iii. Electrical Room Exit:

Electrical rooms with equipment rated 1200 Amps or more, and 6 feet wide that contain overcurrent devices, switching devices or control devices shall have two (2) exit access doors (one at each end of the working space). The doors must swing in the direction of egress and must be equipped with panic hardware or fire exit hardware (IBC Section 1010.1.10).

Electrical rooms with equipment used in circuits over 600 volts with switchgear and control panels exceeding 6 feet in width shall have two (2) exit access doors (one at each end of the working space). The doors must swing in the direction of egress and must be equipped with panic hardware or fire exit hardware (NFPA 101 Section 7.4.2.2 and NFPA 70, Article 110.33(A)).

iv. Boiler Rooms or Furnace Rooms:

Two (2) exits are required in boiler rooms where the area is over 500 sq. ft. and any fuel-fired equipment exceeds 400,000 Btu. The two exit doors must be remotely separated by a distance equal to one-half the diagonal dimension of the room (IBC Section 1006.2.2.1).

v. Mechanical Equipment Rooms:

Mechanical equipment rooms including boiler rooms, furnace rooms, and similar spaces shall be arranged to limit common path of travel to a distance not exceeding 100 feet for building protected by sprinkler system. Stories used for mechanical equipment rooms (including the roof) shall be permitted to have a single means of egress where the travel distance to an exit on that story does not exceed the common path of travel (NFPA 101 Section 7.13).

vi. Exit Access Remoteness Requirements:

Where two (2) exit doors or exit access doors are required to be provided, the exits must be designed in order to be remote from one another in accordance with IBC §1007.1.1 Exception 2 and NFPA 101 §7.5.1.3.3. The exits must be separated by more than one-third of the maximum diagonal distance of the floor, space, or area served.
vii. Exit Discharge Configurations:

All the exits must discharge to the outside in accordance with NFPA 101 §7.7.1 and IBC Section 1028.1. The exit discharge must comply with remoteness requirements of one-third of the maximum diagonal distance of the building. However, the Codes allow for a maximum of 50% of the number and 50% of the capacity of exits to discharge through the interior of the building provided that the following criteria are met:

- **Exterior Exit Visibility:** The exit enclosure discharges to a free and unobstructed path of travel to an exterior exit door and such exit is readily visible and identifiable from the point of termination of the exit enclosure in accordance with IBC §1028.1 Exception 1.1 and NFPA 101 §7.7.2.

- **Floor Separation:** The entire area of the level of exit discharge is separated from areas below by construction having a two (2) hour fire resistance rating per IBC §1028.1 Exception 1.2 and NFPA 101 §7.7.2).

- **Sprinkler Protection:** The egress path is protected throughout by automatic sprinklers (IBC §1028.1 Exception 1.3 and NFPA 101 §7.7.2).

**NOTE:** The exit discharge for this building must comply with the remoteness requirement (1/3 diagonal of the building) all along the discharge. Exit discharge cannot be to vehicular driveways without dedicated walkway. **Currently, there all stairs discharge directly to the exterior of the building except Stair 1 and Stair 9. Stair 1 is an exit access stair discharging on the Ground Floor Lobby. Stair 9 discharges to the exterior through a 2-hour fire rated exit passageway.**

viii. Stair Re-Entry:

Interior exit stairway doors must be designed to allow re-entry into the building at each floor in accordance with NFPA 101 §7.2.1.5.8. If the doors are normally locked to prevent access into the floors, then the doors must automatically unlock upon initiation of the fire alarm system in accordance with NFPA 101 §7.2.1.5.8.

ix. Door hardware requirements:

Panic hardware (or fire exit hardware for fire doors) must be installed in all doors serving rooms or spaces with an occupant load of 50 persons or more in a Group A occupancy per IBC Section 1010.1.10. NFPA 101 has a similar requirement for assembly occupancies where the occupancy load is 100 or more. Therefore, the IBC has the more stringent requirement and must be implemented. Panic hardware must be installed in electrical rooms as stated in other section of this report.
x. Occupant Load Factors:

The following occupant load factors have been used to calculate the occupant load of the spaces within the San Juan Cruise Terminal project as required by IBC Table 1004.5 and NFPA 101 Table 7.3.1.2.

<table>
<thead>
<tr>
<th>Use of Space</th>
<th>Occupant Load Factors [ft²/occupant]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices, CBP Secondary</td>
<td>100 gross</td>
</tr>
<tr>
<td>Assembly – Concentrated</td>
<td>7 net</td>
</tr>
<tr>
<td>(Queuing, screening, Lobby, CBP Primary)</td>
<td></td>
</tr>
<tr>
<td>Assembly – Unconcentrated Tables &amp; Chairs</td>
<td>15 net</td>
</tr>
<tr>
<td>(Waiting areas, Conference rooms)</td>
<td></td>
</tr>
<tr>
<td>Locker Rooms</td>
<td>50 gross</td>
</tr>
<tr>
<td>Baggage Claim</td>
<td>20 gross</td>
</tr>
<tr>
<td>Baggage Handling/Sorting</td>
<td>100 gross</td>
</tr>
<tr>
<td>Storage Areas, BOH, Mechanical Spaces</td>
<td>300 gross</td>
</tr>
</tbody>
</table>

NOTE: Per life safety drawings, CPB Primary and Crew Area have been calculated with an occupant load factor of 100 gross sq.ft./occ. Confirm AHJ approval.

xi. Spaces with One Means of Egress Requirements:

Spaces with one (1) means of egress within the San Juan Cruise Terminal project shall comply with the following means of egress requirements as required by IBC T-1006.2.1 and NFPA 101 §7.4.1.1.

<table>
<thead>
<tr>
<th>Occupancy</th>
<th>Maximum Occupant Load</th>
<th>Maximum Exit Access/Common Path of Travel Distance (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly</td>
<td>49</td>
<td>75 feet</td>
</tr>
<tr>
<td>Business</td>
<td>49</td>
<td>100 feet</td>
</tr>
<tr>
<td>Storage and Mechanical</td>
<td>29</td>
<td>100 feet</td>
</tr>
</tbody>
</table>

The number of accessible means of egress from a space shall equal the number required for the means of egress or two (whichever is less), in accordance with NFPA 101 Section 7.5.4 and Chapter 11 of the IBC.
xii. Egress Capacity Factors:

The egress capacity for the means of egress must be designed using the capacity factors indicated in the table below. In addition, the minimum width of the means of egress components must also be considered in the design. The minimum width is specified for each occupancy classification as stated in NFPA 101 Table 7.3.3.1 and IBC §1005.3.

If the building is provided with an automatic sprinkler system and emergency/voice communication system, the following table applies.

<table>
<thead>
<tr>
<th>Occupancy</th>
<th>Egress Component</th>
<th>Egress Capacity Factor [inches/occupant]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NFPA 101</td>
</tr>
<tr>
<td>Assembly, Business,</td>
<td>Stairways &lt; 44 inches</td>
<td>0.3</td>
</tr>
<tr>
<td>Storage</td>
<td>Stairways &gt; 44 inches</td>
<td>Refer to Note 1</td>
</tr>
<tr>
<td>Level Components</td>
<td>0.2</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Note: For stairways in the referenced occupancies that are wider than 44 in., the capacity is permitted to be increased using the following equation:

$$C = 146.7 + \frac{WN - 44}{0.218}$$

Where:

- $C =$ capacity, in persons, rounded to the nearest integer
- $WN =$ nominal width of the stair [inches]

NOTE: If smoke-protected assembly seating is provided, egress capacity factors may be reduced per IBC T-1029.6.2 and NFPA 101 T-12.4.2.3. A life safety evaluation study complying with NFPA 101 shall be provided.

xiii. Stair Width Requirements:

Stairs must have a minimum width of 44 inches. If the cumulative occupant load assigned to a stair is over 2,000 persons, the stair must have a minimum width of 56 inches per NFPA 101 Section 7.2.2.2.1.2.

xiv. Corridor Width:

The minimum clear width is 44 inches and must be increased to accommodate the occupant load (IBC T-1020.2).
Attachment 1 of Appendix L
SAN JUAN CRUISE TERMINAL
FIRE PROTECTION/LIFE SAFETY NARRATIVE
December 16, 2019 | SLS # 4578

xv. Assembly Seating Arrangement:

Furniture layout in meeting rooms and ballrooms must comply with aisle width and
aisle accessway width requirements as stated in NFPA 101 Sections 12.2.5.7 and
12.2.5.8. Seating NOT at tables must comply with NFPA 101 Sections 12.2.5.5 and
12.2.5.6. Seating at tables must comply with NFPA 101 Section 12.2.5.7.

NFPA 101 Section 12.7.9.1 states that seats accommodating more than 200 persons
shall be securely fastened to the floor, except where fastened together in groups of
not less than three.

xvi. One Exit Unavailable Analysis:

The means of egress must be designed with adequate width and capacity such that
the loss of one exit leaves the other exits available to handle at least 50% of the
occupant load (IBC Section 1005.5 and NFPA 101 Section 7.3.1.1.2).

xvii. Exit Signage:

Exit signs are required at all exit doors and directional signs are required within the
means of egress where the path of egress is not apparent. Exit sign placement shall
be such that no point in the exit access corridor is more than 100 feet from the nearest
exit sign (IBC Section 1013).

xviii. Means of Egress Lighting:

Normal lighting must be designed to provide a minimum of 1 ft-candle measured at
the floor within exit access routes, exits, and the exit discharge routes. In the stairs, the
minimum illumination shall be at least 10 ft-candle measured at the walking surface.
The elevator code requires adequate lighting (10 ft-candle) at the landing sill of
elevators measured with doors open/closed (IBC Section 1008, NFPA 101 Sections 7.8
and 7.9).

Additionally, lighting is required to be arranged such that the failure of a single lighting
unit does not reduce illumination levels to less than 0.2 ft-candle as required by NFPA
101 Section 7.8.1.4.

Emergency lighting is required for this occupancy per NFPA 101 Section 12.2.9. The
emergency lighting must provide an average of 1 ft-candle measured at the floor
throughout the means of egress with a minimum of 0.1 ft-candle at any point. The
illumination of 10 ft-candle for the elevator threshold is still required under emergency
lighting conditions.

It is noted that the FDPT Fire Department and San Juan Building Department strictly
enforce the reliability of emergency lighting and require that the system be arranged
to provide the required illumination automatically in the event of interruption of
normal lighting due to any of the following as required by NFPA 101 Section 7.9.2.3:

- Failure of a public utility or outside electrical power supply;
• Opening of a circuit breaker or a fuse;
• Manual acts including accidental opening of a switch controlling normal lighting

As per standard practice, it is recommended that the project team ensure that battery back-up lighting is provided in the following locations: emergency generator room, fire pump room, and the emergency responder radio coverage room (if provided).

Emergency lighting must be provided in mechanical rooms and electrical rooms as required in NFPA 70, Articles 110.26(D) and 700.16.

Emergency lighting is required on the egress side of delayed egress door and access control doors when provided in the building in accordance with NFPA 101 Section 7.2.1.6.

H. Major Life Safety Accessibility Requirements Overview

The San Juan Cruise Terminal Project must comply with all the applicable accessibility requirements mandated for each occupancy. The complete review of accessibility code compliance is outside the scope of this Narrative Report and outside the expertise of SLS Consulting, Inc. The items listed below are not all inclusive of the requirements in the IBC and NFPA 101. However, the list below provides a quick reference of some basic requirements related to fire and life safety that may be missed during the design.

i. Accessible Means of Egress

Two accessible means of egress must be provided whenever two exits are required from the space, floor, or building. If one means of egress is permitted by the Code, then only one accessible means of egress needs to be provided. Travel distance and common path of travel limits must be followed equal to the required means of egress. Each accessible means of egress shall be continuous from each accessible occupied space to a public way or area of refuge (NFPA 101 Section 7.2.12.2.2). Required portions of an area of refuge shall have access to a public way via a) an exit or b) an elevator without requiring return to the building spaces through which travel to the area of refuge occurred.

a) Exit stair must comply with clear width of landings and stair of 48 inches measured between handrails.

b) Elevators must comply with firefighters’ emergency operations, power supply shall be protected against interruption, and must be in a smokeproof enclosure (NFPA 101 Section 7.2.12.2.4).
ii. Area of Refuge

An area of refuge as part of the accessible means of egress shall meet the requirements of NFPA 101 Section 7.2.12.3.

iii. Area of Refuge: Communication

Each story as mentioned above must comply with the following requirements for a two-way communication in accordance with NFPA 101 Section 7.2.12.1:

- Each elevator landing shall be provided with a two-way communication system to communicate between the elevator landing and a central point approved by the fire department.
- Directions for the use of the two-way communication system; instructions for summoning assistance; and written identification of the location shall be posted adjacent to the two-way communication system.
- The two-way communication system shall include both audible and visible signals.

iv. Exit Door Signage

Tactile signage shall be provided to meet all the following criteria in accordance with NFPA 101 Section 7.10.1.3: a) tactile signs shall be located at each exit door requiring an exit sign; b) tactile sign shall read EXIT; and c) tactile signs shall comply with ANSI A117.1, American National Standard for Accessible and Usable Buildings and Facilities.

I. Fire Protection and Life Safety Systems Overview

i. Equipment Locations / Flood Zone

All fire protection and life safety equipment are required to be located above the base flood elevation. Equipment cannot be located below flood level even if the story is protected with flood proofing systems (IBC Section 1612.3).
ii. Sprinkler Systems

Per IBC §903.2.1 and NFPA 101 §12.3.5, sprinkler protection designed in accordance with NFPA 13 shall be installed throughout the building. This building will have the protection system connected to the city water supply.

a. Sprinkler Supervision and Alarms

The following water supply control valves are required to be electrically supervised by a listed fire alarm control unit per IBC Section 903.4:

- Automatic sprinkler systems
- Pumps
- Tanks
- Water levels and temperatures
- Critical air pressures
- Water-flow switches on all sprinkler systems
- Exception: Jockey pump control valves sealed and locked in the open position, control valves to commercial kitchen hoods, valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.

One exterior approved audible alarm located on the exterior of the building shall be connected to each sprinkler system. They should activate upon flow through the sprinkler system equivalent to the smallest orifice sprinkler head installed in the system being discharged.

b. Monitoring

Alarm supervisory and trouble signals shall be distinctly different and shall be automatically transmitted to an approved supervising station, or, where approved by the fire code official, shall sound an audible signal at a constantly attended location.

c. Site Water Supply Systems

The site water supply for fire protection systems shall be provided in accordance with the requirements of NFPA 13.

d. Standpipe Systems

Per IBC §905.3.1, a standpipe system is not required for the San Juan Cruise Terminal project since the building is less than 4 stories and the highest occupiable floor is located less than 30 feet above the lowest level of fire department access.
iii. Fire Pump:

This building may require a fire pump to supply the sprinkler and standpipe systems. The installation of the fire pump shall be designed and installed in accordance with NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection. The fire pump room must be accessed directly from the exterior. The fire pump room that is not directly accessible from the outside shall be accessible through an enclosed passageway from an enclosed stairway or exterior exit. The enclosed passageway shall have a fire-resistance rating not less than the fire-resistance rating of the fire pump room (2-hours) (NFPA 20 §4.12.2.1).

iv. Fire Department Connections:

Fire department connections shall be located so that fire apparatus and hose connected to supply system will not obstruct access to the buildings for other fire apparatus. The location must be approved by the fire code official (IBC Section 912.2). Fire department connections shall be located on the street side of buildings or facing approved fire apparatus access roads, fully visible and recognizable from the street, fire apparatus access road or nearest point of fire department vehicle access or as otherwise approved by the fire code official (IBC Section 912.2.1).

v. Fire Extinguishers:

Fire extinguishers must be provided throughout the building as required by the IFC and IBC Section 906. The fire extinguishers must be installed in accordance with NFPA 10, Standard for Portable Fire Extinguishers. The table below provides a brief overview of the installation requirements.
### Table 16: Fire Extinguishers

<table>
<thead>
<tr>
<th>Hazard Area</th>
<th>Minimum Size and Type</th>
<th>Maximum Travel Distance to Extinguisher [ft]</th>
<th>Maximum Floor Area per Unit of A [ft²]</th>
<th>Maximum Floor Area per Extinguisher [ft²]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Hazard (Assembly Areas, Office Spaces)</td>
<td>2A:10B:C Increase rating based on limits</td>
<td>75</td>
<td>3,000</td>
<td>11,250</td>
</tr>
<tr>
<td>Moderate Hazard (Storage)</td>
<td>2A:20B:C Increase rating based on limits</td>
<td>75</td>
<td>1,500</td>
<td>11,250</td>
</tr>
</tbody>
</table>

### J. Fire Alarm & Emergency Responder Radio Systems

#### i. Fire Alarm Systems

In accordance with IBC §907.2.1.1 and NFPA 101 §12.3.4.3.3, an emergency / voice communication fire alarm system shall be provided. The fire alarm system must be designed and installed in accordance with NFPA 72. Audible and visual appliances must be installed in accordance with IBC and NFPA 101. Selective evacuation signal is permitted where general evacuation is impractical due to building configuration per NFPA 101 Section 9.6.3.6.2.

The fire alarm system must be designed to interface or monitor other life safety systems in the building such as automatic sprinkler system, fire pump, smoke control system, generator, etc.

#### ii. Remote Annunciator Panel

As per usual practice with the Fire Department, a remote fire alarm annunciator panel and remote generator annunciator panel should be provided at an approved location such as the main lobby.

#### iii. Fire Alarm Monitoring:

The fire alarm system of the San Juan Cruise Terminal shall be monitored by a central station in accordance with NFPA 101 Sections 12.3.4.2.2 and 12.3.4.3.7.
iv. Carbon Monoxide Alarms:

Carbon monoxide detection shall be provided in accordance with the requirements of the IBC Section 915 and NFPA 101 Section 12.3.4.4. Carbon monoxide detectors are required in buildings having fuel burning appliances, a fireplace, an attached garage, or other element that emits carbon monoxide as a byproduct of combustion. Carbon Monoxide detection shall be installed in accordance with NFPA 720, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment.

v. Smoke Detection System:

IBC Section 903.2.1 Exception states that smoke detection shall be provided in the following spaces that are not protected by sprinkler system; mechanical equipment, electrical transformer, telephone equipment, or similar room. In addition, smoke detection must be provided in each elevator machine room.

K. Emergency and Standby Power Systems

i. Emergency Power Systems:

The emergency power systems shall be designed in accordance with the following (IBC §2702 and NFPA 101 §7.9):

- NFPA 70, National Electrical Code (NEC)
- NFPA 110, Standard for Emergency and Standby Power Systems

The standby system shall have the capacity to supply the following:

- Elevators used as accessible means of egress elevators (IBC §2702.2.2);
- Electrical generator and main switchgear room lighting circuits (NFPA 110);
- Fire pump room lighting circuit (NFPA 20);
- Smoke control systems (IBC §2702.2.16);
- Horizontal sliding doors (IBC §2702.2.17);
- Elevators (IBC §3003.1)
The emergency system should have the capacity to supply the following:

- Exit Signs (IBC §2702.2.6);
- Means of Egress Lighting (IBC §2702.2.13);
- Emergency Voice/Alarm Communication System (IBC §2702.2.4)

Elevator machine room ventilation and/or air conditioning should be connected to the Building’s standby power source. Where more than one (1) elevator is provided, all elevators should be provided with standby power and return to the designated level. After this point, one (1) elevator should remain operable from the standby power source (IBC §3003.1.3).

L. Smoke Control Systems Overview

Currently, it is not anticipated the building will have a smoke control system designed in accordance with IBC Section 909.

The plans reviewed do not show any unprotected vertical openings requiring smoke control system protection.

M. Hazardous Materials Approach

The quantities of hazardous materials will be below the exempt amounts / maximum allowable quantities (MAQ’s) and no Use Group H, High Hazard occupancies are proposed. It is noted that the fuel located within vehicles are exempted by the IBC, NFPA 101, and NFPA 30. All rooms containing hazardous materials within the San Juan Cruise Terminal project (e.g. fuel storage room/emergency generator room, etc.) should be provided with an NFPA 704 Hazmat placard.
N. Fire Department Access

i. Site Access/Set-Up Sites:

The site must comply with IFC Chapter 5 for the minimum fire department site access requirements.

Figure 2: Site Access

O. Seismic Design Category

Each building and structure shall be assigned a risk category in accordance with IBC Table 1604.5 reproduced in Table 17, below. Where a building or structure is occupied by two or more occupancies not included in the same risk category, either the entire building shall be designed as a single unit and shall be assigned the highest risk category corresponding to the various occupancies, or it shall be structurally separated, and each portion shall be separately classified.

Where a separated portion of a building or structure provides required access to, required egress from or shares life safety components with another portion having a higher risk category, both portions shall be assigned to the higher risk category. Where the design team chooses to maintain separate risk categories in structurally separate structures, the lower risk category structure shall not provide required access to, required egress from or share life safety components with a higher risk category structure.

This project is classified as seismic risk category III.
<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Nature of Occupancy</th>
</tr>
</thead>
</table>
| I            | Represent a low hazard to human life in the event of failure:  
|              | - Agricultural facilities.  
|              | - Certain temporary facilities.  
|              | - Minor storage facilities. |
| II           | Buildings and other structures except those listed in Risk Categories I, III, and IV. |
| III          | Represent a substantial hazard to human life in the event of failure:  
|              | - Primary occupancy is public assembly with an occupant load greater than 300.  
|              | - Group E occupancies with an occupant load greater than 250.  
|              | - Containing educational occupancies for students above the 12th grade with an occupant load greater than 500.  
|              | - Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities.  
|              | - Group I-3 occupancies.  
|              | - Any other occupancy with an occupant load greater than 5,0001.  
|              | - Power-generating stations, water treatment facilities for potable water, wastewater treatment facilities and other public utility facilities not included in Risk Category IV.  
|              | - Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that exceed maximum allowable quantities per control area as given in IBC Table 307.1.1(1) or 307.1.1(2) or per outdoor control area in accordance with NFPA 101 and are sufficient to pose a threat to the public if released2. |

1For the purposes of occupant load calculation, occupancies required by IBC Table 1004.1.2 to use gross floor area calculations shall be permitted to use net floor areas to determine the total occupant load.

2Where approved by the building official, the classification of buildings and other structures as Risk Category III or IV based on their quantities of toxic, highly toxic, or explosive materials is permitted to be reduced to Risk Category II, provided it can be demonstrated by a hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive materials is not sufficient to pose a threat to the public.
III. SUMMARY AND CONCLUSION

As noted in this report, there are design features that need further clarification and analysis. SLS Consulting, Inc. is available to discuss items with the appropriate project team member. Additional documents may be necessary, such as alternative methods or equivalencies, and will be developed as the design progresses and code issues are resolved.

Submitted by:

SLS Consulting, Inc.

Michael Sheehan, P.E.
Principal/Fire Protection Engineer
[30% Design Drawings on File - Initialed
Copies too large to scan. Identical Execution
copies to follow]
SAN JUAN CRUISE TERMINAL 11-12
AVENIDA FERNANDEZ JUNCOS, PUERTA DE TIERRA, SAN JUAN, PUERTO RICO
PORT DRAWING NO. / FOLIO NO.

30% DESIGN
MARCH 27, 2020
The egress capacity for the means of egress must be designed using the capacity factors indicated in the table below. In addition, each floor of the building is provided with the following minimum number of exits (as required by IBC 1006:

**Occupancy Classifications and Use Designation**

<table>
<thead>
<tr>
<th>Global Ports Holding</th>
<th>2050 S Biscayne Blvd #2000 Miami, FL 33131</th>
</tr>
</thead>
</table>

**Interior finishes within the Terminal B project are designed to comply with the requirements of the IBC. The major interior finish requirements as stated in Sections 7.2.2.1 and 7.2.2.2.**

**Interior walls and ceiling trim and incidental finishes must be identified by the project team and must be included for assessment purposes.**

**General Means of Egress Requirements**

- Assembly (Sprinklered)
  - Exits: Class B
  - Exit Enclosure: Class C
  - Corridors & Exit Access Stairs: Class C

**Means of Egress Capacity Factors:**

- Assembly (Sprinklered)
  - Exits: Class B
  - Exit Enclosure: Class B
  - Corridors & Exit Access Stairs: Class B

**Table 13b: Egress Capacity IBC**

<table>
<thead>
<tr>
<th>Class</th>
<th>Max Common Path Distance</th>
<th>Max Dead End Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td>100 feet</td>
<td>100 feet</td>
</tr>
<tr>
<td>Class B</td>
<td>200 feet</td>
<td>200 feet</td>
</tr>
<tr>
<td>Class C</td>
<td>300 feet</td>
<td>300 feet</td>
</tr>
<tr>
<td>Class D</td>
<td>400 feet</td>
<td>400 feet</td>
</tr>
<tr>
<td>Class E</td>
<td>500 feet</td>
<td>500 feet</td>
</tr>
<tr>
<td>Class F</td>
<td>600 feet</td>
<td>600 feet</td>
</tr>
</tbody>
</table>

**Number of Required Exits Per Floor:**

- Based on the occupant load and the total number of exits. The number of required exits is determined based on the number of occupants and the size of the building.

**Lighting Requirements**

- Emergency lighting is required for this occupancy per NFPA 101, Sections 12.2.9 and 42.8.2.9. The emergency lighting must provide an average of 1 ft² of measured at the floor throughout the means of egress with a minimum of 0.1 ft² of illumination measured at the floor throughout the means of egress.

**Additional Requirements**

- Vertical openings shall be protected in accordance with IBC 712, NFPA 101, Section 12.3.1.3. Assembly occupancies protected from vertical openings by fire barriers shall be separated from vertical openings protected from assembly occupancies by fire barriers.

**Table 12: Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Time</td>
<td>10 minutes per person</td>
</tr>
<tr>
<td>Smoke Likely</td>
<td>10 minutes per person</td>
</tr>
<tr>
<td>Smoke Likely</td>
<td>10 minutes per person</td>
</tr>
</tbody>
</table>

**Table 13: Required Area Per Number of Occupants**

<table>
<thead>
<tr>
<th>Occupant Load</th>
<th>Area Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 persons</td>
<td>500 square feet</td>
</tr>
<tr>
<td>200 persons</td>
<td>1000 square feet</td>
</tr>
<tr>
<td>300 persons</td>
<td>1500 square feet</td>
</tr>
<tr>
<td>400 persons</td>
<td>2000 square feet</td>
</tr>
<tr>
<td>500 persons</td>
<td>2500 square feet</td>
</tr>
</tbody>
</table>

**Table 14: Group B Exits and Area**

<table>
<thead>
<tr>
<th>Group B</th>
<th>Area Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 persons</td>
<td>500 square feet</td>
</tr>
<tr>
<td>200 persons</td>
<td>1000 square feet</td>
</tr>
<tr>
<td>300 persons</td>
<td>1500 square feet</td>
</tr>
<tr>
<td>400 persons</td>
<td>2000 square feet</td>
</tr>
<tr>
<td>500 persons</td>
<td>2500 square feet</td>
</tr>
</tbody>
</table>

**Figure 1: General Means of Egress**

- The figure illustrates the general means of egress for all primary structural members or portion thereof located not more than 20 feet above the floor level immediately below the exit discharge.

**Figure 2: Vertical Openings**

- Vertical openings shall be protected in accordance with IBC 712, NFPA 101, Section 12.3.1.3. Assembly occupancies protected from vertical openings by fire barriers shall be separated from vertical openings protected from assembly occupancies by fire barriers.

**Figure 3: Egress Capacity Factors**

- The egress capacity factors are determined based on the number of occupants and the size of the building.
DESCRIPTION OF SPACES

MEAN OF EGRESS SECTION 1004.(I.B.C.) 2018 TABLE A 7.6) WITH SPRINKLER

Each area of refuge should be provided with a two-hour fire rating...

ZONE 7

One wheelchair space (30"x48") per 200 occupants

Per I.B.C. 46/.2 = 230 occupants allowed

Per NFPA 101: 44/.3 = 146.7 occupants allowed

STAIR #10

PER I.B.C. 44/.2 = 220 occupants allowed

PER NFPA 101: 44/.3 = 146 occupants allowed

STAIR #9

3'6"

PER I.B.C. 98/.2 = 490 occupants allowed

DOOR # ST7A

36" WIDE = 33" CLEAR

PER I.B.C. 33/.15 = 220 occupants allowed

MEP ROOM

163 SF

MEN'S ROOM

152 SF

STAIR #7A

8'2" WIDE = 98" CLEAR

PER I.B.C. 98/.2 = 490 occupants allowed

DOOR # ST7A 2

36" WIDE = 33" CLEAR

PER I.B.C. 33/.15 = 220 occupants allowed

OCCUPANCY LOAD ANALYSIS

LEVEL

ZONE

FLOOR

LOAD FACTOR

LOAD

AREA (PERSONS)

REFER TO CHART ON LS-150

ZONE 6

1,538 103

CONF. ROOM, MEETING ROOM

ZONE 6

2,538 9B.O.H # 2

I.

WAITING AREAS (UNCONCENTRATED) = 15 SQ. FT. / OCCUPANT

III.

BAGGAGE HANDLING = 300 SQ. FT. / OCCUPANT

IV.

OFFICES = 100 SQ. FT. / OCCUPANT

COMMUNICATION SYSTEM PER I.B.C. 1005.3

COMMUNICATION SYSTEM PER I.B.C. 1005.3

COMMUNICATION SYSTEM TO COMMUNICATE BETWEEN THE AREA OF

EXIT LIGHT - WAY COMMUNICATION SYSTEM SHALL INCLUDE BOTH AUDIBLE


1. REFER TO SHEET LS-000 FOR LIFESAFETY AND FIRE PROTECTION GENERAL NOTES.

2. THIS BUILDING IS PROTECTED THROUGHOUT BY AN APPROVED, SUPERVISED

3. THIS IS A BUILDING TYPE I

4. AREAS OF REFUGE ARE PROVIDED WITHIN THE STAIR F.R. ENCLOSURES AND


6. [additional notes]

SAN JUAN TERMINAL 11-13

BIM 360://19070.000 San Juan Terminal 11-13/SAN JUAN TERMINAL (V20).rvt
UP GANGWAY 450' - 0"
VEHICLE DROP OFF AREA
FUTURE COMMERICAL AREA
VEHICLE PARKING AREA (TOTAL 158)
STAGING BUSES AREA
BUS DROP OFF AREA
DEBARK BUSES PARKING AREA (10 SPACES)
TRUCK MANEUVERING AREA
PROVISION AREA
RAMP +/-8% GENERATOR / ELECTRICAL SUBSTATION
CHILLERS AREA
WATER TANK
PUMP STATION
RAMP +/- 8% HANDICAP (6 SPACES)
OUTSIDE OF SCOPE OF WORK

NORTH PARKING LOT:
REGULAR PARKING SPACE: 152
HANDICAP PARKING SPACE: 6
TOTAL SPACE: 158
EAST PARKING LOT:
REGULAR PARKING SPACE: 77
HANDICAP PARKING SPACE: 5
TOTAL SPACE: 82
OVERALL PARKING SPACE: 240

SITE PLAN:
NORTH PARKING LOT:
REGULAR PARKING SPACE: 152
HANDICAP PARKING SPACE: 6
TOTAL SPACE: 158
EAST PARKING LOT:
REGULAR PARKING SPACE: 77
HANDICAP PARKING SPACE: 5
TOTAL SPACE: 82
OVERALL PARKING SPACE: 240

30% DESIGN
MARCH 27, 2020
2078 1/20/2020 5:42:33 PM
BIM 360://19070.000 San Juan Terminal 11-13/SAN JUAN TERMINAL (V20).rvt
AS 100
00 OVERALL Site Plan
Attachment 2 of Appendix L

OWNER:
Global Ports Holding
Rıhtım Cad no 51 Karakoy Istanbul
34425 Turkey
https://www.globalportsholding.com/
T +90 212 244 44 40

URBAN DESIGN AND PLANING
ARCHITECTURE, INTERIOR DESIGN, LANDSCAPE ARCHITECTURE, CIVIL ENGINEERING & MARINE ENGINEERING

MEP / STRUCTURAL / CIVIL ENGINEERING:
Integra Design Group PSC
576 Ave Arterial B, Ste 102
San Juan, Puerto Rico, 00918
www.integrapr.com
T 787-767-2111

NOT FOR CONSTRUCTION
DRAWINGS ARE PROPERTY OF BERMELLO AJAMIL & PARTNERS

Yo ______________, ___licencia___, certifico que soy el profesional que diseñó estos planos y las especificaciones complementarias. También certifico que entiendo que dichos planos y especificaciones cumplen con las disposiciones aplicables del Reglamento Conjunto y las disposiciones aplicables de los Reglamentos o Corporaciones Públicas con jurisdicción. Certifico, además, que en la preparación de estos planos y especificaciones se ha cumplido cabalmente con los dispuesto en la "Ley Núm.14 de 8 de enero de 2004, según enmendada, conocida como la "Ley para la Inversión por la Industria Puertorriqueña" y con la Ley Núm. 319 de 15 de mayo de 1938, según enmendada; Ley Núm. 96 de 6 de julio de 1978, según enmendada. Reconozco que cualquier declaración falsa o falsificación de los hechos que se haya producido por desconocimiento o por negligencia ya sea por mi, mis agentes o empleados o por otras personas con mi conocimiento, me hacen responsable de cualquier acción judicial y disciplinaria por la OGPe.
ROOFING SYSTEM GENERAL NOTES:

- **SECTION 1106.1** = 100 YEAR, 1 HOUR RAINFALL = 5 INCHES.
- **SECTION 1106.4** = VERTICAL WALLS INCLUDING PARAPETS AT 50% OF AREA.
- **TABLE 1106.2(1)** = SIZE OF CIRCULAR VERTICAL CONDUCTORS

DRAWINGS ARE PROPERTY OF BERMELLO AJAMIL & PARTNERS

**OVERALL ROOF AREA HAS BEEN SUBDIVIDED INTO SMALLER QUADRANTS, WHICH ARE INDIVIDUALLY DRAINED BY 8" Ø ROOF DRAINS THAT ARE ALSO OVERSIZED FOR THE AREAS BEING DRAINED.**

**PARAPET WALL SCUPPERS ARE USED FOR SECONDARY (EMERGENCY OVERFLOW) ROOF DRAINAGE.**

**THE QUANTITY, SIZE, LOCATION AND INLET ELEVATION OF SCUPPERS SHALL BE CHOSEN TO PREVENT THE DEPTH OF PONDING WATER ON THE ROOF FROM EXCEEDING THE MAXIMUM WATER DEPTH THAT THE ROOF WAS DESIGNED FOR, AS DETERMINED BY SECTIONS 1106.1 & 1106.4 OF THE I.B.C.**

**DESIGN AND INSTALLATION OF ROOF DRAINAGE SYSTEMS SHALL COMPLY WITH SECTIONS 1502 & 1503 OF I.B.C. AND 1106 & 1108 OF I.P.C. 2018.**

**ROOF DECKS AND ROOF COVERINGS SHALL BE DESIGNATED FOR WIND LOADS IN ACCORDANCE WITH CHAPTER 16 AND SECTIONS 1504.2, 1504.3 AND 1504.4 OF I.B.C. 2018.**
ALL CEILING SUSPENSION SYSTEMS SHALL HAVE SEISMIC RESTRAINTS PER LOCAL BUILDING CODES AND ORDINANCES.

- 2' x 4' RECESSED LED CENTER CEILING GRID IN ROOMS
- U.O.N. CENTER LIGHT FIXTURES IN G.W.B. CEILINGS
- U.O.N.
- NO CUT CEILING TILES LESS THAN 6" ALLOWED.

DOUBLE HEIGHT SPACES, CEILING HEIGHT GIVEN IS FROM FINISH FLOOR OF PLAN ON WHICH IT IS DRAWN.

- PROVIDE 2'
- SEE MECHANICAL, ELECTRICAL, FIRE PROTECTION AND FIRE ALARM FOR ADDITIONAL DEVICES AND FIXTURES NOT INDICATED.
<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.S.</td>
<td>Crossing Signs</td>
</tr>
<tr>
<td>B.R.</td>
<td>Battery Room</td>
</tr>
<tr>
<td>D.W.</td>
<td>Drain Well</td>
</tr>
<tr>
<td>T.S.</td>
<td>Toilet Seat</td>
</tr>
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</table>

**Ceiling Materials**

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
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<tbody>
<tr>
<td>2'X4' ACOUSTICAL CEILING PANELS</td>
<td>For acoustical purposes</td>
</tr>
</tbody>
</table>

**Ceiling Notes**

1. All mechanical, electrical, and plumbing systems must be properly coordinated and installed to meet the requirements of the original design.
2. All systems must be installed in accordance with the approved plans and specifications.
3. All systems must be tested and approved by the responsible authority before occupancy.

**Project Address:**

Avenida Fernandez
San Juan, Puerto Rico, 00918

**Project Number:** 19070

**Sheet Name:** Overall Second Floor Reflected Ceiling Plan

**Sheet No.:** 152

**Saved on:** 3/27/2020 5:28:59 PM

**BIM 360:** /19070.000 San Juan Terminal 11-13/SAN JUAN TERMINAL (V20).rvt

**Drawing Date:** March 27, 2020

**30% Design**

**Certification:**

El profesional que diseñó estos planos y las especificaciones complementarias. También certifico de los Reglamentos o Corporaciones Públicas con jurisdicción. Certifico, además, que en la preparación de estos planos y especificaciones se ha conocido la "Ley para la Inversión por la Industria Puertorriqueña" y con la Ley Núm 319 de 15 de julio de 1978, según enmendada. Reconozco que cualquier declaración falsa o falsificación de los documentos anteriores puede dar lugar a acción judicial y disciplinaria por la OGPe.
Elevation - Key Notes:
- Insulated Precast Walls - Smooth Finish - Painted
- Cast-in-Place Walls - Smooth Finish to Match Precast Walls - Painted
- 8" High Vertical or Horizontal Reveals
- 6" Thick Smooth Stucco Finish Over Bonding Agent Around Beams - Proveet Typical Only Edge Detail - Painted
- 2 Coat + 1/4" Paint Coat, Wall Cured 8" Thick Textured Stucco Painted Over Metal Lath and Metal Stud Framing - At Columns - Painted
- Aluminum Frame System with Impact-Resistant Glazing
- Perforated Aluminum Panel Attached to Aluminum Frame
- Aluminum Curtain Wall Frame System with Impact-Resistant Glazing
- 2" Expansion / Seismic Joint
- Metal Canopy System
- Metal Gutter
- Metal Scuppers
- 42" High Guardrail System - Galvanized Steel
- High Security Fence
- Textured Precast Panel - Painted
- Metal Louvers
- Aluminum Storefront System with Impact Resistant Glass Doors

Overall East & West Elevation

San Juan Cruise Terminal
Avenida Fernandez Juncos, Puerta Detierra, San Juan, Puerto Rico

Sheet No.

Project Address:

Project Name:

Sheet Name

Owner:

T +90 212 244 44 40

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MEP / Structural / Civil Engineering:

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- 2601 S Bayshore Dr #1000
Miami, FL 33133

(305) 859-2050

30% Design

March 27, 2020

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Revision Description

REV. #

0 1st Subm. 30% Design 2020-02-14

1 30% Design Subm. to PRPA 2020-03-27

3/27/2020 5:30:20 PM

File Location:

Saved on:
1. SURFACE PREPARATION: SSPC SP10 NEAR WHITE

D) BEAMS

2. CONTRASTING COLORS ARE RECOMMENDED BETWEEN COATS.

REINFORCED CONCRETE MASONRY SHALL HAVE A MINIMUM DESIGN

EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD AND

E) AMERCOAT 68HS @ 3.0 - 4.0 MILS DFT / FULL COAT

THE DESIGN STRENGTH SHALL BE BY THE UNIT TEST METHOD.

LATEST REVISION.

PLATE THICKNESS

• REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL

BOLTS/ANGLE LEG

A HEAVY HEX NUT

OF VERTICAL CONTROL JOINTS.

UNFORMED SURFACE IN CONTACT WITH THE GROUND

30 TONS. TENSION

FORMED SURFACES EXPOSED TO EARTH OR WEATHER:

#6 BARS AND LARGER

VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN

COLUMN STIFFENERS SHALL BE PROVIDED AS REQUIRED TO

CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT BLOCK

PLACED, IN ACCORDANCE WITH ACI DETAILING MANUAL (SP-66)

ARCHITECT/ENGINEER.

5. SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO

DEFLECTION AMPLIFICATION FACTOR: Cd = 5.0

WOOD MUST COMPLY WITH THE FOLLOWING MINIMUM ALLOWABLE

DESIGN STRESES:

Fb =1,750 psi

Fv =1,150 psi

1.2.

9. TOTAL NUMBER OF PILES : ___

11.30% MINIMUM DESIGN

13. CAST IN PLACE REINFORCED CONCRETE:

THE PEDESTAL AND/OR WALL AND 40 BAR DIAMETER INTO REINFORCEMENT, EXTENDING A TENSION SPLICE LENGTH INTO

2. CONTRACT FOR FINAL ELEVATION CONSTRUCTION FOR ROOF STEEL.. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE ACI 318-05 CODE.

3. MATERIALS LISTED IN THE PROGRESS REPORTS ARE TO BE USED IN THE EXECUTION OF THE CONTRACT.

4. NO VARIATION ALLOWS CONSTRUCTION OF THE GROUND, WITHIN THE LIMITS SPECIFIED IN THE CONTRACT.

5. ALL CONNECTIONS SHALL BE BEARING TYPE UNLESS OTHERWISE

6. CONTRACT FOR FINAL ELEVATION CONSTRUCTION FOR ROOF STEEL.. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE ACI 318-05 CODE.

7. CONTRACT FOR FINAL ELEVATION CONSTRUCTION FOR ROOF STEEL.. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE ACI 318-05 CODE.

8. CONTRACT FOR FINAL ELEVATION CONSTRUCTION FOR ROOF STEEL.. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE ACI 318-05 CODE.

10. CONTRACT FOR FINAL ELEVATION CONSTRUCTION FOR ROOF STEEL.. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE ACI 318-05 CODE.

12. CONTRACT FOR FINAL ELEVATION CONSTRUCTION FOR ROOF STEEL.. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE ACI 318-05 CODE.

14. CONTRACT FOR FINAL ELEVATION CONSTRUCTION FOR ROOF STEEL.. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE ACI 318-05 CODE.

16. CONTRACT FOR FINAL ELEVATION CONSTRUCTION FOR ROOF STEEL.. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE ACI 318-05 CODE.
Yo ______________, ___licencia___, certifico que soy el profesional que diseñó estos planos y las especificaciones complementarias. También certifico que entiendo que dichos planos y especificaciones cumplen con las disposiciones aplicables del Reglamento Conjunto y las disposiciones aplicables de los Reglamentos o Corporaciones Públicas con jurisdicción. Certifico, además, que en la preparación de estos planos y especificaciones se ha cumplido cabalmente con los dispuesto en la "Ley Núm.14 de 8 de enero de 2004, según enmendada, conocida como la "Ley para la Inversión por la Industria Puertorriqueña" y con la Ley Núm. 319 de 15 de mayo de 1938, según enmendada; Ley Núm. 96 de 6 de julio de 1978, según enmendada. Reconozco que cualquier declaración falsa o falsificación de los hechos que se haya producido por desconocimiento o por negligencia ya sea por mi, mis agentes o empleados o por otras personas con mi conocimiento, me hacen responsable de cualquier acción judicial y disciplinaria por la OGPe.

PROPOSED STORM SEWER SYSTEMS NOTES:
1. ALL ELEVATIONS EXCEPT THOSE SHOWN ON DETAIL SHEETS SHALL BE RELATIVE TO MEAN HIGHT TIDE.
2. ALL ELEVATIONS OF PLANTS AND EQUIPMENT SHOWN ON DETAIL SHEETS SHALL BE RELATIVE TO MEAN HIGHT TIDE.
4. CONTRACTOR SHALL FOLLOW CONTRACTOR RECOMMENDATIONS ON GEOTECHNICAL REPORTS OFgrenkugel & Ullmann.
5. CONTRACTOR SHALL FOLLOW CONTRACTOR RECOMMENDATIONS ON UNDERGROUND UTILITIES INCLUDING A CONPOUND OF GPS COORDINATES FOR ALL EXISTING UTILITIES.
6. CONTRACTOR SHALL FOLLOW CONTRACTOR RECOMMENDATIONS ON EXCAVATION AND BRUSH CLEARING AND REMOVE ALL EXISTING HMB8000, 4" G.B. GRADE 100 AND ALL OTHER MATERIAL EXTRACTED FROM THE DISTRICT WORK.
7. CONTRACTOR SHALL FOLLOW CONTRACTOR RECOMMENDATIONS ON EXCAVATION AND BRUSH CLEARING AND REMOVE ALL EXISTING HMB8000, 4" G.B. GRADE 100 AND ALL OTHER MATERIAL EXTRACTED FROM THE DISTRICT WORK.
8. CONTRACTOR SHALL FOLLOW CONTRACTOR RECOMMENDATIONS ON EXCAVATION AND BRUSH CLEARING AND REMOVE ALL EXISTING HMB8000, 4" G.B. GRADE 100 AND ALL OTHER MATERIAL EXTRACTED FROM THE DISTRICT WORK.
9. CONTRACTOR SHALL FOLLOW CONTRACTOR RECOMMENDATIONS ON EXCAVATION AND BRUSH CLEARING AND REMOVE ALL EXISTING HMB8000, 4" G.B. GRADE 100 AND ALL OTHER MATERIAL EXTRACTED FROM THE DISTRICT WORK.
10. CONTRACTOR SHALL FOLLOW CONTRACTOR RECOMMENDATIONS ON EXCAVATION AND BRUSH CLEARING AND REMOVE ALL EXISTING HMB8000, 4" G.B. GRADE 100 AND ALL OTHER MATERIAL EXTRACTED FROM THE DISTRICT WORK.

DRAINAGE SYMBOLS LEGEND:
- PROPOSED ELEVATION METER
- PROPOSED PIPE REDUCER
- PROPOSED PIPE CONNECTION
- PROPOSED CHECK VALVE
- PROPOSED STORM DRAIN

SURVEY NOTES:
PROPOSED STORM SEWER SYSTEMS NOTES

1. All elevations are expressed in meters, unless otherwise indicated.

UTILITY SYMBOLS LEGEND:

- PROPOSED SANITARY SEWER LINE
- EXISTING SANITARY SEWER LINE
- PROPOSED SANITARY MANHOLE
- EXISTING SANITARY MANHOLE

SCALE: 1:500
SANITARY SEWER SYSTEM PLAN
SHEET NO. 19070
BA. PROJECT NUMBER: RICO
PROJECT ADDRESS: PROP. SANITARY SEWER LINE
EXIST. SANITARY SEWER LINE
PROP. SANITARY MANHOLE
EXIST. SANITARY MANHOLE
TERMINAL 11-12
SAN JUAN CRUISE

MARCH 27, 2020

APRON
LANDSCAPE AREA
PARKING AREA
DEBARK BUS
STAGING BUSES
LANDSCAPE AREA
TO HATO REY
TO OLD SAN JUAN
LANDSCAPE AREA
LANDSCAPE AREA
LANDSCAPE AREA

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tadeo@integrapr.com
www.integrapr.com
APPENDIX M: LIQUEFACTION

As provided in Section 4.13(a) of this Agreement, it shall be an Expansion Investment Projects Requirement that:

The geotechnical investigation report of GeoConsult LLC, San Juan, Puerto Rico (or any other Person Approved by the Authority) commissioned by the Concession Company with respect to the analysis of the physical properties and characteristics of the subsurface material at Piers 11-12, (the “Piers 11-12 Geotechnical Report”) concludes that the classification of such subsurface material at Piers 11-12 is Class D (as such classification is defined by Codes ASCE/SEI 7-16 of the American Society of Civil Engineers) as was determined in the following reports;

• Interim Geotechnical Report Number 1 - Liquefaction Port of San Juan Piers 11 – 12 – 13, GeoConsult LLC, January 2020
• MEM CWI P11 MR 0001, Definition of Seismic Parameters for San Juan Bay Cruise Terminals: Piers 11 – 12, COWI, 23 December 2019*
• Preliminary Geotechnical Report, AMEC E&E Caribe, LLP, dated 31 Oct 2007
• Geotechnical Report Reconstruction of Wharves along Piers 11 to 14, GeoConsult, Dec 2003
• Addendum 1 - Geotechnical Recommendations Report Reconstruction of Wharves along Piers 11 to 14, GeoConsult, Jan 2004
• Addendum 2 - Geotechnical Recommendations Report Reconstruction of Wharves along Piers 11 to 14 (Additional Borings at Wharves 11 and 14), GeoConsult, Jun 2004
• Addendum 3 - Geotechnical Recommendations Report Reconstruction of Wharves along Piers 11 to 14, GeoConsult, Apr 2005

If the Piers 11-12 Geotechnical Report concludes that the site at Piers 11-12 is Class E or higher (as such classifications are defined by Codes ASCE/SEI 7-16 of the American Society of Civil Engineers) then the Expansion Investment Projects Requirements provided in Section 4.13(a) of this Agreement shall not be satisfied (except if Government Contributions are available with respect to the Expansion Investment Projects, as provided in Section 4.13(a) of this Agreement).

As per Section 3.25(i) of this Agreement, the Piers 11-12 Geotechnical Report shall be provided no later than sixty (60) days after the Date of this Agreement.

With respect to any good faith discussions between the Parties if this Expansion Investments Projects Requirement is not satisfied, the following documents shall be reference documents for Schedule 13 – Cruise Pier Improvement Projects and Design and Build Standards

Page 61 of 64
such negotiations:

- San Juan Cruise Terminals: Pier 11-12 Design Basis Report – COWI, January 2020*
- Interim Geotechnical Report Number 1 - Liquefaction Port of San Juan Piers 11 – 12 – 13, GeoConsult LLC, January 2020
- MEM-CWI-P11-MR-0001-1, Definition of Seismic Parameters for San Juan Bay Cruise Terminals: Piers 11 – 12, COWI, 23 December 2019*
- Preliminary Geotechnical Report, AMEC E&E Caribe, LLP, dated 31 Oct 2007
- Geotechnical Report Reconstruction of Wharves along Piers 11 to 14, GeoConsult, Dec 2003
- Addendum 1 - Geotechnical Recommendations Report Reconstruction of Wharves along Piers 11 to 14, GeoConsult, Jan 2004
- Addendum 2 - Geotechnical Recommendations Report Reconstruction of Wharves along Piers 11 to 14 (Additional Borings at Wharves 11 and 14), GeoConsult, Jun 2004
- Addendum 3 - Geotechnical Recommendations Report Reconstruction of Wharves along Piers 11 to 14, GeoConsult, Apr 2005

*There will be no warranty of the Concession Company and no recourse against the Concession Company for the Authority to use these documents in developing a new cruise port facility in case Piers 11-12 no longer constitute part of the Cruise Port Facility and the Concession.
APPENDIX N: DEFINITIONS

“Bid Model” has the meaning ascribed thereto in Appendix 1 of this Schedule 13.

“CBP” means the Customs and Border Protection, or any successor agency or department thereto.

“CPIMP” has the meaning ascribed thereto in Section 8(b) of this Schedule 13.

“Design and Build Plan” has the meaning ascribed thereto in Section 2(a) of this Schedule 13.

“Design and Build Standards” has the meaning ascribed thereto in the Introduction paragraph of this Schedule 13.

“Design Criteria Document” has the meaning ascribed thereto in Section 8(b)(iii) of this Schedule 13.

“DNER” means the Puerto Rico Department of Natural and Environmental Resources, or any successor agency or department thereto.

“Legal Requirements” has the meaning ascribed thereto in Section 5 of this Schedule 13.

“New Debt” has the meaning ascribed thereto in Appendix 1 of this Schedule 13.

“100% Design” has the meaning ascribed thereto in Section 8(c) of this Schedule 13.

“PRCDA” has the meaning ascribed thereto in Section 8(b)(i) of this Schedule 13.

“Project Manager” has the meaning ascribed thereto in Section 8(a) of this Schedule 13.

“60% Design” has the meaning ascribed thereto in Section 8(c) of this Schedule 13.

“30% Design” has the meaning ascribed thereto in Section 8(c) of this Schedule 13.

“USCG” means the United States Coast Guard, or any successor agency or department thereto.

“USACE” means the United States Army Corps of Engineers, or any successor agency or department thereto.
# APPENDIX O: ENVIRONMENTAL REPORTS

<table>
<thead>
<tr>
<th>NAME OF THE DOCUMENT</th>
<th>AUTHOR</th>
<th>DOCUMENT DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PIER 3</strong></td>
<td></td>
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<tr>
<td>1. Lead Based Paint Inspection Report (Dolphin &amp; Rung)</td>
<td>Zimmetry Environmental Management Corp.</td>
<td>July 2019</td>
</tr>
<tr>
<td><strong>PIER 4</strong></td>
<td></td>
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<tr>
<td>2. Informe de Inspección en Pintura de Plomo – Rehabilitación Puente Abordaje</td>
<td>Zimmetry Environmental Management Corp.</td>
<td>March 2012</td>
</tr>
<tr>
<td><strong>PIER 11-14</strong></td>
<td></td>
<td></td>
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<tr>
<td>4. Asbestos and Lead Based Paint Results Piers 8 thru 14</td>
<td>Analytical Environmental Services International</td>
<td>February 17, 2000</td>
</tr>
<tr>
<td>5. Phase I Environmental Property Site Assessment</td>
<td>ERTEC</td>
<td>August 28, 2003</td>
</tr>
<tr>
<td>6. Phase I &amp; II Environmental Property Site Assessment Piers 11 to 14</td>
<td>ERTEC</td>
<td>October 17, 2003</td>
</tr>
<tr>
<td><strong>PAN AMERICAN I &amp; II</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>GENERAL</strong></td>
<td></td>
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<tr>
<td>8. Technical Memorandum Preliminary Executive Summary: ASTM E1527 Phase 1 Environmental Site Assessment San Juan Bay Cruise Ship</td>
<td>AG Environmental PSC</td>
<td>June 25, 2019</td>
</tr>
<tr>
<td>9. PHASE I ENVIRONMENTAL SITE ASSESSMENT ASTM-1527-13 San Juan Cruise Ship Ports</td>
<td>AG Environmental PSC</td>
<td>October, 2019</td>
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