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I. Guidelines Goals

Every day in Florida, millions of public records are being created, distributed and stored by public agencies throughout the state. Public records should be managed and stored in a safe, secure and accessible facility; for inactive records that have not met their retention requirements, this might be an off-site records storage facility. Records storage facilities provide low cost storage, records protection and vital records protection. Public records in records centers are placed there to ensure their continued availability to the public. The first step in ensuring they will remain available is to store them properly.

While there are similarities between records center storage and archival storage, in many cases they differ. This is a result of the different functions and purposes of the records stored in each site. Their storage conditions are based on whether records are inactive and have predetermined disposition dates or are permanently valuable. Due to this distinction, archival storage oftentimes employs more stringent environmental controls. Facilities should be adapted to address the individual concerns of the records that are housed within. If your facility is intended to store records determined to have long-term historical research value, see our *Records Storage and Facilities Guidelines for Archives and Historical Records Repositories*.

These guidelines are intended to help public agencies make decisions regarding selection of a private storage facility, design and construction of a new facility, or conversion of an existing facility for records storage. These guidelines are not intended to be used as a means to certify commercial or government records storage centers, nor does the Bureau of Archives and Records Management endorse specific facilities which meet these guidelines.

II. Introduction

An organized and well-designed records center can be a valuable asset to your agency. By using a records center, your agency can save money, create office storage space for active records, make maintenance and retrieval of records easier, and protect its records.

Records centers will save your agency public funds by using low-cost storage instead of expensive office space. They provide more efficient storage by housing records vertically on shelves rather than in expensive file cabinets. Records center equipment costs almost a third less than traditional office cabinets and shelves, and records center floor space costs two-thirds less than office floor space.

Records centers can be used to store inactive records while creating additional storage space in your office area for active records. It is often helpful to segregate active records – those that need to be available for easy retrieval and frequent use – from inactive records – those that have served the immediate purpose of their creation but must be kept for an additional period of time for administrative, legal or fiscal reasons.

Records often accumulate in closets, sheds, basements and attics. Storing records in such places puts the records at risk of loss, damage or deterioration and makes locating and retrieving the records difficult. Records centers can ensure records are secured, protected and available to users, while providing protection against damage and unauthorized access.

III. Site Selection and Planning

The selection of a site for a records storage facility should take several factors into consideration:

- Access/proximity: Agencies or offices using the facility should have easy access to the facility. Ideally, the location should be within commuting distance of the related institution. The more accessible the facility, the more often it will be used and the more cost effective it will be.
- **Size:** The site should be large enough to allow for future expansion. Consider the growth factors of the facility and the estimated volume of records to be stored over several years.
- Flood plain: The facility should be sited a minimum of 5 feet above and 100 feet from any 100 year flood plain areas or be protected by an appropriate flood wall that conforms to local or regional building codes.
- **Drainage:** In order to eliminate problems due to water damage, make sure the site has a good drainage system and is not located in a swampy area or floodplain or adjacent to a lake, river or ocean.
- **Hazards:** The facility should not be located in any area where the risks of natural disasters, man-made disasters or external hazards pose a significant threat to the facility and its contents.
- Water main: The facility should not be located in close proximity to a water main.
- **Pollutants/pests:** Avoid areas of high air pollution, those near chemical factories or utility plants, or areas subject to pest infestation.
- **Public safety:** The facility should be located in an area within service of an urban fire station and regularly patrolled by the police. Roads, fire lanes and parking areas should permit unrestricted access for emergency vehicles.

IV. Physical Plant/Structure

When selecting or building a records center facility, keep these considerations in mind:

- **Permanence:** A permanent building is essential and an individual structure separate from other buildings is recommended.
- **Dimensions:** The size of the agency and volume of records will impact the building dimensions. A records inventory will help determine the size of building required. Also consider if the facility will be housing only nonpermanent records or will be storing records eventually slated for transfer to an archives or historical records repository.
- **Stories:** A single story building with at least a 12-foot ceiling is preferred over a building with multiple floors. If multiple floors are used, an elevator or hydraulic lift for moving records vertically as they enter and leave the building will be needed.

- Weather: Weather factors unique to Florida should be taken into account when building a records storage facility. Florida is at high risk for hurricanes and tornadoes, and parts of the state average 90 to 100 days of thunderstorms each year. The primary damage associated with these conditions is wind damage, which can be controlled using wind resistant design features.
- **Building codes/standards:** The facility should meet or exceed the applicable national, regional, state and local building codes and fire, seismic, hurricane and safety standards to provide protection from building collapse or failure of essential equipment. Architects are able to design and construct hurricane resistant buildings without dramatically increasing the cost of construction.
- **Building material:** The building should be fire-resistant or fireproof, constructed with noncombustible materials.
 - a. The walls, doors, ceilings and floors should be fire-rated.
 - b. There should be at least 1-hour rated fire barrier walls between the records storage areas and other auxiliary spaces.
 - c. The fire resistive rating of the roof should be a minimum of one-half hour, or the building should be protected by an automatic sprinkler system.
- **Insulation/sealing:** Facility should be well insulated with appropriate vapor barriers in walls and ceilings for protection against rapid fluctuation of temperature and humidity. Proper exterior sealing reduces air filtration, air pollution, pest access, the heating and cooling load, and the amount of particulates in the air.
 - a. Insulation is best achieved by sealing the building with caulk and weatherstripping to make it weather resistant.
 - b. All holes or openings should be closed with steel wool and caulking compound.
 - c. Intake vents for air conditioning should be screened.
 - d. A building without windows or skylights will provide better records protection and lower energy costs by not allowing heat buildup or cold penetration in records storage areas.
- Foundation: The foundation should have no cracks or damage.
- **Roof:** The roof should:
 - a. Handle local weather conditions and resist a number of forces, including water, heat and fire.
 - b. Be free of leaks, and the roof membrane should not permit water penetration.
 - c. Be pitched to allow water to drain more easily from the building.
 - d. Not have equipment mounted on it, and nothing else should be placed on the roof that may cause damage to the roof membrane.

- e. Have a long life expectancy and be low maintenance.
- f. Be able to be serviced and repaired by at least one qualified local contractor.
- **Gutters:** Building should have adequate gutters and downspouts draining water away from the building to prevent moisture from seeping into building sidewalls or basements.
- **Wastewater drainage:** Building should have a drainage system that takes wastewater away from the building.
- Floors:
 - a. The floors should be constructed of steel reinforced concrete to support the heavy weight of shelving and records boxes and be painted or sealed to reduce dust.
 - b. The floors should have a load limit that accommodates the height and type of shelving or storage equipment, the width of the aisles, and the configuration of the space.

TYPE OF LOAD	RECOMMENDED FLOOR LOAD PER SQUARE FOOT
Mobile or very dense/high shelving	300 pounds
Large quantities of microfilm	500 pounds
Areas not supporting storage shelving	150 pounds
Storage area with several floors or mezzanines	Consult a structural engineer

- c. The allowable floor load limit should not be exceeded.
- d. The floor load limit should be established by a structural engineer and posted in the facility for public viewing.
- e. Records storage rooms should not be carpeted, as carpets collect dust, hold moisture, attract vermin and may contain chemicals, all of which could harm public records. Carpet also complicates disaster recovery efforts.
- Loading area/loading dock: If the facility will receive or deliver large quantities of records, it should have a loading area to accommodate commercial trucks or vans transporting records.
- Loading dock: Large facilities that use commercial freight vehicles need to have docks 3½ feet high; smaller facilities need platforms 24 to 26 inches off the ground. The loading dock should be:
 - a. Within close proximity of the records storage area.

- b. Separated from the records storage area by 4-hour fire walls with adequate fire doors and separated from any other portions of the building by 2-hour fire walls.
- c. Covered if there is not a direct entry from the loading dock into the building.
- Separate functional areas: The facility should provide separate areas for records storage and administrative functions as well as separate records storage areas for each media type (paper, electronic, microfilm). Each area should have its own individual heat, ventilation and air conditioning (HVAC) controls.
- Additional areas: The records storage facility may also have a shipping and receiving area, a research room, a reference room and other areas, depending on agency needs.
- **Restrooms/drinking water:** Restrooms and safe drinking water should be available and accessible to staff and visitors.
- **Mold:** Facilities should be free of any mold. The appearance of mold indicates a serious condition requiring immediate action. Some molds can present very serious health concerns. Even dormant (dry or powdery) mold spores can be readily redistributed within a storage space and become active (velvety) when environmental conditions are favorable for mold growth.
- ADA compliance: The facility should meet Americans with Disabilities Act accessibility requirements. See Americans with Disabilities Act Title III Regulations (ada.gov/ada_title_III.htm).
- **Security systems:** The facility should be equipped with an anti-intrusion alarm system designed to detect unauthorized entry. Surveillance cameras and sensors may supplement the alarm system. The facility should be restricted to authorized persons only, including access to records storage areas.
- **Parking:** Adequate parking space should be available for employees, visitors, and people with disabilities.
- Lighting: The ground site should be properly lighted after dark.

V. Interior of Structure

Characteristics and features of the interior of the structure:

- **Storage area ventilation/insulation:** The records storage area should be well ventilated and insulated. Forced-air ventilating systems, wall or roof turbines, and fans are recommended.
- Dedicated storage area HVAC system: If a heating, ventilation and air conditioning system is used in the records storage area, it should be separate from the system servicing the office areas. It should be equipped with filters designed to remove dirt, harmful gases and other solid particles from the air.

- Electrical: Electrical systems should conform to the National Electric Code of the National Fire Protection Association (NFPA 70, 2014 https://nfpa.org/aboutthecodes/list_of_codes_and_standards.asp) and should be regularly inspected and tested.
- **Backup electrical:** A redundant source of primary electric service, such as a second primary service feeder or generator, should be provided to ensure continuous, dependable service to the facility especially to the HVAC system, fire alarm and fire protection systems. Manual switching between sources of service is acceptable.
- Fire signaling system: The fire detection system needs to be tied into a signaling system that will alert the fire department either automatically or through an intermediary party such as a monitoring security system. The signaling system should automatically shut down the air conditioning system, open dampers in ducts, close fire shutters and doors, and indicate the location of the fire. For more fire signaling information, see NFPA 72, 2013 (<u>nfpa.org/aboutthecodes/list_of_codes_and_standards.asp</u>).
- **Fire/smoke/heat detection:** Fire detection devices should be used throughout the building. Smoke detectors, which respond to the particles of combustion produced early in a fire, are most appropriate for records storage areas. The facility may also have flame detectors, which respond to the flame stage of a fire, and heat detectors, which respond to the flame stage of a fire.
- **Sprinklers:** The facility should be equipped with an automatic sprinkler system in the records storage area. Pre-active dry pipe sprinkler systems are recommended. Automatic sprinkler detection systems should be in accordance with NFPA 13, 2013 (<u>nfpa.org/aboutthecodes/list of codes and standards.asp</u>).
- Fire extinguishers: The facility should contain an adequate supply of well-distributed portable fire extinguishers. For additional fire protection information, see NFPA's Standards for the Protection of Records (NFPA 232, 2012 nfpa.org/aboutthecodes/list_of_codes_and_standards.asp).
- Exits: Emergency exit doors should be clearly marked.
- **Circuit breakers:** Circuit breakers should be in an accessible area and clearly identifiable, in case of an emergency.
- Water pipes: There should be no water-bearing pipes above the records storage area.
- Lighting: The records storage area should be well-lighted. Lighting fixtures should be at least 1 foot above the cartons on the top shelves. Fixtures should be located over aisles and run parallel to the shelves.
- **Doors:** The facility doors should be reinforced with a steel plate and have pick resistant deadbolt locks. Fire doors should open only from the inside, and external doors in the records storage area should be limited to emergency exits.
- **Windows:** Ideally, the records storage area should have no windows, particularly on ground floor facilities. If there are windows, the number of windows should be kept to a minimum, and windows in the storage area should be protected by glazing or metal bars.

The glass and seals should not be broken or have cracks, and the caulking should be intact.

• Shelving:

- a. The most common type of shelving used in a records center is the open stationary type. Other types of shelving are available but might not be as cost-effective or as suitable to some records centers.
- b. Records should not be stored on pressboard, wood or other combustible shelving materials.
- c. Shelving should be fire-retardant, steel-reinforced 18-22 gauge metal with a baked enamel finish.
- d. Standard shelf size for records centers is 42 by 30 inches. This accommodates three standard sized storage cartons left to right and two deep. Shelves may be spaced to accommodate two layers of cartons, however one layer is recommended to ensure safety, make visual inspections easier and maintain the integrity of the boxes.
- e. Shelving for odd-sized and oversized boxes should be spaced as needed.
- f. The maximum recommended stacking height for standard 42- by 30-inch shelves holding 6 cartons per shelf is 14 shelves high per floor. The topmost cartons and shelving should be completely clear of ceiling ducts, lighting and pipes by 1 foot.
- g. Double units of shelves, with two units placed back to back, are the most efficient and practical arrangement of shelving. End tie clips should be used to anchor upright units when assembled in this fashion. Units should be fastened together with nuts and bolts for maximum stability.
- h. Each racking system or shelving unit should be industrial style shelving rated at least 50 pounds per cubic foot supported by the shelf.
- i. Racking systems, steel shelving or other open-shelf records storage equipment should be braced to prevent collapse or tipping under full load.
- j. Shelving should be located a minimum of 3 inches preferably 6 inches from the floor and be anchored to the floor, particularly if the top shelf is 8 or more feet tall.
- k. Avoid placing shelving along exterior walls to avoid any condensation that may accumulate on the walls. Shelving should also be 6 inches from interior walls, especially if the walls contain pipes.
- I. Shelving should permit the free circulation of air around cartons.
- m. Aisles between rows of shelving should be a minimum of 36 inches. Main aisles should measure 4 to 6 feet wide to allow access to carts, hand trucks and pallets.

- **Permanent records:** If permanent records are to be stored, the facility should have storage space for those records away from outer walls.
- **Charging areas:** Battery charging areas for electric forklifts should be separated from records storage areas with at least a 2-hour rated fire barrier wall.
- **Microfilm/electronic media vaults:** Microfilm and electronic media such as tapes (video and audio) and disks should be stored in secure, fireproof vaults with strict temperature and humidity controls. Electronic media should not be stored in the same vault as microfilm or microfiche.
 - a. Vaults should be designed to protect records against fire. Walls should be constructed of fireproof materials such as concrete/concrete block that protect materials through a 4-hour fire period. The walls of the building should not be used as walls of the vault.
 - b. Any doors or structural members supporting the vault should have the same fire resistance as the vault walls.
 - c. The vault should be on ground level, and nothing should be located above it that could fall or penetrate the ceiling during a fire.
 - d. The vault design should take into consideration the maximum floor loading limit to avoid settlement and consequent cracking of the floors. The foundations of the vault should carry the entire load of the vault without settlement or cracking.
 - e. The vault should provide 24/7 air conditioning (temperature, humidity and air exchange) equivalent to that required for office space.
 - f. The door-locking mechanism should allow a person accidentally closed inside the vault to open the door from the inside.
 - g. Vaults should meet the requirements of the NFPA for records storage vaults. Recommendations are given in the Standards for Protection of Records, NFPA 232, 2012 (<u>nfpa.org/codes-and-standards/document-information-pages</u>).
 - h. State of Florida requirements for microfilm vaults are set forth in Rule 1B-26.0021, *Florida Administrative Code*, Microfilm standards.
- **Imaging areas:** A separate area should be set aside if imaging operations are to be performed. The space should be large enough to accommodate all types of scanners and other equipment that will be used, such as printers, computers and monitors. Space for records to be processed and for personnel to perform administrative tasks should also be considered.

VI. Operations

Following are some recommendations for operating a records center.

A. Environmental:

- Hazardous materials such as flammables (e.g., oils, paints, gasoline and propane) should not be stored in the records storage area.
- Records having the following conditions should be stored in separate areas from other records, with separate air handling systems, or should be removed from the facility for proper handling:
 - a. Contamination by hazardous materials, such as radioactive isotopes or toxins.
 - b. Infestation by insects.
 - c. Consisting of cellulose nitrate film.
 - d. Signs of active mold growth.
- Periodic searches should be made for evidence of pest activity, such as droppings.
 - a. If evidence is found, sticky traps or some other type of zone monitor should be used.
 - b. Avoid the use of poisons and pest control chemicals that are harmful to records or staff.
 - c. Sprays should be used with extreme caution for localized outbreaks and never sprayed directly onto records containers.
 - d. Glueboard trays can be used for small outbreaks.
 - e. Major infestations may require expert treatment.

B. Records center operations:

- Provisions for access should be worked out before records are sent for storage.
- Records should be kept securely inside a records center vehicle during transport to or from the facility.
- The facility should have a written emergency management or disaster plan that is linked to a local emergency operations center and reviewed on an annual basis. The online dPlan tool (www.dplan.org) allows you to develop a customized written disaster plan using an online template. Your plan should consist of the following minimum components:
 - a. Staff lists.
 - b. Contact information and roles in the event of an emergency.
 - c. Analysis of risks for the facility.
 - d. Preventative measures.
 - e. Salvage priorities.
 - f. Contact information for emergency recovery service companies.

- The facility should offer emergency, after-hours access at night and on weekends, if appropriate.
- The facility should have a method of identifying, locating and tracking boxes in storage.
- Facility staff should provide any necessary training needed to access or retrieve records.
- All employees should undergo background checks.
- Employees and visitors should be issued identification badges to be visible at all times. All visitors should be required to sign in and be escorted by records center staff.
- The facility should provide a research room separate from records storage, processing and disposal areas. The room should include a worktable and chairs for reviewing records, appropriate duplication equipment (photocopier, microfilm reader/printer, computer/printer/scanner) and electrical outlets for laptop computers or other electronic devices. The room should also have the capability of being locked to limit access while not in use.

C. Equipment and supplies:

- Standard-sized cardboard records storage cartons (10 by 12 by 15 inches) result in the maximum utilization of shelving and storage space, accommodating both letter size (8 ½ by 11 inches) and legal size (8 ½ by 14 inches) documents. Cartons should have a minimum bursting pressure of 200 pounds. Cartons that are double walled and stitched are more durable and better able to withstand frequent handling; however, glued and single walled cartons are acceptable.
- Ladders used in the records storage area should have:
 - a. Safety rails on both sides of the ladder.
 - b. Stair treads, preferably open-grid rather than rubber.
 - c. A 12-inch distance between steps.
 - d. A 10- to 12-inch deep work platform fastened to the top of the ladder to allow reference and refiling.
 - e. Rolling casters for easy movement, with rubber tipped legs or casters that lock in place.
 - f. A base wide enough to prevent tipping.
- Step stools and portable ladders should follow Occupational Safety and Health Administration (OSHA) guidelines for stairways and ladders (<u>osha.gov/Publications/ladders/osha3124.html</u>).
- The facility should have sufficient and appropriate records transport equipment, such as forklifts, pallet jacks, carts and hand trucks.

- Metal or fire-treated wood rolling platform carts used for transporting records should be large enough to hold approximately 20 standard storage cartons. They should have swivel mounted wheels at one end and rigid wheels at the other for easy steering and maneuvering. Smaller carts might be appropriate for smaller facilities.
- Small carts with a capacity of 2 to 6 cartons may be needed to transport records within the facility.
- The facility should have tables and a small amount of shelving for sorting incoming records or boxes.

D. Housekeeping:

- There should be no dust, dirt, vermin, birds, mold, mildew, rodents or other environmental hazards to the records. The facility should be kept clean to avoid accumulation of dirt and dust particulates.
- No house plants should be kept in areas where records are stored or serviced, as potting soil and plants attract insects.
- Ivy, vines and other vegetation on the building should be removed to prohibit insects. Keep plantings at least 6 feet from the base of the building, eliminate the use of mulch and use crushed stone to landscape next to the building.
- Facility roofs should be kept clean and drains should be kept clear.
- HVAC filters should be changed regularly.
- Water sources should be routinely inspected for leaks and damage.
- Trash should be removed daily from inside the building and should not be allowed to accumulate in areas directly outside the building.
- Trash bins and containers should be located away from entrances to the building.
- There should be no eating, drinking or smoking in areas where records are stored or serviced.
- The facility should have a sufficient number of No Smoking signs distributed throughout.

STORAGE FACILITY CHECKLIST

Services

- 1. What services are needed?
- 2. Does the facility provide all the services required at the present time as well as those likely to be required in the future?
- 3. Does the facility provide training?

Location

- 1. Is the facility reasonably close to the agency?
- 2. Is access easy when traffic and other factors are taken into account?
- 3. How long will it take to retrieve and transport records?

Parking

- 1. Does the facility control parking?
- 2. Does the facility provide security control for parking?
- 3. Does the facility have adequate lighting for the parking area?

Security

- 1. Does the facility have surveillance recordings?
- 2. What security does the facility provide against unauthorized access to the records?
- 3. What provisions are in place to ensure that records are not misplaced, inadvertently removed, damaged, altered or stolen?

Storage features

- 1. Is the facility air conditioned or at least well ventilated?
- 2. Does it have fire detection and suppression systems?
- 3. Will records be stored on shelves or pallets?
- 4. How will microfilm, computer disks or magnetic tapes be stored?
- 5. Does the facility have emergency power backup?

Reliability

- 1. How likely is the service to be dependable?
- 2. Are background checks done on staff?
- 3. What other agencies use the facility?

Cost

- 1. How much will the storage cost?
- 2. How much will other services, such as transporting, retrieving and copying of records, cost?
- 3. How will you be notified of any pricing changes?

Contract with Records Storage Vendor

- 1. What is the duration of the contract?
- 2. Does the contract stipulate all of your records storage and access requirements, including emergency requests?
- 3. Does the contract detail all of the vendor's responsibilities and all of the customer's rights?
- 4. Are all fees stipulated in the contract, or are there any "hidden fees," such as for reboxing, retrieval, or removal from storage?
- 5. Are there penalties for the vendor failing to perform as required in the contract?

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The reference materials listed below provide further information on records storage facilities.

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