

Cover page I.

Project Title	ASPA's New Horizons Project
Applicant	Alabama State Port Authority 250 N. Water Street, Mobile, AL 36602 Megan Amacker <u>Megan.Amacker@alports.com</u> (251) 441-7261
Amount of CRISI Program Funding Requested under this NOFO	\$45,419,109 (80%)
Amount of Proposed Non-Federal Match	\$11,354,777 (20%)
Other Sources of Federal funding, if applicable	N/A
Source(s) of Proposed Non-Federal Match	ASPA's General Fund
Total Project Cost	\$56,773,886
Was a Federal Grant Application Previously Submitted for this Project?	No
City(-ies), State(s) Where the Project is Located	City of Mobile, Alabama
Is the Project Located in a Rural Area?	No ¹
Congressional District(s) Where the Project is Located	Congressional District 1 ²
Application Track(s) proposed to be funded by this NOFO?	Track 3 – Final Design / Construction Track 4 – Research
Lifecycle Stage(s) proposed to be funded by this NOFO?	Implementation Stage Final Design and Construction
Current Lifecycle Stage and Anticipated completion of current Lifecycle Stage?	Development Stage Project Development Operation Analysis
Is the Project located on real property owned by someone other than the applicant?	No
Host Railroad / Infrastructure Owner(s) of Project Assets	CSX Transportation ³
Other impacted Railroad(s)	Norfolk Southern Railroad
Tenant Railroad(s), if applicable	N/A

 ¹ Federal Register :: 2020 Census Qualifying Urban Areas and Final Criteria Clarifications
 ² 2023 Court Ordered Congressional Plan (arcgis.com)
 ³ National Rail Network Map (arcgis.com)



If applicable, is a 49 U.S.C. 22905-compliant Railroad Agreement executed or pending?	Yes ⁴
Is the project currently programmed in ANY medium- or long-range planning document: For example, State rail plan, or interregional intercity passenger rail systems planning study, State Freight Plan, TIP, STIP, MPO Long Range Transportation Plan, State Long Range Transportation Plan, etc.?	No
Is the project located on a potential corridor selected for the Corridor Identification and Development Program ⁵ ?	No ⁶
Is this a project eligible under 49 U.S.C. 22907(c)(2) that supports the development of new intercity passenger rail service routes including alignments for existing routes?	No
Is this a project eligible under 49 U.S.C. 22907(c) (11) that supports the development and implementation of measures to prevent trespassing and reduce associated injuries and fatalities?	No
If YES to the previous question, is this project located in a county identified in FRA's National Strategy to Prevent Trespassing on Railroad Property?	N/A
Is the application seeking consideration for funding under the Maglev Grants Program?	No

 ⁴ Frequently Asked Questions about Rail Improvement Grant Conditions under 49 U.S.C. § 22905(c)(1) | FRA (dot.gov)
 ⁵ <u>https://railroads.dot.gov/elibrary/fy22-CID-program-selections</u>
 ⁶ <u>FY22 CID Project Summaries-Map-r1.pdf (dot.gov)</u>



Table of Contents

I.	Cover page	i							
Tab	le of Contents	i							
List	of Tables	. ii							
List	of Figures	. ii							
II.	Project Summary								
III.	Grant Funds, Sources, and Uses of Project Funds	. 2							
IV.	Applicant Eligibility Criteria	. 3							
V.	Project Eligibility Criteria	. 3							
VI.	Detailed Project Description	. 3							
Р	roject Background	. 5							
	Broader Context of the Project	. 5							
C	hallenges the Project Aims to Address	. 6							
	Challenge 1: Foster Existing and Future Economic Competitiveness	.7							
	Challenge 2: Increase Resilience Against Severe Weather Events	.7							
	Challenge 3: Increase Worker Safety and Operational Efficiency	. 8							
	Challenge 4: Freight Infrastructure Needs for Passenger Rail	. 8							
E	xpected Outcomes	.9							
E	xpected Users and Beneficiaries	.9							
	Local Businesses/Freight Users	.9							
S	pecific Components and Elements of the Project	.9							
Р	roposed Performance Metrics	10							
VII.	Project Location	11							
Т	opography	11							
VII	Evaluation and Selection Criteria	12							
Р	roject Readiness	12							
	NEPA Status & Environmental Permitting	12							
	Timeline of Agreements	13							
	Lifecycle Stages								
	Project Partner Coordination and Commitments								
Т	echnical Merit	14							
Р	roject Benefits	15							
	Effects on System and Service Performance	15							



Effects on safety, competitiveness, reliability, trip or transit time, and resilience	
Efficiencies from improved integration with other modes	17
Ability to meet existing or anticipated demand	
Selection Criteria	
Proposed Federal Share	
Net Project Benefits	
Trespass Prevention	
Administration Priorities	
Climate Change and Sustainability	
Workforce Development, Job Quality, and Wealth Creation	
Support Resilient Supply Chains & Economic Opportunity	
Equity and Barriers to Opportunity	
Community Engagement	
IX. Project Implementation and Management	
Risk Management	
Experience with Similar Projects and Staff Readiness	

List of Tables

Table 1 – Anticipated Project Schedule	10
Table 2 – Performance Metrics for ASPA's Port of Mobile TASD Yard Improvements	10
Table – Anticipated Agency Project Reviews	12
Table 4 – Project Name Potential Risk and Mitigation Plan	24

List of Figures

Figure 1 - Excerpt from TASD ASPA TRR Interchange Expansion 30% Plans	2
Figure 2 – Terminal Railway Alabama State Docks Overhead Aerial	5
Figure 3 – Transportation Vicinity Map at the Port of Mobile	11
Figure 4 – Project Vicinity Topographic Map	
Figure 5 – FRA Project Lifecycle Stages Diagram	13
Figure 6 – Freight Rail in Alabama	15
Figure 7 – Downtown Mobile during Hurricane Katrina in 2005	17
Figure 8 – Transportation Modes in Mobile and Baldwin Counties	
Figure 9 – Jobs Generated by the Port of Mobile	
Figure 10 - Port of Mobile's National Economic Value	21

Attachments in the narrative are available at <u>CRISI | New Horizons Project 2024 - Port of Mobile (alports.com)</u>



The Alabama State Port Authority (ASPA) is pleased to submit this application for a Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program discretionary grant for improving the Terminal Railway Alabama State Docks (TASD) rail interchange yard as well as exploring options for passenger rail in the Mobile area due to the increased efficiency of the TASD. The following narrative presents the information requested by the CRISI Notice of Funding Opportunity (NOFO) in support of this application.

II. Project Summary

The Port's railroad, TASD, is responsible for all rail switching services for customers at the Port of Mobile. With anticipated growth Port-wide, including passenger service from New Orleans to Mobile, ASPA's TASD New Horizons Project (or 'The Project') would allow the Port to prevent future congestion by increasing capacity in advance of demand.

The New Horizons Project, shown in **Figure 1**, will expand the existing interchange yard with approximately 38,980-feet (7.4 track miles) of new track. These proposed nine additional rows of track would include five tracks toward the west of the existing Industrial Canal Road for both through movement and storage and four additional tracks toward the east of the existing Industrial Canal Road for storage. The number and location of tracks will depend on preserving the location of existing utilities. This improvement will result in reduced emissions from queueing and is anticipated to positively impact surrounding communities.

The project also proposes to improve the existing and future interchange yard's resilience and safety by raising tracks by approximately 3.5-feet (42-inches) in the middle of the interchange yard (and even more at the ends of tracks to create a "bowl effect" for safe handling of rolling cars) and converting the yard to an automated flat switching yard with one outdoor kiosk, 30 remotely controlled switches (TS4500 Switch Machine) with automatic equipment identification (AEI) for railcar tracking, an LED display board with cut-lighting, as well as IT components to support routing, communications, and train detection.

In addition, with these proposed improvements in place, ASPA is looking to perform a rail traffic control (RTC) study that will give a holistic look at how this new infrastructure would impact the rail network throughout Mobile and beyond. The impacts studied would be for freight traffic and the future of passenger rail as Amtrak continues to expand its services. This study would align with the Federal Rail Authority's (FRA) Corridor Identification Program and determine the freight infrastructure required to support additional passenger rail service beyond Mobile.

This Project supports many of ASPA's and USDOT's goals of improving safety, creating more resilient infrastructure against severe weather events and climate change, and maintaining existing and future infrastructure in a state of good repair.

These improvements strengthen ASPA's commitment to environmental stewardship and economic competitiveness by leveraging its assets. The Project will also include all the necessary Planning, Project Development, Preliminary Engineering, and NEPA requirements for Track 3 – FD/Construction and Track 4 – Research.





Figure 1 - Excerpt from TASD ASPA TRR Interchange Expansion 30% Plans

III. Grant Funds, Sources, and Uses of Project Funds

For the proposed improvements, ASPA is requesting approximately \$45.4 million (80% of total project costs) in funding through the Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program. Non-federal matching funds of approximately \$11.4 million (20% of total project costs) will be provided by ASPA through its general fund.

Task #	Task name/project component	Cost	Percentage of total cost	Source of Funds and Citation, as applicable		
1	Rail Yard Expansion and Raising	\$52,834,386	95%	30% Rail Yard Design Estimate		
2	Upgrading Rail Yard Switches	\$3,739,500	4.7%	TASD Switch Budgetary Proposal		
3	RTC Passenger Rail Study	\$200,000	0.3%	Previous RTC Studies		
Total Projec	et Cost	\$56,773,886	100.0%			
Federal Fund (CRISI Progr	ling Requested in this Application ram Request)	\$45,419,109	80.0%	FY 23-FY24 CRISI		
Non-Federal	Funding (State)	\$11,354,777	20.0%	ASPA General Fund		
Non-Federal	Funding (Private Sector)					
Non-Federal	Funding (Local)					
Other Comm (e.g., Federal H directed/ earman including previo	itted Federal Funding ighway Administration, congressionally rk, other FRA grant program funds— ous CRISI grants, etc.)					



Other Pending Federal Funding Requests	 	
Amount (if any) of funding request eligible for set-aside funds as described in section B(1)	 	
Portion of Total Project Costs Spent in a Rural Area, if applicable	 	
For Highway-rail grade crossing and trespass prevention projects only: Does some or all of the proposed Non-Federal Match for the total project cost consist of preliminary engineering costs incurred before? If yes, how much?	 	

IV. Applicant Eligibility Criteria

The CRISI Grant applicant is the Alabama State Port Authority's (ASPA). As a public agency established by the State of Alabama, the Alabama Port Authority is an eligible applicant for this CRISI Grant under the Notice of Funding Opportunity (NOFO) for the Fiscal Year (FY) 2023 – 2024 CRISI Program set forth by the Federal Railroad Administration (FRA). If awarded, the ASPA is committed to leading project management and grant administration.

V. Project Eligibility Criteria

ASPA's Terminal Railway Alabama State Docks (TASD) New Horizons Project (or 'The Project') proposes improvements to rail yard, short-line, and regional railroad infrastructure resiliency, safety, and operational efficiency and investigates leveraging these improvements for future passenger rail opportunities throughout the rail network.

This Project will support many local communities and industries and explore the potential for expanding passenger rail service throughout the Mobile area and beyond. Because of this, the New Horizons Project qualifies as eligible under Section C.3.vii and xii of the CRISI NOFO:

- (vii) A capital project to improve short-line or regional railroad infrastructure.
- (xii) Any research that the Secretary considers necessary to advance any particular aspect of rail-related capital, operations, or safety improvements.

VI. Detailed Project Description

The Project is focused on the TASD yard, a terminal switching railroad at the Port of Mobile with the main purpose of rail car storage. Since 1928, this terminal line has been a key switching line owned and operated by the ASPA. Motive power over the years has been various iterations of end-cab switching



locomotives. The interchange has always been maintained with the various mainline railroads serving Mobile, but currently serves Burlington Northern Santa Fe, CSX Transportation, and Norfolk Southern⁷.

With the proposed project, much-needed improvements will be made to expand the existing interchange yard by 38,980 feet (7.4 track miles) to increase storage capacity within the yard and prevent locomotive queueing. By raising the existing and future interchange yard up to approximately 3.5-feet (42-inches) in the middle of the interchange yard (and even more at the ends of tracks to create a "bowl effect" for safe handling of rolling cars), it is anticipated to protect the yard from a Category 3 storm or higher. As a result, the surrounding communities will be positively impacted by the reduced need to store locomotives on the Chickasaw Railroad Lead Line in severe weather events. In addition, the yard will be converted to an automated flat switching yard using TS4500 Switch Machine technology, which has proven to be a cost-effective solution that increases safety and reliability as well as minimizes maintenance requirements for a lower overall cost of ownership.

With these proposed TASD yard improvements in place, ASPA is also looking to perform an RTC passenger rail study in conjunction with CSX and Amtrak. The study will give a holistic look at how this new infrastructure at TASD would impact both the CSX mainline in this location and the rail network throughout Mobile and beyond. The impacts studied would be for freight traffic and the future infrastructure needs to accommodate passenger rail as Amtrak continues to expand its services.

Currently, the only passenger rail service operating in the state is Amtrak's Crescent Line. Traveling daily in both directions between New York City and New Orleans, it stops in Anniston, Birmingham, and Tuscaloosa⁸. In 2012, the Crescent experienced 67,233 total passenger trips in Alabama, including 48,734 in Birmingham, 12,290 in Tuscaloosa, and 6,209 in Anniston. Crescent passenger trips in Alabama increased 5.75 percent from 2010 to 2012. Passenger service along the Gulf Coast was suspended in 2005 following damages due to Hurricane Katrina; however, returning daily passenger service between New Orleans and Jacksonville is strongly supported by local officials along the Gulf Coast. At present, the ASPA is executing a CRISI grant in partnership with Amtrak, CSX, and NS to construct the infrastructure required to accommodate freight traffic as twice-daily passenger service between Mobile and New Orleans is implemented.

Local industries and communities have relied on the railroad service at the Port of Mobile since its inception in 1928. The Port and its related activities, such as the railroad service, supported an estimated 351,359 direct, induced, indirect, and related jobs in Alabama in 2022, one in seven jobs statewide⁹, with 19,911 jobs directly created by the marine cargo and vessel activity at the Port. Those employed directly by the Port have an average annual salary of \$59,339, which is greater than the statewide average of \$50,6201¹⁰.

Another factor indicative of potential support for exploring passenger rail service in this area involves journey-to-work statistics. The US Census' 2016-2020 5-year commuting flows recorded 994,542 workers traveling within or between Jefferson, Montgomery, and Mobile Counties to access their place of work, an average daily rate of 545 commuter trips¹¹.

⁷ HawkinsRails - Terminal Railway Alabama State Docks

⁸ RailSummary.pdf (state.al.us)

⁹ Economic Impact - Port of Mobile (alports.com)

¹⁰ U.S. Department of Labor's Bureau of Labor May 2023 National Occupational Employment and Wage Estimates (bls.gov)

¹¹ <u>2016-2020 5-Year ACS Commuting Flows (census.gov)</u>



Overall, the proposed improvements are crucial to both freight industries to improve worker safety and operational efficiency, create more resilient infrastructure against severe weather events and climate change, and maintain existing and future infrastructure in a state of good repair, as well as the broader context of how passenger and freight rail can work together to support transportation.

Project Background

The TASD is a Class III short-line railroad that is both owned and operated by the ASPA¹². Shown in **Figure 2**, the line services five Class I railroads, a Class II railroad and a Class III railroad and handles approximately 165,000 revenue rail cars through its interchange and terminal yards annually¹³. The line received two prestigious awards by the ASPA for Most Hours of Injury–Free Operation (zero accidents in a calendar year) and Best Safety Rate for 150,000–250,000 Person Hours worked in 2019. The interchange has always been maintained with the various mainline railroads serving Mobile, but currently serves Burlington Northern Santa Fe, CSX Transportation, and Norfolk Southern.

Apart from the Pinto Island Steel Terminal, all Alabama Port Authority facilities are rail-served. TASD is a critical shortline railroad that conducts switching across all terminals and directly delivers cargo to more than 25 different customers. The railroad moves over 100,000 carloads annually, transporting goods such as containers, coal, metal products, lumber/building supplies, paper, chemicals, petroleum products, aggregates, cement, grains, and agricultural products. TASD also generates additional revenue from the movement and storage of freight cars for other railroads. This switching line serves the port facilities at the Port of Mobile as well as industrial and commercial customers, including steel mills, chemical plants, and distribution warehouses¹⁵.

TASD is the industrial switching lead for the Port of Mobile, responsible for approximately 75 miles of tracks across four facilities. However, these tracks designated for throughput are being used as storage to accommodate businesses that use this yard, which has caused the Port to not fully reach its economic potential.



Figure 2 – Terminal Railway Alabama State Docks Overhead Aerial¹⁴

Broader Context of the Project

ASPA currently has more than \$1 billion in capital projects underway in the state. The Port reinvests all revenue outside of operating expenses in improving and expanding its facilities to ensure continued growth and success¹⁶. The implementation of the New Horizons Project would not only bring individual benefits to the Port but will also help bolster these other investments already made in and around the Port.

¹² <u>Connectivity - Port of Mobile (alports.com)</u>

¹³ ASPA Terminal Railway Earns National Safety Recognition - Port of Mobile (alports.com)

¹⁴ HawkinsRails - Terminal Railway Alabama State Docks

¹⁵ Terminal Railway Alabama State Docks (TASD) | Organisations | Railway Gazette International

¹⁶ Governor Ivey Announces the Port of Mobile's Nearly \$100 Billion Impact on Alabama's Economy - Office of the Governor of Alabama



The Chickasaw Railroad Lead Line Project proposes to construct approximately 1.9 miles of new track for a passing lane that is parallel to the existing TASD tracks. The goal of the passing lane/sidetrack project is to meet the needs of existing traffic and improve the efficiency of the TASD system north of the yard. It is anticipated that the Chickasaw Project will allow approximately 175 cars to be moved off the TASD mainline track to the new sidetrack while waiting for trains to enter or exit the TASD yard. This will accommodate queued trains within the Port's existing industrial area and is anticipated to reduce idling times¹⁷.

ASPA is actively applying for the EPA Clean Ports Program to support projects for the Port and four private terminal operators. If awarded, the Port intends to use funds from the Clean Ports Program to purchase new electric switching locomotives that will be compatible with the TS4500 Switch Machine technology implemented with the New Horizons Project. Not only will these electric locomotives eliminate harmful emissions, drastically reducing the Port's carbon footprint compared to the traditional diesel-powered locomotives, but another significant benefit of these new locomotives is the reduction in noise pollution. The switcher locomotive operates silently, minimizing disturbances to surrounding communities¹⁸.

The Port recently completed a land deal to acquire 272 acres of land in Montgomery, Alabama, for \$2 million¹⁹. This acquisition is where the Port's first inland intermodal container transfer facility (ICTF) will be located. The Montgomery ICTF will provide direct railway and interstate access with I-65 and I-85. This facility will aid in easing rail congestion at the Port of Mobile and take up to 250 trucks off the interstate system from Mobile to Montgomery. This rail service will support business growth both in Montgomery and throughout the State²⁰. CSX Intermodal is contributing up to \$12.5 million toward infrastructure improvements at the facility since regularly scheduled intermodal rail service is being reestablished and offers the ability to expand in the future¹⁹. Once complete, the project will generate 2,618 direct and indirect jobs, \$340 million in business revenues, and over \$14.2 million in state and local taxes²¹.

These pending improvements, combined with the TASD New Horizons Project, will protect both past and future investments in new, more efficient, and resilient freight rail systems.

Challenges the Project Aims to Address

The improvements at the Port of Mobile's TASD railyard for safer and more resilient freight storage and through movement will increase worker safety and operational efficiency, provide more resilient infrastructure that can withstand ever-increasing storm events, lower maintenance costs, reduce the need for locomotive emergency replacement, and ensure the continued economic support of industries throughout Alabama and beyond by addressing the following challenges:

¹⁷ <u>Chickasaw-Railroad-Flyer.pdf (alports.com)</u>

¹⁸ Midwest Terminals: The First Ever All-Electric Switcher Locomotive Providing Green Alternative for Railroads -Midwest Terminals

¹⁹ Alabama Port Authority to Build an Inland Intermodal Transfer Facility at Montgomery, AL - Port of Mobile (alports.com)

²⁰<u>Alabama Port Authority to Boost Intermodal Capacity—in Montgomery - Railway Age</u>

²¹ <u>Alabama Port Authority Announces Plans to Build an Inland Intermodal Transfer Facility in Montgomery | City News | City of Montgomery, AL (montgomeryal.gov)</u>



Challenge 1: Foster Existing and Future Economic Competitiveness

Improving the TASD yard will leverage all rail infrastructure that relies on it. In turn, the Project will advance the development of the entire network and support ASPA's goals of economic competitiveness.

Major industries along both the CSX and NS corridors are reliant on TASD's storage capacity and efficiency for their economic success and stability. The Port of Mobile handles more than 55 million tons of international and domestic cargo for exporters and importers, delivering \$98.3 billion in economic value to the state in 2022 alone²².

This reliance shows the importance of expanding the TASD capacity and keeping it in a state of good repair. The existing TASD yard can currently store up to 2,310 carloads (based on an average 60-foot railcar over the length of track currently owned and operated by ASPA) and sees up to 200,000 revenue loads annually. Most of these carloads are for freight services that operate five days a week, Monday through Friday, with special and unit train operations on weekends, as needed. With the proposed Project, it's anticipated that the TASD will be able to accommodate an additional 350 carloads of storage and up to 35,000 revenue loads annually.

In addition, freight train lengths have increased in recent years, according to Class I freight railroads. Class I's have reported their average train lengths had grown 25 percent since 2008²³, with some trains stretching as long as three miles. Trains will continue to lengthen and will need yards where they can be safely stored, such as the TASD yard.

The Port of Mobile alone handles a total of 59 million tons of commodities annually and was ranked 12th among the top 100 United States ports in terms of total tonnage of all categories in 2021 according to the US Army Corps of Engineering (USACE)²⁴. The Port is particularly important because it is the second largest steelmaking, or met, coal terminal in the United States, with more than half of the tonnage arriving via rail and an active capital improvement plan that will double met-coal exports within the next 5 years²⁵.

Overall, improving rail infrastructure will improve the economic resiliency of the Port of Mobile, especially for the businesses that rely on TASD for the movement and storage of goods port-wide.

Challenge 2: Increase Resilience Against Severe Weather Events

In 2005, ASPA's Port of Mobile lost approximately \$2.1 million in locomotive wheel sets alone and 75 percent of their locomotives in Hurricane Katrina. Most of the Port's damage was from the storm surge rather than the hurricane itself; however, the Port still sustained more than \$30 million in damage²⁶.

Since then, the Port and its assets continue to be subject to weather events, storm surge, and sea-level rise. Mobile lies in a region of the Gulf of Mexico that has seen 28 severe (Simpson-Saffir Category $3-5^{27}$) hurricanes in the past five decades, and coastal port communities, such as Mobile, will be increasingly vulnerable to the impacts of a changing climate during the remainder of the 21st Century. A case study of

²² Economic Impact - Port of Mobile (alports.com)

²³ GAO-19-443, RAIL SAFETY: Freight Trains Are Getting Longer, and Additional Information Is Needed to Assess Their Impact

²⁴ <u>2024 Port Performance Freight Statistics Program: Annual Report to Congress (bts.gov)</u>

²⁵ Vulnerability of seaports to hurricanes and sea level rise in a changing climate: A case study for mobile, AL - ScienceDirect

²⁶ Hurricane-Affected U.S. Gulf Coast Ports Coming Back Strong (aapa-ports.org)

²⁷ Saffir-Simpson Hurricane Wind Scale (weather.gov)



the Port of Mobile, AL, reveals that if a Katrina-like hurricane were to occur late in the 21st Century, damages to the Port of Mobile would increase by a factor of nearly seven²⁸.

ASPA is proposing to raise the existing TASD railyard to 7 feet above sea level from its current 3 feet above sea level. This 4-foot rise in elevation is anticipated to protect the railyard from a Simpson-Saffir Category 3 storm or lower without the need to move the locomotives up the Chickasaw Railroad Lead Line. This will positively impact surrounding communities, as there will be less frequency in which locomotives will need to leave the yard.

Overall, the proposed Project will not only positively impact the Port and add protection for its assets and resilience to its operations but will also benefit the surrounding communities by reducing the need to move locomotives into areas of higher elevation outside of the interchange yard and closer to residential areas during severe weather events.

Challenge 3: Increase Worker Safety and Operational Efficiency

Switch machines are an essential component of railway tracks, providing a safe and efficient means of changing the direction of trains and managing their movements. The importance of switch machines in the railway industry cannot be overstated, as they play a crucial role in ensuring the smooth operation of trains and the safety of workers. Upgrading the switches in the TASD yard to electric switches allows for both remote control and monitoring and for the use of stiffer, stronger switches that would be too difficult to move by hand, which allows for heavier loads and greater efficiency.

In addition, another advantage of an upgraded switch machine is its ability to operate in harsh environments. These switches are designed to withstand extreme temperatures, moisture, and other environmental conditions, making them well-suited for use in areas with harsh weather or heavy industrial activity,²⁹ such as the Port of Mobile.

Overall, by upgrading the existing switches in the TASD yard, the proposed Project will eliminate the need for manually operated switches. This, in turn, increases worker safety in the yard and allows the yard to work more efficiently by reducing the margin of human error and providing a more robust system to accommodate environmental factors and the ever-increasing volume of freight.

Challenge 4: Freight Infrastructure Needs for Passenger Rail

Passenger service along the Gulf Coast has been suspended since 2005, when Hurricane Katrina destroyed critical rail infrastructure. Amtrak's efforts to reinstate service with new stops and more frequent trains led to litigation before the Surface Transportation Board (STB) in 2022. The STB ordered mediation for the parties (Amtrak, CSX, NS, and ASPA), which led to the parties' joint application for a CRISI grant. Awarded in November 2022, the Gulf Coast CRISI Grant Project provides funding to construct the freight rail infrastructure necessary to accommodate passenger trains from New Orleans to Mobile. However, Amtrak, the Southern Rail Commission, and elected officials from across the Gulf Coast have voiced support for taking the route beyond Mobile, through the panhandle of Florida, and on to Orlando and Jacksonville³⁰.

²⁸ <u>Vulnerability of seaports to hurricanes and sea level rise in a changing climate: A case study for mobile, AL - ScienceDirect</u>

²⁹ Evolution of Switch Machines in Rail Industry (intertechrail.com)

³⁰ <u>Alabama — Southern Rail Commission</u>



With more than one billion dollars of Port infrastructure investments planned over the next 10 years and the interest in expanding passenger rail service beyond Mobile in the future, it is more important than ever to account for all growth factors and understand the infrastructure that would be necessary to ensure passenger trains could safely and efficiently transit the region.

Overall, upgrading and expanding the TASD yard is a key component in preventing rail traffic congestion as the Port grows, and studying the new infrastructure in the context of the broader rail network around Mobile is a proactive step by the Port to better understand the freight infrastructure required to accommodate passenger rail in this area.

Expected Outcomes

The TASD New Horizons Project will provide benefits associated with safer operations through a stronger rail structure and minimize potential economic losses, additional maintenance costs, and operational delays. The implementation of this Project will efficiently contribute to the improvement of the TASD yard and associated corridor network that can safely transport goods and people and improve reliability and resiliency.

Expected Users and Beneficiaries

Local Businesses/Freight Users

The primary trains moving through the TASD Yard are freight rail and local businesses traveling to and from the Port's marine terminals the yard supports.

The private marine terminals include Alabama Bulk Terminal, Vertex Energy, Zenith Energy, World Point Terminals, Radcliff Energy, Core Industries, Vulcan Materials, Holcim, Millard Marine, Bayou Concrete, Martin Marietta, Cooper Marine, and Mobile Marine Terminal. These private terminals handle liquid bulk cargoes, lumber products, coal, and dry bulk cargoes such as limestone and iron ore.

In 2022, the public and private marine terminals located in the Mobile Harbor and included in this impact study handled 43.3 million tons of international and domestic cargo for exporters and importers located within the state of Alabama, as well as throughout the United States³¹.

Improved service through yard expansion and upgraded switches can only enhance the efficiency of the freight trains running along the route. In addition, by raising the yard, the ASPA is advancing rail improvements throughout the state that will allow for more resilient local and regional supply chains, especially for businesses that rely on the freight. Improvements for these users can also support the projected growth of freight shipping by rail within the region.

Specific Components and Elements of the Project

The specific components and elements of the **TASD New Horizons Project** include the following activities:

- Engineering survey and design
- Federal environmental approval
- Installation of 12.8 miles of new rail track

- Raising the yard by approximately 3.5-feet
- Automated flat switching yard conversion
- RTC Passenger Rail Study

TASD construction will be completed within 48 months after award, as shown in Table 1.

³¹ Alabama Port Authority 2022 Economic Impact Executive Summary-FINAL.pdf (alports.com)



Year		2024			2025 2026																							
Month	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4		5	6	7	8	9	10	11	12
Notice of																												
Award																												
Preliminary																												
Engineering																												
NEPA										10		In our		and a	4 a a la	1												
Complete										10-1	moni	n an	ucipe	llea	lask	aura	mon											
Final																								0	111.01	th an	tioin	atad
Design																								9	-mon	in an	пстра	пеа
Year						2	2027														20	28						
Month	1	2	3	4	5	6	1	7	8	9	10	11	. 1	2	1	2	3	4	5	;	6	7		8	9	10	11	12
Final	taal	dun	ation																									
Design	lask	caure	uion																									
Project					15 month anticipated task duration																							
Construction						13-ποπιή απιτεραίεα ταςκ αυγάτιοη																						

Table 1 – Anticipated Project Schedule

The proposed RTC passenger rail study is anticipated to occur after implementation of the TASD interchange yard improvements, but could run concurrently during project construction, and will take up to 6 months to complete.

Proposed Performance Metrics

The TASD improvements component are on Track 3 - FD/Construction and, as such, the performance will be measured on the completion of these items as well as how the three established transportation challenges have been addressed – fostering economic competitiveness, increasing resilience, and increasing operational efficiency and worker safety. The RTC Passenger Rail component is on Track 4 - Research and performance will be measured on completion of the study.

The Grantee will report these performance measures per the frequency and duration shown in **Table 2**. All technical specifications and performance requirements will comply with those established by the Federal Railroad Administration (FRA), as applicable.

Performance Measure	Unit	Frequency	Strategic Goal	Definition
Final Design Completion	Completion	Once	n/a	This measure will ascertain whether the designs have been completed to a satisfactory level to begin construction.
Track Capacity (Storage)	Locomotives		Primary : Economic Competitiveness	This measure will show how increasing the storage capacity of the TASD yard increases business and revenue.
Switching Time	Seconds		Primary : Operational Efficiency	This measure will show how upgrading TASD yard switches will allow for faster operations.
Resilience	Days to return to normal operations	Per storm event	Primary : Operational Efficiency	This measure will show how investment in raising the TASD yard will allow the Port to return to normal operation faster when subject to storm events.

Table 2 - Performance Metrics for ASPA's New Horizons Project



Performance Measure	Unit	Frequency	Strategic Goal	Definition
Resilience	\$ for repairs	Per storm event	Primary : Resiliency	This measure will show how investment in raising the TASD yard will save money long-term.
RTC Study Completion	Completion	Once	Primary: Research Freight Infrastructure Needs to Accommodate Passenger Rail	This measure will ascertain whether the RTC Passenger Rail Study has been completed to a satisfactory level to draw future projects from.

VII. Project Location

The **TASD New Horizons Project** will expand the TASD's rail yard by approximately 38,980-feet (7.4 track miles). The project lies entirely within Alabama's 1st Congressional District³² in Mobile County. The Port of Mobile is strategically located on the central Gulf Coast where abundant transportation options give businesses every asset they need to succeed and grow. Major rail, ship, and highway transportation systems converge along the Mobile River at the Port of Mobile to link Alabama businesses with the nation and the world. In addition to a deepwater port, Mobile has two major interstate connectors, five Class 1 railroads, and two airports³³. Shown in Figure 3, the TASD interchange yard is a key component to this operation as the main switching and storage hub for the Port's operations.



Figure 3 – Transportation Vicinity Map at the Port of Mobile

Topography

Alabama regions include the north-central Appalachian hills, the northwestern interior plateaus, the eastern Piedmont, and the southern coastal plain. **Figure 4** shows the topography of the area surrounding

³² 2023 Court Ordered Congressional Plan (arcgis.com)

³³ Infrastructure - Mobile Chamber



the TASD yard, located in the coastal plain of Alabama. The average elevation of the City of Mobile is 10-feet (3-meters) above sea level. However, the lowest elevation across the state is where the land meets the Gulf of Mexico near the Port of Mobile.



Figure 4 – Project Vicinity Topographic Map³⁴

VIII. Evaluation and Selection Criteria

The following describes the benefits and technical merits of the **TASD New Horizons Project**, which meets the criteria outlined in the NOFO.

Project Readiness

Upon award of CRISI grant funding, ASPA is ready for obligation as soon as the necessary documentation can be executed. The entirety of the Project area is located on Port Authority property, requiring no changes to the existing land use, ownership, or operations. The Project will be developed through extensive planning, including public outreach and through active coordination with all regulatory agencies and applicable stakeholders. The Project can begin quickly upon obligation of grant funds, and grant funds will be spent expeditiously once construction starts.

NEPA Status & Environmental Permitting

The NEPA process for the Project will begin three months after the grant award. The Project is anticipated to be processed as a Categorial Exclusion (CE) checklist. As part of the NEPA process, potential impacts to features in and around the project corridor will be reviewed and required regulatory agency approval from Federal and State agencies will be coordinated, listed below, as deemed necessary.

Project Feature	Agencies Providing Input and/or Approval
Waters of the U.S.	U.S. Army Corps of Engineers, Alabama Department of Economic and Community Affairs Office of Water Resources
Cultural Resources	Alabama Historical Commission, Federal and State Tribes
Threatened or Endangered Species	U.S. Fish and Wildlife Service, Alabama Department of Conservation & Natural Resources
Grant Agreement	Federal Rail Administration, Alabama State Port Authority

Table	3 -	Anticipated	Agency	Project	Reviews
1 and a	2	inneipuicu	ingeney	rojeci	nevien

³⁴ <u>Mobile topographic map, elevation, terrain (topographic-map.com)</u>



Timeline of Agreements

Under 49 U.S.C. 22905(c)(1), a grant applicant must have a written agreement with a railroad that owns rights-of-way to be used by the project (referred to here as the 22905 Agreement) prior to grant obligation.

The status and timeline of agreements, such as the 22905 Agreement, necessary for the legal, financial, and technical capacity to complete the project as proposed, are sufficiently developed.

Lifecycle Stages

The application track for this Project is Track 3 – Final Design & Construction for the TASD yard improvements and Tack 4 – Research for the Rail Traffic Control Passenger Rail Study, which are included in the Implementation Stages, including Final Design, Construction, and Operation, according to the Federal Railroad Administration's (FRA) Project Lifecycle Stages diagram, shown in **Figure 5**.

The Project will complete any preceding Lifecycle Stages, including Project Planning and Project Development and all its requirements, prior to funds being obligated.



Figure 5 – FRA Project Lifecycle Stages Diagram³⁵

Project Partner Coordination and Commitments

The Project will aim to meaningfully engage and incorporate feedback from communities surrounding the project and partners engaged with the project, providing accommodations to make participation accessible regardless of race, national origin, disability, age, or gender. These equity considerations will be integrated into the project development process but will especially be important during the public involvement portion. ASPA is planning to host one public meeting at an accessible location in the vicinity of the project area.

Local officials, residents, and stakeholders will be notified via postcard and other notices will be advertised online on ASPA's project webpage. If deemed necessary, translated materials and/or a translator can be available at meetings. In addition, small group community-based meetings will be held in addition to the

³⁵ <u>PowerPoint Presentation (dot.gov)</u>



public meetings to solicit feedback from key groups, particularly with vulnerable populations and disadvantaged communities.

Technical Merit

In evaluating Technical Merit, FRA will evaluate the degree to which the application, statement of work, schedule and budget are reasonable and appropriate to achieve the expected outcomes, commitment of necessary resources and workforce to deliver the project, and the proposed project elements are appropriate for the project funding request. FRA will also consider applicant risk, including the applicant's past performance in developing and delivering similar projects.

Evaluation Criteria	TASD New Horizons Project	
(A) The tasks and subtasks outlined in the Statement of Work (SOW) are appropriate to achieve the expected outcomes of the proposed project;	Yes – The proposed tasks are in line with projects of this nature. A detailed Statement of Work (SOW) is provided as an attachment.	
(B) The technical qualifications and experience of key personnel proposes to lead and perform the technical efforts, including the qualifications of the primary and supporting organizations, demonstrates the ability to fully and successfully execute the proposed project within the proposed timeframe and budget;	Yes – ASPA has technical staff who are experienced and qualified to undertake the final design and construction of this project. Additionally, ASPA will contract with a consultant team with expertise to support the project development and construction process.	
(D) The proposed project's business plan considers potential private sector participation in the financing, construction, or operation of the proposed project;	Yes – As part of plan development, potential funding sources will be identified to advance projects in the region. The plan will aim to partner with the private sector to fund improvements benefiting the private freight rail network.	
(E) The applicant has, or will have the legal, financial, and technical capacity to carry out the proposed project; satisfactory continuing control over the use of the equipment or facilities; and the capability and willingness to maintain the equipment or facilities;	Yes – As a state transportation agency, ASPA will develop and administer the project and grant financing. Funding match is committed by ASPA as the applicant and will seek a consultant, as necessary, to perform the work described in this grant application.	
(F) The degree to which the applicant and project deploy innovative technology, encourage innovative approaches to project delivery, and incentivize the use of innovative financing.	Yes - The project will use a cooperative community- based approach to planning, seeking input with corridor partners, local communities, and tribal agencies. As the project advances, ASPA will apply best practices and innovative technology to maintain in a state of good repair. As the project advances, ASPA will partner with FRA to develop innovative approaches to project delivery and financing.	



Evaluation Criteria	TASD New Horizons Project
(G) The proposed project is consistent with planning	Yes – The Project is consistent with USDOT planning
guidance and documents set forth by DOT, including	guidance. The project builds upon previous studies by
those required by law or State rail plans developed under	prioritizing safety, resilience, and equipment standards
title 49, United State Code, chapter 227.	for advancement in the project development pipeline.

Project Benefits

Effects on System and Service Performance

Adding to the existing tracks, modernizing the switches, and raising the elevation of the TASD yard will have a positive impact on the entire railway system that enters the Port of Mobile by improving the operational efficiency and performance of the network.

Alabama's railway system is an important aspect of the state's history and economy. Today Alabama's freight rail network is composed of 3,973 freight rail miles operated by 28 Class I, II and III railroads³⁷. **Figure 6** provides a breakdown of the numerous owners of Class I rail alone found throughout Alabama.

The commodity most transported by Alabama freight railroads is coal, at about 20 million tons per year. Of shipments originating in Alabama, coal is the most shipped, but the Alabama Department of Transportation projects basic chemicals



Figure 6 – Freight Rail in Alabama³⁶

will double to 8 million tons and overtake coal by the year 2040^{38} .

This increase highlights the need to continuously improve the rail infrastructure, especially at places like the Port of Mobile and TASD Yard. With the proposed improvements, an estimated 350 car spaces will be added, with 118 of those spaces specifically designated for storage. This is anticipated to save the Port up to \$560,000 annually. In addition, the Project is expected to generate a lower average of \$211,660 annual maintenance costs for miscellaneous maintenance than those associated with present operations.

Effects on safety, competitiveness, reliability, trip or transit time, and resilience

The partial replacement of the SBVR trackage will update current assets, reduce required maintenance and network downtime, and improve reliability. Track upgrades will also improve safety by reducing the

³⁶ Railroads - North Alabama Industrial Development Association (naida.com)

³⁷ RailSummary.pdf (state.al.us)

³⁸ 58.pdf (ua.edu)



risk of equipment failure and enabling smoother travel. In addition, the improvements will allow locomotives to remain in service for an extended duration, therefore improving the resiliency of the network through compliance with industry regulations and guidelines.

1) Safety

The safety of rail infrastructure is of critical importance to the state of Alabama as noted in the Alabama Rail Plan³⁹ with long-term commitments to improve safety by reducing collisions on railroad tracks.

The Project will improve safety by eliminating the need for trains to pull aside and yield for passing, reducing potential incidents. In addition, with the inclusion of upgraded switches, workers will no longer need to manually operate the switches, which will reduce the potential for workplace injuries.

According to the FRA Train Accident Dashboards, the major cause of train accidents from 2018-2022 was human error, with 117 recorded incidents⁴⁰. In addition, the number one accident type is train derailments, with 172 recorded incidents⁴¹. This project will eliminate human error, which is often associated with train accidents, improving the safety of the TASD yard.

2) Competitiveness

On rail, cargo can get from the Port of Mobile to Chicago, Illinois, in just three days. In addition to the five Class I and four shortline railroads, the Port also provides public deepwater terminals with direct access to 1,500 miles of inland and intracoastal waterways that serve facilities nationwide. The public terminals handle containerized, bulk, break bulk, roll-on/roll-off, and heavy lift cargoes. The Port is also home to private bulk terminal operators. The container, general cargo, and bulk facilities have immediate access to two interstate systems and five Class I railroads. Investing in improvements at this strategic location places Alabama at a competitive advantage through rail infrastructure that will result in increases in business, long-term cost savings, and economic growth.

Local industry and communities have relied on this segment of railroad service since its inception, which produces an estimated 19,911 direct jobs⁴². By providing an efficient and reliable rail yard, upgrades to the TASD yard through this Project make ASPA's facilities competitive to other businesses looking to invest and set up manufacturing facilities. Increasing the potential for job creation at the Port, as well as providing businesses that support a large proportion of the local workforce, are a reason to stay in the region.

3) Reliability

The Port of Mobile sits at a very strategic location where water, air, road, and rail traffic converge making the TASD yard essential in timely and reliable movement of goods for this hub.

Not only does rail reduce truck emissions, but shipping via rail is more economical for the cargo owner than truck transport over a similar route. In this case, the upgraded yard will make it very practical for shippers to place their goods on an intermodal train in Mobile and receive their shipment in a reliable and time-efficient manner. The avoided economic costs and travel time risks of trucking are significant after taking account of the rail costs of service.

³⁹ Shortline Rail Rehabilitation Alabama Statewide Freight Study and Action Plan

⁴⁰ Train Accidents by Cause | FRA (dot.gov)

⁴¹ Train Accidents by Type | FRA (dot.gov)

⁴² <u>Alabama_Port_Authority_2022_Economic_Impact_Executive_Summary-FINAL.pdf (alports.com)</u>



Ensuring the reliability of rail service through yard operational efficiency and storage capacity is essential to supporting the rail network. This is done by reducing the number of cars and trucks on the roads thereby reducing the maintenance expenditures on state-maintained roadways. It also ensures the reliability of the rail network so that there are fewer delays due to maintenance issues when a rail system is in a state of good repair.

4) Trip / Transit Time

Alabama's Port of Mobile sits at the nexus of major population and economic centers, and the TASD yard provides the essential movement of goods throughout the Port. By expanding the throughput rail and storage lines in this yard and upgrading the switch technology, the time it takes to move locomotives through the yard is expected to decrease.

5) Resilience

The Port of Mobile is in an area prone to hurricanes and severe weather. In 2005, Hurricane Katrina hit, causing over \$30 million in damage (pictured in **Figure 7**). In 2020 and 2021, another two major hurricanes (Sandy and Zeta) hit the Alabama Gulf Coast, causing hundreds of millions of dollars in damage. Because of the Port's location and its importance to the region and country, damage to Port infrastructure has the potential to have significant, negative impacts on every



Figure 7 – Downtown Mobile during Hurricane Katrina in 2005

component of the State of Alabama's economy and negatively impact supply chain security nationwide.

The TASD's Interchange Yard tracks are prone to periodic flooding particularly during high tides combined with severe rain events. This creates the need to move trains to higher ground via the Chickasaw Lead Line in Africatown, a disadvantaged near-port community. If trains are not moved, the Port and its customers could suffer property losses due to the flood water ruining cargoes, freight car roller bearings, and damaging traction motors on locomotives. Even worse, the damage could cause cars that may be carrying hazardous cargo to become unstable and infiltrate the Mobile River. The preferred solution is to raise the yard tracks by depositing more ballast under the ties and raising the entire track structure, which is the purpose of this investment.

Raising the current and restored existing tracks by 3.5-feet (42-inches) in the middle of the Interchange Yard (more at the ends of tracks to create a "bowl" effect for safe handling of rolling cars) would mitigate the problem. Situating the proposed nine tracks of new capacity next to the Industrial Canal with a similar raised profile would further mitigate the flooding problem and provide the desired "flexible track capacity".

This improvement would add a resilient component to the TASD yard, which is integral to operations at the Port of Mobile.

Efficiencies from improved integration with other modes

Efficient integration with other modes is important in supporting freight movement, as improved integration can provide a reliable and robust network to support the supply chain. Improving the TASD



yard at the Port of Mobile will support the greater multimodal transportation network in Alabama, shown in **Figure 8** below.

Integrated transportation is a key component for supply chain and logistics businesses, offering a range of benefits that streamline operations, reduce costs, and enhance customer satisfaction. One of the key advantages is enhanced efficiency. By integrating multiple modes of transport, such as rail, road, water, and air, companies can leverage the strengths of each mode to optimize the movement of goods.

Multimodal transportation has also been proven to alleviate congestion on specific modes of transport⁴³. By diverting some of the traffic from heavily congested roadways to rail or waterways, multimodal transportation reduces the strain on infrastructure and improves overall traffic flow. This, in turn, leads to reduced travel times, lower fuel consumption, and improved air quality.



Figure 8 – Transportation Modes in Mobile and Baldwin Counties

Ability to meet existing or anticipated demand

Freight demand continues to grow throughout the United States, and the ability to build high-capacity and resilient supply chains has become increasingly salient in recent years. Meeting this demand is critical to the economic growth of Alabama and the areas that the Port of Mobile and TASD yard support.

The rail industry provides important economic benefits to Alabama. According to the Association of American Railroads, 162.4 million tons of freight originated, terminated, or moved through Alabama by rail in 2011. Because railroads are four times more fuel efficient than trucks and one train can carry as

⁴³ <u>Multimodal Transportation: What It Is And How It Can Benefit Your Businesses? - TVS Supply Chain Solutions (tvsscs.com)</u>



much freight as several hundred trucks, an estimated 9 million additional trucks would have been required to handle the 162.4 million tons of freight moved in Alabama by rail in 2011⁴⁴.

These improvements will make freight more reliable to transport goods than trucking and will reduce stress on the roadway network. By relieving stress on the roadway network through improved railway service, the current network must be able to meet anticipated demand by relieving the roadway network. Investing in an upgraded locomotive storage and switching system at the TASD yard provides a basis for meeting these demands and supporting the ever-growing demand for freight movement.

Selection Criteria

The New Horizons Project is not addressed by other FRA grant programs including short line railroad infrastructure and equipment, safety projects and technology, workforce development, congestion relief projects addressing freight and passenger rail chokepoints, and intercity passenger rail state of good repair (on shared public-private and publicly owned infrastructure).

Proposed Federal Share

The proposed Federal ask of CRISI funds for this project is approximately \$45.4 million, or 80% of project costs. While this project is a high priority for the area, the cost of delivery to upgrade this line would require deferring essential operations and maintenance. Federal funding for this project would allow ASPA to make these improvements sooner, which will increase the Port's ability to have capacity in advance of future growth and reduce the risk of another storm event occurring before more resilient infrastructure is constructed. This would facilitate cost savings due to mitigating the risk of having to perform emergency repairs or stop operations.

Net Project Benefits

The Benefit Cost Analysis found in the Appendix summarizes the discounted value of the benefits and costs for the proposed project (excluding the RTC passenger rail research study). Taken in total and using a 3% discount rate, per USDOT guidance, the Project provides significant safety and environmental benefits over the analysis period with a resulting Benefit Cost Ratio (BCR) of 6.75 for this project. If other related investments, such as the Montgomery ICTF are included, then the BCR is 2.65.

Trespass Prevention

The project is not a Trespass Prevention Project and is therefore not applicable under 49 U.S.C. 22907(c)(11). However, the project would conform to the FRA Community Trespass Prevention Program and employ best practices to maximize passenger, operator, and pedestrian safety.

Administration Priorities

The New Horizons Project will advance the development of the corridor by improving the existing rail infrastructure and supporting ASPA's goals of environmental stewardship and economic competitiveness by leveraging existing critical rail infrastructure. This project enables the region and state to continue reliable and timely goods movement in an area with major storm event risks where the highway and other modes would pose environmental and sustainability concerns.

The project will include all necessary Planning, Project Development, Preliminary Engineering, and NEPA requirements for Track 3 – FD/Construction projects.

⁴⁴ <u>RailSummary.pdf (state.al.us)</u>



Climate Change and Sustainability

The Port of Mobile is in an area prone to hurricanes and severe weather. In 2020 and 2021, two major hurricanes (Sandy and Zeta) hit the Alabama Gulf Coast, causing hundreds of millions of dollars in damage. Because of the Port's location and its importance to the region and country, damage to Port infrastructure has the potential to have significant, negative impacts on every component of the economy in Alabama and its surrounding states and the nation's supply chain security.

The TASD's interchange yard tracks are prone to periodic flooding particularly during high tides combined with severe rain events. This creates the need to move trains to higher ground via the Chickasaw Lead Line in Africatown, a disadvantaged near-port community. If trains are not moved, the Port and its customers could suffer property losses due to the flood water ruining cargoes, freight car roller bearings, and damaging traction motors on locomotives. Even worse, the damage could cause cars that may be carrying hazardous cargo to become unstable and infiltrate the Mobile River. The preferred solution is to raise the yard tracks by depositing more ballast under the ties and raising the entire track structure, which is the purpose of this investment. The proposed Project includes raising the current and restored existing tracks by 3.5-feet (42-inches) in the middle of the interchange yard (more at the ends of tracks to create a "bowl" effect for safe handling of rolling cars).

In addition, this Project is anticipated to reduce long-term emissions compared to current operations because trains will replace hundreds of trucks that currently cross through disadvantaged areas.

Workforce Development, Job Quality, and Wealth Creation

The opportunity to improve rail service, local freight service, and local roadway circulation could enhance economic development and job opportunities for rail-based manufacturing, industrial, or other warehousing.

Much of the expected job growth in Alabama relies on demand for freight movements and improved supply chain resiliency. Improved rail infrastructure through a reliable and resilient rail yard at the



Figure 9 – Jobs Generated by the Port of Mobile

Port of Mobile can help produce job opportunities that will stem from the construction, manufacturing, and maintenance of the rail system. These upgrades will help improve job opportunities for communities along the entire rail network in Alabama by focusing on high labor standards for these jobs, including prevailing wages and the free and fair chance to join a union while growing the economy sustainably and equitably.

In 2022, cargo activity at the public and private marine terminals at the Port of Mobile supported 453,253 direct, induced, indirect, and related jobs in the United States, of which 351,359 jobs were supported in the state of Alabama, as shown in **Figure 9**⁴⁵.

⁴⁵ Alabama_Port_Authority_2022_Economic_Impact_Full_Report-FINAL.pdf (alports.com)



Support Resilient Supply Chains & Economic Opportunity

Rail-related investments can equip Alabama with the necessary tools to attract and retain businesses in different sectors. These investments can also stimulate the economy by providing more employment opportunities. As roadways continue to age and become more congested, the shared use of the state's existing transportation systems, most notably the state's public and private railroads, can be used as a marketable resource in attracting economic development to the state while also lessening the burden on public roadway systems. Infrastructure maintenance, particularly with roadways, remains an issue at all levels of government. Illustrating the benefits of rail in a shared use of the transportation system not only benefits area businesses looking to ship products by rail, but it also benefits taxpayers by reducing wear and tear on public roadways.

Upgrading the TASD yard at the Port of Mobile will improve the railway network's efficiency and allow the system to be a viable replacement for highway travel for the movement of commodities. Improved rail service can only ease congestion on taxed roadways and reduce CO2 emissions from cars and trucks. This Project will support the continuation of consistent and predictable rail service to businesses and communities who use rail services in Alabama.

In 2022, marine cargo activity at the public and private marine terminals at the Port of Mobile supported a total of \$130.3 billion of total U.S. economic value (shown in **Figure 10**), of which \$98.3 billion of total economic value was supported in the state of Alabama. The APSA facilities supported \$122.5 billion of total economic value to the U.S. economy. Additionally, a total of \$8.3 billion of federal, state, and local tax revenue in



Figure 10 – Port of Mobile's National Economic Value

the U.S. was supported by maritime activity at the Port of Mobile public and private terminals. Of the \$62.7 billion of federal, state, and local tax revenue supported in the U.S., \$2.4 billion of state and local taxes was supported in the state of Alabama⁴⁶.

Equity and Barriers to Opportunity

The project will support Executive Order 14008 – Tackling the Climate Crisis at Home and Abroad which outlines goals of Securing Environmental Justice and Spurring Economic Opportunity⁴⁷. The project also supports Executive Order 12898 which undertakes Federal actions to address Environmental Justice in Minority Populations and Low-Income Populations⁴⁸. It is the goal of these orders to invest and build a

⁴⁶ <u>Alabama Port Authority 2022 Economic Impact Full Report-FINAL.pdf (alports.com)</u>

⁴⁷ Executive Order on Tackling the Climate Crisis at Home and Abroad | The White House

⁴⁸ Summary of Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations | US EPA



clean energy economy that creates well-paying jobs, which can turn disadvantaged or historically marginalized communities into healthy, thriving ones.

The state of Alabama has a growing population that has increased by roughly 1% from April 1, 2020, to July 1, 2022⁴⁹. However, the City of Mobile has experienced a population decline of roughly 2% during that same period. The median household income (in 2022 \$) is approximately \$48,524, which is less than the statewide median income of \$59,609 despite there being a larger percentage of the population in the City of Mobile being a high school graduate (89.6%) or having a bachelor's degree (30.2%) compared to the statewide percentage of the population being a high school graduate (87.7%) or having a bachelor's degree (27.2%).

The Project is located within a census tract (number 01097001200) that is considered disadvantaged because it meets more than one burden threshold and the associated socioeconomic threshold for the following categories, according to the USDOT Climate and Economic Justice Screening Tool⁵⁰:

Category	Thresholds
Climate Change	 Expected Building Loss Rate – 96th percentile. Economic loss to building value resulting from natural hazards each year Expected Population Loss Rate – 97th percentile. Fatalities and injuries resulting from natural hazards each year Project Flood Risk – 97th percentile. Projected risk to properties from projected floods, from tides, rain, riverine and storm surges within 30 years
Energy	 Energy Cost – 99th percentile. Average annual energy costs divided by household income.
Health	 Asthma – 91st percentile. Share of people who have been told they have asthma. Diabetes – 93rd percentile. Share of people ages 18 years and older who have diabetes other than diabetes during pregnancy.
Legacy Pollution	 Formerly Used Defense Sites – Yes Presence of one or more Formerly Used Defense Site within the tract. Proximity to Risk Management Plan Facilities – 94th Count of Risk Management Plan (RMP) facilities within 5 kilometers.
Transportation	 Diesel Particulate Matter Exposure – 92nd percentile. Amount of diesel exhaust in the air. Traffic Proximity and Volume – 94th percentile. Count of vehicles at major roads within 500 meters.
Water and	Wastewater Discharge – 94 th percentile.
Wastewater	- Modeled toxic concentrations at parts of streams within 500 meters.

⁴⁹ U.S. Census Bureau QuickFacts: Alabama

⁵⁰ Explore the map - Climate & Economic Justice Screening Tool (geoplatform.gov)



	Unemployment – 90 th percentile.
	- Number of unemployed people as a part of the labor force.
Workforce	
	High School Education – 38%
	- Percent of people ages 25 years or older whose high school education is
	less than a high school diploma.
	Low Income – 97 th percentile.
	- People in households where income is less than or equal to twice the
Socioeconomics	federal poverty level, not including students enrolled in higher
	education.

The higher proportion of disadvantaged communities in the project area shows how improved rail infrastructure can help remove barriers to opportunity for disadvantaged communities as well as improve protections against climate change and reduce diesel particulate matter by taking trucks off the road.

Community Engagement

ASPA continues to meaningfully engage with and incorporate feedback from communities near the project and plans to provide accommodation to make participation accessible regardless of race, national origin, disability, age, or gender. These equity considerations will be integrated into the project development process and will be especially important during the public involvement portion.

ASPA's leadership have conducted numerous events to support and engage its community, including:

- Africatown Community Development Corporation 5K Run Sponsorship & Participation
- Alabama Coastal Foundation Cocktails for the Coast Sponsorship & Participation
- Coastal Alabama Partnership (CAP) Legislative Economic Summit Sponsorship & Participation
- Dauphin Island Sea Lab Foundation Cocktails with the Critters Sponsorship & Participation
- Downtown Mobile Alliance Annual Meeting Sponsorship & Participation
- Mobile Area Black Chamber of Commerce Annual Meeting Sponsorship & Participation
- Mobile Chamber Forum Alabama Sponsorship & Participation (2-3 events per year with elected officials such as Governor Ivey giving a briefing)
- Partners for Environmental Progress Annual Meeting Sponsorship & Participation
- Propeller Club State of the Port Sponsorship & Participation
- South Alabama Regional Planning Commission Annual Meeting Sponsorship & Participation
- 100 Black Men Annual Gala Sponsorship & Participation
- Mobile Bay NEP Annual Meeting Sponsorship & Participation

Specifically, to Africatown ASPA has conducted or participated in the following community meetings:

- Quarterly Port of Mobile update meetings with Africatown Community Business Panel and Africatown Community Development Corporation
- Chickasaw Lead Line Project Briefing and Port Update with Africatown Historic Preservation Foundation held on November 2, 2023
- Public Involvement Meeting with FRA in Africatown Regarding Chickasaw Project held on February 29, 2024
- Environmental Justice Roundtable in Africatown with EPA (participated and updated on projects and grants) held on May 3, 2024, with follow-up meeting to be held on May 31, 2024



- Projects and grants update with members of Africatown Community Development Corporation held on May 8, 2024
- Public meeting at the Robert Hope Community Center in Africatown to discuss project and grants, plus a question-and-answer session with community members on May 21, 2024

A similar level of effort, including at least one community meeting specific to these proposed plans, will be held as the project progresses.

IX. Project Implementation and Management

ASPA is the grantee and sole funding partner for this grant. ASPA will be responsible for project implementation and management, project completion, and closeout. Contracting, oversight, risk management, and other key tasks will be managed within ASPA and by its contractors. Regular progress reports, completion of key milestones, and coordination with FRA and other project parties will also be managed by ASPA. Additional details are provided in the Statement of Work included in the attachment.

Risk Management

ASPA, who will administer the project, has successfully completed work like the proposed Project and experienced no procurement delays of any significance. The project site is currently utilized for its proposed purpose and is entirely owned by ASPA, which may reduce many potential risks. The Port will identify and plan for risks toward successful delivery of the Project based on preliminary observations and prior work completed in the project area. A potential risk strategy is presented in **Table 4** below.

	Table 4 - Froject Name Folential Risk and Miligation Flan
Potential Risk	Avoidance, Minimization, Mitigation Strategies
Threatened and	According to a screening-level analysis, there are no critical habitats present in
Endangered Species	the project area. ASPA will conduct surveys to determine potential impacts to
and Jurisdictional	federal threatened and/or engendered species and jurisdictional waters, where
Waters	applicable, to determine potential impacts in the project area.
Farmland	ASPA will conduct a screening-level farmland analysis to determine potential
Protections Policy	impacts to active farmland and protected farmland soils. If necessary, complete a
Act Soils	Farmland Conversion Form and submit it to USDA.
Permitting &	ASPA will conduct early and frequent coordination with federal and state
Approvals	agencies as part of the NEPA Process.
	The TASD New Horizons Project will be constructed within the right-of-way
ROW Acquisition	owned by ASPA, if applicable, new right-of-way requirements are limited to
	either undeveloped or portions of undeveloped properties.
	The TASD New Horizons Project will be constructed adjacent to known
Title VI and	Environmental Justice populations. Minimization of impacts to these populations
Environmental	will be a priority throughout final design. If necessary, a comprehensive Public
Instice Populations	Engagement Plan will be developed to ensure that no person, on the grounds of
Justice I opulations	race, color, national origin, sex, age, or disability, be subjected to discrimination
	under any programs, activities, or services.
	Multiple stakeholders and project partners have been identified in anticipation for
Public and	the TASD New Horizons Project. Early public engagement and outreach will be
Stakeholder Input	conducted to ensure full and fair participation of all potentially affected
	communities in the decision-making process. Any potential community impacts

Table 4 - Project Name Potential Risk and Mitigation Plan



	that may arise before, during, or after construction will be mitigated through continuous communication with the community.
Air Analysis	If necessary, a qualitative Air Quality Analysis will be conducted to determine any air toxic emissions and analyze Mobile Source Air Toxics.

Experience with Similar Projects and Staff Readiness

ASPA is ready to successfully deliver the TASD New Horizons Project in compliance with any applicable local, State, and Federal requirements. Since 2011, the ASPA has managed over \$506,025,873 in state and federal grants. These funds have helped ASPA successfully execute and complete three EPA DERA grants, multiple Department of Homeland Security Port Security Grants, two MARAD TIGER Grants and several state grants. The Port is currently managing two HUD grants, two Port Security Grants, a MARAD Port Infrastructure Development Program (PIDP) grant, a previously awarded FRA CRISI grant, a Federal Restore Council grant, a Demonstration grant, and a GOMESA grant that is administered through the Alabama Department of Conservation and Natural Resources. ASPA has historically completed all projects successfully, in a timely manner, and in compliance with all contractual obligations.

The Port Authority Grant Administrator will be assisted by an established grant management and administration team consisting of staff with a full spectrum of port engineering, port operations, and port-related financial management experience. Engineering staff with significant background and experience in working successfully with federal and state resource and regulatory agencies, Homeland Security, and the USACE will provide that expertise and experience to the Grant Administrator's team. The Grant Administrator will have the Port Authority's Counsel for any needed legal services in the course of establishing the grant agreement and administering the grant program post-agreement execution.

Megan Amacker, Grant Administrator: Ms. Amacker will be ASPA Grant Administrator and Primary Point of Contact for ASPA. In her role as Grant Administrator, Ms. Amacker will administer the grant with particular emphasis on record keeping, expenditure disbursement, document tracking, verification, compliance monitoring/auditing, and report generation, for which she is specifically trained and experienced. Ms. Amacker is responsible for all aspects of all federally funded projects from concept to completion and frequently attends training sessions to stay up to date on the current requirements for federally funded projects.

Ms. Amacker will be directly supported by Doug Otto, PE, Chief Engineer and Vice President of Technical Services; Melissa Jordan, Port Authority Vice President of Finance; and Beth Branch, Port Authority Chief Commercial Officer. Their CVs are in Section 9 of this application.

A designated staff member with each sub-applicant will be accountable to Ms. Amacker for full compliance with all progress reporting requirements and procedures, procurement procedures in accordance with all federal regulations and guidelines, and the preparation and submission of periodic reimbursement requests for project-eligible expenditures; including, but not limited to, Tom Powers, CFO for APMT Mobile, Richard Pipkins, General Manager for Cooper Marine, Michael Tidwell, Superintendent for CG Railway, and Greg Schruff, General Manager for CSA Equipment Company, LLC.