanon Refuse Authority

Pine Grove Landfill - CM Chilton County Landfill

Bedford-Fulton-Huntingdon County Landfill (Sandy Run)

Dauphin Meadows Landfill Bethlehem Landfill - CM

Grunderville Municipal Waste Landfill Stanley G. Flagg & Co. Landfill

Christman Landfill Senaca Landfill Milton Grove Landfill

Mifflin County Solid Waste Authority Landfill PA Power & Light Brunner Isl. Lagoon Closure York County Solid Waste Authority Landfill

Pottstown Landfill Shade Landfill, Inc. Yell County Landfill Elfrida Landfill - **CM** Hoods Mill Sanitary Landfill

Nicholson Road Sanitary Landfill

Backridge Landfill Fort Dix Sanitary Landfill

Campbell County Sanitary Landfill

Shredded Prod. Corp. Waste Management Facility

McDowell County Landfill

Mountain View Reclamation Landfill McKean County Landfill – **CM** 

Westminster MD

West Kentucky Landfill - CM

Lasky Landfill

#### CM = Also provided Construction Management

#### **Leachate Collection and Treatment**

With the advent of Subtitle D, the interception and treatment of leachate must be utilized to render the site usable. Martin and Martin, Incorporated personnel have provided services in that regard to the following sites:

Alliance Landfill

Harlem Valley Landfill

Sanitary Landfill Company, Inc.

Y & S (Greenridge) - E. Huntingdon Township Landfill

Greater Lebanon Refuse Authority Landfill

New Garden Facility #1 Landfill New Garden Facility #2 Landfill

Fulkroad Landfill Rolling Hills Landfill Airport Landfill D.W. Landfill

Community Refuse (Mountain View), Ltd. Bedford-Fulton-Huntingdon – Sandy Run Landfill

Pine Grove Landfill County Landfill Acmar Landfill Brunswick Landfill Farmer's Landfill McKean Landfill Lackawanna County, PA
Dutchess County, New York
Westmoreland County, PA
Westmoreland County, PA
Lebanon County, PA
Chester County, PA
Chester County, PA
Dauphin County, PA
Berks County, PA

Dutchess County, PA
Dutchess County, New York
Northumberland County, PA
Franklin County, PA
Bedford County, PA
Schuylkill County, PA
Clarion County, PA
St. Clair County, AL
Brunswick County, VA
Livingston County, MO
McKean County, PA

## Recycling/Transfer Facilities

Over the years, society has tried to make use of waste under the general heading of resource recovery. This includes waste 'shipping', materials recovery, and energy recovery from solid wastes. Among the projects within this category designed by this firm are the following:

Y & S Reclamation - Separation and bailing

of corrugated paper

Westmoreland County, PA

**Dutchess County Pyrolysis - Pyrolyzation of** 

refuse to gas

Dutchess County, New York

Dutchess County Pyrolysis - Metal Separation Dutchess County, New York

R & A Bender, Inc. Pelletization Plant Franklin County, PA

Clements Transfer Station Lebanon County, PA

Oneida-Herkimer Transfer Station Herkimer County, New York

Bio-Oxidation, Inc. Franklin County, PA

Dauphin, County, PA

New Hanover Incinerator Montgomery, PA

Wishard's Tire Hauling & Recycling Hanover, PA

Concord Recycling York County, PA

World Resources and Recycling Erie County, PA

Waste Management – Camp Hill Transfer Dauphin County, PA

Neiderer Sanitation Adams County, PA

Lesher Re-load Rail Transfer Franklin County, PA

McKean Co. Landfill – Rail Siding Transfer McKean County, PA

#### **Special Waste Processing Facilities**

New Hanover Incinerator/Autoclave

Bioremediation Incinerator – Medical Waste Bureau

Bioremediation Facility – Incinerator Autoclave

Montgomery County, PA Franklin County, PA Dauphin County, PA

#### SUMMARY

## **General Scope of Services**

#### **ENGINEERING SERVICES**

#### Studies and Reports:

Analysis of clients' needs, planning surveys, site evaluations, comparative studies of prospective sites and solutions, economic analysis of alternatives, investigation and analysis of existing structures.

### Preliminary Design:

Prepare preliminary design documents consisting of final design criteria, preliminary drawings, and outline specifications.

Prepare estimate of project cost, including construction cost, compensation for professionals and consultants, cost of land, rights-of-way, interest and financing costs and contingencies.

### Final Design:

Prepare final design and contract drawings and specifications to show the character and the scope of work to be performed.

### Permitting:

Submit design plans, specifications, reports and required application forms as required to obtain local, state and federal permits.

### **Construction Quality Assurance:**

Inspection of construction to insure that the construction of the liner system and related facilities are installed in accordance with the approved plans and state-of-the-art construction controls, and both conformance testing and field destruction testing of synthetic membrane, through our affiliated company, Construction Quality Assurance Services, Inc.

## Bidding or Negotiating:

Provide assistance to client in obtaining approvals of authorities having jurisdiction over the project.

Preparation of bid forms, notice to bidders, instructions to bidders, general conditions, supplementary conditions and other related documents.

Obtaining bids and/or negotiating with contractors for the performance of the work.

Assist client in purchasing equipment and materials.

### Construction:

Observation of construction progress
Review and approval of shop drawing and submittals
Preparation of change orders
Preparation of As-Built drawings
Resident engineer and inspection
Construction Management

### **TECHNICAL SERVICES**

Design and development of specialized structures, equipment, methods and machinery.

Development of "Shop Standards" of detailing and fabrication methods.

Complete layout, erection, and detail fabrication drawings for such facilities as:

Overhead handling systems
Crushing and screening circuits
Pulpwood handling, storage and recovery
Wallpaper processing machinery
Pneumatic handling systems
Conveyorized washing, coating and drying equipment
Bulk handling and storage
Ore handling, storage and recovery
Bins, tanks, hoppers and enclosures
Piping layouts
Ductwork layouts
Special formwork and construction equipment
Solid Waste handling equipment

#### **ADDITIONAL RESOURCES**

Martin and Martin, Incorporated, like most engineering consultants, maintains a fully equipped office with print reproduction, copying and similar capabilities.

Among the additional resources which are available to Martin and Martin, Incorporated are:

An AUTOCAD system, numerous personal computers, and several CAD related engineering support and design systems. A complete staff including structural, mechanical, civil and environmental engineers; architecture expertise; surveyors; economists; and a complete staff of mechanical, structural and general draftsmen.

## **PUBLICATION AND PRESENTATIONS**

As recognized experts in the field of solid waste management, Martin and Martin, Incorporated personnel have published articles on solid waste management in technical journals with international distribution. In addition, personnel have presented papers and technical speeches before local, state, and national audiences.

Bodner, R. M., et al., "Optimal Routing of Refuse Collection Vehicles", Journal of the Sanitary Engineering Division - American Society of Civil Engineers, Vol. 98, No. SA 4, August 1970.

Bodner, R. M., Guest Speaker, "Solid Waste Management" - Franklin-Fulton Chapter, Pennsylvania Society of Professional Engineers, Waynesboro, Pennsylvania, October 1970.

Bodner, R. M., et al., "Evaluation of Abandoned Strip Mines as Sanitary Landfills", Proceedings - Third Mineral Waste Utilization Symposium, Chicago, Illinois, March 1972.

Bodner, R. M., presented paper - "Evaluation of Abandoned Strip Mines as Sanitary Landfills", Chicago, Illinois, March 1972.

Bodner, R. M., Panelist, "Solid Waste Management" - Annual Meeting of Pennsylvania Planning Association, Lancaster, Pennsylvania, April 1973.

Bodner, R. M., - "Dutchess County, New York Moves Towards Pyrolysis", Waste Age, Vol. 7, No. 9, September 1976.

Bodner, R. M., Earl, T. A., and Meiser, E. W., Jr., "Leachate Collection Using the Ground-Water Flow System - A Landfill Case History in Central Pennsylvania", presented at the Third Annual Madison Conference of Applied Research & Practice on Municipal & Industrial Waste, Madison, Wisconsin, September 10 – 12, 1980.

Warner, R. C., Bodner, R. M., et.al., "Planning and Implementation of Remedial Landfill Reclamation" presented at American Society of Agricultural Engineers, San Luis Obispo, California, (July, 1986).

Bodner R. M. and Stephens, A., - "Geogrid Liner Support at Empire Sanitary Landfill", Presented at Geosynthetics '91 Conference, Atlanta, Georgia, February 1991.

Stephens, A., and Bodner, R. M. et al.; "Proposed Draft Regulations for Solid Waste Landfills", presented to the Environment Committee - European Parliament, Brussels, Belgium, May 1992.

Bodner, R. M.; "Market Solutions to Environmental Challenges - Sanitary Landfills"; Presented at Seminar sponsored by United States Consulate General, Krakow, Poland, September, 1994.

Bodner, R. M.; Sochovka, R. et.al.; "Case Study - Empire Landfill Down Chute Channel Protection using a Cellular Confinement System with Concrete Infill"; Published in Proceedings of the 28th Annual Conference of the International Erosion Control Association, Nashville, Tennessee, February, 1997.

Bodner, R. M.; "Pennsylvania's Host Municipal Inspection Program," presented at The Federation of Solid Waste Association's Solid Waste/Recycling Conference, Lake George, New York, May, 2002.