



Illinois Heartland Library System

TO: IHLS Finance Committee
 FROM: Leslie Bednar
 DATE: February 11, 2022
 RE: Automatic Material Handler

Below we present you a proposal for an Automatic Material Handler system.

Background

In January 2019, IHLS Operations Director, Susan Palmer attended ALA Mid-Winter in Seattle, Washington. While attending this conference she was invited to visit the King County Library System to examine their Automatic Material Handler (AMH) system. After this trip, she began thinking about the benefits of an AMH system for IHLS and investigated different types of AMH systems. Susan Palmer and Linda Petty, Area Manager, also visited the Chicago Public Library facility that used an AMH system.

An Automatic Material Handler system provides a multitude of benefits to IHLS:

- **replace hand sorting and manual check in of items at the IHLS hubs**
- **accuracy of items being placed in the correct bin**
- **height adjustment of the sorting bins would provide an ergonomic workstation for staff**
- **number of items sorted per hour would increase by an estimated 700%**
- **personnel cost savings with the elimination of sorting staff**
- **minimal staff time required for the operation of the AMH system**

We foresee this as a combination of staff to operate the machine and be able to fill-in as needed as backup courier.

Potential benefits to member libraries include:

- **all items will need to have the barcode on the outside of the item or an RFID tag**
 The technology used by AMH machines is powered by consortia software to route items without labels. The barcode becomes the “address” for where the item is being routed. This allows the machine to automatically read that item and sort which library bin to place that item. At the same time the status of that item is recorded.
- **as items are sorted, they can also be sorted by holds and returns**
 This can be beneficial to libraries with large daily volumes.
- **immediate automatic check in of items, which reduces library staff check-in time**
 A manifest of contents of items in the tub is generated and with one scan those items are checked in

IMAGINING TOMORROW ~ DELIVERING POSSIBILITIES TODAY!

- **use of the adhesive receipt paper would be reduced**
The delivery label is no longer needed.

Over the past few years, the IHLS Leadership Team and appropriate staff have had numerous discussions on what it would look like to have an AMH system in place. With the increase to the Illinois minimum wage each year, the concerns of Covid regarding material handling and staff shortages, the amount of turnover in part-time positions, and the difficulty in rehiring these positions, it was evident that we needed an analysis to determine if an AMH system could be a part of our operations. IHLS finance and operations staff met to determine the number of staff that would be needed, what daily operations would look like, and what potential savings we would see in the future. An internal analysis of these factors has been completed based on a ten-year period.

Automatic Material Handler System Review	
	Total Cost
Estimate for AMH Systems (3)	\$ 1,000,000
Total Estimated Purchase Costs	\$ 1,000,000
Estimated Savings from elimination of Sorters from FY2024-FY2033	\$ (1,908,565)
Estimated staff needed for AMH operations from FY2024-FY2033	\$ 541,375
Total Estimated Costs/Savings from FY2024-FY2033	\$ (1,367,190)
Difference	\$ 367,190

With this analysis, we would reach the break-even point at less than seven and a half years.

Recommendation

Our recommendation is to add the Automatic Material Handler to the FY2023 General Fund Budget and Operational Plan with a condition that IHLS will first release a Request for Information to gather necessary information from multiple vendors. IHLS staff will also pursue grant opportunities to aid in the purchase of the equipment. If the results are favorable in moving forward with the purchase of the equipment, a Request for Proposal would be released after the Illinois State Library approves the FY2023 System Area & Per Capita Grant.

Thank you for your consideration, and please let me know if you have any questions.