

**KENTUCKY PUBLIC RIVERPORT CONSTRUCTION AND MAINTENANCE (KPRCM) APPLICATION**

INSTRUCTIONS: A guidance document is provided to assist in completing the application packet and may be accessed at <https://transportation.ky.gov/MultimodalFreight/Pages/KPRCM.aspx>
See the guidance document for required attachments and acceptable methods of submittal.

SECTION 1: APPLICANT INFORMATION

PUBLIC RIVERPORT NAME	TOTAL PROJECT COST	KPRCM FUND REQUEST	
Paducah-McCracken County Riverport Authority	\$61,875.00	\$61,875.00	
STREET ADDRESS	CITY	STATE	ZIP
2000 Wayne Sullivan Drive	Paducah	KY	42003
CONTACT NAME & TITLE	PHONE	EMAIL	
James H. Garrett	270-442-9326	jgarrett@paducahriverport.org	

SECTION 2: PROJECT DESCRIPTION

PROJECT TITLE	DURATION
Sennebogen Bucket Replacement	6 months weeks

FACILITIES AFFECTED BY THE PROPOSED PROJECT

☒ Owned by Riverport Authority ☐ Leased to:

Briefly describe how the project will improve public riverport facilities and infrastructure, to capture the economic and trade potential offered by water transportation.: (Text limited for accurate printing. Attach additional pages as needed.)

The PMCRA Bulk Cargo Yard receives incoming product by way of barge. The bulk cargos are unloaded from barge utilizing a Sennebogen 870 R-HD E-Series with an extended length boom and stick. The Sennebogen sets atop a marine cell at an elevation of 340'. In order for material to be unloaded from the cargo hopper floor, the bucket must reach 50' below the machine level. Performance issues have been observed resulting in reduced cycle times, limited range of motion, and a significant increase in unscheduled maintenance. A performance study was performed by Sennebogen representatives. The study confirmed the machine was operating beyond its design hydraulic lifting capacity. The performance study recommended a reduction in bucket size from the current 4.5 cu/yd bucket down to a 3.5 cu/yd bucket. The right sizing of the bucket will allow the machine to operate within its design perimeters throughout unloading cycle range. This will allow for a reduction in barge unloading time, unscheduled downtime, and maintenance costs.

Select ONE: ☐ Applicant plans to use their own manpower, equipment, or materials on the project (Force Account).
☒ Applicant plans to competitively bid out all work related to the project.

TRAFFIC	CURRENT	AFTER PROJECT
Trucks per day	85	85
Train cars per week	0	0
Barges per week	5	6

FOR KYTC USE ONLY

Date Received: _____	WTAB Approval <input type="checkbox"/> Yes <input type="checkbox"/> No	Notification of Award: _____ MOA #: _____ Notice to Proceed: _____
Application Complete? <input type="checkbox"/> Yes <input type="checkbox"/> No	Sec. Approval <input type="checkbox"/> Yes <input type="checkbox"/> No	
Eligible Applicant? <input type="checkbox"/> Yes <input type="checkbox"/> No	Award Amount: _____	
Permits Needed? <input type="checkbox"/> Yes <input type="checkbox"/> No	Award Date: _____	



KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF PLANNING

TC 59-113
Rev. 04/2024
Page 2 of 2

KENTUCKY PUBLIC RIVERPORT CONSTRUCTION AND MAINTENANCE (KPRCM) APPLICATION

SECTION 3: PERMITS AND APPROVALS

	YES	NO
Has the applicant consulted with state and federal agencies (US Army Corps of Engineers, US Coast Guard, US Fish & Wildlife Service, KY Division of Water, KY Heritage Council, etc.)?	N/A <input type="checkbox"/>	<input type="checkbox"/>
Has state and federal agency consultation determined permits are needed?	N/A <input type="checkbox"/>	<input type="checkbox"/>
Have all required permits (environmental, encroachment, etc.) been obtained?	N/A <input type="checkbox"/>	<input type="checkbox"/>

SECTION 4: SUBMISSION CHECKLIST (See guidance document for details.)

<input checked="" type="checkbox"/> Kentucky Public Riverport Construction and Maintenance Application
<input checked="" type="checkbox"/> Statement of Work
<input checked="" type="checkbox"/> Scope of Work
<input checked="" type="checkbox"/> Purchase quote or cost estimate for the project
<input checked="" type="checkbox"/> Project Schedule/Timeline
N/A Maps, aerial photos, drawings, and photographs, as needed
N/A Engineering plans, schematics, details, drawings of the proposed project, as needed
N/A Copies of all correspondence or evidence of consultation that has occurred with state and federal agencies, if applicable
<input checked="" type="checkbox"/> Required Affidavit for Bidders, Offerors and Contractors from applicant

SECTION 5: CERTIFICATION

I have read the Kentucky Public Riverport Construction and Maintenance Project Guidance Document and understand and agree to abide by what is stated therein. I agree that incomplete applications, applications missing any of the above required supporting documents, or applications received after the deadline, will be deemed ineligible by Division staff without consideration for KPRCM funds and returned to applicant. I also hereby certify, subject to the provision of KRS 523.100 (unsworn falsification to authorities), that the above information is true and correct to the best of my knowledge.

PRINTED NAME & TITLE	SIGNATURE	DATE
James H. Garrett		2/11/25

Completed applications and all required attachments must be submitted electronically in PDF format. Paper copies will not be accepted. Emailed applications must be received by the Division by date indicated in call for projects. PDF copies shall be sent via email to: KYTC.ModalPrograms@ky.gov



Kentucky Public Riverport Construction & Maintenance (KPRCM) Application

Sennebogen Clamshell Bucket Replacement



Point of Contact:	James H. Garrett
Applicant:	Paducah-McCracken County Riverport Authority
Applicant Address:	2000 Wayne Sullivan Drive Paducah, KY 42003

Phone: Office (270) 442-9326 Ext 3610

Cell (270) 556-7734

Email: jgarrett@paducahriverport.org

Total Project Cost: \$ 61,875.00

Grant Funding Application

Grant funds will be utilized to purchase a Bateman BCS2-350HD 3.5 cu/yd Clamshell Bucket. The 3.5 cu/yd clamshell bucket will replace the current 4.5 cu/yd clamshell bucket. The new bucket will allow the Sennebogen 870 Material Handler to perform within its design capacity throughout the entire unloading cycle.

With this correction in the bucket size, though the bucket volume is decreased by 1 cu/yd, cycle time is estimated to be reduced by 30-33%. This reduction in cycle time will allow for a quicker barge unloading time, and more importantly, a reduction in unscheduled and costly maintenance due to the machine being operated above its design operating capacity.

Qualifications and Eligibility

Paducah-McCracken County Riverport Authority (PMCRA) was founded in 1964 by the legislative bodies of McCracken County and the City of Paducah. The operating facility is located on the Tennessee River between river mile marker 1.3 and 2.0 on the left descending bank, near the confluence of the Ohio and Tennessee Rivers.

PMCRA is a major transhipper of bulk commodities servicing 14 counties in western Kentucky along with substantial shipments to TN, IL, and MO. Commodities transshipped through the port support State and Federal roadway projects, the expansion of the Kentucky Lock & Dam, commercial and residential construction projects, two manufacturing facilities employing over eighty (80) Kentuckians and the agriculture industry in Kentucky and the adjoining states. Our business partners have conveyed that the port directly supports over 600 jobs, not including those associated with the river industry or the four-state agriculture community.

The following picture provides an aerial view of the PMCRA facilities. These include a General Cargo Berth (GCB) and shoreside laydown cargo area. A separate Bulk Commodity Berth, (BCB) is used to discharge barges that is fed via conveyor to a 20-acre Bulk Commodity storage and transshipment yard. The Port also has over 100,000

square feet of warehousing, office buildings and additional outdoor storage areas. The two current areas associated with the Port's Radioactive Materials License (RAM) that are utilized for UF-6-cylinder storage and transshipments are also identified in the picture.

Paducah-McCracken County Riverport Authority – Aerial View



Statement of Work

The Bulk Cargo Yard receives incoming products by way of barge. The bulk cargos are unloaded utilizing a Sennebogen 870 R-HD E-Series Material Handler. The machine sets atop a marine cell is at an elevation of 340'. The normal pool on the Tennessee River at the unloading dock is at an elevation of 302'. This requires the bucket to reach 50' below the machine to fully unload material along the cargo hopper floor. The

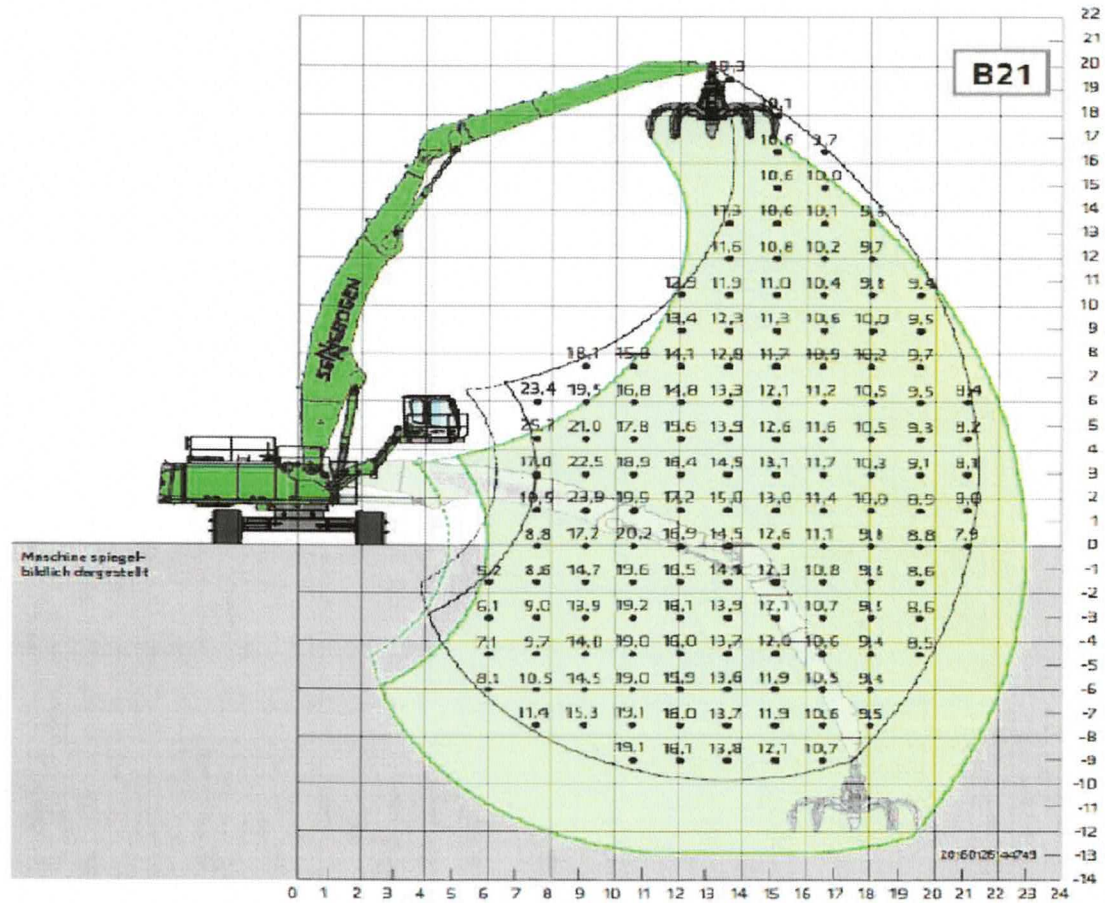
machine was originally and currently outfitted with a Bateman 4.5 cu/yd clamshell bucket. Through visual observation it was found the machine was incapable of lifting a full load at certain points within the cycle.

PMCR management requested a performance study be conducted by qualified Sennebogen representatives to evaluate whether the machine was exceeding its design lift capacity, to what degree, and to provide a recommendation.

On February 5, 2025, Sennebogen representative Mr. David LaFleur conducted a performance study and provided a model illustrating the lifting capacities throughout the entire cycle range. This included the furthest downward and outward points required to unload a 200' x 35' x 12' barge at a normal pool. The 4.5 cu/yd bucket fully loaded with dense grade limestone aggregate requires a hydraulic lifting capacity of 11.4 metric tons. The study (shown below) illustrates approximately 33% of the outermost reach (16'6") of the bucket cycle range is below the hydraulic lift capacity required to lift a fully loaded bucket weighing 11.4 metric tons.

Below (next page) is the Sennebogen report's "Performance Model" lift cycle capacity per meter. The numerical values represent "metric tons of hydraulic lifting capacity".

Note, the complete Sennebogen study is attached herein.



The study recommended downsizing to a 3.5 cu/yd. bucket. The 3.5 cu/yd bucket, fully loaded with dense grade limestone, requires 8.2 metric tons of hydraulic lifting capacity. The performance model illustrates that the new bucket size will be operating within the design hydraulic lifting capacity throughout 98.3% of the cycle range.

Note, the email letter of recommendation from Mr. Daivid LaFleur is attached herein.

Scope of Work

Purchase and install one (1) Bateman BCS2-350HD 3.5 cu/yd. Clamshell Bucket.

Project Purchase Quote and Cost Estimate



Brandeis Machinery & Supply Company
160 County Park Road
Paducah KY 42001
Phone 270-558-5278
www.brandeismachinery.com

Construction, Mining, & Forestry Equipment Sales, Parts, Service and *Certified Rental*

2/11/2025
Quote #: cporter-0206

PADUCAH-MCCRACKEN CTY RIVRPRT
P O BOX 2302
PADUCAH, KY 42002

Dear Jim Garrett,

Brandeis Machinery & Supply Company appreciates the opportunity to submit the following quotation for your review. As an established supplier of construction, mining, forestry and material handling equipment, we take this opportunity very seriously. We believe we can accomplish our mutual objectives of bringing economics and cost reduction to your organization. Every effort has been made to include the specifications needed for your application, however, we encourage a close review and dialogue to assure you are satisfied this machine meets your needs.

Bateman BCS2-350HD

Bateman - BCS2-350HD 3-1/2 cu yd Heavy Duty Clam Shell Bucket NO rotation, openback bowls, synchronized bowls, bolt on cutting edges. To fit existing dredging extension. Freight and Installation included

Sale Price FOB: Paducah, KY	\$61,875.00
Net Selling Price: (plus any applicable taxes,UCC1 & Doc Fees)	\$61,875.00

NOTE: No price, terms or descriptions in this proposal shall supersede any published terms and conditions of a fully executed Purchase Contract. Terms of sales are subject to credit approval and subject to prior sale.

Thank you for the opportunity to submit this proposal, which will remain valid for 30 days. Price is subject to availability and does not include applicable taxes. Should you have any questions, please feel free to contact us. We look forward to earning your business!

Respectfully,

Chad Porter
Sales Representative

Project Schedule and Timeline

The project is estimated to take six months from the time the purchase order is released, bucket is manufactured, and final installation.

Maps, Engineering Plans, or Consultation Correspondences

Due to the simplicity of the project, it was determined no permits were required thus no direct correspondences were required with federal or state agencies. No engineering plans were required with the exception of the Sennebogen performance modeling included herein.

Summary

On behalf of my colleagues at PMCRRA, our business partners and the citizens of the City of Paducah, McCracken County, and the adjacent Western Kentucky counties that we service, I would like to thank you for your consideration of this critical infrastructure refurbishment project within our facility. Should you have any questions or require any additional clarification, please do not hesitate to contact me.

Respectfully submitted,



James H. Garrett
Executive Director

Paducah-McCracken Country Riverport Authority

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---



Sennebogen 870 update

From dlafleur65@gmail.com <dlafleur65@gmail.com>
Date Tue 2/11/2025 8:46 AM
To Jim Garrett <jgarrett@paducahriverport.org>
Cc Brandon Karem <brandon_karem@bramco.com>

 1 attachment (890 KB)

Paducah 870R-HD E-Series B21 Project-Model Electric1.pdf;

Mr Garrett,

Thank you again for the time last week. As discussed I have attached the layout drawing for your site.

Also as discussed I think the current best course of action is to reduce the capacity of the clamshell bucket you are using from 4.5cy to 3.5cy. This will bring the total load back into the machines load chart and eliminate the need to "drag" the loaded bucket back to the machine. This will relieve stress on the bucket, extension and machine.

If you have any questions please let me know.

Best regards,



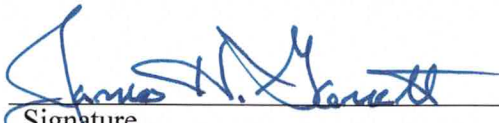
**Required Affidavit for Bidders, Offerors
and Contractors
(KRS 45A.110 & 45A.115)**

Affidavit Effective for One (1) Year from Date of Execution

Instructions: Pursuant to KRS 45A.110 and 45A.115, a bidder, offeror, or contractor ("Contractor") is required to submit a Required Affidavit for Bidders, Offerors, and Contractors to be awarded a contract, or for the renewal of a contract. An authorized representative of the contracting party must complete the attestation below, have the attestation notarized, and return the completed affidavit to the Commonwealth.

Attestation

As a duly authorized representative for the Contractor, I swear and affirm under penalty of perjury, that that the Contractor has not knowingly violated campaign finance laws of the Commonwealth of Kentucky and that the award of a contract will not violate any provision of the campaign finance laws of the Commonwealth. For purposes of this attestation, "Knowingly" means that the bidder or offeror is aware or should have been aware of the existence of a violation. The bidder or offer understands that the Commonwealth retains the right to request an updated affidavit at any time.



Signature
Executive Director

Title

James H. Garrett

Printed Name
02/10/2025

Date

Bidder or Offeror Name: Paducah McCracken County Riverport Authority
Address: 2000 Wayne Sullivan Drive
Paducah, KY 42003

Commonwealth of Kentucky Vendor Code (If known): _____

Subscribed and sworn to before me this 10 day of February, 2025.

State of: Kentucky Notary: Jessica L. McDowell

County of: McCracken My Commission Expires: July 22, 2027

