

OSAC 2022-N-0035 Standard for On-Scene Collection and Preservation of Document Evidence

*Crime Scene Investigation & Reconstruction Subcommittee
Scene Examination Scientific Area Committee
Organization of Scientific Area Committees (OSAC) for Forensic Science*





Draft OSAC Proposed Standard

OSAC 2022-N-0035 Standard for On-Scene Collection and Preservation of Document Evidence

Prepared by
Crime Scene Investigation & Reconstruction Subcommittee
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Disclaimer:

This OSAC Proposed Standard was written by the Organization of Scientific Area Committees (OSAC) for Forensic Science following a process that includes an open comment period. This Proposed Standard will be submitted to a standards developing organization and is subject to change.

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Any identification of commercial equipment, instruments, or materials in the Proposed Standard is not a recommendation or endorsement by the U.S. Government and does not imply that the equipment, instruments, or materials are necessarily the best available for the purpose.



1 **Foreword**

2 This document delineates standards and recommendations for the collection and preservation of
3 document evidence and related items during scene investigations. The methods in this standard
4 are intended to maintain the integrity of document evidence so that reliable, accurate, and relevant
5 conclusions can be obtained. Proper collection and preservation of document evidence ensures
6 that the integrity of the evidence is maintained from the point of collection, through possible
7 forensic examination, and to the presentation of the evidence in the courtroom. This document
8 should be utilized in conjunction with departmental policies to inform or augment applicable
9 policies.

10 This document has been drafted by the Crime Scene Investigation and Reconstruction
11 Subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science
12 through a consensus process.

13 This standard provides guidance on some safety issues but is not exhaustive. It is the responsibility
14 of the appropriate agency to develop a full health and safety plan.

15 All hyperlinks and web addresses shown in this document are current as of the publication date of
16 this standard.

17
18

19 **Keywords:** scene investigation, collection, preservation, physical evidence, document evidence

DRAFT

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51 **Standard for On-Scene Collection and Preservation**
52 **of Document Evidence**
53

54 **1. Scope**

55 This document provides specific guidance for the collection of documents as evidence when the
56 physical characteristics of the document are of interest.

57 **2. Normative References**

58 The following referenced documents are indispensable for the application of this document. For
59 dated references, only the edition cited applies. For undated references, the latest edition of the
60 referenced document (including any amendments) applies.

61 Guiding Principles for Scene Investigation and Reconstruction [OSAC Proposed Standard]

62 Standard for On-Scene Collection and Preservation of Physical Evidence [OSAC Proposed
63 Standard]

64 **3. Terms and Definitions**

65 For purposes of this document, the following definitions apply.

66 **3.1**
67 **alteration**

68 A modification made to a document by any combination of physical, chemical, or mechanical
69 means including, but not limited to, obliterations, additions, over writings, or erasures.
70 (ANSI/ASB Standard 035)

71 **3.2**
72 **chain of custody**

73 Chronological record of the handling and storage of an item from its point of collection to
74 its final return or disposal. (OSAC Preferred Term)

75
76 **3.3**
77 **charred documents**

78 Items damaged by heat or fire. (SWGDOC P01)

79
80 **3.4**
81 **contamination**

82 The undesirable introduction of a substance to an item at any point in the forensic
83 process. (ISO/FDIS 21043-1:2018[E])

84 NOTE This includes undesirable transfer of a substance within an item or between items, also
85 referred to as cross-contamination.

86

87 **3.5**

88 **document**

89 Any material containing marks, symbols, or signs visible, partially visible, or invisible (to the
90 naked eye) that can ultimately convey meaning or a message. (ASB Technical Report 071,
91 Draft)

92

93 NOTE This definition of a document is broad; it extends to electronic documents, including e-
94 mail and other electronic communications, word processed documents and databases. In
95 addition to documents that are readily accessible from computer systems and other electronic
96 devices and media, the definition covers those documents that are stored on servers and back-up
97 systems and electronic documents that have been ‘deleted’; it also extends to additional
98 information stored and associated with electronic documents known as metadata. (Practice
99 Direction 31A – Disclosure and Inspection UK)

100 **3.6**

101 **examination**

102 The process of observing, searching, detecting, recording, prioritizing, collecting, analyzing,
103 measuring, comparing and/or interpreting (ASB Technical Report 071-Draft).

104 **3.7**

105 **exemplars**

106 Samples of handwriting, printed text, paper, ink, etc., known (or purported) to have been
107 produced by a particular individual, machine, or manufacturer (ASB Technical Report 071-
108 Draft)

109 **3.8**

110 **forensic document examiner**

111 **FDE**

112 Addresses inquiries that arise in matters where the authenticity, genuineness, or source of
113 documents is questioned; does not involve the study of handwriting for personality assessment,
114 creation of a personality profile, or analysis, or judgment of a writer’s personality or character.
115 (ASB Standard 011-Draft, ASB Technical Report 071-Draft)

116

117 **3.9**

118 **personal protection equipment**

119 **PPE**

120 Equipment worn to minimize exposure to a variety of hazards such as body-fluids, irritants, or
121 contaminants. Examples of PPE: gloves, foot and eye protection, respirators, and full body suits.

122

123 **3.10**

124 **scene**

125 A place or object that is subject to and/or requires forensic examination. (ISO/FDIS 21043-
126 1:2018[E])

127

128 NOTE A crime scene is a common description of a scene where a presumed crime has been
129 committed. The scene can be a person or an animal.

130
131 **3.11**

132 **scene investigation**

133 An examination of a scene to locate, document, process, collect, and preserve items of potential
134 evidentiary value.

135
136 **3.12**

137 **scene investigator**

138 An individual, however named, who is responsible for performing elements of scene
139 investigation.

140
141 **3.13**

142 **writing instrument**

143 Any tool used to create handwritten markings on a substrate. Typically used to describe the use
144 of a pen, pencil, crayon, or other marker (ASB Technical Report 071, Draft).

145
146 **3.14**

147 **requested writing**

148 Handwriting samples prepared by a particular person specifically for the purpose of comparison,
149 usually to questioned material.

150

151 **4. General Collection and Preservation of Document Evidence**

152 Document evidence can be examined for source attribution, the presence of hidden writing,
153 latent indented writing (e.g. blank pages), impressions, fracture matching, or alteration
154 detection. Proper collection, handling, and storage can preserve potential evidentiary value,
155 maximizing the capability of forensic document analysis.

156 Scene investigators should collaborate with a forensic document examiner (FDE) to ensure that
157 document evidence is properly documented and collected. An FDE can aid in the identification
158 of probative evidence for document examination, including a document in question and
159 additional materials or equipment that can be of use in analyzing a questioned document.
160 Collaboration with an FDE during a scene investigation can increase the efficiency of an
161 investigation through analysis.

162 **4.1. Cross Contamination Considerations**

163 a) Document evidence shall be handled, collected, and preserved in a manner that prevents
164 contamination, tampering, alteration or loss.

165 **4.2. Document Evidence Collection and Preservation**

- 166 a) The method employed for the collection and preservation of document evidence
167 can vary based on scene context and anticipated analysis.
- 168 b) The original document shall be collected if available and if the document can be
169 legally seized.
- 170 c)NOTE A scene investigator shall submit high-resolution copies in place of an
171 original document only when prior authorization from an FDE or other
172 individual with the appropriate expertise has been granted.
- 173 d) If original writing is on a fixed substrate (e.g. wall, floor) and cannot be collected,
174 the questioned writing shall be preserved by uncompressed evidence quality
175 photography with the camera lens perpendicular to the sample, proper lighting,
176 and the inclusion of a scale.
- 177 e) Items from different suspected sources, material types, and locations should be
178 collected and packaged separately.
- 179 f) Document evidence requiring further analysis, such as DNA, fingerprints, or trace
180 evidence, should be placed into breathable packaging such as paper bags,
181 envelopes, or cardboard containers. Generally, plastic is not an acceptable
182 packaging material.
- 183 g) Document evidence shall be protected from alteration. When collecting
184 document evidence, a scene investigator shall not mark the document itself, or
185 mark the package while it contains the document. Document evidence shall not
186 be unnecessarily folded, torn, marked, soiled, stamped, or written on. Document
187 items shall be collected intact and in their entirety. Packaging shall be of the
188 appropriate size to avoid damage or alteration to the document.
- 189 h) Document evidence examination often relies on exemplars for comparison.
190 Consideration should be made on the scene to identify potentially related
191 materials or equipment that could aid in the examination of a document. Further
192 discussion on possible exemplars will be noted in subsequent sections.
- 193 i) Storage of document evidence should avoid extreme temperature and humidity,
194 which can cause alteration to materials or equipment.
- 195 j) If the collection or preservation of document evidence is beyond the technical
196 skills, knowledge, or resources available to the scene investigator, an FDE or
197 other individual with the appropriate expertise shall be contacted for consultation
198 or assistance.

199 **5. Collection of Documents for Handwriting Comparison**

200 Handwriting analysis relies on the comparison between a questioned document and other
201 documents with a known author or an exemplar written by a person of interest under the
202 direction of investigators. It is important that sufficient samples be collected for a successful
203 examination to be conducted.

204 **5.1. Collection of Existing Documents**

205 Documents containing existing written text often best represent an individual's natural
206 handwriting and depict natural variance in writing. Scene investigators should attempt to
207 identify and collect existing written documents during scene examinations when within the legal
208 authority to do so. Existing documents that can be of use as comparative exemplars, include but
209 are not limited to:

- 210 a) Existing documents attributed to a suspected author(s), such as receipts, checks,
211 business records, correspondence, applications, identification cards, or diaries.
- 212 b) Samples of writing produced contemporaneous to, and with similar material as,
213 the questioned document can aid in comparative value.
- 214 c) Blank pages potentially associated with existing documents can contain
215 decipherable indentations that can have comparative value.

216 **5.2. Scene Considerations for Requested Writing**

217 Requested writing samples are commonly used for comparison to a questioned document.
218 Protocols for obtaining requested writing samples should be determined by the laboratory
219 performing the examination.

220 a) Requested writing samples should be prepared using materials similar to the questioned
221 document. The instrument and materials used to create the requested writing sample shall be
222 collected.

223 **6. Collection of Materials and Equipment Used to Produce Questioned Documents**

224 Document evidence can be associated with the materials or equipment used to generate the
225 document. In these cases, it is important to collect possible materials/equipment such as writing
226 instruments, office equipment, or paper for comparison purposes. These items can be collected
227 at an initial scene or at a later time under a separate legal authority.

228 Once located, these items shall be collected in a manner that prevents damage to the item as
229 small details or imperfections are useful for source attribution.

230 Scene investigators should attempt to locate materials or equipment that could have been
231 utilized to create the document in question.

232 **6.1. Ink/Toner Cartridge Evidence**

233 a) Ink/toner cartridge evidence for writing instruments, printers, and stamp pads
234 shall be packaged separately from any document.

235 b) Depending on the writing instrument being collected and the handling needed
236 (such as shipping), padding or leak-proof packaging shall be utilized to prevent
237 breakage or leakage.

238 c) The make, model, and color of the ink/toner cartridge shall be recorded.

239 **6.2. Machine Evidence**

240 a) When machines, components, and accessories are collected, they shall be
241 securely packaged in a manner to protect from damage.

242 b) Ink/toner cartridges should be removed from the machine prior to packaging.
243 The ink/toner cartridges shall be packaged with padding in leak-proof containers
244 to prevent breakage and leakage.

245 c) Typewriter ribbons should not be removed from the machine.

246 d) Upon collection, the make, model, serial number, information about any toner
247 supplies and components, and machine repair and service history shall be
248 recorded.

249 Documents produced contemporaneous to the questioned document can aid in comparative
250 value. If the suspect machine is not available for collection, other documents that could have
251 been generated by the same machine should be collected.

252 f) Any item used to generate or alter a document can be useful for the anticipated
253 analysis of source attribution. Additional evidence for source attribution which
254 should be collected includes but is not limited to:

255 ● Paper or other document substrates;

256 ● Stamps, embossing, and seal devices (shall not be cleaned before packaging);

257 ● Document-assembly items such as staplers, staples, paper clips, hole punches,
258 envelopes, tape, and glue as relevant to the questioned document;

259 ● Documents possibly used as templates for counterfeits such as driver's licenses,
260 social security cards, and passports.

261 **7. Collection of Items with Suspected Indented Writing**

262 Indented writing, typing, or other markings can occur when two or more documents are stacked,
263 leaving indentations on the document(s) beneath. Documents that do not contain visible marks

264 even when using oblique lighting (e.g. pads of paper, checkbooks), can contain valuable
265 indentation evidence and shall be collected for additional laboratory processing.

266 7.1. Collection

267 a) Hard-sided or padded packaging should be utilized for collection and preservation. Due to the
268 fragile nature of indented writing, it is especially important to avoid writing atop packaging
269 after the item is within the packaging, placing heavy items atop packaging, and exposure to
270 extreme temperature environments to avoid alteration.

271 8. Charred Documents

272 Charred documents are particularly fragile and should be protected or immobilized as soon as
273 possible to minimize damage. Any movement of the document or around the document (e.g., air
274 circulation, doors opening, or foot traffic) can lead to damage of charred documents. As such,
275 photographs should be taken when the document is discovered and it shall be photographed
276 before it is moved.

277 8.1. Collection

278 a) A rigid, flat box padded with sheet-cotton or similar material can be used to
279 immobilize and preserve the document.

280 NOTE If the intent of collecting the document includes analysis for volatile
281 substances, such as ignitable liquids, a non-breathable container should be used
282 (e.g., an unused paint can).

283 b) Charred documents are often found in multiple fragments and shall all be
284 collected.

285 c) Scene investigators should not attempt to separate or flatten documents on scene.

286 9. Liquid-Soaked Documents

287 Wet documents are fragile and shall be handled delicately. As such, photographs should be
288 taken when the document is discovered and it shall be photographed before it is moved, when
289 possible.

290 9.1. Collection

291 Collecting a wet document on scene should be done by sliding a flat, rigid, clean surface (e.g.,
292 cardboard sheet) underneath the item. The wet document should be transported atop the rigid
293 surface to a location where it can be dried. Once dried, package documents in a breathable
294 container.

295 NOTE If the intent of collecting the document includes analysis for volatile substances, such as
296 ignitable liquids, a non-breathable container should be used (e.g., an unused lined paint can). A
297 document that can be analyzed for volatile substances should not be dried.

298 **9.2. Handling Precautions**

299 If the document is submerged in a liquid and there are concerns with the document fragility or
300 integrity, the investigator should contact the FDE to get advice whether the document should be
301 maintained in water, frozen, or otherwise preserved.

302 When necessary, separating or unfolding a document should be done by an FDE or under their
303 direction to minimize further alterations or damage.

304 **9.3. Drying**

305 Special considerations should be taken when drying wet documents as folded or multiple page
306 documents can stick together. An FDE should be consulted prior to drying any wet and folded
307 or multiple page document(s).

308 a) Documents shall be dried in a secure location.

309 b) To dry a wet document, place the document atop an absorbent surface (e.g. a
310 clean paper towel) or a surface that provides for airflow (e.g. a clean, non-
311 metallic window-type screen). Trace evidence shall be retained.

312 c) When documents are dried with a surface utilizing airflow, clean paper should be
313 placed underneath the item to catch possible trace evidence. Trace evidence shall
314 be retained.

315 d) Drying cabinets or fume hoods can be used to dry items.

316 **9.4. Packaging**

317 a) After drying, the document shall be packaged within a clean, dry, rigid, and breathable material
318 such as cardboard. If the original packaging is not suitable, the item shall be placed in new,
319 clean breathable packaging and the original packaging shall be retained as evidence. The
320 document should be packaged in a manner that secures or pads the document within the
321 container.

322 **10. Collection of Documents for Physical Fit Examination**

323 Physical fit examinations consist of the evaluation, examination, and comparison of broken, cut,
324 torn, or otherwise separated items to determine if two or more pieces were at one time a single
325 source. Examples of document evidence for physical fit examination can include but are not
326 limited to shredded paper, ripped checks, or torn typewriter ribbons. Handwriting, printing,

327 surface markings, or visible defects can continue across the separated items and can be useful
328 for association between different fragments.

329 **10.1. Collection**

330 a) At the scene, if evidence can be of value for physical fit examination, all relevant
331 material (e.g., torn paper and pad) shall be collected.

332 b) Precautions shall be taken to preserve the fragile edges and prevent the loss,
333 damage, or contamination of exposed ends that can be capable of fitting together.
334 To minimize damaging fragile edges of the pieces, no attempt shall be made to
335 reassemble questioned evidence items prior to formal examination.

336 **10.2. Shredded Paper**

337 a) Shredded paper shall be collected with a minimum of disturbance to avoid
338 further mixing.

339 b) Shredded paper that is found in separate locations shall not be packaged together.

340 c) When possible, the entire shredder should be collected intact.

341 d) Shredded paper should be transported within the item in which it is found on the
342 scene. When found within a shredder, the bag or container which collects the
343 shredded paper should be used to collect and transport the fragments. When the
344 collection of the bag or container is not possible, ensure that commingled
345 fragments stay together when collected.

346 NOTE Fragments contained within the shredder blades shall be collected as well.

347

348

349 **Appendix A**
350 (informative)

351 **Bibliography**

352 This is not meant to be an all-inclusive list as the group recognizes other publications on this
353 subject may exist. At the time this document was drafted, these were some of the publications
354 available for reference. Additionally, any mention of a particular software tool or vendor as part
355 of this bibliography is purely incidental, and any inclusion does not imply endorsement by the
356 authors of this document.

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