### APPENDIX J: MUSEUM PROPERTY SUPPLIES AND EQUIPMENT SOURCES

The selection and use of appropriate materials specifically designed for the storage and preservation of museum property is crucial to the continued survival of that property. Section A provides a list of supplies and equipment useful for the storage and Preservation of museum property and a partial list of sources. Section B identifies and describes materials that are commonly used in the packing of museum property. Section C provides a partial list of sources for materials described in Section B. Section D provides the addresses of the sources listed in Sections A and C.

### A. MUSEUM PROPERTY SUPPLIES AND EQUIPMENT

The following supplies and equipment are appropriate for preserving and managing museum property. Refer to the "Vendor Address List" in Section B for addresses of suppliers listed here.

Acid-free Tissue

Archivart
Conservation Resources International
Hollinger Corporation
Light Impressions Corporation
Pohlig Brothers
University Products

Appliance Rollers
Dial Industries

Archival Containers, Enclosures, and Boxes
Conservation Resources International
Hollinger Corporation
Light Impressions
Pohlig Brothers
University Products

Archival Copy Paper
Xerox Corporation

Arsenic Test Kit

VWR Scientific

Art Storage Rack

Release Date:

Charles S. Dickgeiser and Company Crystalizations Systems, Inc.

Artist Brush (for dusting)

General Services Administration (GSA)

Local art store

Bag, Interlocking Seal (Ziplock© Type)
General Services Administration
Local food or department store

Box, Record Storage (Archival Corrugated Cardboard)

Archivart

Conservation Resources International Hollinger Corporation
Light Impressions Corporation

Pohlig Brothers University Products

Box, Record Storage (Corrugated Polyethylane Plastic)
Corrulite Corporation

Brillianize

Read Plastics

Butchers Wax

Fitch Dustdown

Cabinets, Collections Storage

Crystallization Systems
Delta Designs Limited
Interior Steel Equipment (

Interior Steel Equipment Company
Lane Science Equipment Company
Steel Fixture Manufacturing Company

Caliper

General Services Administration Local hardware store

Chemicals

Fisher Scientific VWR Scientific Thomas Scientific Local paint, hardware, or drug store

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Compactor Storage Systems

Federal Supply Schedule for FSC Group 71, Part III, Section J

List of non-schedule vendors is available from the NPS, Curatorial Services Division

Conservation Supplies (resins, adhesives, etc.)
Conservation Materials, Ltd.
TALAS

Data Logger Systems
Controlyn
Herzog/Wheeler and Associates

Drawer Pad (Polyethylene foam)
Granite Packaging

Flammable Liquid Storage Cabinet Lab Safety Supply

Gloves, Latex
VWR Scientific

Gloves, Sure-grip
Hayden School Supply
Man-How School Band Supply

Gloves, White Cotton

John Plant Company

Gun Vault (with museum quality acrylic interior shelving)
Browning Pro-Steel

Herbarium Folders, Mounting Sheets, Fragment Folders (Acid-Free), and Plant Presses
Herbarium Supply Company
University Products

Hygrometer, electronic
Art Preservation Services
Cole-Parmer
Davis Instruments
Nova-Lynx

Humidity Indicator Strip

Release Date:

Humidial Company

Hygrometer, Dial

Airguide Instrument Company Cole-Parmer Instrument Company Conservation Materials Ltd. Nova-Lynx

Hygrothermograph, including Charts, Ink, and Pen Points

Art Preservation Services Belfort Instrument Company Cole-Parmer Instrument Company Nova-Lynx

Ink, Permanent

General Services Administration Local office supplies store

Insect Pins, Pinning Blocks, Pinning Trays, and Plant Presses
BioQuip Products
Carolina Biological Supply Company
Wards Natural Science Establishment

Insulated or Fire-Resistive Records Containers (filing cabinets), Media Files, and Safes

Fireking International Kardex Systems Meilink Safe Company Schwab Safe Company Sentry Group

Jar, wet specimen (glass with lid)
Chelsea Bottle Company
Wheaton

Lab Equipment

Fisher Scientific Thomas Scientific VWR Scientific

Magnet

JobMaster Corporation Local hardware or department store

Magnetic Letters and Numbers (for photographs)
Magnetic Aids, Inc.
Visual Systems, Inc.

### Map Cabinet

Crystalizations Systems, Inc. Foster Manufacturing

Media Safe, File, and Insert
Fireking International
Kardex Systems
Meilink Safe Company
Schwab Safe Company
Sentry Group

Meter, UV Radiation
Art Preservation Services
Nova-Lynx
Scientific Sales

Meter, visible light
Cole-Parmer Instrument Company
Dow Instruments
Photo Research

Mylar Envelopes and Sheet Mylar (in rolls)

AAA Brands Plastics Manufacturers

Conservation Resources International
University Products

Natural History Supplies
BioQuip Products
Carolina Biological Supply Company
University Products
Wards Natural Science Establishment

Needles, Thread, and Bias Tape
Local sewing supplies store

Pallet, Plastic Menasha Corporation

Pallet Rack

Federal Prison Industries (UNICOR) Local materials handling supplier

Pen, Crowquill

GSA

Local office supplies store

Pen, Laboratory

Light Impressions University Products

Pen, Technical (Rapidograph®)

**GSA** 

Local office supplies or drafting store

Pest Trap

Summit Chemical Company

Polyethylene Slide and Photo Page

Light Impressions Corporation University Products

Psychrometer, Aspirating (battery-proved)

Belfort Nova-Lynx

Psychrometer, Sling

GSA

Nova-Lynx

Respirator

Federal Supply Schedule Vendor

Sash Lock

Blades Lock Company Local hardware store

Security Hanging System

Light Impressions

Art Materials Service, Inc.

Shelving Units

Federal Prison Industries (UNICOR) Interlake Local materials handling supplier

Silica Gel

Eagle Chemical Company

Solar Control Film (visible and/or UV light controlling)
Courtaulds Performance Films
Madico, Inc.
National Glass Coatings Company
3-M Company
Transparent Glass Coatings Company

Specimen Trays (various sizes and types)
Conservation Resources International
Murray & Heister Inc.
University Products

Storage Structures, Pre-fabricated
Bally Engineered Structures
Gill Marketing

Tackle Box for Cataloging Kit (Plastic)
Flambeau Products Corporation

Tags, acid-free
University Products

Tamper-Resistant Fasteners
Allen Manufacturing Company
Anchor Fasteners
Continental Screw Company

Tape Measure, Cloth

Local sewing supplies store

Tape Measure, Metal
GSA
Local hardware store

Textile Marking Tape

Release Date:

Local sewing supplies store

Thermo-Hygrometer

Conservation Materials Ltd.

Thermometer (liquid in glass)

Airguide Instrument Company Fisher Scientific Thomas Scientific VWR Scientific

Tweezers

Techni-Tool, Inc.

UV Filter Sleeves (for fluorescent lamps)
Solar Screen Corporation

Vacuum Cleaner

Electrolux Corporation Federal Supply Schedule Vendors Nilfisk

Vial (glass or plastic)
Fisher Scientific

Lapine Scientific Company VWR Scientific

Wax, Furniture

H. F. Staples & Company (Staples Wax)
Fitch Dustdown (Butchers Wax)

Wire Rack

InterMetro Industries

# B. MATERIALS USEFUL FOR PACKING AND STORING MUSEUM PROPERTY

This section identifies and describes materials commonly used in the storage and packing of museum property. The list is categorized according to the specific functions of the listed materials.

### 1. Covering and Wrapping Materials

Materials that come in direct contact with the object should not contaminate the objects, and they should be non-abrasive and non-acidic.

- ! Glassine Paper stiff, translucent, glossy texture. Glassine should be used for short term storage only, as glassine deteriorates with age. Recommended for covering paintings, prints, photographs, bottles with labels, books, and objects with a friable or oily/tacky surface. It will not adhere to dry varnish, waxed, or other sensitive surfaces.
- ! Tyvek® slick, smooth, microporous, non-woven polyethylene sheet. Tyvek® is an alternative material to glassine. It also is useful as a vapor barrier in crate lining.
- ! Tightly Woven Nylon for covering cushioning foams to protect the object. Make sure material does not come in contact with the surface of delicate materials. Avoid using felt. Felt attracts pests. Knitted cotton (available in rolls) is a good, soft liner for Ethafoam® supports.
- ! Soft, buffered Acid-Free Tissue Paper for covering basketry, metal and paper or documents with a high acid content. Excellent for rounding off appendages and for filling in negative space. Do not use with protein materials like silk, wool, leather or on photographs. Unbuffered acid-free tissue is preferable for contact with protein materials and short-term use.
- ! Unbleached Muslin for wrapping sculpture and textiles. Wash this material several times before using it in order to remove sizing, shrink it, and make it softer.
- ! Mylar® acid-free, clear, stable, semi-flexible polyester film. Mylar is a good primary protector for paper, but should never be used in conjunction with pastels or charcoal drawings, because the electrostatic charge may lift the pastel or charcoal from the paper.

- ! Blanket Pads or quilts for temporarily covering large sculpture and furniture.
- ! Acid-Free Folders for enclosing unframed prints, documents, and photographs. Some photographs should be wrapped in non-buffered tissue.

## 2. <u>Cushioning Materials</u>

These materials are designed to absorb shock and to act as a buffer to changes in relative humidity. A variety of foam products are available to use with the cushioning techniques described above. Each type of foam should be used correctly to achieve adequate shock and vibration protection. Each foam product offers unique cushioning qualities, so a combination of foams may need to be used in some situations.

- ! Air encapsulated laminated plastic (also known as bubble pack or Air-Cap®) sheets of polyethylane plastic with entrapped air bubbles. Objects and specimens should be wrapped in acid free tissue, glassine or thin polyethylene before being wrapped in bubble pack. Use with the bubble side facing the object's surface. Several layers should be used to maximize the effect. Susceptible areas like painting corners should receive extra layers. Before wrapping anything in Air-Cap®, always buffer the object with tissue or muslin to prevent cargo sweating.
- ! Expanded Polystyrene "Peanuts" peanuts settle and cling to surfaces, are dangerous to remove if they get caught in the appendages of objects, and retain moisture. In order to prevent "peanuts" coming in contact with the object or specimen, wrap the object or specimen in acid free tissue. Instead of "peanuts," it is recommended that plastic "potato chips" with interlocking surfaces be used.
- ! Polyethylene Foam Products sheets are flexible, light, and easily handled; create a moisture barrier, and are shock absorbing and chemically inert. Sections can be joined with a heat gun, glue gun, or double faced tape. They are available in various densities,

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thicknesses and textures. Use only white sheets; avoid blue or pink colors. Expanded, closed-cell foam such as Ethafoam 220® can be abrasive; use to support cushioned objects in container. Volara® has thin sheets and is most useful for heavy objects, or objects with surface fragility.

! Polyurethane Foam - available in gray or white. Good thermal insulator; excellent for cutting out to conform to an object's shape. Is not inert; it off-gases, absorbs moisture, and may be toxic if it catches on fire. Never store museum property on a long-term basis in this material.

## 3. <u>Boxing Materials</u>

Double-strength corrugated fiberboard boxes

- ! Fome-Cor® polystyrene foam sandwiched between two layers of clay-worked kraft paper liner board. This material can be used as a separator between prints.
- ! Tri-Wall Corrugated Fiberboard (also known as "blueboard") can be used as a base for objects and to build unique sizes or shapes of boxes.
- ! Marvel Seal® laminate of polyethylene (aluminum foil for impermeability and nylon for puncture resistancy) that can be used as a box liner (maintains a microclimate).

### 4. Strapping Materials

NOTE: Never allow tapes to come in contact with surfaces of museum property.

- ! Cellophane and Masking Tape may be used to attach packing materials. Do not use for closing outside of containers.
- ! Pressure-Sensitive Plastic Packing Tape sticks to a variety of surfaces and shapes. This tape is good for sealing the outside of containers. It is available in clear, brown, or tan.

- ! Water Activated Paper Tape use 3" width for sealing containers and attaching kraft paper for wrapping boxes.
- ! Twill Tape if used to secure wrapped objects, twill tape should be used as a replacement for pressure sensitive plastic tape. The twill tape should be tight enough to secure the packing materials but not tight enough to cause a pressure break to an object. Acid free cardboard cuffs or a doubled sheet of polyethylene foam can be used to reduce pressure when tying twill tape on rolled objects.

Nylon Filament Strapping Tape - use this tape only for closing containers. Do not use it on exterior wrap of container.

### C. SOURCE LIST FOR MATERIALS USED IN PACKING MUSEUM PROPERTY

This section provides a partial list of sources for materials that are commonly used in packing museum property for transit. Refer to Section D of this appendix for source addresses.

Air Encapsulated Laminated Plastic Wrap Local transit company Sealed Air Corporation Advanced Packaging Corporation

Blanket Pads or Quilts
Local transit company

Boxes, Corrugated Fiberboard Local transit company GSA

Corrugated Fiberboard (Acid-Free)
Archivart
Conservation Resources International
Hollinger Corporation

Corrugated Polyethylene Board Corrulite Corporation

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Expanded Polystyrene Foam "Peanuts"
Local transit company
Sealed Air Corporation
Advanced Packaging Corporation
CPI Packaging

Foam: Polyethylene, Rigid
Dow Chemical (nearest sales office)
Sentinel Foam Products
Stephenson and Lawyer
Local transit company
Local plastics supply company

Foam: Polyethylene, Flexible
Dow Chemical (nearest sales office)
Sentinel Foam Products
Stephenson and Lawyer
Local transit company
Local plastics supply company

Foam: Polyurethane
Stephenson and Lawyer
Local transit company
Local plastics supply company

Folders (Acid-Free)
Archivart
Conservation Resources International
Hollinger Corporation
Light Impressions
Pohlig Brothers
University Products

Fome-Cor®
 Archivart
 Light Impressions
 University Products
 Local plastics supply company

Glassine Paper (Acid-Free) Archivart

Release Date: J:13 New

Light Impressions University Products

Marvel Seal® (laminated mylar and aluminum foil) Ludlow Corporation

Muslin, Unbleached
GSA
Local fabric store

Mylar

AAA Brands Plastics Light Impressions University Products

Nylon, Tightly Woven Local fabric store

Tape, Cellophane
GSA
Local transit company
Local hardware store

Tape, Masking

GSA

Local transit company
Local hardware or paint store

Tape, Nylon Filament Strapping
GSA
Local transit company
Local hardware store

Tape, Pressure-Sensitive Plastic Packing GSA
Local transit company
Local hardware store

Tape, Twill
GSA
Local fabric store

Tape: Kraft, Water-Activated

GSA

Local transit company Local hardware store

Tissue (Acid-Free/Buffered)

Archivart

Conservation Resources International

Hollinger Corporation

Light Impressions

Pohlig Brothers

University Products

Tissue (Acid-Free/Unbuffered)

Archivart

Conservation Resources International

Hollinger Corporation

Light Impressions

Pohlig Brothers

University Products

Triple-Wall Corrugated Cardboard (blueboard)

GSA

Local transit company

Tyvek®

Local building supply dealer
DuPont Chemical (nearest sales office)

#### D. SOURCE ADDRESS LIST

This list does not constitute sole-source endorsement, nor is it all inclusive. However, it is a compilation of vendors that have provided to the National Park Service a variety of satisfactory products that have been used in the Service's Supply and Equipment Program.

Allen Manufacturing Company P.O. Box 5677

Old Iron Ore Road Philadelphia, PA 19129

Bloomfield, CT 06002 215-438-1082

203-242-8511

Manufacturers

Advanced Packaging Corporation

4818 Seton Drive

AAA Brands Plastics Baltimore, MD 21215

410-358-9444

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New

Airguide Instrument Company 1110 Lake Cook Road Buffalo Grove, IL 60089 708-215-7888

Anchor Fasteners Div. Buell Industries, Inc. 130 Huntingdon Avenue Waterbury, CT 06720 203-574-1800

Archivart Caesar Place P.O. Box 428 Moonachie, NJ 07074 201-804-8986

Art Materials Service, Inc. 700 Joyce Kilmer Avenue New Brunswick, NJ 08901 201-545-8888

Art Preservation Services 253 East 78th Street New York, NY 10021 212-794-9234

Bally Engineered Structures P.O. Box 98
Bally, PA 19503
800-544-7534

Belfort Instrument Company 727 South Wolfe Street Baltimore, MD 21231 301-342-2626

BioQuip Products 1320 East Franklin Avenue El Secundo, CA 90245 213-322-6636

Blades Lock Company 1815 Bryant Street, NE Washington, DC 20018 202-832-7100

Browning Pro-Steel P.O. Box 977 Provo, UT 84601 801-373-2385

Carolina Biological Supply Company 2700 York Road Burlington, NC 27215 800-334-5551 919-584-0381

Chelsea Bottle Company P.O. Box 6330 Chelsea, MA 02150 617-884-2323

Cole-Parmer Instrument Company 7425 North Oak Avenue Chicago, IL 60648 312-647-3000

Conservation Materials, Ltd. 240 Freeport Boulevard P.O. Box 2884 Sparks, NV 89431 702-331-0582

Conservation Resources Int'l. 8000-H Forbes Place Springfield, VA 22151 703-321-7730 800-634-6932

Construction Specialties P.O. Box 380 Muncy, PA 17756 800-233-8443

Continental Screw Company 459 Mt. Pleasant Street New Bedford, MA 02742

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617-993-2621

Controlyn 25 North Fullerton Avenue Montclair, NJ 07042 201-746-8900

Corrulite Corporation 205 S.E. 3rd Avenue South Bay, FL 33493 407-996-2089

Courtaulds Performance Films P.O. Box 5068 Martinsville, VA 24115 703-629-1711

CPI Packaging 240 Boundary Road Marlboro, NJ 07746 908-431-3500

Crystalization Systems, Inc. 1595A Ocean Avenue Bohemia, NY 11716 516-567-0888

Davis Instruments Seton Business Center 4701 Mt. Hope Drive Baltimore, MD 21215 800-368-2516

Delta Designs Ltd. P.O. Box 1733 Topeka, KS 66601 913-234-2244

Dial Industries 1538 Esperanza Street Los Angeles, CA 90023 213-263-6878

Charles J. Dickgeisen and Co. P.O. Box 475

Release Date: New Denby, CT 06418 203-734-2553

Dow Chemical Midland, MI 48640 517-636-1000

DuPont Company Centre Road Building Wilmington, DE 19898 302-774-1000

Eagle Chemical Company P.O. Box 107 Mobile, AL 36601 205-452-9624

Electrolux Corporation 3003 Summer Street Stamford, CT 06905 203-324-7375

Federal Furniture Commodity Center Crystal Mall 4 Room 403 Washington, DC 20406 703-305-7280

Federal Prison Industries, Inc. (UNICOR) Metal and Wood Division 320 First Street, NW Washington, DC 20534 202-272-6620

Fireking International 900 Park Place New Albany, IN 47150 815-948-8400

Fisher Scientific 7722 Fenton Street

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Silver Spring, MD 20910 800-766-7000

Fitch Dustdown 2201 Russell Street Baltimore, MD 21224 301-539-1953

Flambeau Products Corporation P.O. Box 97 Middlefield, OH 44062 216-632-1631

Foster Manufacturing 414 North 13th Street Philadelphia, PA 19108 215-523-4855

General Pest Service Company 2015 Pontius Avenue Los Angeles, CA 90025 213-479-4349

General Services
Administration
(Use Regional GSA Source)

Gill Marketing 2127 Espey Court Crofton, MD 21114 301-858-1100

Granite Packaging 111 Whittendale Drive Moorestown, NJ 08057 609-727-1010

H. F. Staples & Company P.O. Box 956 Merrimack, NH 03059 603-889-8600

Hayden School Supply P.O. Box 27777
Tempe, AZ 85282

602-968-2670

Heller and Usdan 7 Caesar Place Moonachie, NJ 07074 800-333-4466

Herbarium Supply Company P.O. Box 883003 San Francisco, CA 94188 415-584-7000

Herzog/Wheeler and Assoc. 430 Oak Grove, Suite 311 Minneapolis, MN 55403 612-870-4555

Hollinger Corporation P.O. Box 8360 Fredericksburg, VA 22401 800-634-0491

Humidial Company P.O. Box 464 Colton, CA 92324 714-825-1793

Interior Steel Equipment Co. 2352 East 69th Street Cleveland, OH 44104 216-881-0100

Interlake 550 Warrenville Road Lisle, IL 60531 708-719-7072

InterMetro Industries Wilkes-Barre, PA 18705 717-825-2741

JobMaster Corporation 9010 Liberty Road Randallstown, MD 21133 301-655-1400

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John Plant Company P.O. Box 527 Ramseur, NC 27316 919-824-2366

Kardex Systems
Government Order Entry
P.O. Box 171
Marrietta, OH 45750
800-848-9767

Lab Safety Supply P.O. Box 1368 Janesville, WI 53547 800-356-0783

Lapine Scientific Company 371 Chestnut Street Norwood, NJ 07648 201-768-8640

Lane Science Equipment Co. 225 West 34th Street Suite 1412 New York, NY 10122 212-563-0663

Light Impressions Corporation P.O. Box 940 Rochester, NY 14603 800-828-6216

Madico, Inc. 45 Industrial Parkway P.O. Box 4023 Woburn, MA 01888 617-935-7850

Magnetic Aids, Inc. 133 North 10th Street Patterson, NJ 05722 201-290-1400

Release Date: New Man-How School Band Supply P.O. Box 2705 Trenton, NJ 08607 609-392-4895

Meilink Safe Company 6245 Industrial Parkway Box 2458 Whitehouse, OH 42571 419-877-5352

Menasha, Corporation 426 Montgomery Street Watertown, WI 53094 414-261-3162

Murray & Heister Inc. 10738 Tucker Street Beltsville, MD 20705 301-937-5980

National Glass Coatings Co. P.O. Box 3323 Gaithersburg, MD 20878 301-231-7011

Nilfisk of America 800 Technology Drive Malvern, PA 19355 215-647-6420

Nova-Lynx P.O. Box 240 Grass Valley, CA 95945 916-477-5226

Photo Research 3000 North Hollywood Way Burbank, CA 91505 213-843-6100

Pohlig Brothers Century Division P.O. Box 8069 Richmond, VA 23223

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804-644-7824

Read Plastics 12331 Wilkins Avenue Rockville, MD 20852 301-881-7900

Schwab Safe Company P.O. Box 5088 Lafayette, IN 47904 317-447-9470

Scientific Sales P.O. Box 9267 Trenton, NJ 08640 609-589-1560

Sealed Air Corporation 1901 State Hwy. 208 Fair Lawn, NJ 07410 201-791-7600

Sentinel Foam Products 130 North Street Hyannis, MA 02601 800-323-5005

Sentry Group 2166 Wisconsin Avenue, NW Washington, DC 20007 202-265-0246

Solar Screen Corporation 53-11 105th Street Corona, NY 11368 718-592-8222

Stacor Corporation 285 Emmet Street Newark, NJ 07114 201-242-6600

Steel Fixture Manuf. Co.

P.O. Box 917 Topeka, KS 66601 913-233-8911

Stephenson and Lawyer P.O. Box 8834 Grand Rapids, MI 49508 616-949-8100

Summit Chemical Company 7657 Canton Center Drive Baltimore, MD 21224 301-282-5200

TALAS
213 West 35th Street
New York, NY 10001
212-736-7744

Techni-Tool Inc. Apollo Road P.O. Box 368 Plymouth Meeting, PA 19462 215-825-4990

Thomas Scientific 99 High Mill Road P.O. Box 99 Swedesboro, NJ 08085 609-467-2000

3-M Company Energy Control Products Divis. 3-M Center St. Paul, MN 55144 612-733-5454

Transparent Glass Coatings Co. 1959 South La Cienega Blvd. Los Angeles, CA 90034 213-870-4777

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US Government Printing Office Superintendent of Documents Washington, DC 20402

University Products P.O. Box 101 Holyoke, MA 01041 800-628-1912

Visual Systems 1596 Rockville Pike Rockville, MD 20852-1686 301-770-0500

Wards Natural Science Establishment 5100 West Henrietta Road Rochester, NY 14692 800-962-2660 716-359-2502

Wheaton 1000 N. Tenth Street Millville, NJ 08332 609-825-1100

Xerox Corporation P.O. Box 9670 Arlington, VA 22209 202-527-7625