



Port of Johnstown

A Division of Edwardsburgh/Cardinal Township

2024 CAPITAL BUDGET

March 20, 2024 Rev. 1

2024 Capital Budget Commentary

Background

It is important to note the following:

- 1) Budget must be approved by the POJ committee and council.
- 2) Any approved budgeted project over \$75,000 must then be brought back to the committee for final approval; however, it does not have to go back to council.
- 3) Any approved budgeted project that is below \$75,000 does not require a second approval and is within the GM's delegation of authority to proceed with the project. This is why the projects are divided into Major Projects (over \$75,000) and Minor Projects (under \$75,000).
- 4) Any non-budgeted item must be brought forward by the POJ Management Committee to council for approval.
- 5) The Township Procurement Policy must be followed at all times for all projects.

Port staff have separated the various proposed projects into two main categories in which to allocate capital projects as a first step in this process.

These were as follows:

I – Maintenance – This category is further broken down into:

Property: Land, Structures, and Equipment

Preventative Maintenance

Equipment Replacement

II- Growth – This category is further broken down into:

Automation

Expansion

The capital budget process begins with discussions with port staff listing all projects on a spreadsheet. In determining the priority of projects, a point system is used whereby various key indicators such as: Health and Safety, Return on Investment, Efficiency/Improvements and Preventative Maintenance are rated. Staff then reviews this list along with the timing of the project and the potential interruption to customer service, engineering studies that may be required and cash flows of the business. The following is a brief commentary of each project that is planned on being completed and/or started in 2024.

Capital Projects – Major (over \$75,000 each)

I – Maintenance

Property: Land, Structures, and Equipment

1. Paving Projects - \$300,000

There were 5 areas identified that require resurfacing at the Port. A summary of these areas are shown below:

1. East of the Track shed – 900 m²
2. West side of the Track shed – 500 m²
3. Rail track #2 east of Track shed – 280 m²
4. Rail crossing at the main dock entrance – 110 m²
5. South of the Annex Bins – 1200 m²

Area #1 is due to normal wear and tear due to heavy truck traffic over the years.

Area #2 is also due to wear and tear but, also includes a widening of the road for the trucks exiting the loading area on the north side of the building. This area becomes very congested at harvest when the trucks have to merge with trucks exiting #6 receiving pit. The widening of the road will create a safer area during this time.

Areas #4 and #5 deal with the rail that is currently in place where the asphalt is deteriorating due to heavy truck traffic. The plan for these areas is to replace the asphalt with concrete to provide a more stable and longer lasting base.

Area #5 south of the current annex bins is a repair of the existing asphalt and a widening of the road. The edges of this area are deteriorating by trucks moving as far to the left as possible before starting their right hand turn into the annex. Widening this area will provide a larger turning radius for the trucks entering the annex which in turn will reduce the wear and tear on the current asphalt.

Completing all areas will depend on Bid Tender Results.



Area #1 and Area #3 - East side of Track shed



Area #2 - West side of Track shed



Area #5 at Annex – South of bins



Area #4 - Rail crossing at main entrance

2. Grain Elevator Concrete Repair Project - \$400,000

With the concrete repair work completed on the outer bin walls of the grain elevator, the next phase of the work is to repair the exterior basement walls of the aging grain elevator. This work began in 2023 and will continue over the next 4 years at an estimated cost of \$1.6 million dollars. This work will ensure that the main elevator structure is sound for many years to come.



3. Spouting Repair for Grain Shipping Area – (Truck Loading) - \$100,000

The spouts to the truck loading area have started to sag due to age and usage over time. This has led to longer loading times for trucks. The project will replace the spouting from the turnhead floor to the loading spout on Track 4. This will remove the sag in the spout and decrease the angle in the spout in order to maintain the proper grain flow to the spout. This will improve the loading efficiency for trucks.



Preventative Maintenance

4. Exterior Covering for Elevator - \$250,000

An exterior covering needs to be applied to the bin walls in order to protect the major repairs that have been completed. The purpose of the coating is to keep moisture from penetrating the concrete to extend the effectiveness of the repairs and extend the longevity of the repairs. The best coating for this application appears to be a rubberized elastomeric coating that will stretch with movement and remain water resistant. The photo below shows the work that was completed in 2023.



II – Major Capital Projects – Growth

Expansion

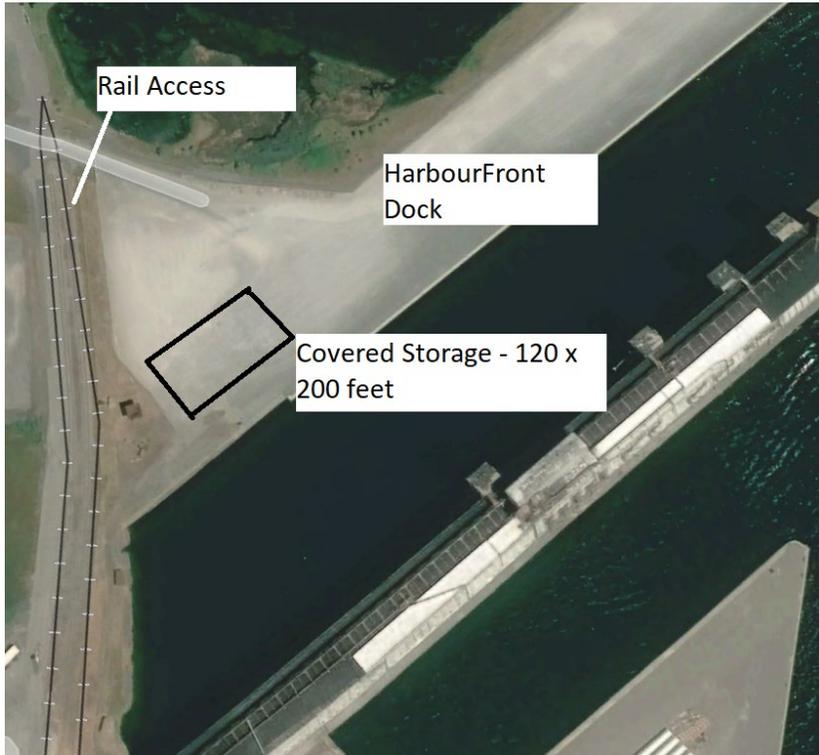
5. New Container Loading Spout - \$300,000

A new customer approached the Port with a plan to load sea containers. They have provided a letter of intent stating that they want to load 1000 MT per month, which equates to 50 sea containers. The project is to purchase, install and commission a loading spout designed specifically for this loading operation. The loading spout will be placed in the new truck lane being proposed in the receiving area project.



6. New Covered Storage Building - \$1,250,000

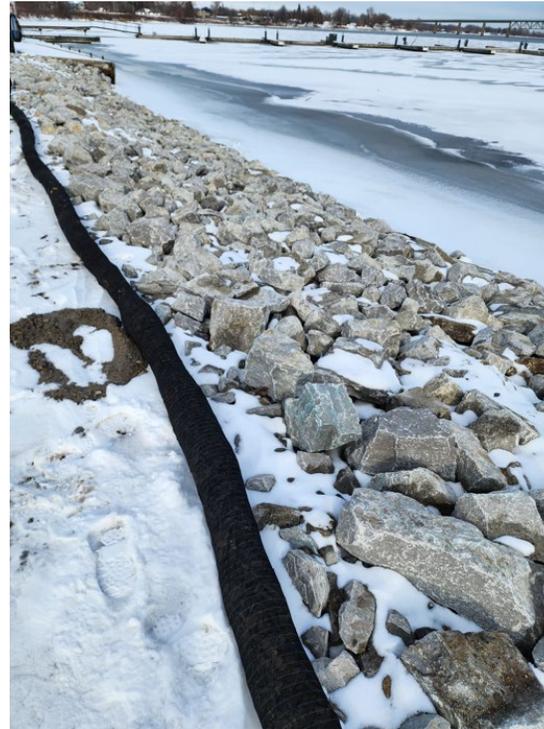
The Port currently has no covered storage available on their docks resulting in potential lost business. There have been several inquiries in 2023/2024 regarding projects that require immediate storage alongside the dock. The Harbourfront dock is an ideal area to erect a building as it has access to marine, rail and truck modes of transportation. A further business plan will need to be developed and presented to the Committee.



Major Capital Projects – Carryover from 2023

7. Marina Waterfront – Shoreline repair and walkway - \$245,297

This project was awarded in 2023 and the work began in January of 2024. The first part of the project has been completed. This included the removal of the failing cope wall and was replaced with a berm, eliminating the safety hazard as shown in the picture below. The next phase of the project is to complete a walkway that will provide a safe path to the Marina's dock pier.



8. Generator Repairs - \$25,000

The current generator used to supply power to the offices at the Port requires an upgrade of its fuel tank to comply with TSSA regulations. The project was scheduled in 2023 with an approved budget amount of \$100,000. The installation of the new fuel tanks, moving the generator and the connections to the generator were completed in 2023 at a cost of \$73k. The generator itself requires additional parts in order to get it running and those have been ordered and we are waiting for their delivery.

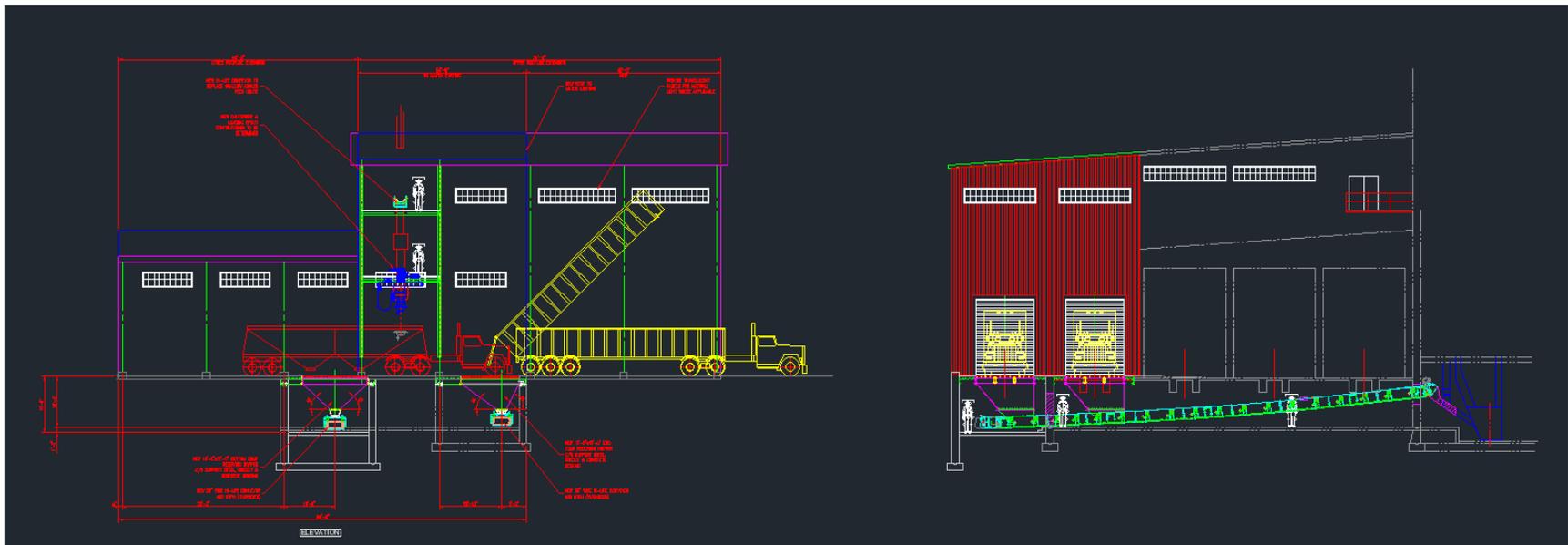
9. Track Shed – Repairs and Modifications - \$2,300,000

The concrete floor in the receiving area is showing its age as cracks and chips are appearing in the floor. An engineering assessment was completed in 2022 that indicates the floor could be repaired and not replaced as indicated in a previous study. Gauges were installed in the cracks in 2019 to monitor their movement and we have not seen any movement to date. In addition to the floor, the GMP+ audit identified an issue with #6 receiving pit being so close to the outer end of the building that it allowed precipitation to enter the pit to contaminate the grain. The audit recommended a roof line over the pit to protect it from the elements. Therefore, there are three main objectives for this project:

1. Repair the floor in the receiving area.
2. Place a roof line over #6 receiving pit to protect it from the weather.
3. Add an additional receiving pit to the receiving area in the main building.

Changes to corn delivery schedule at the ethanol plant in 2022 effectively blocked access to the receiving pit at the annex during the peak soybean harvest. The customer demand for unload appointments during this time requires access to three receiving pits. This is the rationale of adding an additional receiving pit into the main building. The internal infrastructure is already in place for the additional pit and will involve less handling of the grain compared to receiving at the annex.

Shown below is the proposed design of the receiving area that shows the roof over #6 receiving pit and the new receiving pit.



10. POJ Warehouse - Land Development - \$50,921

Phase I of this land development was completed in 2023 and included clearing 22.26 acres of land. The carryover amount is being used for a topographic survey and a drainage plan. This will be used in developing a plan for Phase II of the project.

11. New Grain Dryer and Storage Bins - \$4,283,272

The annual grain volumes at the Port continue to increase. The demand for grain drying services is also increasing and the current grain dryer is unable to meet the added demand. A new grain dryer would enable the Port to begin receiving wet corn at the beginning of the corn harvest when the demand is greatest. The annex is the ideal location for the new grain dryer as the majority of corn coming to the Port is stored at this location. The approval to proceed with the new grain dryer was granted at the January Port Management Committee meeting.



Minor Capital Projects – Below \$75,000

12. Install Auto lubricating system on Grain Trips - \$10,000

The grain trips are the machines that move up and down the conveyor belts and distribute the grain into the grain bins. They have several points that require regular lubrication. The object of this project is to automate the task in order that the trips receive the required lubrication at specific intervals. The expectation is that will lead to more trouble-free operation and less downtime.

13. New hydraulic cylinders for Scale Test - \$10,000

An additional set of cylinders for the quarterly scale tests so the employees do not have to carry them between the rail and marine scales.

14. New Steam and Weed for Weed Removal - \$40,000

The weeds that grow along the docks and buildings adjacent to the water cannot be treated with chemicals as in other areas of the Port due to their proximity to the water. The steam and weed machine is an environmentally friendly method of killing the weeds in the areas described above.

15. Dust System Upgrades - \$75,000

Housekeeping always presents challenges in a grain elevator due to the dusty nature of grain. The objective of this project is to reduce the amount of airborne dust. Adding additional trash gates to existing dust collection in basement. Fabricate boots for bin bottoms for bin cleaning and grain running (shown below). Fabricate dust hoods for loaders and trips on bin floor.

Before:



After:



16. Replacement parts for Scale Gates - \$10,000

The gates on the scales are used to control the outbound flow of grain out of the scales after weighing. This project is to acquire spare controllers for the scale gates.

17. New Spouting at Annex between diverter valve and conveyor to main building - \$15,000

The spouting described requires replacement due to normal wear and tear.

18. New motor and reducer for #8 Receiving Conveyor - \$6,500

#8 Receiving conveyor handles roughly 65% of the inbound shipments into the main building. The motor and reducer need replacement due to normal wear and tear. The objective is to complete the replacement to prevent a failure during the harvest season.

19. New Belt for Loft #2 - \$32,500

The rubber belting on Loft #2 (marine) is showing signs of significant wear and is being replaced as a preventative maintenance issue. This belt is more expensive than the marine loft belts as they are slightly larger and have a higher capacity than the belts at the rail house.

20. Replacement of Aerators - \$50,000

The Port utilizes aerators in some of the bins in the main building to provide air movement for cooling of the grain to keep it in condition while in storage. The current aerator pipes were installed in the late 70's and early 80's. They are currently failing mainly due to age and use over the last 40 years. To date, several of the aerators have been replaced or repaired as required. The objective of the project is to continue with this work. There are approximately 30 aerators that need to be repaired or replaced over the next 5 to 7 years.

21. New Belt for Loft #7 - \$27,500

The rubber belting on Loft #7 (rail) is showing signs of significant wear and is being replaced as a preventative maintenance issue.

22. New Buckets for Lofts - \$40,000

Polyethylene buckets are attached to the loft belts in order to elevate the grain to the scales. The buckets should be replaced whenever the belt is changed. This project will cover the purchase of the new buckets for both lofts #2 and #7.

23. New motor and reducer for Dryer Unload Table - \$6,500

The dryer unload table is the part of the dryer that controls the unload speed of the dryer. The motor and reducer need replacement due to normal wear and tear. The objective is to complete the replacement to prevent failure during the harvest season.

24. Replacement of the Existing Grain Probe - \$45,000

The grain probe is used at the grading station to take samples from the trucks delivering grain to the Port. The sample is then graded and has a grade assigned to it so that it may be unloaded and binned correctly. The current probe requires more frequent repairs due to normal wear and tear. This project will replace the probe with a new unit as a preventative maintenance initiative.



25. Rail Repair - \$75,000

The rail inspections have identified some rail ties at the track switches that need replacement. The ties in question are beginning to deteriorate due to normal wear and tear. The track switches allow the train to change the track they travel on and as such are high wear areas. In addition, the monthly track inspection has identified approximately 100 m of track that needs resurfacing which will be done at the same time.

26. New snow pusher for Telehandler - \$5,500

This will add the ability to the new telehandler to plow snow more effectively in the winter.



27. Raise Roof on Existing Garage - \$75,000

The Port is in need of covered storage to protect its equipment from the elements to increase its life span, especially the Trackmobile. In the past, the scale house at the annex has been used for storage but, the increased activity in this area has made this challenging. The current garage at the Port does not have the height to accommodate the Trackmobile. Therefore, this project will raise the roof on the existing garage so that the height will accommodate the Trackmobile to provide year-round covered storage for the unit.



28. New Coverall Storage of Equipment - \$75,000

The Port has a shortage of covered storage for its equipment. The Port needs covered storage to protect its equipment from the elements to increase the life span of the equipment. The Port has several pieces of equipment that remain outside year-round such as the tractor, large mower for the tractor, two Bobcats, and the conveyance. The new coverall will provide the required storage.

2024 Capital Budget - Major

Rev. 1 March 21, 2024

Major Capital projects for 2024 - over \$75,000				
Project No	Project	Type	2024	Description
1	Paving Projects	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 300,000	Annual paving is required to keep up to repairs
2	Grain Elevator Concrete Repair Project - exterior basement walls	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 400,000	Continue Concrete Repair Project - Basement
3	Spout repair for Shipping Area	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 100,000	Replace spouting to truck loading Spouts. Spout is starting to sag based on age and is slowing down the loading process.
4	Grain Elevator Bin Walls - Exterior covering	MAINTENANCE - PREVENTATIVE MAINT.	\$ 250,000	Continue covering North side of building where 75% bins leaking
5	New Container Loading Spout	GROWTH - EXPANSION	\$ 300,000	A new customer has provided a letter of intent wanting to load 50 sea containers each month at the Port.
6	Covered Storage - Bulk Cargo HarbourFront Dock	GROWTH - EXPANSION	\$ 1,250,000	Construct covered storage for future cargo - Fertilizer business
Total Major Capital Projects			\$ 2,600,000	

2024 Capital Budget - Carryover

Major Capital projects for 2024 - over \$75,000 - CARRYOVER				
Project No	Project	Type	2024	Description
7	Marina Waterfront - Shoreline repair and walkway	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 245,297	Project awarded in 2023 and started in January 2024. Shoreline completed, Walkway to access boat pier - May/June 2024
8	Generator - Repair	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 25,000	Repair current generator
9	Track Shed - Repairs and modifications (Truck Receiving/Shipping)	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 2,300,000	that floor should be taken out and reinstalled with a floor that will meet the demands placed upon it. Look at moving pit back to keep it sheltered from the weather. Pre engineering assessment
10	POJ Warehouse - Land Development - Survey and Drainage study	GROWTH - EXPANSION	\$ 50,921	Complete Survey and Drainage study - Prepare Tender for Phase II
11	New Grain Dryer / Grain Storage Bin - Government Funding - Port's portion	GROWTH - EXPANSION	\$ 4,283,272	2024 Annex dryer.
Total Major Capital Projects - Carryover from 2023			\$ 6,904,490	

2024 Capital Budget - Minor

Project No	Minor Capital - Below \$75,000			Description
	Project	Type	Priority 2024	
12	Install auto lubricators on trippers	MAINTENANCE - PREVENTATIVE MAINT.	\$ 10,000	Improve the efficiency for lubrication
13	Hydraulic Cylinders for Scale test	MAINTENANCE - PREVENTATIVE MAINT.	\$ 10,000	Safety concern - add additional cylinders
14	Steam/N' Weeds - environmentally safe weed control	MAINTENANCE - PREVENTATIVE MAINT.	\$ 40,000	For removal of weeds around dock edge etc. - Much safer and efficient.
15	Dust system	MAINTENANCE - PREVENTATIVE MAINT.	\$ 75,000	Gates for floor sweeps to reduce leakage loss. Improve belt sweeps and loader hoods
16	Replacement parts for scale gates	MAINTENANCE - REPLACE EQUIPMENT	\$ 10,000	Spare parts for the new marine scale gate project that was completed 2023
17	Annex Spout from diverter valve to annex to house conveyor	MAINTENANCE - REPLACE EQUIPMENT	\$ 15,000	Needs replacing due to wear
18	New reducer and motor for 8 receiving conveyor	MAINTENANCE - REPLACE EQUIPMENT	\$ 6,500	Needs replacing due to wear
19	Belt for marine lofter 2	MAINTENANCE - REPLACE EQUIPMENT	\$ 32,500	Needs replacing due to wear
20	Replacement of Aerators	MAINTENANCE - REPLACE EQUIPMENT	\$ 50,000	Continue to replace aerators as they fail. Current aerators were installed in 70's and 80's. They are beginning to corrode and collapse which renders them ineffective in drawing air through the grain. This amount is for 10 aerators.
21	New belt for lofter 7	MAINTENANCE - REPLACE EQUIPMENT	\$ 27,500	Needs replacing due to wear
22	New buckets for lofters 2 and 7	MAINTENANCE - REPLACE EQUIPMENT	\$ 40,000	New buckets for lofter belt replacement (Approx. 1450)
23	Reducer and motor for dryer unloading turntable	MAINTENANCE - REPLACE EQUIPMENT	\$ 6,500	Needs replacing due to wear
24	Replace probe at existing probe station - QC	MAINTENANCE - REPLACE EQUIPMENT	\$ 45,000	20 year old probe requires replacement
25	Rail Repair	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 75,000	Rail ties for switches. Width Gauge at KD85
26	Snow pusher for new Telehandler	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 5,500	For snow removal
27	Upgrade existing garage	GROWTH - EXPANSION	\$ 75,000	Upgrade building for larger door for Trackmobile storage. Also gives maintenance building to do maintenance in.
28	New coverall storage for equipment	GROWTH - EXPANSION	\$ 75,000	Coverall to store equipment/materials in.
Total Minor Capital for 2024			\$ 598,500	

Total Capital 2024 (Major + Major Carryover + Minor Capital) \$ 10,102,990

Cash Flow 2024	
Current Operating Account as of Feb. 29, 2024	\$ 9,052,518
Investments as of Feb. 29, 2024	\$ 6,376,319
2024 budgeted surplus	\$ 4,700,000
Total \$\$ - not including bank interest	\$ 20,128,837
Capital funds required for 2024	\$ (10,102,990)
Remaining funds - Operating Account / Investments	\$ 10,025,847

2024 Capital Identified - 5 Year Forecast

Project No	Future Capital Identified for 2025 to 2029 - Five Year Forecast			Description
	Project	Type	5 year Estimate	
	Grain spouting in building	MAINTENANCE - PROPERTY - Land, Structures, and Equipment - Annual work	\$ 250,000	Replace grain spouting throughout the building that is worn out. It would also allow new materials in high impact areas to increase the life span of the spouts.
	Elevator and office Roof Repair	MAINTENANCE - PROPERTY - Land, Structures, and Equipment - Annual work	\$ 375,000	Ongoing project to ensure roof remains water tight. A leaking roof could lead to grain quality issues as well as structural issues.
	Paving Projects - Continual Maintenance	MAINTENANCE - PROPERTY - Land, Structures, and Equipment - Annual work	\$ 1,250,000	Annual paving is required to keep up to repairs
	Rail Repair	MAINTENANCE - PROPERTY - Land, Structures, and Equipment - Annual work	\$ 250,000	Rail ties for switches. Width Gauge at KD85
	Dust System	MAINTENANCE - PREVENTATIVE MAINT.	\$ 375,000	Replacement parts required to maintain efficiency of dust system. This is important in controlling dust to prevent bug infestations grain elevator potential fire hazards
	Grain Elevator Bin Walls - Exterior covering	MAINTENANCE - PREVENTATIVE MAINT.	\$ 2,500,000	This is a 5 year project to seal our bins walls to protect the quality of the grain.
	Electrical Feeders	MAINTENANCE - PREVENTATIVE MAINT.	\$ 1,000,000	Electrical feeders will require replacement in the next 5 years. There is one in the marine and 2 in the rail house.
	Grain Elevator Concrete Repair Project - exterior basement walls	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 1,200,000	This is a 4 year project to replace the concrete that is over 85 years old and is experiencing spalling
	Repair Port Dock - Includes RO RO barge unloading (\$634,000) 2026-2027	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 8,217,000	The Port dock requires repairs. Recommend within 2 to 4 years. Engineering Report to follow 2nd qtr
	Repair Elevator Dock - Rock Berm (2026-2027)	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 850,000	A berm will be place along bottom of Grain Elevator dock. Recommend 2 to 4 years. Engineering report to follow 2nd qtr.
	Replace current Grain Dryer	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 2,500,000	Review condition - estimated 2029
	Replace Bobcat (one left to replace in 2025)	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 400,000	Current bobcats are over 30 years old and are in need of replacement. Need to identify best options that will most benefit operations at the Port.
	Removal of Old Marine Towers	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 1,500,000	Three of the towers are no longer used.- Review steel pricing and wait for increase in scrap steel.
	Conveyor Belt	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 250,000	Replace worn out conveyor belts

Project No	Future Capital Identified for 2025 to 2029 - Five Year Forecast Cont'd.			
	Project	Type	5 year Estimate	Description
	Grain oil additive to reduce grain dust	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 50,000	Further research is required
	Salt Management - Retention Pond	MAINTENANCE - PROPERTY - Land, Structures, and Equipment	\$ 1,000,000	Potential reg changes
	Automate basement bin valves	GROWTH - AUTOMATION	\$ 1,000,000	Phase II - Automate approx. 15 bin valves in basement to facilitate extended vessel loading hours
	Grain Grading/Quality Lab with Automated probing + widen road	GROWTH - AUTOMATION	\$ 1,000,000	Improve efficiency and customer service
	Grain transfer System	GROWTH - AUTOMATION	\$ 1,000,000	A system designed to transfer grain from the east section of the elevator to the west section of the elevator
	Expand Rail to Uplands II	GROWTH - EXPANSION	\$ 3,000,000	Based on receiving grant and future steel loading
	Land Development - Phase III,IV,V - 15 acres	GROWTH - EXPANSION	\$ 3,000,000	Develop additional area for future business
	Additional Grain Bin for storage	GROWTH - EXPANSION	\$ 3,000,000	Increase grain storage capacity
	Security Cameras / Fencing	GROWTH - EXPANSION	\$ 300,000	Security fencing and cameras to cover more of the property
	Minor Capital over 5 yrs at \$450k pr year	Minor Capital (Projects under \$75k each)	\$ 2,250,000	Annual Minor capital over a five year period
Total 5 year outlook			\$ 29,317,000	

Forecasted Cash Requirements 2025-2029	
Projected surplus - based on \$4.5 million x 5 years	\$ 22,500,000
Remaining Funds based on 2024 capital budget	\$ 10,025,847
Total Funds available - Not including bank interest	\$ 32,525,847
Total Projected future spending 2025-2029	\$ (29,317,000)
Net Projected \$\$\$ Remaining	\$ 3,208,847

Summary of Projected Spending 2024-2029	2024	2025-2029
Capital \$\$ - GROWTH	\$ 4,484,193	\$ 11,300,000
Capital \$\$- MAINTENANCE	\$ 5,618,797	\$ 18,017,000
Total	\$ 10,102,990	\$ 29,317,000