CITY OF LONG BEACH

Memorandum

Date: May 20, 2021

To: Thomas B. Modica, City Manager

From: John Keisler, Director of Economic Development

For: Mayor and Members of the City Council

Subject: **Queen Mary Inspection Report Update**

On May 14, 2021, the City of Long Beach filed an "Objection to Sale of Leases" with the Court administering the Queen Mary bankruptcy. As part of that filing, the City submitted a report from the Elliott Bay Design Group (EBDG), a naval architecture and marine engineering firm hired by the City to conduct an inspection of the Queen Mary and to assess the status of repairs required by Agreement No. 34432: Amended and Restated Lease and Operations Agreement of Queen Mary, Adjacent Lands and Improvements, Dome and Queen's Marketplace (Lease), to be completed by Urban Commons Queensway, LLC (Lessee). The purpose of this memorandum is to provide the City Council with a copy of the EDBG inspection report (Report, Attachment A) and to describe next steps to ensure the safety and security of the Queen Mary.

Background

On November 1, 2016, the City Council approved a 66-year lease with Urban Commons (Lessee) for the operation, management, and preservation of the Queen Mary. The leasehold area includes the Queen Mary, Catalina Express, and Carnival Cruise Lines, which currently operates the Long Beach Cruise Terminal in the geodesic dome next to the Queen Mary. Under the terms of the lease, the City established a Historic Preservation Capital Investment Plan (HPCIP) fund for ongoing preservation, conservation, and restoration projects associated with the special historic status of the ship. The HPCIP fund is exclusively supported by leasehold revenue streams.

HPCIP Fund Project Status

To address some of the most critical repairs, the City committed to immediately funding $23 million by using existing reserves and issuing bonds to be repaid by rent revenue and passenger fees generated from Carnival Cruise Lines through 2026. The initial funding allowed the Lessee to complete seven major life safety and structural projects, including repair of the Fire and Life Safety System ship-wide, replacement of the expansion joints, and additional major structural repairs. On September 18, 2018, the City Manager detailed these repairs in a public presentation to the City Council. On September 23, 2019, the City Manager provided another written update to the City Council regarding the status of these projects (Attachment B).

On October 1, 2019, the City of Long Beach sent a letter to the Lessee, indicating that it was falling short of its obligations under the terms and provisions of the Lease. More specifically, the City requested written updates regarding the following issues identified in the HPCIP and the City's monthly inspection reports:

- Condition of exterior paint on the hull, funnels, and top of house areas;
- Replacement of expansion joints;
- Bilge repair and rust remediation;
- Side shell repair and lifeboats removal; and
- General maintenance (various issues).

On October 25, 2019, the City received a written summary of plans from the Lessee for addressing the issues identified by the City, including supplemental engineering reports and audited financial documents. Additionally, to address the most critical issues identified in the City's monthly inspection reports, the Lessee provided a construction bid for critical projects including side shell repair and lifeboat removal from a third-party contractor. As a follow-up, the City commissioned Moffatt & Nichol, an expert marine engineering firm, to independently review construction bids and recent inspection reports, and to recommend improvements to the ongoing inspection process. City staff continued to conduct monthly meetings with the Lessee to monitor progress on HPCIP repairs. On December 31, 2019, the City Manager provided a written update to the City Council regarding these recommendations (Attachment C).

Notification of Default and Bankruptcy

On April 1, 2020, due to a failure to pay required Transient Occupancy Taxes and a failure to provide required financial documents requested by the City Auditor, the City noticed the Lessee and its lenders that it was in default of its obligations under the Lease. On May 7, 2020, the Queen Mary was closed to public operations due to the COVID-19 pandemic. The Lessee was formally noticed of additional defaults, including the failure to pay rents on May 28, 2021, June 19, 2020, July 1, 2020, and November 5, 2020.

On January 18, 2021, EHT US1, Inc. (Eagle Hospitality Trust), and its affiliated entities, including the Queen Mary tenant, Urban Commons Queensway, LLC, filed for bankruptcy protection. On March 9, 2021, Eagle Hospitality Trust and its affiliated entities filed a motion with the bankruptcy court seeking approval to sell substantially all its assets, including its leasehold interests in the Queen Mary and the adjacent water and landside areas. On May 14, 2021, the City of Long Beach filed an Objection to Sale of Leases with the Court administering the Queen Mary bankruptcy.

EDBG Inspection Report

On April 28, 2021, in support of the City filing with the Court, EBDG completed a brief visual inspection of the Queen Mary to assess the status of HPCIC repairs. The Report notes:

- The purpose of this visit was for an EDBG professional engineer to familiarize himself with the scope of the project and to take a first look at some of the repairs that were included in the urgent repair category of the HPCIP project list.

- It will require a further visit with some pre-planned survey scope and non-destructive testing to determine more completely the list of repair work that has been completed by past lessors of the vessel.
- Time available was approximately six and a half hours and was limited almost exclusively to visual inspection.
- It was not possible to review the status of all the urgent category repairs in a single six-hour visit. It would take a couple of days of further inspection to complete a review of all the urgent category repairs listed in the 2017 Marine Survey Report completed by Simpson Gumpertz and Heger, Inc. of San Francisco. Some spaces would need to be opened for survey and test equipment would need to be on hand.

Over the past two weeks, the City and its maritime engineering experts have had the opportunity to inspect the Queen Mary and have determined that the approximate cost to cure all existing defaults under the Lease have increased to between approximately $41 million and $58 million, which constitutes a significant change to the previous cure cost estimate. City management, together with the City Attorney's Office, will continue to work with the bankruptcy Court to achieve an outcome which will best position the ship for long-term success**.**

Next Steps

Further inspections concerning the most critical issues will be scheduled by City staff to better understand the recommendations of the Report and to report back to the City Council and the public about next steps. In the meantime, the Queen Mary is currently closed to visitors and does not have an established reopening date at this time.

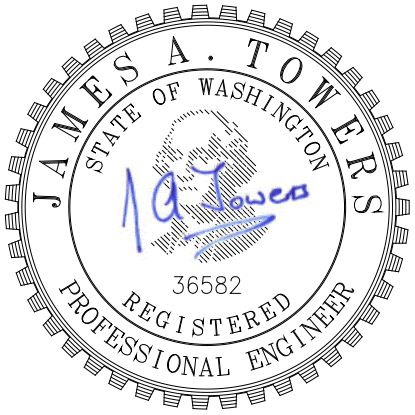
If you have any questions, please contact me directly at John.Keisler@longbeach.gov or (562) 570-5282.

ATTACHMENTS: A – ELLIOT BAY DESIGN GROUP REPORT
B – MEMO – UPDATE ON QUEEN MARY PROJECTS AND LONG BEACH CRUISE TERMINAL DOME – SEPTEMBER 23, 2019
C – MEMO – QUEEN MARY LEASE MANAGEMENT UPDATE – DECEMBER 31, 2019

CC: CHARLES PARKIN, CITY ATTORNEY
LAURA L. DOUD, CITY AUDITOR
LINDA F. TATUM, ASSISTANT CITY MANAGER
TERESA CHANDLER, DEPUTY CITY MANAGER
KEVIN J. JACKSON, DEPUTY CITY MANAGER
REBECCA G. GARNER, ADMINISTRATIVE DEPUTY CITY MANAGER
MONIQUE DE LA GARZA, CITY CLERK
DEPARTMENT DIRECTORS

Attachment A

Elliott Bay Design Group



5/13/2021

QUEEN MARY

April 26, 2021 Trip Report

Prepared for: Moffatt and Nichols, Long Beach, CA

Ref: 21024-001-100 Rev. - May 11, 2021

PREPARED BY

ELLIOTT BAY DESIGN GROUP
5305 SHILSHOLE AVE. NW, STE. 100
SEATTLE, WA 98107

GENERAL NOTES

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
–	Initial issue	05/12/21	JAT

RESERVATION NOTES

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1. PURPOSE

Elliott Bay Design Group (EBDG) was retained by Moffatt & Nichol to support the City of Long Beach in assessing past and current repair needs of the RMS QUEEN MARY, a historic ship owned by the City. The City had developed a Historic Preservation and Capital Improvement Plan (HPCIP) budget to support needed repairs identified in a marine survey conducted in 2015 and 2016 (SGH 2017). Several items included urgent repairs related to the ship's watertight integrity that were to be completed within 5 years. EBDG was requested to determine if urgent repair items were completed through review of available information and visual inspection of the ship. In addition, EBDG was requested to summarize the remaining urgent repair needs and provide a cost estimate of work to keep the vessel viable for the next two years while plans are generated for vessel's future.

2. BACKGROUND

The RMS QUEEN MARY is a transatlantic passenger liner built in Glasgow for the Cunard White Star Line delivered in 1936. The particulars are given below [1].

Table 1 - Vessel Particulars

ITEM	
Overall Length	1,019 ft 6 in
Length on design waterline	1,004 ft 0 in
Length between perpendiculars	965 ft 0 in
Beam	118 ft 0 in
Depth molded to "C" Deck (Bulkhead Deck)	55 ft 3 in
Depth molded to Promenade Deck (Strength Deck)	92 ft 6 in
Subdivision Draft	38 ft 9 in
Displacement	77,440 LT
Gross Tonnage as Designed	80,773
Net Tonnage as designed	34,118
Gross Tonnage Per Registry at time of sale	81,237
Net Tonnage Per Registry at time of sale	33,073
Official Number (U.K. Registry)	164282
Signal Letters	GBTT
Trial Speed	32.84 knots
Shaft Horsepower	212,000
Builder	John Brown & Co. Ltd.
Hull Number	534
Classification	Lloyds + 100 A1

In 1967 the vessel was moved to Long Beach, CA and converted to a visitor attraction. This involved removal of much of the propulsion machinery, structural bulkheads and modifications of the interior spaces to accommodate the vessels' new role. Many of the double bottom and wing tanks (Figure 1) were filled with a variety of liquids to maintain stability after removal of the machinery which was largely below the vessels vertical center of gravity. The vessel is berthed inside a rip rap breakwater in

the Port of Long Beach. A report by Rados International [2] asserts that post-conversion the vessel had the following characteristics:

Table 2 - Draft and Weight Values

ITEM	
Draft	34.5 Ft.
Ship Weight	44,225 LT
Liquid and Ballast	22,501 LT
Total Displacement	66,726 LT

During 2015-2016 the vessel was surveyed by Simpson Gumpertz and Heger (SGH), Inc. of San Francisco, CA to assess condition of the vessel [3]. This report included recommendations for repair work that was divided into the following categories: (1) urgent work that needed immediate attention, (2) midterm repairs and (3) longer term repairs, maintenance, and improvements. The report anticipated a 3–5-year refit period for completion of all work in specified in the survey. The urgent work was expected to be completed first.

The purpose of this visit was for an Elliott Bay Design Group (EBDG)professional engineer, Jim Towers, to familiarize himself with the scope of the project, and to take a first look at some of the repairs that were included those in the urgent repair category. It will require a further visit with some preplanned survey scope and non-destructive testing to determine more completely the list of repair work that has been completed by past lessors of the vessel.

3. PROCEDURE

Time available was approximately six and a half hours and was limited almost exclusively to visual inspection. The visit included inspections of the vessel as follows:

- General inspection of the port side of the vessel from the dock (Reverse of Figure 3)
- Inspection of the port bridge wing and the port promenade deck. This included lifeboats and davits (Figure 2). It was not safe to board the lifeboats without determining the current condition due to the extensive corrosion.
- Inspection of the tank top area from the forward machinery space (FR 272) though the shaft tunnels at the aft end (FR 21). The tank top in the forward engine room (FR 112 to FR 136) was inspected from the tank top level, rather than from the scaffolding walkways at centerline. The shell plating and tank tops were locally inspected in the aft Engine Room (FR 86 to FR 112) and shaft tunnels.
- The steering gear flat was inspected internally.
- The propeller box was inspected internally and externally from the dock. The water was not drained from the propeller box.

4. EXTENT OF WORK COMPLETED BETWEEN 2015 AND 2021

The SGH Report made recommendations for repairs to the vessel. These were divided into three categories: (1) Urgent Work, (2) Mid Term Repairs, and (3) Longer Term Repairs, Maintenance, and Improvements. One focus of this first trip was to review the work that had been done during the intervening period between the survey in October 2015 and the present time. The urgent repairs are largely un-started at this time.

The work completed is as follows. Some items were not reviewed during this visit due to time constraints and will be addressed in a future visit.

1. **Demolition** The exhibition hall has been closed. SGH engineers were concerned about the condition of the supports for the exhibition hall floor. This floor has been completely removed. This was a substantial task. All debris have been removed from the ship and the tank top is generally clean with exception of heavy scale and remnant foundations. A scaffolding walkway has been built from the front end of the forward engine room to the forward machinery space.

2. **Sewage System** The SGH report indicated that the sewage was being stored in leaking holding tanks. It is not clear if the current sewage holding tanks were in place for the 2015 survey. However, the deck below the current tanks is dry and there were no signs of sewage leaks in the compartment. This system would need to be tested in operation to confirm that the system is tight and that all leaks have been addressed.

3. **Tank Top Repairs** SGH recommended that the tank top have all sources of leakage sealed so that the tank top would remain dry. The simulated collision damage prop has not been removed and the tank top in this location was still wet. Dampness was noted on the #2 Boiler Room tank top but the source could not be verified. The remainder of the tank top was generally dry and free of debris. Tank Top manhole access hatch lids were off in a number of locations. These should be reinstalled as this negates the safety feature of the double bottom tanks. The tank top in the aft Engine Room and the shaft tunnels still exhibited extensive debris (scale, dirt, and garbage) which needs to be cleaned out so the tank top and shell plating can be carefully inspected.

4. **Bilge System** The bilge system has mostly been removed from the ship and the little amount of piping that remains is generally perforated and cannot be repaired. SGH recommended that the bilge system be totally replaced. There is no sign of this work being started.

5. **Watertight Door** No work was noted at either of the aft Engine Room doors. The forward bulkhead of the aft Engine Room is perforated in numerous places.

6. **Plating around Frame 35** There is no record or visible sign of the thinned plating around Frame 35 having been doubled or of any alternative repairs. This would be an external repair and so might not be visible from the shaft tunnel.

7. **Tank Top Scaling and Painting** While the debris has been removed from the tank top in the forward engine room, boiler rooms and turbo generator rooms there is no sign of the tank top being vacuum blasted and the tank top is heavily scaled throughout the machinery spaces.

8. **Tank Top Doublers** There are two local doublers on the tank top plating that may have been added since the 2015 survey. There have been no other repairs to tank top from the aft end of the forward Engine Room forward. The remnants of the boiler, engine and auxiliary machinery mounts have not been removed from the machinery spaces. The SGH report recommends doubling the tank top steel as necessary or alternatively using Intelligent Engineering's SPS sandwich system to repair the tank top. This has not been addressed. There are no signs that the required tank top steel thickness gaugings have been taken in most of the areas. This is the most extensive of the urgent repairs.

9. **Concrete Box at Frame 300** The temporary concrete patch at Frame 300 was not available for inspection.

10. **Aft Mast** Aft mast rigging was not inspected on this visit.

11. **Lifeboats** The lifeboats have not been changed since the 2015 survey. There are no covers on the boats. A number of lifeboats were briefly inspected, and no residual water was noted in the boats. A ladder was not available to check all of the lifeboats. The davit structure has severe corrosion for approximately twelve inches above the Promenade Deck (see Figure 2) where rainwater has been running down through the davit track.

12. **Gazebo** Sun Deck gazebo was not inspected.

13. **Crow's Nest** Photographs indicate that the floor is still generally intact. There is no sign that there have been any repairs or assessment of the Crow's Nest deck plating.

14. **Officer Cabins** Commodore and Chief Engineer's Cabins. Not inspected on this visit.

15. **Concession Stand Roof** Not inspected on this visit.

16. **Promenade Deck** Active Leak in the Promenade Deck entrance. Not inspected on this visit.

17. **Britania Salon** Active Leak in Britania Salon port side. Not inspected on this visit.

18. **Britania Salon** Active Leak in Britania Salon starboard side. Not inspected on this visit.

19. **Hand Rails** Railings-First impression is that the railings are consistent with designs for ocean liners dating from the 1930's. However, these need to be carefully inspected to determine amount of corrosion Interior handrails were not inspected but rails dating from the 1960's conversion do not appear to be compliant with current standards. No repairs or replacements were noted.

20. **Wood framed structures**. Not inspected on this visit

21. **Portlights** Port lights at the Promenade Deck. No signs of replacement. It was noted that there are port lights throughout the vessel that have cracked glass. Numerous port holes are open throughout the vessel allowing ingress of rainwater.

Items 1-11 are hull repair items, 12-22 are superstructure. These items were all listed in the report as being critical to the vessels' continued viability. In the intervening five and a half years little of the urgent work appears to have been started. Corrosion of steel structure has been ongoing since the 2015 survey and this merits revisiting the 2017 report for the complete vessel. The SGH Report mid-term and longer-term repairs have been reviewed but no signs were found that any of the work recommended had been undertaken.

Between 2015 and 2021 the Promenade Deck plating has continued to corrode and the strake between the strength deck fascia plate and the lower edge of the Promenade Deck windows has continued to corrode. This strake now has perforations the full length of the Promenade Deck. While this is not an immediate strength issue, it detracts from the vessels appearance and will continue to worsen until addressed. This plating also acts as part of the support for the lifeboat davit connection to the Promenade Deck.

It should be noted that the vessel has been repainted from the waterline up in recent years (probably 2017) External hull coatings are in reasonable condition, though it should be noted that the preparation for painting lacked sufficient surface preparation especially within three feet of the waterline where ongoing corrosion was noted. The paint is best described as cosmetic. Marine superstructure coatings are expected to have a life of between ten and fifteen years before replacement.

No immediate problems were noted in the propeller box. It was not possible to determine from the dock if the top of the box had been repaired. The flashing and coatings described in the SGH report were not seen.

5. CONCLUSIONS

The SGH Report envisaged a 3-5-year refit for all repairs with urgent repairs taking priority. EBDG reviewed available information and visited the ship on April 28. To date, little of the urgent category work has been completed. EBDG has identified some urgent items that should be addressed immediately for safety from flooding. While a few repairs have been completed in the last 5 years, the majority of the urgent repair needs were not addressed. EBDG confirmed urgent repairs are still needed to keep the vessel viable for the next two years. The estimated immediate repair needs are anticipated to cost $23,100,000. Please see the Appendix for a list of items and estimated costs.

6. RECOMMENDATIONS

It was not possible to review the status of all of the urgent category repairs in a single six-hour visit. It would take a couple of days of further inspection to complete a review of all the urgent category repairs listed in the SGH Report. Some spaces would need to be opened up for survey and test equipment would need to be on hand.

While little of the work in the SGH Report has been done, five and a half years have passed. The condition assessment is becoming outdated and further deterioration should be expected, especially in the structure where coatings have not been repaired. Consideration should be given to redoing the survey and extending it to include the tanks to the extent possible. A full assessment of the feasibility requires that the double bottom and wing tanks be internally inspected. If connections of the frames and longitudinal girders to the shell plate in the tanks are wasted repair might not be economically possible.

7. REFERENCES

[1] Shipping World and Shipbuilder, The Cunard White Star Quadruple-Screw Liner Queen Mary, New York: Bonanza Books, 1979.

[2] "Queen Mary, Analysis of the Physical Condition and Cost to Maintain, Volume III - Cost/Engineering, Project No. 10518," Rados International Corporation, Los Angeles, 1993.

[3] Simpson, Gumpertz, and Heger, "Marine Survey of the Queen Mary," San Francisco, 25 January 2017.

[4] R. Watton, The Cunard Liner Queen Mary, London: Conway Maritime Press Limited, 1989.

8. FIGURES

B5 MIDSHIPS HULL STRUCTURE

B5/1 Section where promenade deck is strength deck (1/200 scale)

1. Casing top
2. Funnel hatch
3. Wood deck planking
4. Deck plating
5. Casing
6. Stiffener
7. Web
8. Channel beam (every frame)
9. Waterway
10. Curtain plate
11. Fixed toplight
12. Sliding window
13. Deckhouse plating
14. Tube pillar (3 frames apart)
15. Bracket
16. Beam knees
17. Longitudinal girders
18. Side plating (doubled)
19. Shell angle
20. Web frame
21. Channel frame
22. Deck plating (doubled)
23. Side plating
24. Shelf plate
25. Bulkhead
26. Stringer
27. Margin plate
28. Girder plate (intercostal)
29. Girder plate (continuous)
30. Centre girder
31. Inner bottom
32. Floor plates
33. Bilge keel
34. Boiler room
35. Oil fuel bunker

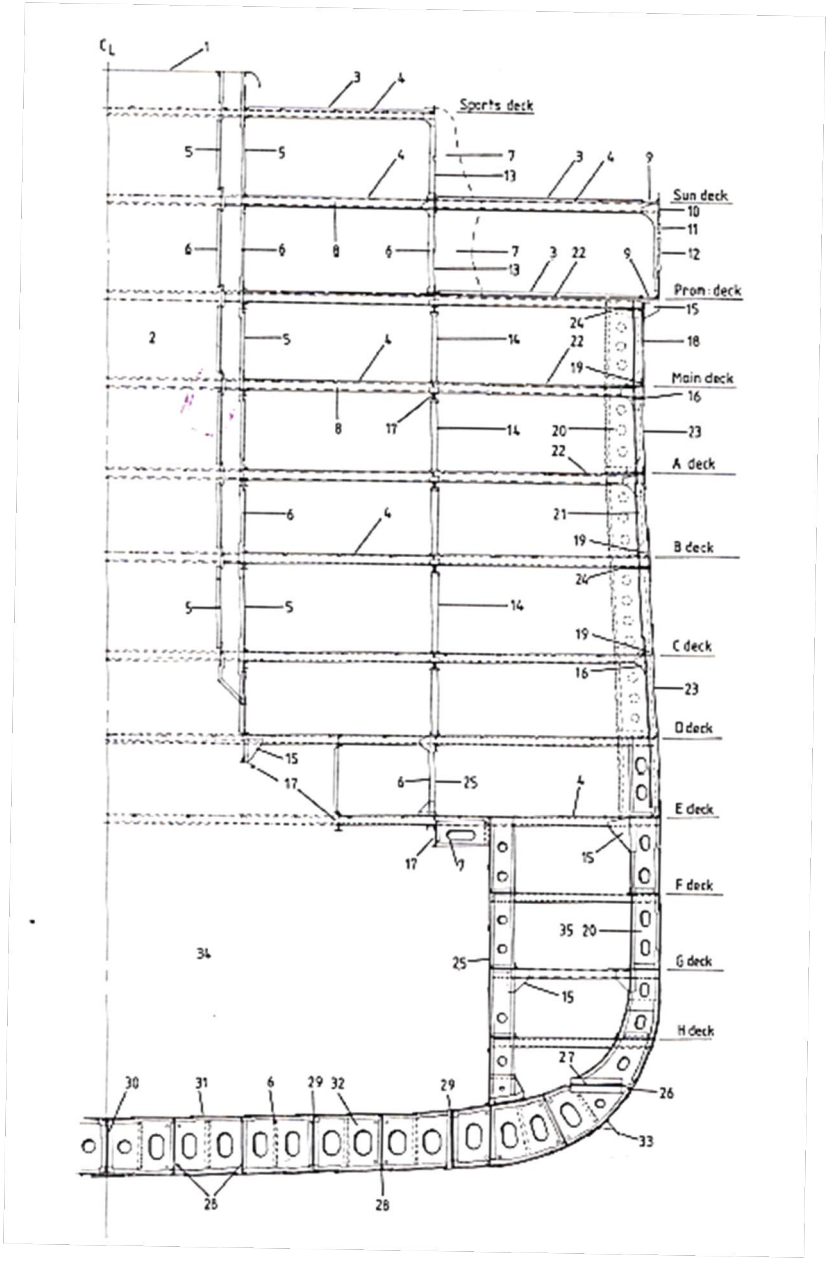


Figure 1 - Midships Section (Watton) [4]

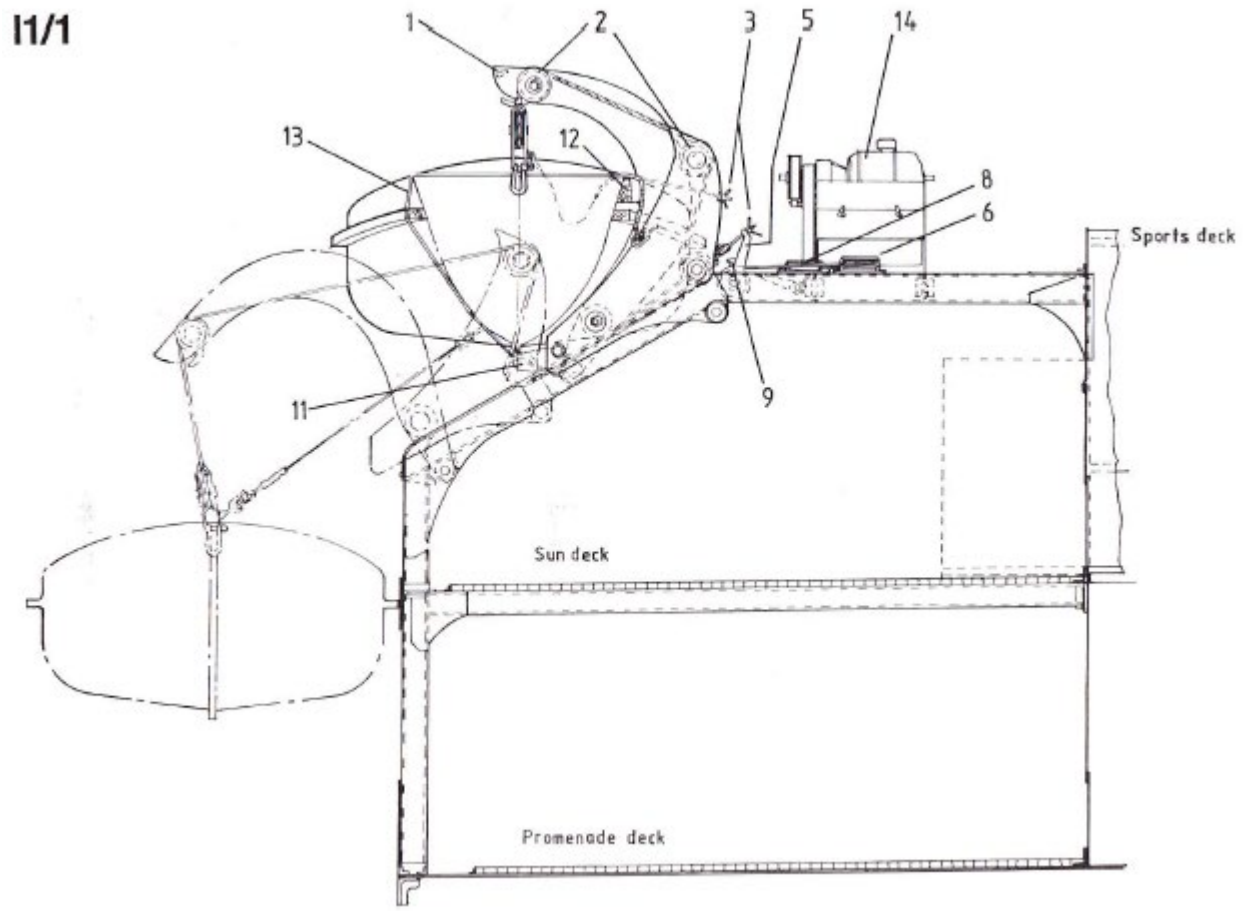


Figure 2 - Lifeboat Davit Arrangement (Watton) [4]

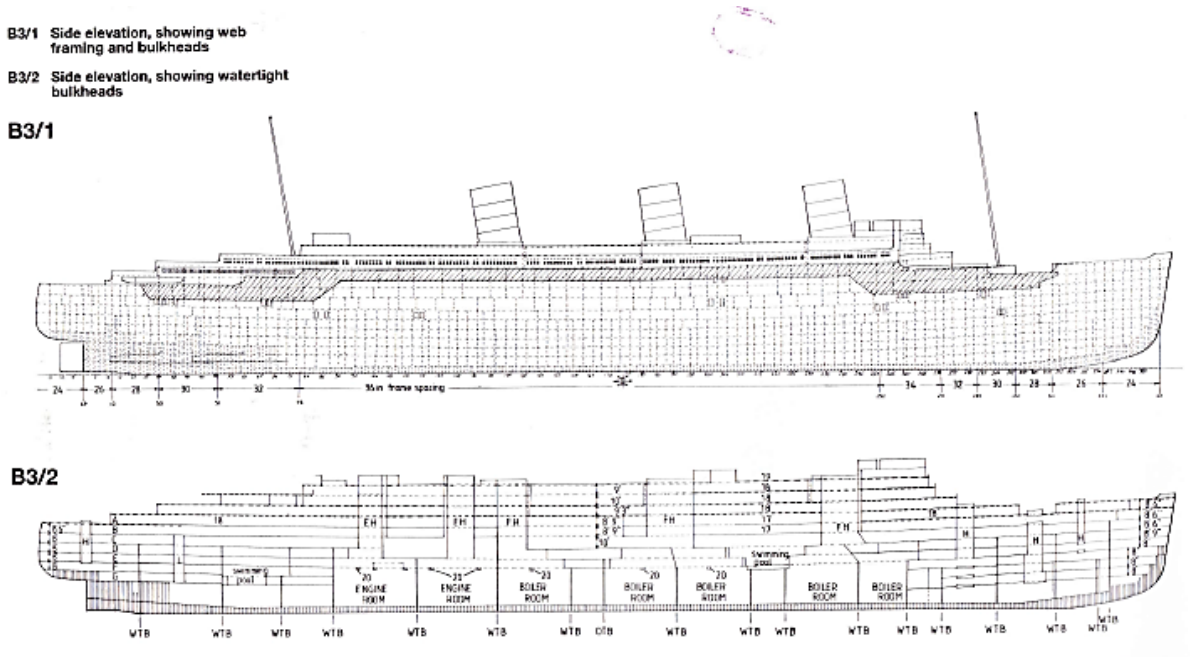


Figure 3 – Outboard & Inboard Profiles (Watton) [4]

APPENDIX

Cost Estimates

COST ESTIMATES

Option 1 - This keeps the vessel viable for the next two years while plans are generated for vessel's future. These items do not arrest or slow deterioration of the vessel but do reduce the liability that the vessel presents.

Option 2 - This takes account of the items that were described as urgent in the 2017 report. The amounts from the 2017 report have been reduced where work has been accomplished by past lessees.

	INITIAL COSTS FOR QUEEN MARY REFIT	OPTION 1	OPTION 2	COMMENTS
a.	Install a working bilge system that can deal with minor hull leakage or minor fire flow. This should include bilge alarms throughout the ship with some degree of automation so that it can be operated from above the machinery spaces.	$2,416,800		Estimated on 20 pumps, 40 bilge alarms, no emergency power. See below
b.	Gauge the tank top and inboard bulkhead of the longitudinal wing tank bulkheads to ensure adequate thickness to keep the vessel afloat. Add local doublers as necessary and replace all manhole covers that are currently off from any of the double bottom or wing tanks.	$4,000,000		Based on 2,000 ft^2 of small local repairs. Some staging required.
c.	Remove and clean up the water feature in the forward machinery space. Dry tank top.	$75,000		
d.	Analyse maximum acceptable compartment length for the vessel to stay afloat safely and fix the lower part of eight transverse bulkheads such that free surface is reduced sufficiently that the vessel does not capsize in the event of minor flooding	$4,920,000		Assumes that eight bulkheads need to be replated for the bottom 4 feet to reduce speed of progressive flooding
e.	Gauge and repair identified thin plating around Frame 35. Repair if required, from inside the vessel. 144 Ft^2 of plate.	$750,000		Mid-range of 2015 estimate

f.	Repair watertight door at aft end of aft Engine Room. Inspect and repair piping penetrations and lower bulkhead steel prior to repair item c.	$75,000		Includes making lower bulkhead watertight
g.	Clean debris from bilge of aft engine room, and all three shaft tunnels so that the bilge pumps can dewater without clogging. Clean up and pressure wash aft engine room bilge.	$300,000		
i.	Inspect and add to concrete shell plate patch in forward hold area at approximately Frame 300.	$30,000		
j.	Determine contents of the numerous hull tanks. Determine if any contain sewage. If so, empty tank, clean and inspect.	$250,000		Estimate assumes that two tanks are found to contain sewage.
k.	Remove promenade deck linings, store for reinstallation at later date and repair lifeboat davits using temporary structure. This will detract from the vessel appearance but will ensure that the davits do not deteriorate further. While failure would not be catastrophic, it would cause significant damage to the davit which would be difficult to repair. The lifeboats should be removed from the ship and either stored for restoration or disposal.	$1.200,000		Assumes a temporary repair of 52 davit/promenade Deck side framing structures. This does not address perforated Promenade Deck shell plating, guttering, reinstallation of linings or other work.
l.	Secure all active leaks in the superstructure. Drain water from the bridge wings and install deck drains so that this structure does not contain rainwater.	$1,500,000		Assumes that leaks identified in 2015 have not been properly repaired and that potential leaks are identified on closer inspection.
m.	If the vessel is to be reopened to the public, handrails must be retrofitted to meet health and safety codes/standards.	$850,000		Needs careful survey to determine extent. Not required if vessel does not open to public.
n.	Professional and management fees	$2,911,576		See below

	Total before contingency	**$18,778,376**		
	20% Contingency	$3,755,675		
	Total	**$22,534,051**		
1.	Demolition		$12,623,000	
2.	Sewage System		$500,000	
3.	Tank Top Repairs		$21,850,000	
4.	Bilge System		See item a.	
5.	Watertight Door		See item f.	
6.	Plating around Frame 35		See item e.	
7.	Tank Top Scaling and Painting		$2,500,000	Included in Item 1 Demolition with the exception of painting
8.	Tank Top Doublers		-	
9.	Concrete Box at Frame 300		See above	
10.	Aft Mast			Cost unknown at this time
11.	Lifeboats			Cost unknown at this time
12.	Gazebo			Cost unknown at this time
13.	Crow's Nest			Cost unknown at this time
14.	Officer Cabins			Cost unknown at this time
15.	Concession Stand			Cost unknown at this time
16.	Promenade Deck			Cost unknown at this time
17.	Britania Salon			Cost unknown at this time
18.	Britania Salon			Cost unknown at this time
19.	Handrails			Cost unknown at this time
20.	Wood Framed Structures			Cost unknown at this time
21.	Portlights			Cost unknown at this time
22.	Professional and management fees			Cost unknown at this time

Table 3 - Bilge System Estimate

	Assumed Labor Rate =	$ 75.00	per hour			
No.	**Description**	**Quantity**	**Unit Cost**	**Material Cost**	**Unit Labor**	**Labor Cost**
1	30 HP Sumbersible electric pump	20	$ 8,000	$ 160,000	100	$ 150,000
2	Bilge Float Switches	40	$ 200	$ 8,000	20	$ 60,000
3	Electrical Sub-Panel	2	$ 20,000	$ 40,000	100	$ 15,000
4	Piping	20	$ 5,000	$ 100,000	500	$ 750,000
5	Bilge Pump Electrical Feeds	4000	$ 3	$ 10,000	1	$ 300,000
6	Staging, Crane, Temp. Lighting	1	$ 100,000	$ 100,000	400	$ 30,000
7	Emergency Generator	1	$ 250,000	$ 250,000	200	$ 15,000
8	Alarm Panel	2	$ 10,000	$ 20,000	40	$ 6,000
	Sub-Total			$ 688,000.00		$ 1,326,000
	Materials & Labor					$ 2,014,000
	Contingency				20%	$ 402,800
	Total					**$ 2,416,800**

Table 4 - Professional & Management Fees Estimate

	Assumed Labor Rate =	$ 135.00	per hour			
No.	**Description**	**Personnel**	**Unit Cost**	**Material Cost**	**Unit Labor**	**Labor Cost**
	EBDG					
1	Hull Structural Survey	20	$ 3,000	$ 60,000	40	$ 108,000
2	Superstructure Survey	4	$ 3,000	$ 12,000	40	$ 21,600
3	Stability Analysis	4	$ -	$ -	40	$ 21,600
4	WT Bulkhead Repair Plans	2	$ 3,000	$ 6,000	200	$ 54,000
5	Tanktop Repair Plans	2	$ 3,000	$ 6,000	200	$ 54,000
6	Lifeboat Davit Repair Plan	2	$ 3,000	$ 6,000	100	$ 27,000
7	Electrical System Modifications	2	$ 3,000	$ 6,000	200	$ 54,000
8	Bilge System Design	2	$ 3,000	$ 6,000	120	$ 32,400
9	WT Door Repair Plan	1	$ 3,000	$ 3,000	80	$ 10,800
10	Handrail Repair Plan	1	$ 3,000	$ 3,000	80	$ 10,800
11	Construction Support	1	$ 52,000	$ 52,000	2000	$ 270,000
12	Project Management (15% of labor)					$ 99,630
	EBDG Sub-Total					**$ 923,830**
	M&N					
13	Underwater Diving Inspection	1	$ 100,000	$ 100,000	100	$ 13,500
14	UT Gauging	1	$ 250,000	$ 250,000	200	$ 27,000
15	Contractor Bidding & Selection	6	$ 10,000	$ 60,000	160	$ 129,600
16	POLB Liaison	4	$ -	$ -	500	$ 270,000
17	Construction Oversight	2	$ 10,000	$ 20,000	2000	$ 540,000
18	EBDG Oversight (10%)	1	$ -	$ -		$ 92,383
	M&N Sub-Total					**$ 1,502,483**
	Contingency				20%	$ 485,263
	Total					**$ 2,911,576**

City of Long Beach
Working Together to Serve

Memorandum

Attachment B

Date: September 23, 2019

To: Thomas B. Modica, Acting City Manager

From: John Keisler, Director of Economic Development

For: Mayor and Members of the City Council

Subject: **Update on Queen Mary Projects and Long Beach Cruise Terminal Dome**

At its Special Meeting on September 18, 2018, the City Council received an update from Economic Development Department (ED) staff regarding the status of repairs at the historic Queen Mary (see attached). As part of the update, staff summarized the recommendations from the Marine Survey Report, reviewed the capital improvement work completed to date, provided recommendations about funding, and reported the status of remaining unfunded priority projects. The full Queen Mary Update presentation can be found on the City's website.

Following the update, the City Council requested the City Manager to (1) report back on the status of unfunded Historic Preservation and Capital Investment Plan (HPCIP) projects, and (2) provide an update on the condition of the Long Beach Cruise Terminal Dome. The purpose of this memorandum is to provide an update regarding activities related to this request.

Background

On November 1, 2016, the City Council approved a 66-year lease with Urban Commons (Lessee) for the operation, management, and preservation of the Queen Mary. The leasehold area includes the Queen Mary, Catalina Express, and Carnival Cruise Lines, which currently operates the Long Beach Cruise Terminal in the geodesic dome next to the Queen Mary. Under the terms of the lease, the City established a HPCIP fund for ongoing preservation, conservation, and restoration projects associated with the special historic status of the ship. The HPCIP fund is exclusively supported by leasehold revenue streams.

To address some of the most critical repairs, the City committed to immediately funding $23 million by using existing reserves and issuing bonds to be repaid by rent revenue and passenger fees generated from Carnival Cruise Lines through 2026. The initial funding allowed the Lessee to complete seven major life safety and structural projects, including repair of the Fire and Life Safety System ship-wide, replacement of the expansion joints, and additional major structural repairs and renovations highlighted in the Queen Mary Update to the City Council.

Status of HPCIP Projects

As projected, the City and its Lessee made significant progress on critical HPCIP construction projects within the first three years of the new lease agreement. To date, 19 of the 27 projects originally identified in the HPCIP fund project schedule are completed or in-progress, with 8 additional projects pending a funding source. Following is a summary of the projects and their approximate costs.

Projects that are in progress or pending are prioritized as Critical, Urgent, or Midterm. These determinations were made in consultation with the City's third-party professional engineer, who monthly inspects and documents projects based on risk to safety, structural integrity, and ongoing preservation of the Queen Mary. Critical projects are those that have the greatest impact on the integrity and long-term preservation of the Queen Mary. Urgent projects are those that need to be addressed but do not impact the immediate safety or structural integrity of the Queen Mary and that the City's inspecting engineer recommends being addressed within the next three to five years. Midterm projects are those that need to be addressed as funds become available.

Completed Projects:

Fire and Life Safety Systems

Improvements included correction of 151 Fire Code violations; inspection, flowing, and repair of sprinkler pipes throughout 1 million square feet of the ship; replacement/ installation of 5,000 quick-response sprinkler heads; and, all major alarm, lighting, and sprinkler certifications completed. Significant deficiencies in the Fire and Life Safety Systems were discovered ship-wide as this project progressed. This project was originally budgeted at less than 1 percent of funds available and grew to nearly 25 percent.

Project Budget: approximately $5.3 million.

Structural: Deck M and Deck A

A catwalk in the Ghosts and Legends attraction was shut down in April 2016 due to structural instability. The raised floors were re-built; as well, nearby boiler rooms were demolished, de-watered, and cleared of rust.

Project Budget: approximately $2.3 million.

Exhibit Hall and Boiler Rooms Demolition

The Exhibit Hall floor was removed from structural posts welded to the hull, which were severely deteriorated. The entire area, including Boiler Rooms 3 and 4, was cleared of standing water, leaks repaired, and the hull treated with a rust inhibitor.

Project Budget: approximately $1.3 million.

Expansion Joints

All three of the ship's expansion joints were extremely corroded and no longer watertight or structurally sound. The replacements were designed to be historically correct.

Project Budget: approximately $715,000.

Exterior Hull Paint and Rust Repair

The ship had numerous areas where existing paint had flaked, chipped and peeled, exposing metal to the elements and creating rusted sections of hull. This project included rust remediation, application of rust inhibitor, and the priming and painting of 240,000 square feet of hull with original and historic paint colors. Painting of an area of the port-side hull is still underway.

Project Budget: approximately $2.8 million.

Exterior Top of House (TOH) Paint and Rust Repair

This project included rust remediation, application of rust inhibitor, and the priming and painting of areas of the Top of House and all three funnels with original and historic paint colors. Completed prior to an improvement in the painting preparation method, the rear funnel will be re-painted, along with some TOH sections that were not included in the earlier work, at no additional HPCIP fund expense.

Project Budget: approximately $1.2 million.

Side Tanks at Exhibit Hall

Side tanks on both sides of the ship that were leaking onto and under the lower Exhibit Hall floor were repaired and made watertight.

Project Budget: approximately $472,500.

Main Cabled Lighting Along Top of Ship (Completed by Lessee)

Prior system of cabled lighting was inoperable due to unsafe accessibility. Urban Commons replaced the system, outside of the HPCIP, with Wi-Fi-controlled, color-changing LEDs from bow to stern.

Project Budget: paid for by Lessee.

In Progress Projects:

Exhibit Hall Floor Replacement (In Progress)

The rebuild of the Exhibit Hall floor, which was demolished due to deterioration, is underway and scheduled to be completed by the Lessee.

Project Budget: Pending bids.

Top of House Roofing/Deck Repairs and Storm Drain System Repairs

This item accounts for two critical projects listed in the Marine Survey and the HPCIP project list that have been combined as a result of their impact on one another. Repairs addressed significant storm damage that forced the closure of Sir Winston's Restaurant and Lounge, Captain's Quarters, and Wheel House among other areas. Work included replacing and restoring roofs, replacing rotting and leaking decks, and rebuilding interior spaces. This project is substantially complete.

Project Budget: approximately $6 million for both projects.

Marine Survey Projects

Miscellaneous identified in the Marine Survey included structural review of girders in the bottom tank (completed), assessment of watertight bulkhead doors (completed), repairs to outer hull around the propeller, and other structural reinforcements.

Project Budget: approximately $740,000.

HVAC Repairs

Multiple HVAC systems throughout the ship had varying issues. Inspections were performed, TOH leaks eliminated, and repairs made at Exhibit Hall and King George Room. Some systems were repaired in the course of other repair projects.

Project Budget: $761,000.

Electrical System Repairs

Replacement of 13 Ground Fault Circuit Interrupters is needed.

Project Budget: $232,600.

Side Shell and Bridge Wing Repairs

See below for project description.

Project Budget: $146,200.

Landside Utility Lines Replacement

Water and sewer lines are showing signs of wear and in need of replacement. Fire lines were replaced with HPCIP funding.

Project Budget: $100,800.

Top of House Hand Fence and Railing Installation

This project would address a safety issue by deterring public access to service ladders with a new fence and failing.

Project Budget: $2,550.

Domestic Water Line Repairs

Repair of leaking in-wall domestic water lines, and replacement of heat exchangers.

Project Budget: $133,000.

Sewer System Repairs

System was leaking throughout the ship. New sewage tanks were installed, wing and bottom tanks drained, cleaned, and taken off-line.

Project Budget: $487,000.

Condensate Pump System/Line Repairs

Condensate is liquid formed by condensation. Original condensate lines and collection systems throughout ship are leaking and in need of repair.

Project Budget: $25,600.

Lifeboat Removal

See below for project description.

Project Status: Critical.

Project Budget: Pending bids and identified funding source.

Pending Projects:

Propeller Box Renovation

Repair to propeller box structure, cathodic protection, and lighting systems.

Project Status: Urgent.

Project Budget: Pending bids and identified funding source.

Relocation of Sewage and Mechanical Room

Relocation of sewage tanks currently housed in temporary location, to allow for access per Health and Safety guidelines.

Project Status: Urgent.

Project Budget: Pending bids and identified funding source.

Bilge System Repair

New pumps, floats, pickups and control panels are needed.

Project Status: Urgent.

Project Budget: Pending bids and identified funding source.

Health Department Upgrades

Some upgrades were completed in conjunction with other HPCIP projects, most notably repair and upgrades to the trash chute in Sir Winston's. Still pending is the replacement of make-up air units in kitchens on R Deck and Promenade Deck.

Project Status: Urgent.

Project Budget: Pending bids and identified funding source.

Miscellaneous Safety Projects

Repairs needed to various trip hazards and barriers in multiple locations, and to an employee entrance.

Project Status: Midterm.

Project Budget: Pending bids and identified funding source.

Lifeboat Replacement

Replacement of lifeboats with fiberglass molds.

Project status: Midterm.

Project Budget: Pending bids and identified funding source.

Additional Pending Projects

One additional project not identified in the Marine Survey, the priority of which is currently unknown, may also prove urgent or critical upon receipt of a pending engineering assessment. A crack in one of the wharf pilings near the Exhibition Hall gangway has been recently documented by the City's third-party engineer. The City funded an inspection of the condition of all pilings and related structures, costing approximately $55,000, which was completed in early September 2019. A report of findings is anticipated in the next several weeks.

Next Steps for Queen Mary Repairs

Inclusive of the HPCIP projects described above, the City's inspecting engineer has deemed two projects as 'Critical' and has recommended the City and Lessee prioritize these issues within the next 12-24 months. Although a funding source is yet to be identified, City staff have encouraged the Lessee to begin the process of project scoping and collecting estimated construction costs. Additional detail about these two 'Critical' projects is included below.

Lifeboat Removal — Project Cost: approximately $2.3 million

The 22 lifeboats suspended from davits—small pairs of cranes—above the Promenade Deck are affected by rot and corrosion in several areas. The main keels—the centerline at the bottom of the lifeboat—of most of the lifeboats are rusted through, the wood interiors/uppers have rotted, and the hooks that suspend the lifeboats from the davits are rusting, as are the davits themselves, which support the approximately 10,000- to 12,000-pound lifeboats. The vessels may ultimately be at risk of falling from the ship or breaking apart in place. In June 2018, Lifeboat No. 19, on the starboard side, was determined to be structurally unsound. A support was installed by the Lessee to protect against keel failure and render the area safe, although the City's inspecting engineer has noted this may not guarantee that other portions of the boat will stay together. While the operator identifies funding, they will continue to monitor the lifeboats and will reinforce the structures as needed.

Side Shell and Bridge Wings — Project Cost: approximately $4.7 million

The side shell is a portion of outer steel on the Promenade Deck level below the window line. The side shell steel also connects to the davits that support and distribute the weight of the 22 lifeboats. The side shell, along with the bridge wings - two small steel cantilevered structures extending from either side of the bridge - are corroded and deteriorated. Some aesthetic repairs made to the side shell in 2017, in anticipation of future repair or replacement, have begun to fail and are being removed by the Lessee. Access to the bridge wings has been closed for two years.

City staff will work with the Lessee and its third-party structural engineer to prepare a plan for completing the remaining Critical Projects within the recommended two-year period. This plan, currently under development by the Lessee, will include strategies, costs, and timing for replacing the lifeboats and repairing the side shell of the ship in a historically appropriate way. Although an additional study is underway to identify the most cost-effective approach to this work, the preliminary budget for both Critical Projects is estimated to be $7 million. This total estimated amount includes approximately $700,000 for the removal and proper disposal of the lifeboats, $4.7 million for the side shell repair and replacement drainage system, and $1.6 million for renting a specialized crane. Under the lease, critical ship repairs are the responsibility of Urban Commons. Although budget has yet to be identified, staff is working with the Lessee to improve operational income and to develop new revenue streams associated with the Queen Mary and surrounding activities. City staff hope to receive from Urban Commons an update on this plan by the end of the year.

Status of Dome

At the September 18, 2018 Special Meeting, the City Council also asked the City Manager for an update regarding the maintenance, operation, and cleaning of the Geodesic Dome (Dome) housing the Carnival Cruise Line Long Beach Cruise Terminal. As part of the 2016 Agreement, the maintenance and cleaning of the Dome is the responsibility of the Lessee. Staff have confirmed with the Lessee that it was last cleaned in May 2016. The work included power washing, application of a spray wax coating, and some caulking work as needed.

Staff communicated to the Lessee the appearance of the Dome is a priority of the City and the City Council have asked for improvements to its appearance. As such, the Lessee has obtained four estimates for cleaning of the Dome exterior, including a pressure wash with solvent and mechanical cleaning as needed. The Lessee is pursuing one additional estimate and scheduling a spot test pressure wash to determine if further steps will be needed. The cleaning is estimated to cost $200,000 and is anticipated to be completed by the end of the year.

Conclusion

As highlighted above, there are several Queen Mary and Dome projects that will take place over the coming months, while other projects described in the Marine Survey Report are expected to be completed over many years. Staff will continue to meet with the Lessee monthly to inspect maintenance, review construction plans, identify funding sources, and provide approvals as needed. Additionally, staff will continue to meet with the City Auditor on a quarterly basis to provide status reports on key elements of the Agreement.

For any questions regarding these matters, please contact Johnny M. Vallejo, Economic Development Business Operations Manager, at Johnny.Vallejo@longbeach.gov or (562) 570-6792.

PHW:JK:JMV:LCC

ATTACHMENT

CC: CHARLES PARKIN, CITY ATTORNEY
LAURA L. DOUD, CITY AUDITOR
TOM MODICA, ASSISTANT CITY MANAGER
KEVIN JACKSON, DEPUTY CITY MANAGER
REBECCA GARNER, ADMINISTRATIVE DEPUTY TO THE CITY MANAGER
MONIQUE DE LA GARZA (REF. FILE. #18-0841)

Queen Mary Update

Sept. 18, 2018

LONGBEACH Economic Development | CITY OF LONGBEACH

Site

Premises: 64+ acres (43.38 land / 20.84 water)

Leasehold area includes Carnival Cruise Lines, Catalina Express, and Island Express Helicopters

Recent History

- January 2009: City Council assigned lease to Garrison Investment Group following default of previous operator
- November 2015: Council approved assignment of lease to Urban Commons
- November 2016: Council approved 66-year lease with Urban Commons for the operation, management, and preservation of the Queen Mary; and rights to develop the 64+ acre site.

Lease Details

- 66-year term
- Base Rent
  - $300,000/year
- Per Passenger Fee Rent (based on Carnival passenger counts:
  - Approx. $2.15M/year through 2021, then split between City and Urban Commons
- Pass-through Rent
  - Approx. $89,000/year
- Percentage Rent
  - 10 percent of net site revenues after a priority rate of return (9 percent)

Addressing Repairs and Preservation

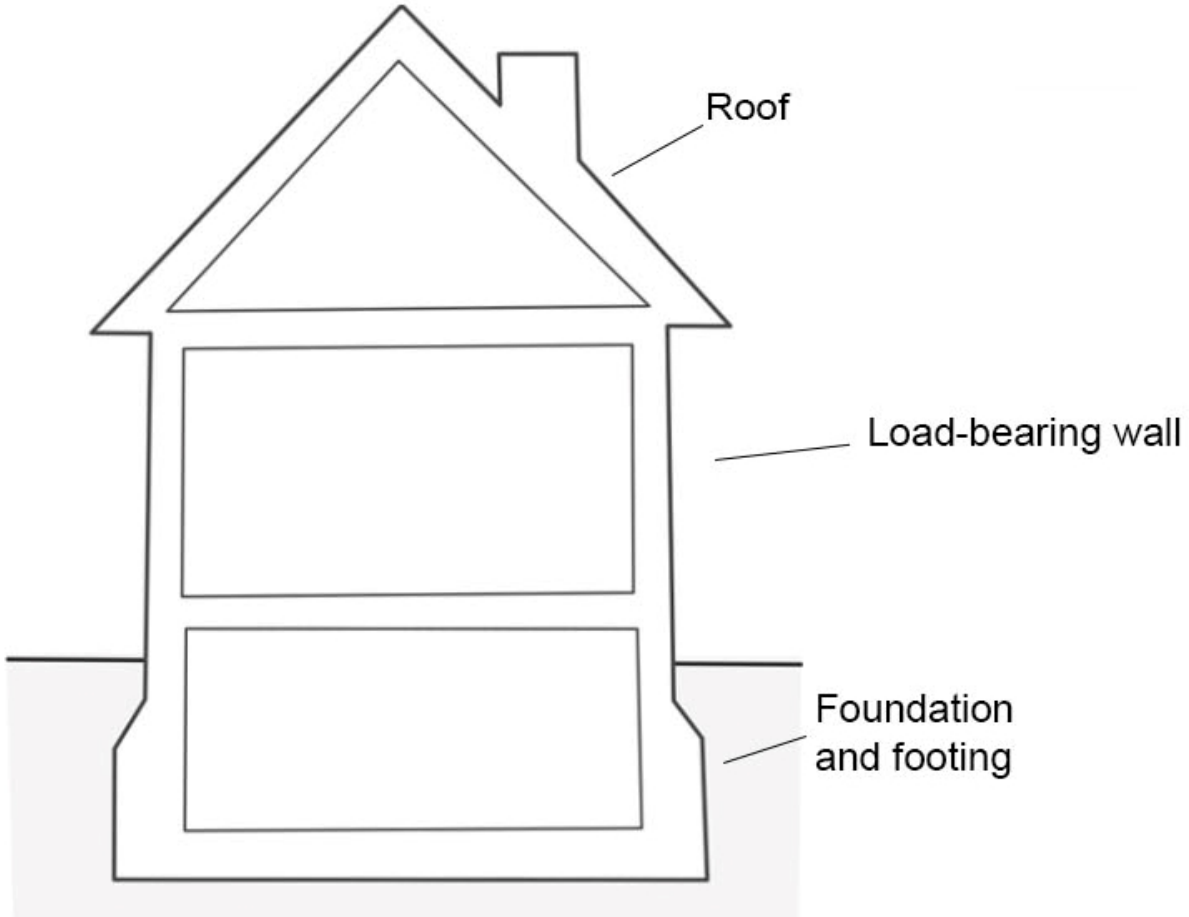
- Queen Mary Heritage Foundation Support Payments
  - 5 payments of $25,000
- Base Maintenance and Replacement Plan (BMRP) Fund
  - Funded by UC, percentage of site revenues
  - $196,643 (2016-2017) for improvements, replacements, renovations
- Historical Preservation and Capital Investment Plan (HPCIP) Fund
  - Funded by Queen Mary rental streams

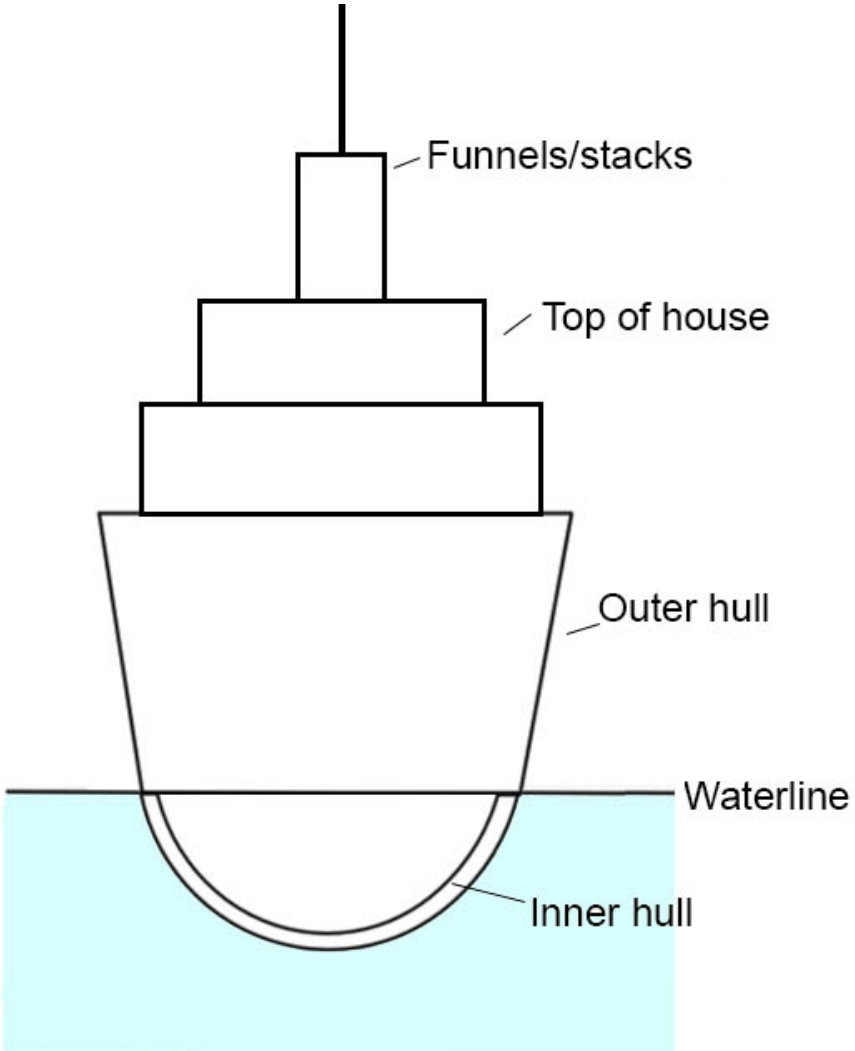
- Marine Survey, commissioned by previous operator, identified short- mid- and long-term repairs at cost of $235 million to $289 million.
- City committed to funding $23 million for most urgent repairs, through the HPCIP
  - $5.8 million — existing reserves
  - $17.2 million — bonds
- City and UC agreed to invest 7 to 10 years of rent revenues toward $17.2 million debt service

Historic Preservation and Capital Investment Plan Projects

- Original list included 27 projects (2017 HPCIP)
  - As work progressed, projects were reprioritized to address critical safety and structural concerns, and unforeseen expansions in scope
  - Completed and in-progress projects (2018) prioritize fire- and life-safety issues, water intrusion, and structural integrity


Structure of the Queen Mary





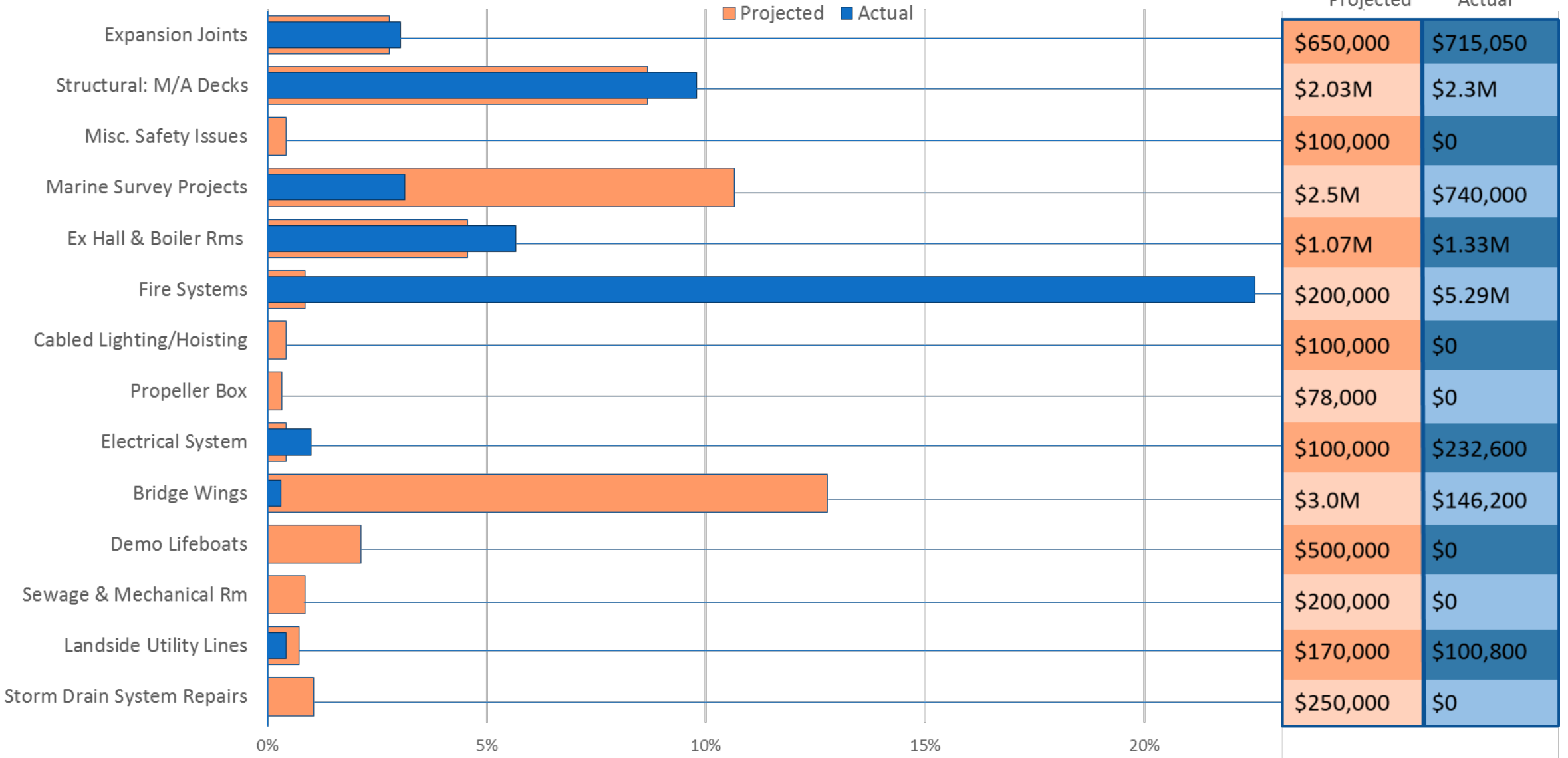
Progress on HPCIP

Complete/To Be Completed	Partially Complete	Work Not Started
Structural: M/A Decks	Top of House Roofing/Deck	Misc. Safety Issues
Fire Systems	Marine Survey Projects	Cabled Lighting/Hoisting System
Exhibit Hall & Boiler Rooms	Electrical System	Prop Box
Expansion Joints	Side Shell/Bridge Wings	Demo Lifeboats
Exterior Hull Paint & Rust Repair	Landside Utility Lines	Relocate Sewage & Mechanical Room
Exterior TOH Paint & Rust Repair	Storm Drain System	Bilge System
Side Tanks at Exhibit Hall	TOH Hand Fence & Railing	Replace Lifeboats
	Domestic Water Line	Exhibit Hall Floor Rebuild
	Sewer System	Health Dept. Upgrades
	Condensate Pump System	
	HVAC Repairs	

Progress on Needed Repairs

Marine Survey: Suggested First Steps of Repair (Table 5)	
Action	**Status**
Further engineering and investigation	**In progress** → Investigation of double bottom ongoing Complete: Structural analysis performed and recommendations received; ship stability surveyed and modeled; HVAC and domestic water line systems inspected and recommendations received; cable stays investigated, repairs specified
Urgent top-side repairs	**Substantially Complete**
Sewage system repairs and bilge replacement	**Partially Complete**: Temporary sewage tanks installed, plans drawn; temporary bilge pumps secured and standing water removed
Restore to operation aft engine-room watertight compartment doors	**Project Canceled**: Structural engineer's analysis and recommendations indicate that completing work could be detrimental in event of hull puncture

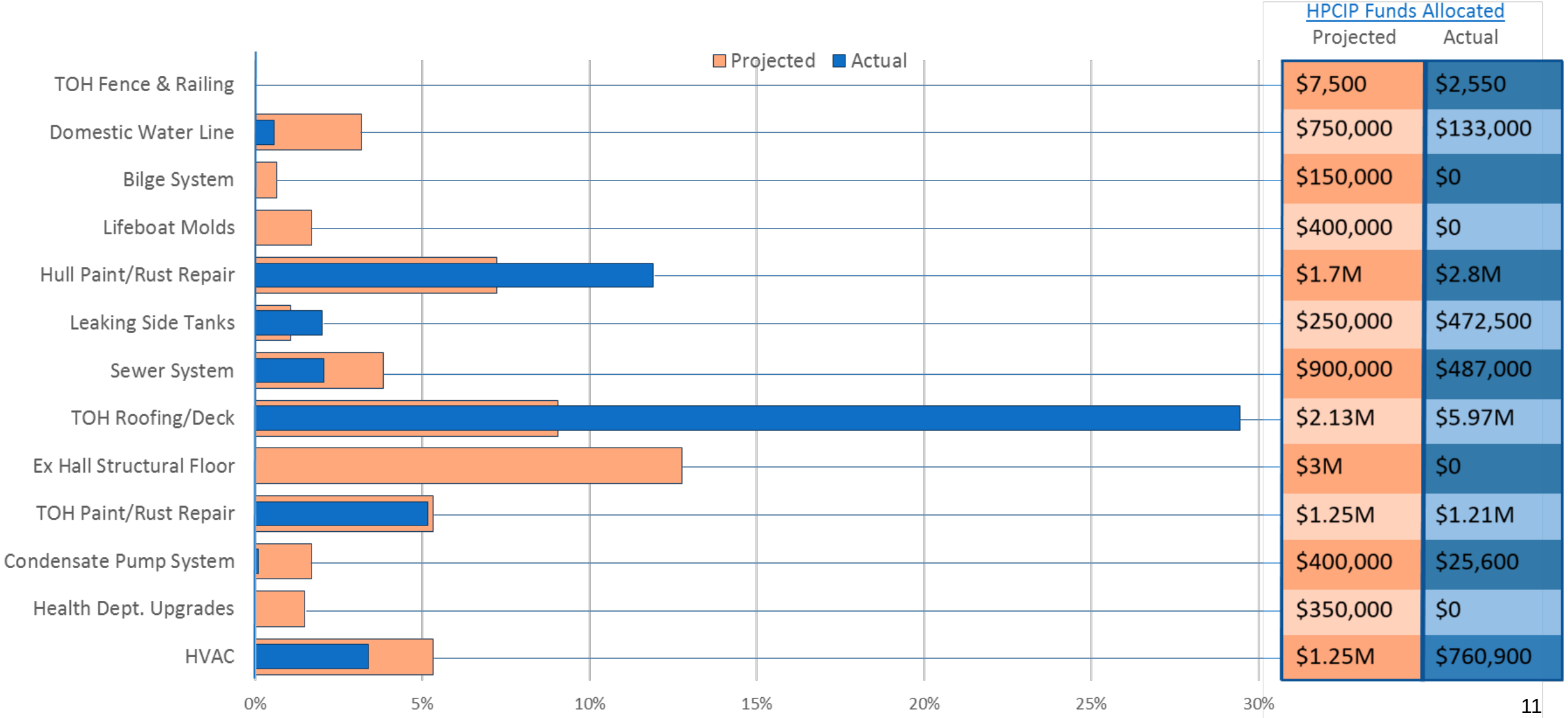
Project Cost as Percentage of HPCIP Funds



HPCIP Funds Allocated

Projected	Actual
$650,000	$715,050
$2.03M	$2.3M
$100,000	$0
$2.5M	$740,000
$1.07M	$1.33M
$200,000	$5.29M
$100,000	$0
$78,000	$0
$100,000	$232,600
$3.0M	$146,200
$500,000	$0
$200,000	$0
$170,000	$100,800
$250,000	$0

Project Cost as Percentage of HPCIP Funds

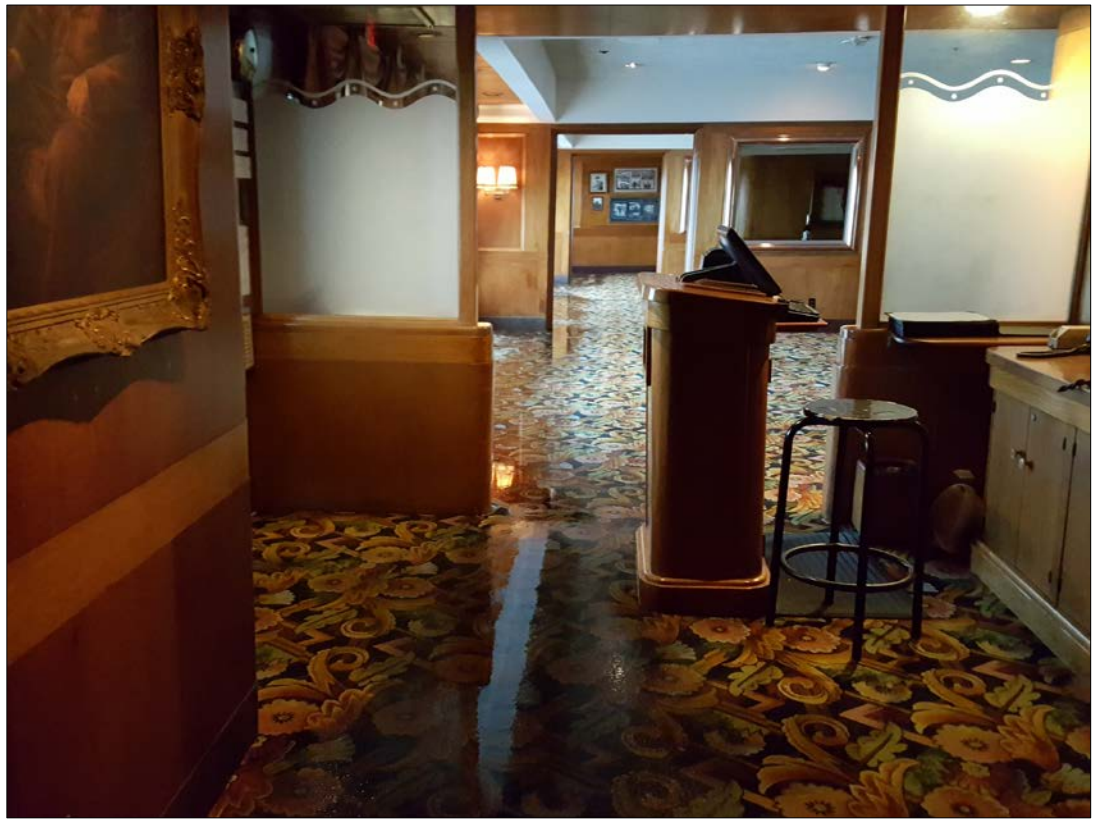


HPCIP Funds Allocated	
Projected	Actual
$7,500	$2,550
$750,000	$133,000
$150,000	$0
$400,000	$0
$1.7M	$2.8M
$250,000	$472,500
$900,000	$487,000
$2.13M	$5.97M
$3M	$0
$1.25M	$1.21M
$400,000	$25,600
$350,000	$0
$1.25M	$760,900

Roofing and Deck Repairs

Urgent/Mid-Term

- To address water intrusion originating at the Top of House areas of ship.
- Before repairs could begin, severe storm in Winter 2017 inflicted significant damage
  - Closure of Sir Winston's Restaurant & Lounge, The Captain's Quarters, Wheel House & more
- Areas repaired include:
  - Cunard Room
  - Captain's Quarters
  - Executive Offices
  - Executive Office Roof
  - Bridge and M Deck
  - Frame 200



Storm damage at Sir Winston's

Roofing and Deck Repairs

Work included:

- Roofs replaced and restored
- Rotting and leaking decks replaced
- Interior of spaces rebuilt

Roof damage and repair/waterproofing on Bridge deck (above Captain's Quarters)

Roofing and Deck Repair Areas

~9,000 SF – New decking, incl. new steel substrate and new waterproofing

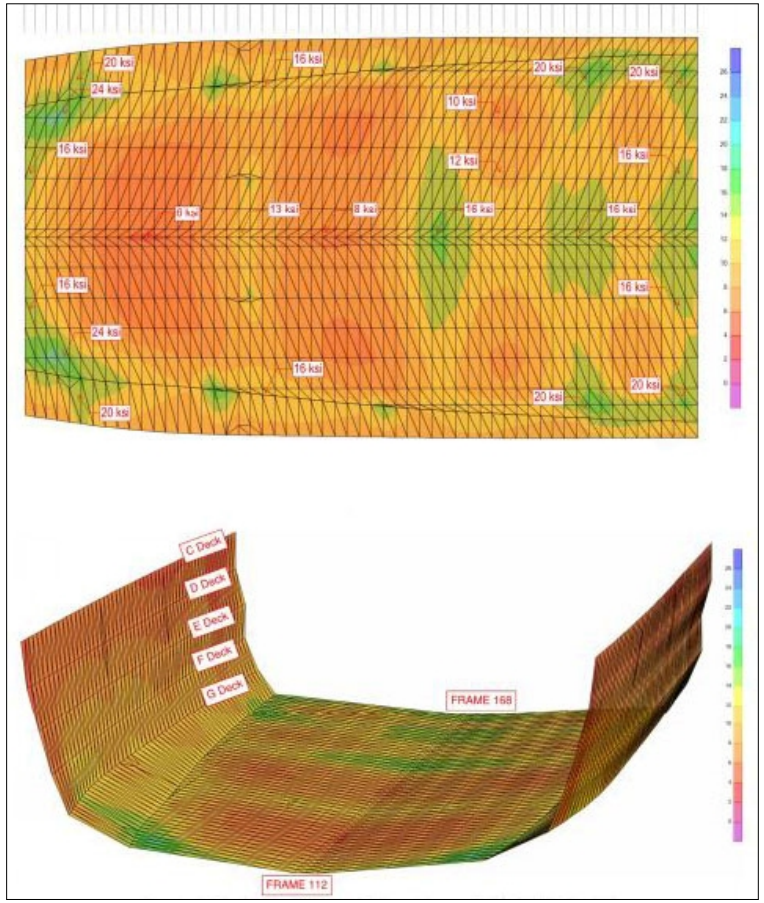
~15,000 SF – New roofing system, incl. new steel substrate

~7,600 SF – New waterproofing system

Urgent/Mid-Term

Miscellaneous Marine Survey Projects

- Structural analysis of girders in bottom tank
  - Girders revealed to be in good condition
- Tank top & side tank repairs
- Leak repair
- Watertight bulkhead doors assessed



Modeling showed hull stresses within normal range

Sewer System Repairs

Urgent

- Temporary sewage tanks installed
  - Wing and bottom tanks drained, cleaned, taken off-line
- Plumbing line repairs
- Water removed from hull, area cleaned and sanitized

New temporary sewage tanks

HVAC Repairs

Urgent/Mid-Term

- Contractor inspected systems, prepared recommendations
- New systems installed to eliminate top-of-house leaks
- Other repairs made at Exhibit Hall and King George Room

HVAC installation at Frame 200, top of house

Exterior Hull Paint and Rust Repair

Mid-term

- Structural integrity compromised due to exposed and rusted metal
- Rust remediated, inhibitor applied and 240,000 square feet of hull primed and painted
- Restored to original and historic colors

Hull painting in progress

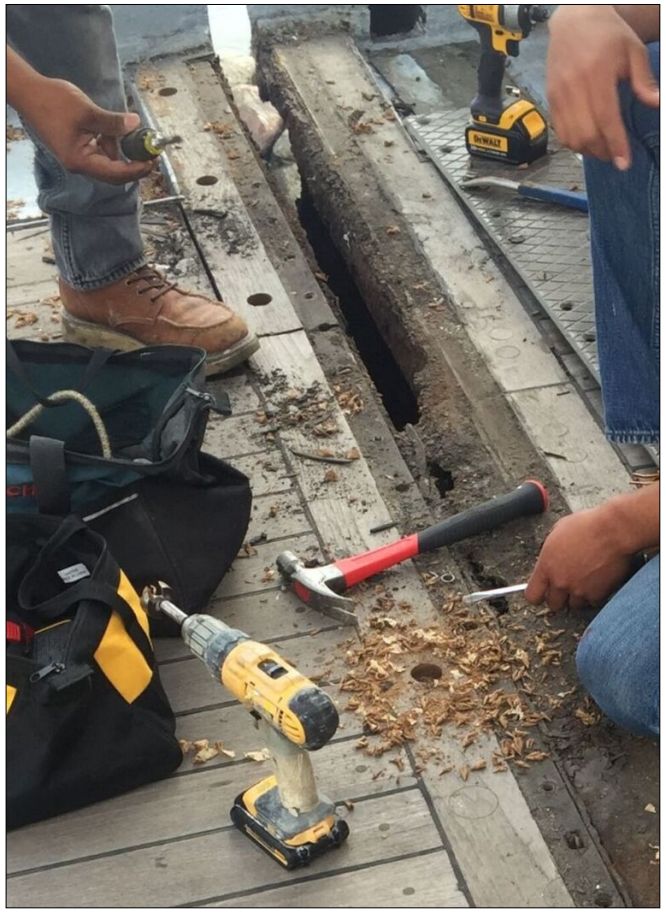
Estimated completion: Oct. 12

Expansion Joint Replacement

Urgent/Mid-Term

- Identified as urgent item
- All 3 expansion joints were severely corroded, leaking and not structurally sound
- Replacements designed to be historically correct

Estimated completion: Oct. 1



Before

After

Repair of Leaking Side Tanks

Urgent

- Both tanks were leaking onto and under tank tops/lower exhibit floor
  - Caused poor structural conditions
  - Visible holes in interior walls
  - Standing water
- Leak investigation & water removal complete
- Repair in progress

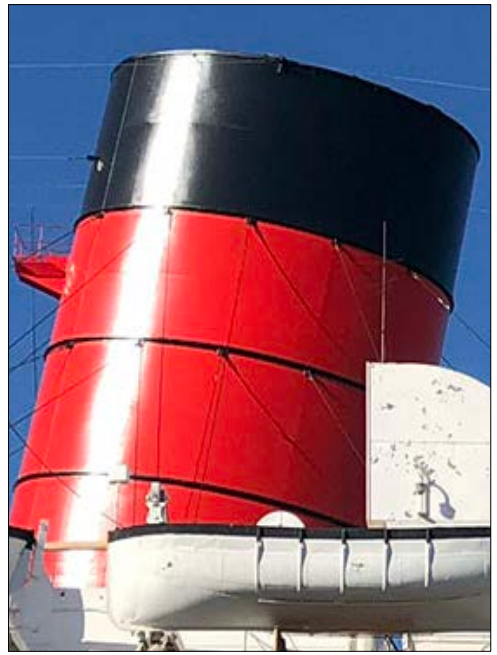
Side tanks repair in progress

Estimated completion: Nov. 14

Top of House Paint & Rust Repair

Mid-term

Intake vents and funnel before



Intake vent and funnel after

TOH Paint/Rust Repair

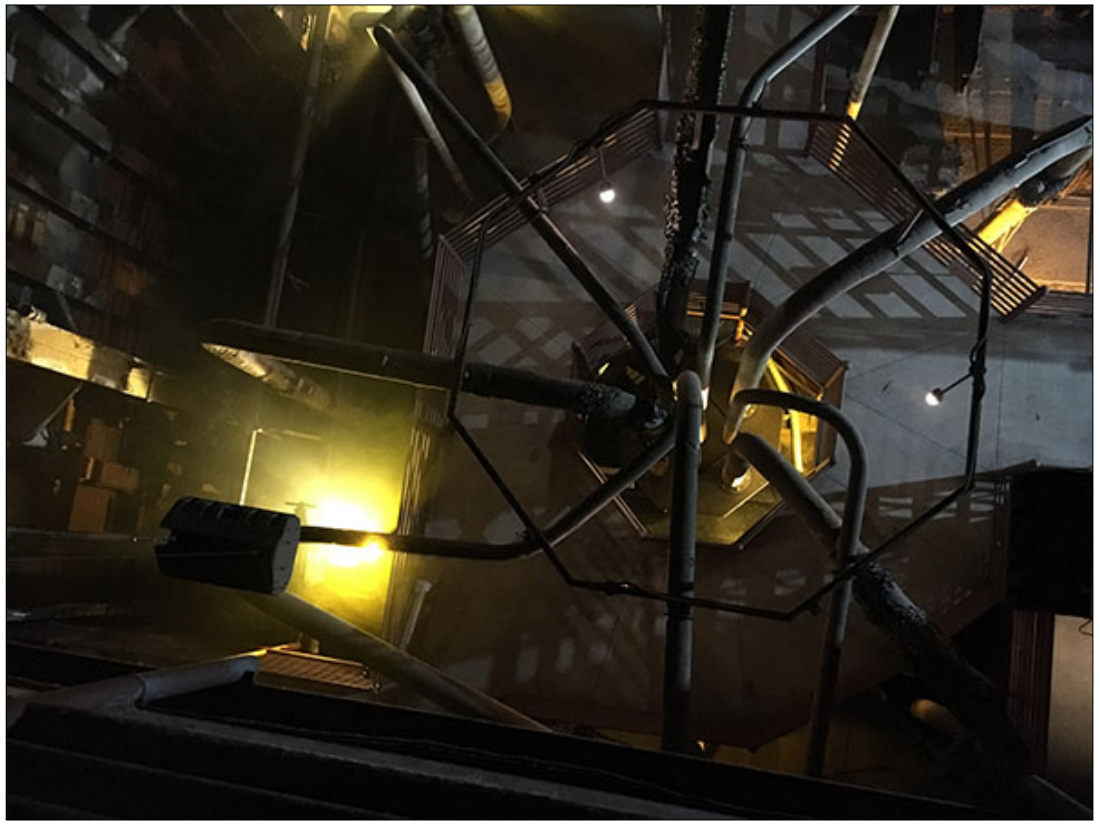
Estimated completion: March 29

Structural Repairs to M & A Decks

Urgent

- Repairs in the area of Ghosts and Legends attraction
  - Area shut down in April 2016 due to structural issues
  - Marine Survey identified leaks in fiberglass pool as contributing to corrosion of bottom of ship
- Raised floors re-built, now safe to enter and attraction has re-opened

Completed: Sept. 2017

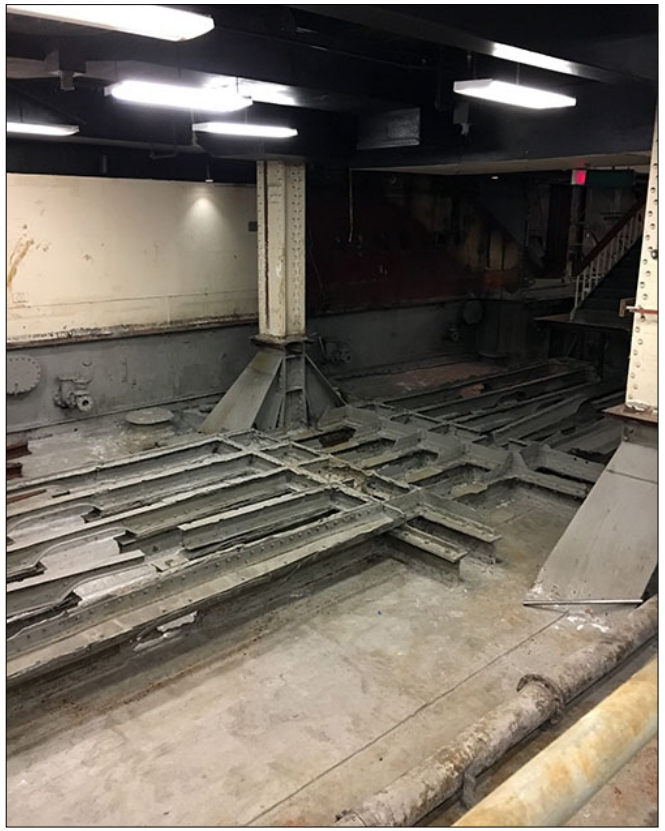


Re-built walkway structure, from above

Exhibit Hall and Boiler Rooms

Urgent

- Demo of raised floor; de-watering, repair and rust abatement



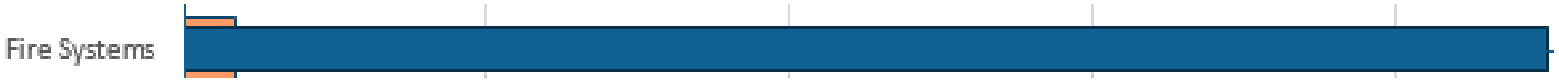
Completed: Sept. 2017

Fire and Life Safety Systems Repair

Critical Safety

- $200,000 originally budgeted, to fund minimal corrections identified by Long Beach Fire Department during 2016 inspection
- During follow-up inspections, LBFD found significant additional deficiencies
- Further investigation, repairs, and certifications required

- LBFD classified Queen Mary fire systems as high priority project
  - Implemented augmented response to any fire-related call to Queen Mary
  - Imposed 24-hour fire watch, fulfilled by Urban Commons



Completed: June 2018

Fire and Life Safety Systems Repair

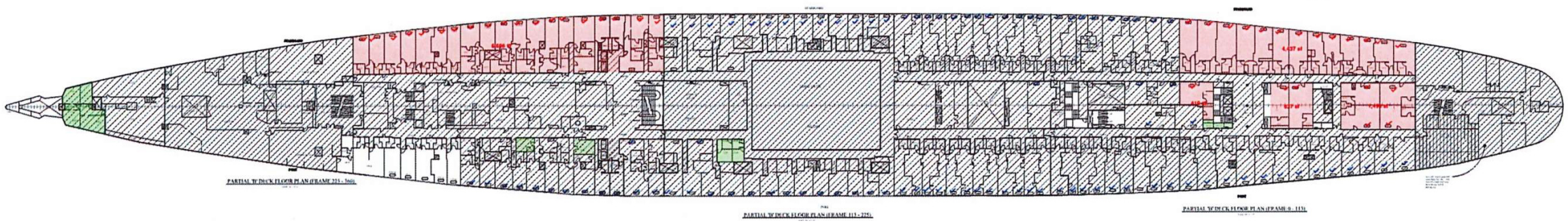
- ✓151 Fire Code Violations Corrected
  - Many, if not all, conditions existed under previous operator
- ✓Annual Fire Alarm certification completed
- ✓Annual emergency lighting test completed
- ✓Annual sprinkler testing completed

- ✓5-Year sprinkler testing completed
- ✓Fire Water Flex Hoses replaced
- ✓Fire Door corrections completed
- ✓Major fire protection system repairs completed
- ✓Obstructive investigation completed

Fire and Life Safety Systems Repair

Obstructive Investigation Completed

- Sprinkler pipes throughout 1 million square feet of ship inspected, flowed, and repaired
  - 400 guest rooms, public areas, and back-of-house areas
    - All sprinkler heads (5,000) replaced with new quick-response sprinkler heads
- Microbiological testing completed



Visitor Experience Improvements Completed by Urban Commons

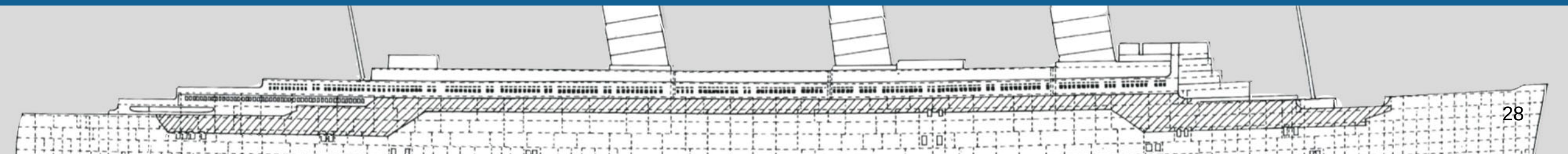
- 4-D Theater
- Ellis Island Experience
- Titanic Exhibit
- Winston Churchill “Their Finest Hours” Exhibit
  - Renovations to exhibit space

“Their Finest Hours” Exhibit

Lease Oversight

Improvements to oversight of lease and contract management

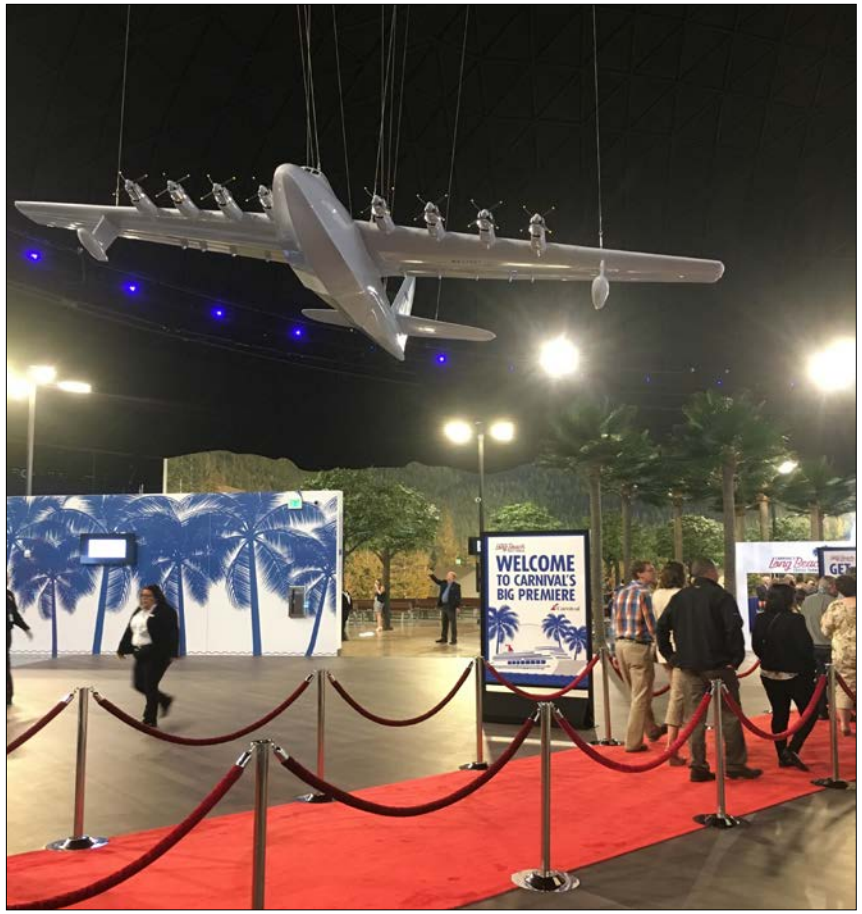
- Lessee obtains advance City approval
- Stronger internal controls
- New dedicated staff member assists Real Estate Officer
- Improved processes for monthly inspections



Carnival Cruise Line

- Multi-million-dollar renovations to Long Beach Cruise Terminal unveiled in Feb. 2018
- New, 3,954-passenger Carnival Panorama will arrive in 2019

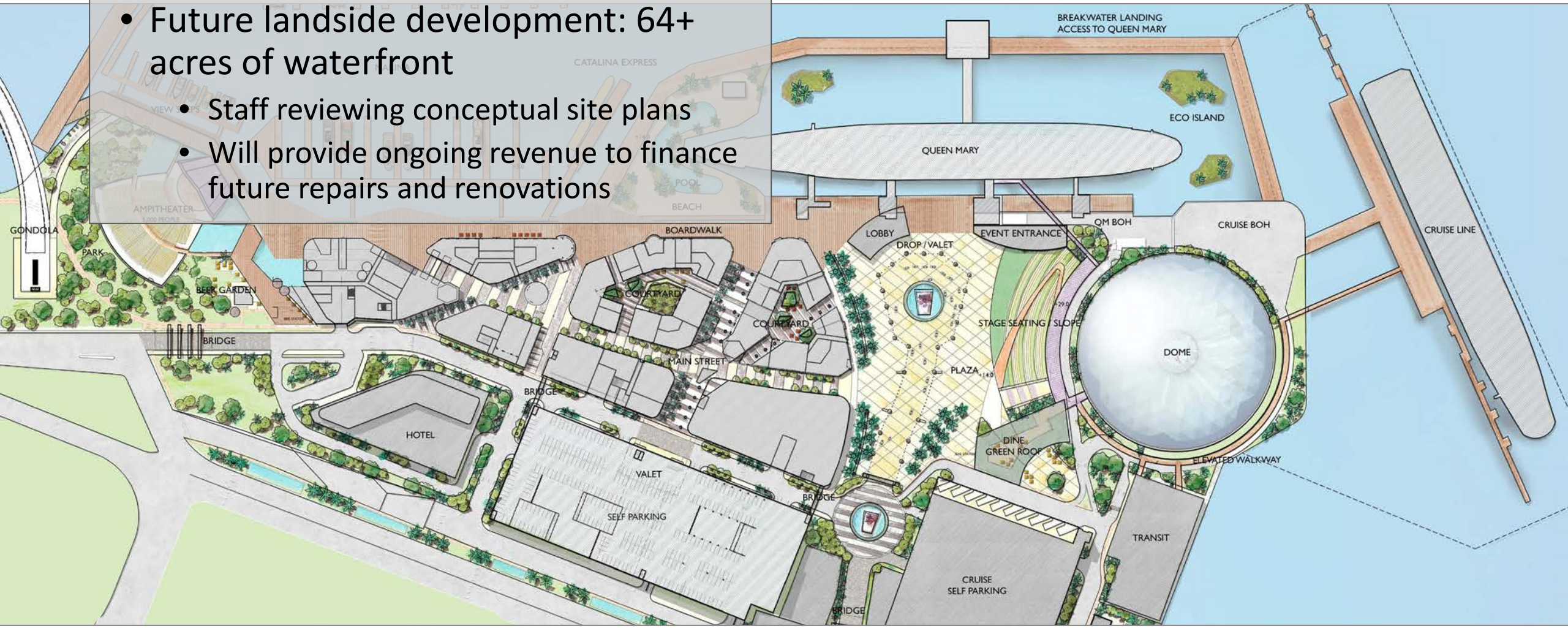
Carnival Panorama



Long Beach Cruise Terminal

Queen Mary Island

- Future landside development: 64+ acres of waterfront
  - Staff reviewing conceptual site plans
  - Will provide ongoing revenue to finance future repairs and renovations



Thank you

LONG BEACH Economic Development

City of Long Beach
Working Together to Serve

Memorandum

Attachment C

Date: December 31, 2019

To: Thomas B. Modica, Acting City Manager

From: John Keisler, Director of Economic Development

For: Mayor and Members of the City Council

Subject: **Queen Mary Lease Management Update**

On November 4, 2019, the City Manager provided a written update to the Mayor and City Council regarding management of Lease No. 34432: Amended and Restated Lease and Operations Agreement of Queen Mary, Adjacent Lands and Improvements, Dome and Queen's Marketplace (Lease). In that update, City staff identified issues with recent monthly inspection reports that required additional review and committed to work with an independent third-party engineering firm to: (a) review the Queen Mary inspection process, (b) verify statements from recent draft reports, and (c) make recommendations to improve and strengthen oversight and management of the Queen Mary. The purpose of this memorandum is to provide a progress report regarding those follow-up actions and provide a summary of next steps.

Background

Regular inspection and documentation of issues is a normal practice of good lease management. Monthly inspection reports are intended to provide a spot check of conditions on the Queen Mary relative to the Base Maintenance Program (BMP), and to identify issues with important systems such as structural, plumbing, HVAC, safety, and signage that may need further inspection or repair. The City has maintained a contract with a consultant to perform monthly inspections regarding the status of maintenance and repair on the Queen Mary for over 20 years. The results of monthly inspections are documented in draft monthly reports which are reviewed by the City, operator, and inspector for clarification and further study before they are finalized and made public. Typically, inspection reports are finalized and made public about 30 days after they are submitted by the inspector.

On October 23rd, the City commissioned Moffat & Nichol, an established engineering firm with marine experience, to review recent draft inspection reports and to make preliminary recommendations for improvements to the inspection process, report structure, and methodology. The three most recent draft inspection reports from July (#390), August (#391), and September (#392) were provided to Moffat & Nichol for review. On November 14th, Moffat & Nichol conducted an onsite visit to the Queen Mary to provide the review team a better understanding of the range and scale of current maintenance and repair activities.

Findings

On November 20th, Moffat & Nichol delivered a summary review of the current inspection reports and recommended improvements necessary to professionalize the process such as (a) utilizing appropriate industry standards and codes, (b) developing a standardized rating

system to reduce ambiguity, and (c) establishing a system to prioritize repairs. A summary of these recommendation is provided in the exhibit below:

Exhibit: Moffat & Nichol Memorandum 9300-25, November 20, 2019

Topic Area:	Recommended Improvement:
Formalize reporting process and reference applicable codes and standards when referring to issues:	Currently, when discussing areas of concern there is no mention of applicable state and local building codes or the Queen Mary's BMP. By basing the reporting process on applicable codes and standards, the inspection can reference the relevant code section. This helps reduce ambiguity when communicating issues encountered and provides a path to enforcement. It is recommended that a new reporting process using appropriate industry standards and codes be drafted. Examples of such codes and standards include the California Building Code (CBC), International Organization of Standardization (ISO 14001), and American Society of Civil Engineers (ASCE).
Separation of life safety / structural from operations / hospitality issues:	The provided reports blend operations / hospitality concerns with structural, fire & life safety, and accessibility issues in the same body of text, making it difficult for the reader to prioritize items. It is recommended that the inspection report be split into two separate sections. One section should cover structural, fire & life safety, and accessibility (e.g., ADA) issues. While a separate section (which could follow the same format) should cover aesthetic and guest experience issues that are relevant to running a public attraction.
Defect rating system:	In conjunction with formalizing the inspection and reporting process, a defect rating system should be implemented. A standardized rating system can help remove subjectivity when discussing issues. For example, No Damage, Minor, Moderate, Major, and Severe to characterize condition of structural and non-structural systems' integrity and 'fitness-for-purpose.' Guidance for each defined rating category is developed for each system (e.g., structural, mechanical, electrical, corrosion, etc.). Due to the unique nature of the Queen Mary, a custom rating system should be developed, one which considers the current functions and history of the ship.
Report photographs:	Provide photographs for all major / severe defects. For minor and moderate defects, a single representative photograph is appropriate. The photographs should highlight the extent and severity of defects. Include an engineering scale (for size reference) where appropriate.
Tracking system:	The current reports highlight many relevant issues throughout the property and many of these issues may take a significant period of time to resolve. Currently, the reader must track backward through multiple reports to understand the evolution of a given topic. It is recommended to develop a separate defect tracking system to allow for the monitoring of specific maintenance issues by the City.
Prioritization system:	Along with implementing a tracking system that monitors the status of routine maintenance and specific repair issues, it is recommended to develop a system to prioritize the repair activities.

It was the opinion of Moffatt & Nichol that professionalizing the inspection process will improve accountability for both the City and operator by creating unambiguous standards for quantifying, prioritizing, and tracking progress after issues are identified.

Next Steps

City staff has requested a full scope of work including cost information from Moffat & Nichol, to develop a professional, robust, and effective inspection program at the Queen Mary that includes all the above recommendations. Staff recommends the following next steps:

- Commission Moffatt & Nichol to evaluate current plans and recommended repairs to address any urgent risks to Queen Mary.
- Commission Moffat & Nichol to develop an inspection and reporting program for the Queen Mary pending scope, costs, and recommended funding source.
- Identify and appropriate funding for both one-time and ongoing costs to implement improved inspection process recommended by Moffat & Nichol.
- Continue to meet monthly with Urban Commons to track progress on previously identified repair needs.
- Solicit request for proposals to hire new inspection engineering firm to implement the expanded inspection and reporting program.

Conclusion

Preserving the Queen Mary for future generations of residents and visitors is a key priority for the City. As directed by the City Council, staff will continue to meet with Urban Commons monthly to inspect maintenance, review construction plans, identify funding sources, and provide direction as needed. Additionally, staff will continue to produce regular written updates to City Council and to meet with the City Auditor on a quarterly basis to provide status reports on key elements of the Lease.

For any questions regarding these matters, please contact Business Operations Manager Johnny M. Vallejo at (562) 570-6792 or by email at johnny.vallejo@longbeach.gov.

ATTACHMENT

cc: CHARLES PARKIN, CITY ATTORNEY
LAURA L. DOUD, CITY AUDITOR
REBECCA GARNER, ACTING ASSISTANT CITY MANAGER
KEVIN JACKSON, DEPUTY CITY MANAGER
TERESA CHANDLER, INTERIM DEPUTY CITY MANAGER
AJAY KOLLURI, ACTING ADMINISTRATOVE DEPUTY TO THE CITY MANAGER
MONIQUE DE LA GARZA, CITY CLERK

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MEMORANDUM

To:	Johnny Vallejo and Lori Craig, Economic Development Department, City of Long Beach
From:	Omar Jaradat, PhD, PE – Moffatt & Nichol (M&N)
Cc:	Cheng Lai, PE; Benjamin Cook; Shelly Anghera, PhD; Mike Breitenstein, PE – M&N
Date:	November 20, 2019
Subject:	Queen Mary Inspection Report Review and Recommendations
M&N Job No.:	9300-25

Introduction

The City of Long Beach has maintained a contract with a consultant to perform specialized inspection services regarding the status of maintenance items and repair issues aboard the Queen Mary, the results of which are documented in monthly summary reports intended to summarize current maintenance activities and conditions relative to the Base Maintenance Program (BMP) for the ship and its ancillary structures and facilities. The inspection reports address Queen Mary systems such as structural, plumbing, HVAC, safety, and signage and highlight current, planned, and needed maintenance and repair efforts. Compliance with the BMP is verified on a "spot check" basis.

Inspection Report Review

Three monthly inspection reports (#390, #391, and #392) were provided to Moffatt & Nichol (M&N) for review to make preliminary recommendations for potential improvements to the inspection process and/or the report structure and methodology. The goal is to most efficiently assess the ship's overall condition and most effectively provide information to assist the City in evaluating proposed maintenance and repair activities.

In addition to the inspection reports, an onsite visit was conducted by M&N on November 14, 2019 to provide the review team a better understanding of the range and scale of current maintenance and repair activities on the Queen Mary.

Currently, the tenant at the Queen Mary is updating the BMP, which is the guiding document that describes the ship's systems and their maintenance requirements. This update may provide an opportunity to include improved communication and reporting guidance.

The following inspection and reporting improvements could help to more effectively communicate the current conditions and the maintenance and repair activities of the Queen Mary to the City:

Topic Area:	Recommended Improvement:
Formalize reporting process and reference applicable codes and standards when referring to issues:	Currently, when discussing areas of concern there is no mention of applicable state and local building codes or the Queen Mary's BMP. By basing the reporting process on applicable codes and standards, the inspection can reference the relevant code section. This helps reduce ambiguity when communicating issues encountered and provides a path to enforcement. It is recommended that a new reporting process using appropriate industry standards and codes be drafted. Examples of such codes and standards include the California Building Code (CBC), International Organization of Standardization (ISO 14001), and American Society of Civil Engineers (ASCE).
Separation of life safety / structural from operations / hospitality issues:	The provided reports blend operations / hospitality concerns with structural, fire & life safety, and accessibility issues in the same body of text, making it difficult for the reader to prioritize items. It is recommended that the inspection report be split into two separate sections. One section should cover structural, fire & life safety, and accessibility (e.g., ADA) issues. While a separate section (which could follow the same format) should cover aesthetic and guest experience issues that are relevant to running a public attraction.
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Tracking system:	The current reports highlight many relevant issues throughout the property and many of these issues may take a significant period of time to resolve. Currently, the reader must track backward through multiple reports to understand the evolution of a given topic. It is recommended to develop a separate defect tracking system to allow for the monitoring of specific maintenance issues by the City.
Prioritization system:	Along with implementing a tracking system that monitors the status of routine maintenance and specific repair issues, it is recommended to develop a system to prioritize the repair activities.

Recommended Next Steps

It is recommended that the City engage in developing a new inspection and reporting process that considers the multiuse character and history of the Queen Mary. The process will provide the City the information needed to assess the current condition, track tenant improvements, and establish priority maintenance and repair needs.

This effort would include:

- Develop Inspection and Reporting Program
    - Incorporate the recommended reporting improvements as outline above
    - Review and inclusion of applicable building codes and industry standards
    - Separation of hospitality / operation items from structural, fire & life safety, and accessibility items
    - Develop an item rating system based on industry best practices
    - Develop defined inspection effort levels and inspection frequency guidelines
    - Create general report formatting and template
    - Create an electronic reporting and tracking system for report items
- Perform Baseline Inspection
    - When the new procedure is in place, it is recommended that a thorough baseline inspection be performed to capture and document the in-situ condition of the Queen Mary. This inspection would become the basis for comparison for all future inspection and maintenance efforts.

References

The following table summarizes the reports reviewed for this effort:

Inspection Report #	Date of Inspection	Date of Submission
390	July 19, 2019	July 26, 2019
391	August 29, 2019	September 8, 2019
392	September 28, 2019	October 1, 2019

M&N appreciates the opportunity to provide engineering services to the City of Long Beach in service of the Queen Mary. If you have any questions, please do not hesitate to contact me at 562-426-9551 or via email at ojaradat@moffattnichol.com.

Sincerely,

Omar Jaradat, PhD, PE