Compose Reply Option: Forward Move To:

Delete Print Save Addresses NEXT

Date: 18-Feb-2008 09:14:41 -0500
From: <benwalk@uflib.ufl.edu>
To: <nworbd@bgsu.edu>
Subject: Contacting the Northwest Ohio Regional Book Depository

mailTo: nworbd@bgnet.bgsu.edu
mailSubject:
Contacting the Northwest Ohio Regional Book Depository
mailFrom: benwalk@uflib.ufl.edu
status: Guest
message:
Hello. I am writing from the University of Florida. We are currently investigating a shared statewide high density storage facility, and are gathering policies from institutions that already have something like this in place. I would be very interested in speaking with someone, or if possible getting copies of your policies. I would appreciate any help.
You can reach me at (352)273-2545 or by email: benwalk@uflib.ufl.edu.
Thanks!
Ben Walker
Collection Planning Librarian
Smathers Libraries
University of Florida
submit: Send

Enjoy!

William

State of Ohio Library Depositories

Purpose

The depositories are specially designed for the remote storage of permanently-held, important, but little used library materials from the library collections of the regionally grouped, cooperative libraries. The facilities are designed and constructed to provide an excellent preservation environment for storing materials in an economical, high-density shelving system.

Environment

The facilities create an ideal preservation environment for the storage of books. They are equipped with low intensity high-pressure sodium lighting systems. The storage modules have separate HVAC systems and dehumidifying systems with particulate and gas filters, extra insulation and vapor barriers, no wall penetrations to the outside from the library storage area, a special dock seal, and specially sealed doors. They are designed to maintain steady temperatures and humidity at levels appropriate for each facility and seasonal change. State of the art multiplexed fire and security systems have been installed for maximum protection.

Access

Materials are readily accessible to users through OhioLINK and through each university's online catalog. While the depositories are not primarily designed for direct access by users, reading rooms with tables and computer access to OhioLINK and the Internet are available for those who wish to use materials located in the facilities. There are daily (Monday-Friday) pickup and delivery to and from each university using the OhioLINK delivery service. Journal articles are delivered either in paper, electronic, or FAX format.

Leadership

The State of Ohio has a continuing record of outstanding national leadership in the application of creative and cost-effective solutions to statewide library service issues. Schools and government agencies have used the expertise of the personnel at the facilities in the State of Ohio. In addition to visits by library colleagues, various architects, engineers, and physical facilities personnel also visited our sites in order to learn from our experiences as they design depositories for clients.

Five Library Depositories

Northeastern Ohio Cooperative Regional Library Depository

4209 St. Rt. 44, P.O. Box 95
Rootstown, OH 44272-0095
330 325-6401

Northwest Ohio Regional Book Depository

12764 Levis Parkway
Perrysburg, OH 43551
419 874-4891

Ohio State University Library Book Depository

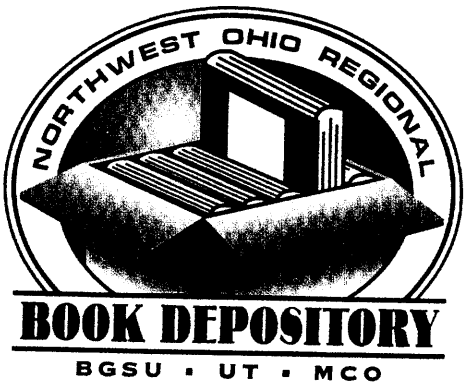
2700 Kenny Road
Columbus, OH 43210-1046
614 688-4242

Southeast Ohio Regional Library Depository

205 Columbus Road
Athens, OH 45701
740 593-2709

Southwest Ohio Regional Depository

4200 E. University Blvd.
Middletown, OH 45042
513 727-3475



Procedures Manual

INTRODUCTION

The Northwest Ohio Regional Book Depository is a compact library storage facility located in Perrysburg, Ohio on Levis Parkway. The planning and construction of the facility is the result of the 1987 recommendation from the Ohio Board of Regents for academic libraries to develop plans for high density storage units that would ease stack overcrowding in the libraries. With the completion of Phase I, the Regional Book Depository (RBD) will provide shelving space for approximately two million volumes of varying sizes. These volumes will be sent to the RBD from the three Cooperative Libraries: Bowling Green State University, Medical College of Ohio, and the University of Toledo.

The building is equipped with state-of-the-art HVAC controls which will closely monitor the air quality to assure optimal atmospheric conditions for book storage. There is a direct emergency link with the Campus Police of Bowling Green State University. These features, coupled with limited stack access, all provide a favorable environment for the storage of seldom used library materials.

Library patrons will have access to the stored materials. The online catalogs located at the Cooperative Libraries will inform patrons that an item is located at the Depository. Patrons may then place a request for the item by submitting a request form to their library. Once the form is received by the Depository, the item will be packaged and sent by courier to the requesting library for the patron.

PHYSICAL LAYOUT OF THE BUILDING

The Depository building is a 14,560 square foot storage facility, that consists of an 10,800 square foot stack area. The remaining area is designed for staff and consists of offices, a processing room, a reading room, a staff lounge, and a shipping/receiving room.

The stack area is filled with ten rows of thirty foot high shelving each row measuring 176.25 feet in length. This will provide storage for approximately two million items. The material will be retrieved by a staff member riding in a mechanical lift which will be driven up and down each aisle. Because the items stored in this area are shelved by size rather than by call number, maximum usage of the storage area can be achieved. This method of storage precludes browsing for items; consequently, the stacks are closed to the public.

The atmosphere in this area is closely monitored with temperatures remaining 50•F to 65•F and humidity levels at 40% to 60%. A log of daily temperatures and humidities is maintained and adjustments are made when necessary.

STAFF

The Depository will have three permanent staff members: the Book Depository Manager, the Library Storage Technician, and the Assistant Library Storage Technician. The Manager is responsible for the management of the facility and the storage program. The Library Storage Technician and the Assistant Library Storage Technician will report to the Book Depository Manager. The Library Storage Technician is responsible for the daily activities of the storage program and will supervise all student assistants. The Assistant Library Storage Technician is responsible for receiving incoming shipments and for all warehouse activities. All staff will help receive, process, and add or modify item records for materials added to the Depository.

SENDING BOUND MATERIALS TO THE DEPOSITORY

A. Selection Criteria

The interpretation and regulation of the selection criteria for Depository materials will be the responsibility of the owning library. The stated criteria are to be considered general guidelines, and judgment should be used in all cases.

The single most important factor in the selection of material for storage is low use. This may be determined when looking for the following:

1. Last date of circulation. The item has not circulated in seven years.
2. Outdated or superseded materials which have scholarly value.
3. Sections of an LC class in which the university has no teaching or research interest.

4. Age. Material with pre-1900 publication dates.
5. Books in uncommon languages on topics of lesser interest to the university community.

Materials that have low use should be reviewed with the following withdraw criteria in mind:

1. Duplicate copies in bad condition. The best copy should be sent for storage and the worst copy considered for withdrawal.
2. Duplicate sets of serials or periodical runs. A check for completeness and condition should be made; runs should be combined where possible; the set in poorest condition should be considered for withdrawal.

When material is considered an artifact of value which requires special security and protection, it should be sent to the owning library's Special Collections department for evaluation.

All material selected for storage must be inspected and deemed clean and pest-free **before** shipment to the Depository.

B. Processing of Bound Materials by the Owning Library

There are three types of bound materials which may be sent to the Depository for storage: monographs, periodicals, and containerized items. Sending each type of material is a cooperative effort between the owning library and the Depository. While the establishment of "standard" procedures is impossible because of the procedural differences among the three Cooperative Libraries, the following tasks must be completed before material is sent for storage:

1. Monographs

- Each book must be barcoded and have its computerized record updated to reflect that it is held at the Depository.
- A "Circulation Status Form" must be included with each item (see page 7 "Circulation Policy for Stored Materials" for default information).

2. Periodicals

- Each item in a run must be barcoded and the holdings record must be changed to reflect what volumes are held at the Depository.
- A "Circulation Status Form" must be included in the first volume of the run being sent for storage (see Circulation Policy for Stored Materials).

3. Containerized Items

Containerized items are standard records center cartons (15"x12"x10") which contain a variety of unique information pieces. Because each box is considered an individual item by the Depository and will only circulate as one whole unit to the owning library, inventory control is the responsibility of the owning library. Each box must be barcoded and given a descriptor such as a title or collection number. The Depository staff will not concern themselves with the contents of any box and will not retrieve any items from a box. The box MUST circulate as a whole. It is recommended that this method of storage be used cautiously and only when necessary.

Items to consider for this type of storage are:

- Short runs of fragile, unbound periodical titles,
- Fragile collections of very small juvenile books.

SENDING ARCHIVAL MATERIALS TO THE DEPOSITORY

1. **Selection Criteria**
   - Only archival materials owned by the university and controlled by the library will be accepted for storage in the Depository. The selection of such material should be **based on low use.**

2. **Processing Archival Materials**
   - The processing of all archival material will be the responsibility of the owning library. Materials should be stored in standard records center cartons (15"x12"x10"). Each box of material should contain a finding aid for all items in the container. Each box must be labeled with a collection number or identifying name. A list of each collection being sent for storage should accompany the first shipment of boxes. This list should indicate the name and/or the assigned collection number and the number of boxes being shipped.

3. **Depository Procedures for Archival Materials**
   - All stored boxes of archival materials will be treated as single items; that is, when a request for material is received, the entire box will be pulled and sent to the owning library. The Depository staff will not concern themselves with the contents of any box and will not pull single items from any box.

Archival material will only be sent to the owning library and use of such material at the Depository will be restricted to the Archivist or other archival staff members from the owning library. Patron requests for archival material must be submitted through the University Archivist's office.

SHIPPING MATERIALS TO THE DEPOSITORY

A courier service is available to transfer boxes of material from the owning library to the Depository. To schedule a courier pick-up, the owning library will call the Depository office and request the pick-up. Calls are to be made two days in advance when possible. Additional days will be needed to schedule large shipments of boxes.

When calls are placed for a pick-up, the following information will be needed:

- The number of boxes to be retrieved
- The pick-up location, especially if not the main library
- A contact person available on the day of pick-up

The Depository will accept approximately 3,000 items per week from each Cooperative Library. More items will be accepted when possible. Contact the Depository office for the scheduling of any items over the 3,000 per week limit.

CIRCULATION POLICY FOR STORED MATERIALS

Circulation Status Policy

Establishing the circulation status for every monograph and periodical transferred to the Depository is the responsibility of the owning library.

Choices for circulation are:

- Normal (may be charged out to any patron)
- In Library Use Only (must be used within the requesting library)
- Owning Library Use Only (may circulate between the Depository and the owning library only)

Material stored in the Depository is available for use by patrons at any library unless the circulation is restricted by the "Circulation Status." In all cases, when a request is made for Depository materials, the predetermined circulation status will be honored. Circulation status may be changed by the owning library only. All changes must be processed through the Library Storage Technician.

BORROWING POLICY

Requesting Materials from the Depository

Library patrons at a Cooperative Library should complete a "Depository Hold Request Form" and return it to the circulation unit. A local hold is placed on the item. Twice each day the Assistant Library Storage Technician will print paging slips for each of the Cooperative Libraries to fill the daily orders. In most cases, the material will arrive at a Cooperative Library within 24 working hours.

OhioLINK library patrons may request material from the Depository by completing an on-line request at any OhioLINK library. All other OhioLINK libraries should allow adequate time for delivery.

When completing a request form, the item barcode must be included along with the typical information such as author, title, and call number. If the request form is not completed with the required information, the request may be returned to the requesting library unfilled.

Completed request forms can to be faxed to the Depository. Telephone calls requesting depository material will be accepted in an emergency only. There is no emergency delivery service available at this time.

The Depository is normally staffed Monday through Friday, 8:30 a.m. to 4:30 p.m. Weekday evening requests are processed the following morning. Weekend or holiday requests are processed the morning of the first workday after the weekend or holiday. During normal weekly hours, Depository material will be prepared for delivery the same day as the request is received. Actual delivery of the material will depend on the schedule of the courier service.

Circulating Depository Materials from Local Libraries to OhioLINK Libraries

When Depository material arrive at the requesting library, they will have a green Depository band on the front cover. This band should remain on the book and will only be removed when the item has been returned to the Depository. The band will be plainly marked with the circulation status of the material. Requesting library staff must adhere to the stated circulation status. Items that have "In Library Use Only" status should not be charged out to a patron. A reasonable due date should be assigned to "In Library Use Only" material to give the patron adequate access to the material. All material that may be charged out will receive a due date that is identical to all OhioLINK material (60 days to the requesting library, 21 days to the patron).

Interlibrary Loan Policy (Circulation of Items Requested by a Non-OhioLINK Library)

Owning libraries may place requests for stored materials by simply faxing the ILL request form to the Depository. The request form should be clearly marked, "FOR ILL". When appropriate, photocopies will be made to complete requests. The thirty page copy limit will be observed. The

material will be sent by the Depository staff to the requesting library and a status report will be sent to the owning library.

PHOTOCOPYING POLICY

Library patrons may place requests for photocopies of journal articles that are 30 pages or less in length. Using the same that is available for book requests, the patron must supply a complete citation for the request to be filled. If the requested article is over the 30 page limit, the following can occur:

1. If the journal can circulate, the entire book will be sent to the requesting library for the patron's use.
2. If the journal cannot circulate:
    - The patron can come to the Depository and use the material, or
    - The request will be returned to the requesting library unfilled. Reason must be applied when accepting copy requests. If a patron places unusually large numbers of copy requests, the Depository reserves the right to place a weekly limit on that patron.

All completed photocopy requests will be sent by fax to the requesting fax number. Completed requests can be faxed directly to the patron or to the requesting library.

PATRON READING ROOM POLICY

Patrons may visit the Depository to use non-circulating materials or long runs of periodicals. Patrons should be made aware prior to their visit that the Depository stacks are closed to the public, and they must be prepared with the title and barcodes of each item they want to use. The requested material will be pulled from the stacks by the Depository staff and brought to the Reading Room for the patron's use.

To use materials at the Depository, the patron must possess a valid form of identification. Acceptable forms of identification include a current University ID, a current University Library borrowing card, a valid driver's license or a valid passport. The ID will be held by the Depository staff while the material is in use. A public workstation is available to Depository patrons in the Reading Room to assist in locating materials. Patrons my make photocopies of materials for academic use. Photocopying charges are $0.10 per page.

All patrons will be required to hang up coats and check all bags, knapsacks and briefcases with the Library Storage Technician before entering the Reading Room. Only pencils and sheets of note paper may be taken into the Reading Room. Laptop computers may be used, but the carrying case must be checked along with all other bags. Anyone who cannot or will not comply with these procedures will be asked to leave the premises.

The Depository Reading Room is available for use Monday through Friday 8:30 a.m. to 4:30 p.m. Patrons unable to use the Reading Room during these hours should contact the Depository Manager about alternative arrangements.

LIBRARY COOPERATIVE STORAGE FACILITY

(Bowling Green State University/University of Toledo)

PROJECT STATEMENT

February 25, 1991

BOWLING GREEN STATE UNIVERSITY

OFFICE OF THE ASSISTANT VICE PRESIDENT FOR CAPITAL PLANNING

BOWLING GREEN STATE UNIVERSITY/UNIVERSITY OF TOLEDO

PROGRAM OF REQUIREMENTS

A. Name of Project

Library Cooperative Storage Facility

B. Scope of Project

This joint project provides for a high density storage facility (modeled closely on the Harvard Depository completed in 1987) that offers storage, filing, retrieval, and delivery services to allow economical storage of low activity library books, boxed materials and administrative or academic records. The storage module has an area of 9,000 square feet. The support module, consisting of loading dock, processing room, an office, a small consulting room, toilets, a staff room and janitorial and mechanical/ communications space occupies 3,000 square feet.

The building will also include 7,000 square feet for a conservation and microfilming facility. The concept of this depository introduces an entirely new library building type which constitutes a significant breakthrough in cost and quality of the book environment. It will address vital book conservation concerns such as: temperature and humidity extremes and cycling, micro climates, mold, particulates, gaseous pollutants, light, abrasion, acid degradation, security and fire concerns. This environment should increase the average book life by 12 times that in a typical library because of low temperature and humidity operation. To achieve these goals both the designers and the owners must fully understand the principles behind this concept and carefully

execute the design, construction and operation of the facility. The basic simplicity of this new concept is its strength, but it also creates its vulnerability. Poor or faulty design in a detail or a false assumption can be very damaging.

This is not a typical warehouse. The design for library materials must be a careful integration of a highly specialized, single story, high bay building system. The Library Cooperative Storage facility will utilize a 30 foot high shelving system, custom modular book trays, a mobile lift workstation for retrievals, an online inventory/management system and a new book conservation environment in addition to incorporation of the various required support facilities resulting in a smooth organization and work flow.

The microfilm and paper conservation laboratory operations will be managed by the staff of BGSU Libraries and the services of the two operations will be available to the University of Toledo Library and the Medical College of Ohio on at cost basis. A joint advisory committee of BGSU and UT, and eventually the Medical College of Ohio, will be formed by the directors/deans/vice-presidents of those institution's libraries to review the practices and priorities for work. In addition, contract microfilming and conservation-restoration work may be performed for non-university organizations and individuals on a cost plus basis. Both operations will be directed by Bowling Green State University.

C. Project Budget:

1. This project will be completely funded from state capital appropriations.

2. The amount appropriated must cover all project costs including design, construction, fees, administrative costs, construction contingencies, site development, fixed and movable equipment.

Additional information concerning the project budget is contained in Appendix I of the program.

D. Site (Appendix II)

The suggested site of the Book Depository on land owned by the State of Ohio for the benefit of Bowling Green State University is at Levis Industrial Park in Perrysburg Township, adjacent to the Bowling Green State University's Institute for Great Lakes Research.

Access to the Book Depository will be via the existing driveways and parking lot. The site allows for future expansion by two, and possibly three additional storage modules, attached laterally to the initial module. Furthermore, this site is centrally located between the two universities and it sits almost directly on the route of the existing twice-daily inter-university van, the Gutenberg Express.

The suggested site already includes access roads, plus parking for 24 automobiles, in conjunction with the existing Institute for Great Lakes Research A sidewalk may be necessary to provide a separate entry to the Conservation/Microfilm module.

E. The Utility of This Program

The Book Depository

The libraries at Bowling Green State University and the University of

Toledo are both approaching severe space problems brought about by the continuous growth of their research collections. Collectively these two libraries add about 100,000 volumes per year which add over two miles of materials to their shelves each year. Appendix III is a table taken from the Library Study Report. It shows how much additional shelf space will be used in the next 10 years at the two universities. The proposed cooperative high-density storage facility will provide economical space for the storage of both library material and university records. By moving their less frequently used library materials to this facility the several campus libraries will relieve the immediate, and diminish the future, space constraints described above. By accommodating records and files, this facility can also effectively relieve present and future office crowding on both campuses.

From the off site location, needed items can be delivered to the requesting library on a same day or next day basis depending on time of request. More immediate access by personal visit is possible by special arrangement.

The Microfilm Department and Paper Conservation Laboratory.

Bowling Green State University currently maintains a conservation department, microfilm department, and University Archives-records management program through its Center for Archival Collections which is administratively placed under the Dean of Libraries and Learning Resources. The microfilm and conservation-restoration departments are housed within approximately 4,200 square feet of the Jerome Library; approximately 1,200 linear feet of University Archives are shelved within the Center for Archival Collections; and the records management

records center (housing 4,100 linear feet of University Records) occupies 3,034 square feet of space in the basement of the Applied Human Ecology Building on campus. All of the basic equipment, except for a microfilm camera capable of filming large format materials such as architectural and maritime drawings, maps, and posters, used in the microfilm and conservation programs are owned by the Center for Archival Collections.

This project proposes relocating the microfilm, paper conservation laboratory, and the records center activities to the regional storage facility-book depository. Such a move would free approximately 4,200 square feet of prime space in the Jerome Library for other University Library purposes; alleviate a growing space problem in the University Archives in the Center for Archival Collections; and free over 3,000 square feet of space in the Applied Human Ecology Building for other University purposes such as admissions information, as determined by the University's Capital and Space Planning process. This action would also provide for a more efficient, integrated records management program and records center under the direction of the Center for Archival Collections.

The placement of the microfilming, paper conservation laboratory in the facility and use of the depository as a records center for the participating institutions has benefits in addition to freeing up prime space in Jerome Library and a major central campus building.

These benefits are: centralizing two important and established preservation-space saving activities (microfilming and conservation) within one facility; providing more efficient operation of the long

standing records management-archival programs of the BGSU; enabling the University of Toledo to free up library and other space by housing its records center material and archival collections in the depository, and providing potentially expensive microfilming and conservation services at low costs to the University of Toledo and eventually the Medical College of Ohio.

F. Characteristics of This Project (Appendix IV)

This proposed new facility will be made up of three components: a storage module, a support module, and a Conservation/Microfilm module. The Storage Module will, by using state-of-the-art warehousing techniques, provide for the storing, inventorying, and retrieval of approximately 1.7 million volumes, or its equivalent. In a climate controlled environment (temperature and humidity) aimed at maximum protection for the material stored. In fact, its design as a simple space creates an ideal air circulation environment. Through a precise climate control operating plan, the depository will provide an excellent environment with very carefully controlled limits of temperature (+ or - 3 degrees) and humidity (+ or - 3%) to avoid damaging cycling, or the dangers of mold. In this unique installation, temperature and humidity will be changed in a gradual manner as the seasons change which greatly reduces acid degradation of modern books and also reduces costs. To guarantee against the formation of micro climates, the depository is to incorporate an air rotation system around each unobstructed 30' high stack. Air filtration will remove various damaging gases as well as control particulates. The building will be clean by its very nature, and light exposure damage should be virtually eliminated. The facility

must greatly reduce any possible fire hazards and security concerns as well as provide sophisticated alarms and communications connections.

The depository must incorporate carefully conceived and scrupulously executed passive fire safety approaches. The risk of water damage is equally as harmful as fire damage and has strongly prejudiced librarians against water sprinkler systems. Halon, although highly effective, remains punitively expensive, even with such high storage density. Within this depository, there must be no motors or systems which can create a fire. Mechanical systems must be isolated carefully outside the depository so that if they generate a fire the building interior will not be involved. Lighting and other electrical systems must be engineered not to pose any fire hazard. Most importantly, the depository must not create any opportunity for people to do work within it other than directly accessing the shelving collections. Users pose the most important hazard in a traditional multi-use library. The depository staff should adhere to the University's no-smoking policy, and strict operating rules and signage are vital.

Smoke detectors must provide maximum warning. The smoldering nature of book fires provides the time window when detection can signal the opportunity for defense. Ceiling detectors should individually light when activated and be tied to an annunciator panel. Shelving detectors placed in intermediate height locations can also provide a helpful alert as to location. A chemical fire system should be engineered as part of the man aboard mobile lift work station and supplemental 1 1/2 inch water hoses should be positioned at the end of every aisle. The alarm system should be directly tied to 24 hour security. Fire extinguishers

meeting Bowling Green State University Standards should be included in the building and located as required on construction drawings.

All supporting work areas should be fully sprinkled. An active system provides economy and simplicity. All walls and openings between the depository and the work area must be of the four-hour type.

A rack storage system 30' high, with shelves either 18" or 36" deep will provide the equivalent of 168,000 linear book feet of standard library shelving. Using 10 volumes per foot as a rule of thumb, this rack system will accommodate 1.7 million volumes.

A book container system utilizing low acid paper and glue and made in various modular sizes will be used. Each container, or tray, is 18" long, open on top and has one side lower than the other. A typical width is 7 1/2". The trays are shelved at right angles to the aisle and, in the case of the 36" deep shelves, are shelved two deep.

A 6000 lbs. commercial, battery-powered man-aboard order-picker fitted with a 42" x 80" work platform provides access to shelving up to 30' high. With this mobile work station, the book tray shelving approach is easily workable, allowing books to be accessed safely, quickly, and with minimum effort and minimum abuse. The entire volume of this storage area must be effectively insulated to stop migration of humidity. The floor system must exceed F100 standard of flatness because close working dimensions between the extended mobile work platform and the high shelves are vital to the operation.

A computerized inventory control system, using bar codes and a laser reader/scanner, will be used to ensure placing and retrieving accuracy.

It is estimated that the cost of storing materials in this manner is one-quarter to one-third that of new library construction, or of other storage alternatives. The area of the storage module is 9,000 square feet, approximately 48' wide, 180' long and 35' high. Two, and possibly three, duplicates of the storage module can be attached as need arises (see Appendix II).

The office/support module consists of a loading/unloading area with truck dock, a processing area, an office, a small consulting room, toilets, a lounge/ kitchen, plus janitorial and mechanical rooms. This module is approximately 2,800 sq. feet, 50' wide, by 60' long. It attaches to the end of the storage module.

The microfilm department will be comprised of a processing area where books and other materials are housed for processing and preparation for filming and staff/ student assistant work areas, space to accomodate microfilm cameras and readers and related equipment, a darkroom for film processing, and an office for the head of the department.

The conservation-restoration department will consist of a work area containing existing work tables, mylar storage and an encapsulation work area, a wet area for paper deacidification, a film vault to house microfilm camera negatives, computer tapes, and other fragile film based material requiring strict temperature, humidity controls to maintain an appropriate environment for such material, and an office for the head of the department.

G. Description of Each Module

NOTE This section describes requirements for each room or area to be included in this project, except for building support and service rooms which shall be provided by the associate architect in accordance with existing codes and standards.

Room and area sizes and dimensions in Part G reflect rough estimates of the maximum amount of space likely to be needed to accommodate each function. These estimates are provided to assist, not constrain or limit, the planning of the associate architect who is expected to provide solutions that reflect economical design and space use.

1.0 BOOK DEPOSITORY

1.1 LOADING DOCK

Estimated Size: 400 square feet

Number Required: 1

Occupants:

None permanently assigned

Use of Space:

Vehicles transporting materials to and from the depository will back into the loading dock to load or unload carts of books, etc. This space is also a sealed area for after hours storage of the mobile mechanical lift for battery charging.

This receiving area functions as an air lock between the trucks and

work processing area. This area should have a dock levelling device.

Services:

Exterior lights around entrance to loading dock

Duplex electrical outlets

Intercom system from dock to office area

Special Requirements:

A powered, metal roll-down door with a high quality weather seal is needed as well as an adjacent side door to the dock. This large door should blow out first in the event of an explosion. A proper weather dock seal and dock plate can assure adequate weather protection during unloading. An additional powered, metal roll-down fire door of the highest quality is required at the opening between the receiving area and the entry to the depository storage area. This opening will permit access by the mobile equipment for evening battery charging outside the depository. This combination of doors must guarantee fire, blast, and climate separation between these areas. Two large swinging doors, with excellent weather seal are needed between the work room and receiving dock.

The battery charger should be protected by railings and well located for charging the mobile lift, but also out of the way of loading circulation. A special exhaust fan system must be activated by the battery charger to guarantee against the possibility of any explosive gases over the charger area.

Because of fire and explosion concerns, it would not be a good idea to accommodate other vehicles internally overnight. This space should be fully sprinkled. The flooring should be very hard, well sealed and easily cleaned.

An air-curtain is required to keep out insects when loading or unloading during summer months.

Affinity:

Adjacent to the processing area, and away from the pedestrian entrance to the Conservation module.

Priority: 1

1.2 PROCESSING AREA

Estimated Size: 650 square feet

Occupants: 1 to 5

Use of Space:

In the processing area all incoming depository items are sized, packed, and inventoried. Material is also circulated from here. Materials returning to the depository from circulation will be unpacked, checked in on the computer, and returned to their storage locations.

Fixed Equipment:

1 Wall clock

1 Bulletin board

1 Small standard sink

10 Coat hooks

Movable Equipment:

3 Worktables

4 Straight-back chairs

3 Shelving units, industrial style, steel, 90" tall x 36" deep x 54' wide with height adjustable shelves

20 Book carts, various types and sizes

2 Microcomputers

2 Bi-level computer tables

1 Printer

1 Microcomputer printer stand with sound enclosure

1 Telefacsimile machine with stand

1 Pallet truck

1 LCS terminal and printer with stand

Staff lockers for 6

1 Supply cabinet

Services:

3 Telephone outlets (one for fax)

120 V Duplex electrical outlets

Hot and cold water

Electrical power and dedicated computer lines need to be highly flexible for changing work conditions and perhaps may best be dropped directly from the ceiling distribution. The HVAC system should be independent of the storage depository, maintaining a negative pressure relative to it, but of course being at a positive pressure to the outside. Space should be fully sprinkled and alarmed.

Special Requirements:

Water fountain.

An automatic door (3'6") between the processing area and storage depository provides access for carts and other traffic. Structurally it should be possible to create a large opening to allow the mobile lift access should this become necessary in the future.

Affinity:

Adjacent to loading dock and storage area and to a hallway leading to office, restrooms, staff lounge, consulting room, and conservation module. Should have a pedestrian entrance leading directly to the outside, not through the loading dock.

1.3 STAFF OFFICE

Estimated Size: 270 square feet

Number Required: 1

Occupants: 1 to 2

Use of Space:

Serves as the office for the supervisory staff of the Book Depository.

Movable Equipment:

2 Desks

1 Small meeting table (36" round)

3 Straight-back chairs

2 Swivel chairs

2 Filing Cabinets

1 Bookcase

1 Credenza

1 Computer table

Services:

Telephone outlet

120V Duplex electrical outlets

Special Requirements:

One wall of the office facing the processing area should include a glass window with blinds.

Affinity:

Adjacent to loading area

Priority:

1-270 sq. ft.

2-200 sq. ft.

1.5 STORAGE AREA

Estimated Size:

The storage depository should be aproximately 9,000 sq. ft., 35 ft. high, 50 ft. wide and approximately 180 ft. long. This basic configuration is the interactive solution of considering standard, long span truss sizes, maximum workable 30 foot heights of shelving accessed by standard man-aboard order pickers, aisle widths and stack depths dictated by the lift and the choice of 18" deep book trays which can be stored double deep on 36" wide shelving. A five aisle configuration with shelving ranges approximately 165' long, produces a total potential capacity of 1.7 million volumes. A "foyer" mobile lift maneuvering space 14' long provides access to the shelving aisles and is also the area from which the mobile lift will need access to future storage modules. Access from this "foyer" maneuvering space is needed to the recharging/loading dock and for

carts from the support processing area. Emergency egress at the end of the shelving aisles is needed for a second way out.

Number Required:

1, but up to 3 additional modules may be added in the future.

Occupants:

None permanently assigned

Use of Space:

Library materials storage

Fixed Equipment:

A metal rack shelving system composed of four ranges of back-to-back shelving and two rows of single deep shelves, free standing from the outside walls, are 30' high with 52.5" aisles. NOTE: Aisle size is a function of order picker and guide-rail widths, so choose the order picker first.

The mechanical air duct system drops down through the two outside perimeter stacks and through one face of the center double-faced stack to create a rotation system in every aisle around each stack. After the schematic design of this facility, an appropriate (carefully analyzed) request for proposal will be issued for this shelving to solicit prototype units and bids from manufacturers. These are highly stressed structures which need to be carefully tested and analyzed, as they are not optionally but fully loaded in this application. The manufacturer's engineering must be independently reviewed before a shelving bid is

accepted.

Metal guide rails flank each aisle to channel the mobile lift down the aisle. Entry rail nosings and protective railing must insure that the mobile lift (engine first) cannot contact the shelving structure.

Movable Equipment:

After schematic design, bid proposals and operating limits need to be analyzed and negotiated to select the battery powered mobile lift order picker. A custom work station with a platform approximately 40 inches by 80 inches for the operator needs to be designed to allow book trays to be pulled horizontally from the shelf being accessed, and as the depository is being initially occupied to allow individual shelves to be set within the initial shelving skeleton and to allow the effective loading of book trays onto these shelves.

Services:

120V electrical outlets are to be provided on each wall.

Special Requirements:

In the depository, an excellent conservation environment can be created in which temperatures and relative humidity are held to very tight limits (+ 3 degrees and + 3%) at very low cost. The rate of change, as well as the extremes of temperature and humidity, are damaging to books; thus, even in inclement weather the building and mechanical system must not induce cycling of either temperature or humidity. This new environmental control concept gradually changes temperature and humidity as the seasons change. This approach contrasts

with the traditional design of a single set point, rigidly trying to maintain 68 degrees F and 55% humidity which is difficult and creates punitive capital costs and high operating expenses. The depository's new concept will more closely follow the typical seasonal profile with the maximum summer temperature of 70 degrees F and 60% humidity and the minimum winter limits of 50 degrees F and 40% humidity. During the three transitional months in the spring and fall, this control system gradually changes the daily set points by infinitesimal incremental amounts with the maximum changes limited to 9 degrees per month and 5% per month. A direct digital computer electronic control system must be programmed to provide sensitive control, integral reset and detailed tracking of the system's performance with printed 24 hour histories monitored on an hourly basis, and when desired, on a minute-by-minute basis. Hourly internal and external records permit fine tuning to avoid "bucking" as the internal system reacts to changing conditions. This heating and ventilation system needs the design talents of a capable systems program mechanical engineer.

The single volume of the depository must be very carefully designed and constructed as this single space will in large measure determine the success of this facility. This space must be very heavily insulated, primarily to minimize the effect of weather changes on the internal book conservation environment. Histories of rapid weather changes should be analyzed to understand worst case situations. The tightness of this space to air leakage is critical as it is the conditioning of outside air to maintain positive pressure within, which induces the demanding HVAC control problems (a stable conservation environment). Obviously, this energy to control temperature and humidity is very expensive,

particularly when this outside air has to be filtered for particulates and passsed over expensive carbon filters to eliminate gasses. The designer must carefully examine each opening to minimize any leakage--the two emergency doors at the end of the stack runs, particularly the large opening to the loading dock for daily battery recharging (merits special fully gasketed one piece isolation door) and the 3'6" door to the processing work area which should be automatic in operation (electric eye) to insure minimum opening time and gasket seal.

Future door openings should be anticipated by "knock outs" to future phases and also be considered to the work processing area should the mobile lift need access in the future.

The "top of the line" single roof membrane should have absolutely no openings (not mechanical, roof drains, etc.) and all flashing should be extraordinarily well detailed. A flat roof should be avoided at all costs.

Mechanical openings should be through the side wall and all architectural joints between the roof and side walls and floor slab, as well as corners, should be carefully detailed and sealed.

To stop the migration of humidity, the entire volume of the depository should be essentially encapsulated by a humidity barrier. Some materials perform much better than others and continuity must be carefully detailed.

The floor system must exceed any standard of flatness, as close working dimensions between the extended mobile work platform and 30 foot high shelving are vital. The detailing of this slab must avoid cracking

resulting from loading, soil problems or any potential of water. The curing, hardening and sealing all require very special attention as perfect solutions are most difficult (chemical products to combat future wear have unacceptable off-gassing). The construction industry is really not conditioned to produce the needed perfect floor. The floor must also be designed to withstand extraordinary loads from 30 foot tall, fully-loaded bookstacks, approximately 400 pounds per square foot.

The HVAC system, even in this optimal, undifferentiated volume is challenged to actually deliver the required conservation environment, free from cycling and micro-climates. A comparatively small unit can provide the conditioning of outside air for pressurization and also conditioning the recirculation of inside air. A second, coupled air rotation unit needs to operate when the first unit is doing work and also independently to efficiently move large volumes of air slowly to eliminate the formation of micro-climates. Temperature and humidity sensors at critical stack locations must control and limit this variable fan operation. The maximum allowable high temperature and humidity will be 70 degrees and 60%, the minimum low will be 50 degrees and 40%. The rate of change will be limited to 9 degrees Fahrenheit and 5% relative humidity per month. Air handling equipment will circulate air vertically around each range of shelving so that the air temperature at ceiling level is the same as at floor level. Incoming air must be filtered by high-efficiency activated charcoal filters, so as to be as free as possible of gaseous and particulate pollutants.

The direct digital computer electronic control system provide the potential for minute-by minute records of sensors (inside and out) which

are vital to understanding what is happening and tuning out "bucking" within the system. Hourly records are normally printed and out of tolerance conditions are alarmed. Remote modem monitoring and control can tie central operating engineers into this facility.

To protect the material from exposure to light, the area is to be illuminated by sodium quartz lamps, to a level similar to a parking lot at night, i.e., about 5 foot-candles. Except during retrieval and replacement of materials, the area will remain dark; during work activities illumination will be provided by lights on the mechanical lift.

Affinity:

Adjacent to processing area

Priority: 1 - 9,000 sq. ft.

1.6 RESTROOMS

Estimated Size: 300 square feet (150' x 2)

Number Required: 2 (1 mens and 1 womens)

Occupants: Staff and visitors

Use of Space:

Toilet and washing facility

Fixed Equipment: (in each room)

2 Toilets - womens'

1 Toilet and 1 urinal - mens'

2 Toilet partitions (1 handicap size), ceiling mounted

1 Standard size sink

1 Mirror

1 Soap dispenser

1 Paper towel dispenser

2 Toilet paper dispenser

Movable Equipment:

1 Waste can (in each room)

Services each restroom:

120V electrical duplex outlets

Hot and cold water for sink

Exhaust fan

1 Floor drain

Special Requirements:

Key-controlled access

Affinity:

Located between the processing space and the Conservation/ Microfilm space.

Priority:

1 - 100 sq. ft.

1.7 STAFF LOUNGE

Estimated Size: 250 sq. ft.

Number Required: 1

Occupants: Maximum of ten at one time

Use of Space:

Enables staff of the Conservation/Microfilm unit and The Book Depository to consume beverages and food without jeopardy to research materials.

Fixed Equipment:

1 Sink

6-8 Linear feet of counter space, 36"H x 30"D with storage below.

1 Paper towel holder

1 Cupboard

Movable Equipment:

1 Microwave

1 Refrigerator

1 Coffee-maker

3 Round tables

1 Sofa

1 Coffee table

2 Lounge chairs

6 Chairs, stacking

2 Waste receptacles

Services:

Hot and cold water for sink

Appropriate electric outlets

Telephone

Affinity:

Between the office and the Conservation/Microfilm area

Priority:

1 - 200 sq. ft.

1.8 CONSULTING ROOM

Estimated Size: 120 sq. ft.

Number Required: 1

Occupants: 1 to 4

Use of Space:

By patrons needing to consult material on the premises

Movable Equipment:

4 Reading/study tables

4 Chairs

Bookcase

Services:

120V Duplex electric outlets

Special Requirements:

Door should be half-glass.

Affinity:

Adjacent to the office.

Priority: 2

2.0 MICROFILMING AND CONSERVATION FACILITY

2.1 MICROFILMING ROOM

Estimated Size: 2,800 sq. feet

Number Required: 1

Occupants:

Maximum of 8 fulltime employees/part-time students at one time.

Use of Space:

Serves as the area where books, newspapers, records, oversize drawings are temporarily housed preparatory to microfilming; where microfilm cameras and microfilm readers are housed; and where film is inspected and duplicated.

Fixed Equipment:

Movable Equipment:

Existing cameras, densitometers, splicers, and related equipment will be provided by BGSU except for 1 - 105 millimeter camera, Opticopy R820 System Profile Camera or equivalent, for filming architectural and maritime drawings and charts, posters, maps, and other oversize materials that cannot be filmed on existing 35 millimeter cameras.

6 - 36" wide x 3' deep x 90" single faced, stationary shelving units

Services:

Hot and cold water at sink

120V duplex outlets @ 3' intervals

Special Requirements:

No direct natural light access or windows with blinds.

Ultraviolet filters over all electric light sources.

Affinity:

Adjacent to the central hallway, darkroom, and microfilm vault.

Priority: 1 - 2,800

2.2 DARKROOM

Estimated Size: 200 square feet

Number Required: 1

Occupants: A maximum of 2 full-time staff/student assistants developing film at any one time.

Use of Space: Houses film developer

Fixed Equipment: Existing equipment will be provided by BGSU.

Movable Equipment: Existing equipment will be provided by BGSU.

Services: Hot and cold water supply and at sink. 120V duplex outlets at 3' intervals

Special Requirements: Light tight room with revolving darkroom door. Warning light at door to prevent entry.

Affinity:

Within/adjacent to 1.10, Microfilm Room with easy access to Film Vault

Priority: 1 - 200 square feet.

2.3 CAMERA ROOM

Estimated Size: 500 square feet

Number Required: 1

Occupants: 1 camera operator at any one time.

Use of Space: Serves as the room for placement of a 105 millimeter camera for microfilming of oversize library and special collection material such as drawings, maps, and posters.

Movable Equipment: 1 - 105 millimeter camera such as Opticopy's R820 System

Profile Camera, or equivalent.

1 - Light tight revolving darkroom door.

Services: Sufficient 120V duplex outlets.

Affinity: Within or adjacent to the Microfilm Room, 1.10.

2.4 MICROFILM OFFICE AREA

No enclosed, acoustically private office for the head of the Microfilm Department is planned. Rather, an open landscaped office utilizing modular panels and components will be placed in the microfilm area.

Movable Equipment: Modular landscaped office components (writing surface, hanging file and desk drawers, computer station and the like)

1 - office chair

2.5 PAPER CONSERVATION LABORATORY

Estimated Size: 3,150 square feet.

Number Required: 1

Occupants: Maximum of 3 full-time employees/student assistants at one

time

Use of Space: Serves as the main conservation-restoration laboratory where drycleaning, encapsulation, mending, de-acidifying, and related processes take place.

Movable Equipment: Existing equipment will be provided by BGSU.

Services:

Telephone

Hot and cold water at sinks

120V duplex outlets at 3' intervals.

Special Requirements: No natural light access or windows with blinds. Ultraviolet filters over all electric light sources. Room environment should be maintained at a slight positive air pressure to keep dust out and help to preserve materials.

Affinity: Adjacent to 1.10, Microfilm Department and Film Vault.

Priority: 1 - 3,150 square feet.

2.6 FILM VAULT

Estimated Size: 500 square feet.

Number Required: 1

Occupants: Only occasional, short-term visits.

Use of Space: Serves as the environmentally controlled vault for the storage of microfilm camera negatives, computer tapes, and other film

based materials.

Movable Equipment: 6 - 36" wide x 30" deep x 90" high, faced shelving units on movable carriages.

Services: 120V duplex outlets at 3' intervals

Special Requirements Internal HVAC system capable of maintaining 65-70 degrees temperature and 48-50 degrees relative humidity with dedicated backup generator.

Ultraviolet filters over all light sources.

Affinity: Within/adjacent to 1.13, Paper Conservation Laboratory

2.7 PAPER CONSERVATION LABORATORY OFFICE AREA

No enclosed, acoustically private office for the head of the conservation laboratory is planned. Rather, an open landscaped office utilizing modular panels and components will be placed in the microfilm area.

Movable Equipment: Modular landscaped office components (writing surface, hanging file and desk drawers, computer station and the like).

1 - office chair

APPENDIX I ESTIMATED PROJECT COSTS

OVERALL COSTS

a.	Construction [1], including bookstacks and guiderail [2]	2,456,500
b.	Site development	100,000
c.	State Architect's fee (per formula)	
d.	Associate Architect/Engineer's fees (basic services)	
e.	Movable equipment	428,159
f.	Contingencies, advertising etc. (@ 5%)	
g.	Plan approval, drawings, specifications etc. . .	
	TOTAL ESTIMATED COST . .	

[1] 19,150 sq. ft. @ ~~$1.10~~ 110.00/sq. ft. = $2,106,500

[2] Shelving and guiderail cost is $350,000 delivered and installed

TOTAL COSTS ON FIXED/MOVABLE EQUIPMENT

		Fixed	Movable
1.0	Book Depository		
1.1	Loading dock	3,600	2,600
1.2	Processing Area	570	21,380
1.3	Staff Office		5,592
1.7	Staff Lounge	1,100	4,255
1.8	Consulting Room		2,058
2.1	Microfilming Room		4,000
2.2	Darkroom	2,000	
2.3	Camera Room	800	150,000
2.4	Microfilm Office	600	5,000
2.5	Paper Conservation Lab	600	
2.6	Film Vault		20,000
	Basic PC Network		80,300
	Shelving System and Guiderails (inst.)	350,000	
	Work Platform		9,000
	Mechanical Lift		
	Clarklift		26,000
	Charger	4,500	
	Book Trays		97,974
	TOTALS	363,770	428,159
	COMBINED TOTALS	791,929	

A. PROJECTED COSTS ON MAJOR EQUIPMENT

Shelving System(Bookstacks) and guide rail	
Standard Materials, incl. Delivery and Installation	350,000
TOTAL COST	350,000
Work Platform	
Standard Equipment	9,000
TOTAL COST	9,000
Mechanical Lift	
Clarklift or equivalent	26,000
Charger	4,500
TOTAL COST	30,500
Book Trays	
Assorted Sized Trays	97,974
TOTAL COST	97,974
Microfilm Camera	
Opticopy R820 or Equivalent	150,000
TOTAL COST	150,000
TOTAL ESTIMATED COST FOR MAJOR EQUIPMENT	637,474

B. PROJECTED EQUIPMENT COSTS FOR NEW DEPOSITORY

1.0 BOOK DEPOSITORY

Fixed Equipment

Shelving System *See Major Equipment Costs	

1.1 LOADING DOCK

Movable Equipment

Air Compressor (5HP/17 Gal. Elect.)	1,200
Pallet Jack	400
Mechanical Lift *See Major Equipment Costs	
Assorted Air-Powered Tools	1,000
SUB TOTAL	2,600

Fixed Equipment

Air Blower Over Outside Overhead Door	1,300
Battery Charger/Guardrail *See Major Equipment Cost	
Dock Leveller	2,300
SUB TOTAL	3,600

1.2 PROCESSING AREA

Movable Equipment

48" x 90" Work Tables (3)	4,500
Microcomputer Printer Stand with Sound Enclosure	700
90" H x 36" D x 54" w Shelving Units Steel (3)	1,800
Book Carts various types (20)	4,000
Telefacsimile Machine with Stand	8,000
LCS Terminal	*Lease
LCS Printer	*Lease
Lockers (6)	500
Supply Cabinet	280
Straight-Back Chairs (4)	800
Microcomputers (8) *See Major Equipment Costs	
LCS Terminal Stand	150
LCS Printer Stand	150
Pallet truck	500
SUB TOTAL	21,380

1.2 PROCESSING AREA (contd.)

Fixed Equipment

Bulletin Board	100
Coat Hooks (10)	180
Standard Small Sink	250
Wall Clock (1)	40
SUB TOTAL	570

1.3 STAFF OFFICE

Movable Equipment

Double Pedestal Desk (2)	1,500
Corner Computer Table	700
Bookcase	300
Credenza	825
30" Four Drawer Lateral File (2)	842
Round Conference Table	267
Conference Chairs (3)	558
Desk Chair (2)	600
SUB TOTAL	5,592

1.7 STAFF LOUNGE

Movable Equipment

Microwave (1)	250
Refrigerator (1)	500
Coffee-maker (1)	40
Round Tables (3)	900
Sofa (1)	890
Coffee Table	225
Stacking Chairs (6)	600
Upholstered Lounge Chairs (2)	800
Waste Receptacles (2)	50
SUB TOTAL	4,255

Fixed Equipment

Sink/Counter Area	500
Cabinets for Cups/Utensils	500
First Aid Kit	100
SUB TOTAL	1,100

1.8 CONSULTING ROOM	
Reading/Study Tables 48" x 30" (4)	1,108
Chairs (4)	800
Bookcase, 41" high, steel	150
SUB TOTAL	2,058
2.0 MICROFILMING AND PAPER CONSERVATION LABORATORY	
2.1 MICROFILMING ROOM	
Movable Equipment	
12 - single face shelving units 48" wide x 36" deep x 88" high	4,000
SUB TOTAL	4,000
2.2 DARKROOM	
Fixed Equipment	
1 - Revolving darkroom door	800
Stainless steel sink, 24" x 36"	1,200
SUB TOTAL	2,000
2.3 CAMERA ROOM	
Movable Equipment	
1 - Opticopy R820 System Profile Camera (105 mm or equivalent)	150,000
SUB TOTAL	150,000
Fixed Equipment	
1 - Revolving darkroom door	800
SUB TOTAL	800
2.4 MICROFILM OFFICE AREA	
Movable Equipment	
Modular landscaped office components	5,000
1 - Office chair	600
SUB TOTAL	5,600

2.5 PAPER CONSERVATION LABORATORY	
Fixed Equipment	
1 - Plastic sink 43" x 33"	600
SUB TOTAL	600
2.6 FILM VAULT	
Movable Equipment	
6 - Double faced shelving units on movable carriages: 36" wide x 30" deep x 90" high	20,000
SUB TOTAL	20,000
C. BASIC PC NETWORK COSTS	
Software	
Work Processing (networking version)	2,000
Database Management System (network)	5,000
Application Software (Progress)	50,000
TOTAL	57,000
Other	
Incidentals	2,000
Dumb Terminals used to load files (6)	6,000
Intermec Laser Scanners-Model 1620 (8)	11,160
Intermec Portable Computers-Trakker Scanner Model 9444 (2)	4,140
TOTAL	23,300

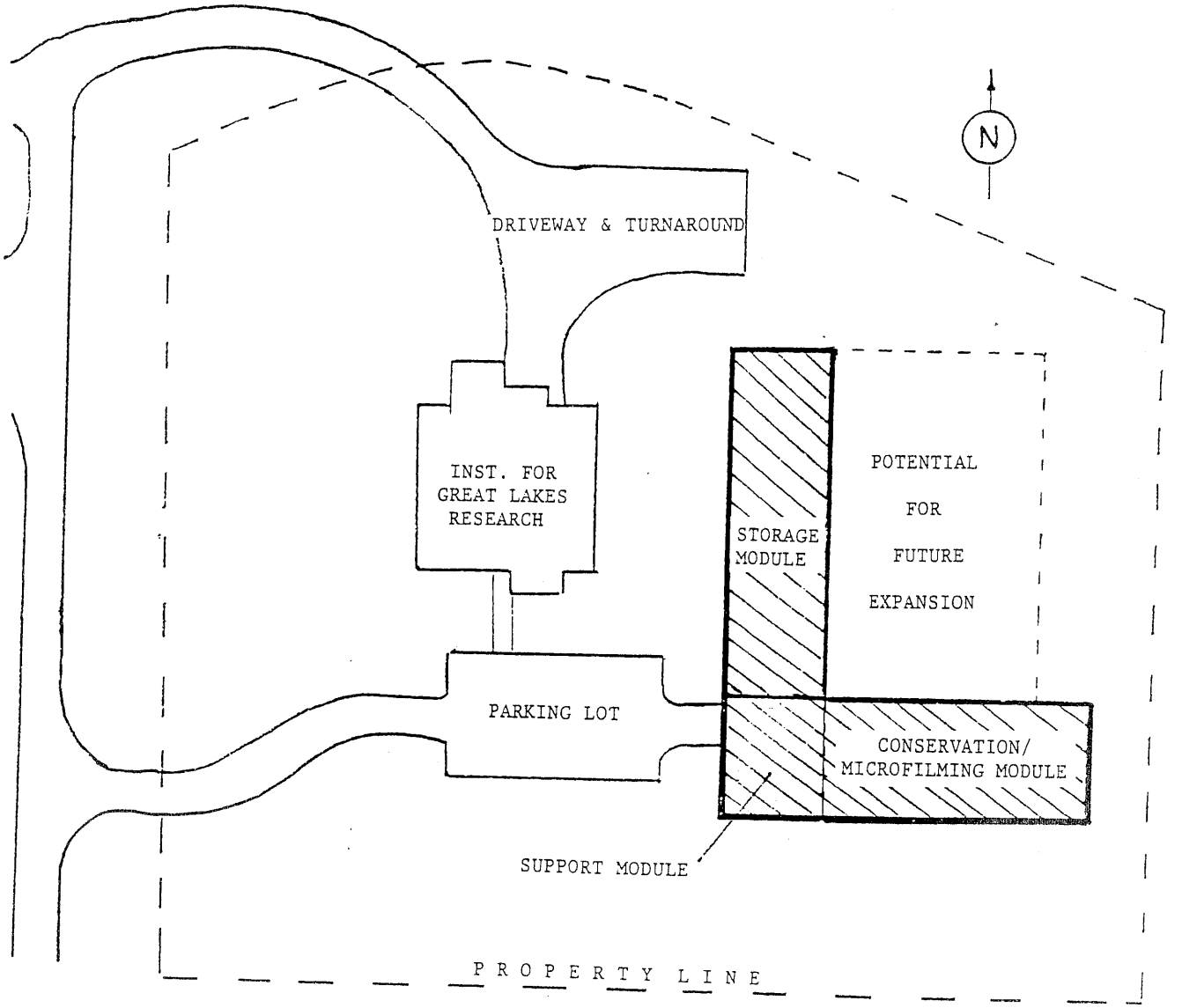
TABLE 1
VOLUMES HELD BY LIBRARIES OF THE 13 STATE-ASSISTED UNIVERSITIES IN OHIO

INSTITUTIONS	VOLS. IN LIB. 6/30/86	VOLS. IN LINEAR FEET*	VOLS. IN MILES**	VOLS. ADDED 1985/86	VOLS. IN LINEAR FEET*	VOLS. IN MILES**	ADDITIONAL MILES IN TEN YEARS
Univ. of Akron	1,040,378	115,597	21.9	41,181	4,576	.87	8.7
Bowling Green State Univ.	1,172,889	130,321	24.7	45,377	5,042	.95	9.5
Central State Univ.	148,921	16,547	3.1	3,592	399	.08	.8
Cincinnati, Univ. of	1,736,978	192,997	36.6	71,726	7,970	1.51	15.1
Cleveland State Univ.	680,488	75,610	14.3	18,085	2,009	.38	3.8
Kent State Univ.	1,609,598	178,844	33.9	39,661	4,407	.84	8.4
Miami Univ.	1,087,014	120,779	22.9	29,142	3,238	.61	6.1
Ohio State Univ.	4,077,575	453,064	85.8	110,862	12,318	2.33	23.3
Ohio Univ.	1,284,130	142,681	27.0	54,025	6,003	1.14	11.4
Shawnee State Univ.	70,421	7,825	1.5	1,495	166	.03	.3
Univ. of Toledo	1,343,348	149,261	28.3	53,721	5,969	1.13	11.3
Wright State Univ.	604,886	67,210	12.7	20,560	2,284	.43	4.3
Youngstown State Univ.	656,683	72,965	13.8	28,164	3,129	.59	5.9
	15,513,309	1,723,701	326.5	517,591	57,510	10.89	108.9 326.5 435.4

Volumes are divided by 9 to obtain linear feet of volumes, with 9 as the average number of volumes in one linear foot
**To obtain miles of volumes represented, linear feet are divided by 5,280*
MILES

APPENDIX II SUGGESTED ORIENTATION AT THE POSSIBLE LEVIS PARK SITE

SHOWING ACCESS ROUTE, PARKING, AND POTENTIAL FOR ADDITIONAL STORAGE MODULES



APPENDIX IV

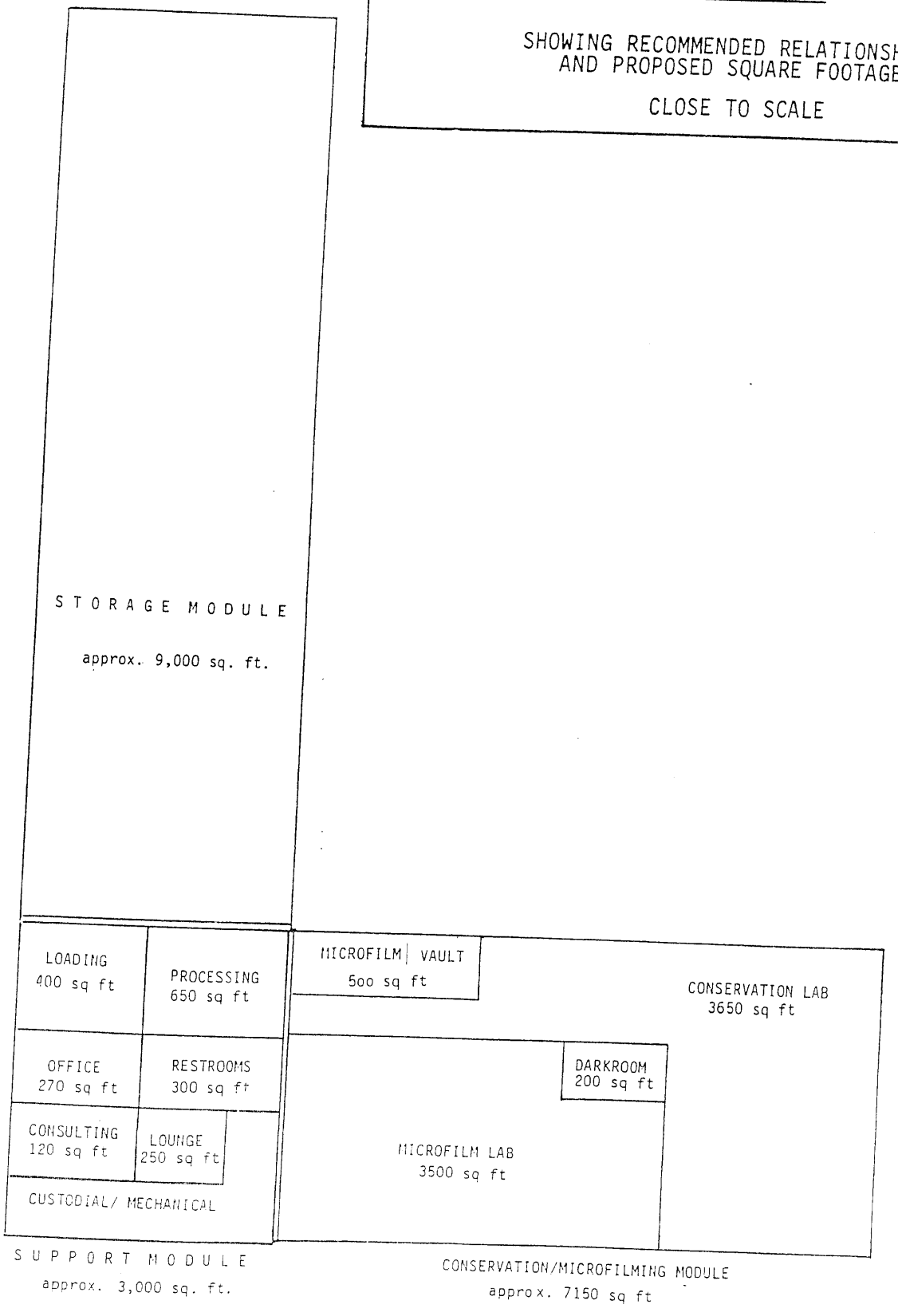
BOWLING GREEN STATE UNIVERSITY/UNIVERSITY OF TOLEDO

PROPOSED LIBRARY BOOK DEPOSITORY

BUILDING DIAGRAM

SHOWING RECOMMENDED RELATIONSHIPS
AND PROPOSED SQUARE FOOTAGES

CLOSE TO SCALE



Accepted & Approved 11/17/94 by Participating Directors

DRAFT DRAFT DRAFT DRAFT DRAFT

REMOTE STORAGE FACILITY
GENERAL OPERATING ASSUMPTIONS

The overriding criterion for sending materials to the remote storage facility (rsf) is low use. However, each institution (BGSU, UT and MCO) will independently define "low use" and determine it's own more specific criteria.

All materials sent to the rsf will be dry and free of any insect or plant infestation. The rsf management reserves the right to return infested materials to the owning institution.

All materials sent to the rsf will be cataloged at some level.

The rsf will utilize III software.

The rsf will not be physically subdivided by institution.

Books will be placed on appropriately sized trays and shelved. Special collections materials, records, archival materials, etc. will be placed in boxes and shelved.

The rsf will be staffed by a manager, permanent staff and student assistants. While the policies and procedures which govern the rsf are the shared responsibility of BGSU, UT and MCO, the rsf manager reports to the BGSU library administration.

Materials will be delivered to the rsf in boxes by vans operated by the rsf. The boxes will be unpacked by rsf personnel and the boxes will be recycled back to the institutions.

There will be no massive initial shipment of materials to the rsf. Rather, as materials are identified, processed and boxed, they will be delivered in regular and manageable shipments to the rsf.

Initial processing of materials will be performed at the owning institutions. Barcoding and tray sizing will be performed at the rsf.

FY 01- 05 Survey of Regional Library Depositories with Budget Figures

State Appropriations	Southwest Ohio	Southeast Ohio	Northeastern Ohio	Northwest Ohio	Central**
FY 01	417,575.00	257,649.00	319,054.00	522,601.00	336,166.00
FY 02	444,571.00	331,298.00	289,396.00	497,754.00	328,533.00
FY 03	389,510.00	317,177.00	301,067.00	527,987.00	374,183.00
FY 04	343,357.00	258,803.00	273,615.00	451,413.00	412,770.00
FY 05	330,620.00	249,300.00	281,837.00	437,563.00	397,137.00
05 Total Materials Stored					
FY 01	1,164,116.00	447,817.00	764,641.00	823,195.00	1,201,346.00
FY 02	1,352,079.00	544,071.00	866,205.00	909,860.00	1,356,612.00
FY 03	1,521,343.00	605,809.00	957,388.00	994,605.00	1,698,585.00
FY 04	1,647,150.00	683,774.00	1,041,959.00	1,016,028.00	2,027,883.00
FY 05	1,757,547.00	734,046.00	1,115,425.00	1,083,869.00	2,385,586.00
05 Cost Per Item Stored					
FY 01	0.36	0.58	0.42	0.63	0.28
FY 02	0.33	0.61	0.33	0.55	0.24
FY 03	0.26	0.52	0.31	0.53	0.22
FY 04	0.21	0.38	0.26	0.44	0.20
FY 05	0.19	0.34	0.25	0.40	0.17
Circulation					
FY 01	18,519	10,922	8,006	13,893	26,547
FY 02	21,089	13,435	9,982	16,549	28,897
FY 03	23,376	16,325	10,833	18,092	35,146
FY 04	24,016	21,488	11,683	18,407	41,365
FY 05	24,884	25,161	10,187	20,572	52,627
05 Cost Per Circulation					
FY 01	22.55	23.59	39.85	37.62	12.66
FY 02	21.08	24.66	28.99	30.08	11.37
FY 03	16.66	19.43	27.79	29.18	10.65
FY 04	14.30	12.04	23.42	24.52	9.98
FY 05	13.29	9.91	27.67	21.27	7.55
Number of Items Accessioned					
FY 01	144,360	59,314	174,106	87,049	140,886
FY 02	187,963	96,254	101,564	86,665	155,266
FY 03	169,264	61,738	91,183	84,745	341,973
FY 04	125,807	77,965	84,571	21,423	329,298
FY 05	110,397	50,272	73,466	67,841	357,703
05 Cost Per Accession					
FY 01	2.89	4.34	1.83	6.00	2.39
FY 02	2.37	3.44	2.85	5.74	2.12
FY 03	2.30	5.14	3.30	6.23	1.09
FY 04	2.73	3.32	3.24	21.07	1.25
FY 05	2.99	4.96	3.84	6.45	1.11

***OSU supplements the OBOR allocation with local dollars, so this column does not accurately reflect the total cost of the Central Depository's operations.*

FY 2003 SURVEY OF REGIONAL LIBRARY DEPOSITORIES

Last revised: 10/18/05	Southwest Ohio Regional Depository	Southeast Ohio Regional Library	Northeastern Ohio Cooperative Regional Library	Northwest Ohio Regional Book Depository	Ohio State University Library Book Depository			
Members of Consortium	Miami, University of Cincinnati, Wright State	Ohio U. and its five branch campuses	Akron, Cleveland St., Kent, NEOUCOM, Youngstown St.	BGSU, Toledo, MCOT	Ohio State			
Size:								
Total Square Feet	24,400	32,000	18,633	10,000	28,066	113,099		
Cubic Feet	722,839	377,000	551,994	390,000	831,442	2,873,275	2.28	
Storage Area		12	30	39				
Stack Area	17,000							
			11,818					
Date of Opening	9/6/1994	1/15/1996	3/23/1994	10/10/1996	8/24/1995			
Plans for Expansion:								
Start Date								
Completion				FY 2006				
Capacity data:						74.67		
Capacity						58		
% of Capacity Occupied	**2,400,000**	**695,000**	**1,250,000**	**1,700,000**	**2,400,000**	**8,445,000**		
	80.0%	100.9%	89%	63.7%	72.5%			
Number of Materials by Type:	1,920,000	701,255	1,112,500	1,082,900	1,740,000	6,556,655	78%	
Archives								
Monographs	38,657	7,345	8,254	6,496	14,915	75,667		
Periodicals	1,148,610	353,285	565,279	373,561	1,574,623	4,015,358		
Media	557,547	331,200	524,519	703,812	796,048	2,913,126		
Total Materials by Type	12,733	42,216	17,373	-	-	72,322		
% of Capacity Occupied	**1,757,547**	**734,046**	**1,115,425**	**1,083,869**	**2,385,586**	**7,076,473**		
Percentage of Materials by Type:	**73%**	**106%**	**89%**	**64%**	**99%**	**84%**		
Archives								
Monographs	2.20%	1.00%	0.74%	0.60%	0.63%			
Periodicals	65.35%	48.13%	50.68%	34.47%	66.01%			
Media	31.72%	45.12%	47.02%	64.94%	33.37%			
Total % Materials by Type	0.72%	5.75%	1.56%	0.00%	0.00%			
Circulation:	100.00%	100.00%	100.00%	100.00%	100.00%			
FY 96 Circulation								
FY 97 Circulation	13,807	1,865	2,678	N/A	3,674	22,024	F1996	
FY 98 Circulation	16,279	2,854	4,392	3,541	10,420	37,486	F1997	
FY 99 Circulation	16,412	4,485	6,416	7,310	24,109	58,732	F1998	
FY 00 Circulation	17,187	8,864	6,768	8,927	22,924	64,670	F1999	
FY 01 Circulation	18,132	9,755	7,665	12,412	23,934	71,898	F2000	
FY 02 Circulation	18,519	10,922	8,006	13,893	26,547	77,887	F2001	
FY 03 Circulation	21,089	13,435	9,982	16,549	28,897	89,952	F2002	
FY 04 Circulation	23,376	16,325	10,833	18,092	35,146	103,772	F2003	
FY 05 Circulation	24,016	21,488	11,683	18,407	41,365	116,959	F2004	
In-House Use of Materials:	24,884	25,161	10,187	20,572	52,627	133,431	F2005	
FY 96 In-House Use of Materials								
FY 97 In-House Use of Materials	45	3	14	N/A	17			
FY 98 In-House Use of Materials	46	3	30	17	213			
FY 99 In-House Use of Materials	227	193	37	389	68			
FY 00 In-House Use of Materials	111	842	37	596	126			
FY 01 In-House Use of Materials	115	651	25	731	110			
FY 02 In-House Use of Materials	140	753	21	617	104			
FY 03 In-House Use of Materials	30	1,039	183	1,815	74			
FY 04 In-House Use of Materials	25	961	106	1,432	253			
FY 05 In-House Use of Materials	-	806	189	892	187			
Number of Items Accessioned:	4	830	161	961	178			
Accessioned 1996								
Accessioned 1997	179,207	95,950	98,430	N/A	438,502	812,089	F1996	812,089
Accessioned 1998	75,283	42,836	115,796	360,000	210,362	804,277	F1997	1,616,366
Accessioned 1999	91,997	63,301	110,791	127,000	197,276	590,365	F1998	2,206,731
Accessioned 2000	103,064	85,825	79,148	107,900	125,604	501,541	F1999	2,708,272
Accessioned 2001	112,045	90,445	75,509	134,165	120,665	532,829	F2000	3,241,101
Accessioned 2002	144,360	59,314	174,106	87,049	140,886	605,715	F2001	3,846,816
Accessioned 2003	187,963	96,254	101,564	86,665	155,266	627,712	F2002	4,474,528
Accessioned 2004	169,264	61,738	91,183	84,745	341,973	748,903	F2003	5,223,431
Accessioned 2005	125,807	77,965	84,571	21,423	329,298	639,064	F2004	5,862,495
	110,397	50,272	73,466	67,841	357,703	659,679	F2005	6,522,174
% of Capacity Occupied	1,299,387	723,900	1,004,564	1,076,788	2,417,535	6,522,174		
	54.1%	104.2%	80.4%	63.3%	100.7%	77.2%		

Statewide
Depository Funding Model:
July 21, 2006

	Cost Variable	SW	SE	NE	NW	Central	State Total
Overhead (1)		$168,571	$71,343	$82,077	$256,947	$71,578	
Accessions (2)		147,558	69,109	104,978	69,545	265,025	
Accessions item cost	$2						
Accessions total cost		$295,116	$138,218	$209,956	$139,090	$530,050	
Deaccessions (3)		0	0	0	0	0	
Deaccessions item cost	$0						
Deaccessions total cost		$0	$0	$0	$0	$0	
Circulations (4)		29,110	34,099	14,258	24,363	67,391	
Circulations item cost	$1						
Circulations total cost		$29,110	$34,099	$14,258	$24,363	$67,391	
DocDeliveries (5)		19,161	830	5,267		0	
Doc Delivery item cost	$3						
Doc Delivery total cost		$57,483	$2,490	$15,801	$0	$0	
Total		$550,280	$246,150	$322,092	$420,400	$669,019	$2,207,941

(1) Avg of 97-03 Utilities, Building Maintenance, Equipment and Equipment Maintenance

(2) Avg of 01-05 Accessions

(3) This number has not been reported, but should be beginning 06-07

(4) This number was determined by using Excel Forecasting function

(5) Central does not provide doc del service, so there is no number for them. Based on the figures from the NE and SW I was able to take 45% of the circulation of the NE as their doc del activity and 77% of the circulation of the SW as their doc del activity and 04% of the circulation of the SE. There was no data for the doc del breakout for the NW.

accepted & approved 11/17/94 by Participating Directors

Fundamental Principles
Northwest Ohio Regional Book Depository Participants
Bowling Green State University, Medical College of Ohio, University of Toledo

OWNERSHIP of depository items is based upon original ownership.

Depository items will be added to the facility in a **SINGLE FILE** by format, irrespective of ownership.

DEPOSITORY SPACE will not be apportioned among the three participating institutions. Exceptions may be considered for special categories of materials (e.g., archival materials, elephant folios)

The **INITIAL STORAGE MODULE** is intended to house paper format material (e.g. monographs, bound serials, government documents, archival material) as well as film based material and sound recordings in a variety of formats.

The OhioLINK software will be the **INVENTORY CONTROL** software for the facility.

GOVERNANCE of the facility will be through a coordinating board composed of at least the three chief library administrators, or their designees, from each of the three cooperating institutions.

Bowling Green State University will serve as the **LEAD INSTITUTION** budget administration, communication, and negotiation with all parties, including the Ohio Board of Regents. After an initial period of time, one of the other two institutions may serve as the **LEAD INSTITUTION**.

The **DEPOSITORY MANAGER** will report directly to the Dean of Libraries and Learning Resources of Bowling Green State University or his/her designee.

September 8, 2006

OhioLINK

2455 North Star Road
Suite 300
Columbus, OH 43221
Phone: 614-728-3600
Fax: 614-728-3610

To: Directors of libraries of the depositories

From: Tom Sanville

Subject: Analysis of proposed allocation of OBR depositories appropriation beginning in F2007 (current fiscal year).

Background

For the past year, the depository library deans/directors have been meeting to build a stronger alliance throughout the depository program and to curtail unnecessary duplication throughout the five state depository systems. Another initiative, establishing a model for the annual operational funding, became a key consideration leading the deans/directors to meet with the Ohio Board of Regents for guidance. The OBR would welcome a recommended formula allocation that could be used over the years. They would not likely disagree with a recommendation brought forward with the support of all five systems. From these several discussions, a statewide depository committee was put into place representing the participants in the five systems. This committee agreed upon a new funding formula to compensate depositories based on the work that they do. The implementation of that formula is the focus of this memo.

OhioLINK has become involved as a mechanism to create, maintain, and update the formula calculations. The managerial decisions concerning the formula itself and its implementation remain the prerogative of the participating institutions. It has also been suggested the OhioLINK might act as banker-disperser of the OBR funds to each depository. This has not been carefully considered to determine if there are any advantages to this change.

Formula Implementation

The proposed allocation for F07 and each year thereafter is based on the combination of two factors - the cost of the overhead resources used by each depository and the volume levels of basic material input and output functions performed by each depository. The percentage of the total of these measures for each depository determines each one's share of the total OBR appropriation, whatever it may be each year.

There are several specific mechanics involved in the application of the basic formula.

1. The value of each input/output function is weighted based on general perceptions of the unit cost to accomplish each. De-accessioning is valued at 4X beginning in F2008. Fulfillment of one-way documents (e.g. photocopies) is valued at 3X. Accessioning is valued at 2X and fulfillment of returnable ILL (e.g. pcirc) at 1X
2. The value of each overhead item (equipment, equipment maintenance, building maintenance, and utilities) are taken at face value (1X). Thus, discrepancies in cost categorizations among the depositories do not matter.
3. To determine the percentage for each depository each year the latest five years history of all measures will be used if available. Document delivery has not been exercised by all. De-accessioning has not been widely exercised. Some thought has been given to using forecasted units. This in and of itself is an uncertain and

subjective technique. All the historical activity levels are not steady and subject to precise forecasting.

4. Use of this formula exclusively in F2007 generates significant changes from F2006 allocations. A transition approach is recommended over 4-5 years until the reliance is 100%. This memo will illustrate the specific impact of various initial F07 transition steps. It must also be recognized that the absolute level of funding in F08 and beyond will have a material impact on subsequent transition steps. A precise and fixed multiyear transition schedule cannot be set.

Table A summarizes the possibilities for F2007 with the already determined flat funding.

Rows 1-5 are the total annual formula values for each depository with weighting factors already factored in.

Rows 7-8 are the 5 year averages and percentages of the total 5 year formula value.

Rows 10-12 are the actual allocations for F05 and F06 with the F06 % of the total appropriation.

Rows 14-15 indicate what each depository would receive in F07 and the difference from actual F06 funding (row 11) IF the new formula percentages (row 8) were used in its entirety. A single year switch to the new formula would have reallocations too large to be absorbed by those depositories losing share of the appropriation.

Rows 17-31 provide alternative F07 shares and differences from the F06 actual allocations if use of the new formula is phased in. Each alternative uses only a fraction of the difference if the new formula is used in its entirety (row 15), ranging from 87.5% down to 12.5%. As can be seen, applying a smaller percentage controls the change from F06 allocations. In subsequent years an increasing percentage of the entire difference can be applied to phase in the new formula. The task force recommends using the 25% level for F07 (rows 28-29).

Tables B and C illustrate that future funding levels will impact greatly what the phase in steps will be beyond F07. Basically, the more robust the future funding, the easier it is to phase in the new formula more quickly. Should funding stay flat then, as suggested in Table A, a lower percentage and longer phase in period will be needed. Table B and C illustrate that if funding should rise it becomes much easier to rapidly adopt the new formula without minimal negative reallocations.

Tables detailing the raw and weighted annual expense and activity levels used in Tables A-c are included.

TABLE A

Sum of Wtd Units/Cost	DEPOSITORY					
YEAR	CEN	NE	NW	SE	SW	Grand Total
2001-2002	$ 408,734	$ 292,409	$ 493,593	$ 272,458	$ 633,521	$ 2,100,714
2002-2003	$ 803,325	$ 301,805	$ 491,175	$ 210,405	$ 601,750	$ 2,408,460
2003-2004	$ 802,204	$ 261,181	$ 363,440	$ 247,921	$ 471,586	$ 2,136,332
2004-2005	$ 878,697	$ 220,749	$ 585,198	$ 185,801	$ 411,051	$ 2,281,495
2005-2006	$ 761,179	$ 156,887	$ 640,362	$ 204,534	$ 446,175	$ 2,209,137
Five-year average	$ 730,828	$ 244,606	$ 514,754	$ 224,224	$ 512,817	$ 2,227,228
Percent of new formula	32.8%	11.0%	23.1%	10.1%	23.0%	100.0%
Actual F05 allocation	$ 397,137	$ 281,837	$ 437,563	$ 249,300	$ 330,620	$ 1,696,457
Actual F06 allocation	$ 354,937	$ 281,837	$ 467,705	$ 249,300	$ 342,952	$ 1,696,731
Actual F06 % allocation	20.9%	16.6%	27.6%	14.7%	20.2%	100.0%
F07 at 100% new formul	$ 656,754	$ 186,344	$ 392,148	$ 170,817	$ 390,670	$ 1,696,731
Difference from F06 Actu	$ 201,817	$ (95,493)	$ (75,559)	$ (78,483)	$ 47,718	$ -
F07 New Formula Funding and Net Difference from F06 Actual at various % of 100% Difference						
87.5%	$ 531,527	$ 198,281	$ 401,591	$ 180,627	$ 384,706	$ 1,696,731
	$ 176,590	$ (83,556)	$ (66,114)	$ (68,673)	$ 41,754	$ 0
75.0%	$ 506,300	$ 210,217	$ 411,036	$ 180,438	$ 378,741	$ 1,696,731
	$ 151,363	$ (71,620)	$ (56,668)	$ (68,862)	$ 35,789	$ 0
62.5%	$ 481,073	$ 222,154	$ 420,481	$ 200,248	$ 372,776	$ 1,696,731
	$ 126,136	$ (59,683)	$ (47,224)	$ (49,052)	$ 29,824	$ 0
50.0%	$ 455,845	$ 234,091	$ 429,925	$ 210,058	$ 366,811	$ 1,696,731
	$ 100,908	$ (47,746)	$ (37,780)	$ (39,242)	$ 23,859	$ 0
37.5%	$ 430,618	$ 246,027	$ 439,370	$ 219,869	$ 360,846	$ 1,696,731
	$ 75,681	$ (35,810)	$ (28,335)	$ (29,431)	$ 17,894	$ 0
25.0%	**$ 405,391**	**$ 257,964**	**$ 448,815**	**$ 229,679**	**$ 354,882**	**$ 1,696,731**
	$ 50,454	**$ (23,873)**	**$ (18,890)**	**$ (19,621)**	**$ 11,930**	**$ -**
12.5%	$ 380,164	$ 269,900	$ 458,260	$ 239,490	$ 348,917	$ 1,696,731
	$ 25,227	$ (11,937)	$ (9,445)	$ (9,810)	$ 5,965	$ -

TABLE B

Sum of Wtd Units/Cost	DEPOSITORY					
YEAR	CEN	NE	NW	SE	SW	Grand Total
IF F2007 FUNDING WAS HIGHER		**$2,000,000**				
F07 at 100% new formula	$ 656,267	$ 219,651	$ 462,237	$ 201,348	$ 460,498	$ 2,000,000
Difference from F06 Actual	$ 301,330	$ (62,186)	$ (5,468)	$ (47,952)	$ 117,546	$ 303,269
F07 New Formula Funding and Net Difference from F06 Actual at various % of 100% Difference						
87.5%	$ 526,531	$ 233,721	$ 473,370	$ 212,912	$ 453,467	$ 2,000,000
	$ 271,594	$ (46,116)	$ 5,665	$ (36,388)	$ 110,515	$ 303,269
75.0%	$ 596,794	$ 247,791	$ 484,503	$ 224,476	$ 446,436	$ 2,000,000
	$ 241,857	$ (34,046)	$ 16,798	$ (24,824)	$ 103,484	$ 303,269
62.5%	$ 567,058	$ 261,861	$ 495,636	$ 236,040	$ 439,405	$ 2,000,000
	$ 212,121	$ (19,976)	$ 27,931	$ (13,260)	$ 96,453	$ 303,269
50.0%	$ 537,322	$ 275,931	$ 506,769	$ 247,604	$ 432,374	$ 2,000,000
	$ 182,385	$ (5,906)	$ 39,064	$ (1,698)	$ 89,422	$ 303,269
37.5%	$ 507,586	$ 290,001	$ 517,902	$ 259,167	$ 425,343	$ 2,000,000
	$ 152,649	$ 8,164	$ 50,197	$ 9,867	$ 82,391	$ 303,269
25.0%	**$ 477,850**	**$ 304,072**	**$ 529,035**	**$ 270,731**	**$ 418,312**	**$ 2,000,000**
	$ 122,913	**$ 22,235**	**$ 61,330**	**$ 21,431**	**$ 75,360**	**$ 303,269**
12.5%	$ 448,114	$ 318,142	$ 540,168	$ 282,295	$ 411,281	$ 2,000,000
	$ 93,177	$ 36,305	$ 72,463	$ 32,995	$ 68,329	$ 303,269

TABLE C

Sum of Wtd Units/Cost	DEPOSITORY					
YEAR	CEN	NE	NW	SE	SW	Grand Total
IF F2007 FUNDING WAS HIGHER		**$2,300,000**				
F07 at 100% new formula	$ 754,707	$ 252,598	$ 531,573	$ 231,550	$ 529,572	$ 2,300,000
Difference from F06 Actual	$ 399,770	$ (29,239)	$ 63,868	$ (17,750)	$ 186,620	$ 603,269
F07 New Formula Funding and Net Difference from F06 Actual at various % of 100% Difference						
87.5%	$ 720,510	$ 268,779	$ 544,376	$ 244,849	$ 521,487	$ 2,300,000
	$ 365,573	$ (13,058)	$ 76,671	$ (4,451)	$ 178,535	$ 603,268
75.0%	$ 686,314	$ 284,960	$ 557,179	$ 258,147	$ 513,401	$ 2,300,000
	$ 331,377	$ 3,123	$ 89,474	$ 8,847	$ 170,449	$ 603,269
62.5%	$ 652,117	$ 301,140	$ 569,982	$ 271,446	$ 505,316	$ 2,300,000
	$ 297,180	$ 19,303	$ 102,277	$ 22,146	$ 162,364	$ 603,269
50.0%	$ 617,920	$ 317,321	$ 582,784	$ 284,744	$ 497,230	$ 2,300,000
	$ 262,983	$ 35,484	$ 115,079	$ 35,444	$ 154,278	$ 603,268
37.5%	$ 583,724	$ 333,502	$ 595,587	$ 298,043	$ 489,144	$ 2,300,000
	$ 228,787	$ 51,665	$ 127,882	$ 48,743	$ 146,192	$ 603,269
25.0%	**$ 549,527**	**$ 349,682**	**$ 608,390**	**$ 311,341**	**$ 481,059**	**$ 2,300,000**
	$ 194,590	**$ 67,845**	**$ 140,585**	**$ 62,041**	**$ 138,107**	**$ 603,269**
12.5%	$ 515,331	$ 365,863	$ 621,193	$ 324,640	$ 472,973	$ 2,300,000
	$ 160,394	$ 84,026	$ 153,488	$ 75,340	$ 130,021	$ 603,269

ALL COMBINED

Sum of Units/Cost	Use CATEGORY									
	Type Overhead				Overhead	Uses				Uses Total	Grand Total
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities		Accessions	de-Accessions	Doc Delivery	ILL - returnables		
1994-1995								871	9,196	10,067	10,067
1995-1996						812,089		3,308	16,038	831,435	831,435
1996-1997	$ 88,887	$ 109,079	$ 8,523	$ 264,751	$ 471,240	804,277		3,951	29,143	837,371	1,308,611
1997-1998	$ 140,132	$ 72,355	$ 56,846	$ 320,053	$ 589,386	590,365		4,428	47,888	642,681	1,232,067
1998-1999	$ 78,433	$ 34,420	$ 37,762	$ 352,020	$ 502,635	501,541		4,763	53,139	559,443	1,062,078
1999-2000	$ 65,776	$ 208,160	$ 49,111	$ 324,387	$ 647,434	532,829		5,729	58,504	597,062	1,244,496
2000-2001	$ 147,705	$ 99,438	$ 39,642	$ 401,660	$ 688,445	605,715		9,726	68,161	683,602	1,372,047
2001-2002	$ 222,968	$ 40,388	$ 35,296	$ 433,891	$ 732,544	627,712		11,397	78,555	717,664	1,450,208
2002-2003	$ 196,604	$ 104,904	$ 39,738	$ 440,585	$ 781,830	748,903		12,526	91,246	852,675	1,634,505
2003-2004	$ 169,202	$ 23,846	$ 53,233	$ 468,735	$ 715,016	639,064		13,135	103,783	755,982	1,470,998
2004-2005	$ 276,568	$ 10,936	$ 20,420	$ 485,966	$ 793,889	659,679		15,557	121,577	796,813	1,590,702
2005-2006	$ 153,814	$ 24,847	$ 39,907	$ 503,534	$ 722,102	628,669	14,315	35,338	123,683	802,005	1,524,107

Sum of Wtd Units/Cost	Use CATEGORY									
	Type Overhead				Overhead	Uses				Uses Total	Grand Total
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities		Accessions	de-Accessions	Doc Delivery	ILL - returnables		
1994-1995								2,613	9,196	11,809	11,809
1995-1996						1,624,178		9,924	16,038	1,650,140	1,650,140
1996-1997	$ 88,887	$ 109,079	$ 8,523	$ 264,751	$ 471,240	1,608,554		11,853	29,143	1,649,550	2,120,790
1997-1998	$ 140,132	$ 72,355	$ 56,846	$ 320,053	$ 589,386	1,180,730		13,284	47,888	1,241,902	1,831,288
1998-1999	$ 78,433	$ 34,420	$ 37,762	$ 352,020	$ 502,635	1,003,082		14,289	53,139	1,070,510	1,573,145
1999-2000	$ 65,776	$ 208,160	$ 49,111	$ 324,387	$ 647,434	1,065,658		17,187	58,504	1,141,349	1,788,783
2000-2001	$ 147,705	$ 99,438	$ 39,642	$ 401,660	$ 688,445	1,211,430		29,178	68,161	1,308,769	1,997,214
2001-2002	$ 222,968	$ 40,388	$ 35,296	$ 433,891	$ 732,544	1,255,424		34,191	78,555	1,368,170	2,100,714
2002-2003	$ 196,604	$ 104,904	$ 39,738	$ 440,585	$ 781,830	1,497,806		37,578	91,246	1,626,630	2,408,460
2003-2004	$ 169,202	$ 23,846	$ 53,233	$ 468,735	$ 715,016	1,278,128		39,405	103,783	1,421,316	2,136,332
2004-2005	$ 276,568	$ 10,936	$ 20,420	$ 485,966	$ 793,889	1,319,358		46,671	121,577	1,487,606	2,281,495
2005-2006	$ 153,814	$ 24,847	$ 39,907	$ 503,534	$ 722,102	1,257,338		106,014	123,683	1,487,035	2,209,137

CENTRAL

Sum of Units/Cost	DEPOSITORY Type			Use CATEGORY						
	CEN									
	Overhead					Overhead Total	Uses			Uses Total	CEN Total
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities			Accessions	de-Accessions	ILL - returnables		
1995-1996											
1996-1997	$ 270	$ -	$ 5,106	$ 66,420		$ 71,796	438,502		3,674	442,176	442,176
1997-1998	$ 382	$ -	$ 4,635	$ 69,912		$ 74,929	210,362		10,420	220,782	292,578
1998-1999	$ 250	$ 621	$ 4,325	$ 59,195		$ 64,391	187,276		24,109	221,385	296,314
1999-2000	$ 829	$ -	$ 6,786	$ 63,363		$ 70,978	125,604		22,924	148,528	212,919
2000-2001	$ 832	$ -	$ 6,385	$ 59,226		$ 66,443	120,665		23,934	144,599	215,577
2001-2002	$ 1,392	$ -	$ 6,792	$ 61,121		$ 69,305	140,886		26,547	167,433	233,876
2002-2003	$ 300	$ -	$ 6,533	$ 77,400		$ 84,233	155,266		28,897	184,163	253,468
2003-2004	$ 9,156	$ -		$ 93,087		$ 102,243	341,973		35,146	377,119	461,352
2004-2005	$ 10,272	$ -		$ 100,392		$ 110,664	329,298		41,365	370,663	472,906
2005-2006	$ 3,324	$ -	$ 4,316	$ 89,927		$ 97,567	357,703		52,627	410,330	520,984
							301,030	1,741	61,552	364,323	461,890

Sum of Wtd Units/Cost	DEPOSITORY Type			Use CATEGORY						
	CEN									
	Overhead					Overhead Total	Uses			Uses Total	CEN Total
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities			Accessions	de-Accessions	ILL - returnables		
1995-1996											
1996-1997	$ 270	$ -	$ 5,106	$ 66,420		$ 71,796	877,004		3,674	880,678	880,678
1997-1998	$ 382	$ -	$ 4,635	$ 69,912		$ 74,929	420,724		10,420	431,144	502,940
1998-1999	$ 250	$ 621	$ 4,325	$ 59,195		$ 64,391	394,552		24,109	418,661	493,590
1999-2000	$ 829	$ -	$ 6,786	$ 63,363		$ 70,978	251,208		22,924	274,132	338,523
2000-2001	$ 832	$ -	$ 6,385	$ 59,226		$ 66,443	241,330		23,934	265,264	336,242
2001-2002	$ 1,392	$ -	$ 6,792	$ 61,121		$ 69,305	281,772		26,547	308,319	374,762
2002-2003	$ 300	$ -	$ 6,533	$ 77,400		$ 84,233	310,532		28,897	339,429	408,734
2003-2004	$ 9,156	$ -		$ 93,087		$ 102,243	683,946		35,146	719,092	803,325
2004-2005	$ 10,272	$ -		$ 100,392		$ 110,664	658,596		41,365	699,961	802,204
2005-2006	$ 3,324		$ 4,316	$ 89,927		$ 97,567	715,406		52,627	768,033	878,697
							602,060	-	61,552	663,612	761,179

NORTHEAST

Sum of Units/Cost	DEPOSITORY Type					Use CATEGORY					
	NE										NE Total
	Overhead				Overhead Total	Uses				Uses Total	
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities		Accessions	de-Accessions	Doc Delivery	ILL - returnables		
1995-1996						98,430				98,430	98,430
1996-1997						115,796				115,796	115,796
1997-1998	$ 5,719	$ 924	$ 12,294	$47,554	$ 66,491	110,791				110,791	177,282
1998-1999	$ 2,347	$ 9,911	$ 12,330	$45,853	$ 70,441	79,148				79,148	149,589
1999-2000	$ 2,657	$ 53,047	$ 14,271	$46,670	$ 116,645	75,509				75,509	192,154
2000-2001	$ 20,474	$ 1,585	$ 11,670	$47,873	$ 81,602	174,106		3,767	4,239	182,112	263,714
2001-2002	$ 4,233	$ 10,616	$ 12,785	$43,378	$ 71,013	101,564		4,143	5,839	111,546	182,559
2002-2003	$ 4,020	$ 42,237	$ 12,860	$39,446	$ 98,562	91,183		5,022	5,811	102,016	200,578
2003-2004	$ 3,606	$ -	$ 20,982	$35,382	$ 59,970	84,571		5,193	6,490	96,254	156,224
2004-2005	$ 2,585	$ -	$ 11,894	$37,587	$ 52,066	73,466		5,023	6,682	85,171	137,237
2005-2006	$ 3,399	$ -	$ 16,323	$39,023	$ 58,744	37,506	2,728	5,385	6,776	52,495	111,239

Sum of Wtd Units/Cost	DEPOSITORY Type					Use CATEGORY					
	NE										NE Total
	Overhead				Overhead Total	Uses				Uses Total	
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities		Accessions	de-Accessions	Doc Delivery	ILL - returnables		
1995-1996						196,860				196,860	196,860
1996-1997						231,592				231,592	231,592
1997-1998	$5,719	$924	$12,294	$47,554	$66,491	221,582				221,582	288,073
1998-1999	$2,347	$9,911	$12,330	$45,853	$70,441	158,296				158,296	228,737
1999-2000	$2,657	$53,047	$14,271	$46,670	$116,645	151,018				151,018	267,663
2000-2001	$20,474	$1,585	$11,670	$47,873	$81,602	348,212		11,301	4,239	363,752	445,354
2001-2002	$4,233	$10,616	$12,785	$43,378	$71,013	203,128		12,429	5,839	221,396	292,409
2002-2003	$4,020	$42,237	$12,860	$39,446	$98,562	182,366		15,066	5,811	203,243	301,805
2003-2004	$3,606	$0	$20,982	$35,382	$59,970	169,142		15,579	6,490	191,211	251,181
2004-2005	$2,585	$0	$11,894	$37,587	$52,066	146,932		15,069	6,682	168,683	220,749
2005-2006	$3,398	$0	$16,323	$39,023	$58,744	75,212	-	16,155	6,776	98,143	156,887

NORTHWEST

Sum of Units/Cost	DEPOSITORY Type				Use CATEGORY						
	NW										
	Overhead				Overhead Total	Uses				Uses Total	NW Total
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities		Accessions	de-Accessions	Doc Delivery	ILL - returnables		
1996-1997	$ 58,030	$ 35,290	$ 2,258	$ 133,426	$229,004	360,000			3,541	363,541	592,545
1997-1998	$ 72,484	$ 17,612	$ 33,519	$ 123,773	$247,388	127,000			7,310	134,310	381,698
1998-1999	$ 47,576	$ 9,178	$ 15,278	$ 140,583	$212,615	107,900			8,927	116,827	329,442
1999-2000	$ 30,057	$ 22,967	$ 22,741	$ 143,102	$218,867	134,165			12,412	146,577	365,444
2000-2001	$ 61,479	$ 63,675	$ 14,711	$ 143,586	$283,451	87,049			13,893	100,942	384,393
2001-2002	$ 125,691	$ 17,459	$ 4,872	$ 155,692	$303,714	86,665			16,549	103,214	406,928
2002-2003	$ 110,830	$ 28,475	$ 8,703	$ 155,585	$303,593	84,745			18,092	102,837	406,430
2003-2004	$ 107,956	$ -	$ 10,247	$ 183,984	$302,187	21,423			18,407	39,830	342,017
2004-2005	$ 231,469	$ -	$ 2,694	$ 194,780	$428,944	67,841			20,572	88,413	517,357
2005-2006	$ 87,789	$ 7,138	$ 12,560	$ 214,298	$321,785	123,676	1,874	18,287	16,364	160,201	481,986

Sum of Wtd Units/Cost	DEPOSITORY Type				Use CATEGORY						
	NW										
	Overhead				Overhead Total	Uses				Uses Total	NW Total
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities		Accessions	de-Accessions	Doc Delivery	ILL - returnables		
1996-1997	$ 58,030	$ 35,290	$ 2,258	$ 133,426	$229,004	720,000			3,541	723,541	952,545
1997-1998	$ 72,484	$ 17,612	$ 33,519	$ 123,773	$247,388	254,000			7,310	261,310	508,698
1998-1999	$ 47,576	$ 9,178	$ 15,278	$ 140,583	$212,615	215,800			8,927	224,727	437,342
1999-2000	$ 30,057	$ 22,967	$ 22,741	$ 143,102	$218,867	268,330			12,412	280,742	499,609
2000-2001	$ 61,479	$ 63,675	$ 14,711	$ 143,586	$283,451	174,098			13,893	187,991	471,442
2001-2002	$ 125,691	$ 17,459	$ 4,872	$ 155,692	$303,714	173,330			16,549	189,879	493,593
2002-2003	$ 110,830	$ 28,475	$ 8,703	$ 155,585	$303,593	169,490			18,092	187,582	491,175
2003-2004	$ 107,956	$ -	$ 10,247	$ 183,984	$302,187	42,846			18,407	61,253	363,440
2004-2005	$ 231,469	$ -	$ 2,694	$ 194,780	$428,944	135,682			20,572	156,254	585,198
2005-2006	$ 87,789	$ 7,138	$ 12,560	$ 214,298	$321,785	247,352	-	54,861	16,364	318,577	640,362

SOUTHEAST

Sum of Units/Cost	DEPOSITORY Type				Use CATEGORY					
	SE									SE Total
	Overhead				Overhead Total	Uses			Uses Total	
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities		Accessions	de-Accessions	ILL - Doc Delivery returnables		
1995-1996						95,950		1,865	97,815	97,815
1996-1997	$ -	$ -	$ -	$ -	$ -	42,836		2,854	45,690	45,690
1997-1998	$ 9,892	$ 38,722	$ 3,011	$ 6,798	$58,423	53,301		4,485	67,786	126,209
1998-1999	$ 893	$ -	$ 3,129	$42,179	$46,201	85,825		8,864	94,689	140,890
1999-2000	$ 8,746	$ 84,811		$ 6,252	$99,809	90,445		9,755	100,200	200,009
2000-2001	$ 15,658	$ 17,079		$53,770	$86,507	59,314		10,922	70,236	156,743
2001-2002	$ 8,001	$ 1,054		$57,460	$66,515	96,254		13,435	109,689	176,204
2002-2003	$ 6,824	$ 3,057		$60,723	$70,604	61,738		16,325	78,063	148,667
2003-2004	$ -	$ 23,846	$ 3,908	$42,749	$70,503	77,965		21,488	99,453	169,956
2004-2005	$ -	$ 10,936	$ 444	$42,077	$53,457	50,272	2,213	25,161	77,646	131,103
2005-2006	$ 18,152	$ 17,709	$ 1,196	$46,638	$83,694	44,140	7,972	3,414	22,318	77,844	161,538

Sum of Wtd Units/Cost	DEPOSITORY Type				Use CATEGORY					
	SE									SE Total
	Overhead				Overhead Total	Uses			Uses Total	
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities		Accessions	de-Accessions	ILL - Doc Delivery returnables		
1995-1996						191,900		1,865	193,765	193,765
1996-1997	$ -	$ -	$ -	$ -	$ -	85,672		2,854	88,526	88,526
1997-1998	$ 9,892	$ 38,722	$ 3,011	$ 6,798	$58,423	126,602		4,485	131,087	189,510
1998-1999	$ 893	$ -	$ 3,129	$42,179	$46,201	171,650		8,864	180,514	226,715
1999-2000	$ 8,746	$ 84,811	$ -	$ 6,252	$99,809	180,890		9,755	190,645	290,454
2000-2001	$ 15,658	$ 17,079	$ -	$53,770	$86,507	118,628		10,922	129,550	216,057
2001-2002	$ 8,001	$ 1,054	$ -	$57,460	$66,515	192,508		13,435	205,943	272,458
2002-2003	$ 6,824	$ 3,057	$ -	$60,723	$70,604	123,476		16,325	139,801	210,405
2003-2004	$ -	$ 23,846	$ 3,908	$42,749	$70,503	155,930		21,488	177,418	247,921
2004-2005	$ -	$ 10,936	$ 444	$42,077	$53,457	100,544	6,638	25,161	132,344	185,801
2005-2006	$ 18,152	$ 17,709	$ 1,196	$46,638	$83,694	88,280	- 10,242	22,318	120,840	204,534

SOUTHWEST

Sum of Units/Cost	DEPOSITORY Type					Use CATEGORY				
	SW									SW Total
	Overhead				Overhead Total	Uses			Uses Total	
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities		Accessions	ILL - Doc Delivery returnables			
1994-1995							871	9,196	10,067	10,067
1995-1996						179,207	3,308	10,499	193,014	193,014
1996-1997	$ 30,587	$ 73,789	$ 1,159	$ 64,905	$ 170,440	75,283	3,951	12,328	91,562	262,002
1997-1998	$ 51,655	$ 15,087	$ 3,387	$ 72,016	$ 142,155	91,997	4,426	11,984	108,409	250,564
1998-1999	$ 27,367	$ 14,710	$ 2,700	$ 64,210	$ 108,987	103,064	4,763	12,424	120,251	229,238
1999-2000	$ 23,487	$ 47,335	$ 5,313	$ 65,000	$ 141,135	112,045	5,729	12,403	130,177	271,312
2000-2001	$ 49,262	$ 17,099	$ 6,876	$ 97,205	$ 170,442	144,360	5,959	12,560	162,879	333,321
2001-2002	$ 83,651	$ 11,259	$ 10,848	$ 116,240	$ 221,998	187,963	7,254	13,835	209,052	431,050
2002-2003	$ 74,630	$ 31,135	$ 11,642	$ 107,431	$ 224,838	169,264	7,504	15,872	192,640	417,478
2003-2004	$ 48,485	$ -	$ 18,095	$ 113,533	$ 180,113	125,807	7,942	16,033	149,782	329,895
2004-2005	$ 32,242	$ -	$ 5,387	$ 111,130	$ 148,759	110,387	8,321	16,535	135,253	284,012
2005-2006	$ 41,150	$ -	$ 5,513	$ 113,649	$ 160,312	122,217	8,252	16,673	147,142	307,454

Sum of Wtd Units/Cost	DEPOSITORY Type					Use CATEGORY				
	SW									SW Total
	Overhead				Overhead Total	Uses			Uses Total	
YEAR	Building Maintenance	Equipment	Equipment Maintenance	Utilities		Accessions	ILL - Doc Delivery returnables			
1994-1995							2,613	9,196	11,809	11,809
1995-1996						358,414	9,924	10,499	378,837	378,837
1996-1997	$ 30,587	$ 73,789	$ 1,159	$ 64,905	$ 170,440	150,566	11,853	12,328	174,747	345,187
1997-1998	$ 51,655	$ 15,097	$ 3,387	$ 72,016	$ 142,155	183,994	13,284	11,984	209,262	351,417
1998-1999	$ 27,367	$ 14,710	$ 2,700	$ 64,210	$ 108,987	206,128	14,289	12,424	232,841	341,828
1999-2000	$ 23,487	$ 47,335	$ 5,313	$ 65,000	$ 141,135	224,090	17,187	12,403	253,680	394,815
2000-2001	$ 49,262	$ 17,099	$ 6,876	$ 97,205	$ 170,442	288,720	17,877	12,560	319,157	489,599
2001-2002	$ 83,651	$ 11,259	$ 10,848	$ 116,240	$ 221,998	375,926	21,762	13,835	411,523	633,521
2002-2003	$ 74,630	$ 31,135	$ 11,642	$ 107,431	$ 224,838	338,528	22,512	15,872	376,912	601,750
2003-2004	$ 48,485	$ -	$ 18,095	$ 113,533	$ 180,113	251,614	23,826	16,033	291,473	471,586
2004-2005	$ 32,242	$ -	$ 5,387	$ 111,130	$ 148,759	220,794	24,963	16,535	262,292	411,051
2005-2006	$ 41,150	$ -	$ 5,513	$ 113,649	$ 160,312	244,434	24,756	16,673	285,863	446,175

PROGRAM STATEMENT

for the

REGIONAL COOPERATIVE LIBRARY WAREHOUSE

DPW Project No. 240-92-154

A joint venture of

Bowling Green State University
The University of Toledo
The Medical College of Ohio

October, 1993

Prepared by The Office of the University Architect and the Office of Capital Planning
at Bowling Green State University

Regional Cooperative Library Warehouse

Introduction

This joint project provides for a high density storage facility (modeled closely on the Harvard Depository completed in 1987) that offers storage, filing, retrieval, and delivery services to allow economical storage of low activity library books, boxed materials and administrative or academic records. The storage module has an area of 9,000 square feet. The support module, consisting of loading dock, processing room, an office, a small consulting room, toilets, a staff room and janitorial and mechanical/communications space occupies 3,000 square feet.

The concept of this depository introduces an entirely new library building type which constitutes a significant breakthrough in cost and quality of the book environment. It will address vital book conservation concerns such as: temperature and humidity extremes and cycling, micro climates, mold, particulates, gaseous pollutants, light, abrasion, acid degradation, security and fire concerns. This environment should increase the average book life by 12 times that in a typical library because of low temperature and humidity operation. To achieve these goals both the designers and the owners must fully understand the principles behind this concept and carefully execute the design, construction and operation of the facility. The basic simplicity of this new concept is its strength, but it also creates its vulnerability. Poor or faulty design in a detail or a false assumption can be very damaging.

This is not a typical warehouse. The design for library materials must be a careful integration of a highly specialized, single story, high bay building system. The Library Cooperative Storage facility will utilize a 30 foot high shelving system, custom modular book trays, a mobile lift workstation for retrievals, an on-line inventory/management system and a new book conservation's environment in addition to incorporation of the various required support facilities resulting in a smooth organization and work flow.

The suggested site of the Book Depository on land owned by the State of Ohio for the benefit of Bowling Green State University is at Levis Industrial Park in Perrysburg Township, adjacent to the Bowling Green State University's Institute for Great Lakes Research.

Access to the Book Depository will be via the existing driveways and parking lot. The site allows for future expansion by two, and possibly three additional storage modules, attached laterally to the initial module. Furthermore, this site is centrally located near all three universities and it sits almost directly on the route of the existing twice-daily inter-university van, the Gutenberg Express.

The suggested site already includes access roads, plus parking for 24 automobiles, in conjunction with the existing Institute for Great Lakes Research. A sidewalk may be necessary to provide a separate entry to the Conservation/Microfilm module.

Program Approval
by the
Regional Cooperative Library Warehouse
Program Committee

Dennis East
Associate Dean, Library
Bowling Green State University

Frank J. Ward
Professor Emeritus
Library Administration
University of Toledo

James F. Garrett
Computer Sevices Librarian
Raymon H. Mulford Library
Medical College of Ohio

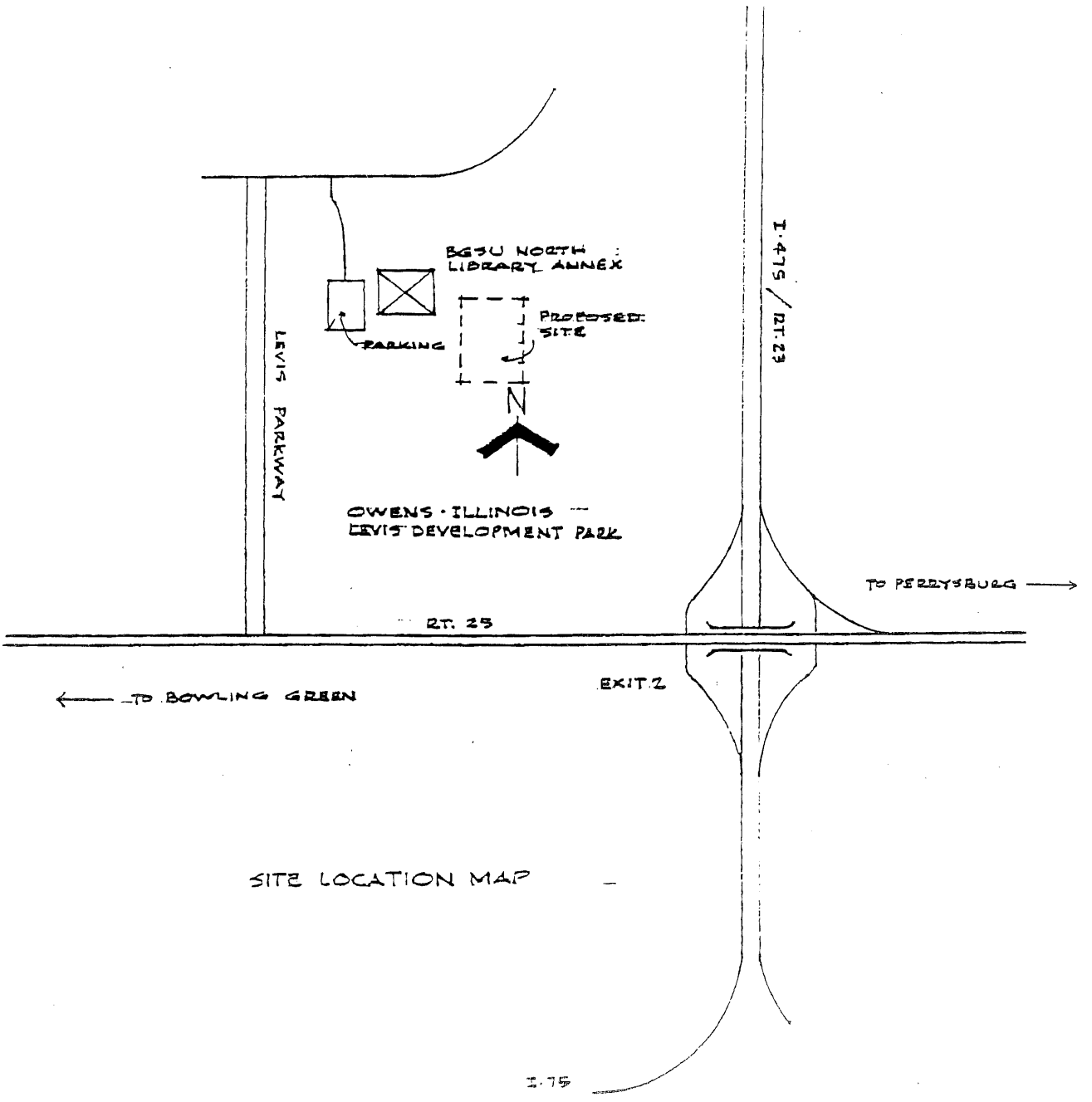
Keith A. Pogan, Sr.
Associate Director, Physical Plant
Bowling Green State University

Roland Y. Engler
University Architect
Bowling Green State University

Robert M. Waddle
Director, Capital Planning
Bowling Green State University

Eloise E. Clark
Vice President, Academic Affairs
Bowling Green State University

Paul J. Olscamp
President
Bowling Green State University



SITE LOCATION MAP

BGSU/UT LIBRARY COOP STORAGE FACILITY
BOWLING GREEN STATE UNIVERSITY
PROJECT NO. 240-92-154

Statement of Need and Use

The libraries at Bowling Green State University, the University of Toledo and the Medical College of Ohio are all approaching severe space problems brought about by the continuous growth of their research collections. Collectively these two libraries add about 100,000 volumes per year which add over two miles of materials to their shelves each year. Appendix III is a table taken from the Library Study Report. It shows how much additional shelf space will be used in the next 10 years at the two universities. The proposed cooperative high-density storage facility will provide economical space for the storage of both library material and university records. By moving their less frequently used library materials to this facility the several campus libraries will relieve the immediate, and diminish the future, space constraints described above. By accommodating records and files, this facility can also effectively relieve present and future office crowding on all three campuses.

From the off site location, needed items can be delivered to the requesting library on a same day or next day basis depending on time of request. More immediate access by personal visit is possible by special arrangement.

This proposed new facility will be made up of two components: a storage module, and a support module. The Storage Module will, by using state-of-the-art warehousing techniques, provide for the storing, inventorying, and retrieval of approximately 1.7 million volumes, or its equivalent. In a climate controlled environment (temperature and humidity) aimed at maximum protection for the material stored. In fact, its design as a simple space created an ideal air circulation environment. Through a precise climate control operating plan, the depository will provide an excellent environment with very carefully controlled limits of temperature (+ or - 3 degrees) and humidity (+ or -3 %) to avoid damaging cycling, or the dangers of mold. In this unique installation, temperature and humidity will be changed in a gradual manner as the seasons change which greatly reduces acid degradation of modern books and also reduces costs. To guarantee against the formation of micro climates, the depository is to incorporate an air rotation system around each unobstructed 30' high stack. Air filtration will remove various damaging gases as well as control particulates. The building will be clean by its very nature, and light exposure damage should be virtually eliminated. The facility must greatly reduce any possible fire hazards and security concerns as well as provide sophisticated alarms and communications connections.

The depository must incorporate carefully conceived and scrupulously executed passive fire safety approaches. The risk of water damage is equally as harmful as fire damage and has strongly prejudiced librarians against water sprinkler system. Halon, although highly effective, remains punitively expensive, even with such high storage density. Within this depository, there must be no motors or systems which can create a fire. Mechanical systems must be isolated carefully outside the depository so that if they generate a fire, the building interior will not be involved. Lighting and other electrical systems

must be engineered not to pose any fire hazard. Most importantly, the depository must not create any opportunity for people to do work within it other than directly accessing the shelving collections. Users pose the most important hazard in a traditional multi-use library. The depository staff should adhere to the University's no-smoking policy, and strict operating rules and signage are vital.

Smoke detectors must provide maximum warning. The smoldering nature of book fires provides the time window when detection can signal the opportunity for defense. Ceiling detectors should individually light when activated and be tied to an annunciator panel. Shelving detectors placed in intermediate height locations can also provide a helpful alert as to location (please note as a possible add/alternate). A chemical fire system should be engineered as part of the man aboard mobile lift work station and supplemental 1 1/2 inch water hoses should be positioned at the end of every aisle. The alarm system should be directly tied to 24 hour security. Fire extinguishers meeting B.G.S.U. standards should be included in the building and located as required on construction drawings.

All supporting work areas should be fully sprinkled. An active system provides economy and simplicity. All walls and openings between the depository and the work area must be of the four-hour type.

A rack storage system 30' high, with shelves either 18" or 36" deep will provide the equivalent of 168,000 linear book feet of standard library shelving. Using 10 volumes per foot as a rule of thumb, this rack system will accommodate 1.7 million volumes.

A book container system utilizing low acid paper and glue and made in various modular sizes will be used. Each container, or tray, is 18" long, open on top and has one side lower than the other. A typical width is 7 1/2". The trays are shelved at right angles to the aisle and, in the case of the 36" deep shelves, are shelved two deep.

A 6,000 lb. commercial, battery-operated man-aboard order-picker fitted with a 42" x 80" work platform provides access to shelving up to 30' high. With this mobile work station, the book tray shelving approach is easily workable, allowing books to be accessed safely, quickly, and with minimum effort and minimum abuse. The entire volume of this storage area must be effectively insulated to stop migration of humidity. The floor system must exceed F100 standard of flatness because close working dimensions between the extended mobile work platform and the high shelves are vital to the operation.

A computerized inventory control system, using bar codes and a laser read/scanner, will be used to ensure placing and retrieving accuracy.

It is estimated that the cost of storing materials in this manner is one-quarter to one-third that of new library construction, or of other storage alternatives. The area of the storage module is 9,000 square feet, approximately 48' wide, 180' long and 35' high. Two, and possibly three, duplicates of the storage module can be attached as need arises.

The office/support module consists of a loading/unloading area with truck dock, a processing area, an office, a small consulting room, toilets, a lounge/kitchen, plus janitorial and mechanical rooms. This module is approximately 2,800 sq. feet, 50' wide, by 60' long. It attaches to the end of the storage module.

Regional Cooperative Library Warehouse

Estimated Project Cost

A.	Site Development	$ 105,000
B.	Construction	$1,801,800
C.	Fixed Shelving and Fixed Equipment	$ 382,000
D.	Associate Architect's Fees	$ 152,000
E.	State Architect's Fees	$ 32,985
F.	Movable Equipment	$ 300,000
G.	Reimbursables and Consultants	$ 16,950
H.	Contingency	$ 148,265
	Approximate Total Project Cost	$2,939,000

NOTE: *The cost figures listed above represent a preliminary breakdown of project costs only, and remain subject to adjustments subsequent to completing the Associate Architect's fee negotiations and the final construction cost estimate.*

Regional Library Depositories

FISCAL 2008-2009 BIENNIUM OPERATING FUNDS REQUESTS

Submitted:
July 7, 2006
Tom Sanville
Executive Director

SPECIAL NOTE

INCLUSION OF REGIONAL LIBRARY DEPOSITORIES RATIONALE and BUDGET REQUEST

The concept and creation of the regional library depositories set the stage for OhioLINK's creation. The enormous efficiency of high-density depositories and the savings and cost avoidance versus the construction of additional libraries provided the means to fund OhioLINK. In turn, the OhioLINK Central Catalog, the collective holdings of member libraries, is the means to keep items placed in depositories as readily accessible to the statewide academic community as are materials that remain in traditional library stacks. The Catalog also provides the mechanism for evaluating how the depository collections can be best coordinated and leveraged over time.

The continued growth of our statewide library holdings and the ability to cost-effectively store and rapidly access these materials remain the cornerstones of the OhioLINK program. As university libraries across the state continue to buy the latest books and other physical content year in and year out and face increased demand to provide innovative learning and technology space for students within their libraries, more materials need to be sent to the depositories rather than adding expensive traditional shelf space. Depository expansion remains the most cost-effective and collaborative way to store our ever-expanding collections. They have the potential for expanded shared efficiencies by incorporating other libraries in the OhioLINK community.

The well being and growth of the depositories is essential to the well being and effectiveness of OhioLINK. With each budget cycle, a parallel investment in the depositories and OhioLINK continues to benefit the state. The rationales for OhioLINK and the depositories are intertwined and can best be appreciated as interconnected parts of the originally conceived and highly innovative concept of a coordinated higher education library system serving the entire community.

In this document any reference just to OhioLINK can often be appropriately thought of as "OhioLINK and the depositories". While rightly managed separately by the contributing universities, the concept of the depositories includes OhioLINK and the concept of OhioLINK includes the depositories. Each is incomplete without the other.

REQUEST SUMMARY:

A. Five Regional Library Depositories Appropriation Request

This request restores OBR funding for the five depositories to a level that provides sufficient annual operating and maintenance support. The restoration of operating costs for these facilities is much less expensive to the State of Ohio than the debt service cost of building or expanding multiple, traditional on-campus libraries and the book storage methods employed by the five depositories continue to be the most cost-effective option for housing books and other print materials.

F2008 - $2,366,338 +39.5% versus F2007
F2009 - $2,437,328 +3.0% versus F2008
Total - $4,803,666

THE CURRENT FINANCIAL REALITY:

LINK and its member libraries have lost ground in our ability to contribute to Ohio's successful development

OhioLINK and depository biennium requests for capital and operating funds are always built on a steady and strong track record of effectiveness and efficiency. Our rapid and effective development has transformed the total effectiveness and efficiency of the investment made in libraries across Ohio high education institutions. That record continues and is discussed in more detail elsewhere in this request.

In the past three years the budget reductions for the depositories have seriously undermined our ability to sustain the original intent of the Ohio Board of Regents to provide cost-effective, secure storage and access to less frequently used library materials. Even though we have implemented many economies, depositories have experienced operating budget deficits in the past several years as a result of OBR funding reductions and increased costs for utilities, maintenance, and repairs. There is also the imminent possibility of major mechanical failures, such as air-conditioning, which could cost $250,000 per site or more to correct. No contingency funds exist to handle such calamities. There remain the two overarching matters of greatest concern: (1) significant operating budget deficits, and (2) the need to build additional modules at several sites.

Continued combined weakness in general library and OhioLINK funding will ultimately result in significant lost content, lost purchasing efficiencies and lost or inadequate day-to-day and strategic OhioLINK library community capabilities. Failure to fully fund the depositories accentuates these budgetary problems for the universities who then must also cover depository budget deficits. The whole community will feel the impact.

The significant advantage Ohio has achieved through investment in OhioLINK and the depositories is slowly unraveling. Ohio remains the envy of the global library community but we are very close to a rapid erosion of our advantages. The strategic decision must be made – are our highly effective collective efforts mandatory building blocks for a successful future? Will the resources be provided to achieve the necessary information and library services?

F08/F09 Program Objectives:

OhioLINK and library depositories must recoup lost day-to-day effectiveness and re-build strategic capabilities

These budget requests for OhioLINK and the library depositories are designed to provide resources to effectively meet the following objectives:

1. **Fully fund the operating budgets of the five depositories**, maintaining a non-deficit status. This will reflect minimal allowance for equipment, and requests in parallel a reinstatement of the equipment contingency line that was removed several biennia ago.

F08/F09 Operating Budget Requests

The continued investment in OhioLINK and the depositories benefits all and increases the efficiency of Ohio's investment in higher education

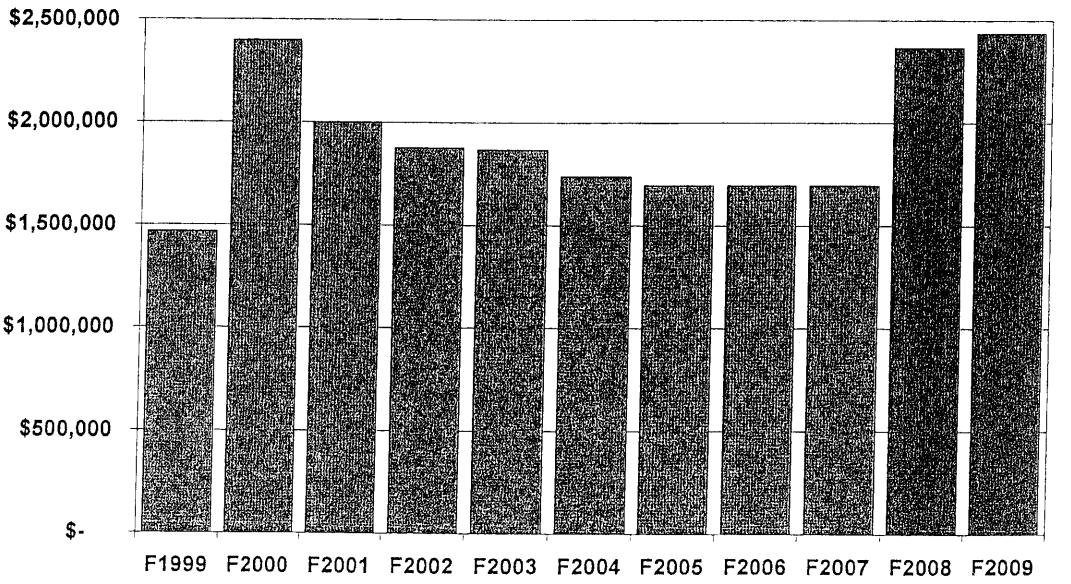
A. Five Regional Library Depositories Appropriation Request

This request restores OBR funding for the five depositories to a level that provides sufficient annual operating and maintenance support. The restoration of operating costs for these facilities is much less expensive to the State of Ohio than the debt service cost of building or expanding multiple, traditional on-campus libraries, a burden that was avoided by the establishment of the depository system. These debt service savings to the State continue to this day. In addition, the book storage methods employed by the five depositories continue to be the most cost-effective option for housing books and other print materials.

F2008 - $2,366,338 +39.5% versus F2007
F2009 - $2,437,328 +3.0% versus F2008
Total - $4,803,666

Chart 2

High Density Repositories - Annual Funding History and Requested F08/F09



3. THE IMPACT OF PREVIOUS and CURRENT OPERATING BUDGET REDUCTIONS

F2001-F2007 Regional library Depositories Impact of Continued Funding Shortfalls

The depositories have implemented many economies in the past several years as a result of OBR funding reductions and increased costs for utilities, maintenance and repairs. The current state of affairs at the Southwest Ohio Depository (Miami, Cincinnati, Central State, Wright State) illustrates the problems they all face. The Southwest Ohio Depository (SWORD) will be in a deficit situation in FY06 for the third year in a row even after reducing staffing from 5.5 FTE to 3.5 FTE, eliminating truck delivery service, and requiring member institutions to contribute staff time on-site at SWORD to process and assist in the loading of books into the depository. Understandably, the lead institution and fiscal agent for SWORD, Miami University, will no longer permit the depository to operate in a deficit mode. Similar deficit conditions have developed or are developing at the other four depositories. All depositories are keenly aware, too, of the imminent possibility of major mechanical failures, such as air-conditioning, which could cost $250,000 or more to correct. No contingency funds exist to handle such a calamity.

REVIEW OF OhioLINK and Library Depositories PROGRAM PERFORMANCE

Regional Library Depositories

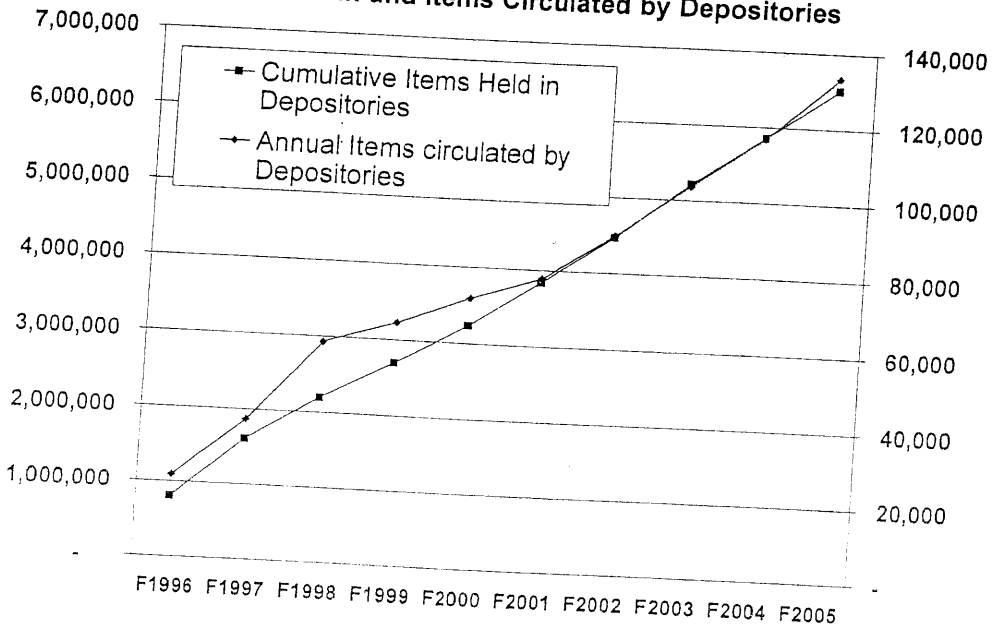
By the end F2005 the five regional library depositories held over 6.5 million items. This represented over 14% of total OhioLINK library community items. Filled capacity of the depositories averaged 78%. Another full year has passed and capacities have reached or are reaching effective limits.

The promise of the depositories was that they would be highly efficient. Average item densities for standard shelving range from 10-15 items per square foot. At the F2005 capacity levels average depository density was 58 items per square foot.

Noteworthy is that circulation of the depository collections has grown in lock step with growth in stored items with over 130,000 circulations in F2005. The promise of availability is being met.

Chart 4

Items Held In and Items Circulated by Depositories



FINANCIAL ACCOUNTABILITY AND EFFECTIVENESS

The daunting economic cost of operating academic libraries across the state of Ohio was summarized in the September 1987 report of the Library Study Committee initiated by Chancellor William B. Coulter of the Ohio Board of Regents.

> "For the three biennia for which capital plans were solicited (1987-1992), library-related requests amounted to $121.7M....A significant portion of the requests for new library space related to the large and annually expanding number of published materials which academic libraries require to support educational programming...Almost every university and a number of colleges will require additional or replacement library space. Furthermore, after a ten year construction cycle--if only traditional solutions are pursued-- that pattern of needs and requests would need begin anew....It is perhaps obvious that there are significant budget constraints which restrict the ability of the State and the universities to address the library needs presented above."

In response, the recommendations of the Library Study Committee led to a program of cost efficiency that not only met the challenge for basic library space needs but also led the way in transforming the use and accessibility of library materials, both physical and electronic. Through a program of regional, high-density storage centers and the development of the OhioLINK program to promote the statewide utility and access of library investments in materials, a dramatically more effective and cost-efficient solution was found.

Overall costs - Innovative versus Traditional Solutions

The Library Study Committee anticipated a perpetual ten-year construction cycle just to store more books, with each cycle costing $120 million (in 1987 dollars). Additionally, estimates were that the next generation of electronic library catalogs would cost $12 million just for the universities, without full inclusion of the smaller two-year colleges. This too would be a recurring cycle. Embedded in this scenario is the reality that access to the books would be no more useful than before. Books would be no more locatable, transportable, or available to students and faculty across the state than in the past. The innovative solution of high-density storage centers, coupled with a statewide electronic library catalog and delivery system would be not only less costly but dramatically more useful. This has been the case.

The cumulative costs of the OhioLINK program and the regional library depositories will fall well short of the expected ten-year traditional cycle costs of $132 million, while delivering massive benefits far beyond the initial problem identified in 1987. Total OhioLINK program appropriations from initial funding in 1988 through June 2006 will total $149.0 million. Total regional library depositories OBR appropriations for the same period are $33.6 million. Combined, in these twenty years since 1987, we will have total appropriations of only 138% of the original, recurring projected ten-year traditional solution estimate. With each construction cycle we will save by using efficient, high-density storage and electronic access rather than traditional library storage