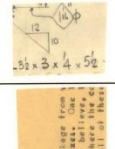



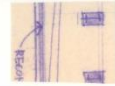





# Architectural Records Media/Support Preservation and Maintenance Chart

MEDIASUPPORT AND PRESERVATION CHART for ARCHITECTURAL RECORDS COLLECTIONS			
Sample	Media/Support	Problems	Maintenance
	<b>Tracing Paper and Vellum</b> Most transparent smooth paper usually impregnated with oils or resins to enhance transparency. Comes in different thicknesses and colors (ranging from light yellow and white are the most common). Various media are used. Pencil, ink, crayon, colored pencil, and porous pens (markers) are prevalent. Used for sketches, design development, and sometimes for working drawings. Vellums were used to make intermediary prints from the original. These are generally some of the few <b>acid-free papers still under production</b> .	Usually poor quality paper becomes brittle from acids in the paper and degradation of the oils or resins.	If rolled, harmful fumes in Hermin Restoffler. Flattens, stores carefully with eraser. Make sure all eraser residue is removed since eraser can be acidic. If minor tear at the edge, repair with best set tissue. If tear is into drawing information, do not repair or remove. Send to professional conservator. If drawing is very brittle or needs protection against possible damage from high use, and if the media is not fugitive, consideration to polyester Shore film. A piece of mounting tissue should be put between vellum and other supports unless the ink or media may bleed through adjacent materials.
	<b>Sulfur Paper</b> Highly acidic cheap paper used for sketches, second copies in technical materials, and notes in the 1920s through 1960s.	High acid content makes this paper very brittle and acids will leach into adjacent materials.	Remove original drawing from the paper and referent onto acid free paper. Destroy original.
	<b>Tracing Cloth (Kalamit)</b> Dyeless or treated cloth was used extensively from the 1930s until the 1960s. The lines or other lines were etched and used to give the cloth stiffness and to accept ink. Laminate used for working drawings because they could withstand much abuse, and since the lines were translucent, multiple copies were made from the drawings with bluprint and later laser (blue-line) printers for distribution to contractors.	Although tracing cloth held up well, it is susceptible to acid and damage from insects and ermin. The image only exists on the surface. Multiple copies should be kept away from water or the ink will wash off or smear.	Laminate can be dried significantly with an infrared then stored flat in an acid free folder. They will also do well in roll storage. Major repairs or cleaning should be done by a professional conservator.
	<b>Blueprints</b> Copy made from 1830s to 1980s by bringing the original drawing in contact with paper sensitized by a solution of potassium ferricyanide (the color) and ferric ammonium citrate (the light sensitive component). These can be reproduced in white lines on a white background. Used for distribution copies and shop drawings.	The process was acidic and the paper was often of poor quality. Many are quite brittle. They can fade quickly if exposed to light.	Blueprints can be flattened using a Hermin Restoffler and then dried flat. This media tends to be acidic and attempts to de-acidify or buffer it may result in a media color change. Separate this material from others with a sheet of an buffered interleaving tissue. Do not store in a polyethylene envelope.

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	<b>Blue-line or Blue Print</b> Interpreting distribution copy used since the 1830s and proliferated in the 1930s. A translucent original drawing is placed next to paper sensitized with a diaz compound, a coupling agent, and an acid stabilizer. It is exposed to light and then passed through ammonia gas to develop it. These can be recognized as blue lines on a white background.	Unstable copy. Residual phenyl coupling agents remain after developing. When exposed to air, the oxidation of the agents causes the print to discolor and fade. Exposure to light accelerates deterioration.	These copies are best left out of permanent drawing collections. Reformat if possible. If it is necessary to retain this media, it can be stored with other materials. If a piece of unbuffered interleaving tissue is put around the copy to protect adjacent original drawings. Some conservators prefer to store this material separately from original materials. However, such a separation may actually cause more wear and tear from users as they go back and forth between the different storage containers trying to understand the design process. Build this factor into your decision making.
	<b>Brown-line or Sepia Print</b> This is a diaz-type process but with brown lines on a white background. Used especially on vellum or polyester for a reproducible intermediate between the original drawing and the blue-line (diaz) distribution copies.	Unstable copy. Will fade quickly in light. Brown media can also transfer to adjacent materials giving them a brownish tint.	These copies are best left out of permanent drawing collections. Reformat if possible. If it is necessary to retain this media, it can be stored with other materials. If a piece of unbuffered interleaving tissue is put around the copy to protect adjacent original drawings. Some conservators prefer to store this material separately from original materials. However, such a separation may actually cause more wear and tear from users as they go back and forth between the different storage containers trying to understand the design process. Build this factor into your decision making.
	<b>Pencil, Ink, or Electrostatic on Polyester</b> A matte surface is applied with lacquer or abrasion into polyester to accept the image. These translucent drawings were used primarily for working drawings.	The media only sits on the surface of the drawing. The image can be rubbed especially if it is pencil. There have been some cases of the polyester yellowing especially when exposed to alkaline preservatives. The media can degrade causing flaking. Loss of media means loss of image.	Store flat. If the drawing is made of electrostatic image onto the polyester, do not stack together directly adjacent to similar documents. The image may transfer from one drawing to another. Put a piece of inert backing tissue between each drawing. If the matte surface of the polyester degrades, reformat immediately.
	<b>Ink Jet on Bond Paper</b> Introduced in wide-format in 1987 with drop-on-demand or continuous flow systems that shoot very small electrostatically charged droplets of ink onto the printing surface. This is the media and support of choice for architects today to print hard copy from CAD designs for presentation purposes. Image quality varies dramatically depending on paper quality, and whether paper is coated with an image receptor, and resolution of the digital image.	Ink jet has proven to be highly light sensitive so fading is a problem. Image longevity is affected by both ink and paper quality. Acid-free or alkaline paper will increase long-term preservation but if not displayed. Is often used as base for wire frames from the outline of the building drawings on which penmarker or light sensitive media marker is applied.	Store flat in unbuffered reinforced folder. Keep out of the light.

For more extensive information see: Waverly Lowell and Tawny Ryan Nelb, *Architectural Records: Managing Design and Construction Records*. Chicago, IL: Society of American Archivists, 2006. Available at <http://www.archivists.org>

**The Architectural Records Media/Support Preservation and Maintenance Chart © by Tawny Ryan Nelb** was created to provide a quick reference for eight media/support types, a list of their problems, and suggestions for maintenance. Small original samples of the eight actual media/support types are provided: tracing paper, sulfur paper, tracing cloth, blueprints, blue-line prints, sepia, various media on polyester, and ink jet. It is especially useful for training new staff and students or for the archivist or curator not familiar with the variety of media in architectural and engineering drawing and textual collections. The two-sided chart is created with laser print on alkaline card stock and laminated to last for many years of use.

## Order Form

To order the handy Architectural Records Media/Support Preservation and Maintenance Chart ©Tawny Ryan Nelb:

Send a check for \$20.00 (includes postage; Michigan residents add \$1.20 for sales tax) to Nelb Archival Consulting, Inc. c/o Tawny Ryan Nelb, Nelb Archival Consulting, Inc., 5610 Woodberry Ct., Midland, MI 48640-6929  
Fed. ID # 38-3255444. See [www.nelbarchival.com](http://www.nelbarchival.com) for copies of this order form.

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