



DUE DILIGENCE ASSESSMENT OF SCPA TERMINAL BUILDINGS AND INFRASTRUCTURE

**GEORGETOWN COUNTY
GEORGETOWN, SOUTH CAROLINA**

Prepared for:

Georgetown County.

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January 31, 2023

Due Diligence Assessment

SCPA Terminal Buildings and Infrastructure
Georgetown County, South Carolina

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SIGNATURE PAGE

This report, entitled “Due Diligence Assessment of SCPA Terminal Building and Infrastructure,” has been prepared for Georgetown County. It has been prepared in accordance with accepted quality control practices and has been reviewed by the undersigned.

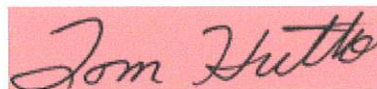
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1.0 EXECUTIVE SUMMARY

GEL Engineering, LLC performed a structural evaluation of 13 marine structures and 14 landside structures at the South Carolina Ports Authority (SCPA) Georgetown Terminal to determine the composition and condition of each structure. Following is a summary of GEL's recommendations and opinion of probable cost for repair or demolition of each structure. Note that multiple structures may be either repaired or demolished based on the future intended use of the site.

Marine Structures

Number of Structures	Recommendation	Cost Range	Comment
4	Demolish	\$2.055M-\$2.835M	
3	Repair	Near - \$1M-\$1.25M Mid - \$1.75M-\$2.35M	Building 701 Wharf, Building 701 Substructure, Bulkhead
6	Repair or Demolish Based on Future Need	Demo - \$610k-\$865k Near - \$3.8M-\$4.7M Mid - \$90k-\$135k	Demolish if Holcim Pier will not be used.

Thus, if the Holcim Pier will not be used, following are the marine structure estimates:

Demolition - \$2.665M-\$3.7M
Near Term Repairs - \$1M-\$1.25M
Mid Term Repairs - \$1.75M-\$2.35M

If the Holcim Pier will be used, following are the marine structure estimates:

Demolition - \$2.055M-\$2.835M
Near Term Repairs - \$4.8M-\$5.95M
Mid Term Repairs - \$1.84M-\$2.485M

Landside Structures

Number of Structures	Recommendation	Cost Range	Comment
9	Demolish	\$380k-\$520k	
5	Repair	Near - \$35k-\$50k Mid - \$1.06M-\$1.755M	Structures can be Repaired or Demolished based on Future Use
	Demolition Alternate	\$1.57M-\$2.035M	

Thus, the estimate to demolish all 14 structures is:

Demolition - \$1.95M-\$2.555M

If 9 structures are demolished and 5 repaired, following are the landside structure estimates:

Demolition - \$380K-\$520K
Near Term Repairs - \$35K-\$50K
Mid Term Repairs - \$1.06M-\$1.755M

The following tables provide GEL's recommendation and opinion of probable cost for each structure.

In the Marine Structures table, the "Structure Number" refers to numbering shown on Figure 1.1 below. Figure 1.1 through Figure 1.4 follow the Marine Structures table and provide satellite images of all the marine structures assessed (images courtesy of Google ©). Figure 1.5 and Figure 1.6 follow the Landside Structures table and provide satellite images of the landside structures assessed.

Please use the links provided in the "Structure" column to access the detailed report for each structure.

Marine Structures						
Structure	Structure Number	Description	Recommendation	Opinion of Probable Cost		
				Near Term	Mid-Term	Demolition
Building 701 Wharf	1 & 2	Concrete Pier	Repair	\$1M-\$1.25M	\$1.5M-\$2M	-
Holcim Relieving Platform	3	Concrete Pier with Steel Piles	Repair or Demolition Feasible	\$1.5M-\$1.8M	\$75k-\$100k	\$350k-\$500k
Holcim Access Pier	4	Concrete Pier with Wood Piles	Repair or demolish based on Relieving Platform Use	-	\$10k-\$25k	\$100k-\$125k
Breasting Dolphin 5A	5A	Concrete Pier with Steel Piles	Repair or demolish based on Relieving Platform Use	\$1M-\$1.25M	-	\$40k-\$60k
Breasting Dolphin 5B	5B	Concrete Pier with Steel Piles	Repair or demolish based on Relieving Platform Use	\$1M-\$1.25M	-	\$40k-\$60k
Mooring Dolphin 6A	6A	Concrete Cap with Steel Piles	Repair or demolish based on Relieving Platform Use	\$300k-\$400k	-	\$40k-\$60k
Mooring Dolphin 6B	6B	Concrete Cap with Steel Piles	Repair or demolish based on Relieving Platform Use	-	\$5k-\$10k	\$40k-\$60k
Mooring Dolphin 6C	6C	Steel Cap with Steel Piles	Demolish	\$300k-\$400k	-	\$40k-\$60k
Access Trestle for Mooring Dolphin 6C	7	Timber Trestle	Demolish	-	-	\$15k-\$25k
Steel Bulkhead 31B		Sheet Pile Bulkhead	Repair	*	\$250k-\$350k	-
Abandoned Timber Dock		Timber Pier	Demolish	-	-	\$500k-\$750k
Liberty Steel Mill Wharf		Concrete Pier	Demolish	-	-	\$1.5M-\$2M

* Underwater inspection of steel bulkhead recommended to determine conditions below waterline. Estimate is to ensure structural integrity of bulkhead; an additional \$350k-\$450k is recommended if vessels will be moored at the bulkhead area.

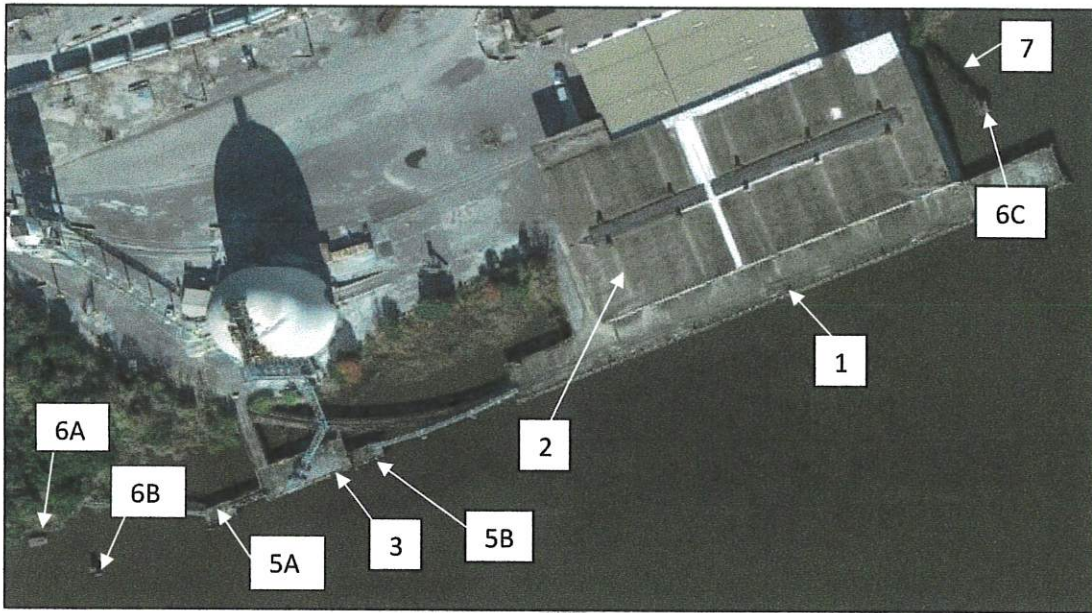


Figure 1.1: Marine Structures at Southeast Portion of Terminal



Figure 1.2: Steel Bulkhead 31B



Figure 1.3: Abandoned Timber Dock



Figure 1.4: Liberty Steel Mill Wharf

Landside Structures					
Structure	Description	Recommendation	Opinion of Probable Cost		
			Near Term	Mid-Term	Demolition
Building 707	Pre-Engineered Metal Building	Demolish	-	-	\$50k-\$65k
Building 708	Pre-Engineered Metal Building	Demolish	-	-	\$50k-\$65k
Building 709	Pre-Engineered Metal Building	Demolish	-	-	\$50k-\$65k
Building 701/710	Steel Framing/Pre-Engineered Metal Building	Repair	\$35k-\$50k	\$775k-\$1.05M	\$350k-\$500k
Holcim Silo	Concrete	Repair	-	\$100k-\$150k	\$500k-\$650k
Holcim Office	Pre-Engineered Metal Building/Trailer	Repair	-	\$10k-\$20k	\$10k-\$20k
Building 730	Timber Framing	Repair	-	\$25k-\$35k	\$7.5k-\$15k
West Administration	Trailer	Demolish	-	\$10k-\$20k	\$5k-\$10k
East Administration	Timber Framing	Demolish	-	-	\$10k-\$20k
MFI East	Timber Framing	Demolish	-	\$1.2M-\$1.5M	\$50k-\$65k
MFI West	Timber Framing	Demolish	-	\$1.2M-\$1.5M	\$50k-\$65k
Dome	Concrete	Repair	-	\$150k-\$500k	\$750k-\$925k*
Building 741	Pre-Engineered Metal Building	Demolish	-	-	\$40k-\$50k
Hess Shop	Steel Joist/Timber Framing	Demolish	-	-	\$25k-\$40k

* Includes cost for demolition of outbuilding, covered truck ramp, and conveyor. GEL recommends demolition of these structures if dome is to remain. Demo cost estimated at \$50k-\$75k for these structures.

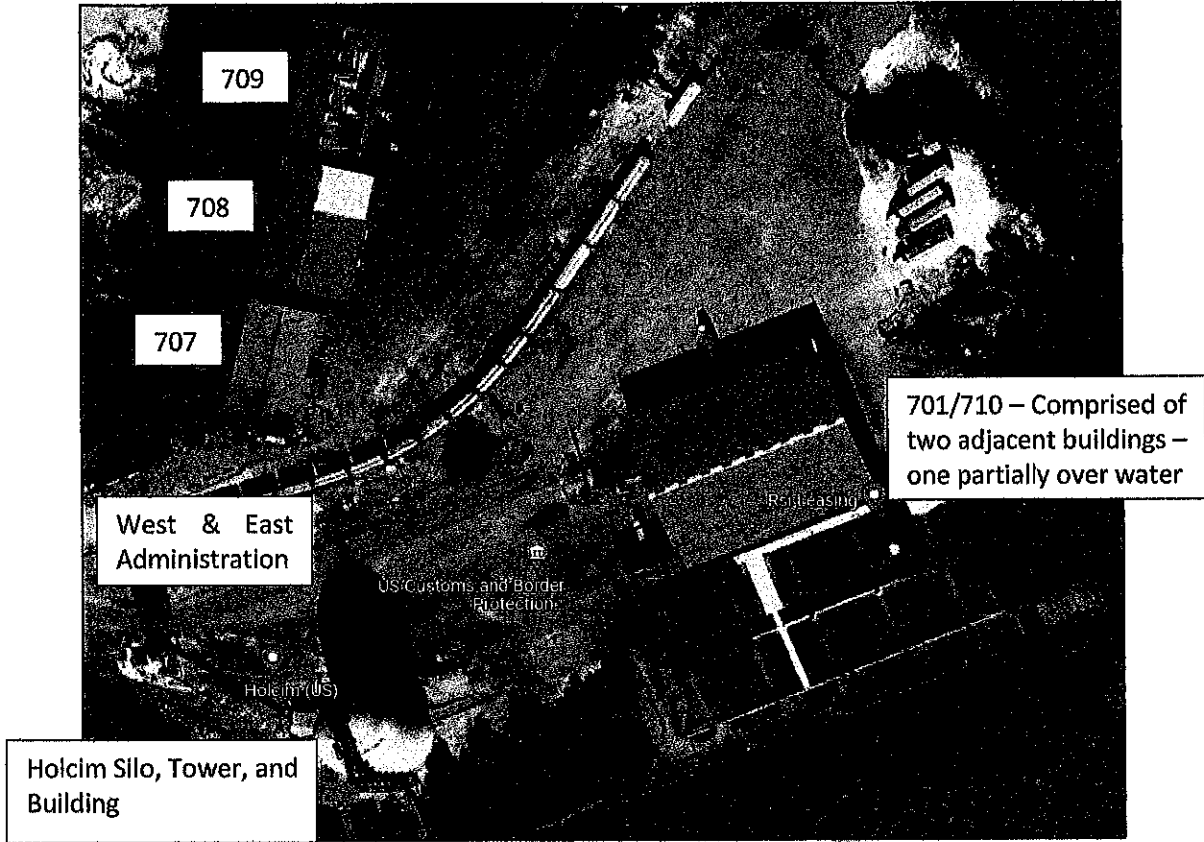


Figure 1.5: Buildings at East Portion of Terminal

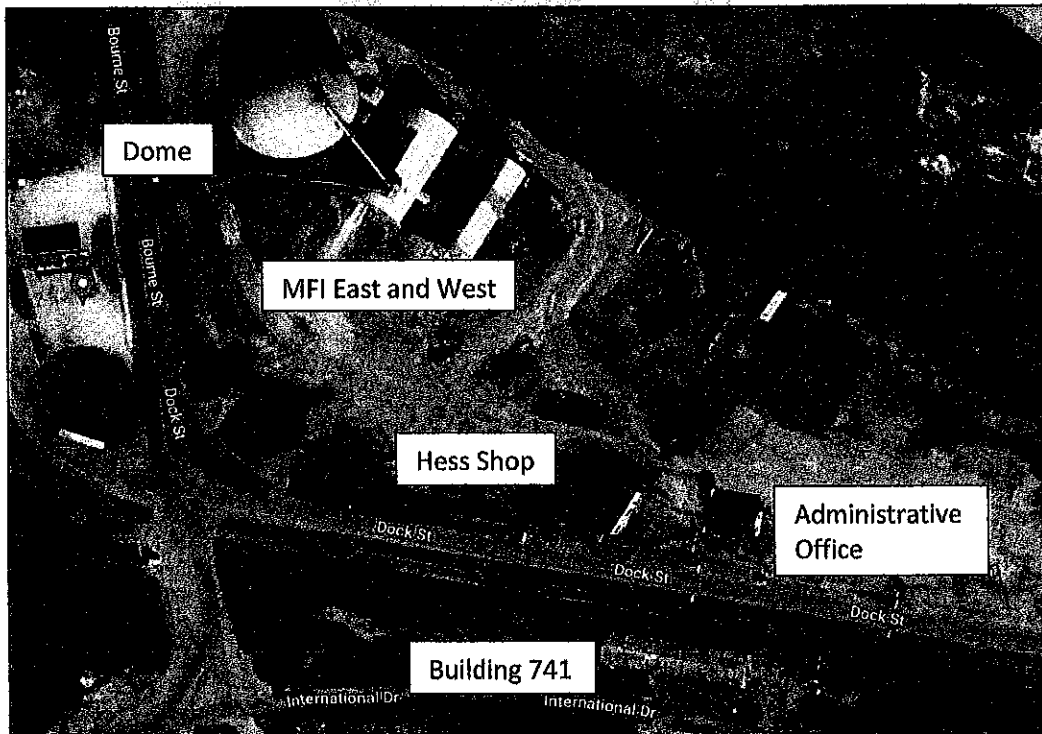


Figure 1.6: Buildings at West Portion of Terminal

2.0 INTRODUCTION

This report documents the results of the structural due diligence assessment of the SC Ports Authority's (SCPA's) Georgetown Terminal buildings and infrastructure. The structural assessment was performed by GEL Engineering, LLC (GEL) between October 10, 2022, and December 19, 2022. The evaluation was conducted by request from Georgetown County (The County) in anticipation of assuming ownership of the facility and redeveloping it.

The assessments were led by two engineers, both of whom are registered Professional Engineers licensed in South Carolina; the inspection team was comprised of:

- Jonathan J. Sigman, PE, LEED AP (Inspection Team Leader)
- Daniel E. Campbell, PE (Assistant Inspection Team Leader)
- Eric Lipscomb

The purpose of the due diligence structural assessment was to obtain data regarding the existing marine and landside structures on the site and determine the following for each structure:

- The general construction type, including framing system and primary elements.
- The condition of the structural elements.
- Recommendations for repair or demolition of each structure.
- Opinions of probable cost for the repair/demolition recommendations.

All assessments were visual in nature, with no material sampling or destructive testing performed. All marine structures were assessed via above-water inspection only. Kayaks were used to access the above-water portions of the underside of the waterfront structures. Marine growth was removed at isolated locations to facilitate assessment. Underwater inspection of marine structures was not included in GEL's scope. Drone photography was utilized to assess the condition of the roofs of the landside structures.

All listed dimensions of existing site conditions, construction, and observations are approximate and are based on field measurements and information provided by the County. Unless otherwise noted, the inspection team designated elements south to north and west to east to facilitate detailed records of deficiency locations.

All observations and recommendations are based on conditions observed on the day of inspection; conditions of existing members can change due to environmental effects, ongoing deterioration due to water infiltration, equipment impact, etc. particularly in a marine environment.

All timber member sizes noted in the report are nominal unless otherwise noted.

GEL was provided with construction documents provided by The South Carolina Ports Authority for review and assistance in the evaluation of the structures. Structural construction drawings or shop drawings provided for GEL's review are referenced in the "Site Description" section for each structure.

Performing a structural analysis or finite element modeling of the structures was not included in GEL's scope.