# MEMO

## Engineering Department

To:      Board of Public Works

From:    John Neumeier, Director of Public Works/City Engineer

Date:    3/17/2025

Re:      **2b)** Recommendation to Award Project 7-25 Kaukauna Public Library Automated Material Handling System (AMHS)

### Background information:

The library will be adding a new sorting machine as an innovative solution to help relieve some issues caused by staff shortages. In addition to the sorting machine, we are proposing to upgrade the entire automated system, including three self-checks, two sets of security gates, and replacement radio frequency identification (RFID) pads for all the service desks to be able to utilize the same technologies. We have received three proposals and are providing the two low proposals for consideration; one vendor's starting price for a 5-bin sort and accessories was double the price of the other two proposals; placing the option significantly over budget. James Berven has compiled a detailed evaluation and summary for the two considered proposals attached.

**Strategic Plan:** This combination of innovative improvements will help the library to complete more timely and error free work with the current staffing level. Innovation is one of the foundational elements in our Strategic Plan, as it offers a better way of checking in, checking out, and tracking materials and improves existing processes with a reduction in errors.

**Budget:** Estimated AMHS project budget was $150,000. Recommended proposal from mk Solutions, Inc. would be $122,830.00 for 2025 with continued operational expenses to be incorporated into future budgets.

### Staff Recommended Action:

Authorize the Library Director to accept the proposal from mk Solutions, Inc. for Project 7-25 Kaukauna Public Library Automated Material Handling System with all accessories and services noted, in the amount of $122,830.00.

# Kaukauna Public Library AMHS & Acessories Selection Summary

## Proposal Breakdown

| | MK | Bibliotheca |
|---|---|---|
| AMHS with Exterior Return- 5 Bin (2 spare) | $68,500.00 | $88,950.00 |
| 3 Self checks | $13,500.00 | $15,237.00 |
| Single Gate | $6,900.00 | $4,699.00 |
| Double Gate | $8,500.00 | $7,539.00 |
| RFID Pads 6 | $5,340.00 | $4,326.00 |
| Packaging/Shipping | $4,900.00 | $2,210.00 |
| Installation/Training | $6,500.00 | $1,200.00 |
| One time setup fees | $2,880.00 | $0.00 |
| Annual fees | $2,810.00 | $1,846.00 |
| Optional Service plan past warranty | $3,900.00 | $10,659.00 |
| Spare Parts | $3,000.00 | $0.00 |

## Pros/Cons

| MK Solutions | | Bibliotheca | |
|---|---|---|---|
| *Pros* | *Cons* | *Pros* | *Cons* |
| Automatic Multi-direction barcode reader | Haven't worked with them before | Currently use them, have had good service | Patrons must scan the correct barcode themselves before the system accepts it |
| Removable exterior screen + printer | | | External Screen and printer highly recommended to be used |
| AMHS is smaller at 9' 3" length | | | AMHS is larger at 11' 7 1/4" length. |
| Less Expensive | | | More Expensive |

## Notes

References for both vendors indicate they love the support they receive and would order again from the same vendor. Support is not a factor due to this.

The self check, RFID pads, and gates all seem to function relatively similarly so the determining factor is the AMHS system itself.

The ability to remove the touchscreen and receipt printer should limit downtime due to less vandalism opportunities, weather degredation, or general wear that would cause those components to potentially fail.

We can use all the extra room we can get in the staff workspace, so the saved 2' 4 1/4" (difference in lengths of AMHS's) may seem small but is valued highly.
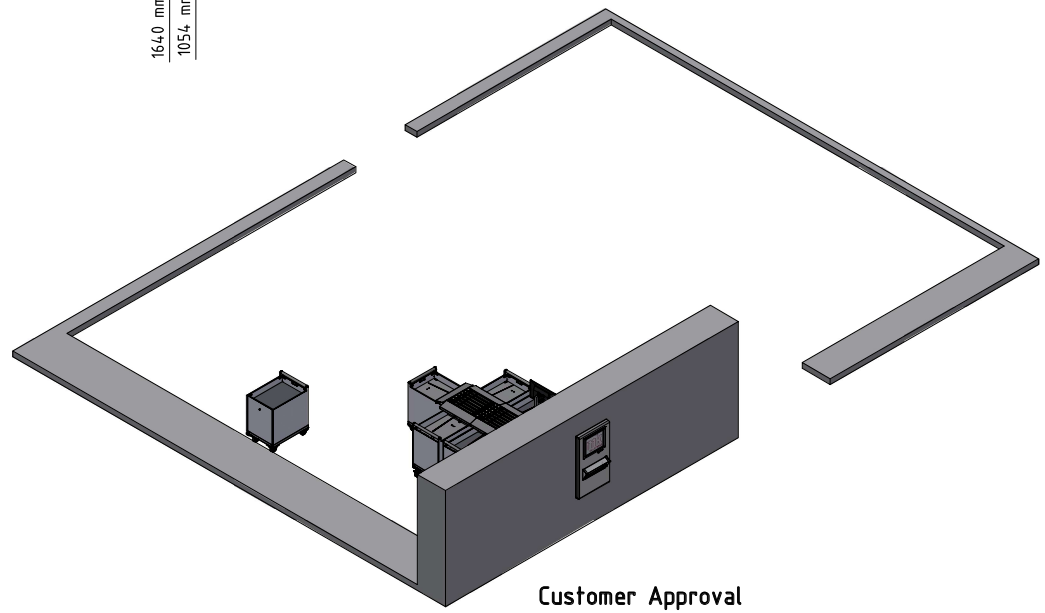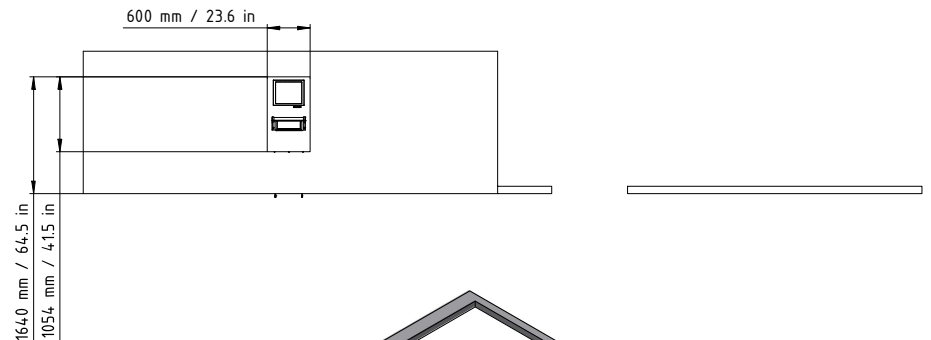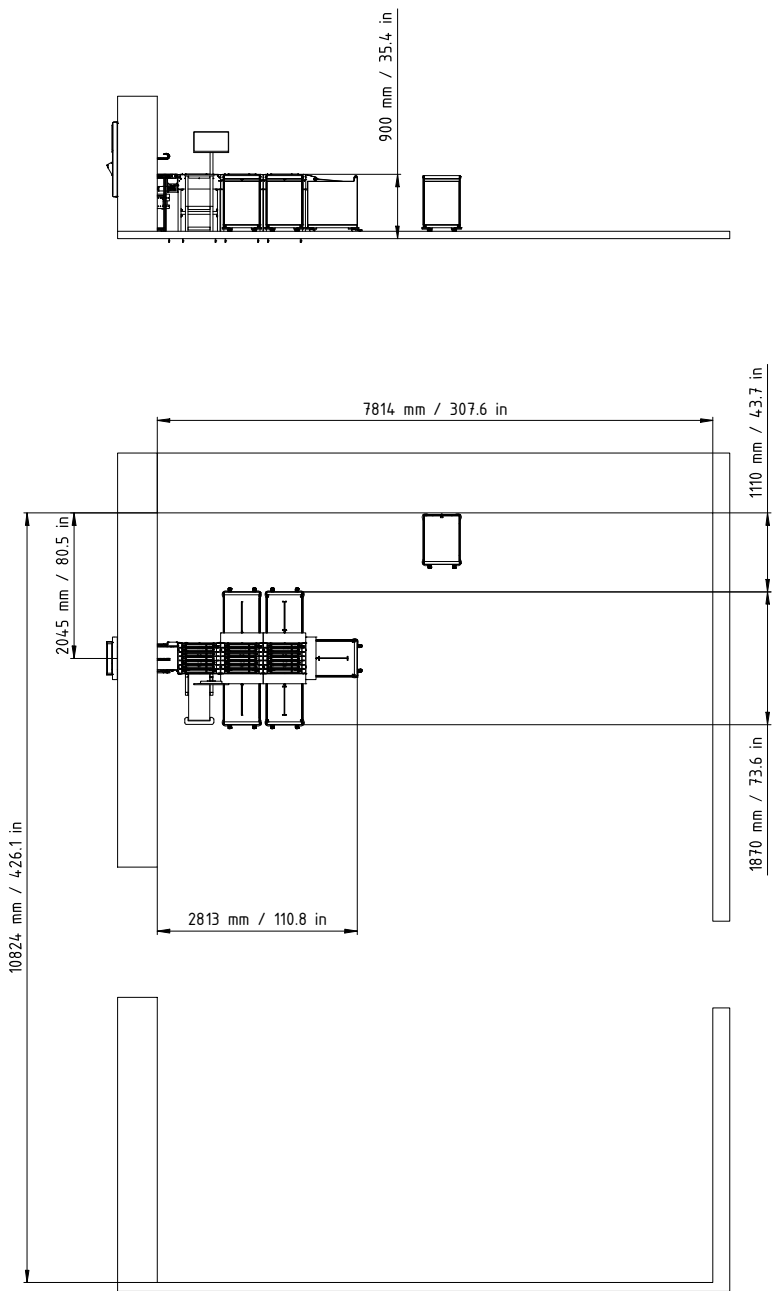
An automatic barcode reader will provide a better patron experience than manually having them scan the item itself and display an error if they do it incorrectly.

## Cost Breakdown Per Year

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MK Solutions (Service + software increases 2.5%) | $122,830.00 | $2,810.00 | $6,877.75 | $7,049.69 | $7,225.94 | $7,406.58 | $7,591.75 | $7,781.54 | $7,976.08 | $8,175.48 | $185,724.82 |
| Bibliotheca (Service alone increases 3-5% - negotiable) | $126,007.00 | $12,505.00 | $12,824.77 | $13,154.13 | $13,493.38 | $13,842.80 | $14,202.70 | $14,573.40 | $14,955.23 | $15,348.50 | $250,906.91 |
| Difference | $3,177.00 | $9,695.00 | $5,947.02 | $6,104.44 | $6,267.44 | $6,436.21 | $6,610.95 | $6,791.86 | $6,979.14 | $7,173.02 | $65,182.09 |

## Final Recommendation

I recommend that the Kaukauna Public Library chooses MK Solutions. The greater capabilities of MK Solution's barcode scanner on the AMHS is perhaps the biggest factor. It can accept items in multiple orientations and automatically distinguish between UPC and library barcodes, reducing patron confusion and incorrect item handling. It simply must be placed with the barcode face up and the barcode scanner can scan the item in as it is sorted. In the event that it doesn't recognize a library barcode (such as with donated items) the item can be sorted to an exception bin. With Bibliotheca, the patrons must scan the items themselves, increasing the likelihood for error and patron frustration. We have experience with patrons having issues scanning barcodes correctly on our self-check machines. I predict more of the same issues, but with the added difficulty of them being outside and nowhere near a staff member if they are having issues. Instead of the touchscreen with directions, the library can post a sign, with an image if needed, indicating that the item should be returned with the barcode facing up. Additionally, the fact that MK Solutions' system is less expensive, smaller, and they don't indicate a need for the touchscreen or receipt printer to be installed adds to my confidence that they are the right choice.

900 mm / 35.4 in

600 mm / 23.6 in

164.0 mm / 64.5 in

1054 mm / 41.5 in

7814 mm / 307.6 in

1110 mm / 43.7 in

204.5 mm / 80.5 in

1870 mm / 73.6 in

10824 mm / 426.1 in

2813 mm / 110.8 in

**Customer Approval**

Date: _____

Name: _____

Signature: _____

| Modification only in CAD | | | Views Methode E-ISO R 128 | | DIN ISO 1302 DIN ISO 2768-K | | |
|---|---|---|---|---|---|---|---|
| | | | | | up to 3000±1,6 | | |
| A | Initial Version | | | | up to 1000±0,8 | Dimensions | |
| Index | Modification | | Name | Date | up to 100±0,3 | Material | |
| | Name | Date | mk Solutions GmbH owns the copyright of this drawing. Without permission, this drawing may not be copied nor submitted nor handed over to rival firms and/or third parties. | | up to 30±0,2 | Origin | 1-009129.idw |
| Drawn | MiMu | | | | up to 6±0,1 | Article No. | |
| Checked | | | | | General Tol. | | Scale 1 : 50 |

| Description | AMHS Kaukauna Public Library | Drawing No. 1-009130 | Format A2 |
|---|---|---|---|
| | | | Sheet 1 / 1 |

# mk Solutions, Inc.

mk Solutions, Inc.
75 Acco Drive, Suite A-3
York, PA 17402
(860) 760-0438
sales.us@mksolutions.com

# Proposal

| Date | Proposal # |
|------|-----------|
| 3/10/2025 | 51588 |

| Name / Address |
|---|
| Kaukauna Public Library |
| 207 Thilman Rd STE 200 |
| Kaukauna, WI 54130 |
| USA |

| Ship To |
|---|
| Kaukauna Public Library |
| 207 Thilman Rd STE 200 |
| Kaukauna, WI 54130 |
| USA |

| Valid Until | Terms | Rep |
|---|---|---|
| 5/31/2025 | Due on receipt | CH |

| Item | Description | Qty. | Price Each | U/M | Amount |
|------|-------------|------|-----------|-----|--------|
| | RFP: #7-25 AUTOMATED MATERIALS HANDLING SYSTEM | | | | 0.00 |

The library has the option to select from two advanced AMHS technologies (for the same price). The first is a sweeper-based system, which is fully enclosed to ensure the utmost safety and includes bins for materials. The second is the pop-up technology, offering a more compact design in terms of length. The provided drawing shows the pop-up sorter.

Value Added Offerings (see also optional items):

1. *** mk offers a 24 months full warranty ***

2. The high speed mk return station make any bulk solutions obsolete and keeps all the benefits from single item returns. RFID & industrial multi-directional barcode scanner included.

3. mk eBins are the perfect answer to ergonomic / OSHA requirements for staff. The mk eBins charge automatically once docked at the sorter (NO cables or plugs to handle).

4. Staff Induction station option including hold slip, back-date, and RFID conversion features.

5. mk recommends a spare parts package being stored at the library.

6. Expansion option of sorting system at any time. We ensure flexibility.

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| | AMHS | | | | |
| SE-SERVICE-GENE... | Return and Sorting System per mk Drawing 1-009128 (enclosed sweeper AMHS) & 1-009130 (pop-up AMHS) consisting of:<br><br>1 x RS6 Exterior Return Station including weather cover, excluding touchscreen and printer, per request<br>1 x mk Staff Return Station, height adjustable<br>1 x 5-way Sorting System<br>5 x mk Book Bin (spring-loaded)<br>2 x mk Book Bin  (spring-loaded) as spare | 1 | 68,500.00 | | 68,500.00 |
| SE-SERVICE-GENE... | mk Spare Parts package, stored at the library to ensure immediate availability. Package includes most common parts | 1 | 3,000.00 | | 3,000.00 |
| | OPTIONAL ITEMS AMHS | | | | |
| BOOK-BIN-620-900 | mk Book Bins as spare<br>Bottom: spring-loaded | 0 | 1,500.00 | ea | 0.00 |
| BOOK-BIN-E-BIN-62... | mk eBin<br>Bottom: motorized, includes sensors, control panel<br>Charging: automatically when docked at AMHS<br>Note: for upgrading from spring-loaded bins, calculate the price difference | 0 | 3,500.00 | ea | 0.00 |
| SE-SERVICE-GENE... | Expansion of sorting system by two additional sort points (excluding book bins) | 0 | 12,000.00 | | 0.00 |

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| | SELF CHECKS | | | | |
| SC4-UL-TT-BC-RB-R... | SC4-UL-TT-BC-RB-RF-GBS-BL-BL-00
mk SelfCheck – SC4 table top
LibSoft (ware): Excluded
Library Cards: Barcode
Item Identification: RFID & Barcode
Item Security: RFID
Audio Support: Optional
Touch Screen Size: 22"
Touch Screen Orientation: Landscape or Portrait
Counter Design: Glass
Counter Width: 18" (450mm)
Ergonomic Stand: No
Color Style: Black | 3 | 4,500.00 | ea | 13,500.00 |
| | SECURITY GATES | | | | |
| SG-RFID-1SA | mk RFID Gate Wave - Single aisle
Technology:  RFID
Antennas:  Two
People counter: Yes, Bi-Directional | 1 | 6,900.00 | ea | 6,900.00 |
| SG-RFID-2DA | mk RFID Gate Wave - Dual aisle
Technology:  RFID
Antennas:  Three
People counter: Yes, Bi-Directional | 1 | 8,500.00 | ea | 8,500.00 |

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| | **STAFF STATIONS** | | | | |
| SS-RFID-PAD-FO | mk StaffStation Kit - for Front Desk<br>Connected to staff workstation, fully shielded RFID Pad, USB Cable, and 120V / 12V power supply, dimensions: 376mm x 276mm x 27mm (14.8" x 10.8" x 1.06"), weight: 2kg (4.4 lbs) | 6 | 890.00 | ea | 5,340.00 |
| | | | | | 0.00 |
| | **PROFESSIONAL SERVICES** | | | | |
| SE-SERVICE-PROJE... | Project Management (INCLUDED) | 1 | 0.00 | | 0.00 |
| SHIPPING | Packaging and Shipping | | 4,900.00 | | 4,900.00 |
| INSTALL-ONSITE | On-Site Installation & Training | 1 | 6,500.00 | ea | 6,500.00 |
| SE-SERVICE-GENE... | Refresher Training (optional) | 0 | 350.00 | | 0.00 |
| | | | | | 0.00 |
| | **SOFTWARE** | | | | |
| SW-LIBSOFT | Annual Subscription for mk LibSoft Plus Software<br>(per return station & self-check)<br>Period: January to December<br>Annual price increase 2.5%<br>Support: included | 5 | 390.00 | ea | 1,950.00 |
| SET-UP-FEE-LIBSOFT | One Time Set-Up Fee per LibSoft Software Subscription | 5 | 400.00 | ea | 2,000.00 |

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| SW-GATETRACKER | Annual Subscription for mk GateTracker Software<br>*** Price per Branch ***<br>Period: January to December<br>Annual price increase 2.5%<br>Support: included | 1 | 350.00 | ea | 350.00 |
| SET-UP-FEE-GATET... | One Time Set-Up Fee per GateTracker Software Subscription | 1 | 400.00 | ea | 400.00 |
| SW-STAFFSTATION | Annual Subscription for mk StaffStation Software<br>Period: January to December<br>Annual price increase 2.5%<br>Support: included | 6 | 85.00 | ea | 510.00 |
| SET-UP-FEE-STAFF... | One Time Set-Up Fee per StaffStation Software Subscription | 6 | 80.00 | ea | 480.00 |
| 860-SLA | SERVICE LEVEL AGREEMENT (SLA) OPTIONS<br>starting in year 3, year 1+2 are covered by mk's full warranty | | | | |
| SLA-1.1Bronze | Service Level Agreement: Bronze Coverage<br>Period: January to December<br>Annual price increase 2.5% | 0 | 650.00 | | 0.00 |
| SLA-2Silver | Service Level Agreement: Silver Coverage<br>Period: January to December<br>Annual price increase 2.5% | 0 | 1,750.00 | | 0.00 |
| SLA-3Gold | Service Level Agreement: Gold Coverage<br>Period: January to December<br>Annual price increase 2.5% | 0 | 3,900.00 | | 0.00 |

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|---|---|---|---|---|---|
| | TERMS | | | | 0.00 |
| Payment Terms 60/3... | 60 % advance payment due on receipt of invoice<br>35 % of order value with delivery<br>5 % of order value after installation<br><br>For Software Solutions / Subscription invoicing takes place in advance for 1 year after installation. For Maintenance Contracts (SLA) invoicing takes place after initial warranty and for 1 year in advance. To secure proposed SLA pricing, receipt of order is required with system purchase. Batteries are not covered by any SLA. Annual invoices are based on calendar year. Terms: Automatic annual renewal if not terminated 6 months prior to the renewal date. NOTE: Delivery times will be determined once the purchase order is received and all technical details are clarified between the parties. | | | | |

For orders, please email purchase order or this signed proposal to sales.us@mksolutions.com

I select the follwoing SLA option to this order _____

_____ I want to pay via credit card. A 3.5% fee will be added

Signature & Date  _____

| | |
|---|---|
| **Subtotal** | USD 122,830.00 |
| **Sales Tax (0.0%)** | USD 0.00 |
| **Total** | USD 122,830.00 |