Port of Houston Authority
FY 2023 Port Infrastructure Development Program Grant Application

APPLICANT INFORMATION

Project Name:
Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion

Applicant Name
Port of Houston Authority

UEI#
JNGVKR5UVAM5

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Date
April 28, 2023

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Introductory Information

2023 Port Infrastructure Development Program (PIDP) Project

Field Name	Response
Name of Lead Applicant	Port of Houston Authority
Is theapplicant applying as a lead applicant with and private entity partners or joint applicants	No other applicants will be on this project
Project Name (Concise Title From SF-424)	Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion
Project Description	The project will construct a 42 acre Container Yard, procure 19 electrical yard tractors, and charging infrastructure at the Bayport Terminal to continue the efficient movement of freight in the supply chain. The construction includes but is not limited to container yard grading and drainage, utilities, power roller compacted concrete (RCC) and/or other types of concrete pavement used in the storage of containerized cargo and other components required for upgrade.
Is This a Planning Project?	No
Is the project at a coastal, Great Lakes, or inland river port?	Coastal
Is this project located in a non contiguous State or U.S. territory?	No
GIS Coordinates (Latitude and longitude Coordinates)	29.609271, -94.997874
Is this a urban or rural area?	Urban
Project Zip Code	77586
Community Development Zone?	No
• Historically Disadvantaged Community or Community Development Zone?	No
Has the same project been previously submitted for PIDP fudning?	Yes
Is tha applicant applying for other discretionary grant programs in 2022 for the same work or related scopes of work?	No
Has the applicant previously received TIGER, BUILD, RAISE, FASTLANE, INFRA or PIDP funding?	TIGER FY 13, PIDP FY 19, INFRA FY 20, PIDP FY 21
PIDP Grant Amount Requested	$64,500,185
Total Future Eligible Project costs	**$129,000,370**
Total Project Cost	**$129,000,370**
Total Federal Funding	$64,500,185
Total Non-Federal Funding	$64,500,185
Will RRIF or TIFIA funds be used as part of the project financing?	No

Project Description

The "Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion" project will provide significant economic benefits including job creation and support of petrochemical, manufacturing, and agricultural logistics.

The total estimated future cost of $129,000,370 would be supported by this request of $64,500,185. The proposed local cost share is 50 percent of the total, with 50 percent federal support requested.

The Port of Houston Authority of Harris County, Texas (the "Port Authority" or Port of Houston Authority) owns and operates a diverse group of facilities handling general cargo, containers, grain, coal, dry and liquid bulk, and project and heavy-lift cargo. Bayport Container Terminal ("Bayport Terminal"), the premier intermodal facility on the U.S. Gulf Coast, keeps the supply chain moving by optimizing productivity and providing fast turnaround for container vessels.

Bayport Terminal provides 4,000 linear feet of berthing space for these vessels, with projects underway to expand this to 6,000 feet of wharf. When fully developed, the terminal will

have a total of nine container berths totaling 10,500 feet, with the capacity to handle 4 million Twenty- foot Equivalent Units (TEUs) (the standard container measure) for a complex that includes 376 acres of container yard and a 123-acre intermodal facility.

The recent growth in the supply chain underscores the need to design and construct a 42-acre container yard at Bayport Terminal (the "New Container Yard"). This additional yard is imperative to handle the current demands of cargo and keep the supply chain moving by maximizing terminal and wharf efficiency and productivity.

President Biden's statement on October 13, 2021, regarding his administration's infrastructure bill, drives and supports this Port Authority request for funding.

> "***The bill would also make investments in our supply chains and manufacturing and strengthening our ability to make more goods, from the beginning to end, right here in America. The bottom line: We've seen the cost of inaction in the pandemic in the delays and the congestion that affect every American."*** [1]

In addition, the use of electric yard tractors will begin with the development of the New Container Yard. Yard tractors are used to move the containers (TEUs) which are stacked in the container yards. The current fleet consists of mostly diesel yard tractors. This application requests 19 electric yard tractors and related charging infrastructure to advance the Port Authority's goal for reducing emissions and achieving carbon neutrality. The United States has a similar goal to shift to cleaner transportation. These goals were stated in a press release from December, 2021.

> **"'These investments [from the Port Infrastructure Development Program] will support the shift to cleaner transportation, which will create more economic activity and good paying jobs,'** said the Acting Maritime Administrator Lucinda Lessley. 'The Port Infrastructure Development Program is an important part of building back better for our ports, our communities, our economy, and our people.'" [2]

The *"Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion"* project will expand terminal container yard capacity and directly mitigates the negative impacts of increased demand, which will alleviate delays and congestion at the Port Authority for both the export and import supply chain.

The scope of the work required for design and construction of the New Container Yard at Bayport Terminal includes the following:

- 30% to 100% engineering to include:
    - Container yard structural design and construction package
    - Refrigerated (Reefer) infrastructure;
    - Environmental Assessment Update (currently underway); and
    - Electrical expansion;
- Site Preparation;

- Grading;
- Drainage;
- Utilities;
- Power roller compacted concrete (RCC) and/or other types of concrete paving;
- Signage, and markings;
- Electrical, lighting, and communications; and
- 19 electric yard tractors and mobile charging units.

The Port Authority has seen increased demand and has made extraordinary efforts to address the resulting increase in the proposed New Container Yard. Design and construction of the New Container Yard will complement current infrastructure investments at Bayport Terminal with over $530 million, intended to grow the Port Authority's ability to handle increased cargo without adding to congestion. These include:

- Construction of Container Yard 6, 48 acres ($49.9 million, completed);
- Construction of Container Yard 7, ($49.5 million, completed; applied for funding, not awarded);
- Construction of a public transportation project to expand Port Road from four to six lanes, including drainage improvements ($16.5 million, completed; partially funded with $9.675 million in Texas Department of Transportation ("TxDOT") grant funding;
- Dedicated right turn and U-turn traffic efficiency projects (estimated $2.9 million, Completed);
- Widening of the Bayport Terminal gate turn lane ($39,000, completed);
- Construction of Wharf 6 (estimated $94 million, under construction; funded 23 percent with PIDP FY 2019);
- Construction of Wharf 7 (estimated $102 million, under design);
- Construction of Container Yard 8 49 Acres (estimated $102 million, design completion anticipated in late 2023, construction start anticipated in 2024; funded with $18.3 million PIDP FY 2021 award); and
- This project, **"Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion"** (estimated $129,000,370 with a request of $64,500,185 or 50% of the overall project cost; previously applied in 2022, not awarded).

The construction of **"Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion" project** and related investments are key initiatives to meet the supply chain demands. The benefits of the New Container Yard investment include:

- Incremental economic impact to the region and nation via the increase in yard capacity:
    - Net of the revenue accruing to the Port Authority, the economic impact is estimated to amount to up to $22.9 million per year (undiscounted). (Note: Reference Economic Impact Attachment Economics tab.)
- Job creation – a total of 3,143 good-paying jobs – is also estimated to be significant:
    - 943 direct jobs (including many union members), 1,360 induced jobs, and 841 indirect jobs. (Reference Appendix 1, Economic Impact Attachment Jobs tab.)
- Significant efficiency and air quality estimated impacts:

- 11 million hours of truck idling saved
- $357 million in truck turn-time reductions (undiscounted)
- $31.3 million emission reduction benefits (undiscounted)

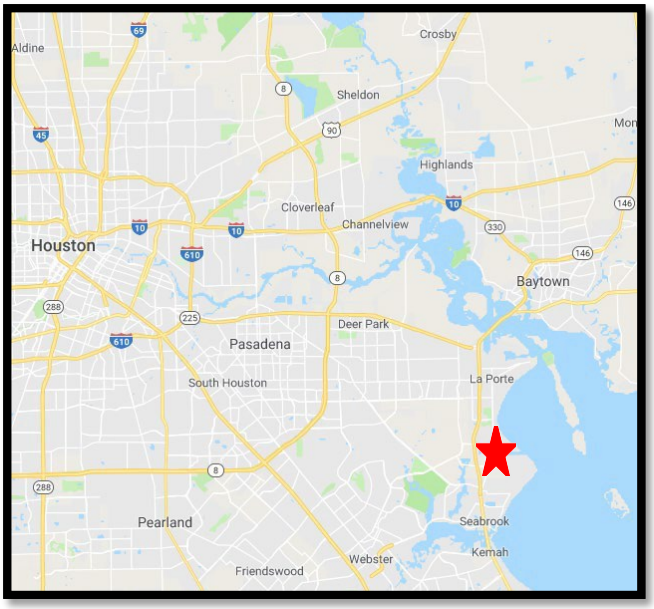
(Note: Reference BENEFIT COST ANALYSIS (BCA) Turn Time Efficiency and Emission tabs.)

The "Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion" project merits approval for a Port Infrastructure Development Grant Program award because it demonstrates:

- **Strong economic impacts**
- **Good-paying job growth, both union and non-union**
- **Sustainable long-term benefits:**
  - **Maintains the reliability of and improves the movement of goods through the Port Authority and the entire supply chain;**
  - **Contributes to economic growth and mitigates emissions in surrounding communities, including Historically Disadvantaged Communities; and**
  - **Improves Port Authority operational efficiencies.**

Project Location

- Figure 1: Project location map



The "**Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion**" project is located within the Port Authority's Bayport Terminal in east Harris County, Texas. The Port Authority is a navigation district, a political subdivision of the State of Texas with boundaries that are generally coterminous with Harris County. Harris County includes nearly 5 million people with 295 Census tract areas of persistent poverty, as listed in the table provided by U.S. Department of Transportation. The project is also located in the Census-designated Urbanized Area of Houston.

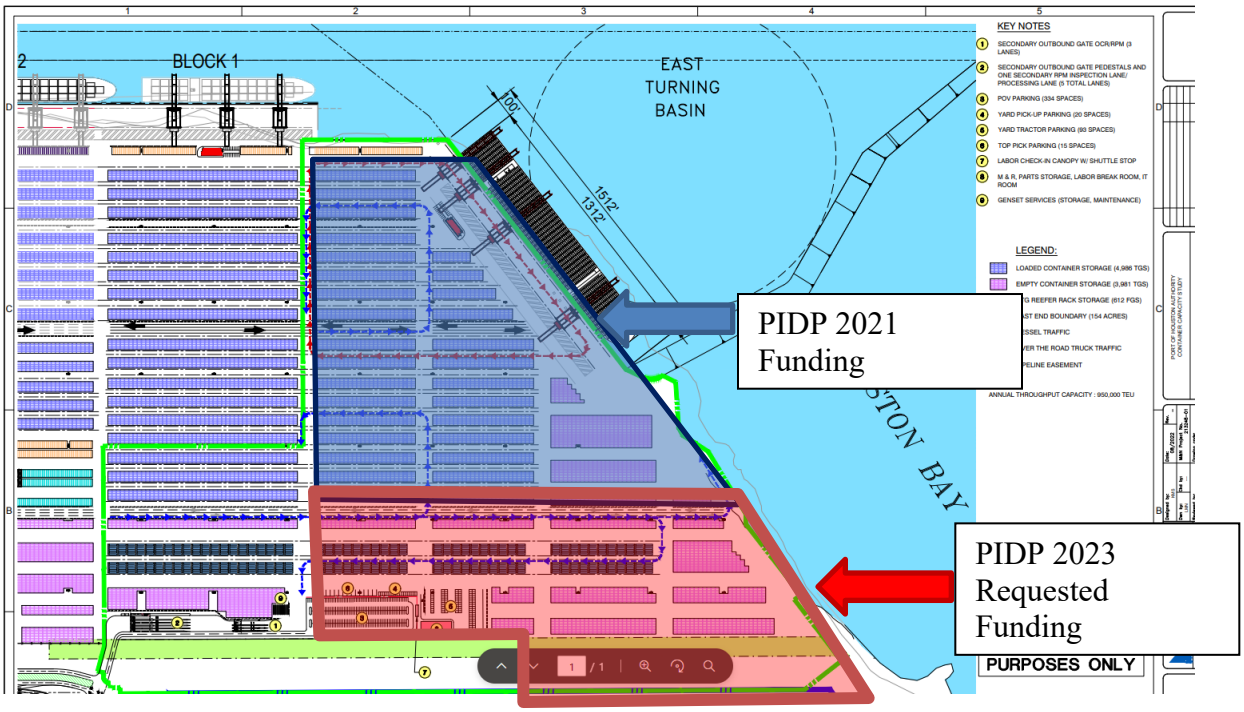
The Port Authority owns and operates multiple terminals in Houston and Harris County, and its Barbours Cut and Bayport Terminals are the premier container facilities serving the region. Moreover, the Port Authority is the 5th largest container port in the nation.

The Port Authority also owns and operates other terminals and related facilities in the region, including a 315-acre industrial park and facilities leased to independent third-party operators. The Port Authority contributes 164.5 miles of railroad track with operating rights on an

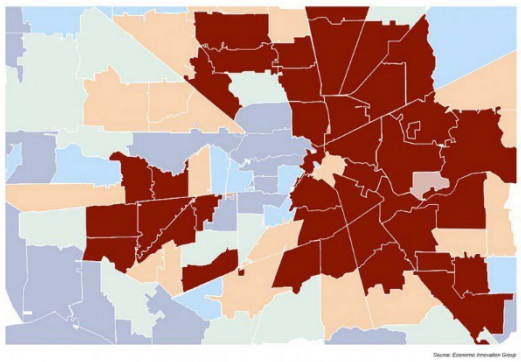
additional 54.0 miles to support the operation of the Port Terminal Railway Association, the group of line railroads serving the Houston Ship Channel.

The Houston Ship Channel itself serves the Port of Houston, the 25-mile-long complex of diversified public and private facilities located just a few hours sailing time from the Gulf of Mexico. The Port of Houston is ranked first in the United States in foreign waterborne tonnage, first in U.S. export tonnage, and first in the U.S. in total tonnage. While the Port Authority and its tenants own and/or operate a significant portion of these facilities, just as important is the role of the Port Authority as the local, non-federal sponsor of the channel, working with the U.S. Army Corps of Engineers to maintain and improve it.

Figure 2: Project location



The impact of this project will stretch far beyond the terminal boundaries, and especially benefit Harris County and surrounding counties. Harris County alone serves a population of nearly 5 million people, with 104 opportunity zones identified by the Internal Revenue Service("IRS"). Many of the surrounding rural counties also serve Historically Disadvantaged communities.



According to the Rice Kinder Institute for Urban Research: "Of the 45 zip codes in Harris County that are economically distressed – many of which are seen in red – eight are majority-Black and 28 are majority-Hispanic."

The "**Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion**" project is located at Bayport Terminal, as further described below:

	Project Start Location	Project End Location
Latitude:	29.609271	29.604808
Longitude:	-94.997874	-94.994275

Port Authority Background

The Port Authority would be the sole grant recipient. The Port Authority is an independent governmental entity governed by a Port Commission composed of seven commissioners. Two are appointed by the Harris County Commissioners Court, two by the Houston City Council, one by the Pasadena, Texas City Council, and one by the Harris County Mayors and Councils Association, a group comprised of representatives of other county municipalities. The Chairman of the Port Commission is jointly appointed by the Harris County Commissioner's Court and the Houston City Council.

The Port Authority has more than 770 employees and has successfully managed millions of dollars in federal and state grants. Last year alone, the Port Authority managed more than $130 million in grants from organizations such as the U.S. Department of Homeland Security, the U.S. Department of Transportation, and the U.S. Environmental Protection Agency.

Grant Funds, Sources and Uses of Project Funding

A. Project Cost

Project Funding Source	Estimated $	% Total
Port of Houston Authority	$64,500,185	50%
PIDP Grant	$64,500,185	50%
Total	**$129,000,370**	**100%**

B. Source and Amount of Funds

The future eligible cost of the "**Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion**" project is estimated to total $129,000,370.

The Port Authority respectfully requests a grant of $64,500,185 (50 percent of the estimated project cost) to support the engineering, design, construction and supporting electrical equipment of the project centerpiece – the New Container Yard. The Port Authority will provide $64,500,185 (50 percent of the estimated project cost) in matching funds, sourced from the net revenues generated from Port Authority operations, to support this project.

C. Funding Commitments

In recent years the Port Authority has generated approximately $520 million in annual operating revenues from vessel and cargo services, equipment, facility rentals, grain elevators, bulk materials, and other revenues. Though a large percentage of these operating revenues are expected to be reinvested in facility improvement and maintenance, the Port Authority fully expects to have the amount of its funding commitment – $64,500,185 – available during 2025 to 2026 to use as local matching funds for this project. No additional funding sources are anticipated to the be needed to develop the project.

The Letter of Commitment is attached as Appendix 2 of this application.

D. Budget Details

Budget Terminal Yard Expansion and Electrical Yard Tractors

Project Element	Estimated Cost	Future Eligible Costs	Federal Share (PIDP23)	Other Federal	Local Match (PHA)	% Total Cost
Percent Total Cost	100%	100%	50%	0%	50%	-
1. Design	$ 9,400,000	$ 9,000,000	$ 4,500,000	$ -	$ 4,500,000	7%
2. Environmental Analysis	$ 200,000		$ -	$ -	$ -	0%
3. Estimated Construction	$ 110,035,000	$ 110,035,000	$ 55,017,500		$ 55,017,500	85%
4. Equipment	$ 9,965,370	$ 9,965,370	$ 4,982,685	$ -	$ 4,982,685	8%
Total Cost	**$ 129,600,370**	**$ 129,000,370**	**$ 64,500,185**	**$ -**	**$ 64,500,185**	

Budget Terminal Yard Expansion-Detailed Construction

Project Element	Estimated Cost	Future Eligible Costs	Federal Share (PIDP23)	Other Federal	Local Match (PHA)	
Percent Total Cost	100%	100%	50%	0%	50%	
Administrative and Legal	$ 1,000,000	$ 1,000,000	$ 500,000	$ -	$ 500,000	
Structures	$ -		$ -	$ -	$ -	
Archetectual and Engineering Fees	$ 9,400,000	$ 9,000,000	$ 4,500,000		$ 4,500,000	
Other Architectral and engineering fees	$ 200,000		$ -		$ -	
Project Inspection	$ 3,000,000	$ 3,000,000	$ 1,500,000		$ 1,500,000	
Site Work	$ 1,000,000	$ 1,000,000	$ 500,000		$ 500,000	
Demolition and Removal	$ 1,600,000	$ 1,600,000	$ 800,000		$ 800,000	
Construction	$ 93,000,000	$ 93,000,000	$ 46,500,000		$ 46,500,000	
Equipment	$ 9,965,370	$ 9,965,370	$ 4,982,685		$ 4,982,685	
Miscellaneous	$ 500,000	$ 500,000	$ 250,000		$ 250,000	
Contingencies	$ 9,935,000	$ 9,935,000	$ 4,967,500		$ 4,967,500	
		$ -	$ -	$ -	$ -	
	$ 129,600,370	**$ 129,000,370**	**$ 64,500,185**	**$ -**	**$ 64,500,185**	

E. Activities to Maximize the Non-Federal Share

The Port Authority plans to maximize the non-federal share by contributing more than the required match of 20%. The project match is proposed to be 50:50 – the Port Authority's 50 percent request for federal funding, and 50 percent of the cost provided by the Port Authority as its cash match.

F. Activities to Pursue Private Funding

Development at and near the Bayport Terminal continues to flourish, and both state and private funds have been invested into these expansion activities.

A vital component to reduce supply chain delays is the current Port Road expansion project. This project will improve the artery bringing export and import containers to and from the Bayport Terminal. These improvements are partially funded with TxDOT Mobility grant funds in the amount of $9,675,000.

The Port Authority has also invested approximately $16 million to construct a rail spur, the crucial first step to support the expansion of warehousing near the Bayport Terminal, and another part of the larger Bayport Terminal expansion program.

Finally, private companies have already invested over $1.5 billion in the construction of warehousing and expansion of local facilities that process cargo through Bayport Terminal.

G. Fiscal Constraints

As mentioned, in recent years, the Port Authority has generated approximately $520 million in operating revenues, and on average, the Port Authority's annual Capital Improvement Program (CIP) budget is $250 million. However, additional funding sources are still needed to execute the projects required to meet the recent surge in demand, as it is estimated that the Port Authority has planned over $4 billion in needed projects, not including routine renovation, road projects, and channel improvement work.

The recent increase of construction costs for labor and materials has put a significant strain on how far Port Authority revenue can go to invest in needed supply chain infrastructure.

These constraints have an even greater negative impact in the face of accelerated construction timelines to meet the massive surge in demand affecting the supply chain. The Port Authority has seen a record number of increases in TEUs in the past year. The demand to move products through Houston continues to grow and is fast outpacing the existing infrastructure.

H. Non-Federal Investment in Related Projects

Along with the "**Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion**" project, current infrastructure investments completed or underway in the vicinity will help ensure that the Port Authority is prepared to handle increased cargo without adding to congestion:

- Construction of Container Yard 6, 48 acres ($49.9 million, completed);
- Construction of Container Yard 7, ($49.5 million, completed; applied for funding, not awarded);
- Construction of a public transportation project to expand Port Road from four to six lanes, including drainage improvements ($16.5 million, completed; partially funded with $9.675 million in Texas Department of Transportation ("TxDOT") grant funding;
- Dedicated right turn and U-turn traffic efficiency projects (estimated $2.9 million, Completed);
- Widening of the Bayport Terminal gate turn lane ($39,000, completed);
- Construction of Wharf 6 (estimated $94 million, under construction; funded 23 percent with PIDP FY 2019);
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- This project, **"Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion"** (estimated $129,000,370 with a request of $64,500,185 or 50% of the overall project cost; previously applied in 2022, not awarded).
- ,500,185 or 50% of the overall project cost; previously applied in 2022, not awarded).

Since 2019 there has been approximately $520 million in non-federal investments in projects related to expansion of the Bayport Terminal.

Merit Criteria

A. Achieving Safety, Efficiency, or Reliability Improvements (Effect on the Movement of Goods)

Over $357 million in undiscounted benefits are calculated based on efficiency improvements.

The purpose of the **"Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion"** project is to continue to improve the efficient movement of goods to reduce ongoing disruptions to the supply chain.

This section describes the approach for the completion and submission of a benefit cost analysis (BCA) and summarizes the results from the BCA. (Appendix 3, BCA)

BCA Summary:

Status/Baseline Problem to be Addressed	• Given the Port Authority's projected growth rate, the current yard space is constrained. Even with the additional projects coming online, capacity will continue to be constrained until the proposed project is opened. Without this project and support from the federal government, supply chain efficiency will continue to be adversely affected.
Change to Baseline/Alternatives	• Construct an additional 42 acres of container yard and implement 19 electric yard tractors to maintain operational optimization at the Bayport Terminal.
Type of Impacts	• Economic Benefits

	- Agriculture and Manufacturing - Petrochemical • Efficiency Impacts • Emission Impacts
Affected Population	• Port Authority users, wider population groups. • Harris County serves nearly 5 million people. Many populations impacted by this project are disadvantaged communities. Harris County has 104 opportunity zones as listed by the IRS.
Economic Benefits	• Increased business effectiveness and competitiveness and job growth. • 3,143 more direct, induced, and indirect jobs. Direct, good paying jobs are expected to increase by 958 (including many union members).

In the BCA the Port Authority reviewed main areas:

- Safety, Efficiency and Reliability of supply chain;
  - Reduction of noise for workers and community (qualitative)
  - 11 million hours of truck idling saved
  - $177 million in efficiency benefits in truck-turn time reductions (discounted)
- Economic Competitiveness (Efficiency and Reduced Energy Cost);
  - $5.6 million energy use benefit (discounted)
- State of Good Repair (Maintenance Savings Costs);
  - $10.7 million maintenance benefits (discounted)
- Environmental Sustainability (Efficiency Mitigation and Electric Emission Reduction); and
  - $16 million emission reduction benefits (discounted)
  - 380 metric-ton reduction of NOx
  - 1,426 metric-ton reduction of PM2.5
  - 385 metric-ton reduction of SOC
  - 46 million metric-ton reduction of CO2

B. Supporting Economic Vitality at the National and Regional Level

The "Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion" does exactly what this funding is meant for: the project will invest in the supply chain, strengthening the nation's ability to make and move more goods efficiently and promptly, and grow the economy for the region, state, and nation.

In 2014, the greater Port of Houston, the 25-mile complex that includes the Port Authority and more than 200 private industrial companies along the Houston Ship Channel, celebrated 100 years as a deep-water port. The Port of Houston is one of the region's most important economic assets.

Statistical Highlights for the Houston Ship Channel complex

- *1st ranked U.S. port in foreign waterborne tonnage – 193.8 million short tons (*USACE Navigation Data Center)
- *1st ranked U.S. port in total foreign and domestic waterborne tonnage – 276 million short tons (*USACE Navigation Data Center)
- *3rd ranked U.S. port in terms of total foreign cargo value ($169.7 billion)* (U.S. Dept. of Commerce Bureau of Census, Customs Data from Census Bureau)

- *Largest Texas port, with 35% of market share by tonnage (*Journal of Commerce PIERS)
- *Goods moved through the Port of Houston reach 100 million consumers, or approximately one-third of the U.S. population. (American Association of Port Authorities)*

More than 8,000 vessels and 200,000 barges pass through the Port of Houston each year.[3]

Numerous railroads and trucks also call at the Port of Houston for daily delivery and receipt of containers as well as the shipping of other cargo between inland origins – manufacturing sites, big-box retail stores, and small business operations – and marine terminals.

The Port Authority is a crucial component of this critical economic engine for the Houston region, the State of Texas, and the United States. Port Authority facilities, located just a few hours from the Gulf of Mexico and centered in the 4th largest city in the U.S, enable Port Authority cargo to quickly access an excellent system of interstate highways to serve both the region and the heartland of the U.S.

Statistical Highlights for the Port Authority

- *5th ranked U.S. container port by total TEUs (*USACE Navigation Data Center)
- *Largest Gulf Coast container port, handling almost 70% of U.S. Gulf Coast container traffic (*Journal of Commerce PIERS)
- *Largest Texas port, with about a 97% market share in containers (American Association of Port Authorities)*

"In March (2023), Port Houston recorded the highest monthly volume for loaded exports in its history, with 349,964 TEUs year-to-date. This is an increase of 26% compared to the same period last year and up 10% compared to March 2022. Empty import volumes also increased by 111% compared to March 2022, as carriers reposition containers to Houston to meet the high demand for resin and petrochemical exports."[4]

The Bayport Terminal, according to the Port Authority's 2018 Economic Impact Report, is a large and vibrant component of the regional and national economy, and this project will have strong impacts benefitting the local, State and National population. Because of this, there is broad support for this project as show in Appendix 5, Support Letters.

As such, the Port Authority is a critical economic engine for the Houston region, the State of Texas, and the United States. Economic activity continues to rise. The growing activity increase jobs, tax revenues and personal income. The table below summarizes the 2018 Economic Report.

	U.S.	Texas
Economic Activity	$802 Billion	$339 Billion
Jobs	$3.2 Million	$1.35 Million
Tax Revenue	$38 Billion	$6 Billion
Personal Income	$170 Billion	$74 Billion

Source: Port Authority's 2018 Economic Impact Report. Full report is available at https://porthouston.com/about-us/economic-impact/

There is a huge potential for strong future growth in exports tied to the increased production of shale oil, gas, resins, and chemical products. As just one example, the American Association of Port Authorities has estimated that up to $117 billion in investments in the Gulf area 2021 to 2025.

The Port Authority estimates that total TEUs crossing its docks will increase from over 3.9 million at the present time to approximately 7.2 million by 2040. Consequently, the increase in demand necessitates the proposed project improvements.

This forecasted increase ties to:

(i) increased economic growth and a simultaneous increase in exports and imports,
(ii) continued population growth in Texas and the South,
(iii) the expansion of the Panama Canal, and
(iv) recent growth in plastic resin exports.

The table below summarizes the projected increases by percentage in TEUs for the Port Authority.

Table 1: Historical and Projected TEUs, Port Authority

Port of Houston Authority	TEUs Handled
2022 Actuals	3,974,901
2040 Projections	7,173,298
Percent Total Increase 2022	14%
Estimated Annual Increase	4.5%

Source: Port Authority

To accommodate increase in demand, the Port Authority needs to expand the Bayport Terminal to include additional yard space. This improvement will allow the Bayport Terminal to handle the projected 3.6 million TEUs by 2040, up from 1,971,972 TEUs handled at the Bayport Terminal in 2021, with minimal vessel delays. Bayport Terminal is expected to process half of the projected TEUs, with its Barbours Cut Terminal handling the balance.

Job Creation

According to the 2018 Economic Impact Report, "In addition to the direct [67,039], induced (126,999) and indirect [64,283] job impacts, the port activity supports 2,950,488 jobs throughout the United States, of which 1,125,671 related jobs are in the state of Texas."[5]

The proposed New Container Yard will bring an 11% increase to the acreage at the Bayport Terminal, which is expected to process at least 3.6 million TEUs by 2040.

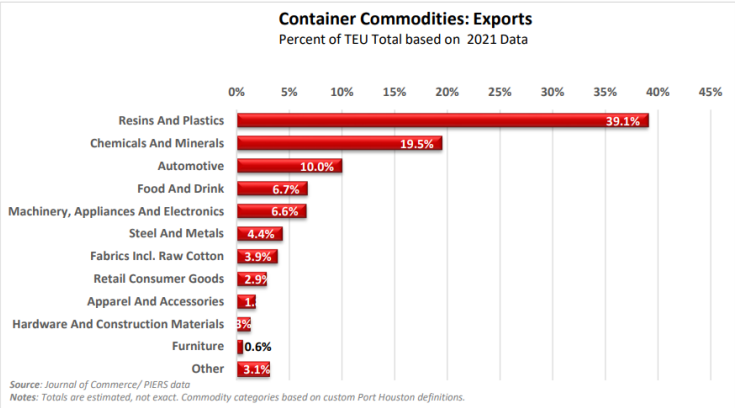
The Port Authority's project to expand Bayport Terminal through the construction of the New Container Yard will provide 42 acres of yard for efficiency improvements by incorporating additional capacity to improve connectivity and truck turn times. On average, that is 3,091 jobs added for this project alone.

This project also promotes efficient movement of energy products and supports increases in energy production. According to the Texas State Comptroller, in 2018 the Port of Houston handled more than 182 billion tons of cargo, with petroleum-related cargo accounting for 69 percent of the total tonnage.[vi] Energy trade is a large driver for the Port Authority as well.

As shown in Figure 3, over 58.6 percent of the Port Authority's exports tie to the energy trade. While this displays statistics for all Port Authority export commodities, the percent shares are similar over all terminal operations.

Figure 3: [4-Container-Volume-by-Commodity-2021.pdf (porthouston.com)]

						Rank	Percent
Total	948,383	1,041,636	1,230,255	1,201,124	1,012,482	-	100.0%
Resins And Plastics	255,259	311,727	438,013	522,713	395,525	1	39.1%
Chemicals And Minerals	153,331	167,769	220,695	234,905	197,488	2	19.5%
Automotive	71,498	100,909	100,909	95,328	101,413	3	10.0%
Food And Drink	79,681	67,524	71,564	74,787	68,295	4	6.7%
Machinery, Appliances And Electronics	70,254	68,964	66,625	59,953	67,156	5	6.6%
Retail Consumer Goods	70,532	76,986	70,107	38,382	29,068	6	2.9%
Fabrics Incl. Raw Cotton	62,160	57,493	58,390	50,364	39,587	7	3.9%
Steel And Metals	30,477	37,833	42,312	42,178	44,358	8	4.4%
Apparel And Accessories	19,834	21,632	27,868	29,247	18,574	9	1.8%
Hardware And Construction Materials	18,090	19,553	24,123	16,775	13,643	10	1.3%
Furniture	4,077	3,449	3,434	4,222	6,357	11	0.6%
Other	*113,190*	*107,797*	*106,215*	*32,271*	*31,018*	-	*3.1%*



The Port Authority is by far the leading U.S. container port for the export of raw plastic resins: in 2019, it handled 52 percent of all U.S. plastic resin exports. Of this, 4.5 million metric tons were polyethylene (PE), a 77 percent increase over the prior 12 months as many new manufacturing plants came online. This product category could potentially double over the next decade, as more U.S. ethylene crackers and associated polyethylene plants are built.

Containerized shipping is the preferred export mode for raw plastic resins created from U.S. ethylene, which originates from American natural gas liquids (NGLs) produced as a key component of shale gas. The domestic plastics market for raw resin is essentially saturated, so most new production is flowing to the export market, supporting American oil and gas production

and contributing to a positive U.S. balance of trade. Houston is the leading U.S. port for plastics exports due to the numerous plastics plants in the region, as well as its concentration of third-party plastics packaging facilities that receive railcars of plastics and package them for export in 25-kilogram bags that are palletized and containerized. Value-added products like ethylene and polyethylene have been critical to supporting high NGL prices even as natural gas (i.e., methane) prices remained very low, supporting oil and gas exploration activity, our nation's energy producers, and its energy independence.

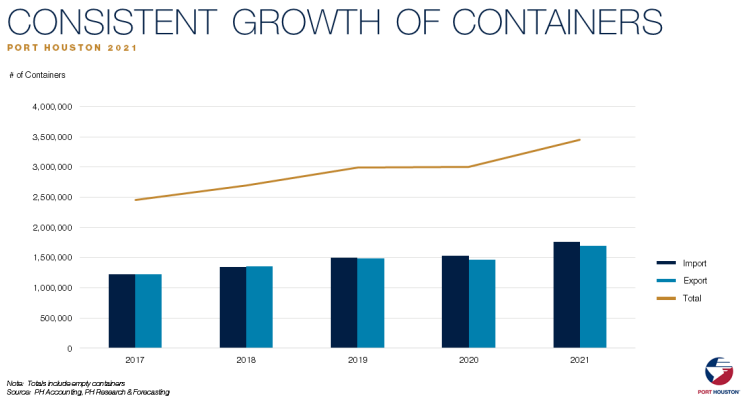
The Port Authority's container terminals also serve as essential export nodes for specialty chemicals, which move in palletized drums, "IBC totes," bladders, sacks, and tank containers. In 2018, containerized chemical exports represented about 2.5 million metric tons of cargo at the Port Authority, almost 22 percent of all exports.

The containerized route provides significant additional flexibility for U.S. specialty chemical producers, who would otherwise have to depend on parcel tankers to carry their products to market. Though specialty chemicals are a very broad field, they depend in general on feedstocks flowing from oil and gas production. This means that the ability to easily export specialty chemicals supports specialty chemical production, which in turn supports demand for oil and gas-derived products including ethane/ethylene, propane/propylene, the "C4 chain," and many other products. The benefits of this increased demand flow straight back to oil and gas producers.

To support continued growth of all these cargo categories, the Bayport Terminal must continue to increase its capacity, and construction of a new yard is the most efficient and effective way to do so.

As seen in Figure 4, the "**Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion**" project will improve the capacity of the terminal for handling exports and imports by expanding the amount of space available to move cargo in the yard, allowing the continued growth in exports and imports without delay caused by lack of available yard space.

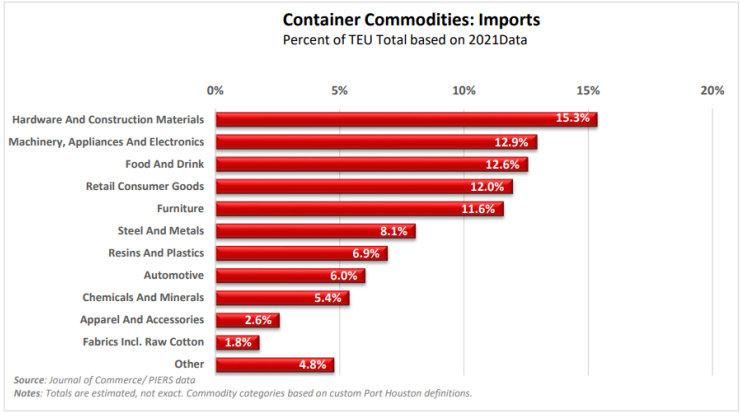
Figure 4: https://porthouston.com/about-us/statistics/



The Port Authority container terminals serve as essential nodes supports for U.S. manufacturing exports. Houston is a leading U.S. manufacturing city and the world's leading location for manufacturing of oil and gas exploration and production equipment. Since many manufactured products are sent to overseas locations most efficiently via containerized shipping, Port Authority container terminals provide these Houston manufacturers with easy access to global export markets. Port Authority container terminals also support U.S. agriculture. Refrigerated exports of meat products, including beef organ meat exports, is an important cargo sector, and critical to supporting U.S. cattle producers, given little domestic demand for some of these products. These exports help to support cattle prices in a difficult environment for both cattlemen and consumers. The Port Authority container terminals also have a long history of exporting bagged PL-480/USAID food aid, and many other processed and value-added food products as well. In 2021, edible agricultural products represented 7 percent of the Port Authority's containerized exports, with an additional 4 percent for non-edible agriculture cargos, including various agricultural byproducts and another 4 percent for cotton. Figure 5 displays the breakdown of commodities over the last 5 years.

Figure 5: 4-Container-Volume-by-Commodity-2021.pd (porthouston.com)

Commodity Category	2017	2018	2019	2020	2021	2021 Rank	2021 Percent
Total	1,073,113	1,194,335	1,244,502	1,293,277	1,626,201	-	100.0%
Hardware And Construction Materials	158,806	173,729	177,094	212,862	249,526	1	15.3%
Food And Drink	154,274	158,138	159,044	187,811	204,387	2	12.6%
Machinery, Appliances And Electronics	121,759	148,698	167,382	155,995	210,244	3	12.9%
Retail Consumer Goods	143,041	152,543	153,959	151,173	194,417	4	12.0%
Furniture	97,916	117,636	117,908	131,444	188,459	5	11.6%
Steel And Metals	102,045	116,639	122,745	98,376	131,130	6	8.1%
Resins And Plastics	61,430	73,087	79,150	79,874	112,889	7	6.9%
Chemicals And Minerals	67,884	73,493	78,346	82,082	87,900	8	5.4%
Automotive	68,649	78,604	73,720	67,198	98,316	9	6.0%
Apparel And Accessories	20,035	20,983	28,858	34,202	42,371	10	2.6%
Fabrics Incl. Raw Cotton	17,946	21,183	23,883	26,274	29,246	11	1.8%
Other	*59,329*	*59,602*	*62,414*	*65,985*	*77,316*		*4.8%*



The Port Authority also has a long history of balanced imports and exports in containers, due in large part to imports of hardware and machinery. Figure 5 also displays the container volume of imports over 2017-2021.

To support continued growth of all cargo categories mentioned above, Bayport Terminal must continue to increase its capacity. Construction of the New Container Yard is the most efficient and effective way to expand that capacity.

Large Projects

C. Leveraging of Federal Funding to Attract Non-Federal Sources of Infrastructure Investment

The Port Authority plans to maximize the non-federal share by contributing more than the required match of 20 percent, with the 50 percent match provided by the Port Authority alongside its 50 percent request for federal funding.

The growth at and near the Bayport Terminal continues to flourish, and private and state funds have been invested into this program.

The Port Road expansion was partially funded with TxDOT grant funds. These funds went to expanding the road that leads to and from Bayport Terminal. This expansion is a crucial component to operating and moving freight without delay.

The Port Authority has also invested $13.5 million to construct a rail spur serving the terminal area. This rail spur is the first step to support the expansion of warehousing near the Bayport Terminal, which is also a part of the larger Bayport Terminal area investments.

Finally, private companies have invested over $1.5 billion in the construction of warehousing and expansion of local facilities that process cargo through Bayport Terminal.

The current infrastructure investments competed or underway to ensure that the Port Authority is prepared to handle increased cargo without adding to congestion include:

- Construction of Container Yard 6, 48 acres ($49.9 million, completed);
- Construction of Container Yard 7, ($49.5 million, completed; (applied for funding, not awarded);
- Construction of a public transportation project to expand Port Road from four to six lanes, including drainage improvements ($16.5 million, completed; partially funded with TxDOT grant funding);
- Rail Spur construction ($13.5 million, under construction);
- Widening of the Bayport Terminal gate turn lane ($390,000, completed);
- Construction of Wharf 6 (estimated $94 million, under construction; funded 23 percent with PIDP FY 2019);
- Construction of Wharf 7 (estimated $102 million, under design);
- Construction of Container Yard 2 South (estimated $18.75 million, under construction);
- Construction of Container Yard 1 North and Middle 42 Acres (estimated $63 million, design on-going, construction anticipated in 2023);
- Construction of Container Yard East End North 50 Acres (estimated $101.7 million, design completed, construction start anticipated in 2024; funded with $18.3 million PIDP FY 2021 award); and
- This project, **"Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion"** (estimated $129,000,370, with a request of $64,500,185 or 50% of the overall project cost; previously applied in 2022, not funded).

There has been a approximately $590 million in non-federal investments in related projects supporting expansion of activity at Bayport Terminal since 2019.

D. Port Resilience

This project will be designed to incorporate effective climate change resiliency protective features, where possible. This project allows the Port Authority to respond to supply chain issues by moving cargo with more efficiency through Bayport Terminal. One of the project's goals is to maintain

low truck turn times. Low turn times reduces traffic both in and near the terminal. It allows the items to be on the shelves faster.

This project also implements innovative technology and practices around clean energy yard tractors. While taking into consideration operational needs for the charging to systems to be mobile. Making the electric yard tractors and charging equipment more resilient to supply chain demand by ability to move where needed.

Selection Considerations

E. Climate Change and Sustainability

The Port Authority is dedicated to creating greater value for our region through environmental leadership. With our strategic focus on air, water, waste, and operational efficiency, we are supporting the sustainable growth of the Houston Ship Channel region to help ensure a brighter future for all.

The "**Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion**" project in the Houston-Galveston area impacts Harris, Galveston, and Chambers counties. Effective August 3, 2018, a six-county area including Brazoria, Chambers, Fort Bend, Galveston, Harris, and Montgomery Counties, was designated nonattainment and classified marginal under the 2015 eight-hour ozone National Ambient Air Quality Standards ("NAAQS"). This project will help mitigate negative emissions and improve environmental justice goals without causing disruption to the area supply chain.

Emission benefits are calculated by using the efficiency reduction of drayage vehicles spent in the terminal (turn times) and electrical yard tractors replacing diesel yard tractors.

Turn time efficiency reduced the time it takes for a truck to travel from gate to gate. This time represents a reduction in idling in the terminal. These hours were multiplied by the emission numbers provided from the Texas Air Quality Portal MOSERS Tool available at https://txaqportal.org/mosers/tool#/ and the U.S. Department's Bureau of Transportation Statistics for estimated U.S. emissions of sulfur dioxide available at Estimated U.S. Emissions of Sulfur Dioxide | Bureau of Transportation Statistics (bts.gov).

The emission results were quantified in metric tons for nitrogen oxide (NOx), fine particulate matter (PM2.5), and hydrocarbon (HC). The carbon emission (CO2) conversions were taken from the tools above. The total metric tons were multiplied by the U.S. Department of Transportation's Benefit-Cost Analysis Guidance for Discretionary Grant Programs' financial calculations for emissions in metric ton.

2022 $/metric ton Monetized Values		TOTALS		Discounted 7%**
Nitrogen oxides (NOx)	$	10,951,560	$	5,472,854
Particulate matter (PM)	$	5,273,145	$	2,708,460
Sulfur dioxide (SOx)	$	136,860	$	67,754
**CO2 is discounted at 3%	$	6,278,945	$	4,536,082
Totals	$	22,640,510	$	12,785,149

Details can be found on the BCA explanation (Appendix 4, Detailed BCA Explanation.)

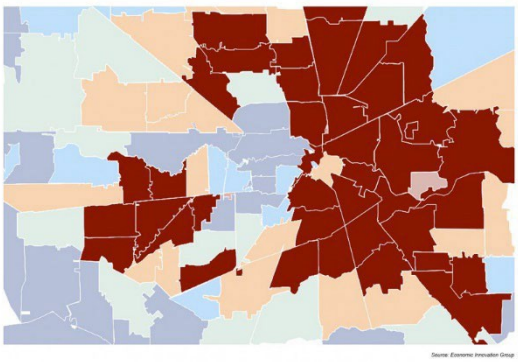
Electric Yard Tractors: One of the most significant advantages of electric yard tractors is their zero-emission operation compared to diesel-powered yard tractors. Diesel engines emit particulate matter (PM) and sulfur oxides (SOx), which have been linked to respiratory and cardiovascular diseases. By transitioning to electric yard tractors, PM and SOx emissions can be reduced to zero, contributing to a healthier environment for employees and nearby communities. Additionally, idling while loading and unloading is a common practice in yard operations, which contributes to increased emissions from diesel engines. Electric yard tractors eliminate this issue since they do not require idling. Therefore, electric yard tractors are better suited for yard operations, providing a more environmentally sustainable solution while maintaining operational efficiency.

The emission values for each diesel yard tractor were sourced from the Port of Los Angeles 'Inventory of Air Emissions 2021 Technical Report' available at https://www.portoflosangeles.org/environment/air-quality/air-emissions-inventory.. This report was utilized because such report is completed on an annual basis and is therefore up-to-date, and because the types of operations yard tractors that will be performing at the Port Authority are similar in nature to those performing at Port of Los Angeles.
These emissions were multiplied by the emissions located in the USDOT's Benefit-Cost Analysis ("BCA") Guidance for Discretionary Grant Programs ("BCA Guidance") to calculate the total monetary benefit of the reduction in emissions. The USDOT's BCA Guidance is available at https://www.transportation.gov/mission/office-secretary/office-policy/transportation-policy/benefit-cost-analysis-guidance. **The total estimated value of reduced emissions of this project is $3.9 million, in 2021 dollars and discounted at 7 percent (CO_2 3%).**

This project will allow the Port Authority to continue to move the supply chain without increasing environmental impacts on the surrounding communities.

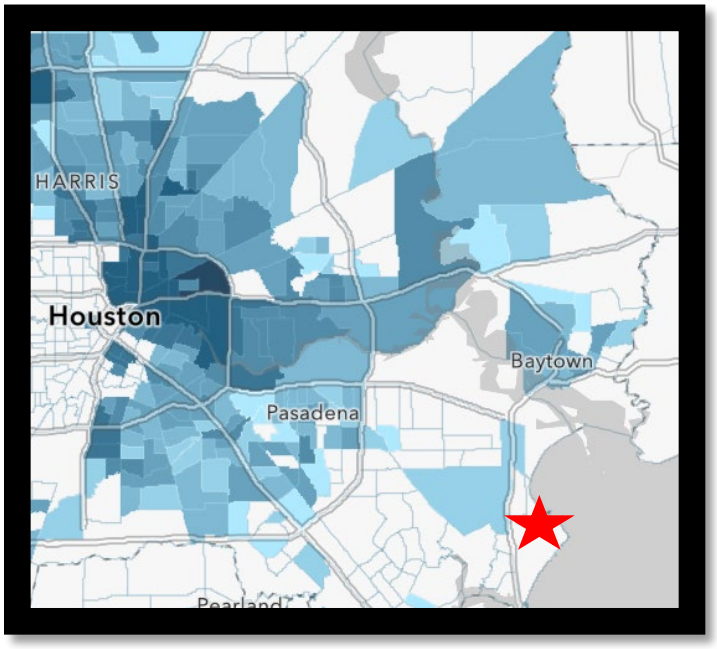
F. Equity and Justice40

The impact of this project will stretch far beyond the terminal boundaries, and especially benefit Harris County and surrounding counties. Harris County alone serves a population of over 5 million people, with 104 opportunity zones identified by the IRS. Many of the surrounding rural counties also serve Historically Disadvantaged communities.



According to the Rice Kinder Institute for Urban Research: "Of the 45 zip codes in Harris County that are economically distressed – many of which are seen in red – eight are majority-Black and 28 are majority-Hispanic."

Of these populations most are designated as 1 or more category of environmental justice communities. The map below, provided by USDOT (also available at Justice40 by Number of Categories Map November 2022), shows the project in proximity to the communities categorized by environmental justice as of November 2022.



The Port Authority is a gateway for international trade and is committed to engaging with communities surrounding the Houston Ship Channel and establishing ourselves as a helpful resource for all. The Port Authority believes in the importance of contributing to the quality of life in the local area, and the Port Authority's outreach strategies help it manage the balance between its business efforts, its role as a neighbor, and to the community.

These strategies include increasing public awareness about the Houston Ship Channel complex, providing open lines of communication between the Port Authority and communities, and investing in relationships that bring a positive impact to our region.

The Bayport terminal has already invested in and completed multiple community focused projects to reduce the impact of growth of commerce on the surrounding communities.

These projects include:

- large berm to reduce noise and light produced by Bayport Terminal;
- donation of land for San Jacinto Community College to build maritime education center for local workforce training;
- work with local high schools and colleges for maritime education;
- walking paths for the community; and

- supported funding and installation of egret nesting boxes on property.

This project will begin the Port Authority's transition to electric yard tractors. Part of the Port Authority's 2050 commitment to net zero emissions. Currently, due to the cost difference of electrical vs. diesel yard tractors this project, which t directly impacts the surrounding community, will only happen if assisted by the requested funds.

G. Workforce Development, Job Quality, and Wealth Creation

The Port Authority's mission is to "move the world and drive regional prosperity," and it exists to create a positive economic impact in our region that equates to a positive social impact for people. For many residents, that means delivering goods and creating jobs to support their lives, and for many business owners, that means supporting their success by providing opportunities to do business with the Port Authority and efficiently move their goods.

Small, Minority- and Woman-owned Business Enterprises (S/MWBEs) support thousands of employees in our region, boost local economies, and provide meaningful services and goods in our communities. The Port Authority has made a substantial commitment toward the support of small businesses, having awarded more than $600 million in Port Authority contracts to small businesses contractors or subcontractors registered in its Small Business Development Program since inception of the program in 2002.

Recent work at the Port Authority provided metrics to support implementation of a race- and gender-conscious procurement program to further honor the diversity of the region through Port Authority procurement and contracting. In July of 2021, the Port Authority launched its Minority- and Woman-Owned Business Enterprise Program which exists alongside the Small Business Development Program, under the Business Equity umbrella. In 2022, the Port Authority continued to demonstrate its commitment to continue to invest in and grow the program with its strategic target to *Execute the Business Equity Plan with increased S/MWBE enrollment and participation.*

The New container Yard project is also expected to impact job creation – a total of 3,143 good-paying jobs – is also estimated to be significant:

- 943 direct jobs (including many union members);
- 1,360induced jobs; and
- 841 indirect jobs.

(Reference Appendix 1, Economic Impact Attachment Jobs tab.)

Project Readiness

A. Technical Capacity

The handling of shipping containers requires a system that efficiently transfers the containers from oceangoing vessels on the open seas to trucks on a major highway system for movement to customers in the region, or to rail yards for transfer to trains for cargo traveling to more distant destinations.

On the land side, the Port Authority has recently completed a state-of-the-art gate facility on Port Road at Bayport Terminal, and the Port Authority continues to schedule yard construction to

mitigate efficiency delays and improve the supply chain's movement of goods. Most recently, Yard 7 was completed, providing an additional area where containers are accepted for loading onto ships and stored prior to their delivery to the terminal. Even with these improvements, the Port Authority needs to continue to increase the available yard space allowing larger container vessels to be off-loaded. The "**Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion**" project will permit the Port Authority to capitalize on the other improvements cited above and continue to ensure that this cargo is moved economically, efficiently, and in an environmentally sound manner.

- 42 acres of a green space site will be developed into a yard at the Bayport Terminal. Development activities include grading, utilities, security, pavement, markings, etc.
- Construction and design expenses are estimated at $129,000,370. Port Infrastructure Development Grant funds would be used to assist in completing this effort, and the matching funds from the Port Authority covering the balance of these expenses.
- Construction will be phased and scheduled to begin in the first quarter of 2027. The probable construction duration is between 18 and 24 months from the time of construction contractor mobilization.
- The entire project is scheduled to be operational by the third quarter of 2028.
- **Yard**: The yard component of this project consists of developing 42 acres of a green space site into a yard at the Bayport Terminal. This will include grading, utilities, security, pavement, markings, etc.
- **Electric Yard Tractors:** The electric yard tractors and charging infrastructure will be procured after obligation with US DOT. This is expected to be March 2025. If current estimates remain it the same will take 12 to 24 months to obtain all the needed items to implement the first phase of electric yard tractor operation at the Port Authority.

Table 3 summarizes the project for the improvements to the Bayport Container Terminal.

B. **Risk**

	Task #	*Milestone*	*Timeline*
1. Pre-Award	1.1	2022 PIDP Proposal Submission	April 28, 2023
	1.2	Engineering Complete	March 2025 – March 2026
	1.3	NEPA Completion	August 2024
	1.4	PIDP Notification of award recommendation	November 2023
2. Award	2.1	Port Authority accepts contract with DOT/MARAD	March 2025
	2.2	Final Design Completion and Approval	June 2026
	2.3	Advertise Construction CSB to Public and Evaluate	June 2026
	2.4	Construction Contract Award Date	January 2027
3. Construction and Equipment	3.1	Planned Construction Start Date	February 2027
	3.2	Mobilization, Site Prep, Grading	February 2027 - December 2027
	3.3	Drainage and Utilities	February 2027 - October 2027
	3.4	Paving, signage, and markings	October 2027 - June 2028
	3.5	Electrical, lighting, and communications	January 2028 - June 2028
	3.4	Procure Electrical Yard Tractors and Charging Infrastructure	March 2025
4. Closeout	4.1	Substantial Completion/Walk Through	June 30, 2028
	4.2	Project Completion	August 2028
	4.3	Open-to-Traffic Date	July 2028
	4.4	PHA submits reimbursement requests to DOT/MARAD	March 2025 – September 2028
	4.5	Planned Project Closeout Date with DOT/MARAD	September 30, 2028
5. Reporting	5.1	Quarterly Reporting to DOT/MARAD	January 2025 – July 2028
	5.2	Completion of Final Report to DOT/MARAD	September 2028
	5.3	Performance Quarterly Reporting to DOT/MARAD	October 2028 - January 2031

The design will incorporate the latest operational requirements and technology improvements, and preliminary design and environmental assessment for this yard are currently underway. If this application is successful, 100 percent of the design work would be added to the scope of the current engineering activities. Environmental compliance activities are expected to be complete by June 2023, with any additional updates completed by the following year. Procurement of the construction contract for the New Container Yard is expected to begin in 2026, with the award later that year. Probable construction duration is between 18 and 24 months from time of contractor mobilization. Major project milestones include: (i) obligation of the Port Infrastructure Development Grant FY 2023 grant funds by early 2025, (ii) awarding the contract for construction in January 2027, and (iii) completing the construction and opening to traffic by July 2028.

Legislative Approvals: The yard expansion does not involve any tolls, taxation, or eminent domain. Consequently, no legislative approvals are required for this project.

State and Local Plans. The New Container Yard project is listed in the Port Authority's most recent capital plan. It is not required to be listed in the state or the Houston-Galveston Area Council (H-GAC) 2035 Regional Transportation Plan (RTP), which primarily involve surface transportation. However, improvements to Port Road and SH 146 are listed in the H-GAC's 2040 RTP as well as the Texas Department of Transportation's (TxDOT) next Statewide Transportation Improvement Program (STIP).

C. Risk Mitigation

The risk of delay is negligible as the Port Authority has obtained all necessary approvals. Moreover, the construction of the New Container Yard will utilize the same construction technologies as were used for previously constructed sections, which significantly reduces the risk of delays in schedule and unanticipated increases in cost.

National Environmental Policy Act (NEPA) compliance includes authority under an existing Bayport Terminal permit approved by the U.S. Army Corps of Engineers (USACE), and in effect until December 31, 2026. Current NEPA analysis is being completed on the 42 acres in conjunction with the PIDP 2021 grant award. Any additional NEPA update is allotted in the project timeline.

Domestic Preference

The Port Authority will work to locate all materials and manufactured products domestically. To ensure compliance with this, the Port Authority will include the "Build America, Buy America" requirements in its procurement and contract documents.

As both the electric yard tractors and charging infrastructure are mobile, it is considered equipment and not Infrastructure. At the time of implementation (2026), if legislation has changed, the Port Authority will seek compliance with the Build America, Buy America Act or seek a waiver for the electrical yard tractors and charging infrastructure.

Determinations

The Port Authority's "Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion" project addresses the following outcomes identified by the Maritime Administration:

- **Efficiency improvements;**
- **Safety improvements for the movement of goods;**
- **Cost effectiveness with a 1.38 BCR Discounted;**
- **Authority to complete the project and provide sufficient match requirements; and**
- **Project completion within the required timeframe.**

This project merits award because it improves the efficiency and reliability of the movement of goods in the Bayport Terminal and reduces the environmental impact to the surrounding communities. The construction of the New Container Yard and related electric yard tractors investments are key assets needed to meet the current and future demands upon the facility. Its estimated efficiency benefits include:

- 11 million hours of truck idling saved
- $177 million in efficiency benefits in truck-turn time reductions (discounted)
- $10.6 million maintenance benefits (discounted)
- $5.9 million energy use benefit (discounted)
- $16 million emission reduction benefits (discounted)
- 380 metric-ton reduction of NOx
- 1,426 metric-ton reduction of PM2.5
- 385 metric-ton reduction of SOC
- 46 million metric-ton reduction of CO2

(Note: Reference BENEFIT COST ANALYSIS.)

These efficiencies lead to a 2.72 Benefit Cost Ratio Undiscounted and 1.38 Discounted.

The New Container Yard site is owned by the Port Authority and it has sufficient funding available to meet its obligations supporting this request. (See Appendix 2, Letter of Commitment.)

The "**Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion**" project is scheduled to be completed without reasonable delay as detailed in the schedule provided above. This project will however be delayed if federal funds are not received, and such a delay would impact supply chain and efficiency improvements, including emission reductions, safety benefits, and truck turn times.

For these reasons, the Port Authority requests award for the "**Keep the Supply Chain Moving with the Bayport Terminal Yard Expansion**" project in the PIDP 2023 cycle to improve the movement of goods for the supply chain.

Appendices (Appendices are found as attachments to the application)

1. Economic Impact Study
2. Letter of Commitment
3. BCA
4. Detailed BCA Explanation
5. Support Letters

Reference Documents

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