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## ENVIRONMENTAL MANAGEMENT PLAN

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**OCEAN CLUB RESIDENCES  
CABBAGE BEACH, PARADISE ISLAND**



**Submitted to:**

Department of Environmental Planning and Protection  
Ministry of Environment and Natural Resources  
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**On behalf of:**

A I Land Bahamas Ltd.

**Date Submitted:**

November 22, 2024



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Table 0-1. Permitting table. d= digital submission, p=physical copy submission.

| Name of Document                                                                                                                                | Date Received/<br>Submitted                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Bron Ltd. (BRON) submits Certificate of Environmental Clearance Application (CEC) to Department of Environmental Planning and Protection (DEPP) | June 2, 2022 (d)<br>June 2, 2022 (p)           |
| DEPP and BRON site visit                                                                                                                        | June 20, 2022                                  |
| BRON submits Permit to Harvest a Protected Tree (PHPT) application to the Forestry Unit (TFU)                                                   | June 16, 2022                                  |
| BRON and TFU site visit                                                                                                                         | July 1, 2022                                   |
| TFU issues PHPT to A I Land Bahamas Ltd.                                                                                                        | July 6, 2022                                   |
| BRON submits Ocean Club Residences at Cabbage Beach Environmental Impact Assessment (EIA) TOR to DEPP                                           | August 10, 2022 (d)<br>August 16, 2022 (p)     |
| BRON submits EIA to DEPP                                                                                                                        | January 27, 2023 (d)<br>January 31, 2023 (p)   |
| BRON submits EIA Amendment to DEPP                                                                                                              | May 24, 2024 (d)                               |
| BRON submits PHPT renewal application to TFU                                                                                                    | March 21, 2023                                 |
| BRON submits Geotechnical CEC Application                                                                                                       | March 24, 2023                                 |
| TFU issues PHPT to A I Land Bahamas                                                                                                             | April 3, 2023                                  |
| BRON submits Environmental Protection Plan (EPP)                                                                                                | March 31, 2023                                 |
| BRON submits revised CEC application to DEPP                                                                                                    | June 5, 2024(d)                                |
| TFU communication with BRON directing a PHPT renewal application                                                                                | June 21, 2024                                  |
| BRON and DEPP site visit                                                                                                                        | July 1, 2024                                   |
| AI Land Bahamas Letter to TFU                                                                                                                   | July 16, 2024                                  |
| BRON submits revised CEC application to DEPP                                                                                                    | July 29, 2024 (d)                              |
| Renewed PHPT issued by TFU                                                                                                                      | August 6, 2024                                 |
| BRON submits EIA Revision 1 to DEPP                                                                                                             | August 6, 2024                                 |
| A I Land Bahamas publishes Public Meeting Notice                                                                                                | September 26, 2024                             |
| Public Consultation Meeting                                                                                                                     | October 10, 2024                               |
| BRON submits Public Consultation Report to DEPP                                                                                                 | November 12, 2024 (d)<br>November 13, 2024 (p) |
| Ocean Club Residences at Cabbage Beach EMP TOR                                                                                                  | November 15, 2024 (d)                          |
| <b>EMP submitted to DEPP</b>                                                                                                                    | November 22, 2024(d)                           |



## 1 EXECUTIVE SUMMARY

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A I Land Bahamas Limited (the Developer) engaged Bron Ltd. (BRON) to produce an Environmental Management Plan (EMP) for the Ocean Club Residences at Cabbage Beach project (the Project). The Project is located on Paradise Island in the Central Bahamas and is an extension of the pre-existing Ocean Club / Four Seasons brand.

### 1.1 PROJECT DETAILS

The Development is a luxury residential development on 6.15 acres along Cabbage Beach on Paradise Island in The Bahamas. The Development comprises four (4) buildings which includes Residences, a Beach Club House, Back of House (BOH) area, Fitness Center, Pools, Restaurant, Bar, and Underground Parking Garage. Four (4) of the buildings will include residential units with amenities. Works associated with the construction phase include the temporary installation of sheet pile wall (~19ft. from the high tide mark, ~5-10ft. above ground, and ~675 ft. long) and temporary construction site perimeter access road will be used to facilitate construction activities. Temporary installations will be removed/decommissioned once construction is completed (estimated timeline of ~36 months).

Beach access will remain available during construction for vendors, alternating between the East and West boundaries.

1. West beach access for months 1 through 6 of construction. After month 6, west beach access will move to the east side of the property.
2. After month 1, east beach access will move back to the west side of the property.
3. West beach access months 16-36 of construction.
4. Limited beach access for months 37-43 of construction while the Vendor Kiosks and Permanent Beach Access construction is completed. Periodic closures to finalize landscaping and grading.

### 1.2 KEY ENVIRONMENTAL OBJECTIVES

Several environmental and social aspects will be impacted by the construction and operational activities at Ocean Club Residences at Cabbage Beach. These aspects include land use, geology, dune stability, biological resources, socio-economic impacts, the surrounding impacts, and the operational issue of waste, flood and hurricane risks associated with proximity to the coastline. To promote building construction and path development, land clearing activities like excavation will take place. Land clearing may induce erosion and sedimentation, subsequently



influencing geological materials exacerbating erosion. Expected impacts to biological resources include habitat loss and habitat fragmentation.

Key environmental objectives include:

- Erosion management,
- Flood management,
- Removal and prevention of invasive species.

### 1.3 SUMMARY OF MITIGATION ACTIVITIES

The EMP is meant to be a living document, adapted as needed throughout the life of the Project. Under the direction of the Department of Environmental Planning and Protection (DEPP), the Developer in collaboration with the Environmental Manager will oversee the implementation and adaptation of the EMP. Negative environmental impacts were discussed in detail in the Environmental Impact Assessment (EIA) and are summarized in this EMP. The EMP describes the mitigation activities and best management practices to help guide the Developer and Contractor(s) through the construction and operation phases of the Project. The submission of the Environmental Management Plan is a preliminary step in the environmental compliance process, in accordance with standard environmental regulations managed by the Department of Environmental Planning and Protection (DEPP). A summary of the Project's proposed mitigation measures are outlined below:

- The Developer will incorporate native and protected plant species into the landscape design of the site to mitigate the negative impact of habitat loss and to help stabilize the dune.
- Invasive species will be removed during construction; and landscaping personnel during operation will maintain native species on site to prevent invasive species from re-establishing on site.
- Commitments made as a part of the Permit to Harvest a Protected Tree issued by The Forestry Unit will be integrated into the Project.
- Public beach access will also be incorporated in the site design to provide beach access post construction.
- A revetment will be incorporated into the project design to assist with dune management.

## 2 INTRODUCTION

Bron Ltd. (BRON) was engaged by A I Land Bahamas Limited to prepare the Environmental Management Plan (EMP) for the Project upon the submission of the Environmental Impact Assessment (EIA) and the Public Consultation Report. The EMP focuses on the proposed Cabbage Beach site on Paradise Island, near New Providence Island. Paradise Island is located less than 1-mile north of New Providence.



## 2.1 PURPOSE

An Environmental Management Plan (EMP) serves as a structured guide to help the Developer and Construction team to manage project activities to minimize negative environmental impacts and promote sustainability. The purpose of this EMP is to provide a detailed plan that ensures best environmental management practices are met and to reduce health risks associated with the construction and operation phases of the Ocean Club Residences at Cabbage Beach. It summarizes potential environmental impacts, details mitigation measures, and the environmental monitoring protocol.

## 2.1 SCOPE AND CONTENT

The scope of this EMP includes a description of the site, summary of the environmental impacts, mitigation strategies to alleviate negative environmental impacts, and guidelines to reduce health and safety risks of staff on-site during both construction and operation phases. The outcomes of this EMP will provide the Client, Contractor, and Operations Management with details to help prevent and/or mitigate the detrimental environmental impacts and safety risks.

## 3 PROJECT DESCRIPTION

---

### 3.1 GEOGRAPHIC LOCATION

Ocean Club Residences at Cabbage Beach is located on 6.15 acres on Paradise Island in The Bahamas at 25° 5'4.42"N and 77°18'54.15"W. Paradise Island is less than 1-mile north of New Providence Island. The following figures show the location of the site relative to other islands in The Bahamas and Cabbage Beach, which is a popular recreational site for residents and tourists.

The Project is adjacent to Cabbage Beach and nestled between the Sunrise Beach Club to the east and the RIU Palace to the west. The only unaltered forest and wetland ecosystem on Paradise Island is located to the south of the property in a sizable marsh and coppice forest.

The site, which mostly comprises of sandy soils, has been significantly impacted by anthropogenic activity. Invasive plants such as Casuarina, Brazilian Pepper, Hawaiian Seagrape, Snake Plant, and other weedy bushes, dominate the site. Native plants were also observed on site.

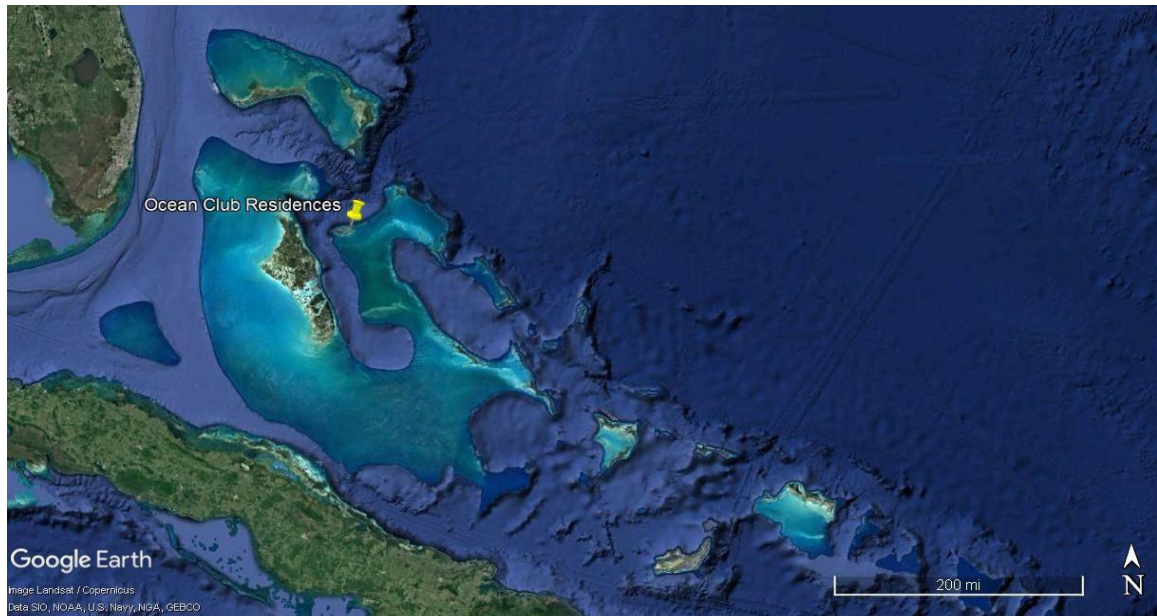


Figure 3-1. Location of Paradise Island in The Bahamian Archipelago.



Figure 3-2. Location of Paradise Island in relation to New Providence.

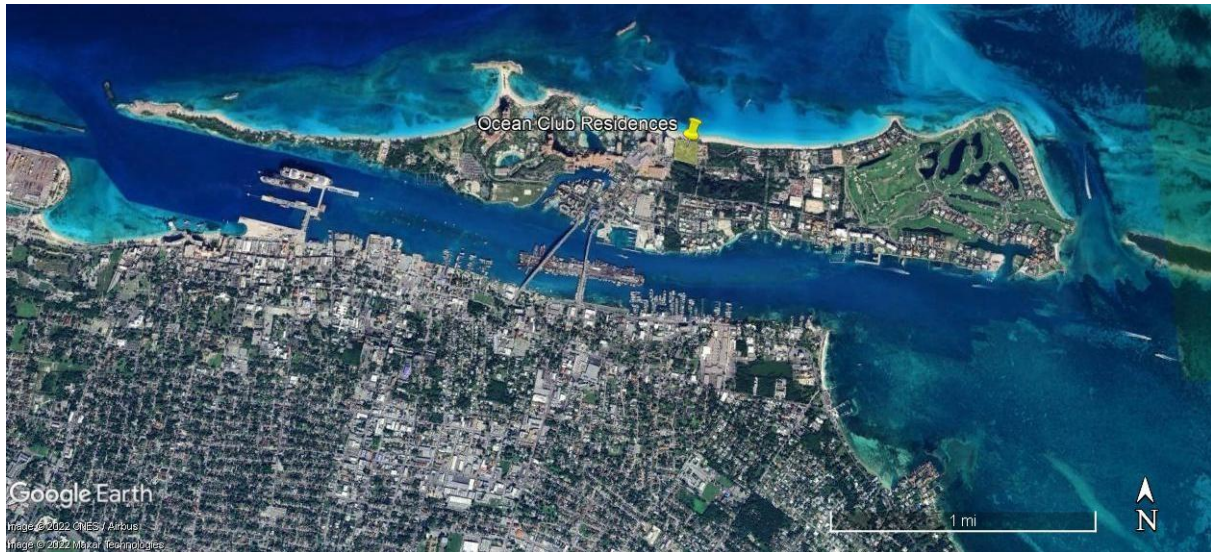


Figure 3-3. Location of Paradise Island in relation to New Providence.



Figure 3-4. Location of project relative to Cabbage Beach.



### 3.2 PROPOSED DEVELOPMENT

The Project comprises four (4) buildings which includes Residences, Beach Club House, Back of House (BOH) area, Fitness Center, Pools, Restaurant, Bar, and an Underground Parking Garage. Four (4) of the buildings will include residential units with amenities. The Master Plan in [Section 3.3](#) shows the Project layout. Table 3-1 lists the levels for each building.





*Figure 3-5. Project rendering.*



*Figure 3-6. Proposed design of signature spaces in Ocean Club Residences at Cabbage Beach. Images produced by SB Architects*



Figure 3-7. Rendering of new Cabbage Beach vendor area. Image produced by SB Architects.

Table 3-1. Building Levels and amenities.

| Building Number | Building Levels | Description of Amenities                                                                                      |
|-----------------|-----------------|---------------------------------------------------------------------------------------------------------------|
| 1               | 6 levels        | Residential, Podium Amenities, (Beach Restaurant, Pool, Game Room, Screening Room) and Back of House Support. |
| 2               | 6 levels        | Residential, Podium Amenities (Lobby, Bar, Lounge, Concierge), and Below Grade Parking and Support Spaces.    |
| 3               | 7 levels        | Residential Podium Amenities, Below Grade Parking, and Support Spaces.                                        |
| 4               | 7 levels        | Residential and Podium Amenities (Residents Club, Fitness Center, Pool, Back of House Services).              |

| RESIDENTIAL UNIT NUMBERING MATRIX |            |         |            |         |         |            |         |         |            |         |            |         |         |
|-----------------------------------|------------|---------|------------|---------|---------|------------|---------|---------|------------|---------|------------|---------|---------|
|                                   | BUILDING 1 |         | BUILDING 2 |         |         |            |         |         | BUILDING 3 |         | BUILDING 4 |         |         |
|                                   | UNIT V1    |         | UNIT A1    | UNIT B1 | UNIT C1 | UNIT A2    | UNIT B2 | UNIT C2 | UNIT E     | UNIT F  | UNIT V2    |         |         |
| LEVEL 1                           | 101        |         | 102        | 103     | 104     | 105        | 106     | 107     | 108        | 109     | 110        |         |         |
|                                   | UNIT G1    | UNIT H1 | UNIT H2    |         | UNIT D1 | UNIT D2    |         | UNIT H1 |            | UNIT G1 | UNIT H1    | UNIT H2 | UNIT G2 |
| LEVEL 2                           | 201        | 202     | 203        |         | 204     | 205        |         | 206     |            | 207     | 208        | 209     | 210     |
| LEVEL 3                           | 301        | 302     | 303        |         | 304     | 305        |         | 306     |            | 307     | 308        | 309     | 310     |
| LEVEL 4                           | 401        | 402     | 403        |         | 404     | 405        |         | 406     |            | 407     | 408        | 409     | 410     |
| LEVEL 5                           | 501        | 502     | 503        |         | 504     | 505        |         | 506     |            | 507     | 508        | 509     | 510     |
| LEVEL 6                           | UNIT PH A1 |         |            |         |         |            |         |         | UNIT PH A1 |         | UNIT PH A2 |         |         |
|                                   | 601        |         | 603        |         | 604     | 605        |         | 606     |            | 607     |            | 609     |         |
| LEVEL 7                           |            |         | 703        |         | 704     | 705        |         | 706     |            |         |            |         |         |
| LEVEL 8                           |            |         | 803        |         | 804     | 805        |         | 806     |            |         |            |         |         |
| LEVEL 9                           |            |         | UNIT PH B1 |         |         | UNIT PH B2 |         |         |            |         |            |         |         |
|                                   |            |         | 903        |         |         | 905        |         |         |            |         |            |         |         |

| RESIDENTIAL UNIT AREAS |                              |                                         |               |            | BUILDING TOTALS |                                          |
|------------------------|------------------------------|-----------------------------------------|---------------|------------|-----------------|------------------------------------------|
| UNIT NAME              | UNIT TYPE                    | INTERIOR AREA<br>(RESIDENTIAL SELLABLE) | EXTERIOR AREA | TOTAL AREA | Unit Count      | INTERIOR TOTAL<br>(RESIDENTIAL SELLABLE) |
| PH A                   | 4 BR - 5.5 BA + DEN + FAMILY | 5279 SF                                 | 3845 SF       | 9124 SF    | 3               | 15837 SF                                 |
| PH B                   | 5 BR - 5.5 BA + DEN + FAMILY | 5636 SF                                 | 3040 SF       | 8676 SF    | 2               | 11272 SF                                 |
| UNIT A                 | 1 BR - 2 BA                  | 1527 SF                                 | 947 SF        | 2474 SF    | 2               | 3054 SF                                  |
| UNIT B                 | 1 BR - 2 BA                  | 1132 SF                                 | 0 SF          | 1132 SF    | 2               | 2264 SF                                  |
| UNIT C                 | 1 BR - 2 BA                  | 1013 SF                                 | 155 SF        | 1168 SF    | 2               | 2026 SF                                  |
| UNIT D                 | 2 BR - 2.5 BA + DEN          | 3111 SF                                 | 857 SF        | 3967 SF    | 14              | 43548 SF                                 |
| UNIT E                 | 2 BR - 3 BA + DEN            | 3436 SF                                 | 1169 SF       | 4606 SF    | 1               | 3436 SF                                  |
| UNIT F                 | 2 BR - 3 BA + DEN + LOCK OFF | 4810 SF                                 | 1602 SF       | 6413 SF    | 1               | 4810 SF                                  |
| UNIT G                 | 3 BR - 4 BA + DEN            | 4054 SF                                 | 1186 SF       | 5240 SF    | 12              | 48647 SF                                 |
| UNIT H                 | 4 BR - 5 BA + DEN            | 5005 SF                                 | 1374 SF       | 6380 SF    | 26              | 130122 SF                                |
| VILLA                  | 5 BR - 5.5 BA + DEN + FAMILY | 7318 SF                                 | 4335 SF       | 12303 SF   | 2               | 14635 SF                                 |
|                        |                              |                                         |               |            | 67              | 279653 SF                                |

Figure 3-8. Residential unit details.



### 3.3 MASTER PLAN



Figure 3-9. Master Plan developed by SB Architects. (Printed larger in Appendix A)



Figure 3-10. Cross section of Building 2 and 1. (SB Architects, 2022).



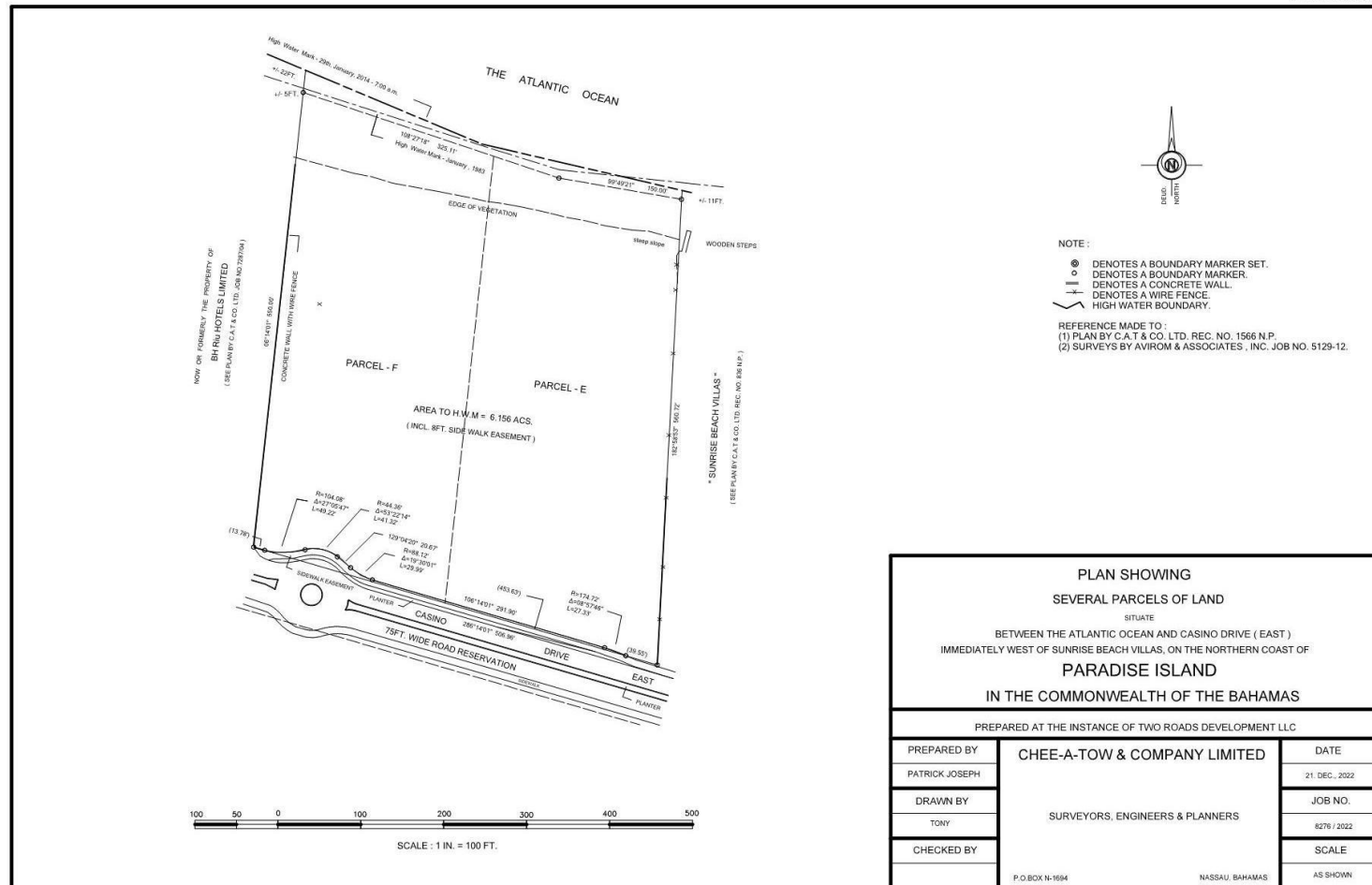


Figure 3-12. Survey Plan produced by Chee-A-Tow & Company Limited, provided by the Developer.



## 4 ENVIRONMENTAL REGULATORY BODIES AND STANDARDS

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A I Land Bahamas Limited will adhere to all relevant regulatory environmental bodies and laws having jurisdiction relating to environmental protection in The Bahamas. A summary of relevant regulatory bodies, environmental laws, and regulations is provided below.

### 4.1 RELEVANT REGULATORY BODIES

**Office of The Prime Minister** - Office of the Prime Minister coordinates ministries, government, and parliamentary business. Specific related departments and agencies are listed below.

**Department of Lands and Surveys** - This Department is responsible for planning, mapping, and monitoring of crown land (i.e., where beaches begin and end, high water marks, etc.).

**National Emergency Management Agency (NEMA)** - NEMA aims to reduce life and property loss in the event of a natural disaster.

**Antiquities Monuments and Museum Corporation (AMMC)** - The mission of AMMC is “to protect, preserve, and promote the Historic Cultural Resources of The Bahamas, and to be the number one conservation Agency in the world. We will do this while protecting our environment, encouraging research and archaeology, and by protecting, preserving, and promoting our Historical Sites.”

**Ministry of Works & Family Island Affairs** - The Ministry maintains the physical infrastructure and natural environment of The Bahamas by providing quality services to its client agencies

**Department of Public Works** - The Department of Public Works maintains public infrastructure inclusive of government buildings, roads, docks, bridges, and cemeteries.

**Department of Physical Planning** - The Department of Physical Planning manages town, physical, country and land use planning, zoning, private roads and subdivisions for New Providence and the Family Islands.

**Water and Sewerage Corporation** - The Water and Sewerage Corporation is entrusted with managing, maintaining, distributing, and developing the water resources of The Bahamas.

**Ministry of Environment & Natural Resources** - The Ministry of Environment and Housing serves to protect, conserve, and manage the environment of The Bahamas. This ministry focuses on environmental control, solid waste management, public sanitation, and the beautification of public areas such as parks and beaches.

**The Department of Environmental Planning and Protection (DEPP)** - The Department manages international environmental conventions and evaluates environmental impact assessments (EIA) and environmental management plans (EMP) for development projects within The Bahamas.

**Department of Environmental Health Services (DEHS)** - DEHS manages the disposal of all wastes and management of environmental pollution (on land or in water). This department also



promotes planning and approves various measures designed to ensure wise use of the environment.

**The Forestry Unit** - The Forestry Unit's mandate is "to develop the forest resources of The Bahamas to their maximum potential by applying sound, scientific and sustained yield forest management principles and concepts."

**Bahamas National Trust (BNT)** - The mission of the BNT is "Conserving and protecting the natural resources of The Bahamas, through stewardship and education, for present and future generations."

**Ministry of Public Service** - The Ministry of Labour oversees and regulates labour relations within The Bahamas.

**Department of Labour** - The Mission of the Department of Labour promotes good industrial relations between employer and employee, while promoting a high level of employment.

## 4.2 NATIONAL LAWS AND REGULATIONS

**Agriculture and Fisheries Act, 1964** - "An Act to provide for the supervision and development of agriculture and fisheries in The Bahamas," where Section 4 explains that "The Minister may make rules for all or any of the following purposes, (a) to define area hereinafter called 'protected areas' within which it shall be unlawful for any person except a licensee especially licensed in that behalf to plant, propagate, take, uproot or destroy any species of plant..."

**Antiquities, Monuments and Museum Act, 1998 (Ch. 51)** - "An Act to provide for the preservation, conservation, restoration, documentation, study and presentation of sites and objects of historical, anthropological, archaeological and paleontological interest, to establish a National Museum, and for matters ancillary thereto or connected therewith", where, section 3 speaks to the declaration of a monument by reason of its historical, anthropological, archaeological or paleontological significance.

**Bahamas National Wetlands Policy<sup>1</sup>** – see Ramsar Convention.

**Bahamas Public Parks and Public Beaches Authority Act, 2014** – An Act to establish the public parks and public beaches authority, to provide for the property rights and liabilities of the public parks and public beaches authority and to identify, regulate, maintain, develop and conserve public parks and public beaches and for connected purposes." Where section 5 speaks to functions of the Authority.

**Buildings Regulation, 1971 (Ch. 200)** - "An Act to regulate the construction, alteration and repair of buildings, to provide for the re- instatement or removal of dangerous or dilapidated buildings, to authorize the publication of a building code and for purposes connected therewith." Where, Section 2. (c) speaks to the interpretation of 'building' including "any dock, bulkhead, pier and any

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<sup>1</sup> [http://www.best.gov.bs/Documents/Bahamas\\_national\\_wetlands\\_policy.pdf](http://www.best.gov.bs/Documents/Bahamas_national_wetlands_policy.pdf)



works for the protection of land against encroachment by, or for the recovery of land from, fresh or salt water;” and Section 17 speaks to the Building Code.

**Buildings Regulation (General) Rules, 1971** - (further to Section 19 of Ch. 200) and Section 9 speaks to the execution of permitted works.

**Coast Protection Act, 1968 (Ch. 204)** - “An Act to make provision for the protection of the coast against erosion and encroachment by the sea and for purposes connected therewith”, where, section 8 speaks to approval for coastal protection work and section 9 speaks to the excavation of materials that compose of the seashore.

**Conservation and Protection of the Physical Landscape of The Bahamas Act, 1997 (Ch. 260)** - “An Act to make provision for the conservation and protection of the physical landscape of The Bahamas. The Act contains parts regarding administration, regulation of excavation and landfill operations, provisions governing dangerous excavations, landfill operations, quarries or mines, zoning of The Bahamas for the purposes of quarrying and mining operations, protected trees, and general entries”, where Section 27 speaks to applications, permits and licenses, appeals, fees, offences, and penalties.

**Disaster Preparedness and Response Act, 2006 (Ch. 34A)** - “An Act to provide for a more effective organization of the mitigation of, preparedness for, response to and recovery from emergencies and disasters.” This Act contains parts regarding Director of NEMA, Advisory Committee, policy review and plan; emergency operation centers and shelters; obligations of other public officers; specifically, vulnerable areas; disaster alerts and emergencies; and miscellaneous entries.

**Environmental Health Service Act, 1987 (Ch. 232)** - “An Act to promote the conservation and maintenance of the environment in the interest of health, for proper sanitation in matters of food and drinks and generally, for the provision and control of services, activities and other matters connected therewith or incidental thereto”, where section 5 speaks to functions of the Department of Environmental Health.

**Environmental Health Services (Collection and Disposal of Waste) Regulations, 2004 (Ch. 232)** - “These Regulations may be cited as the Environmental Health Services (Collection and Disposal of Waste) Regulations, 2004”, where section 18 speaks to removal of construction waste and section 19 speaks to industrial waste disposal.

**Environmental Impact Assessment Regulations, 2020** – An extension of the Environmental Planning and Protection Act that outlines the Environmental Impact Assessment Regulations which apply throughout the territory of The Bahamas including every island and cay; “The Minister, in exercise of the powers conferred by section 12 of the Environmental Planning and Protection Act, 2019 (No. 40 of 2019)”.

**Environmental Planning and Protection, 2019** – An Act to establish the department of environmental planning and protection; to provide for the prevention or control of pollution, the



regulation of activities, and the administration, conservation, and sustainable use of the environment; and for connected purposes.

**Forestry Act, 2010** – An Act to provide the conservation and control of forests and for matter related thereto.

**Forestry (Declaration of Protected Trees) Order, 2021** – The declaration of protected trees for the purpose of this Act are specified in Part I (Endemic or Endangered or Threatened Protected Trees) and II (Cultural or Historical and Economic Protected Trees).

**Forestry (Amendment) Regulations, 2021** – “The Minister, in exercise of the powers conferred by section 34 of the Forestry Act, 2010, makes the following Regulations.” Where the amendment speaks to Regulation 36 subsection 3A “The Minister, acting on the advice of the Director of Forestry, may where a hurricane, tornado, or any other natural disaster has occurred in any island, islet or cay throughout The Bahamas which causes grave damage to any forest, forest estate, forest reserve, conservation forest or protected forest to be payable as specified in the Second Schedule, for royalties, permits and licenses for the purpose of these regulations.”

**Forestry Regulations, 2014** – “5. Application for Permit to harvest protected tree. An application for the grant of a permit under section 12 of the Act to harvest a protected tree, shall be made to the Director and shall contain all the relevant particulars set out in Form No. 3 (A) in the First Schedule including the payment of the prescribed fee as set out in the Second Schedule.” And “6. Permit to harvest protected tree. A permit granted under section 11 of the Act to harvest a protected tree shall be made in the manner set out in Form No. 3 (B) in the First Schedule, shall be accompanied by the payment of the prescribed fee as specified in the Second Schedule and shall be valid for six months from the date of the grant unless otherwise prescribed in the permit.” and

“Construction or modification of road in a forest estate. A person shall not construct or modify a road or trail in a forest estate unless the construction or modification has been authorized by the Director of Forestry in writing, and the road, - a) or trail has been identified in an approved forest management plan; and b) layout has been approved by the Director of Forestry.”

**Fisheries Resources Jurisdiction and Conservation Act Regulations**, which prohibits the removal of Sea Oats, *Uniola paniculata*. “13. No person shall cut, harvest or remove from any beach or shore or from any area immediately adjacent thereto any Sea Oats except with the written permission of the Minister.”<sup>2</sup>

**Health and Safety Work Act, 2002 (Ch. 321C)** - “An Act to make provisions relating to health and safety at work and for connected purposes.” where, Section 4 speaks to general duties of

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<sup>2</sup>[laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/1986/1986-0010/FisheriesResourcesJurisdictionandConservationRegulations\\_1.pdf](https://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/1986/1986-0010/FisheriesResourcesJurisdictionandConservationRegulations_1.pdf)



employers to their employees and where, Section 7 speaks to general duties of employees at work.

**Health and Safety at Work (Amendment) Act, 2015** - (repeal and replacement of Section 17 of Ch. 321C) Contains parts regarding applications, permits and licenses, appeals, fees, offences, and penalties.

**Marine Mammal Protection Act, 2005 (Ch. 244A)** – “An Act to make provision for the protection of marine mammals”.

**Marine Mammal (General) Regulations (Ch. 244A)** – “These Regulations may be cited as the Marine Mammal Protection (General) Regulations and shall come into force on the first day of May 2006”, where Section 18 speaks to Marine Mammal Protection (General) Regulations and Section 19 speaks to Marine Mammal (Captive Dolphin Facilities) Regulations.

**Real Estate (Brokers and Salesman) Act (Ch.171)** – “An Act to incorporate The Bahamas Real Estate Association; to provide for the registration and licensing of real estate brokers and salesmen; to regulate and control real estate brokers and salesmen and for connected purposes.”

**Town Planning Act, 1961 (Ch. 255)** - “An Act relating to town planning”, where section 7 speaks to committee sanctioned development activities.

**Water and Sewerage Corporation Act, 1976** - “An Act to establish a Water and Sewerage Corporation for the grant and control of water rights, the protection of water resources, regulating the extraction, use and supply of water, the disposal of sewage and for connected purposes.” where, section 3 speaks to government control of the production, extraction, and use of water in the public interest.

**Wild Birds Protection Act, 1952 (Ch. 249)** – “An Act to make provision for the protection of wild birds.”

**Wild Animal Protection Act, 1968 (Ch. 248)** – “An Act to make provisions for the control of the taking and export of wild animals.”

**The Bahamas National Trust Act, 1959** – “An Act to incorporate and confer powers upon The Bahamas National Trust for Places of Historic Interest or Natural Beauty.”

**The Bahamas National Trust Amendment Act, 2019** – “An Act to Amend The Bahamas National Trust Act to expand the duties of The Bahamas National Trust; to revise the constitution of the council; to expand authorised capital investments; and for connected purposes”.

**The Bahamas National Trust (Preservation of National Parks) Bylaws, 2022** - Part II speaks to the Conservation, Preservation, and Protection of Parks, Part III speaks to the Provisions relating to specific parks.<sup>3</sup>

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<sup>3</sup> [\(S.I. Nos. 59-60 of 2022\) new \(dragged\) 2.pdf \(bahamas.gov.bs\)](#)



### 4.3 INTERNATIONAL CONVENTIONS

**Stockholm Convention on Persistent Organic Pollutants** – “As set out in Article 1, the objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants<sup>4</sup>.”

**Commission on Sustainable Development** – “The United Nations Commission on Sustainable Development (CSD) was established by the UN General Assembly in December 1992 to ensure effective follow-up of United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit<sup>5</sup>.”

**Kyoto Protocol** – The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets. The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005<sup>6</sup>.

**Basel Convention on the Control of Transboundary Movement of Hazardous Wastes** – “The Basel Convention is a global agreement between countries to protect human health and the environment against the adverse effects of hazardous wastes.”<sup>7</sup>

**Ramsar Convention on Wetlands** – “the intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources. The Convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.”<sup>8</sup>

**Minamata Convention** - “The Minamata Convention on Mercury is a global treaty to protect human health and the environment from the adverse effects of mercury. The Convention draws attention to a global and ubiquitous metal that, while naturally occurring, has broad uses in everyday objects and is released to the atmosphere, soil, and water from a variety of sources. Major highlights of the Minamata Convention include a ban on new mercury mines, the phase-out of existing ones, the phase out and phase down of mercury use in a number of products and processes, control measures on emissions to air and on releases to land and water, and the regulation of the informal sector of artisanal and small-scale gold mining. The Convention also addresses interim storage of mercury and its disposal once it becomes waste, sites contaminated by mercury as well as health issues.” <http://www.mercuryconvention.org/>

**The Mauritius Strategy** - The Mauritius Strategy is the 2005 commitment made in Port Louis, Mauritius to continue with the implementation of the ‘Barbados Programme of Action for the Sustainable Development of Small Island Developing States’ (BPOA) and add five additional priority areas to the BPOA. These additions include but are not limited to themes aligned with culture and sustainable production and consumption. The original BPOA addresses 14 priority

<sup>4</sup> <http://www.pops.int/TheConvention/Overview/tabid/3351/Default.aspx>

<sup>5</sup> <https://sustainabledevelopment.un.org/intergovernmental/csd>

<sup>6</sup> [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php)

<sup>7</sup> <http://www.basel.int/>

<sup>8</sup> Ramsar Convention Secretariat. 2014. <https://www.ramsar.org/>



areas which include climate change and sea- level rise, natural and environmental disasters, management of wastes, coastal and marine resources, freshwater resources, resources, energy resources, tourism resources, biodiversity resources, national institutions and administrative capacity, regional institutions and technical cooperation, transport and communication, science and technology, and human resource development.

## 5 ENVIRONMENTAL MANAGEMENT ORGANIZATION STRUCTURE

The organization chart below clearly defines the roles and responsibilities of the Developer (Project Owner), management, and construction staff of the Project with regards to EMP compliance and environmental monitoring. Successful management of personnel ensures an efficient and safe work environment. Adequate staff experience, training, and technical knowledge pertinent to assigned tasks aids in the rapid and accurate completion of the Project. These roles and responsibilities are described in the organization chart.

### 5.1 ORGANIZATION AND RESPONSIBILITIES CHART

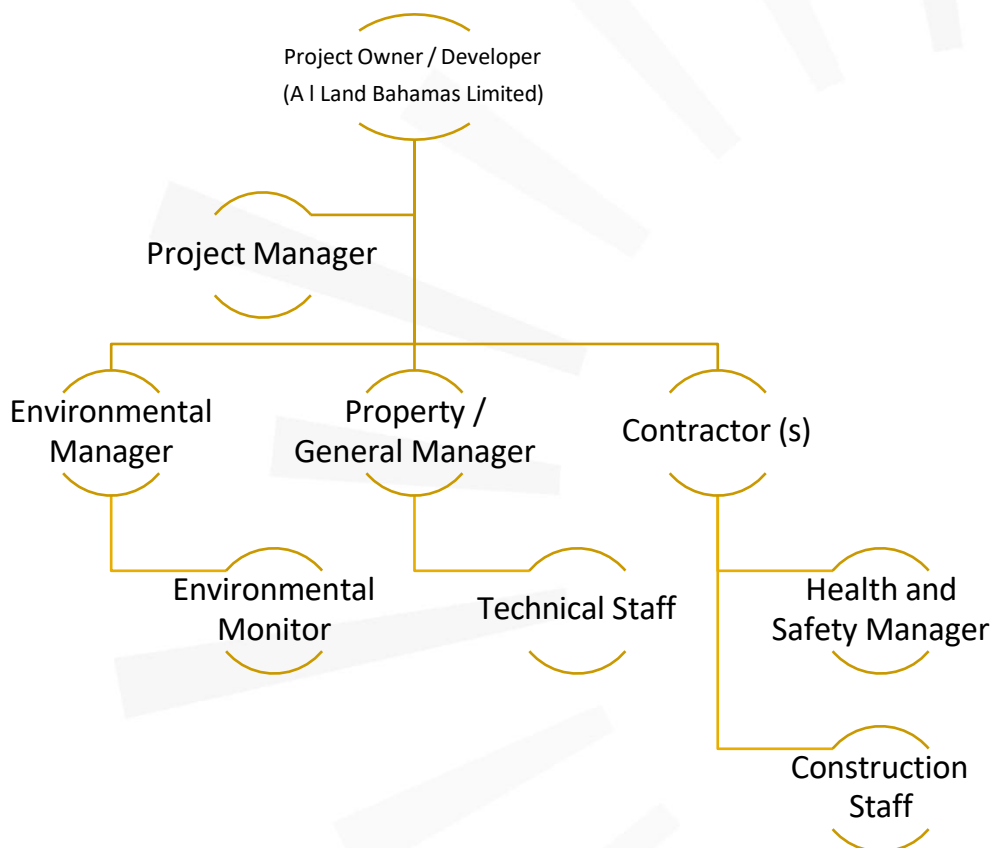


Figure 5-1. Organization Chart



### **Project Owner / Developer**

The Project Owner is responsible ultimately for the environmental compliance of the Project. The Project Owner will liaise directly with DEPP, the Environmental Manager and/or Environmental Monitor as needed to ensure the Project remains in compliance with the EMP.

### **Project Manager**

The Project Manager reports to the Project Owner and liaises regularly with the Contractor and the Environmental Manager to ensure all site activities are coordinated to follow the EMP. The Project Manager is also responsible for the Grievance Response Mechanism (GRM) for the site. If a grievance should be escalated to the Owner, the Project Manager will inform the Owner as soon as possible. See [Section 9](#) for a more detailed description of the GRM.

Other responsibilities include:

- To ensure adequate resources are available to implement and maintain the EMP.
- Accountable for construction and operations phases of the project while applying necessities required to comply with the best management practices produced in the EMP document.

### **Contractor (s)**

The Contractor reports to the Project Manager and will observe construction activities to ensure activities follow the various permit conditions, maintain site records pertaining to construction equipment and supply inventory and personnel on site. Additional contractor responsibilities include:

- Adhering to existing plans and procedures or preparing their own to meet the environmental requirements of the EMP.

### **Environmental Manager**

The Environmental Manager reports to the Project Manager and oversees the Environmental Monitor. The Environmental Manager will liaise with the Project Manager and submit Environmental Reports to DEPP. Mark Daniels (Bron Ltd.) will function in the role as Environmental Manager. Environmental Manager CV is included in Appendix B. Additional responsibilities include the following:

- To ensure full compliance and reporting relative to the approved EMP and the conditions associated with the Certificate of Environmental Clearance.
- To provide daily oversight of all environmental matters associated with construction activities.
- The engagement of the Environmental Monitor, which is subject to review by DEPP.
- Schedule training sessions with the Environmental Monitor and staff on the Project site about the conditions and strategies described in the EMP and policies.
- Respond to concerns and queries raised by DEPP, the Construction Manager, and the Environmental Monitor as soon as possible.
  - Investigate environmental incidents and develop action plans in collaboration with the Environmental Monitor and Construction Manager.



- Oversee and enforce the implementation of the EMP including the monitoring, inspection, documentation, submission of turbidity logs, and all associated forms as needed.
- Adjust the EMP as required under the direction of DEPP.
- Implement the EMP in collaboration with the Environmental Monitor.
- Integrate environmental requirements and mitigation efforts into project planning, execution, and operation.
- Ensure project personnel are aware of environmental requirements.
- Provide EMC with provided guidelines outlined in the EMP.
- Submit reports and associated documentation to the DEPP based on reporting schedule described in [Section 10.](#)

### **Environmental Monitor**

The Environmental Monitor reports to the Environmental Manager and liaises with the Construction Manager to ensure day to day activities follow mitigation strategies described in the EMP. The appointed Environmental Monitor's CV will be submitted to DEPP once the CEC is issued. Additional responsibilities include:

- The implementation of the EMP in collaboration with the Environmental Manager.
- Accompany the Project Owner, Health and Safety Manager and government agency inspectors (e.g. DEPP) during site visits.
- Part time presence on-site to observe and/or inspect all environmental risks and/or conditions and to ensure that during daily operations all environmental requirements are achieved.
- Submit weekly reports to the Environmental Manager no later than 24 hours after the end of the work week.
- Stay updated with environmental legislation and trends in the industry.
- Provide job training and assistance (as directed by the Environmental Manager) to team members when needed.
- Assist the team in ensuring that the site is safe, risks and hazards are properly identified, and correct protocols are followed in the EMP.
- Monitor and provide reporting based on the EMP criteria and liaise with all parties on any matters arising from non-compliance.

### **Health and Safety Manager**

The Safety Manager will report to the Project Manager and liaise with all other managers on the project for environmental compliance. Additional responsibilities include:

- Ensure that the safety measures explained in the EMP and by company standards are applied and followed by the Construction Staff.
  - Providing review and reporting of construction activities on site for safe operations based on environmental compliance.
- Monitor and liaise with all parties on any matters of non-compliance based on the site safety policy and procedures.



### **Construction Staff**

The Construction Staff will adhere to the requirements of the EMP as it relates to the construction phases of the Project, as instructed by the Contractor.

### **Property / General Manager**

The Property / General Manager will report to the Project Manager and ensure that the technical staff follows the best management practices outlined in the EMP as it relates to the operations phase of the Project.

### **Technical Staff**

The Technical Staff will adhere to the requirements of the best management practices outlined in the EMP as instructed by the Property / General Manager.

## **5.2 ENVIRONMENTAL , HEALTH & SAFETY TRAINING FOR STAFF**

### **5.2.1 Environmental Training**

Environmental training for the construction staff will focus on species identification for protected and invasive species observed on-site, as well as spill response and solid waste management tailored to the site. Photos of protected species identified on site will be provided to the employees during the site orientation. Employees will be encouraged to avoid impacting these species as much as possible during their day-to-day activities. The Environmental Monitor and Project Manager should be notified immediately if one of the species has been impacted. Employees will be trained to use the spill kits on site, to complete the spill report form, and the incident report form. Additionally, this environmental training program will inform staff of the importance of protecting these ecosystems. The various laws inclusive of the 2019 Environmental Planning and Protection Bill will be referenced as an educational aid in preparing this program and to inform staff of environmental policies implemented in The Bahamas. The environmental awareness training program will include four (4) main themes which are listed below.

- 1) Identification and a description of the importance of the following topics.
  - a. Bahamian ecosystems
  - b. Native and endemic Bahamian flora and fauna species
  - c. Protected species identified on the site during environmental surveys
  - d. Invasive species and their impact on the environment.
- 2) Identification of types of spills and appropriate methodologies for cleaning and disposing of spills and contaminated substances.
- 3) Importance of quick response to pollution and a description of the appropriate mitigation
- 4) Equipment inspection of plant pots, construction materials, and machinery for invasives (seeds, seedlings, eggs, larva, small animals, etc.).

### **5.2.2 Health and Safety Training**

The Health and Safety Program (HSP) is provided in [Section 8](#). The HSP will be followed during construction and decommissioning phases. The Health and Safety Manager will be trained to



complete the Incident Investigation Report and the Hazard Assessment Checklist. Both documents are provided in the Appendices.

Emergency, Health, and Safety training is critical for all workers on the construction site, regardless of their role or level of experience. This includes employees, contractors, subcontractors, and temporary workers. In addition, workers, supervisors, managers, and anyone who may be involved in the emergency response process should also participate in the training where possible. This includes individuals responsible for developing emergency response plans, managing safety procedures, and coordinating with emergency responders.

The frequency of emergency health and safety training for the construction site will depend on various factors, including the nature of the work, the potential hazards and risks involved, and any changes to the site or workforce. In general, it is recommended that emergency health and safety training be conducted annually or as needed based on changes to the site or workforce.

It is also important to conduct refresher training for workers and supervisors periodically to reinforce key concepts and skills and to stay up to date with any changes in emergency response protocols and procedures. Additionally, new workers and contractors should receive training as part of their orientation and before starting work on the site.

The main components of the training program are listed below. These will be regularly reviewed and updated to ensure the program remains relevant and effective.

#### 1. Introduction to Emergency Health and Safety

- Overview of emergency health and safety in construction
- Importance of emergency preparedness
- Understanding potential hazards and risks on a construction site
- Overview of local emergency response agencies and site protocols

#### 2. Emergency Response Planning

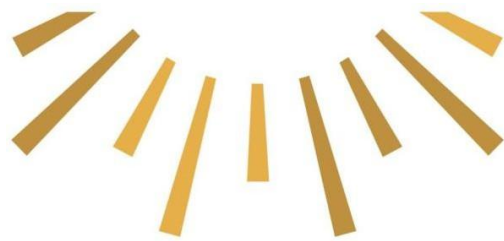
- Developing an emergency response plan
- Identifying emergency response team roles and responsibilities
- Establishing emergency communication procedures
- Conducting regular drills and exercises

#### 3. First Aid and CPR Training

- Basic first aid techniques
- Cardio-pulmonary resuscitation (CPR)
- Handling emergency situations such as heart attacks, choking, and allergic reactions

#### 4. Fire Safety Training

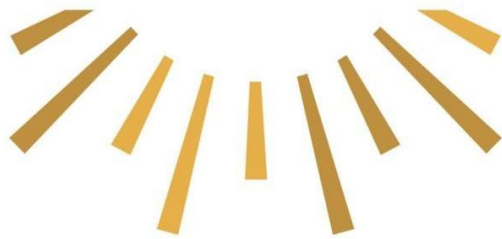
- Fire prevention techniques



- Proper use of fire extinguishers
  - Evacuation procedures and routes
  - Fire safety equipment and maintenance
5. Hazardous Materials Training
    - Understanding hazardous materials on the construction site
    - Proper handling and storage of hazardous materials
    - Personal protective equipment (PPE) and its proper use
  6. Workplace Violence Prevention
    - Understanding workplace violence
    - Identifying warning signs and risk factors
    - De-escalation techniques
    - Emergency response procedures
  7. Psychological First Aid and Support
    - Psychological impact of emergencies and crises
    - Understanding post-traumatic stress disorder (PTSD)
    - Providing psychological first aid and support to affected individuals
    - Identifying and seeking professional mental health resources
  8. Record-keeping and Documentation
    - Proper documentation of emergencies and incidents
    - Reporting requirements to authorities
    - Record-keeping requirements for health and safety incidents
  9. Conclusion and Evaluation
    - Recap of training program
    - Participant evaluation and feedback
    - Identifying areas for improvement and future training needs

Different sections of the training program will be delivered in various formats based on the number of participants, available resources, and scheduling constraints. The various formats are described below.

1. In-person Training - In-person training allows for interaction and discussion among participants and provides opportunities for hands-on learning and practical exercises.



2. Virtual Training - Virtual training allows for flexibility in scheduling and remote participation but may require additional efforts to maintain engagement and interaction among participants.
3. Video Training - Pre-recorded videos allow for flexibility in scheduling and self-paced learning but may lack interaction and hands-on learning opportunities.
4. Interactive Online Training - Interactive online training can be engaging and effective in reinforcing key concepts and knowledge.
5. On-the-job Training - This format involves delivering the training material while the trainee is performing their job duties. On-the-job training allows for practical and immediate application of the knowledge and skills learned but may require additional supervision and support from the trainer.

## 6 ENVIRONMENTAL IMPACTS SUMMARY

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Environmental impacts were described in detail in the EIA which remains available online at [Environmental Impact Assessment – Four Seasons Residences – An Ocean Club Development](#). A summary of positive and negative impacts is provided below.

### 6.1 SUMMARY OF POSITIVE IMPACTS

#### **Socioeconomic**

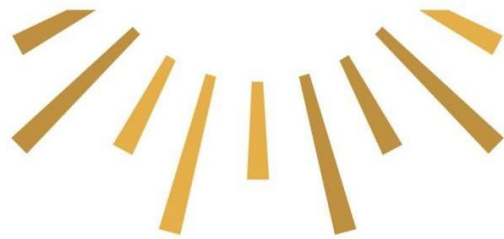
Community plans include the incorporation of planned Bahamian vendor locations within the property footprint, vendor training, and an overall improvement to the experience available to employees and public. Figure 3-7 shows the vendor area rendering. Beach access has been incorporated into the site design and the Project is expected to stimulate the economy of New Providence by providing significant employment opportunities during construction and subsequent operation.

Total investment will amount to more than BSD \$325 million. Approximately \$172 million of the total investment is anticipated for local construction spending within a three (3) year period. The Project will employ long-term and short-term local labor during construction and operational phases. An average of 827 additional full-time employees during the construction over three (3) years, and an average of 391 additional full-time employees during operations over twenty (20) years of operation are expected during the duration of the Project.

#### **Invasive Species Removal**

The removal of invasive plants such as Casuarina, Brazilian Pepper, Hawaiian Seagrape, and Snake Plant, is an important step in dune protection and will aid in the recovery of dune habitat. A healthy dune community offers protection from storm surge and helps to maintain native floral diversity, making it more difficult for the establishment of non-native and invasive species.

Although the site is dominated by invasive and weedy species, the weedy shrub *Melanthera nivea*, serves as an attractive species for insects such as butterflies and native bees. Butterflies and bees are attractive species in terrestrial landscapes because they are important plant



pollinators and assist in floral diversity in The Bahamas. Maintaining a healthy insect population helps with maintaining native biodiversity in the area. The landscaping plan for the site will incorporate native species that will attract insects and other pollinators.

### **Aesthetics**

The Developer is incorporating a modern, luxurious, aesthetically pleasing building design which will complement the area immensely. The overall aesthetic of properties on Paradise Island is one of leisure and luxury. The aesthetic impact of the Project will be overall beneficial and will further enhance the Paradise Island community.

### **Dune Management**

A revetment will be incorporated into the Project's design which assists with dune management. Additionally, a dune walk over structure will be incorporated to encourage the development of native dune species. Once the invasive species are removed, the planting of native dune plants will be vital for maintaining the dune ecosystem. Species such as Thatch palms, Sea Oats, Goats Foot, Bay Lavender, and Black Ink Berry all have fibrous root systems that help to stabilize the dune sand, making it more resistant to events such as weather disturbances.

## **6.2 SUMMARY OF NEGATIVE IMPACTS**

### **Biological Resources**

Land clearing of the entire 6.15-acre parcel will be incorporated into the project designs, inclusive of covered and paved spaces.

### **Transportation**

Traffic may be obstructed during earlier phases of construction (land clearing, excavation, etc.) due to the frequent movement of heavy equipment and machinery. This impact is expected to be minimal on the flow of traffic within the area. Active construction may result in the relocation of available taxi, rental, and private vehicle parking adjacent to the Project site, thus, affecting free and available parking for stakeholders.

### **Geology**

Land clearing and removing the invasive species will expose the topsoil, which can lead to erosion. On site spoil transportation and stockpiling may temporarily contribute to erosion of the down-sloping sand dunes. The Project requires extensive excavation for the construction of an underground ninety-five (95) car garage, four (4) buildings, and the installation of a pool on the grounds. The excavation will have the most severe impact on the surrounding sand dunes. Site grading and finishing will have a moderate erosive impact on the existing site conditions. Due to the removal of geological material and land clearing activity, it is possible that the risk of flooding of the adjacent Casino Drive may increase. Also, construction activities associated with the Project details may influence flooding within the adjacent areas, further impacting drainage and runoff pollution within the hightide/ beach area, if not properly managed.



## **Socioeconomic**

The Development site is located in a commercial area and is presently unmaintained. Construction activities are expected to have minimal impact on the well-being of patrons and surrounding buildings. Additionally, impacts associated with the construction phase may temporarily affect local vendors and beach goers that currently occupy the unmanaged Project site. The installation of the sheet pile wall will encroach on areas used by local vendors and beach goers. The purpose of the sheet pile wall is to offer protection for beach goers and vendors from ongoing construction activities. Given the site's topography, the installation of the sheet pile wall will aid in erosion control and preventing on site run off pollution to the beach environment during construction activities. This temporary installation will be removed after the major construction phase is completed in approximately 36 months. Vendor access is included in the overall permanent project design with vendor kiosks available during the operations phase and temporary vendor access during the construction phase. See Figure 3-7 for a reference image of the vendor access mitigation area.

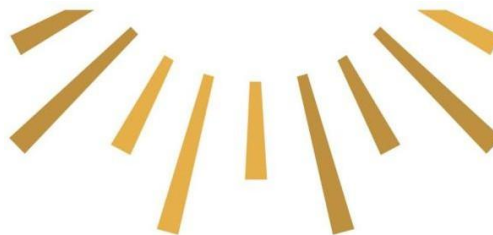
Landscaping and restorative practices such as erosion control methods, revetment installation and dune management will positively improve the overall beauty of the area. Further this will improve general safety and reduce present dumping at the location site.

*Table 6-1. Impact significance key.*

| Impact Significance                 | Definition                                                                                                                                |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Negligible / Not Applicable (White) | No detectable change in the host environment.                                                                                             |
| Minor (Yellow)                      | Natural flows and processes are not affected in the host environment.                                                                     |
| Moderate (Orange)                   | Alter natural flows and processes to the extent where natural functions are totally inhibited for a temporary or permanent period of time |
| Severe (Red)                        | Adverse/negative impacts to the immediate/extended environment and stakeholders.                                                          |
| Beneficial (Green)                  | Positive impacts on the surrounding environment and/or stakeholders.                                                                      |

*Table 6-2. Environmental Impacts & Mitigation Strategy.*

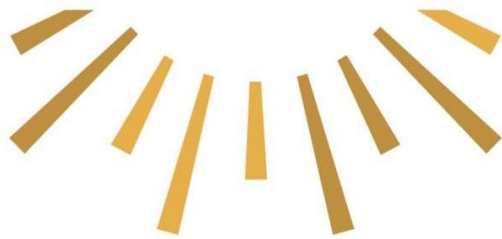
| Impact                            | Mitigation / Management Strategy                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Air Quality<br>[Minor, Temporary] | During construction, site watering should occur at least once a day to reduce the suspension of particulate matter. A tarped boundary fence should be erected around the Project site to prevent any dust and dirt from being carried off property and impacting the surrounding community. Machinery should be properly maintained to prevent any harmful |



|                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                        | emissions. If machinery were to produce harmful emissions during use all work for this machine should cease and until it is repaired.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Noise Quality<br>[Minor,<br>Temporary]                 | During construction noise on the site will increase as a result of heavy equipment operation. Machinery should be powered on only when being used. Construction will be scheduled during peak work hours of the day to not inconvenience surrounding local communities. During operation, the noise level on site will be less than the noise levels during construction, but the noise level will be higher on the site than the current noise level of the site.                                                                                                                                                                                                     |
| Biological Resources<br>[Moderate,<br>Permanent]       | <p>Invasive species such as Casuarina (<i>Casuarina equisetifolia</i>), Scaevola (<i>Scaevola taccada</i>), Snake Plant (<i>Dracaena hyacinthoides</i>), and Brazilian Pepper (<i>Schinus terebinthifolia</i>) will be removed and replaced with native species. Native fruit trees will be incorporated in the landscaping plan for the site to maintain wildlife diversity. Preclearance surveys should be conducted to prevent impacting protected species.</p> <p>Invasive species will be replaced with native sand dune and salt tolerant species which are integral for building and maintaining a dune system by containing sand within their root system.</p> |
| Socioeconomics<br>[Beneficial,<br>Permanent]           | Initially the impact may be negative to vendors while the public beach access is upgraded. However, in the long term, vendor kiosks are incorporated into the Project designs along with provisions such as vendor lockers and training opportunities. Opportunities for taxi drivers.                                                                                                                                                                                                                                                                                                                                                                                 |
| Recreation<br>[Beneficial,<br>Permanent]               | Public access to Cabbage Beach for stakeholders.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Geology / Site development<br>[Moderate,<br>Permanent] | Land clearing and removing the invasive species will expose the topsoil which can lead to erosion. Local flora will be planted to prevent severe erosion and the land clearing will be conducted in phases to reduce the total surface area exposed at one time. The site will be graded, and native vegetation suited to the site conditions will be incorporated into the landscaping design of the site to help reduce erosion at the site. Erosion control devices such as silt fences or silt socks can aid in erosion control.                                                                                                                                   |
| Transportation<br>[Minor,<br>Temporary]                | Traffic plans shall show the location and layout of all proposed road/lane closures and traffic diversions. The layout and details of traffic management signs are to be included. All signs and layouts are to be in accordance with the UK Traffic Sign Manual Chapter 8 unless otherwise approved by the Ministry of Public Works (MOPW).                                                                                                                                                                                                                                                                                                                           |

## 7 MANAGEMENT PLANS AND MITIGATION STRATEGIES

Following the identification of the Project's impacts, best management practices and mitigation plans were created using desktop research, the technical team's knowledge of related projects, and communication with the Developer. The proposed mitigation measures for the Project are outlined in the sections that follow.



## 7.1 GEOLOGICAL MANAGEMENT

A collection of karst islands makes up The Bahamas' archipelago. Most of the geography on the islands is low, at less than 100 feet above sea level. Eolian transport mechanisms created all land that is taller than about 24 feet. Limestone from the marine, lacustrine, and terrestrial realms coexist in the rock formation between sea level and 24 feet above sea level. When sea levels fluctuated, these rock features were created. The location is adjacent to a well-known sandy beach, Cabbage Beach. Site grading will permanently alter the natural ground conditions south of the dune, which have already been significantly altered over time. This is evidenced by the prevalence of invasive species observed on the site.

Subterranean caves and voids are potential geologic dangers because of the karst topography. Sinkholes may develop if the ceilings of these cavities fail. However, the location possesses a large dune structure made of aeolian (wind-blown) sand. Geological inspection found indication of few underground caverns. The seismic zone where Paradise Island is situated remains dormant. Consequently, seismic risks are not considered. The Geotechnical Investigation Report describes the geologic hazards and provides additional information about the subsurface conditions of the site. The report can be accessed in the [Environmental Impact Assessment Appendix F](#).

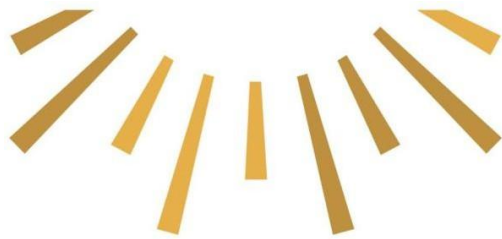
During construction, excavation of the site to produce the building foundations will have an impact on the geology of the area. On several of the parcels that would be included in the Project, building foundations are already present.

Any trench that is five (5) feet or deeper should be protected by sloping, benching, or shoring as part of subsequent work that includes the removal of geological debris. A competent person must inspect any trench that is four (4) feet or deeper before an employee can enter it. Based on the soil type, protective systems (such as sloping, benching, or shoring) must be used. Work on the excavation site should be scheduled as the weather permits and should not be conducted while it is raining. This is done to prevent rain from eroding the construction site and forming silt that could end up in storm drainage systems or in the nearby road. To avoid undue removal of geological materials, excavation for building foundations should adhere to "The Bahamas Building Code 3rd Edition" for standard recommendations and building requirements.

To stop future damaging environmental effects from surface run-off, the excavated rock, soil, and other debris will be utilized. Stockpiles of excavated waste must be stored at least 2' away from the trenches or excavation. The final location of the stockpile will be communicated to the DEPP closer to the start of construction.

### 7.1.1 Erosion Control

The site is primarily composed of sand and plant matter. Erosion control will be managed using best practices throughout construction. A temporary sheet pile wall (approximately 19 feet from the high tide mark, approximately 5-10 feet above ground, and approximately 675 feet long) will be installed to aid in site protection (see proposed Sheet Pile wall and revetment layout included



in Appendix C). Due to the site's undulating topography and geological make up (predominantly sand), the temporary sheet pile wall will help compact the geological material of the site. The temporary sheet pile wall will also serve to facilitate the development of a construction access road around the site perimeter. This access road will be used to transport construction materials and equipment, streamlining construction activities. Additionally, the sheet piling will limit construction site runoff, aid in erosion control, and provide a protective barrier for beachgoers during the construction phase. The sheet pile wall will be removed upon completion of the project (estimated timeline of 36 months).

Additional erosion control measures implemented during construction will include the installation of silt fencing, temporary swale, gravel placement, retaining wall, and site orientation. The specific placement and design of these features are detailed in the Erosion Control Plan, included in Appendix D.

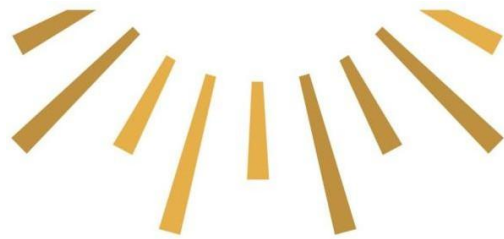
During construction, erosion control devices such as silt fences and gravel placement will be installed along the Project's perimeter. Silt fences control water to flow and trap sediment using extra-strength filter fabric supported by steel and wooden posts. The developer intends to install double silt fencing along the southern boundary near Casino Drive. A temporary gravel pit will be placed at the construction entrance, with additional gravel placed as needed by the contractor to prevent the flow of sediment. Gravel traps topsoil and allows water to slowly percolate into the soil, preventing runoff to neighboring sites and reduce erosion.

Temporary swales will be installed to slow down across surfaces, allowing it to soak into the ground. This will reduce runoff and trap sediment and pollutants. Swales will be installed along the site perimeter as outlined in the Erosion Control Plan. The site will be oriented by slope elevations to direct water flow toward fixed drainage points.

The development of retaining walls will aid in the reduction of erosion on site. These structures provide support for geological materials and reduces surface run off, slowing the speed at which water travels over surfaces thus reducing erosion. During construction, a temporary retaining wall will be installed along the site's southern boundary near Casino Drive. The permanent retaining wall will be installed along the Project's eastern boundary and will remain during the Project's operation phase.

Furthermore, on site excavations should occur during periods of minimal or no precipitation to avoid agitated erosion from rainfall. Disturbed soil should be covered to reduce displacement. Planting native species and mulching are erosion control measures that will be implemented during the landscaping design phase of the Project's operation. The planting of native species helps compact soil with root systems and prevent erosion, while mulching with vegetative waste aids in soil coverage and prevents wind erosion.

The excavated material will be stockpiled in the most suitable location, which will be incorporated into the building construction. This stockpile storage site should not impact the neighborhood, including the nearby public beach access and adjoining businesses. The exact location of the



stockpile site is not yet determined, but it is intended to be away from the immediate coastal area. The final location of the stockpile will be communicated to the DEPP closer to the start of construction.

### **7.1.2 Flood Management**

The drainage wells and drainage well structures will be installed before commencing construction activities to mitigate flood impacts (See Erosion Control Plan Appendix D). Figure 7-1 provides design drawings for the sheep pile wall. Anti-erosion strategies, such as silt fencing, gravel placement, and installation of sediment boundaries, will be integrated into the construction site design (as discussed in [Section 7.1.1](#) above). Temporary perforated drains pipes will be installed as needed to help manage storm water on site. Figure 7-2 through Figure 7-7 provides reference images of these mitigation measures. Before substantial completion of the Project, all drainage wells are to be re-measured. If any are found to be less than 150 feet deep, they will be blown out or re-drilled to the required 150 foot depth.

After installation, it is recommended to either strain the wells with methods such as silt socks, silt bag and filter fabric to prevent sediment entry. We also recommend that these structures are regularly cleaned to prevent them filling with silt due to construction.

During operation, drop inlet sediment barriers should be used on nearly level drainage areas and installed below ground elevation at a downward slope to prevent runoff. The complete Drainage Design is included in the [Environmental Impact Assessment Appendix D](#). Additionally, the construction site will be oriented to facilitate water flow into these wells, which will collect water and run-off from the sloping site.

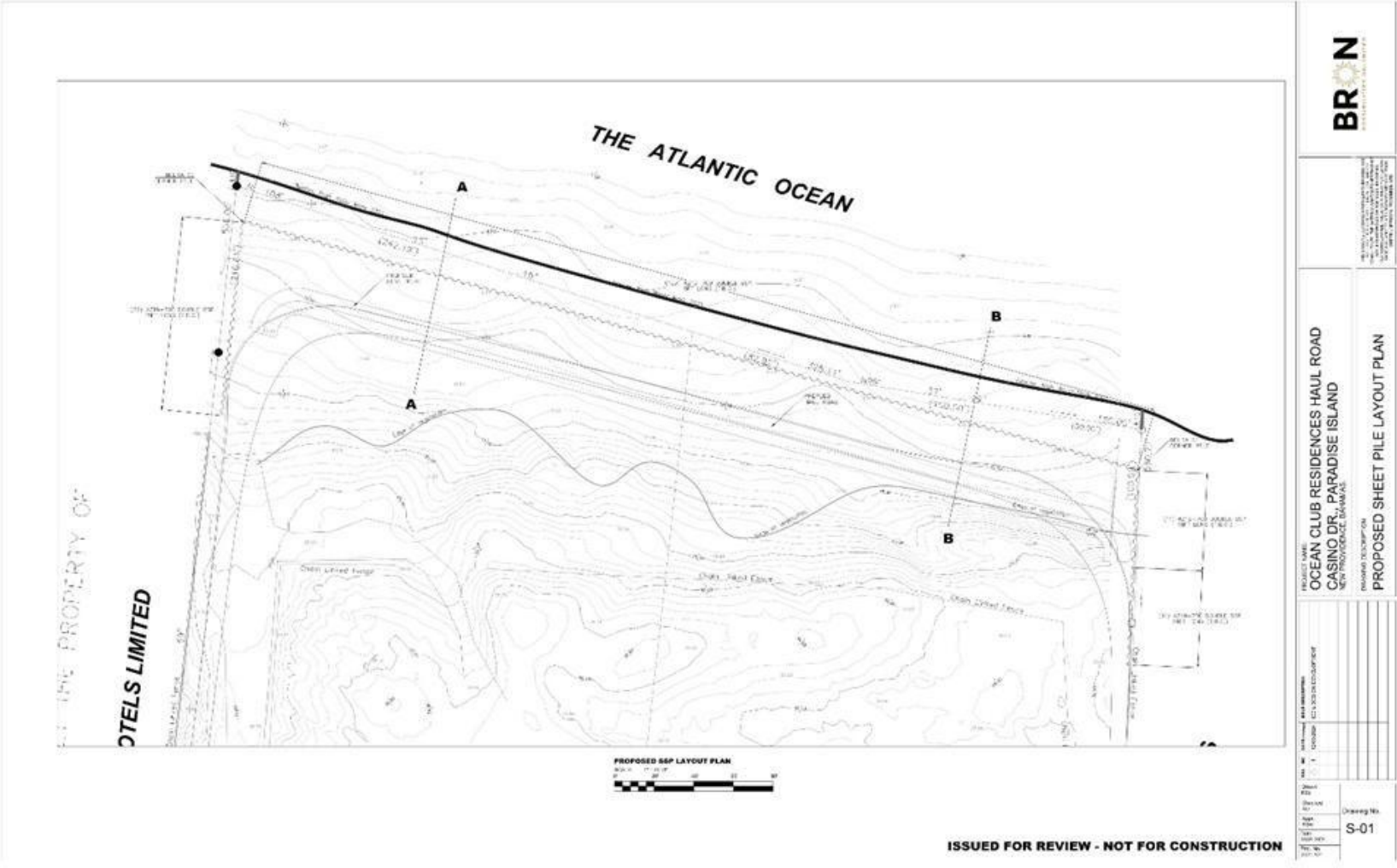


Figure 7-1. Temporary sheet pile wall placement with revetment (see Appendix C for sheet pile wall layout).



Figure 7-2. Erosion control methods inclusive of vendor beach access.

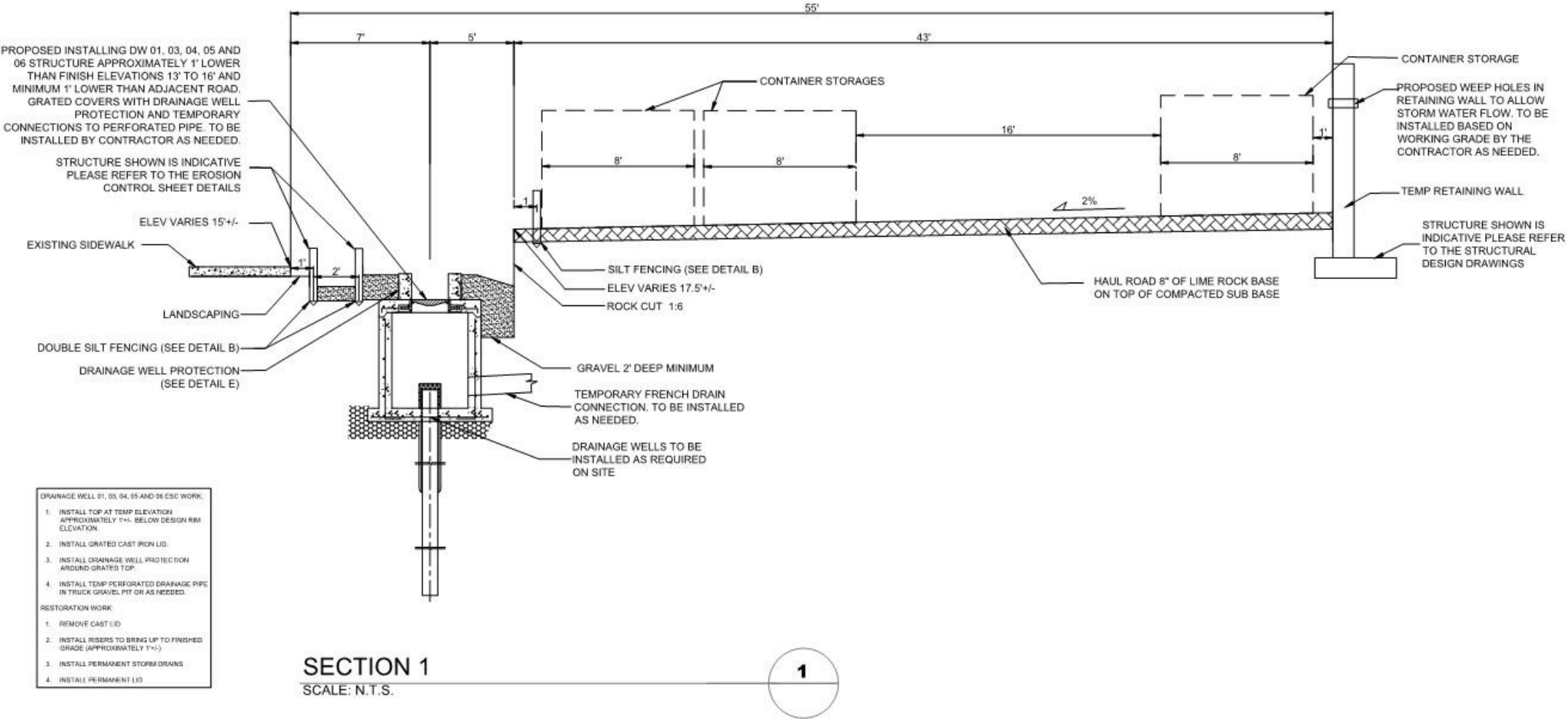


Figure 7-3. Cross section of erosion control methods (see Erosion Control Plan in Appendix D).

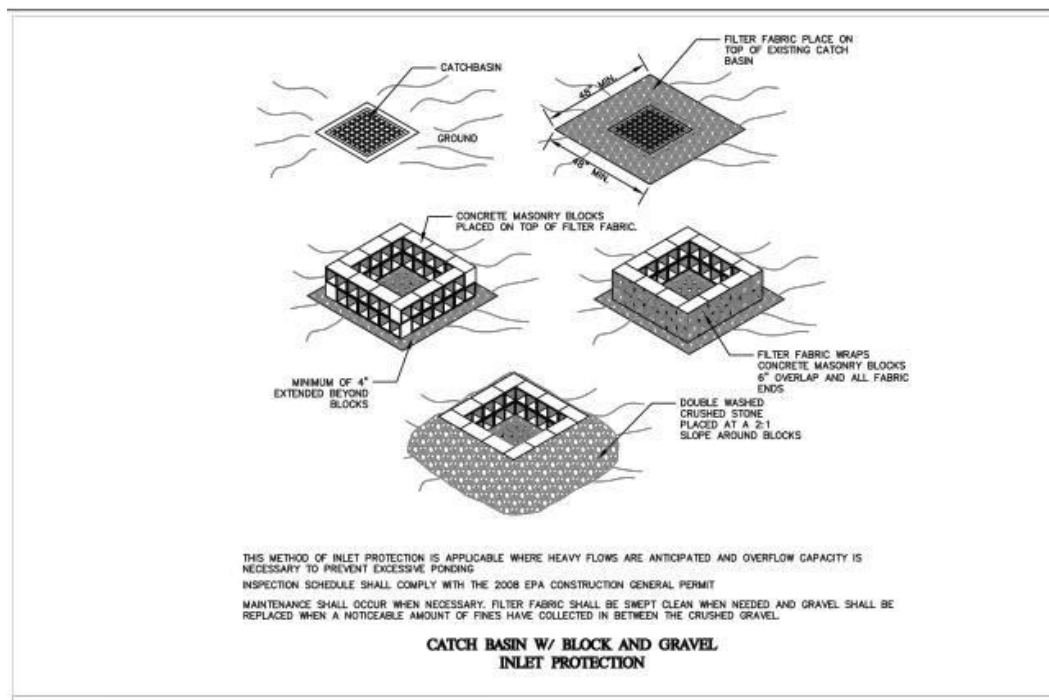


Figure 7-4. Drainage well block and gravel inlet sediment barrier (see Erosion Control Plan Appendix D).

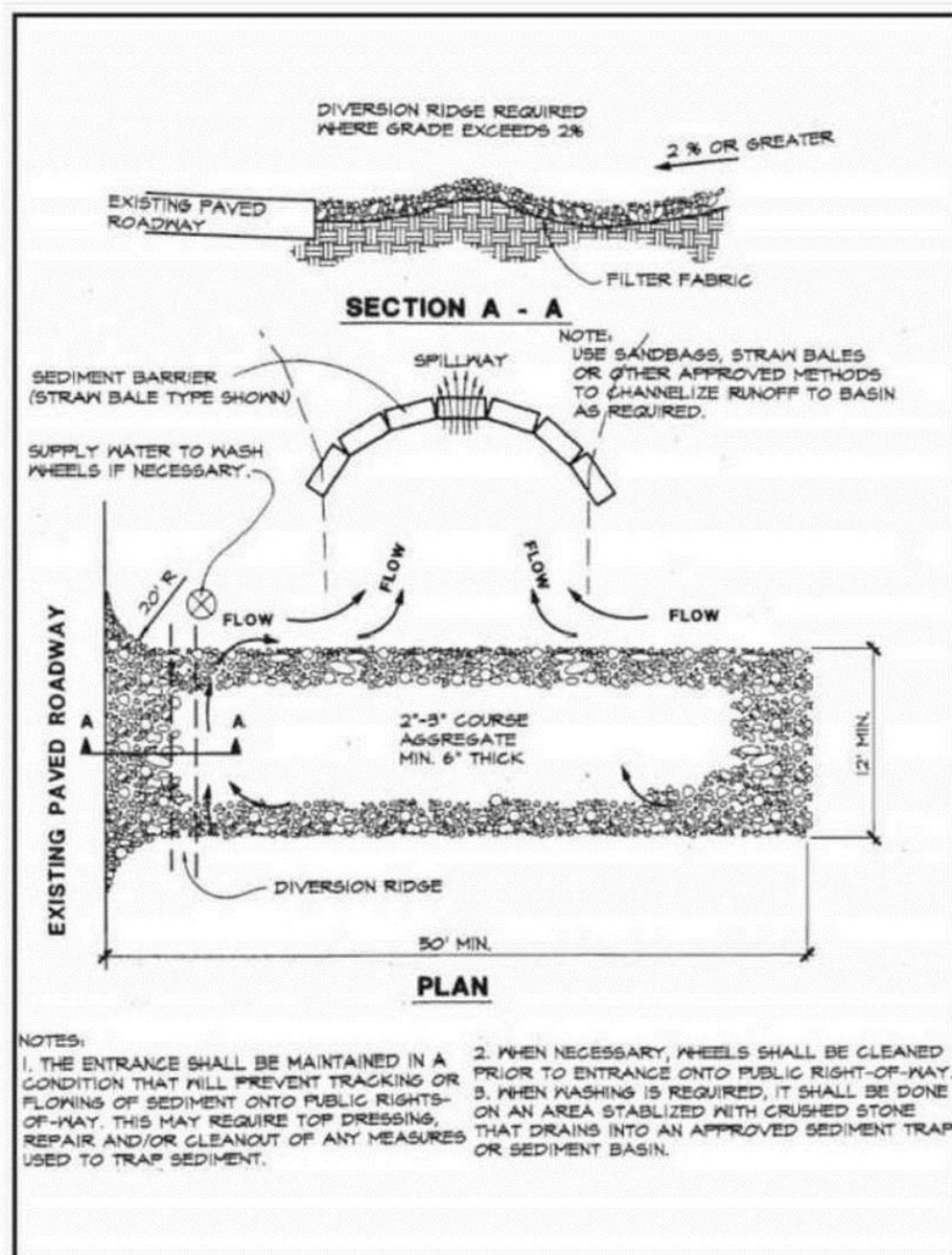


Figure 7-5 . Temporary gravel of the construction entrance design (see Erosion Control Plan Appendix D).

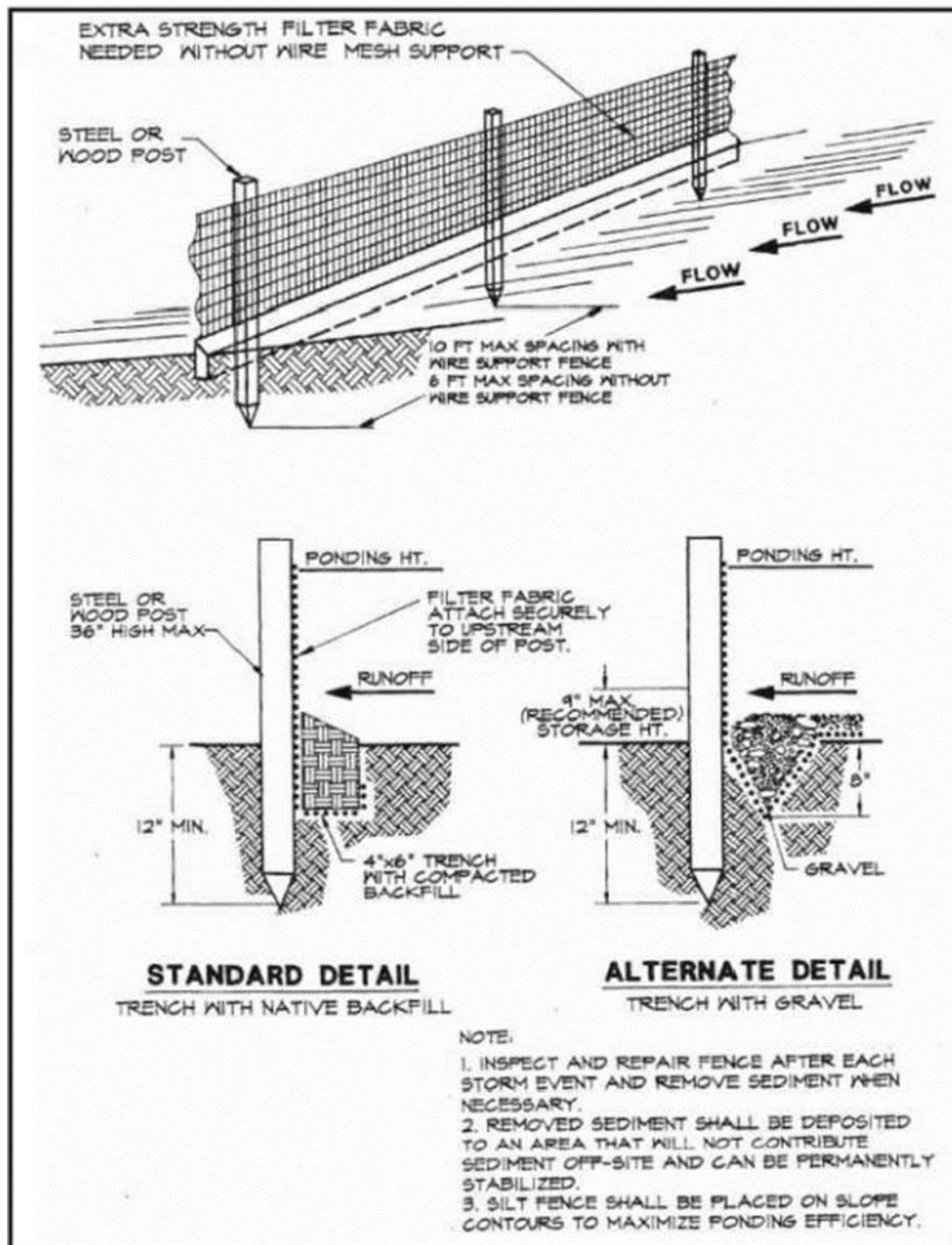


Figure 7-6. Silt fencing design (see Erosion Control Plan Appendix D).



Figure 7-7. Example of Silt Sock and perforated pipe (see Erosion Control Plan Appendix D).

### 7.1.3 Dune Management Plan

The principal components of the Dune Management Plan are replacing invasive species with native species, adhering to a dune setback, and the development of a revetment.

On the project site a number of invasive species pose threat to the dune stability such as *Dracaena hyacinthoides* (Snake plant), *Casuarina equisetifolia* (Casuarina), and *Scaevola taccada* (Hawaiian Inkberry), and *Schinus terebinthifolia* (Brazilian Pepper). The dune is approximately 4-11 meters tall. The presence of invasive species has reduced the height of the dune. These invasive species are found in the permanent dune within the parcel's northern boundary, which is located above the high tide line, causing excessive erosion. It is advised that a beach dune is constructed to help stabilize the shoreline.

The first step is to replace the invasive species with native species suitable to the site conditions. Species suitable for dune creation and maintenance of the dune system should be incorporated. To rebuild the affected dune community, replanting would involve using species such as *Uniola paniculata* (Sea Oats), *Suriana maritima* (Bay Cedar), *Iva imbricata* (Beach Iva), *Scaevola plumieri* (Native Inkberry), *Tournefortia gnaphalodes* (Sea lavender), and *Cakile lanceolata* (Sea Rocket). Table 7-1. List of Native Plants suitable for Dune Creation. provides the list of native plants that should be considered. [Section 7.2.2](#) described invasive species removal in further detail. A secondary benefit of this activity is an increase in the area's biodiversity.



Table 7-1. List of Native Plants suitable for Dune Creation.

| Common Name     | Scientific Name                 |
|-----------------|---------------------------------|
| Sea Oats        | <i>Uniola paniculata</i>        |
| Bay Cedar       | <i>Suriana maritima</i>         |
| Sea Lavender    | <i>Tournefortia gnaphalodes</i> |
| Native Inkberry | <i>Scaevola plumieri</i>        |
| Sea Rockett     | <i>Cakile lanceolata</i>        |
| Beach Iva       | <i>Iva imbricata</i>            |

The major dune is heavily vegetated and mostly unbroken above the sand strand communities. The principal dunes of the Atlantic coastline contribute significantly to the structural and biological integrity of the shoreline while having less organic matter and rising to an average height of 20 feet above sea level. The Cabbage Beach Ocean Club Residences will be built at least 75 feet away from the high sea line. Along the parcel's northern edge will be a dune crossing. The configuration would resemble the one displayed on the following page.

A revetment will be installed along the site's northern boundary (facing Cabbage Beach) to aid in dune management. This structure will absorb and dissipate the energy of waves in order to reduce coastal erosion. Vegetative revetments add a natural aesthetic and additional resistance from wave activity and erosion.

Heavy machinery used for construction and the eradication of invasive plants will avoid driving onto the back, crest, or fore dune. While some dune habitat disruptions are anticipated during the removal of invasive species and construction, restorative measures will be taken to recover eroded sand or disturbed plant populations.

## 7.2 BIOLOGICAL RESOURCE MANAGEMENT

Thirty-seven (37) species of plants were documented during the environmental surveys. *Casuarina equisetifolia*, *Scaevola taccada*, *Shinus terebinthifolia*, *Dracaena hyacinthoides* *Jasminium fluminense*, and *Melanthera nivea* were some of the most common species in the area. The invasive species will be removed (see [Section 7.2.3](#)). The protected plants will be relocated and avoided where possible (see [Section 7.2.4](#)).

### 7.2.1 Avian and Other Wildlife Management

Eighteen (18) species of birds and fifteen (15) species of other wildlife were observed during the environmental surveys. Green waste that cannot be mulched will be stockpiled on site, removed from the coast and transported to the New Providence Ecological Park or other suitable site. The final location of the stockpile will be communicated to the DEPP closer to the start of construction.



The Developer will aim to schedule land clearing activities outside peak breeding season to avoid destroying nests.

### 7.2.2 Invasive Species Management

This site is dominated by invasive and weedy plant species. Four (4) invasive species identified were *Dracaena hyacinthoides* (Snake Plant), *Casuarina equisetifolia* (Casuarina), and *Scaevola taccada* (White Inkberry), and *Schinus terebinthifolia* (Brazilian Pepper).

Invasive species will be replaced with native species selected from the list in Table 7-1. Priority will be given to species that are already growing on the site. If possible, cuttings of native species from within the property will be taken to help propagate the dune once the invasive species are removed. Native species may be purchased from local nurseries that have a more established root system to plant on the dune. The root systems of any cuttings from the site will take a few months to establish sufficiently to maintain the integrity of the dune.

These invasive species will be removed by the construction staff as monitored by the Contractor, under the direction of the Environmental Manager, prior to construction. The Environmental Monitor will ensure that these species will not re-establish during the construction phase. To prevent re-establishment of these invasive species during operation, native dune plants will be used in the landscaping of the property. Native plants that were previously identified on site and relocated from other areas on the property will be used to replace the invasive species. A summary of the removal method for each species is listed below.

- 1) Australian Pine (*Casuarina equisetifolia*) - Removal of this species will be adapted from the method described in Hayes et. al. (2016)<sup>9</sup>. The smaller trees or saplings growing in the dune will be removed by hand saw or tree saw. The root ball will be removed to prevent regrowth of the tree. The large trees will be cut down using chain saws or pushed down using heavy equipment. Heavy equipment will not be used in the dune area. Stumps remaining will be cut to ground level. The root will be removed by heavy equipment to prevent regrowth. The plants will be stockpiled on site as green waste and transported to the landfill or mulched on site to incorporate in the landscape design of the site.

Due to the height, slope and present erosion of the dune along with its proximity to the coastline, simultaneous removal of the established Casuarina trees within the hightide/beach area may further influence erosion. It is recommended that during removal of the Casuarina trees along the dune, that rooted trees be cut low to the ground. The stump/cut can be treated with herbicide and buried. This method will allow the roots to remain in place for soil stabilization during dune stabilization. If a Casuarina has an exposed root ball then the tree

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<sup>9</sup> Hayes, William K., Ricardo A. Escobar III, Shawn K. Fry, Edgar M. Fortune, Joseph A. Wasilewski, Donald M. Tuttle, Kathryn S. West, John B. Iverson, Sandra D. Buckner, and Ronald L. Carter. 2016. Conservation of the endangered Sandy Cay Rock Iguanas (*Cyclura rileyi cristata*): invasive species control, population response, pirates, poaching, and translocation. Pp. 106–120 In Iguanas: Biology, Systematics, and Conservation. Iverson, J.B., T.D. Grant, C.R. Knapp, and S.A. Pasachnik (Eds.). Herpetological Conservation and Biology 11(Monograph 6).



can be cut to the base/tree trunk, treated with herbicide and the root ball buried during coastline stabilization to continue to stabilize the soil.

- 2) White Inkberry (*Scaevola taccada*) - The removal method described by CABI (2021) will be used to remove this species. In areas near the coast or wetland, mechanical or physical removal will be used. Smaller plants and seedlings growing on the dune will be removed by hand. Larger plants can also be removed by hand and digging around the root to loosen the root ball. To avoid regrowth of the plant, branches and underground stems and the root ball will be removed. The CABI site recommends chemical control in some instances where the plant is growing in dry dune habitat. Due to the proximity to the coast and wetland, this method will not be used. Monitoring and re-treatment are necessary for at least two to three years after removal. The plants will be stockpiled on site as green waste and transported to the landfill. These plants will not be included in the mulching effort for later incorporation in the landscape design.
- 3) Snake Plant (*Dracaena Hyacinthoides*) - The method recommended by CABI (2022) will be used for species removal. Plants should be dug up or pulled by hand and removed from the area. Because they could sprout again, all leaf segments and rhizomes must be taken away.
- 4) Brazillian Pepper (*Schinus terebinthifolia*) - For species removal, the CABI (2022) approach will be employed. In the early phases of invasion, hand pulling juvenile *S. terebinthifolia* may be helpful, but it's crucial to remove the entire root to avoid resprouting. Bulldozers are occasionally required, however because they disturb the soil, there is a chance that further exotic species invasion will be encouraged.

### 7.2.3 Protected Plant Mitigation

Based on the data collected from four (4) vegetation plots, it is estimated that there are 1,093 protected trees and shrubs on the property. This number consists of 323 Gum Elemi (*Bursera simaruba*), 631 Thatch Palm (*Coccothrinax argentata*), and 139 Narrow- leafed Blolly (*Guapira discolor*). Additionally, Silver Thatch (*Leucothrinax morrisii*), and Paradise Tree (*Simaruba glauca*) were observed within the property's boundary.

Mitigation strategies for the removal of protected plants and other vegetation on the site is incorporated in the Permit to Harvest a Protected Tree (PHPT) issued by the Forestry Unit (TFU) on July 6, 2022, and the renewal was issued on April 3, 2023.

The removal of invasive plants such as Brazillian Pepper, Hawaiian Seagrape, and Casuarina will improve stability of the dune and assist in the proliferation of native vegetation.

Native fruit trees, such as cocoplum and seagrape which will be used near hedge areas, will be incorporated in the landscaping plan for the site to maintain wildlife diversity and contribute to shoreline stabilization.



### 7.3 AIR QUALITY MANAGEMENT

During the construction period, the site will be temporarily impacted by air pollutants such as particulate matter from dust, sand, and fossil fuel emissions. Water will be used as a dust suppression measure to prevent wind transport. The construction site and stockpiles will be sprayed with water on an as needed basis. Other means of air quality management are listed below.

- Construction should cease when wind speeds increase to 20 mph and remain at this speed for over an hour (U.S. Department of Transportation & Caltrans, 1993, p. 90)<sup>10</sup>.
- The fence securing the entire construction site will be covered with a screen mesh fabric which prevents construction generated dust from traveling off site.
- If material must be transported off-site, it should be watered and properly covered to prevent the transfer of dust particles.
- On-site vehicles should follow the speed limit of  $\leq 15$  mph to prevent unnecessary particle movement.
- Regular maintenance of on-site construction vehicles and equipment is required to prevent the frequency of fuel exhaust.
- Vehicle and equipment operators would limit idling time of machinery to prevent unnecessary use of fuel and emissions.

### 7.4 NOISE QUALITY MANAGEMENT

Baseline noise levels recorded on site prior to construction activities range from 51.2dB- 71.8dB.

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<sup>10</sup> U.S. Department of Transportation & Caltrans. (1993). Environmental impact statement/environmental impact report: Volume II: Route 168 between route 180 and temperance avenue.



Figure 7-8. Baseline noise data collection points.

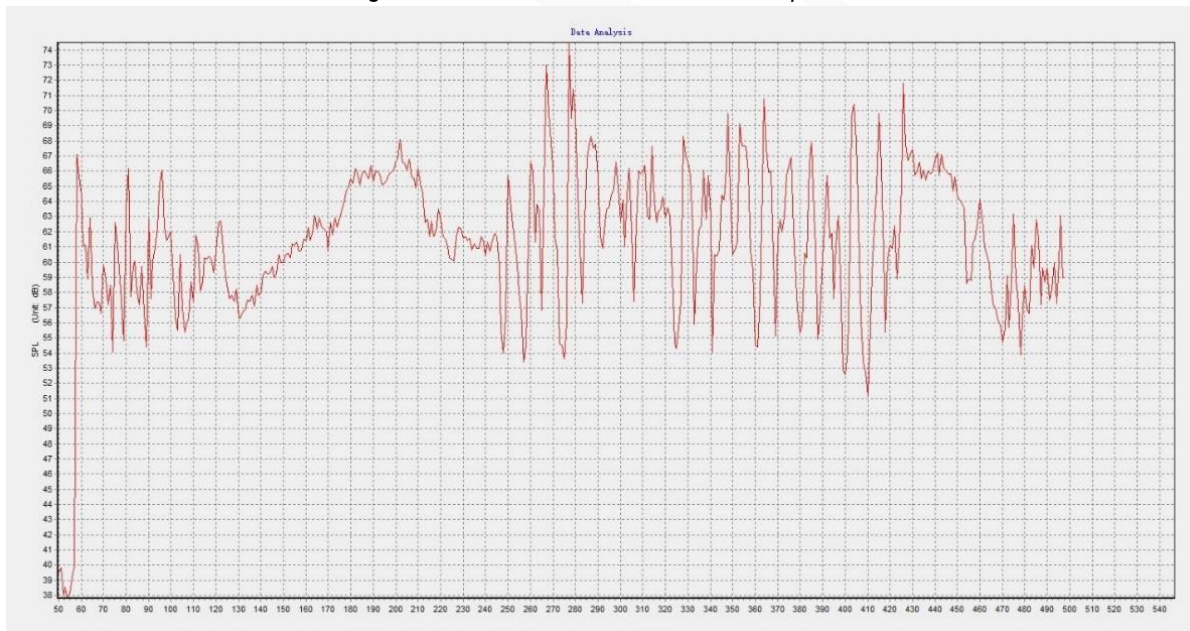


Figure 7-9 . The sound graph represents noise data for the site at the X-axis (record number) 62-437 and 455-472.

Noise pollution within the construction zone is temporary and would only occur during construction workdays during work hours. The surrounding businesses will be informed of the ongoing works within the area to prevent any unknown disturbance. Noise levels should be monitored on site by



a noise monitoring device to ensure that the sound on the construction site does not exceed 85 decibels. Should the noise level increase to 85 decibels, the Environmental Monitor will inform the Site Manager, who will ensure that all relevant personnel are wearing the appropriate noise protection gear. Upon completion of the Project, all construction related noise generated by machinery would cease.

Appropriate signage would be placed near the construction site to inform the public of potential noise pollution nearby. Figure 7-10 shows examples of signs. Regular vehicle and equipment maintenance are required to avoid noise from the on-site machinery.



Figure 7-10. Examples of the types of signage. <sup>11</sup>

During operations of Ocean Club Residences at Cabbage Beach, management and personnel would ensure that the noise level would not exceed 85 decibels by regulating various amenities to adhere to this standard. Regularly scheduled equipment maintenance for all facilities and machinery on the property should be mandatory to prevent noise pollution as well as fuel emissions.

## 7.5 WATER QUALITY MANAGEMENT

### 7.5.1 Coastal Water Quality

During construction, runoff from the construction site could have a detrimental impact on the Cabbage Beach water quality near the site. Land clearing activities, relocating protected plants, and site grading may loosen topsoil, making the soil susceptible to erosion during the rainy season. The Developer will aim to complete site grading activities as soon as possible after land clearing activities are completed. Stockpiles will be removed from the coast to prevent stockpiles from washing into the beach area. The final location of the stockpile will be communicated to the DEPP closer to the start of construction. To prevent runoff, silt fencing or filter textiles will be placed between the northern boundary of the site and the beach. The silt fence/filter fabric will be examined daily for any deterioration that would let sediment reach the coast.

<sup>11</sup> <https://www.stonehousesigns.com/osh-construction-safety-signs>



Figure 7-11. Example of silt fence (Image provided by Arizona Bag Company, LLC, 2022).

The impact to coastal water quality during operation will be negligible as a result of the following interventions.

- 1) The native plants that will be incorporated into the landscaping design of the site and in the dune management will trap the topsoil and sand in the root systems and prevent sediment from washing away.
- 2) Waste receptacles will be made available and emptied regularly on site. Signage will be installed on the site directing people to avoid littering and make use of the waste bins. (see [Section 7.8 Waste Management](#)).
- 3) An appropriate drainage system will be constructed as a part of the Project. Drains will undergo routine maintenance.

### 7.5.2 Groundwater Resource Management

Geotechnical examinations discovered that the depth of the water surface beneath ground elevation at the time of measurement ranged between 20ft. and 30ft. It is unknown what effect tide changes will have on water surfaces below ground. The most detrimental construction aspect to groundwater resources during development will be excavation (See [Section 7.1](#) Geological Management), fuel and oil spills ([Section 7.7](#) Spill Management), installing an improper drainage system and improper installation and management of the Reverse Osmosis system (RO).

RO will be used to treat the water that is provided by the Paradise Island Utility Company. The following recommendations should be followed to ensure good potable water quality.

- Prefilters should be cleaned or replaced regularly to support adequate water flow



- Inspect and service pumps regularly (i.e., conduct oil/fuel changes, preplace seals, etc.)
- Use barrier coatings or other corrosion prevention methods where possible

The Project's projected daily process water consumption rate is 55,000 gallons. The Civil Engineer will bring one (1) 6-inch residential water supply from a single street main onto the property, complete with a meter and backflow preventer. A residential water/fire reserve tank will receive water from the incoming street service.

A single compartment, subterranean, concrete tank with a capacity of 100,000 gallons will be used. 55,000 gallons will be used for residential water, and the remaining 45,000 gallons will be used for fire suppression systems. The household water reserve is sized to supply seventy-five (75) gallons of water per person per day to all buildings on the site for a full day.

### **Pool Water Quality**

Pool maintenance and management will be required during the operation phase of Ocean Club Residences at Cabbage Beach to maintain suitable water quality. The water treatment systems for the pools consists of three basic steps: pre-filter cleaning, filter cleaning, and disinfection. The basic processes are described below.

- a. Pre-filter cleaning – the removal of solid debris from the pool area which includes large pieces of trash, landscaping debris, etc. These items should be removed manually with a pool skimmer. This is an important step to avoid clogged pipes and damage to the pumps and other pool systems.
- b. Filter cleaning - This step removes suspended solids from the water by passing through a high-rate sand filter. The solids are collected in the filter bed, which is periodically backwashed to waste. This step is the primary means of clarifying the water.
- c. Disinfection via chemical application - This step involves the removal of all disease-causing pathogens via chemical use by a trained pool technician. This step cleans the water of unseen microscopic organisms which allows for safe swimming.

With regard to pool chemicals, Ocean Club Residences management is responsible for understanding the hazards related to handling pool chemicals and ensuring that the staff is aware of these potential hazards. Accurate literature on hazardous pool chemicals should be available to relevant staff to ensure that these chemicals are properly handled during the disposal process. Pool chemicals will be stored to prevent chemical reactions that may harm staff or guests during operation. The disposal of pool chemicals should include collecting the chemicals in separate containers and alerting the proper environmental agencies of the need for disposal of the hazardous material. The recommendations of DEHS should be followed.

Pool chemicals must be kept safe and protected from water in a watertight building. To prevent flood water from coming into touch with the chemicals, this construction needs to have an elevated surface for chemical storage. In accordance with EPA guidelines, "pool chemicals are intended to be introduced to vast quantities of water; if a limited amount of water is added to a chemical,



an undesired reaction may occur, leading to an increase in temperature and the production of harmful gases" (epa.gov). Due to their reactive nature, the majority of pool chemicals are packaged in materials that allow the chemicals to breathe and prevent pressure buildup. As a result, this building should also provide adequate ventilation. The floor of this storage space should be void of cracks and surface entry points due to liquid chemicals that may be stored in this area. This is to avoid possible groundwater contamination and or ocean run off.

## 7.6 ENERGY MANAGEMENT

The Bahamas Power and Light Company will deliver regular electricity supply (BPL Co.). The utility company will complete and review the design intent, which is to supply an 11Kv Medium Voltage Ringmaster Distribution Outdoor Switchgear at the point of incoming service to the property (BPL Co.).

Residential properties, including apartment complexes and other dwelling units, will receive electrical services. The Canadian Electrical Code Section 8-202 is used to size the units.

There will be two centralized generator systems serving multiple buildings:

1. System One will be located on the east end of the site, accessible for fuel fill from the service yard. Estimate engine size of 800kW/1,000kWVA to 1,000kW/1,250kVA, subject review of any landlord optional standby loads.
2. System Two will be located on the west side of the site, accessible for fuel fill from the western service road. Estimate engine size of 600kW/625kVA to 800kW/1,000kVA subject to review of landlord optional standby loads.

Table 7-2. Select design power densities.

| Programmed Spaces                | Demand per Square footage |
|----------------------------------|---------------------------|
| Lobbies and Front Desk           | 6W/sq. ft.                |
| Spa/Health Club                  | 10W/sq. ft.               |
| Retail                           | 20W/sq. ft.               |
| Kitchen                          | 40W/sq. ft.               |
| Dining                           | 8W/sq. ft.                |
| Bars                             | 15W/sq. ft.               |
| Laundry                          | 10W/sq. ft.               |
| Housekeeping                     | 5W/sq. ft.                |
| General Circulation              | 1.5W/sq. ft.              |
| Offices and Administrative Areas | 5W/sq. ft.                |
| Parking                          | 1.5W/sq. ft.              |
| Other Back of House/MEP          | 1.5W/sq. ft.              |



|                          |                                                                                                                                         |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Exterior Site Lighting   | 0.5W/sq. ft.                                                                                                                            |
| Specialty Pool Equipment | Subject to review with Pool Consultant. Design assumes that electrically driven air-source heat pumps may be requires for pool heating. |

For each of the four (4) major buildings, there will be a step-down 11kV-120/208V transformer located within proximity to the building or within the building itself, designed to feed the residential tower and select smaller loads.

The four (4) residential towers are located on top of two (2) podium levels, Podium +16, and Podium +26. The podium levels will be split into Eastern and Western electrical distribution, in order to reduce overall feeder lengths traversing these levels.

Two (2) 1000kVA 11kV-480/277V step-down transformers and associated Podium Service Switchboards (Eastern and Western) will service all equipment on the Podium +16 and +26 Levels, stepping down locally to 120/208V as required. In addition to the podium level loads, these switchboards will provide a bulk 480V power feed to the roof top mechanical spaces in Buildings 1 & 2 (West) and Buildings 3 & 4 (East).

Residential Tower/Podium transformers will vary in size, based on areas served, which includes exterior spaces in close proximity to the various services. Anticipated breakdown per building is as follows:

Building One – Residential, Podium Amenities, (Beach Restaurant, Pool, Game Room, Screening Room) and Back of House Support

Building One consists of eleven (11) residences, two (2) residences per floor on Levels One through Level Five and one (1) Penthouse unit on Level 6.

The podium level (Grade and Below) will have a beach club amenity, Pool Deck, Game Room, Screening Room, and Mechanical Engineering & Plumbing (MEP) support spaces associated with the tower and ground floor spaces.

- This includes a loading dock area for deliveries, trash removal, main service electrical, and MEP support space for the restaurant.
- There will be a service tunnel connecting Buildings 1 and 4, which will also contain pool equipment and other support spaces related to exterior Amenities.

There will be a roof-top mechanical area, which includes mechanical cooling units, exhaust fans, and various other equipment, as well as the passenger and service elevator machine rooms.

The distribution for Building 1 Residential Tower will consist of a 500kVA-11kV-120/208V step down transformer, which will serve a 2000A-3P-4W, front access only, service switchboard, dedicated to the residential tower program.



- Each Residential unit will have a dedicated 150A-120/208V-3P-4W power panel. Panels will be located in the service corridor outside the service elevator lobby and will be separately metered via direct utility metering.
- Elevators, both the service and the passenger, will be fed via the load side of Automatic Transfer Switches (ATS), located in the MEP support spaces below the building. The ATS switch will require a dedicated 2-hour space.
- The mechanical roof-top space will have a bulk 400A-480/277V distribution panel dedicated to the mechanical equipment, originating from the Western Podium Service.
- External site lighting and power within the immediate vicinity of Building 1, will be provided via distribution from the building 1 Service or the Western Podium Service. The extent of this distribution will be determined in later phases of design.
- All other areas will have local power distribution sized to the program area.

Building Two consists of Thirty-Three (33) residences, Six (6) on Level One, Four (4) per floor on Levels Two through Level Seven, Two (2) on Level 8, and one (1) Penthouse on Level 9.

Level One will have a feature a bar/grab-and-go space, lounge, library, and Concierge/Service. This building is the main point of arrival to the site.

Below grade levels will contain all management and operations spaces such as, maintenance, loading dock spaces, administration offices, grab-and-go prep, employee cafeteria, lockers, and similar, as well as the main service electrical room and mechanical support for the lower levels.

There will be two (2) roof-top mechanical areas, which includes mechanical cooling units, exhaust fans, and various other equipment, as well as the passenger and service elevator machine rooms.

The Building Two Residential Tower Service will consist of a 750kVA-11kV-120/208V step-down transformer, which will serve a 3,000A-3P-4W service switchboard.

- Each Residential unit will have a dedicated 150A-120/208V-3P-4W power panel. Panels will be located in the service corridor outside the service elevator lobby and will be separately metered via direct utility metering.
- Elevators, both the service and the passenger, will be fed via the load side of Automatic Transfer Switches (ATS), located in the MEP support spaces below the building. The ATS switch will require a dedicated 2-hour space.
- There is an eastern and western Penthouse mechanical space for this building. Each room will have a 600A-480/277V distribution board dedicated to mechanical equipment, originating from the Western Podium Service.
- External site lighting and power within the immediate vicinity of Building 2, will be provided via distribution from the building 2 Service or the Western Podium Service. The extent of this distribution will be determined in later phases of design.
- All other spaces will have local distribution panels sized appropriately for the area.



Three consists of eleven (11) residences, two (2) residences per floor on Levels One through Level Five and one (1) penthouse unit on Level 6.

The below grade levels will consist of the parking level and back-of-house support spaces. This includes housekeeping and golf cart charging and maintenance spaces.

- Carts are assumed to be fully electric. The capacity of the electrical service for cart charging will be adjusted to accommodate the quantity of carts required once this is determined in later phases.

There will be a roof-top mechanical area, which includes mechanical cooling units, exhaust fans, and various other equipment, as well as the passenger and service Elevator Machine Rooms.

The distribution for this building will consist of a 500kVA-11kV-120/208V step-down transformer, which will serve a 2000A-3P-4W service switchboard.

- Each Residential unit will have a dedicated 150A-120/208V-3P-4W power panel. Panels will be located in the service corridor outside the service elevator lobby.
- Elevators will be fed via the load side of an Automatic Transfer Switch (ATS), located in the MEP support spaces below the building. The ATS switch will require a dedicated 2-hour space.
- The mechanical roof-top space will have a bulk 400A-480/277V-3P-4W distribution panel dedicated to the mechanical equipment, originating from the Eastern Podium Service.
- External site lighting and power within the immediate vicinity of Building 3, will be provided via distribution from the building 3 Service or the Eastern Podium Service. The extent of this distribution will be determined in later phases of design.
- All other areas will have local power distribution sizes for the program area.

Building Four consists of nine (9) residences, two (2) residences per floor on Levels One through Level Four and one (1) penthouse unit, on Level Six.

The Podium level will have a Fitness Center amenity and MEP support spaces associated with the tower and Ground Floor spaces.

- There will be a service tunnel connecting Buildings 1 and 4, which will also contain pool equipment and other support spaces related to exterior Amenities.

There will be a roof-top mechanical area, which includes mechanical cooling units, exhaust fans, and various other equipment, as well as the passenger and service Elevator Machine Rooms.

The distribution for this building will consist of a 750kVA-11kV-120/208V step-down transformer, which will serve a 3000A-3P-4W service switchboard.

- Each Residential unit will have a dedicated 150A-120/208V-3P-4W power panel. • Elevators will be fed via the load side of Automatic Transfer Switches (ATS), located in the MEP support spaces below the building. The ATS switches will require a dedicated 2-hour space.



- The mechanical roof-top space will have a bulk 400A-120/208V-3P-4W distribution panel dedicated to the mechanical equipment, originating from the Eastern Podium Service.
- External site lighting and power within the immediate vicinity of Building 4, will be provided via distribution from the building 4 Service or the Eastern Podium Service. The extent of this distribution will be determined in later phases of design.
- It has been assumed that all power related to the main pool exterior amenity located between Building One and Building Four will be derived from Building Four's electrical service, either the Eastern Podium 480V or the building 4 120/208V Service, subject to Pool Consultant requirements.
- All other spaces will have local distribution panels sized appropriately for the area.

All service switchboards local to each building will be front-access only UL 891, approved for use in the Bahamas. Incoming feeder sections will be un-metered until the separation between tenants and landlord distribution occurs.

All overcurrent protective devices will be electronic trip power circuit breakers, with ground fault protection.

### **Emergency Power System Overview**

The emergency power generation system for the campus will be code minimum, with additional capacity for select landlord loads.

Emergency Power Distribution - There will be two (2) centralized generator systems serving multiple buildings.

1. System One will be located on the East side of the site, accessible for fuel fill from the service yard.
  - a. Estimated engine size of 800kW/1,000kVA to 1000kW/1,250kVA, subject to review of any landlord optional standby loads.
2. System Two will be located on the west, accessible for fuel fill from the western service road.
  - a. Estimated engine size of 600kW/625kVA to 800kW/1000kVA subject to review of landlord optional standby loads.

There will be bulk emergency distribution to each building to an emergency 'EDP' distribution board. Specific sizes per building will be determined in the next phase of design.

Emergency Loads will include the following:

- Emergency Lighting
- Fire Alarm
- Site/Local Fire Pumps

Legally Required Loads will include:



- Elevators
- Stair Pressurization (subject to local code review)
- Parking Garage Exhaust Fans
- Site Sanitary Lift Stations

#### Optional Standby Loads

- Ejector Pumps
- Parking Garage Level Sump Pumps
- Security System
- Technology Systems
- \*Select Residential Owner Loads\*
  - The individual unit owners may have the option to purchase generator power from the Landlord for select loads such as refrigeration or cooling, as power outages are frequent in the Bahamas. The extent of these options is under development and will have an impact on the generator sizing and distribution

### **Electrical Grounding System**

A main service ground bus will be provided in the Service Switchboard Room and will be connected to all water services and ground plates/rods.

Grounding connections to the following equipment are to be provided from the building's main ground bus bar:

- All incoming water services via one (1) #3/0. Provide one (1) #4/0 bonding jumper across water meters.
- Utility services via one (1) #3/0.
- Grounding electrode system via one (1) #3/0.
- Main telecom ground bus bar via one (1) #3/0.
- Service switchboard via one (1) #3/0.
- Lightning protection system via one (1) 500 MCM.

The identified neutral wire or "white wire" of the interior wiring systems will be permanently grounded to the grounded conductor and protected from mechanical injury by rigid conduit to which the conductor will be securely bonded at each end.

Conduit system will be securely grounded to the equipment grounding system. All motor frames that are not directly clamped to the supply conduit will be bonded and grounded to the conduit by a suitable wire and ground clamp.

### **Lightning Protection System**

The lightning protection system will be a UL Master Label Faraday cage-type system with air terminals spaced around the roof and each setback with down conductors as required by NFPA



780. Where applicable, architectural railings will be utilized as the air terminals for exposed roof/terrace areas. Custom railing enclosures shall be provided to meet code.

The down conductors shall utilize lightning protection down conductor cable.

We will document the intent of the system, but the design itself of the complete system will be delegated design performed by the installing contractor.

### **Surge Protection System**

Surge protective devices (SPDs) will protect the electrical distribution against high-energy transient voltages, provide surge current diversion, high-frequency attenuation, and line voltage stabilization in accordance with ANSI/IEEE C62-41-2002 Category A and B environments. They will be located at the following points in the distribution:

- Service switchboard.
- Generator output board
- Each non-fiber telecom points of entry.
- Each major distribution panel.
- All exterior branch circuit distribution panels

### **Emergency Generator**

A system of monoxide exhaust will be provided for the generator, including flexible pipe connections to the engine, resiliently mounted flue piping, and hospital grade supercritical sound attenuation. Outside air intake louvers, ALDs and sound traps will be provided to bring the required amount of ventilation and combustion air into the Generator Rooms. Discharge louvers, ALDs and sound traps will also be provided to discharge air from the engine-mounted radiators.

### **Lightning Protection System**

The lightning protection system will be a UL Master Label Faraday cage-type system with air terminals spaced around the roof and each setback with down conductors as required by NFPA 780. Where applicable, architectural railings will be utilized as the air terminals for exposed roof/terrace areas. Custom railing enclosures shall be provided to meet code.

The down conductors shall utilize lightning protection down conductor cable.

We will document the intent of the system, but the design itself of the complete system will be delegated design performed by the installing contractor.

## **7.7 SPILL MANAGEMENT**

The Ocean Club Residences Spill Management Plan includes spill prevention measures, clean up procedures, and mitigation guidelines.



## **Spill Prevention Measures**

To prevent spills during construction the guidelines described in the table below will be used on site. The Environmental Monitor will guarantee that the rules are adhered to. If a spill occurs, it will be tracked and reported using the form that appears after the table. On the basis of project activities and as construction moves forward, subcontractors often create additional spill avoidance measures.

*Table 7-3. Spill Prevention Guidelines*

| <b>Spill Prevention</b>                                                                                                                                                                                                                                                                                                                                     | <b>Required Equipment</b>                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Drip trays should be placed beneath taps and valves, and overflow and drop containment mechanisms should be used at connection points or other potential overflow places.                                                                                                                                                                                   | Drip Trays                               |
| To avoid vandalism and damage to storage containers, secure the area where fuel and chemicals are stored. In the space behind the home, storage containers will be covered with an impermeable liner, and a secondary spill containment system will be employed.                                                                                            | Impermeable liner<br>Spill berm          |
| When manually transferring fuel from storage containers to refuel machinery, use caution. To lessen the likelihood of spills or leaks, use a funnel.                                                                                                                                                                                                        | Fuel storage containers<br>Funnels       |
| Fuel will be kept in special fuel storage containers and transferred in such containers. The fuel will be kept in the covered containers until it is required for refueling.                                                                                                                                                                                | Fuel storage containers<br>Funnels       |
| Oil or fuel should not be kept in broken or unsealed containers. In order to avoid spills or leaks, if a container is damaged, place it in an overdrum.                                                                                                                                                                                                     | Overdrum                                 |
| When moving gasoline or chemicals across the site, use spill pallets and safety storage platforms.                                                                                                                                                                                                                                                          | Spill pallets<br>Safety Storage platform |
| To avoid leaks, equipment will receive routine maintenance and servicing from a local contractor.                                                                                                                                                                                                                                                           | N/A                                      |
| An area on the building site will be assigned for the repair of machinery and vehicles. In order to prevent oil, gas, fuel, etc. from permeating through the surface, the site will be protected with an impermeable liner. If immediate equipment repairs are required, mechanics will cover the ground with an impermeable liner while doing the repairs. | Impermeable liner<br>Spill berm          |
| SDSs (Safety Data Sheets) will be accessible on the premises in two locations. SDS will be accessible in the office on the site and next to the separate places to store the chemicals and fuel.                                                                                                                                                            | Relevant Safety Data Sheets              |



### **Spill Reporting**

If there is a spill, it needs to be immediately contained and notified to the site manager and environmental monitor. If the leak cannot be controlled, the Environmental Manager and the Emergency Personnel should be informed. With the help of the person who first saw the spill, the Environmental Monitor will complete the subsequent spill reporting form. DEPP and DEHS will receive all completed paperwork, including pictures of the spill and subsequent cleanup.

*Form 7-1. Example of Spill Report Form.*

|                                                           |                           |
|-----------------------------------------------------------|---------------------------|
| Date: _____                                               | Weather Conditions: _____ |
| Staff on Duty: _____                                      |                           |
| Contact Information: _____                                |                           |
| <b>Spill Details</b>                                      |                           |
| Type of Spill/Product: _____                              |                           |
| Description of Spill Location of Spill: _____             |                           |
| _____                                                     |                           |
| Spill Estimated Quantity: _____                           |                           |
| Remediation Method: _____                                 |                           |
| Disposal Method: _____                                    |                           |
| Cause of Spill: _____                                     |                           |
| _____                                                     |                           |
| Prevention Method Employed: _____                         |                           |
| _____                                                     |                           |
| Please identify spill location on the map provided below: |                           |



Notes:

Please attach photos of spill activity.

Signed by: \_\_\_\_\_

Site Safety Manager: \_\_\_\_\_

### **Emergency Contact Numbers**

Emergency contact information will be displayed in the site office. The Environmental Monitor will have all emergency contact numbers readily available.

- Department of Environmental Planning and Protection (242) 322-4546
- Department of Environmental Health Services (242) 323-2295
- Department of Marine Resources (242) 393-1777
- Department of Agriculture (242) 325-7413, (242) 397-7450
- The Forestry Unit (242) 322-4546
- Royal Bahamas Police Force (Paradise Island) (242)-363-3011
- Royal Bahamas Defense Force (Base in New Providence) (242) 362-1818

### **Spill Clean Up**

Throughout the development and operation at Cabbage Beach, spill kits will be accessible. All staff members will be instructed on where to find the spill kits and how to use the various spill kit



kinds. To aid workers in quickly determining the appropriate spill kit type, signage will be put up close to the spill kits.

Figure 7-12. Examples of signs to be installed near spill kits on site



Instructions, Personal Protective Equipment (PPE), absorbents, clean-up supplies, and disposal bags will all be included in each spill kit. Below is a list with further specifics. Specific absorbents for the chemicals will be included in the chemical spill kit after it is known which chemicals will be present on the scene. The Project Manager will ensure that the spill kit is restocked after it has been used.



The kits will contain the following:

- 30-gallon overpack salvage drum
- Universal sorbent socks
- Universal sorbent pillows
- Gloves
- Safety goggles
- Disposal bags
- Oil Spill Kit – Used for grease and oil-based liquids (e.g., hydrocarbons and grease)
- Sorbent booms for oil/fuel containment and recovery in the marine environment.
- Oil-only sorbent socks
- Gloves

The following spill management plan rules for the Project must be strictly adhered to by the management of the Ocean Club Residences at Cabbage Beach:

- Make an organizational chart with the functions of each employee specified. Each person should be fully aware of their responsibilities. The appointment of an overseer or manager is crucial.
- Ocean Club Residences workers should be thoroughly trained in the spill management plan outlined in this section.
- Safeguarding practices should then be used. Before approaching gasoline or other hazardous waste materials, all staff should wear the appropriate protective equipment.
- Spills should be cleaned up as soon as they are contained.
- It is important to clean up spills utilizing mitigation measures, which include employing the appropriate materials for the type of spill (Oil, Universal, or Hazardous waste). Each and every subcontractor is in charge of giving their workers the proper spill kits and safety equipment.
- All spills must be reported right away to local authorities.
- To show the extent and type of the spill, pictures should be taken of it.
- In order to prevent accidents or the spread of garbage, the public should be informed.
- Spills ought to be cleaned up as soon as they are confined.
- Disposal will take place in accordance with Department of Environmental Health Services guidelines.
- The impacted environment should undergo restoration and/or cleanup. DEPP and DEHS shall be informed of all actions.
- To give an account for the environment after the clean-up, regular inspections within the impacted region should be undertaken and documented.

Subcontractors frequently develop additional spill avoidance strategies based on project activities as construction advances. If a leak occurs, it must be stopped right away and reported to the site



manager. The site management should be notified if the leak cannot be stopped. They will then contact the appropriate emergency personnel.

## **7.8 WASTE MANAGEMENT**

### **7.8.1 Solid Waste Management**

Yard/landscape waste and waste from building materials are the two (2) types of solid waste that emerge from construction activities, according to the DEHS solid waste management laws. The building's garbage disposal ought to be placed at a distance from the area's marine ecosystem. This designated dumping spot must be properly identified and named by the project manager for the construction site. The solid garbage would be contained in roll-off dumpsters, making it simpler to transport it to the appropriate vehicles for disposal. Two (2) or more roll-off dumpsters would be used to store the trash. These containers can be anything from 20 to 40 cubic yards in capacity. Bins shall be covered and emptied as soon as they are full as a vector control measure. Each day, staff at the Ocean Club Residences shall empty trash cans and place them at the primary trash collection facility. The location for trash collection will be established using the DEHS' specifications. Every week, waste will be removed from the main Ocean Club Residences at Cabbage Beach property disposal area and taken to the New Providence landfill. While activities are ongoing, composting is not planned. However, the Developer will take recyclables off-site.

### **7.8.2 Wastewater Management**

The sanitary sewer flow for the Project is an estimated 55,000 gallons per day. A complete soil, waste, and vent system will be provided from all plumbing fixtures, mechanical equipment, and floor drains.

#### Filtration

The filtration skid shall be located in the pump house and shall consist of an automatic self-cleaning (backwashing) screen-type filter, rated for 250 gpm. Screen filter media will be 10-micron screens and allow continuous flow during the backwash cycle. Filtered particulate shall be automatically flushed periodically to a 100-gallon holding tank with side outlet drain. The backwash sequence shall be initiated with a field-adjustable timer, differential pressure switch, and manual push button. A water softening unit will be provided to supplement the filtration system.

#### Sanitary Waste and Vent

A complete soil, waste, and vent system will be provided from all plumbing fixtures, mechanical equipment, and floor drains. The system will be arranged for gravity flow to a point of connection with the city municipal sewer. Sanitary waste piping will terminate 5 ft. 0 in. past the foundation wall for continuation to the site's sanitary system by the Civil Consultant.



Duplex sewage ejector pumps located within a 5 ft. by 5 ft. pit will be provided at the lowest level of each building to serve all fixtures that cannot discharge to the site's sanitary system by gravity. Each pump will be rated for a minimum of 50 GPM and 30 TDH.

All soil, waste, and vent pipes will be sized based on fixture unit values as defined in the Bahamas Building Code. All horizontal vent pipes will be kept as short as possible and will be graded to the soil or waste pipes.

Floor drains will be provided within all MERs. All grease waste producing fixtures will be brought to a grease interceptor prior to discharging into the municipal sanitary waste system. A 300 GPM grease interceptor will be provided to serve the kitchen and bar at the B1 Podium Level. Double containment and leak detection will be provided for the grease interceptor. Final sizing will be determined based on the actual program.

#### Stormwater

A complete storm drainage system will be provided to serve the roof, setback roofs, and terraces, as well as all mechanical clearwater waste. The system will be arranged for gravity flow to the municipal street sewer. Primary and secondary roof drains shall be provided. Overflow from secondary roof drains will be terminated at the building façade.

A dedicated irrigation water service will be provided by the Civil Consultant. A non-potable water connection will be provided at each building for irrigation connection. Each connection will be provided with a backflow preventer.

#### **7.8.3 Hazardous Waste Management**

Hazardous waste will be collected in sealed containers that are appropriately labeled both during construction and operation. A third-party contractor will deliver them to the dumpsite in accordance with DEHS guidelines.

Hazardous waste is defined by the United States Environmental Protection Agency (EPA) as waste that fits the criteria for a hazardous waste. When a property is present in waste, it means that the waste product in question offers a significant enough risk to warrant regulating as hazardous. Ignitability, corrosion, reactivity, and toxicity are the four characteristics of hazardous waste that the EPA established:

- Ignitability – Wastes that are hazardous due to the ignitability characteristic include liquids with flash points below 60 °C, non-liquids that cause fire through specific conditions, ignitable compressed gases, and oxidizers<sup>12</sup>.
- Corrosivity – Wastes that are hazardous due to the corrosivity characteristic include aqueous wastes with a pH of less than or equal to 2, a pH greater than or equal to 12.5 or based on the liquids ability to corrode steel<sup>13</sup>.

<sup>12</sup> <https://www.epa.gov/hw/background-document-hazardous-waste-characteristic-ignitability>

<sup>13</sup> <https://www.epa.gov/hw/background-document-hazardous-waste-characteristic-corrosivity>



- Reactivity – Wastes that are hazardous due to the reactivity characteristic may be unstable under normal conditions, may react with water, may give off toxic gases and may be capable of detonation or explosion under normal conditions or when heated<sup>14</sup>.
- Toxicity – Wastes that are hazardous due to the toxicity characteristic are harmful when ingested or absorbed. Toxic wastes present a concern as they may be able to leach from waste and pollute groundwater<sup>15</sup>.

A fully trained workforce with the appropriate personal protective equipment is required for the safe handling and disposal of hazardous material on site (PPE). As seen in the picture below, this comprises protective glasses, gloves, masks, mask filters, and full-body disposable suits. Any hazardous material produced on the property must be reported to DEPP and have disposal approved by the department. Hazardous waste produced during construction activities or already present from a previous development will be disposed of in accordance with DEHS regulations. A safe truck will be used to transfer the hazardous material to the nearest landfill after being appropriately sealed. To make sure that the necessary procedures for disposing of hazardous waste are followed, waste tickets will be collected.



Figure 7-13. Example of hazardous waste PPE.<sup>16</sup>

Hazardous waste remediation within these upland areas includes the following<sup>17</sup>:

<sup>14</sup> <https://www.epa.gov/hw/background-document-hazardous-waste-characteristic-reactivity>

<sup>15</sup> <https://www.epa.gov/hw-sw846/sw-846-test-method-1311-toxicity-characteristic-leaching-procedure>

<sup>16</sup> <https://nueoffshore.com/>

<sup>17</sup> <https://www.hazardouswasteexperts.com/what-you-need-to-know-about-soil-contamination-2/>



- Excavation – Removal of contaminated soil from the ground, and then either treating or properly disposing of it. Tested topsoil will be distributed to the containment area and replace the contaminated soil.
- Treatment - According to the EPA, “Treatment approaches can include flushing contaminants out of the soil using water, chemical solvents, or air; destroying the contaminants by incineration; encouraging natural organisms in the soil to break them down; or adding material to the soil to encapsulate the contaminants and prevent them from spreading.”
- Containment – to avoid possible contamination to the surrounding soil composites.
- Blending – The blending of contaminated soil with clean soil may reduce the contaminant concentration and reduce pollutant levels.

## 8 EMERGENCY, HEALTH AND SAFETY

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### 8.1 HEALTH & SAFETY TRAINING

Construction site accidents will be reported to the Project Manager. All on-site personnel are required to wear regulation construction site attire, inclusive of steel toe boots, hard hat, safety vest, protective eyewear, ear guards, and gloves where necessary. Proper training of construction site personnel is necessary to prevent potential accidents due to ignorance. No unnecessary person or vehicle will be allowed access to, or remain on, the project site once construction activities begin. Project personnel will be trained in first aid application, inclusive of cardiopulmonary resuscitation (CPR). Fully stocked first aid kits should always be easily accessible and located at designated muster stations on site for first response to an emergency. Muster stations and evacuation routes will be clearly identified to all construction personnel. Appendix E shows the Evacuation Plan. Furthermore, communication devices will be easily accessible to facilitate contact between necessary medical assistance for medical evacuation. All personnel will be informed of their role in environmental compliance for the EMP by their respective management.

Before the Ocean Club Residences at Cabbage Beach commences operation, designated staff personnel will be trained as emergency first responders, including but not limited to lifeguards and dock attendants. During operation all medical accidents at the Ocean Club Residences at Cabbage Beach should be reported to the Ocean Club Residences at Cabbage Beach emergency first responders and taken to the first aid station for immediate attention.

Due to the hazards associated with pool maintenance, personnel will be trained in chemical use and emergency chemical treatment. Lifeguard stations should be located at each body of water to ensure the safety of guests. The training for professional lifeguards should include water fitness, rescue without equipment, land-based rescue skills, first aid, resuscitation, and medical knowledge. Lifeguards will undergo monthly training such as webinars and education sessions to ensure personnel are aware of various emergency and health techniques and to deliver high standards of care. Continuing education for lifeguards should cover training in the area of water



safety, CPR, first aid, crowd control, the use of automated external defibrillators, backboards, and oxygen delivery.

## 8.2 HURRICANE AND STORM MANAGEMENT

During construction and operation, the Site Manager and Operations Manager, respectively, will implement the hurricane and storm management plan for the site. Due to its proximity to the ocean, the Project site will be particularly vulnerable to storm gusts and flooding. Therefore, it is crucial that the following instructions are followed in the event that the Bahamas Department of Meteorology issues a storm or hurricane watch or warning.

The following terms and the categories listed in *Table 8-1* should be understood by the Site Manager and Operations Manager.

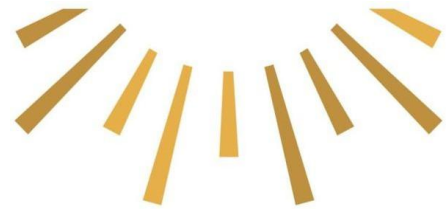
- **Advisory** - Advisory messages are issued by the U. S. Environmental Science Services Administration, Weather Bureau concerning tropical storms and hurricanes. They are issued by the Hurricane Warning Centers. An advisory gives details as to where the tropical storm or hurricane is located, its intensity, direction, and speed of movement. Precautionary measures are given for ships in or near the storm. See also “Hurricane Warning”.
- **Local Statements** - A public information release prepared by the Bahamas Met office in or near the threatened area giving details on conditions that will be felt locally, as well as, areas that should be evacuated and other precautions in the local area to protect life and property.
- **Squall** - A strong wind usually associated with a thunderstorm or shower which maintains its peak speed over a period of two (2) or more minutes and then decreases quickly.
- **Tropical Disturbance** - Any observable weather pattern which persists for at least 24 hours, exhibiting rain and/or low barometric pressure.
- **Tropical Depression** - An area of low atmospheric pressure originating over tropical waters with winds blowing counterclockwise around the center at speeds less than 39 MPH (34 knots).
- **Gale Warning** - A warning of strong winds in the range of 39-54 MPH (34-47 knots). Gale warnings may precede or accompany a hurricane watch and may be used as the warning for coastal sections adjacent to an area under hurricane warning.
- **Tropical Storm** - Further intensification of the weather pattern exhibited by a tropical depression with sustained winds between 39-73 MPH (34-64 knots). Wind speed is the major factor in defining a “storm”. An “eye” may form as the storm strengthens.
- **Hurricane** - A violent storm originating over tropical waters with winds near its center reaching 74 MPH (64 knots) or greater. In the Northern Hemisphere, hurricane wind blows in a counterclockwise direction around the center. The size of the storm may range from 50 to 1,000 miles in diameter.



- Hurricane Centre or “Hurricane Eye” - The relatively calm area near the center of the storm. In this area winds are often light, and the sky may be seen, as it is often only partly covered by clouds.
- Storm Surge - Increase in sea level water height from what would exist with no hurricane. A storm surge is associated with tropical storms or hurricanes as they approach or move across the coastal line. Advisories often contain information as to how many feet the “storm surge” will exceed the normal water level. Typically, the stronger the hurricane, the greater the storm surge.
- Hurricane Watch - An announcement issued by the U. S. Weather Bureau to the public and all other interests via press, radio and T. V. whenever a tropical storm or hurricane becomes a possible threat to coastal areas within 24 to 48 hours. The Hurricane Watch is not a Warning. It indicates that the hurricane is close enough that everyone in the area covered by the “watch” should listen for subsequent advisories and be ready to take precautionary action in case hurricane warnings are issued. A Hurricane Watch implies the possibility of dangerous conditions within 24 to 48 hours.

Table 8-1. Hurricane Intensity Definitions.

| Flag   | Condition                                    | Description                                                                                                                                                                                |                                                                |
|--------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Red    | Condition Four<br>Anticipated Imminent       | Ports will be in evacuation mode with Facility Lock Down completed                                                                                                                         | Anticipated Hurricane Force Winds Imminent                     |
| Orange | Condition Three<br>55 mph within 24 Hr.      | Ports will execute the Hurricane plan with imminent landfall expected within 24-hour period. Terminal & Facility lockdown initiated                                                        | Sustained winds of 55 mph possible within 24 hours or less     |
| Yellow | Condition Two<br>55 mph within 48 to 72 Hrs. | Possible storm anticipated. Facility housekeeping initiated, Communication plans implemented, Department and staff hurricane plan implementation, customer / partner discussions initiated | Sustained winds of 55 mph winds possible within 48 to 72 hours |
| Green  | Condition One                                | General Operations or "business as usual"                                                                                                                                                  | Normal weather conditions                                      |



### 8.2.1 Emergency Supply List

Supplies Required for Preparation (The supply list will be refined by the Site Manager and Safety Officer as needed)

- ☐ Storm Tracking Chart
- ☐ Tracking Forms
- ☐ Sandbags
- ☐ Generators
- ☐ Fuel
- ☐ Water
- ☐ Plywood (no less than 5/8" exterior rated)
- ☐ Shoring and bracing to provide support to incomplete structures
- ☐ Pumps
- ☐ Rope
- ☐ Wire
- ☐ Netting
- ☐ Plastic Sheeting
- ☐ Garbage Bags
- ☐ Concrete Anchors (to secure netted items to concrete floors)
- ☐ Ground Anchors for Office Trailers and Shipping Containers and/or 55-gallon Drums filled with Concrete
- ☐ Miscellaneous Hardware and Fasteners
- ☐ Duct Tape

Form 8-1. Emergency Preparation Form

| Task to be completed | Individual assigned | Contact Information | Required completion date | Date completed |
|----------------------|---------------------|---------------------|--------------------------|----------------|
|                      |                     |                     |                          |                |
|                      |                     |                     |                          |                |
|                      |                     |                     |                          |                |
|                      |                     |                     |                          |                |
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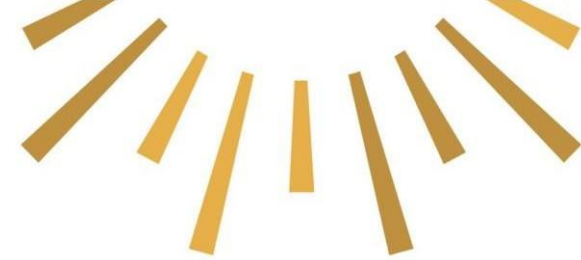
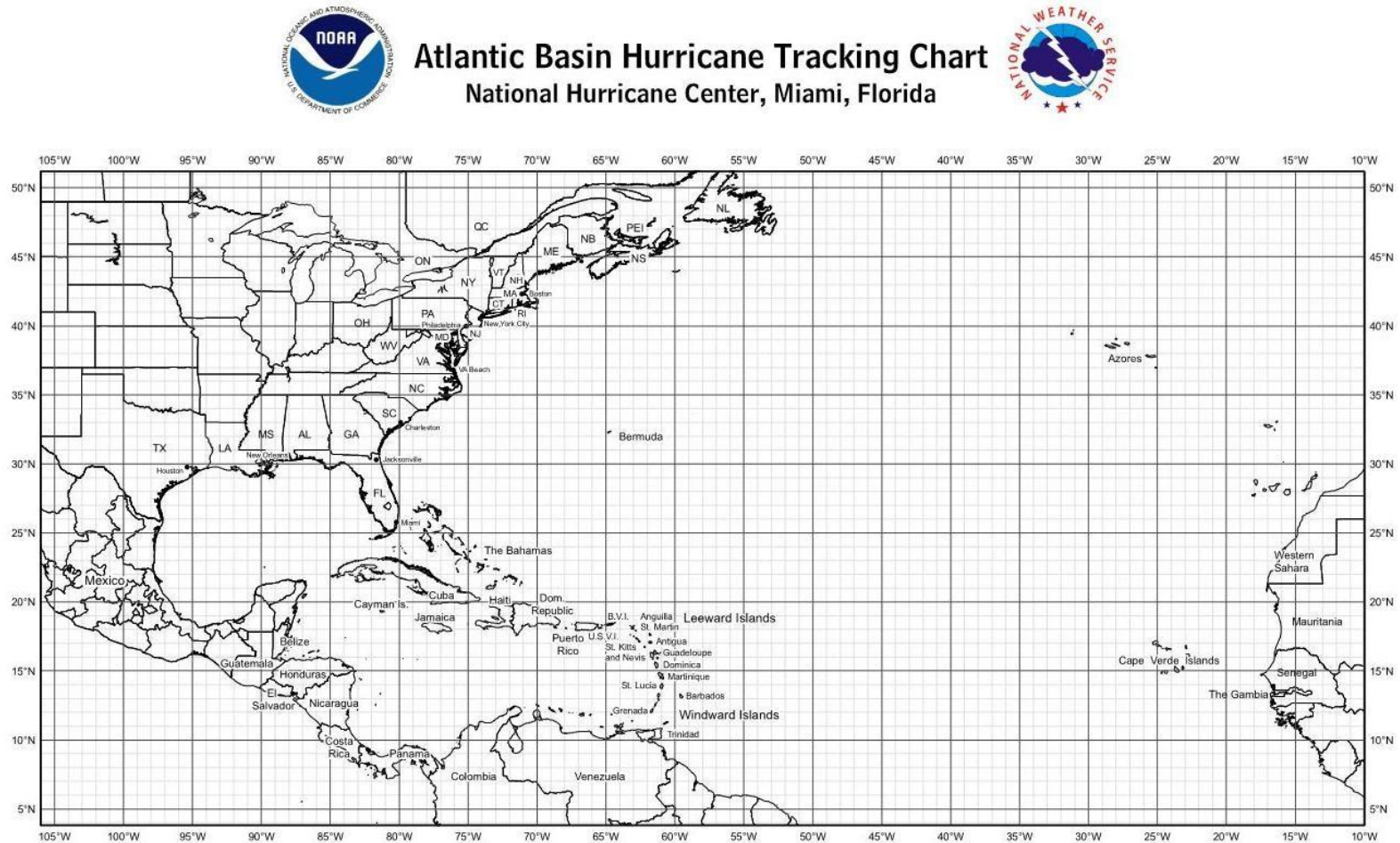


Figure 8-1. NOAA Hurricane tracking chart.





## 8.2.2 Recovery Plan

Adapted from the [US EPA Natural Disasters Recover from a Hurricane list of recommendations](#) and [HURRICANE PLAN \(portlc.com\)](#)

After the hurricane passes, the designated personnel should keep listening to the news and weather channels to listen for all clear is given. Then the following procedures should be followed.

- The staff present will assemble at the designated muster station to assess damage and initiate action to restore operations. All actions that are determined necessary to recover from the storm will be classified by priority.
- Priority 1 – Actions taken immediately after the storm and normally completed in 1 to 2 days.
- Priority 2 – Actions normally completed in 5 to 10 days.
- Priority 3 – Actions completed when conditions permit.

### Priority 1

- Assign a damage assessment team for generating reports of damage and recommendation of priorities.
- Conduct damage assessments
  - Check gas, water, and electrical lines and appliances for damage.
  - Do not drink or prepare food with tap water until you are certain it is not contaminated.
  - Avoid using candles and other open flames indoors.
  - Use a flashlight to inspect for damage.
  - Use the telephone to report life-threatening emergencies only.
  - Document damage via photography and video.
  - Establish cost records of all emergency expenses.
  - Report suspected spills, contamination or possible violations - To report oil, chemical, or hazardous substance releases or spills, call the Department of Environmental Planning and Protection or the Department of Environmental Health Services.
  - Report a suspected environmental violation on BEST Protect App.
  - Flooding - **Limit contact with flood water** as flood water may have high levels of raw sewage or other hazardous substances. Early symptoms from exposure to contaminated flood water may include upset stomach, intestinal problems, headache and other flu-like discomfort. Anyone experiencing these and any other problems should immediately seek medical attention.
  - Do not use the sewage system until water in the soil absorption field is lower than the water level around the house.
  - Reestablish contact with appropriate governmental authorities to seek assistance for reactivating operations.



- Ensure restoration of email and internet service ASAP.
  - Reestablish contact with NEMA, DEPP, DEHS, RBDF, RBPF as needed.
- Secure the site - Restrict access to hazardous areas as may be appropriate.
  - Amplify security measures as necessary to prevent vandalism and theft.
  - Confirm availability of fuel to support survey and patrol efforts
- Commence clean-up and repairs.
  - Use generators in well-ventilated locations - Carbon monoxide (CO) is deadly, can build up quickly, and linger for hours.
  - Drinking water - To kill all major water-borne bacterial pathogens, **bring water to a rolling boil for 1 full minute.** Boil 3 minutes at elevations above 5280 ft (1 mile or 1.6 km).
  - If spills or discharges in the aftermath are encountered contact DEHS Center immediately.
  - Managing debris - Disasters can generate tons of debris, including building rubble, soil and sediments, green waste (e.g., trees and shrubs), personal property, ash, and charred wood.

#### Priority 2

- Notify employees of the time to return to work .
- Establish alternate staffing operations as necessary.
- Initiate repairs to water and electrical system.
- Engage contractors to assist with repairs.
- Ensure berth and warehouse operations subject to the availability of water for fire protection and power.
- Ensure phased resumption of navigation to the island ASAP.

#### Priority 3

- Staff the Administrative office.
- Express appreciation for extraordinary or especially effective services rendered during and after the storm.
- Within 10 days of the lifting of the mandatory evacuation, restore the administrative office to operation.

#### Supplies Required for Recovery

(The supply list will be refined by the Site Manager and Safety Officer as needed.)

- ☐ Cameras
- ☐ Pumps
- ☐ chainsaws, axes, blades, fasteners, hammers, tape, wrenches, propane tanks, grill for cooking and boiling, whistle, wheelbarrow, shovels, ladders, handsaws, flashlights, etc.
- ☐ Adequate fire extinguishers



- ☐ Garbage Bags
- ☐ Satellite phones (cell phone service may not be available)
- ☐ Plastic sheeting / Tarps and temporary roof repair materials / Roofing paper Garbage Bags Power Cords Temporary housing (supplied as needed) First Aid Medical Equipment
- ☐ Dumpsters
- ☐ Batteries
- ☐ Fuel
- ☐ Bleach / Disinfectant
- ☐ Protective clothing and equipment
- ☐ Binoculars Lumber, screws, nails, powder actuated fastener
- ☐ Cash should be on hand for food, supplies, equipment
- ☐ Mops, brooms, squeegees and absorbents
- ☐ Temporary Housing (tents or mobile homes),
- ☐ Sleeping bags

#### Pre-storm checklist

- ☐ Make a list of names, addresses and phone numbers for vendors and contractors who can provide recovery services or supplies.
- ☐ Keep evacuation routes open for all vehicles.
- ☐ Back up all important critical computer data. Store data backup offsite.
- ☐ Unplug and move computers to as high an elevation as possible, in the middle of a room and away from windows
- ☐ Fully charge all devices and batteries.
- ☐ Remove loose jobsite materials and debris that could become projectiles, and clean the jobsite daily
- ☐ Have garbage in dumpsters and other containers consolidated and properly disposed and remove dumpsters from the site.
- ☐ To minimize damage, finish work on partially completed structures. For example, secure decking; install hurricane straps and required tie straps; complete permanent connections to the extent possible; repair roof deficiencies (such as flashing, drains, gutters, scuppers, penetrations), etc.
- ☐ Move materials that cannot be relocated or secured otherwise to shipping containers/storage boxes. Cover all materials that cannot be relocated and elevate them to at least 4 inches above the floor to reduce water damage exposure.
- ☐ Ensure that construction trailers and shipping containers/storage boxes are properly anchored and tied down. If anchors are not available, use concrete filled drums with embedded reinforcing steel loops and tether at least three locations for each trailer or storage container.
- ☐ Stop all material deliveries
- ☐ Consider having cash available for recovery operations. If telephone and power are out, cash may be the only accepted form of payment. Cash may be required for food, materials, fuel, paying contractors or even paying employees.
- ☐ All construction equipment mats should be tied together and anchored.
- ☐ Protect incomplete underground utilities, processes and drainage piping from flotation



- and the infiltration of sand and silt.
- ☐ Backfill excavations if feasible.
- ☐ Make a video/photographic record of the jobsite and surrounding properties to document the project condition and status prior to the storm.
- ☐ Fuel all vehicles and emergency equipment (such as generators)
- ☐ Once the site is secure, instruct subcontractors and employees to vacate the jobsite and not to return until the danger has passed.
- ☐ Establish a meeting place, if possible, for key recovery members.

#### Post Hurricane checklist

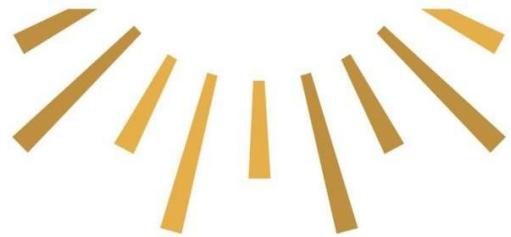
- ☐ Ensure that a safety manager is present prior to beginning a hurricane recovery operation
- ☐ Maintain proper first aid equipment and clean water to aid in disinfection.
- ☐ Recovery personnel must be equipped with appropriate personal protective equipment (PPE). This should include, but not be limited to, hardhats, steel-toed boots, eye protection, gloves, respirators, chemical protective suits, etc.
- ☐ Use caution regarding protruding materials that could injure employees
- ☐ Be aware of displaced wildlife that can be a hazard to personnel following a storm event and carry disease. If wildlife is displaced, the site manager will inform the Environmental Manager who will contact DEPP immediately.
- ☐ Document damage before cleanup or repair in writing, using photos or videos to supplement the report. Each subcontractor will prepare a damage assessment report in writing within 24-28 hours of returning to site and providing these reports to the site manager.
- ☐ The site manager will establish repair priorities after reviewing the various subcontractor reports. Identify critical hazards that must be abated prior to allowing the entire construction staff to resume construction.
- ☐ Barricade and clearly identify unsafe areas to prevent entry. If a barricade is not feasible, a guard will be assigned to the area to prevent unauthorized entry until the hazard is eliminated.
- ☐ Investigate the site for dangerous conditions, such as collapse, live wires, leaking gas, piping damage or situations that could start a fire.

### 8.3 SAFETY HAZARDS

Managers are responsible for:

- Ensuring employees under their supervision receive the required training.
- Providing training for the jobsite to ensure that all employees understand the protocols, timeline, and responsibilities.
- Ensuring that all equipment is inspected and tested at least monthly, or sooner if required, by a responsible individual.
- Ensure that all subcontractors have safety plans and have identified a responsible individual for the management and implementation of their plans.

Staff are responsible for:



- Listening to the daily instructions and asking questions if they do not understand.
- Inspecting any equipment assigned to them to make sure it is working properly and is not damaged.
- Watching for and reporting any unsafe conditions.
- Not doing any job asked by someone other than their supervisor(s)

## 8.4 FIRE/EXPLOSION RISK

During construction, a fire break may be incorporated by the landscape architect, and dried green waste will not be permitted to accumulate on site. A sprinkler system or waterline should be installed along the boundary to wet the boundary in the event of a fire outbreak.

Project personnel will be trained in fire/explosion prevention and response.

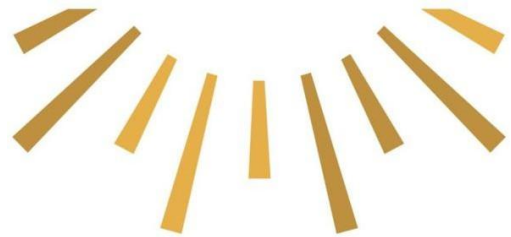
- No smoking will be allowed on the construction site.
- Fire extinguishers will be accessible at all times at designated muster stations on site.
- No burning, welding, or other source of ignition shall be applied to any enclosed tank or vessel, even if there are some openings, until it has first been determined that no possibility of explosion exists and authority for the work is obtained from the foreman or supervisor.
- Employees should be aware of the locations of fire extinguishers that have been provided throughout the project and know- how to use them. A five-pound ABC rated fire extinguisher must be readily available while welding, burning, cutting, or using flammable gases or liquids.
- Smoking is not permitted around gasoline or other flammable liquids or gases.
- Equipment must be turned off before refueling.
- Gasoline must be stored and transported only in approved safety containers and gasoline must not be used for cleaning purposes. Compressed gas cylinders must be kept secured, upright, capped and separated when not in use. Empty gas cylinders should be marked and returned to the storage area for pickup.

During operations, an addressable fire alarm system will be provided in compliance with all the provisions of the Bahamas Building Code 2003 and all other relevant codes, including the applicable version of NFPA 72.

All fire alarm devices within each building, with the exception of local devices within the residential space which will be equipped with local sounder bases, are intended to be connected to the centralized fire alarm system head end system for each building.

Alarms for all buildings will report to a centralized monitoring location, which will be defined by ownership and assumed to be in Building 2. It is assumed the centralized reporting location will also be the point of response for the Bahamas Fire Department.

The fire alarm system performance and requirements will be defined by JB&B documents, but the installation will be performed as delegated design by the Fire Alarm Vendor.



All buildings will be protected throughout with an approved combination fire standpipe and sprinkler system in accordance with the Bahamas Building Code 2003, International Building Code 2018, and NFPA requirements.

### **Fire Protection Systems**

As stated within the Plumbing section, one (1) 6-inch domestic water service will be brought into the site from one (1) street main by the Civil Engineer. This service will be used to provide water to the combined domestic water/fire reserve tank.

The tank will be a 100,000-gallon, single compartment, buried, concrete tank with 45,000 gallons dedicated to fire reserve.

The combination standpipe and sprinkler system for all buildings on the site will consist of a single zone served from an automatic fire pump and jockey pump located within a pump house. The fire pump will be supplied from the combination domestic water/fire reserve tank.

The automatic fire pump will be provided with automatic transfer switches and connected to emergency power. Fire department connections will be provided throughout the site to serve the single fire zone as required by the local fire department.

### **Automatic Sprinkler and Standpipe Systems**

The combination fire standpipe system will consist of 6-inch sprinkler/standpipe risers complete with a 2-1/2-inch fire hose valve located within each stair. A sprinkler control valve assembly with a sprinkler drain riser will be provided within one egress stair per floor.

Auxiliary hose valve cabinets will be provided, where required, when the travel distance from the hose valve within the egress stairwells exceed 95 ft. (75 ft. hose length plus 20 ft. spray distance) to the furthest point of the floor.

All areas of the project, unless otherwise noted herein will be protected by an automatic wet sprinkler system. The wet sprinkler systems will be hydraulically sized in accordance with NFPA 13, the Authority Having Jurisdiction and Owner's Insurance Underwriter to the following parameters:

- Residential Units, Lobbies:
  - Light Hazard, 0.10 gpm/sq.ft. over the most remote 1,500 sq.ft. area
  - Maximum standard spray sprinkler coverage in these areas will be 225 sq.ft. per sprinkler head. For estimating purposes utilize 120 sq.ft. per sprinkler.
- Mechanical Rooms, Storage:
  - Ordinary Hazard Group 1, 0.15 gpm/sq.ft. over the most remote 1,500 sq.ft. area
  - Maximum standard spray sprinkler coverage in these areas will be 130 sq.ft. per sprinkler head. For estimating purposes utilize 90 sq.ft. per sprinkler.

Quick-response sprinkler heads will be provided to supply the discharge of water to the protected spaces. The sprinkler heads will be heat-activated glass bulb type.



- Safe and unobstructed access to firefighting equipment must always be maintained.
- Fire extinguishers must be kept fully charged, inspected monthly, and serviced annually.
- Records of annual maintenance will be retained for one year after the last entry or the life of the shell, whichever is less.
- Only approved containers and portable tanks will be used for flammable and combustible liquids.
- No more than 25 gallons of flammable liquids may be transferred in safety cans outside of the designated fuel facilities.
- Flammable liquids must be kept in closed containers when not actively in use.
- Flammable liquids may be used only in areas where there are no flames or other sources of ignition.

## 8.5 ACCIDENTS AND EMERGENCIES

- Staff would be trained in emergency first responder techniques in the unforeseen event of an emergency.
  - The contractor should designate approximately two (2) staff members to participate in advance first aid training which cover medevac procedures. Both staff members will not be allowed to work together on the same shift and will be scheduled on site at different times.
- An evacuation during the operation or construction phase of the Project should occur in the event of the following.
  - An uncontrollable fire
  - An extreme hostile situation
- The Project Manager will be first in command during the construction and development phase to authorize any evacuation of staff and guests from the site and island in the event of an emergency.
- In the absence of the Site Manager on the ground, authority will be bestowed upon the Environmental Manager or personnel appointed by the Site Manager to oversee Environmental, Health and Safety procedures. The Chain of Command will follow the Organization Chart illustrated in [Section 5.1](#). The Site Manager and designated personnel will be familiar with the Health and Safety Plan (HSP) provided in Appendix F or the Project's contractor(s) HSP.
- A centralized location should be established in the event of an emergency to prepare for evacuation. The Project Manager should ensure all staff and guests are located at the centralized location and systematically transported off site to the nearest and safest mainland.
- All emergency pathways will be clear of debris for safe and easy passage in the event of an active emergency on the property.



- In the event of a building evacuation, for example, in the event of a fire, staff and guest must be informed of a fire safety protocol, vacate the building, and gather at a safe, centralized location.
- An incident report form should be recorded in detail (example in Appendix G), including the type of incident, cause(s), personnel involved, and post-damages incurred. Photos should be included for illustrative purposes. This report should be made by the Project Manager or Environmental, Health and Safety Monitor and submitted to DEPP for review.
- Emergency personnel will be contacted immediately for further assistance in the event of a medical emergency, fire, or the occurrence of any other hazardous event on site.
- In the event urgent maintenance is required due to a major accident, the Western Sub Police Station, Operations Manager, and Site Manager will be contacted as well as the DEHS and DEPP at the telephone numbers provided below. The appointed person managing emergency evacuations on the ground should always be able to communicate with emergency officials at the appropriate emergency centers listed below.

## 8.6 MALFUNCTIONS

Malfunctioning equipment which requires repairs should be removed from areas of operation, where feasible. Spill absorbent pads should be utilized during any equipment repairs to reduce potential of hazardous fluids entering the environment.

Major repairs should be conducted at a designated location with appropriate non-permeable spill barriers installed to reduce the potential of hazardous fluids entering the environment.

All significant repairs and other maintenance procedures, including but not restricted to oil changes, should be carried out off-site. Universal and oil spill kits would be made available in the unlikely case of an accident spill, allowing for prompt response as specified in this Environmental Management Plan in [Section 7.7](#).

The Ocean Club Residences at Cabbage Beach will respond quickly to any pool fault. Until the damaged system has been fixed and the water quality has been tested to confirm that it is in compliance with the public pool standards stipulated by The Bahamas Building Code, the pool and the surrounding area should be evacuated. Oil changes should be conducted off-site, along with any other significant repairs and maintenance procedures. Oil spill kits and universal kits would be made available in the unforeseeable event of an accident.

## 9 STAKEHOLDER ENGAGEMENT

### 9.1 PUBLIC CONSULTATION

DEPP coordinated the public consultation process and approved the Environmental Impact Assessment for Public Consultation. The "Environmental Impact Assessment Regulations, 2020" served as the framework for the public consultation process and states,

"The mode and procedure of a consultative process shall be determined by the Department (DEPP)".



A hybrid public consultation meeting was conducted on October 10<sup>th</sup>, 2024 at Queen's College on Village Road and online via Zoom platform. The meeting transcript, minutes and list of participants is included as Appendix H. No questions or comments were submitted to BRON, DEPP, or the Developer after the public consultation process closed on November 12, 2024.

During the meeting questions related to general public beach access, job opportunities, and vendor access to Cabbage Beach. Participants were informed that a separate consultation would be taking place to discuss the job opportunities. The Project Manager provided responses during the meeting to questions raised. The responses is shown in the meeting transcript in Appendix H.

Beach Access – The Project Manager assured the meeting participants that the beach access will be maintained during the operation of the project. Section 3.3 provides figures showing the proposed design of the beach access. The Developer remains committed to maintaining this beach access for the general public.

## 9.2 GRIEVANCE RESPONSE MECHANISM

Stakeholders can write the Project Manager at Lucienne Walpole [info@ocrproject.info](mailto:info@ocrproject.info) with any complaints they may have. Grievances shall be resolved within two (2) weeks. In the monthly environmental reports, DEPP will be informed of all complaints made and their resolutions. A sign informing the public of the GRM will be placed close to the site. The form that will be used to record public grievances is shown in the example below.

*Form 9-1. Example Grievance Response Form*

|                                                                                              |
|----------------------------------------------------------------------------------------------|
| Date submitted: _____ Full Name: _____                                                       |
| Contact Information: _____                                                                   |
| Would you like to be contacted to discuss the resolution to your grievance? _Yes _No         |
| Description of Grievance _____                                                               |
| _____                                                                                        |
| _____                                                                                        |
| Please email completed for to <a href="mailto:info@ocrproject.info">info@ocrproject.info</a> |



## 10 MONITORING AND REPORTING

### 10.1 PLANNED ENVIRONMENTAL MONITORING

Monthly Environmental Monitoring Checklists (EMC) will be submitted to DEPP. The following compliance code will be applied to the site as shown at the end of the EMC and at the end of each reporting period. The EMC is shown in Appendix I.

Table 10-1. Environmental Monitoring Compliance System

| Site Code                    | Compliance Code Description                                                                                                                                                                                                                                                                 | Action                                                                                                                                                                            |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fully Compliant (Green)      | The site is fully compliant with the EMP and reporting requirements.                                                                                                                                                                                                                        | No Action Required.                                                                                                                                                               |
| Partially Compliant (Orange) | The site is partially compliant with the EMP and reporting requirements. The Project Manager and Employees will be made aware of the areas of noncompliance. The Project Manager will have the opportunity to address the area of noncompliance before the directive is given to stop work. | The required corrective action will be provided to the Project Manager to address. DEPP is informed of the area of noncompliance and the appropriate corrective action described. |
| Non-Complaint (Red)          | The site is not compliant with the EMP and reporting requirements.                                                                                                                                                                                                                          | Environmental Manger notifies the Project Manager to cease work until the appropriate action is taken to change the site code to green. DEPP is informed of the site status.      |

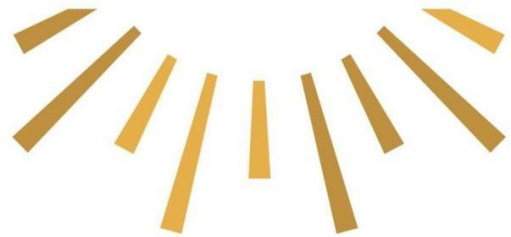
### 10.2 RESPONSIBILITIES AND ACCOUNTABILITY

To ensure the mitigation measures described in the EMP are followed, an Environmental Monitor will be present on-site during construction as required by DEPP regulations. These procedures must be carried out by a local environmental manager after construction.

An Environmental Monitor will document relevant activities in the project area by taking notes and photographs of possible environmental issues and mitigation on the construction site. The Environmental Monitor will conduct site visits to record accurate on-site data during the construction process. These activities include:

- Air Quality management
- Waste management
- Other note-worthy activities

The Environmental Monitor will complete the Environmental Monitor Checklist (EMC) monthly as shown in Appendix I. An electronic file sharing system with DEPP will be established prior to



commencing project activities on the ground. All EMC forms will be shared using the established system.

## 11 CONCLUSION

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In conclusion, the Environmental Management Plan (EMP) for The Ocean Club Residences at Cabbage Beach Development lays out a strategy to protect the natural integrity and scenic beauty of Paradise Island, while stimulating local and national economic growth in The Bahamas. Recognizing that construction activities may present challenges to the area's delicate geology, this EMP prescribes robust environmental controls and sustainable building practices to minimize, manage, and in many cases mitigate potential negative impacts. These include erosion control, invasive species removal, and dune management practices that will not only preserve local biodiversity, but also enhance the resilience of the coastal environment.

Additionally, the EMP emphasizes community integration through continuous beach access, temporary vendor support, and safe access pathways for beachgoers, ensuring that local vendors and visitors can continue to enjoy the area throughout the construction phase. The Developer's commitment to health and safety protocols, waste management, and ecosystem protection will further reduce potential risks associated with construction activities.

By aligning with environmental regulations and community expectations, the EMP demonstrates a responsible, forward-thinking approach to development. In doing so, it ensures that The Ocean Club Residences at Cabbage Beach will bring enduring social and economic benefits to Paradise Island, safeguarding its unique appeal and vibrant community for generations to come.

## 12 APPENDICES

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12.1 APPENDIX A – MASTER PLAN





OCEAN CLUB  
RESIDENCES

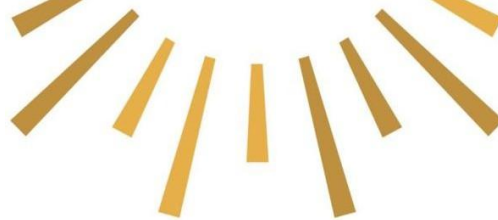
SITE SECTION

TWO ROADS  
DEVELOPMENT

ACCESS  
REAL ESTATE

IOB  
ARCHITECTURE





## 12.2 APPENDIX B – ENVIRONMENTAL MANAGER CV



### Curriculum Vitae

**Mark Daniels, B.Sc., M.Sc., CMR**  
**Associate Principal - Environmental**

Mark provides comprehensive environmental management duties for CCS, serving as project leader for the environmental compliance process in the production of environmental baseline studies (EBS), environmental impact assessments (EIA) and environmental management plans (EMP) for regulating and permitting agencies.

### Representative Experience

#### Environmental Management

##### Kings College School

Terrestrial Resource Survey, and preparation of the Environmental Protection Plan (EPP) for geotechnical investigation.

##### Lighthouse Point Environmental Protection Plan

Terrestrial Resource Survey, preparation of the Environmental Protection Plan (EPP) for geotechnical investigation, and Protected Tree Survey for Protected Tree Removal Permit.

##### Marsh Harbour Ferry Dock

Terrestrial Resource Survey, technical writing for the EBS, and preparation of the EMP.

##### Integrating Land Water & Ecosystem Management (IWEco)

Terrestrial data collection for inventory and training of government officers for Biodiversity Consultant role.

##### Albany West

Terrestrial Resource Survey, technical writing for the EBS, and preparation of the EMP.

##### Central Bank New Premises EIA

Terrestrial Resource Survey, technical writing for the EIA, and liaison with government agencies.

##### Carnival Cruise Line

Terrestrial Resource Survey for the EIA, and Vegetation Management Plan for the EMP.

##### Tyrsoz Development

Terrestrial Resource Survey, technical writing for the EIA, liaison with government agencies, and preparation of the EMP.

### Profile

#### Education

M. Science, Botany  
Miami University  
Oxford, Ohio

B. Science, Biochemistry  
University of The West Indies  
Kingston, Jamaica

AS. Biology w/ Chemistry  
College of The Bahamas  
Nassau, Bahamas

#### Professional Experience

Caribbean Coastal Services Ltd.  
Nassau, Bahamas  
Associate Principal - Environmental

Caribbean Coastal Services Ltd.  
Nassau, Bahamas  
Senior Environmental Scientist

The Bahamas National Trust  
Nassau, Bahamas  
Retreat Curator & New Providence  
Parks Manager

Miami University  
Oxford, Ohio  
Research Assistant

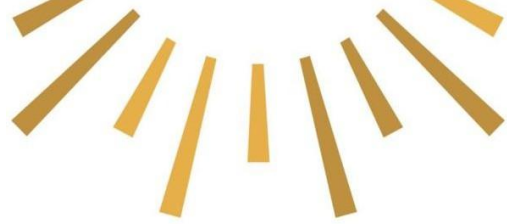
Leon Levy Native Plant Preserve  
Eleuthera, Bahamas  
Preserve Manager

The Bahamas National Trust  
Nassau, Bahamas  
New Providence Park Warden

Lucayan Tropical Farms  
Nassau, Bahamas  
Micropropagation Lab Technician

Phone: (242) 327-8708 // Fax: (242) 327-4981 // [www.bebtron.com](http://www.bebtron.com)

1



**Mark Daniels, B.Sc., M.Sc., CMR**  
**Associate Principal - Environmental**

**Crystal Palace Resort & Casino Demolition**

Environmental consultant for the demolition, implosion and cleanup of the former resort. Project lead for production of Environmental Management Plan and Explosives Safety Plan.

**Enhancing Coastal Protection for Climate Change Resilience:**

Conducted field activities for a series of technical baseline studies for Green Climate Fund (GCF) Enhanced Direct Access (EDA) through the Caribbean Community Climate Change Centre (CCCCC) in six pilot countries.

**Baha Mar Main Pier**

Environmental lead for benthic assessments/data collection and production of EBS and EMP for modifications to the Main Pier.

**Long Cay Redevelopment**

Project lead for production of EIA and EMP. Government liaison for permitting process.

**Bahamas Lodge Development**

Terrestrial Resource Survey, technical writing for the EIA, liaison with government agencies, and preparation of the EMP for a proposed eco-friendly resort development.

**Walker's Cay**

Terrestrial surveys, data collection and habitat mapping. Project lead for production of EBS.

**Davis Harbor**

Habitat mapping and production of EBS for modifications to marina.

**Bird & Cat Cay**

Environmental lead for terrestrial and marine surveys, habitat mapping, and production of EBS, EIA and EMPs.

**Adelaide Creek**

Terrestrial survey and risk assessment for proposed development within Adelaide Creek system

**Lighthouse Point**

Terrestrial surveying, data collection and production of vegetation maps.

**Little San Salvador**

Terrestrial surveying, data collection, production of vegetation maps and environmental baseline study (EBS).

**Professional  
Experience cont.**

Trauma and Emergency Medical Services Ltd.

Nassau, Bahamas

Physician's Assistant/EMT-B

**Professional  
Memberships**

Bahamas National Trust  
(Ambassador, Member)

Society for Conservation and Study  
of Caribbean Birds (SCSCB)

**Certifications**

Certified Mold Remediator (CMR)

PADI certified Open Water Diver  
DAN World #w44583

Emergency Medical Technician – B

**Continuing  
Education**

Highly Effective Teams (HET)  
The Nature Conservancy,

Centre for Agriculture and  
Bioscience International (CABI) –  
Invasive Species CBA,

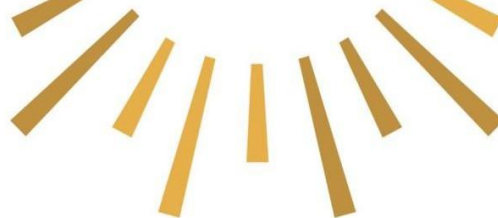
Tropical Botany Taxonomy  
Florida International University,

Emergency Medical Technician B  
Florida Medical Training Institute,

**Publications**

Geographical ecology of dry forest  
tree communities in the West Indies  
Journal of Biogeography

A Floristic Study of a former land  
bridge in The Bahama Archipelago  
Diss. Miami University



**Mark Daniels, B.Sc., M.Sc., CMR**  
**Associate Principal - Environmental**

**Orange Creek**

Terrestrial surveying, data collection and production of vegetation maps.

**Alligator Point**

Terrestrial surveying, data collection and production of vegetation maps.

**Integrated Coastal Zone Management (ICZM) Project - Andros**

Terrestrial specialist for coastal surveys conducted at 7 proposed sites on Andros Island.

**Protected Area Management**

**Mann Island**

Project lead for terrestrial surveys, vegetation mapping, invasive species removal and petroleum waste cleanup.

**Harrold and Wilson Ponds**

Coordinator for invasive cattail (*Typha domingensis*) removal and management.

**Bonefish Pond**

Coordinator and project lead for mangrove cleanup, restoration and monitoring activities.

**Retreat Gardens**

Day to day management of Garden operations and curation of palm collection. Project coordinator for infrastructure development, utility repairs, building renovations, fundraisers, workshops, community meetings and Garden additions.

**Levy Preserve**

Day to day management of Garden operations and curation of native plant collection. Project coordinator for infrastructure development, development of education and interpretive material, weather station installation and data collection, fundraisers, workshops, community outreach.

**RAND Nature Center**

Installation of arboretum and native plant display.

**Moriah Harbour Cay**

Invasive species (*C. equisetifolia*) removal and management

**Publications  
continued**

Plant Conservation Challenges in The  
Bahama Archipelago  
The Botanical Review

**Presentations &  
Appearances**

International Garden Club

Bahamas Natural History Conference

Leon Levy Native Plant Preserve  
Lecture Series

New York Botanic Garden Lecture  
Series

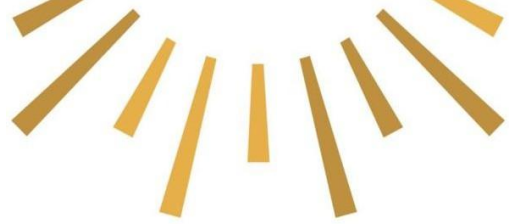
Fairchild Tropical Botanic Garden  
Lecture Series

Caribbean Agriculture and  
Bioscience Institute- Invasive Species  
Conference

**Organizations**

Community Crop, Co-Founder,

Rotaract Eleuthera, President



**Mark Daniels, B.Sc., M.Sc., CMR**  
**Associate Principal - Environmental**

**Restoration and Conservation Activities**

**Global Strategy of Plant Conservation**

Project lead for ex-situ conservation of endemic, endangered and economically important flora of The Bahamas.

**Eleuthera Heritage Trail**

Consultant and team member for surveying and highlighting heritage sites for the island of Eleuthera.

**Kew Seed Bank Initiative**

Botany consultant for Seed Bank establishment in The Bahamas.

**National Art Gallery Sculpture Garden**

Project Lead for restoration of native forest in sculpture garden.

**Windermere Island**

Dune restoration activities at a private residence damaged by storm surges. Restoration included removal of invasive species, rebuilding of dune and installation of native flora.

**Bank's Road**

Dune restoration activities at a private residence damaged by storm surges. Rebuilding of dune and installation of native flora included.

**Micropropagation of Sea Oats**

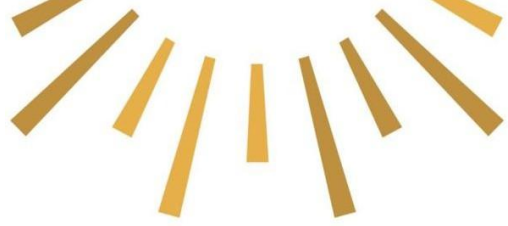
Lead lab technician for the production of Sea Oats (*Uniola paniculata*) using tissue culture/micropropagation techniques. Plants used in dune restoration activities.

**Native Plant Propagation**

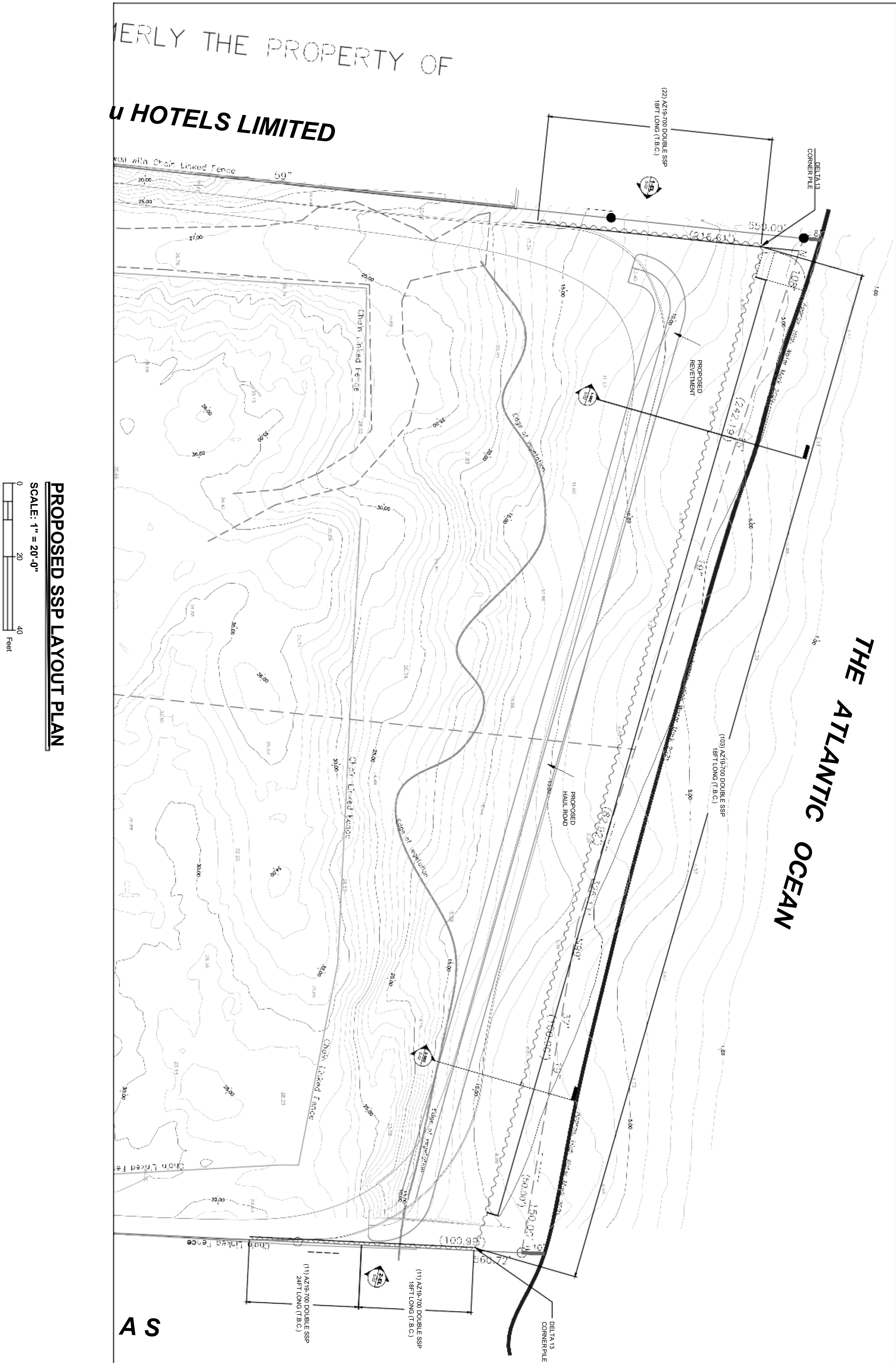
Propagation of native species to develop stocks for coastal and inland projects and restoration activities.

**Invasive Species Management**

Coordination of management activities for invasive Cattail, Casuarina, Scaevola, Paperbark, Brazilian Pepper and Lionfish.

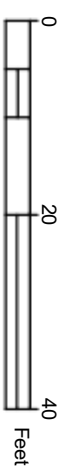


## 12.3 APPENDIX C – SHEET PILE LAYOUT



## **PROPOSED SSP LAYOUT PLAN**

**SCALE: 1" = 20'-0"**



**ISSUED FOR REVIEW - NOT FOR CONSTRUCTION**

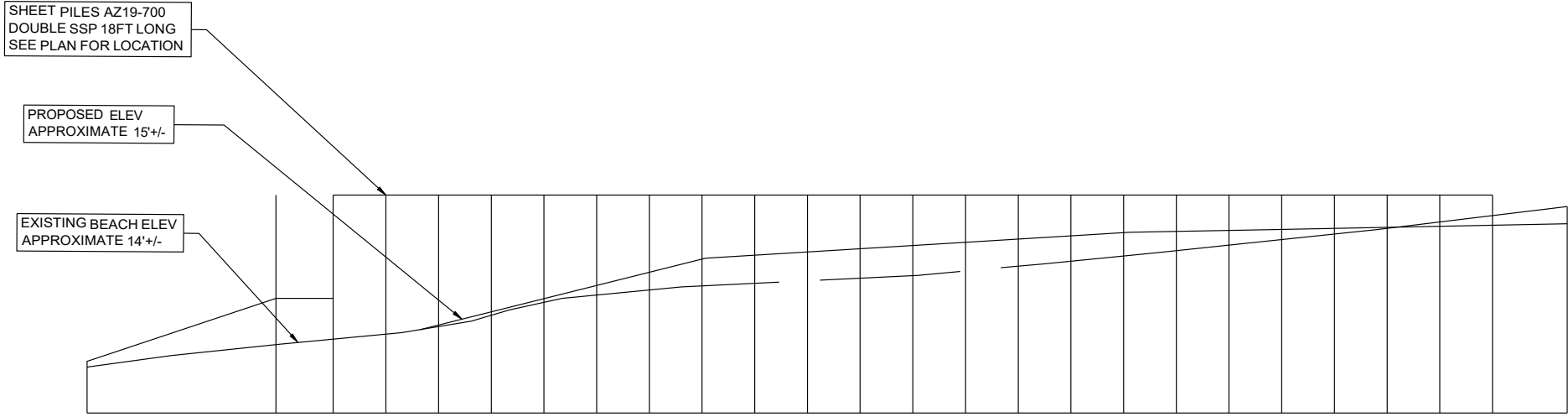
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**PROJECT NAME: OCEAN CLUB RESIDENCES**  
**LOCATION: PARADISE ISLAND, THE BAHAMAS**

**DRAWING DESCRIPTION: PROPOSED SHEET PILE LAYOUT PLAN**

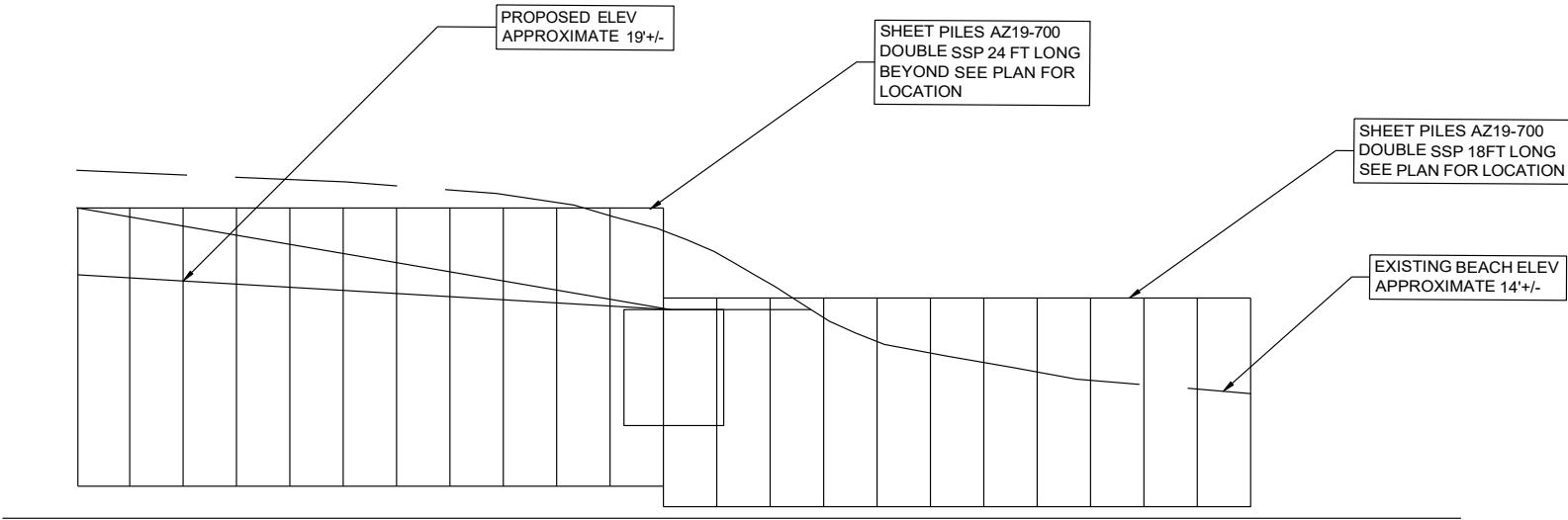
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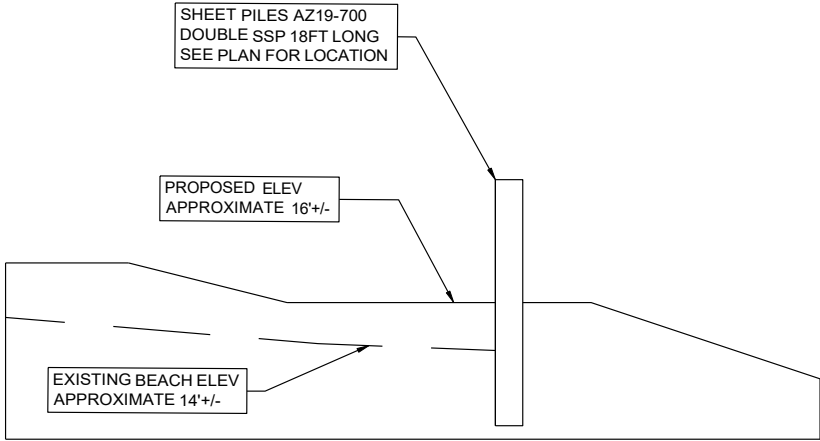
WEST ELEVATION  
SCALE: N.T.S

1-EL  
S-01



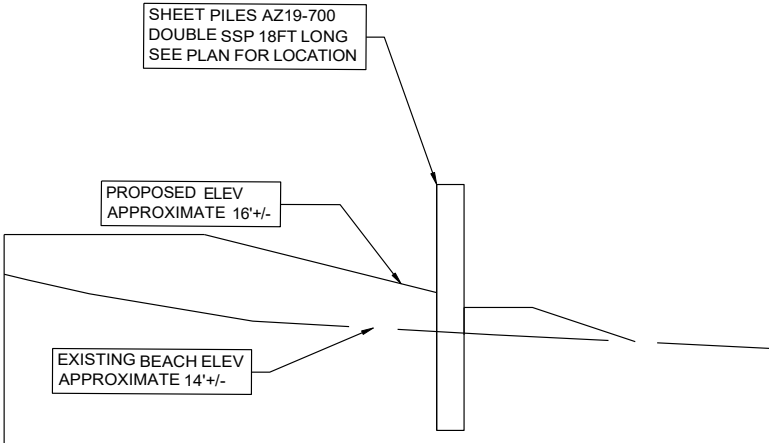
EAST ELEVATION  
SCALE: N.T.S

2-EL  
S-01



TYPICAL SECTION  
SCALE: N.T.S

1-SEC  
S-01



TYPICAL SECTION  
SCALE: N.T.S

2-SEC  
S-01

PROJECT NAME: OCEAN CLUB RESIDENCES  
LOCATION: PARADISE ISLAND, THE BAHAMAS

DRAWING DESCRIPTION: PROPOSED SHEET PILE SECTIONS & ELEVATIONS

| REV. | NO. | DATE       | DESCRIPTION         |
|------|-----|------------|---------------------|
| △    | 1   | 12/03/2024 | SCHEMATIC DESIGN    |
| △    | 2   | 10/06/2024 | SCHEMATIC DESIGN    |
| △    | 3   | 11/15/2024 | PERMIT PROGRESS SET |
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| Drawn                 | S-02 |
| Checked<br>KAS        |      |
| Appr.<br>KAS          |      |
| Date<br>MAR 2024      |      |
| Proj. No.<br>2021.121 |      |



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## 12.4 APPENDIX D – EROSION CONTROL PLAN

PROPOSED OCEAN CLUB RESIDENCES  
EROSION AND SEDIMENT CONTROL PLANS

CASINO DRIVE

PARADISE ISLAND, THE BAHAMAS



SITE PLAN  
SCALE : NTS



LOCATION AERIAL MAP  
SCALE : NTS

| INDEX    |                                                                 |
|----------|-----------------------------------------------------------------|
| SHEET #  | DRAWING TITLE                                                   |
| C000-OCR | COVER & INDEX PLAN - EROSION AND SEDIMENT CONTROL               |
| C100-OCR | EROSION AND SEDIMENT CONTROL SITE PLAN WITH PROPOSED BUILDINGS  |
| C101-OCR | EROSION AND SEDIMENT CONTROL SITE PLAN WITH EXISTING CONDITIONS |
| C501-OCR | EROSION AND SEDIMENT CONTROL TYPICAL SECTIONS                   |
| C502-OCR | EROSION AND SEDIMENT CONTROL TYPICAL SECTIONS                   |
| C503-OCR | EROSION AND SEDIMENT CONTROL TYPICAL SECTIONS                   |
| C504-OCR | EROSION AND SEDIMENT CONTROL TYPICAL SECTIONS                   |
| C508-OCR | EROSION AND SEDIMENT CONTROL DETAILS                            |
| C509-OCR | EROSION AND SEDIMENT CONTROL DETAILS                            |



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PROJECT NAME: OCEAN CLUB RESIDENCES  
LOCATION: PARADISE ISLAND, THE BAHAMAS

DRAWING DESCRIPTION: COVER & INDEX PLAN - EROSION  
AND SEDIMENT CONTROL PLANS

|     |     |            |                     |
|-----|-----|------------|---------------------|
| REV | NO. | DATE       | ISSUE DESCRIPTION   |
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| Δ   | 1   | 04-12-2024 | ISSUED FOR APPROVAL |
| Δ   | 2   | 11-15-2024 | PERMIT PROGRESS SET |
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| Δ   |     |            |                     |
| Δ   |     |            |                     |
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Checked  
KAS

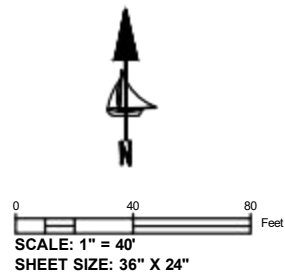
Appr.  
KAS

Date

Proj. No.  
2021.121

C000-OCR

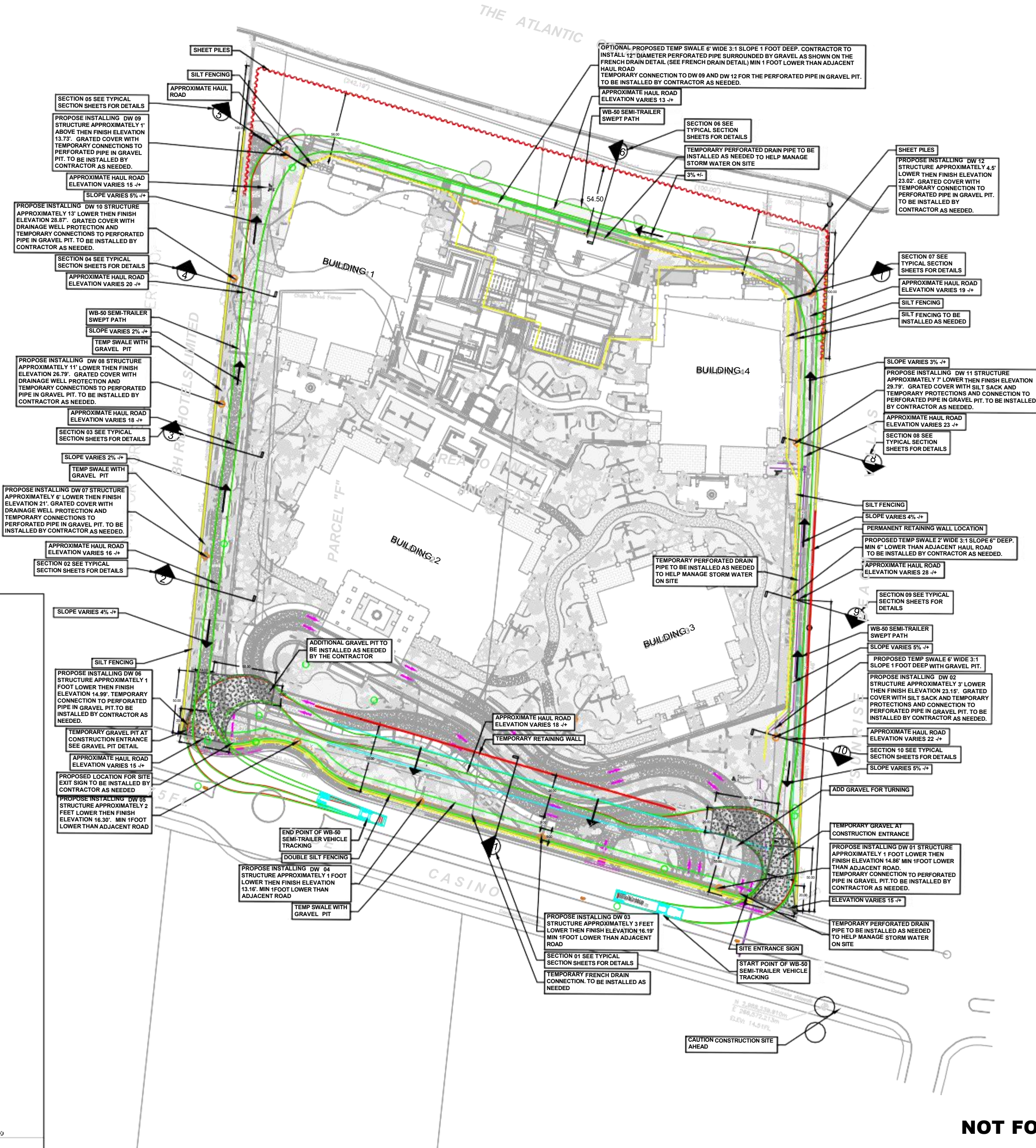
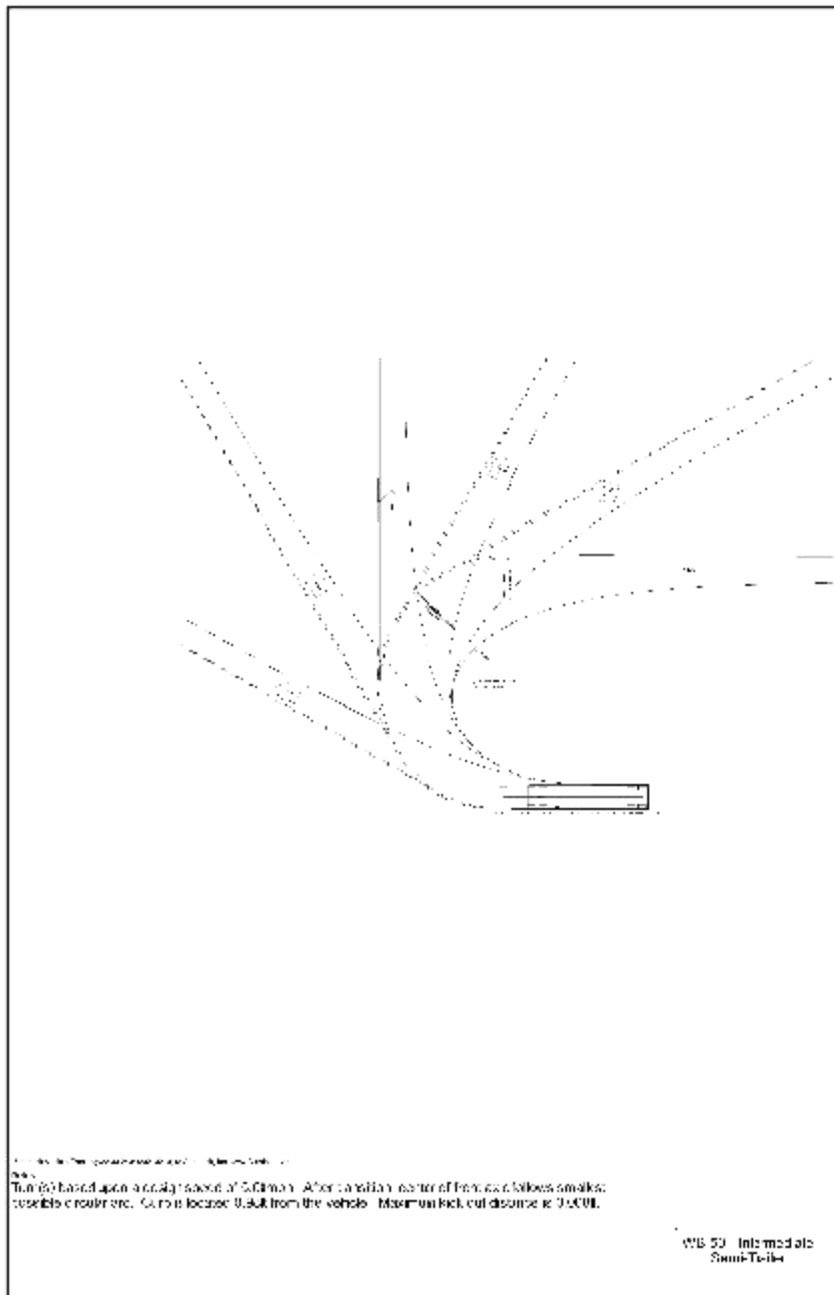
NOT FOR CONSTRUCTION



| LEGEND                                    |                                      |
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| DESCRIPTION                               | VEHICLE PATH                         |
| WB-50 SEMI-TRAILER COMBINATION BODY LINE  | <span style="color: red;">—</span>   |
| WB-50 SEMI-TRAILER COMBINATION WHEEL LINE | <span style="color: green;">—</span> |



WB-50 SEMI-TRAILER DIAGRAM



- ESC WORKS:
1. ADDED PERF PIPE, DRAINAGE ROCK AND FILTER CLOTH AS NEEDED
  2. SILT FENCE IN YELLOW TO BE ADDED AS NEEDED
  3. GRAVEL PADS FOR TRUCK TURNING TO BE ADDED AS NEEDED
  4. TREATMENT OF DRAINAGE WELLS TO BE ADDED AS NEEDED
  5. SWALES TO BE ADDED AS NEEDED
  6. TEMP RETAINING WALL
  7. SHEET PILES

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PROJECT NAME: OCEAN CLUB RESIDENCES  
LOCATION: PARADISE ISLAND, THE BAHAMAS

DRAWING DESCRIPTION: EROSION AND SEDIMENT CONTROL  
SITE PLAN WITH PROPOSED DEVELOPMENT

| REV. | NO. | DATE       | DESCRIPTION         |
|------|-----|------------|---------------------|
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|      | 1   | 04-12-2024 | ISSUED FOR APPROVAL |
|      | 2   | 11-16-2024 | PERMIT PROGRESS SET |

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CE, TB

Checked  
KAS

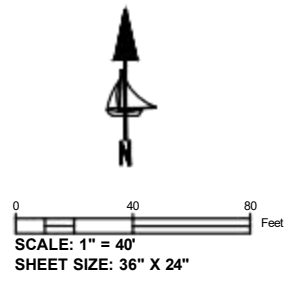
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Date

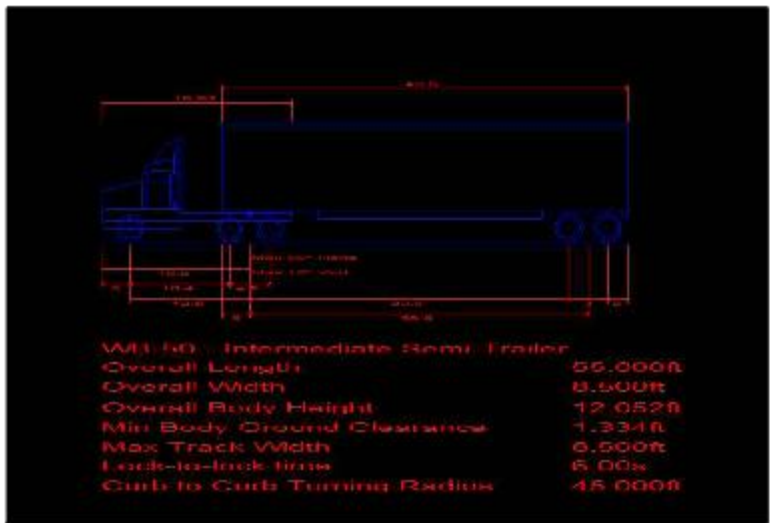
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2021.121

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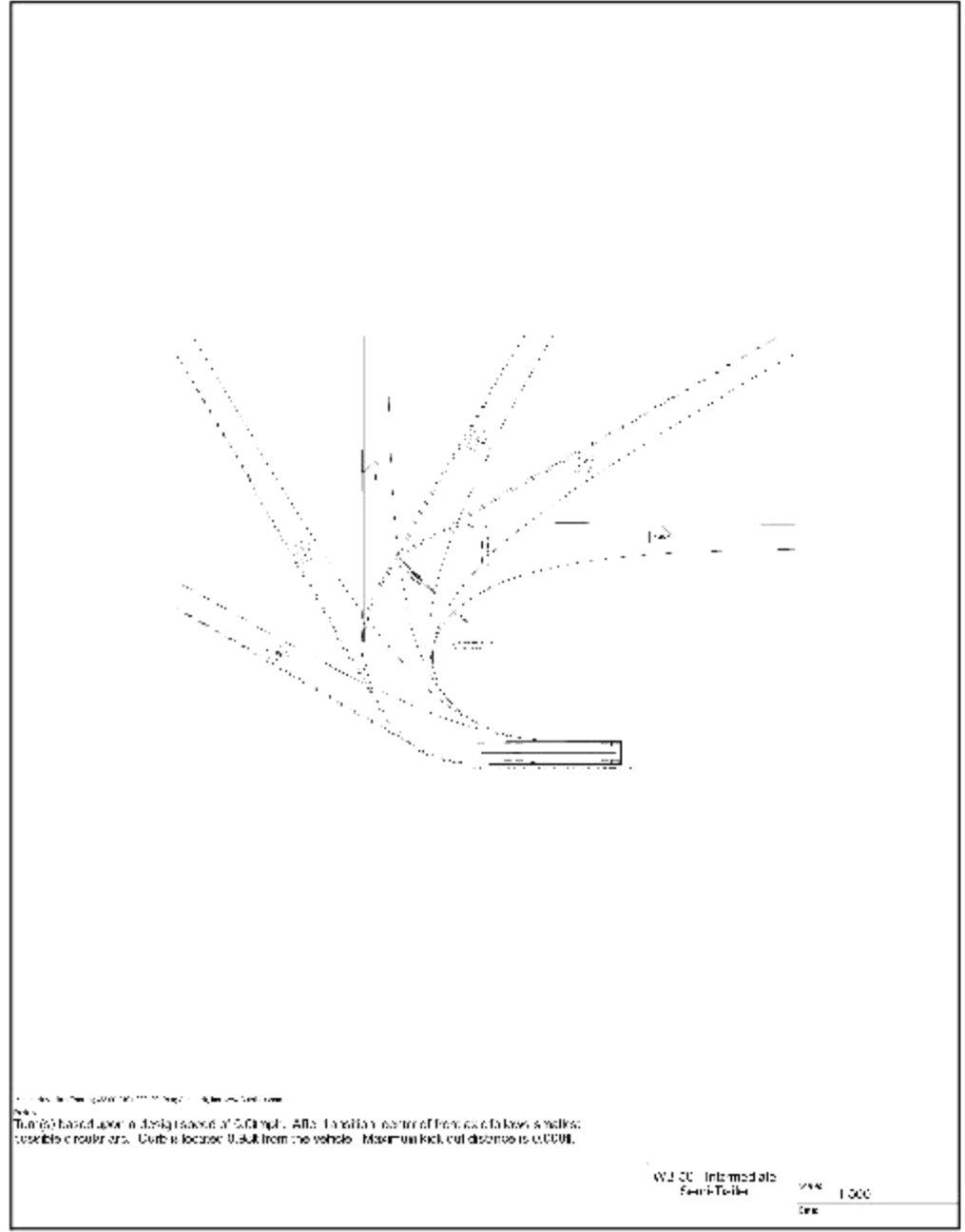
NOT FOR CONSTRUCTION



| LEGEND                                    |              |
|-------------------------------------------|--------------|
| DESCRIPTION                               | VEHICLE PATH |
| WB-50 SEMI-TRAILER COMBINATION BODY LINE  | <div></div>  |
| WB-50 SEMI-TRAILER COMBINATION WHEEL LINE | <div></div>  |



WB-50 SEMI-TRAILER DIAGRAM



WJCV: lrb:mda: Date: 11/01/2024 Scale: 1:500

- ESC WORKS:
1. ADDED PERF PIPE, DRAINAGE ROCK AND FILTER CLOTH AS NEEDED
  2. SILT FENCE IN YELLOW TO BE ADDED AS NEEDED
  3. GRAVEL PADS FOR TRUCK TURNING TO BE ADDED AS NEEDED
  4. TREATMENT OF DRAINAGE WELLS TO BE ADDED AS NEEDED
  5. SWALES TO BE ADDED AS NEEDED
  6. TEMP RETAINING WALL
  7. SHEET PILES

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PROJECT NAME: OCEAN CLUB RESIDENCES  
LOCATION: PARADISE ISLAND, THE BAHAMAS

DRAWING DESCRIPTION: EROSION AND SEDIMENT CONTROL  
SITE PLAN WITH EXISTING CONDITIONS

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Date

Proj. No.  
2021.121

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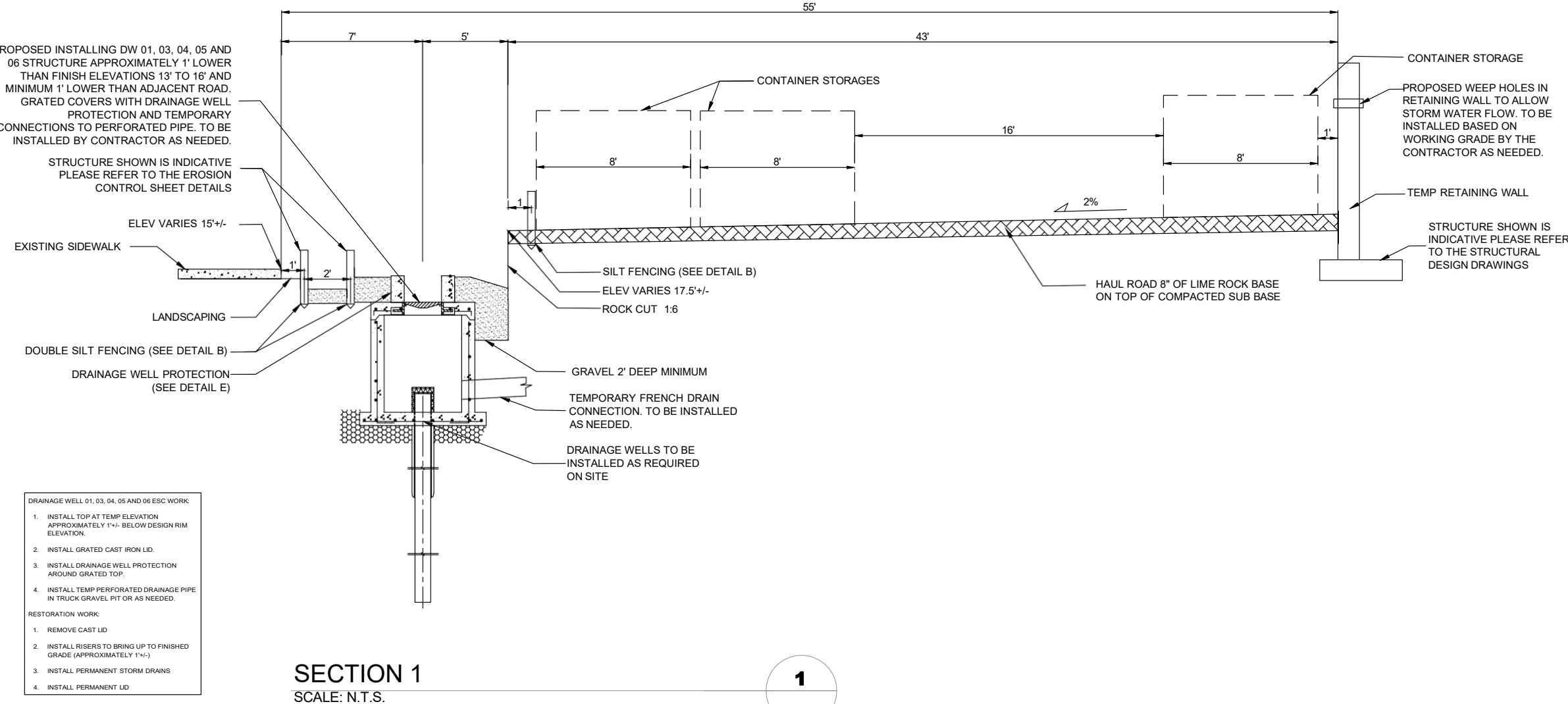
PROJECT NAME: OCEAN CLUB RESIDENCES  
LOCATION: PARADISE ISLAND, THE BAHAMAS

DRAWING DESCRIPTION: TYPICAL HAUL ROAD SECTIONS

| REV. | NO.        | DATE (mm/dd/yyyy)   | ISSUE DESCRIPTION |
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| 0    | 03-13-2024 | ISSUED FOR APPROVAL |                   |
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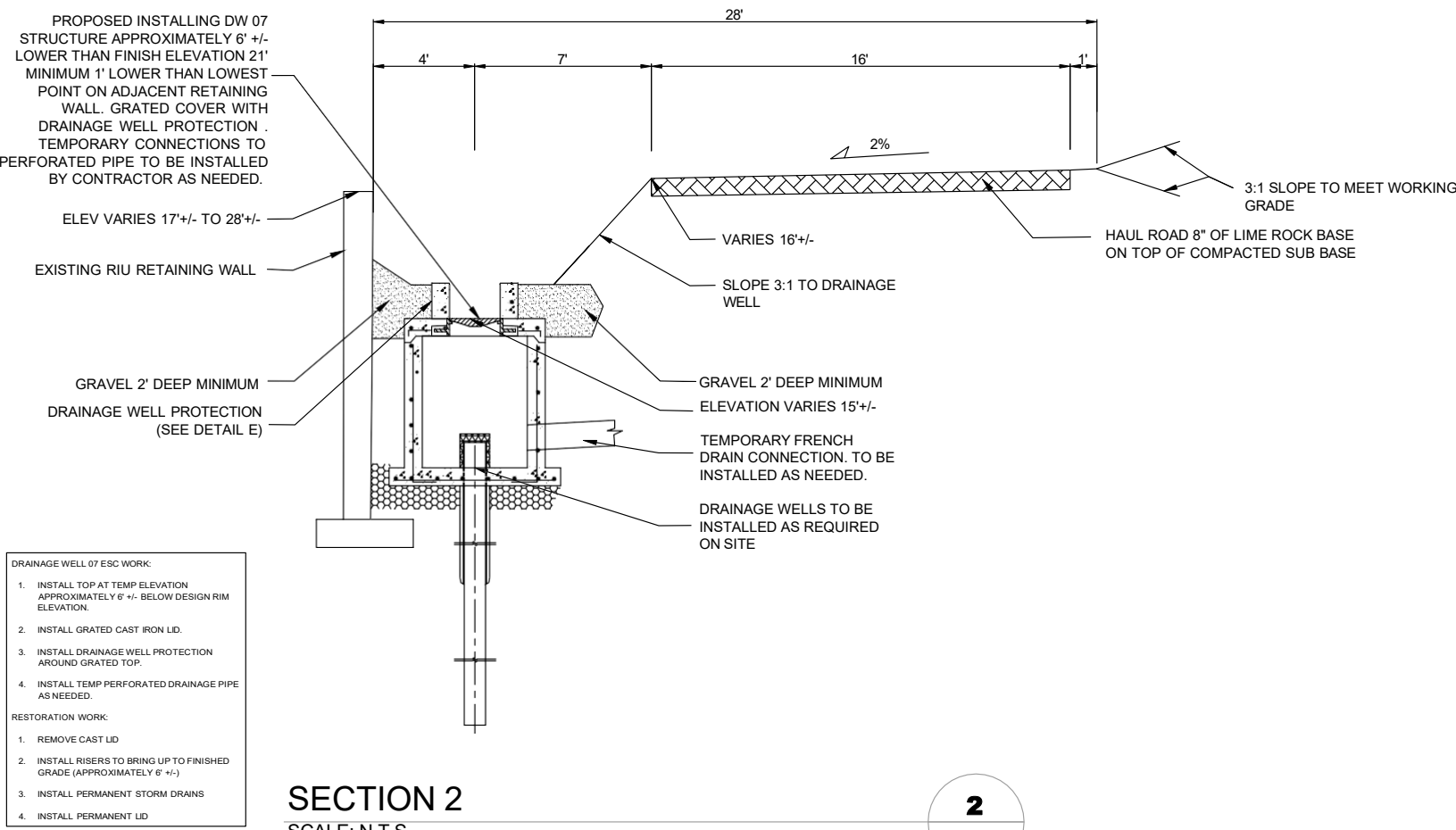
NOT FOR CONSTRUCTION



- NOTES:
1. ALL EXISTING UTILITIES AND UNDERGROUND STRUCTURES SHOULD BE LOCATED PRIOR TO COMMENCEMENT OF WORK. ADEQUATE MEASURES SHALL BE TAKEN TO PROTECT EXISTING INFRASTRUCTURE.
  2. UTILITY COMPANIES TO PROVIDE PROPOSALS FOR THE DIVERSION OF THE EXISTING UTILITY INFRASTRUCTURE TO THE NEW ROAD ALIGNMENT.
  3. CONTRACTOR TO COORDINATE ALL UTILITY DIVERSION WORK WITH THE RELEVANT UTILITY.
  4. TRAFFIC MANAGEMENT PLAN (TMP) SHALL BE IN ACCORDANCE WITH THE MINISTRY OF PUBLIC WORKS (MOPW) GUIDELINES AND CHAPTER 8 OF THE UK TRAFFIC SIGN MANUAL. TMP TO BE APPROVED BY MOPW BEFORE COMMENCEMENT OF WORK.
  5. REMOVE ALL UNSUITABLE MATERIALS SUCH AS LARGE ROCKS, TREE ROOTS, MUCK, TRASH FROM THE ROADWAY CONSTRUCTION AREA. ALL MATERIAL TO BE DISPOSED OF AT AN APPROVED DUMPSTE.
  6. CONSTRUCT SUB-GRADE USING SUITABLE MATERIALS EXCAVATED FROM THE ROADWAY OR DELIVERED TO THE JOB SITE FROM AUTHORIZED BORROW PITS. USE MAXIMUM PARTICLE SIZE (IN ANY DIMENSION) OF 4 INCHES.
  7. THE SUB-GRADE MATERIAL IS TO BE ADEQUATELY MOISTENED, SHAPED TO REQUIRE LEVELS AND COMPACTED TO 98% OF MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY AASHTO FM 11-T-180, METHOD D. WHEN THE MATERIAL DOES NOT HAVE THE PROPER MOISTURE CONTENT TO ENSURE THE REQUIRED DENSITY, WET OR DRY IT AS REQUIRED.
  8. ALL UNDERGROUND UTILITIES SHOULD BE INSTALLED PRIOR TO CONSTRUCTION OF THE BASE COURSE.
  9. CONSTRUCT BASE USING SUITABLE LIMEROCK FILL MATERIAL DELIVERED TO THE JOB SITE FROM APPROVED BORROW PITS. USE MAXIMUM PARTICLE SIZE (IN ANY DIMENSION) OF 2 INCHES.
  10. THE BASE MATERIAL IS TO BE ADEQUATELY MOISTENED, SHAPED TO REQUIRE LEVELS AND COMPACTED TO 98% OF MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY AASHTO FM 11-T-180, METHOD D. WHEN THE MATERIAL DOES NOT HAVE THE PROPER MOISTURE CONTENT TO ENSURE THE REQUIRED DENSITY, WET OR DRY IT AS REQUIRED. ADDITIONALLY THE BASE SHALL MEET ALL OTHER REQUIREMENTS FOR FOOT BASE CONSTRUCTION.
  11. ALL TESTING TO CONFORM TO FDOT STANDARDS.
  12. SUB-GRADE TO BE TESTED AND MEET REQUIREMENTS PRIOR TO THE CONSTRUCTION OF THE BASE COURSE. THE BASE COURSE IS TO BE TESTED AND MEET THE REQUIREMENTS PRIOR TO PAVING.
  13. AT THE END OF CONSTRUCTION BEFORE SUBSTANTIAL COMPLETION OF THE PROJECT ALL DRAINAGE WELLS ARE TO BE RE-MEASURED. IF FOUND TO BE SHORTER THAN 150 FEET THE DRAINAGE WELLS WILL NEED TO BE BLOWN OUT OR RE-GRILLED TO THE 150 FEET DEPTH.

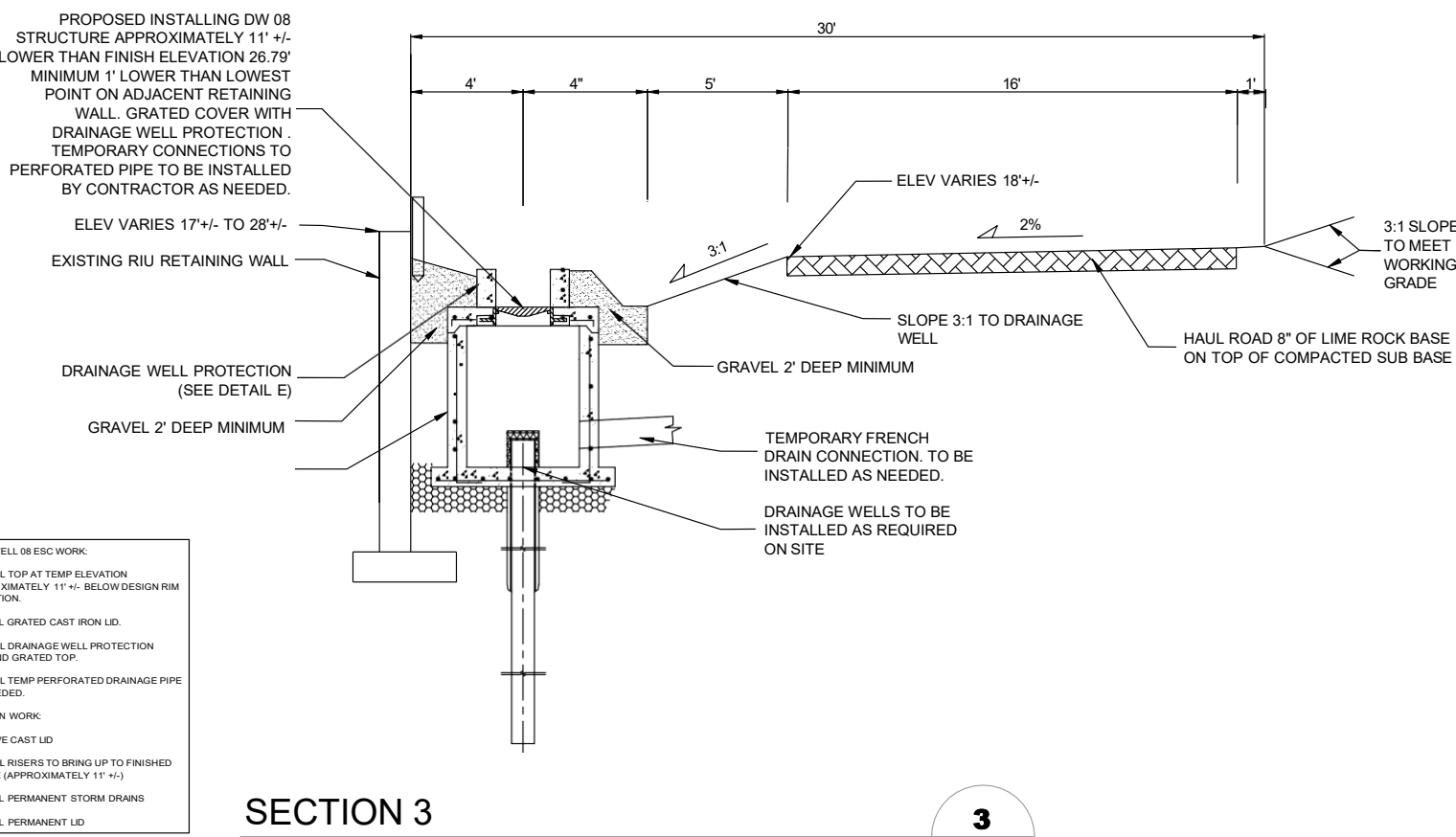
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1



SECTION 2  
SCALE: N.T.S.

2



SECTION 3  
SCALE: N.T.S.

3

PROJECT NAME: OCEAN CLUB RESIDENCES  
LOCATION: PARADISE ISLAND, THE BAHAMAS

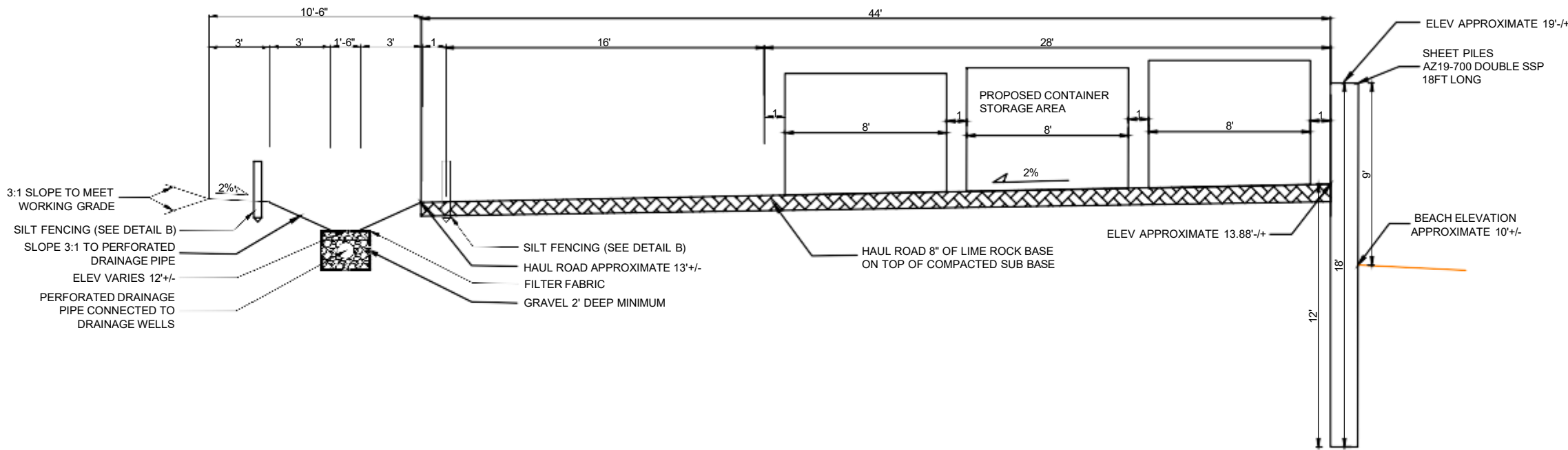
DRAWING DESCRIPTION: TYPICAL HAUL ROAD SECTIONS

| REV. | NO. | DATE (mm/dd/yyyy) | ISSUE DESCRIPTION   |
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| Appr.<br>KAS          |          |
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| Proj. No.<br>2021.121 | C502-OCR |

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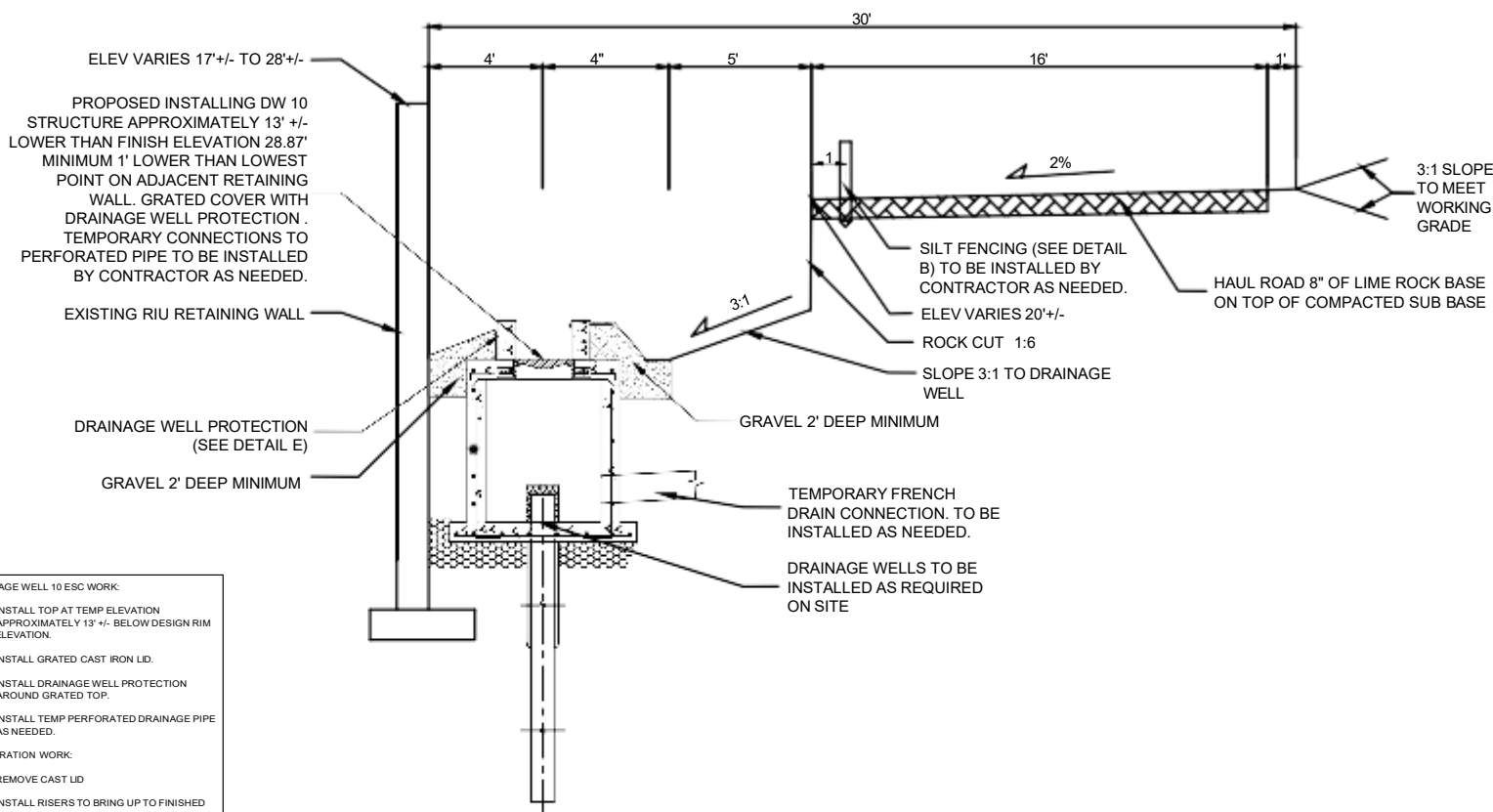
- NOTES:
- ALL EXISTING UTILITIES AND UNDERGROUND STRUCTURES SHOULD BE LOCATED PRIOR TO COMMENCEMENT OF WORK. ADEQUATE MEASURES SHALL BE TAKEN TO PROTECT EXISTING INFRASTRUCTURE.
  - UTILITY COMPANIES TO PROVIDE PROPOSALS FOR THE DIVERSION OF THE EXISTING UTILITY INFRASTRUCTURE TO THE NEW ROAD ALIGNMENT.
  - CONTRACTOR TO COORDINATE ALL UTILITY DIVERSION WORK WITH THE RELEVANT UTILITY.
  - TRAFFIC MANAGEMENT PLAN (TMP) SHALL BE IN ACCORDANCE WITH THE MINISTRY OF PUBLIC WORKS (MOPW) GUIDELINES AND CHAPTER 8 OF THE UK TRAFFIC SIGN MANUAL. TMP TO BE APPROVED BY MOPW BEFORE COMMENCEMENT OF WORK.
  - REMOVE ALL UNSUITABLE MATERIALS SUCH AS LARGE ROCKS, TREE ROOTS, MUCK, TRASH FROM THE ROADWAY CONSTRUCTION AREA. ALL MATERIAL TO BE DISPOSED OF AT AN APPROVED DUMPSTE.
  - CONSTRUCT SUB-GRADE USING SUITABLE MATERIALS EXCAVATED FROM THE ROADWAY OR DELIVERED TO THE JOB SITE FROM AUTHORIZED BORROW PITS. USE MAXIMUM PARTICLE SIZE (IN ANY DIMENSION) OF 4 INCHES.
  - THE SUB-GRADE MATERIAL IS TO BE ADEQUATELY MOISTENED, SHAPED TO REQUIRE LEVELS AND COMPACTED TO 98% OF MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY AASHTO FM 1-180, METHOD D. WHEN THE MATERIAL DOES NOT HAVE THE PROPER MOISTURE CONTENT TO ENSURE THE REQUIRED DENSITY, WET OR DRY IT AS REQUIRED.
  - ALL UNDERGROUND UTILITIES SHOULD BE INSTALLED PRIOR TO CONSTRUCTION OF THE BASE COURSE.
  - CONSTRUCT BASE USING SUITABLE LIMESTONE FILL MATERIAL DELIVERED TO THE JOB SITE FROM APPROVED BORROW PITS. USE MAXIMUM PARTICLE SIZE (IN ANY DIMENSION) OF 2 INCHES.
  - THE BASE MATERIAL IS TO BE ADEQUATELY MOISTENED, SHAPED TO REQUIRE LEVELS AND COMPACTED TO 98% OF MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY AASHTO FM 1-180, METHOD D. WHEN THE MATERIAL DOES NOT HAVE THE PROPER MOISTURE CONTENT TO ENSURE THE REQUIRED DENSITY, WET OR DRY IT AS REQUIRED. ADDITIONALLY THE BASE SHALL MEET ALL OTHER REQUIREMENTS FOR FOOT BASE CONSTRUCTION.
  - ALL TESTING TO CONFORM TO FDOT STANDARDS.
  - SUB-GRADE TO BE TESTED AND MEET REQUIREMENTS PRIOR TO THE CONSTRUCTION OF THE BASE COURSE. THE BASE COURSE IS TO BE TESTED AND MEET THE REQUIREMENTS PRIOR TO PAVING.
  - AT THE END OF CONSTRUCTION BEFORE SUBSTANTIAL COMPLETION OF THE PROJECT ALL DRAINAGE WELLS ARE TO BE RE-MEASURED. IF FOUND TO BE SHORTER THAN 150 FEET THE DRAINAGE WELLS WILL NEED TO BE BLOWN OUT OR RE-DRILLED TO THE 150 FEET DEPTH.



SECTION 6

SCALE: N.T.S.

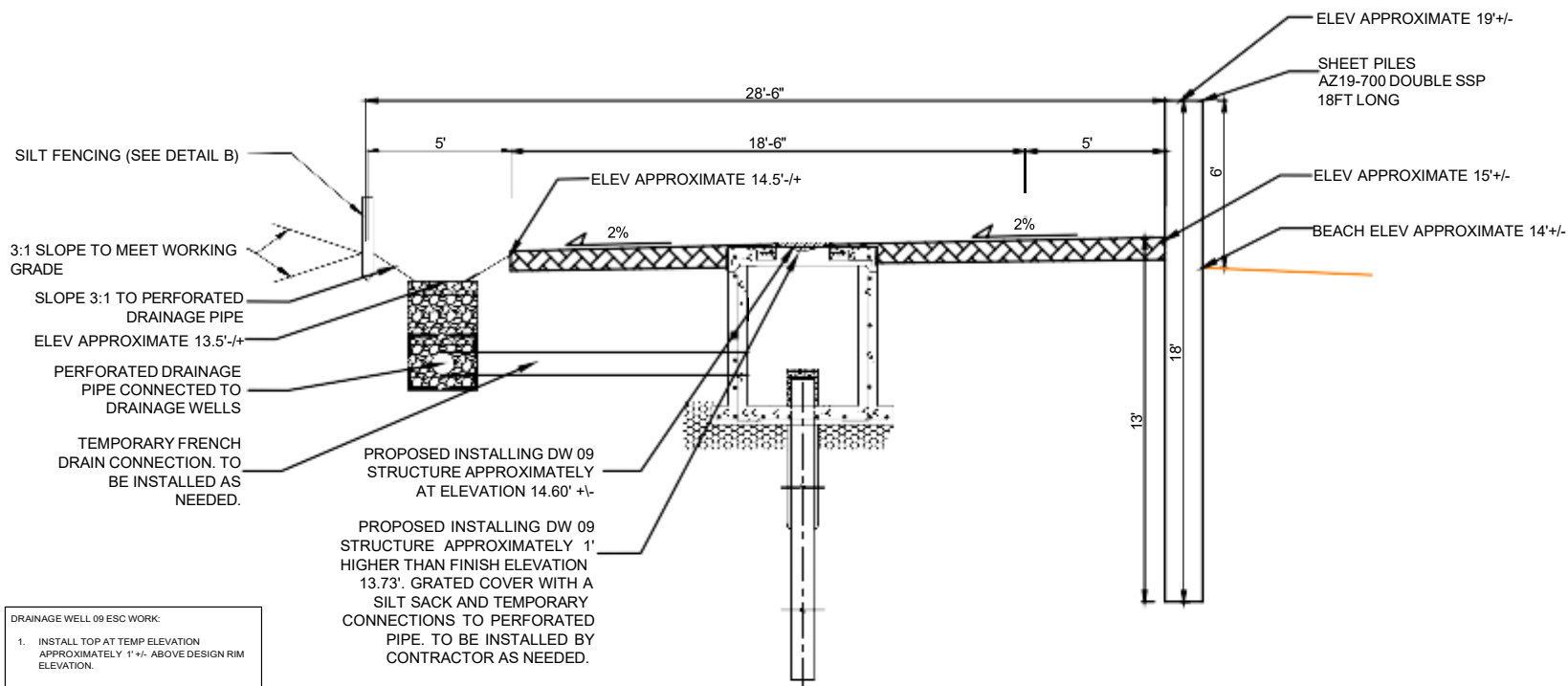
6



SECTION 4

SCALE: N.T.S.

4



SECTION 5

SCALE: N.T.S.

5

- DRAINAGE WELL 10 ESC WORK:
- INSTALL TOP AT TEMP ELEVATION APPROXIMATELY 13' +/- BELOW DESIGN RIM ELEVATION.
  - INSTALL GRATED CAST IRON LID.
  - INSTALL DRAINAGE WELL PROTECTION AROUND GRATED TOP.
  - INSTALL TEMP PERFORATED DRAINAGE PIPE AS NEEDED.
- RESTORATION WORK:
- REMOVE CAST LID
  - INSTALL RISERS TO BRING UP TO FINISHED GRADE (APPROXIMATELY 13' +/-)
  - INSTALL PERMANENT STORM DRAINS
  - INSTALL PERMANENT LID

- DRAINAGE WELL 09 ESC WORK:
- INSTALL TOP AT TEMP ELEVATION APPROXIMATELY 1' +/- ABOVE DESIGN RIM ELEVATION.
  - INSTALL GRATED CAST IRON LID.
  - INSTALL DRAINAGE WELL PROTECTION AROUND GRATED TOP.
  - INSTALL TEMP PERFORATED DRAINAGE PIPE AS NEEDED.
- RESTORATION WORK:
- REMOVE CAST LID
  - UNINSTALL RISERS TO BRING DOWN TO FINISHED GRADE (APPROXIMATELY 1' +/-)
  - INSTALL PERMANENT STORM DRAINS
  - INSTALL PERMANENT LID

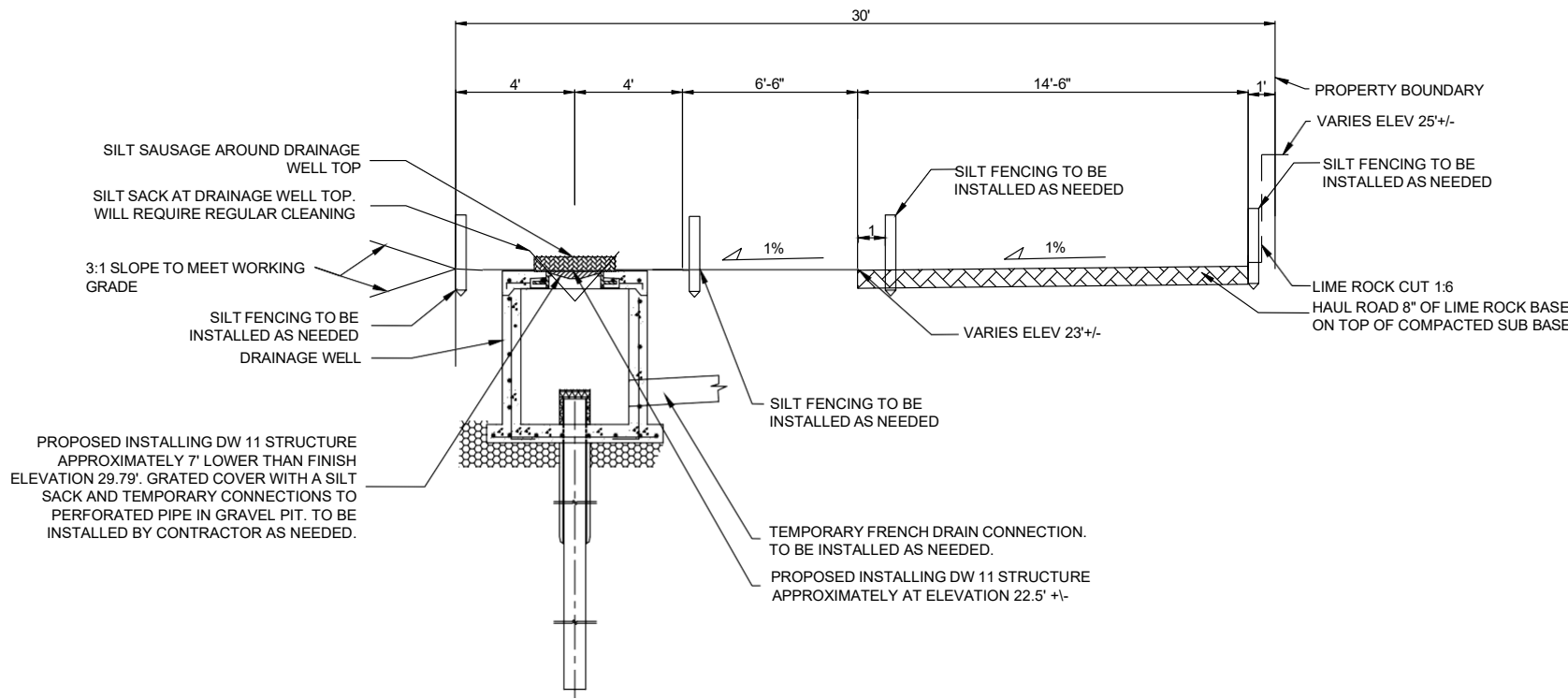
PROJECT NAME: OCEAN CLUB RESIDENCES  
LOCATION: PARADISE ISLAND, THE BAHAMAS

DRAWING DESCRIPTION: TYPICAL HAUL ROAD SECTIONS

| REV | NO. | DATE (mm/dd/yyyy) | ISSUE DESCRIPTION   |
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|     | 0   | 03-13-2024        | ISSUED FOR APPROVAL |
|     | 1   | 04-12-2024        | ISSUED FOR APPROVAL |
|     | 2   | 11-15-2024        | PERMIT PROGRESS SET |
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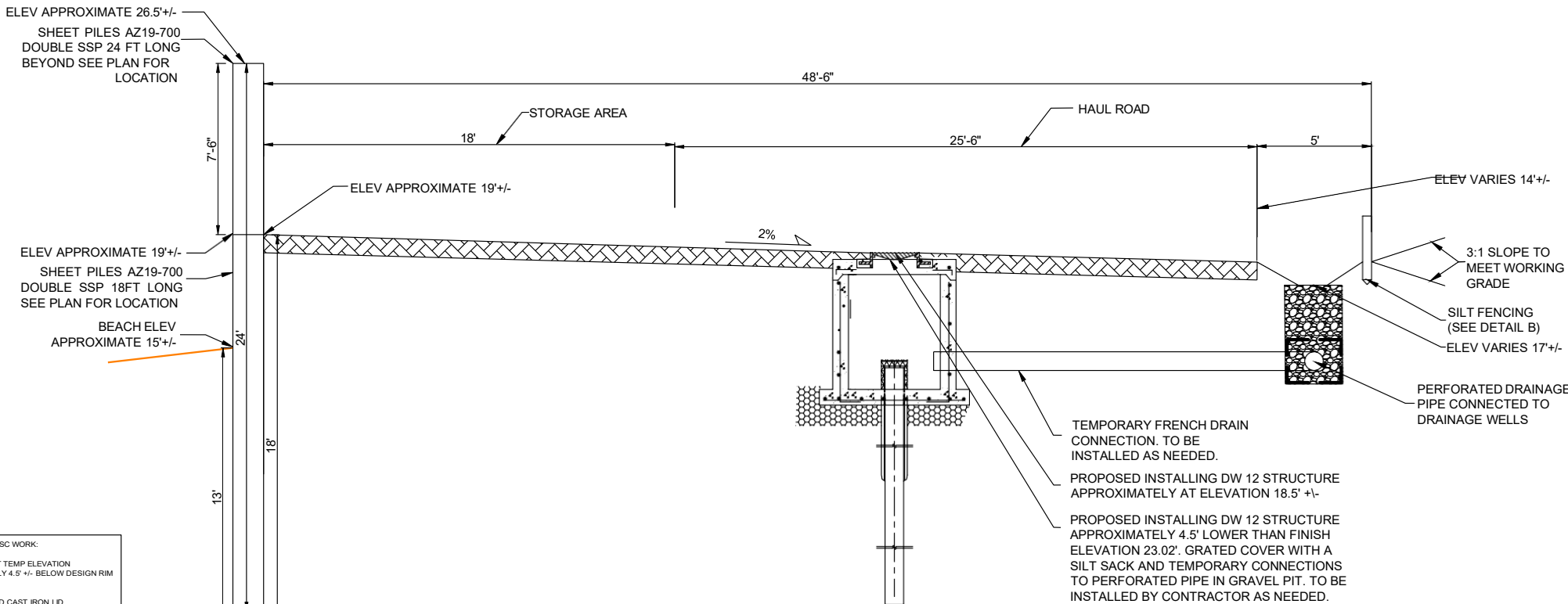
NOT FOR CONSTRUCTION



SECTION 8  
SCALE: 1:4

8

- NOTES:
- ALL EXISTING UTILITIES AND UNDERGROUND STRUCTURES SHOULD BE LOCATED PRIOR TO COMMENCEMENT OF WORK. ADEQUATE MEASURES SHALL BE TAKEN TO PROTECT EXISTING INFRASTRUCTURE.
  - UTILITY COMPANIES TO PROVIDE PROPOSALS FOR THE DIVERSION OF THE EXISTING UTILITY INFRASTRUCTURE TO THE NEW ROAD ALIGNMENT.
  - CONTRACTOR TO COORDINATE ALL UTILITY DIVERSION WORK WITH THE RELEVANT UTILITY.
  - TRAFFIC MANAGEMENT PLAN (TMP) SHALL BE IN ACCORDANCE WITH THE MINISTRY OF PUBLIC WORKS (MOPW) GUIDELINES AND CHAPTER 8 OF THE UK TRAFFIC SIGN MANUAL. TMP TO BE APPROVED BY MOPW BEFORE COMMENCEMENT OF WORK.
  - REMOVE ALL UNSUITABLE MATERIALS SUCH AS LARGE ROCKS, TREE ROOTS, MUCK, TRASH FROM THE ROADWAY CONSTRUCTION AREA. ALL MATERIAL TO BE DISPOSED OF AT AN APPROVED DUMP SITE.
  - CONSTRUCT SUB-GRADE USING SUITABLE MATERIALS EXCAVATED FROM THE ROADWAY OR DELIVERED TO THE JOB SITE FROM AUTHORIZED BORROW PITS. USE MAXIMUM PARTICLE SIZE (IN ANY DIMENSION) OF 4 INCHES.
  - THE SUB-GRADE MATERIAL IS TO BE ADEQUATELY MOISTENED, SHAPED TO REQUIRE LEVELS AND COMPACTED TO 98% OF MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY AASHTO FM 1-T 180, METHOD D. WHEN THE MATERIAL DOES NOT HAVE THE PROPER MOISTURE CONTENT TO ENSURE THE REQUIRED DENSITY, WET OR DRY IT AS REQUIRED. ADDITIONALLY THE BASE SHALL MEET ALL OTHER REQUIREMENTS FOR FDOT BASE CONSTRUCTION.
  - ALL UNDERGROUND UTILITIES SHOULD BE INSTALLED PRIOR TO CONSTRUCTION OF THE BASE COURSE.
  - CONSTRUCT BASE USING SUITABLE LIMEROCK FILL MATERIAL DELIVERED TO THE JOB SITE FROM APPROVED BORROW PITS. USE MAXIMUM PARTICLE SIZE (IN ANY DIMENSION) OF 2 INCHES.
  - THE BASE MATERIAL IS TO BE ADEQUATELY MOISTENED, SHAPED TO REQUIRE LEVELS AND COMPACTED TO 98% OF MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY AASHTO FM 1-T 180, METHOD D. WHEN THE MATERIAL DOES NOT HAVE THE PROPER MOISTURE CONTENT TO ENSURE THE REQUIRED DENSITY, WET OR DRY IT AS REQUIRED. ADDITIONALLY THE BASE SHALL MEET ALL OTHER REQUIREMENTS FOR FDOT BASE CONSTRUCTION.
  - ALL TESTING TO CONFORM TO FDOT STANDARDS.
  - SUB-GRADE TO BE TESTED AND MEET REQUIREMENTS PRIOR TO THE CONSTRUCTION OF THE BASE COURSE. THE BASE COURSE IS TO BE TESTED AND MEET THE REQUIREMENTS PRIOR TO PAVING.
  - AT THE END OF CONSTRUCTION BEFORE SUBSTANTIAL COMPLETION OF THE PROJECT ALL DRAINAGE WELLS ARE TO BE RE-MEASURED. IF FOUND TO BE SHORTER THAN 150 FEET THE DRAINAGE WELLS WILL NEED TO BE BLOWN OUT OR RE-DRILLED TO THE 150 FEET DEPTH.

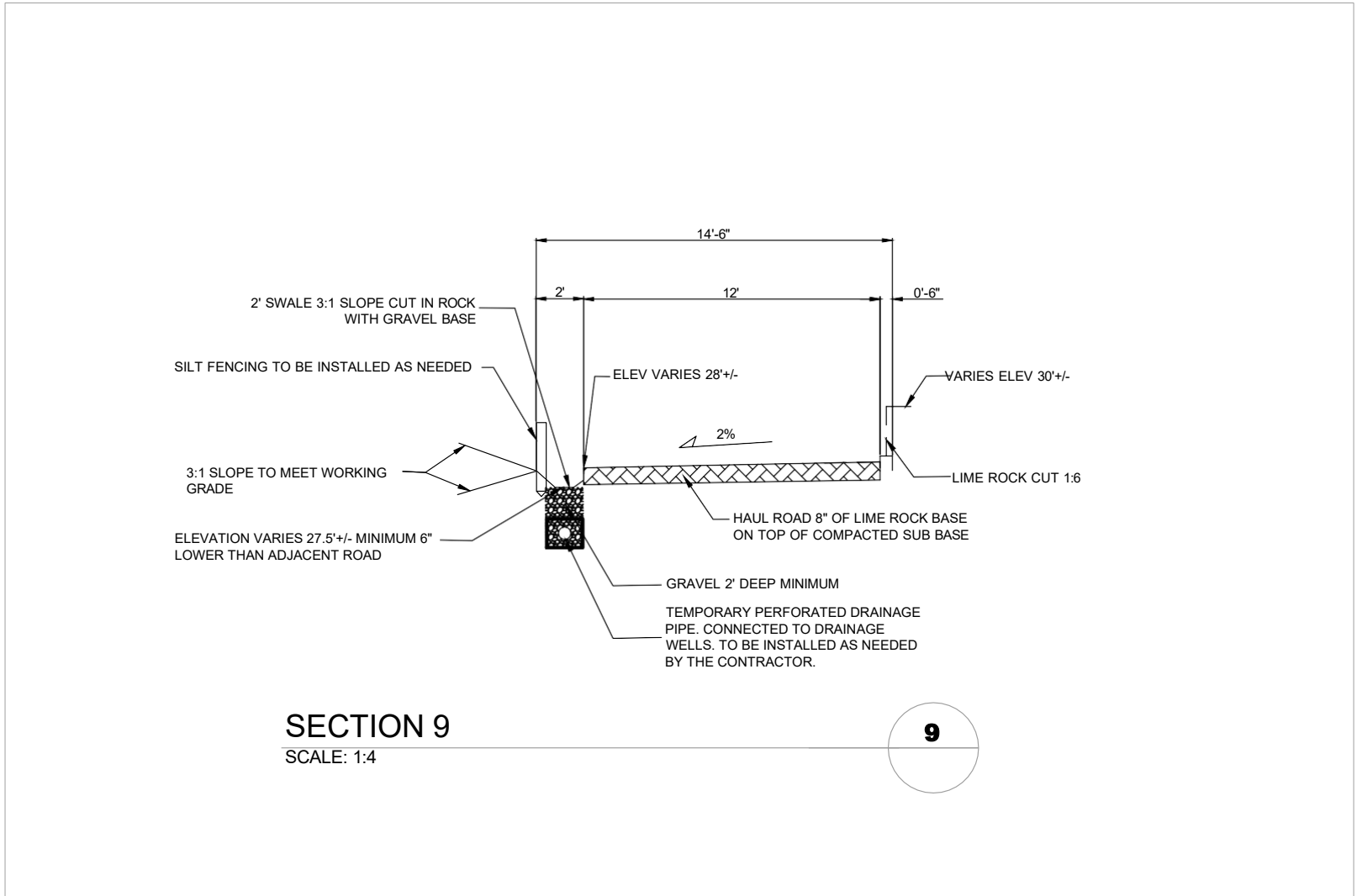
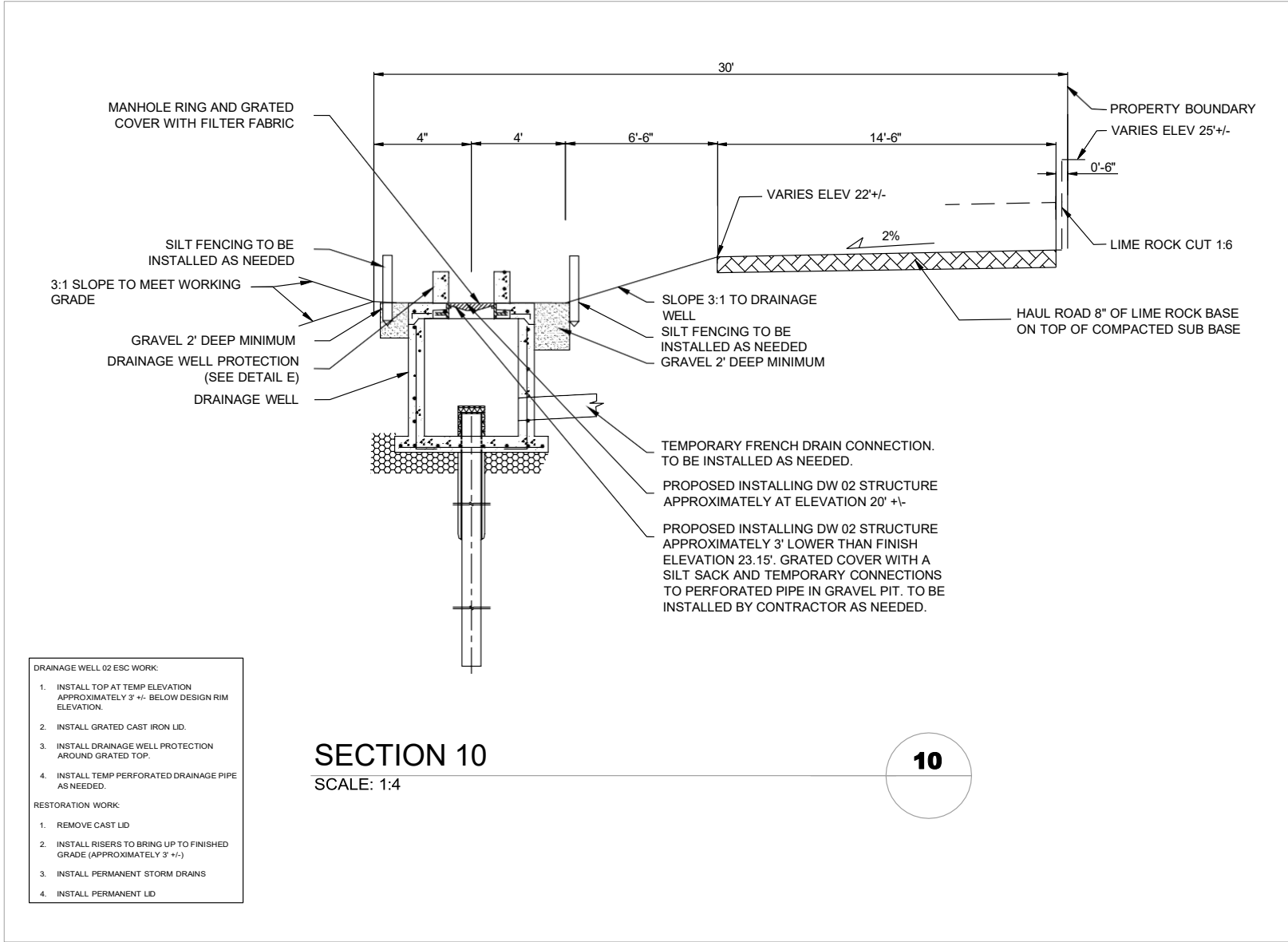


SECTION 7  
SCALE: N.T.S.

7

- DRAINAGE WELL 12 ESC WORK:
- INSTALL TOP AT TEMP ELEVATION APPROXIMATELY 4.5' +/- BELOW DESIGN RIM ELEVATION.
  - INSTALL GRATED CAST IRON LD.
  - INSTALL DRAINAGE WELL PROTECTION AROUND GRATED TOP.
  - INSTALL TEMP PERFORATED DRAINAGE PIPE AS NEEDED.
- RESTORATION WORK:
- REMOVE CAST LD
  - INSTALL RISERS TO BRING UP TO FINISHED GRADE (APPROXIMATELY 4.5' +/-)
  - INSTALL PERMANENT STORM DRAINS
  - INSTALL PERMANENT LD

- DRAINAGE WELL 11 ESC WORK:
- INSTALL TOP AT TEMP ELEVATION APPROXIMATELY 7' +/- BELOW DESIGN RIM ELEVATION.
  - INSTALL GRATED CAST IRON LD.
  - INSTALL DRAINAGE WELL PROTECTION AROUND GRATED TOP.
  - INSTALL TEMP PERFORATED DRAINAGE PIPE AS NEEDED.
- RESTORATION WORK:
- REMOVE CAST LD
  - INSTALL RISERS TO BRING UP TO FINISHED GRADE (APPROXIMATELY 7' +/-)
  - INSTALL PERMANENT STORM DRAINS
  - INSTALL PERMANENT LD



- NOTES:
1. ALL EXISTING UTILITIES AND UNDERGROUND STRUCTURES SHOULD BE LOCATED PRIOR TO COMMENCEMENT OF WORK. ADEQUATE MEASURES SHALL BE TAKEN TO PROTECT EXISTING INFRASTRUCTURE.
  2. UTILITY COMPANIES TO PROVIDE PROPOSALS FOR THE DIVERSION OF THE EXISTING UTILITY INFRASTRUCTURE TO THE NEW ROAD ALIGNMENT.
  3. CONTRACTOR TO COORDINATE ALL UTILITY DIVERSION WORK WITH THE RELEVANT UTILITY.
  4. TRAFFIC MANAGEMENT PLAN (TMP) SHALL BE IN ACCORDANCE WITH THE MINISTRY OF PUBLIC WORKS (MOPW) GUIDELINES AND CHAPTER 8 OF THE UK TRAFFIC SIGN MANUAL. TMP TO BE APPROVED BY MOPW BEFORE COMMENCEMENT OF WORK.
  5. REMOVE ALL UNSUITABLE MATERIALS SUCH AS LARGE ROCKS, TREE ROOTS, MUCK, TRASH FROM THE ROADWAY CONSTRUCTION AREA. ALL MATERIAL TO BE DISPOSED OF AT AN APPROVED DUMPSITE.
  6. CONSTRUCT SUB-GRADE USING SUITABLE MATERIALS EXCAVATED FROM THE ROADWAY OR DELIVERED TO THE JOB SITE FROM AUTHORIZED BORROW PITS. USE MAXIMUM PARTICLE SIZE (IN ANY DIMENSION) OF 4 INCHES.
  7. THE SUB-GRADE MATERIAL IS TO BE ADEQUATELY MOISTENED, SHAPED TO REQUIRE LEVELS AND COMPACTED TO 98% OF MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY AASHTO FM 1-180, METHOD D. WHEN THE MATERIAL DOES NOT HAVE THE PROPER MOISTURE CONTENT TO ENSURE THE REQUIRED DENSITY, WET OR DRY IT AS REQUIRED.
  8. ALL UNDERGROUND UTILITIES SHOULD BE INSTALLED PRIOR TO CONSTRUCTION OF THE BASE COURSE.
  9. CONSTRUCT BASE USING SUITABLE LIME ROCK FILL MATERIAL DELIVERED TO THE JOB SITE FROM APPROVED BORROW PITS. USE MAXIMUM PARTICLE SIZE (IN ANY DIMENSION) OF 2 INCHES.
  10. THE BASE MATERIAL IS TO BE ADEQUATELY MOISTENED, SHAPED TO REQUIRE LEVELS AND COMPACTED TO 98% OF MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY AASHTO FM 1-180, METHOD D. WHEN THE MATERIAL DOES NOT HAVE THE PROPER MOISTURE CONTENT TO ENSURE THE REQUIRED DENSITY, WET OR DRY IT AS REQUIRED. ADDITIONALLY THE BASE SHALL MEET ALL OTHER REQUIREMENTS FOR FOOT BASE CONSTRUCTION.
  11. ALL TESTING TO CONFORM TO PDOT STANDARDS.
  12. SUB-GRADE TO BE TESTED AND MEET REQUIREMENTS PRIOR TO THE CONSTRUCTION OF THE BASE COURSE. THE BASE COURSE IS TO BE TESTED AND MEET THE REQUIREMENTS PRIOR TO PAVING.
  13. AT THE END OF CONSTRUCTION BEFORE SUBSTANTIAL COMPLETION OF THE PROJECT ALL DRAINAGE WELLS ARE TO BE RE-MEASURED. IF FOUND TO BE SHORTER THAN 150 FEET THE DRAINAGE WELLS WILL NEED TO BE BLOWN OUT OR RE-DRILLED TO THE 150 FEET DEPTH.



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PROJECT NAME: OCEAN CLUB RESIDENCES  
LOCATION: PARADISE ISLAND, THE BAHAMAS

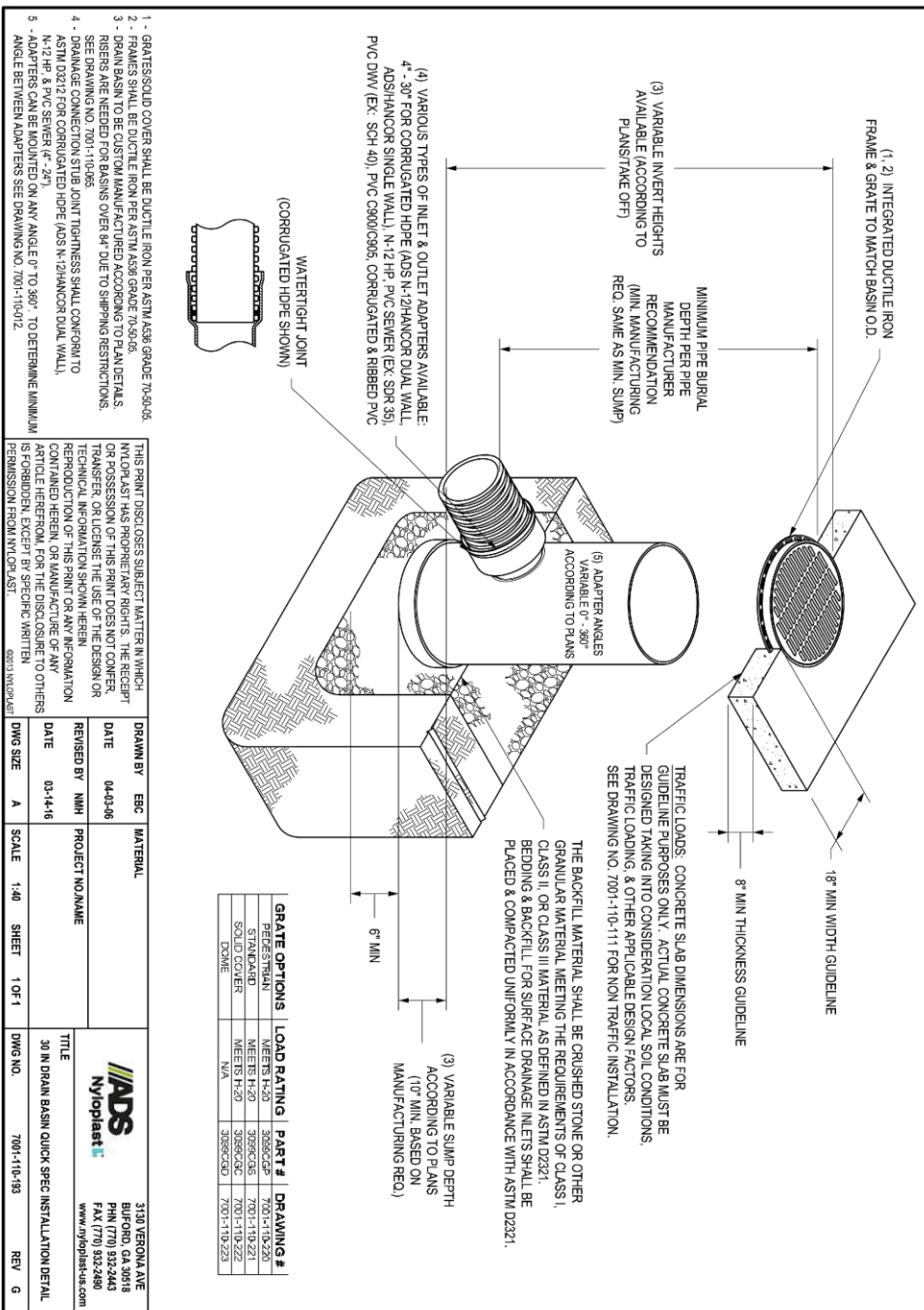
DRAWING DESCRIPTION: TYPICAL HAUL ROAD SECTIONS

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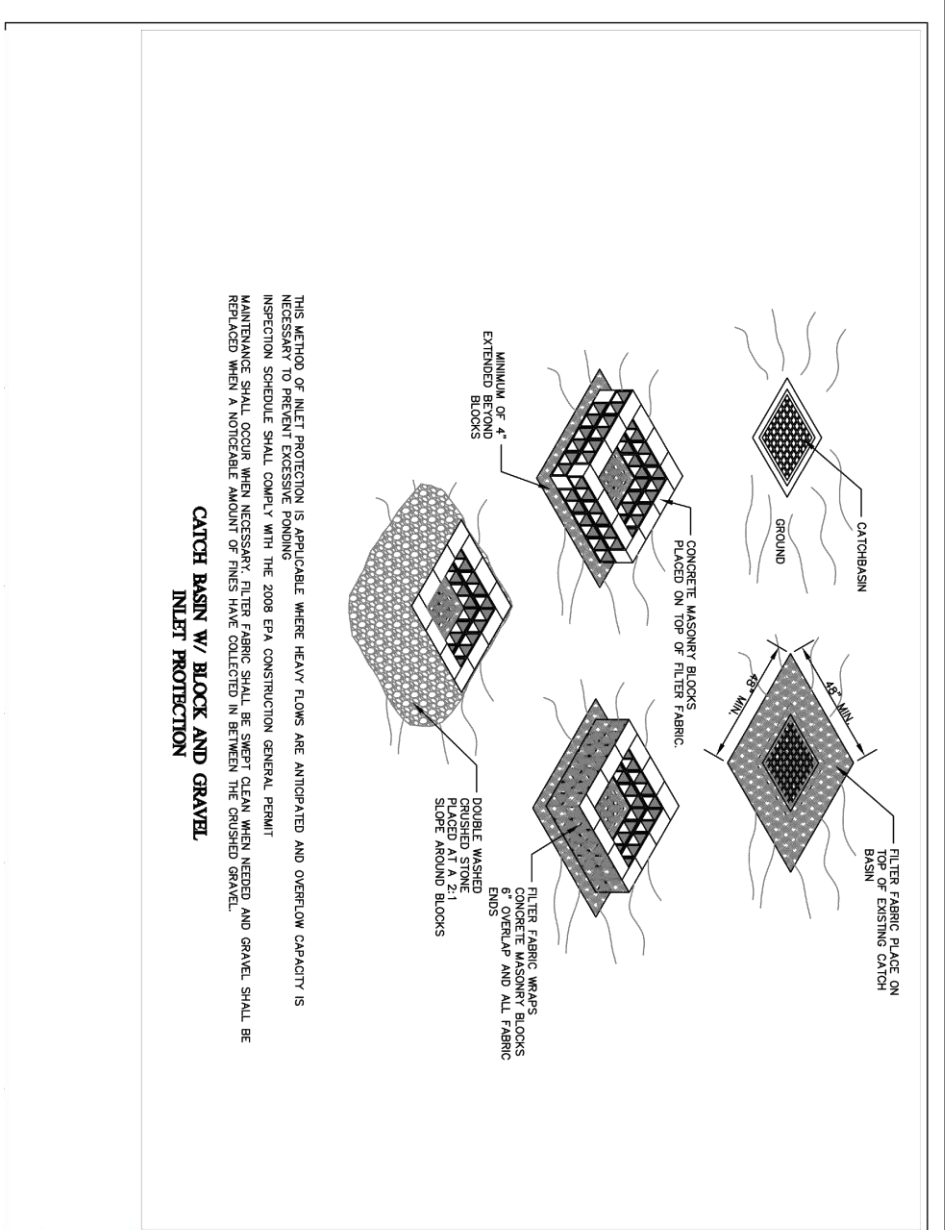
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NYLOPLAST 30" DRAIN BASIN: 2830AG \_\_X



## F NYLOPLAST DRAINAGE WELL BASIN WITH OUTLETS

## E DRAINAGE WELL BLOCK AND GRAVEL INLET SEDIMENT BARRIER



**STORM WATER FILTER SOCK TO BE  
INSTALLED ON SITE AS NEEDED**



**PIG® Stormwater Filter Sock**

After oil debris and oils from sediment-heavy stormwater runoff anywhere along its path, even on the surface of dry surfaces, with the economic cost of the treatment.

Effectively, filters add large amounts of sediment from stormwater runoff, also filters out oil. Removes 97.3% of total suspended solids (TSS), among the best for stormwater filters. Deploy anywhere along stormwater runoff path from source to drain and anywhere in between. Confidently use for stormwater treatment drains to contain suspended runoff pollution, as a check dam and more.

Use of solid material and strong bulkheads outer shell make this sediment filter perfect for use on or near rough surfaces like broken asphalt or exposed soil.

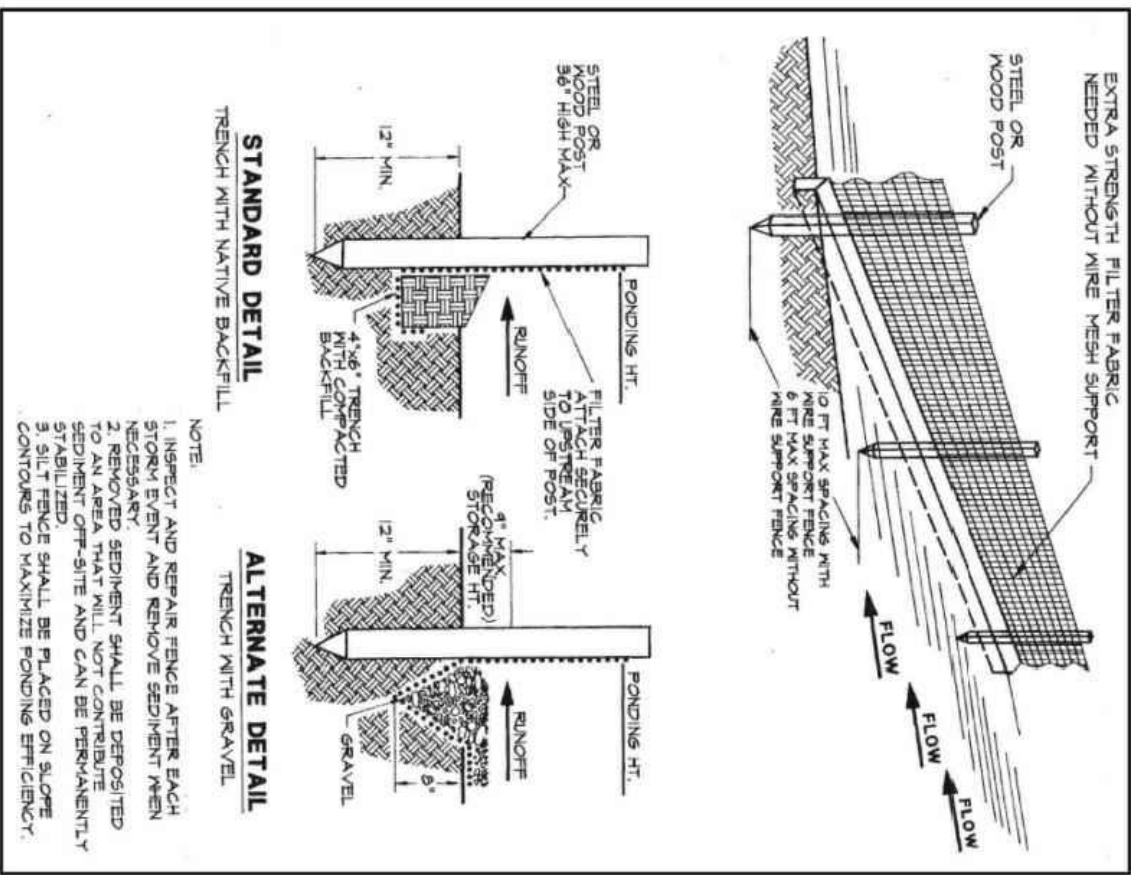
Sediment filter's own weight holds it firmly in place, even on uneven surfaces, can also be staked on slopes.

Stapleable 5-in. x 5-ft. rock bands effectively anchor drains and is easy to move when needed.

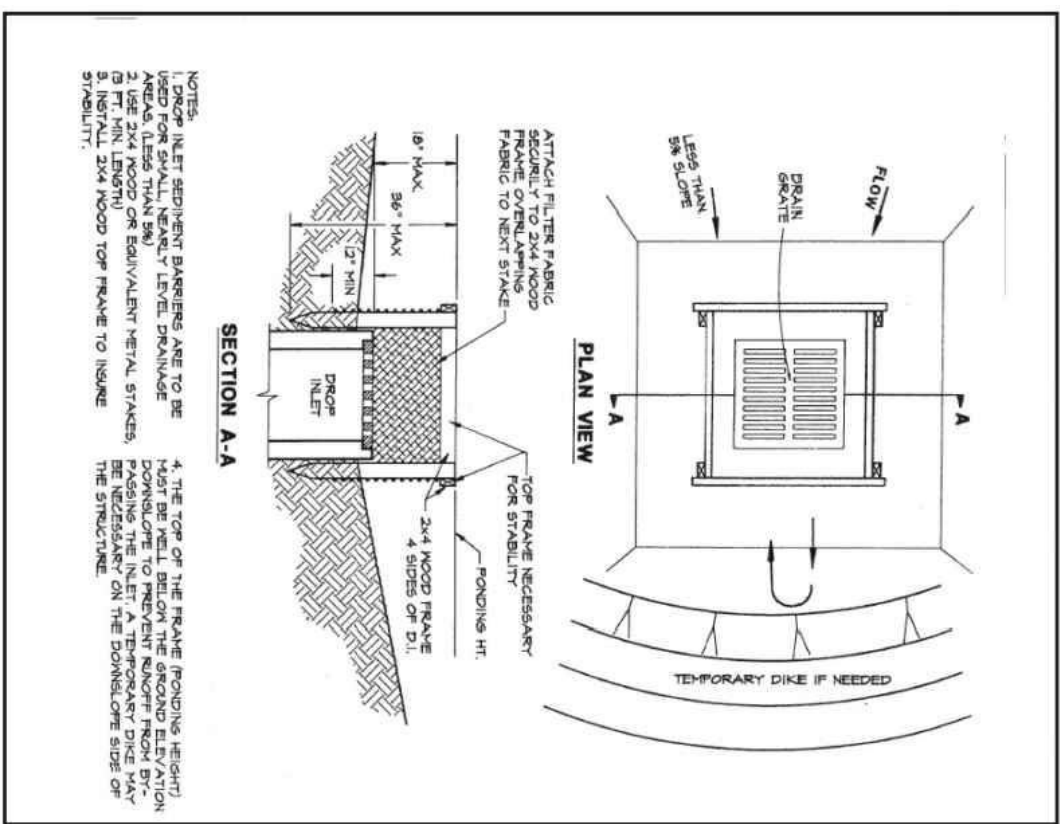
Parapet, oriented face has more material worn grow mold as with porous or release harmful compounds as rubber does.

Filters at constant flow rate of up to 3.2 gpm/linear foot.

## B SILT FENCE



## C DROP INLET SEDIMENT BARRIER



## A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

**NOT FOR CONSTRUCTION**

[illegible]

**PROJECT NAME: OCEAN CLUB RESIDENCES**  
**LOCATION: PARADISE ISLAND, THE BAHAMAS**

### DRAWING DESCRIPTION: EROSION AND SEDIMENT CONTROL DETAILS

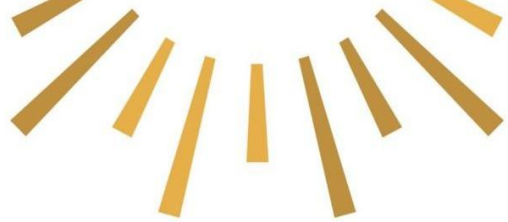
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## **12.5 APPENDIX E – EVACUATION PLAN AND MUSTER LOCATIONS**

This Evacuation Plan is designed to ensure the safety of all personnel, contractors, and visitors on the construction site of The Ocean Club Residences at Cabbage Beach. This plan provides guidelines for a safe, orderly evacuation in case of emergencies, including fire, extreme weather, structural collapse, or any other event that poses an immediate threat to life and safety.

The Evacuation Plan applies to all on-site personnel, including contractors, employees, and any authorized visitors. It includes designated evacuation routes, assembly points, and emergency communication procedures to ensure everyone on-site can safely exit the area in an emergency.

### **Roles and Responsibilities**

#### **Site Evacuation Coordinator**

The designated Project Manager or Health and Safety Officer will oversee the evacuation process, ensuring that everyone on-site is accounted for at the assembly points.

#### **Floor Wardens**

For each work area or building, a designated Floor Warden will assist with clearing the area, guiding personnel along evacuation routes, and ensuring that no one remains in dangerous areas.

#### **Health and Safety Officer**

Ensures all personnel are trained in evacuation procedures, updates the plan as needed, and coordinates with emergency services.

#### **All Personnel**

Must be familiar with the evacuation routes, respond immediately to alarms, and follow the instructions of Floor Wardens and the Site Evacuation Coordinator.

### **Evacuation Procedures**

**Evacuation Signal:** A continuous alarm or an announcement over the PA system will signal the need to evacuate. In cases where alarms may not be heard (e.g., due to machinery noise), Floor Wardens will notify personnel directly.

#### **Immediate Action:**

- Stop all work activities immediately.
- Secure any potentially hazardous equipment, if safe to do so.
- Follow designated evacuation routes to the nearest safe exit.

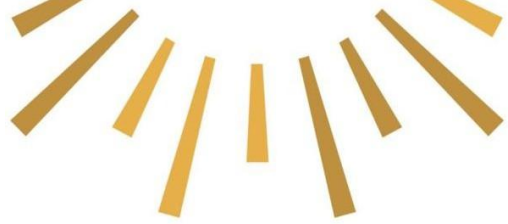
#### **Evacuation Routes**

Clearly marked evacuation routes will be posted throughout the site and in high-visibility areas.

Primary routes include pathways that lead away from structures under construction, avoiding hazardous zones such as areas with heavy machinery, excavations, and active worksites.

#### **Assembly Points**

**Primary Assembly Point:** Located at the designated area north of the site, well clear of construction activities and potential hazards.



Secondary Assembly Point: Located at a safe distance to the south, available if the primary point is inaccessible.

Each assembly point will have a posted map and list of contact numbers for emergency services.



The red circles show the muster locations.

### **Special Considerations**

#### **Weather-Related Evacuations**

For extreme weather events such as hurricanes or tropical storms, personnel will be notified in advance to halt all activities and evacuate as per the designated evacuation routes.

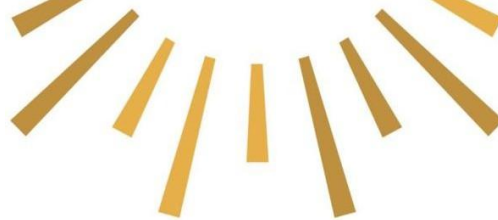
#### **Chemical or Environmental Hazards**

If an evacuation is required due to hazardous material exposure, avoid evacuation routes near affected areas and proceed to assembly points upwind of the hazard.

### **Emergency Communication**

**Primary Communication** - In case of an evacuation, the Health and Safety Officer will coordinate communication with local emergency services and provide updates to personnel.

**Secondary Communication**-Two-way radios and mobile phones will be used to maintain communication between Floor Wardens and the Site Evacuation Coordinator during an evacuation.



## 12.6 APPENDIX F – HEALTH AND SAFETY PLAN

### 1. PURPOSE

---

This Health and Safety Plan (HSP) establishes a framework to ensure the safety and well-being of all personnel, contractors, visitors, and the general public during construction activities. It defines the health and safety standards required on-site, guiding contractors while allowing flexibility for their specific health and safety protocols. This plan aims to mitigate risks associated with large-scale coastal construction and ensure compliance with Bahamian occupational health and safety regulations. This generic Health and Safety Plan is intended as a foundational guide for *The Ocean Club Residences at Cabbage Beach* project. Each contractor must adhere to this plan while implementing additional measures suited to their specific scope of work.

### 2. SCOPE

---

This HSP applies to all activities within the boundaries of the project site at Cabbage Beach, including excavation, building construction, dune management, invasive species removal, and landscaping. It also addresses safety procedures for beach access, temporary installations, and other site operations. The HSP is designed to cover the duration of construction and decommissioning, expected to span approximately 43 months.

### 3. HEALTH AND SAFETY GOALS

---

- A. Zero incidents or injuries throughout the project.
- B. Compliance with local and international health and safety regulations.
- C. Safe beach access for the public and project personnel.
- D. Effective communication and coordination between contractors and the general public.

### 4. ROLES AND RESPONSIBILITIES

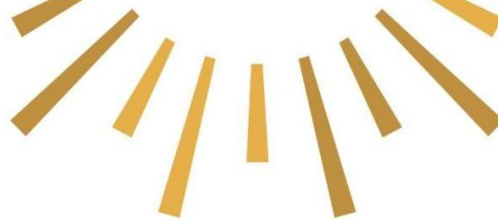
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**Project Manager** - Ensures compliance with the HSP across all activities, liaises with contractors, and communicates safety standards and incident reporting protocols.

**Health and Safety Officer** - Monitors site activities, conducts inspections, manages safety records, and addresses any non-compliance issues.

**Contractor Site Managers** - Each contractor's Site Manager ensures that their team adheres to both the generic HSP and their specific health and safety plans.

**Employees and Contractors** - All personnel on-site are responsible for adhering to safety protocols, reporting hazards, and wearing required personal protective equipment (PPE).



## **5. RISK ASSESSMENT AND MANAGEMENT**

---

A preliminary risk assessment identifies the main hazards associated with the site.

- A. Geological Impact - Excavation and pile-driving activities may affect sand dunes and cause potential site erosion. Contractors must use barriers, such as temporary retaining walls and erosion control methods, to manage risks.
- B. Heavy Machinery - On-site use of heavy machinery necessitates controlled access, operator certification, and regular equipment inspections.
- C. Temporary Structures- Installation of sheet pile walls and access roads requires specific structural checks to prevent collapse or environmental runoff.
- D. Beach Access and Public Safety- Protective fencing, signage, and controlled access paths will be maintained to keep the public safe and away from construction zones.

## **6. HEALTH AND SAFETY POLICIES**

---

Personal Protective Equipment (PPE) is mandatory for all personnel on-site, including helmets, high-visibility vests, gloves, and steel-toe boots.

Emergency Response Plan (see section 8 in the EMP) - Clear emergency procedures will be established for events like extreme weather, fire, or medical emergencies, with designated assembly points and emergency contact lists posted at strategic locations.

First Aid - First aid kits and trained personnel will be available at all active work zones. Contractors are required to have additional, accessible first aid supplies for their specific areas.

## **7. HEALTH AND SAFETY PROTOCOLS**

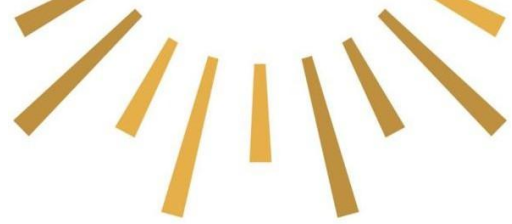
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Site Orientation and Training - All personnel must complete site-specific safety training before starting work, covering site layout, emergency procedures, hazard identification, and reporting protocols.

Visitor Management - Visitors must sign in, receive a safety briefing, and be accompanied by a designated site representative.

Incident Reporting and Investigation - Any incidents, injuries, or near-misses must be reported immediately. The Health and Safety Officer will conduct investigations to determine the root cause and recommend corrective actions.

Hazardous Material Handling - All materials with potential environmental or health hazards will be managed according to safety data sheets (SDS) and disposed of following environmental regulations.



## **8. SITE-SPECIFIC HEALTH AND SAFETY MEASURES**

---

Erosion and Flood Control - Temporary structures, such as the sheet pile wall, will prevent runoff and erosion, safeguarding beach areas and neighboring properties. Contractors must monitor and maintain these structures throughout the project.

Noise and Dust Control - Mitigation measures, including equipment maintenance and dust barriers, will minimize noise and dust, reducing the impact on surrounding businesses and residents.

Public Safety along Beach Access Routes- Safety fencing and clear signage will delineate public access pathways, keeping visitors safely away from construction zones while providing necessary beach access.

## **9. COMMUNICATION AND COORDINATION**

---

Daily Briefings- Contractors are responsible for holding daily toolbox talks to review job-specific hazards, address questions, and reiterate safety standards.

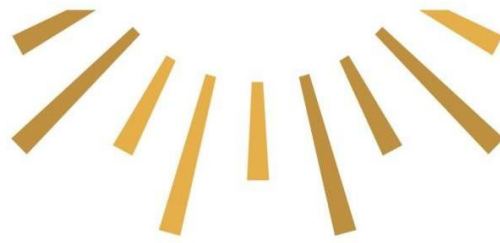
Monthly Safety Audits-Regular inspections will ensure compliance with the HSP. Any identified risks will be documented and addressed promptly.

Stakeholder Communication-Clear communication with local vendors, nearby businesses, and the public will ensure understanding of temporary changes to beach access and parking areas.

## **10. PLAN REVIEW AND CONTINUOUS IMPROVEMENT**

---

This HSP will be reviewed quarterly or as needed to incorporate feedback, address emerging risks, and align with best practices in health and safety. Contractors are encouraged to submit recommendations and report any necessary adjustments to the plan to enhance site safety.



## 12.7 APPENDIX G – INCIDENT INVESTIGATION REPORT FORM

This incident (accident, illness, exposure, etc.) investigation record shall be kept on file for at least 1 year after the date of occurrence. All affected employees and applicable third parties shall be provided with a copy of incident records upon request.

| Incident Information                     |                           |
|------------------------------------------|---------------------------|
| Name(s) of Affected Employee(s):         | Date of Incident:         |
| Work Area of Affected Employee(s):       | Date Investigation Began: |
| Describe Nature of Incident:             |                           |
| Part(s) of Body Affected:                |                           |
| Describe Medical Treatment Administered: |                           |

| Witness #1 Information             |           |
|------------------------------------|-----------|
| Witness Name:                      | Phone:    |
| Witness's Description of Incident: |           |
| Witness Signature:                 | Position: |

| Witness #2 Information |  |
|------------------------|--|
|------------------------|--|



|                                    |           |
|------------------------------------|-----------|
| Witness Name:                      | Phone:    |
| Witness's Description of Incident: |           |
| Witness Signature:                 | Position: |

| Investigation Results                                                                     |                                                          |
|-------------------------------------------------------------------------------------------|----------------------------------------------------------|
| List of contributing factors/root causes:                                                 |                                                          |
| Was a mandatory safe work place violated?                                                 | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Was the unsafe condition, practice or protective equipment problem corrected immediately? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If no, what has been done to ensure correction?                                           |                                                          |
| Do additional mandatory safe work practices need to be implemented?                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If yes, please describe safe work practice:                                               |                                                          |
| List corrective actions taken and date implemented:                                       |                                                          |
| Signature of Investigator:                                                                | Date:                                                    |
| Signature of Person Responsible for Corrective Actions:                                   | Date:                                                    |



## 12.8 APPENDIX H – PUBLIC CONSULTATION

**Public Consultation Meeting Report  
The Ocean Club, Four Seasons Residences  
Paradise Island, The Bahamas**



**The Department of Environmental Planning and Protection  
Ministry of Environment  
Charlotte House, 1<sup>st</sup> Floor Charlotte G Shirley Street  
Nassau, The Bahamas**

**Submitted by: BRON LTD  
57 Airport Industrial Park  
P.O. Box CB-11524  
Nassau, The Bahamas**

**On Behalf of:  
A I LAND BAHAMAS LTD  
New Providence, The Bahamas  
11<sup>th</sup> November 2024**

**Minutes of the Ocean Club, Four Seasons Residences, Bahamas  
Department of Environmental Planning and Protection Environmental  
Impact Assessment Town Hall Meeting**

Project: Ocean Club, Four Seasons Residences, Bahamas

Date: October 10, 2024

Location: Queens College Auditorium, Village Road, Nassau, New Providence

Time: 6:30 PM – 7:18 PM

**1. Call to Order and Welcome**

- The meeting was called to order by Dr. Neeley at 6:30 PM.
- Dr. Neeley outlined the purpose of the meeting, which was to fulfill the legislative and regulatory requirements set by the Department of Environmental Planning and Protection (DEPP) regarding the project's Environmental Impact Assessment (EIA). Dr. Neeley shared the process for EIA submission and approval, as well as contact information for the DEPP.

**2. Presentation**

- Lucienne Walpole and Mark Daniels presented an overview of the Ocean Club, Four Seasons Residences project. The presentation lasted 15-20 minutes and covered key aspects of the development, including the scope of the project, environmental considerations, and vendor accommodations.
- No interruptions were noted during the presentation.

**3. Questions and Answers**

- During the QCA session, three members of the audience made comments and raised questions:
  - Dr. Veronica McIver made a comment that she felt it was not right that vendors would be removed from the beach and that she was most concerned about the welfare of Bahamians. She asked for details on how vendors were being accommodated.
    - Mrs. Walpole reiterated the steps the project was taking to accommodate vendors and reminded Dr. McIver that the project was providing beach access for vendors during the construction of the project.
  - A male audience member, Capt. Kirk made a comment about vendors having worked on the beach for many years and needing to support their families.
    - Mrs. Walpole acknowledged that the transition would be difficult

## The Ocean Club, Four Seasons Residences Bahamas

- Maria Daxon, lawyer, asked a series of questions related to vendor lease terms, and the number of vendors to be included in plans for permanent stalls on the beach access path.
  - Mrs. Walpole and Mr. Daniels confirmed that details were still being finalized related to the lease terms and the number of vendors to be included in the count for permanent stalls. Mrs. Walpole noted that this was the first of many stakeholder engagement meetings and that stakeholders should reach out to the project and to the government to ensure their perspectives are taken into consideration.
  - Ms. Daxon made further comments related to the land of Bahamians being sold off and Bahamians being taken advantage of.
  - Dr. Neeley reiterated that the focus of the meeting was the EIA and environmental concerns and requested that questions remain centered on that topic.

### 4. Additional Questions

- Dr. Neeley moved to close the meeting, however, Ms. Daxon stood and raised additional questions, including:
  - Whether vehicles would be allowed to use the permanent access path.
    - Mrs. Walpole noted that at this time there were no plans to allow vehicles access to the permanent access path given the safety hazard it could create with pedestrians, but that there might be alternative ways to solve this problem and that this and other stakeholder meetings will help the project to learn more about needs.
  - Vendor rights to sell services/goods on the beach.
    - Mrs. Walpole responded by noting that the project was still working to understand how it will manage the relationship with vendors and others on the beach and would continue to engage with stakeholders to inform the decisions being made.
  - Ownership of the access path and the beach itself and when the property was sold.
    - Mrs. Walpole confirmed that Access Industries Real Estate owns the property including the access path, but that Bahamian legislation means that up to the high-water mark is public property.
  - Timeline of the project and consultation with vendors.
    - Mrs. Walpole committed to continuing the engagement with all stakeholders involved, but that the team had already started engaging with some vendors.
- Dr. Neeley interjected to remind attendees that other forums would address socio-economic concerns, but that this meeting was specifically for addressing environmental concerns.

## The Ocean Club, Four Seasons Residences Bahamas

- Ms. Daxon said that she would take her questions to the public domain and continue to advocate for the rights of Bahamians.

### 5. Adjournment

- Dr. Neeley once again moved to close the meeting by asking if there were any other questions and confirming that there were no questions raised by those participating via zoom. There were no further questions and participants were reminded that additional questions and comments could be submitted to DEPP and to the Developer by email and whatsapp number (242) 822-6399 until November 11th, 2024.
- The meeting was adjourned at 7:18 PM.

**Prepared by: Logic Inc. Consultancy**

**Date of Submission: Oct. 27, 2024**

### In Person Attendees

|                                                                                                                                                                                                                           |                                                                                                                                                                                                                        |                                                                                                                                                                                                               |                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eric Sawyer III<br>Tyrese Campbell<br>Leslie Crawley<br>Ilano Noel<br>Maurice Moor<br>Nick Kalman<br>Travis Williams<br>Ryan Knowles<br>Greer Bain<br>Anthon Bowleg<br>Renita Cleare<br>Rondon Williams<br>Kevin Sweeting | Brian Williams<br>Pernell Kelly<br>Danny Lowe<br>Desmond Dean<br>Corey McBride<br>Irene Kelty McBride<br>Sean Bain<br>Kashan Culmer<br>Janeen Bullard<br>Darlene Treco<br>Neil Bostwick<br>Elena Bargo<br>Tanea Miller | Timothy Smith<br>Drexon Thompson<br>Trevon Thurston<br>John Conway<br>Sonia Brown<br>Janelle Sands<br>Ashley Ginton<br>Lauren Miller<br>Nick Dean<br>Ealey Hanna<br>Hazel Harris<br>Maria Daxon<br>Paul Morey | Kevin Turnquest<br>YvonJean Deveaux<br>Ranwa Ferguson<br>Richard Jones<br>Samantha Rolle<br>Burnell Moxey<br>Ed Fields<br>Edroy Williamson<br>Trevette Williamson<br>Jay Williams<br>Stephen Strackan<br>Dexter Avery<br>Vincent Forbes |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Virtual Attendees

|                                                                                                                                     |                                                                                                                 |                                                                                                                         |                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Virginia Chan<br>Indira Thompson<br>Cameron Symonette<br>Reginald Ferguson<br>Randy Burgess<br>Scott Johnson<br>Christopher Adderly | Mark Dowley<br>Allanique Hunter<br>Rob Chamberlain<br>Eric Carey<br>Tim Rodland<br>R. Nottage<br>Herbert Pinder | John Bethel<br>Janelle Sands<br>Adah Deveaux<br>Shavonne Deveaux<br>Lazar Charlton<br>Westend Nassau<br>Britini Knowles | Agnessa Lundy<br>Marsha McIntyre<br>Dulcita Ferguson<br>Reid Boren<br>Taylor Collins<br>Stazzie<br>Hayley |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|

## The Ocean Club, Four Seasons Residences Bahamas

|                                                                         |                                                                   |                                                                   |                                  |
|-------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------|
| Aranha G. Pyfrom<br>Nicollette Burrows<br>Peter Douglas<br>Mike Summers | Vaughn Roberts<br>Steven Kemp<br>Adam Douglas<br>Celeste Christie | Candy Chan<br>Suzette Butler<br>Dominique Turner<br>George Thomas | Jen<br>QueTee<br>MD<br>PD<br>MLS |
|-------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------|

### **Meeting Transcript**

#### **Slide 1: Title Slide**

##### **Lucienne Walpole:**

“Good evening, everyone. Thank you for joining us. First, I want to say thank you to the Department of Environmental Planning and Protection for hosting this public consultation meeting for The Ocean Club, Four Seasons Residences in the Bahamas project. I’m Lucienne Walpole, and I’m here to present key aspects of this project, including our approach to environmental sustainability and community engagement. I am an architect by training and the project manager for Two Roads Development, one of the partners responsible for building Ocean Club, Four Seasons Residences, along with the Four Seasons and Access Industries Real Estate. I have worked in The Bahamas, specifically designing spaces at the Baha Mar Resort. I am happy to be here today to present what we believe is an amazing project for Paradise Island and The Bahamas.”

#### **Slide 2: Our Bahamian Partners**

##### **Lucienne Walpole:**

“To begin, we want to acknowledge our collaboration with Bahamian partners, like BRON, who is represented by Mark Daniels today. Mark will be presenting on the environmental impact of the project. We have also been working with Woslee Construction who will lead the work here in The Bahamas, as well as, Graphite Engineering, IBS and ArchVenture, who are all playing an essential role in bringing this project to life. Their local expertise and guidance have been invaluable in ensuring this development aligns with Bahamian values and benefits the community.”

#### **Slide 3: Agenda**

##### **Lucienne Walpole:**

“Here’s an outline of today’s presentation. We’ll start with an overview of the project, followed by details on the location, public beach access, and opportunities for local vendors. We’ll then discuss employment and economic benefits, the use of Bahamian products and services, and environmental considerations. We’ll conclude with next steps and opportunities for community engagement, followed by a QCA session.”

#### **Slide 4: Project Overview**

**Lucienne Walpole:**

“The Ocean Club, Four Seasons Residences, Bahamas is a project with a \$300 million initial investment. It will be a condo/hotel featuring 67 residences, from one to five bedrooms— lending itself to longer stays and larger groups. We estimate that the project will have a projected economic impact of \$715 million over 20 years. This development includes amenities such as a gym, spa, two beachfront dining venues, a kids’ club, teen room, family and adult pools, and a splash pad, with construction set to begin at the end of 2024 and completion anticipated in 2028. One thing I’d like to point out is that we expect greater economic impact than with a typical condo development because of the hotel rental pool, as well as the ability of homeowners to lock off sections of their residences so that it can be rented. In other words, the development will cater to long stays, as well as shorter stays which will further stimulate the local economy.”

#### **Slide 5: Project Location**

**Lucienne Walpole:**

“The project will cover approximately 6.15 acres adjacent to the Ocean Club Resort, building on its 60-year legacy. It’s ideally located on prime beachfront, which will support significant economic impact and align with the area’s longstanding tourism and hospitality presence. Once completed it will be the largest Four Seasons in the region.

#### **Slide 6: Beach Access for the Public**

**Lucienne Walpole:**

“We understand the importance of maintaining beach access for the public. We have worked closely with the government to create a permanent solution for access to Cabbage Beach. During construction, we will ask the public to use alternative pathways on Paradise Island for continued beach access. Post-construction, there will be permanent and enhanced access to Cabbage Beach with a permanent 15-foot-wide landscaped path, which will include vendor stalls and lighting to ensure safety.”

#### **Slide 7: Beach Access for Vendors**

**Lucienne Walpole:**

“To support local vendors, we have committed to maintaining vendor access during construction. Once the project is completed, vendors will benefit from upgraded stalls with storage and restroom facilities, available at a nominal rent of \$1 per month. Additionally, vendors will receive specialized training from the Four Seasons to align with luxury brand standards while maintaining their independence.”

### **Slide 8: Employment and Training Opportunities for Bahamians**

**Lucienne Walpole:**

“We are committed to creating job opportunities for Bahamians, with an 80-20 employment ratio favoring Bahamians during construction, which will increase during the operational phase. We’re partnering with local organizations to offer training that will help Bahamians advance in managerial and support roles, fostering long-term career growth.”

### **Slide G: Economic Benefits**

**Lucienne Walpole:**

“This project will create approximately 1,000 jobs during construction and 200 permanent positions post-completion. In addition, we’re supporting local businesses by offering technical and advisory support for partnerships, as well as opportunities for local contractors to participate in construction projects.”

### **Slide 10: Opportunities for Bahamian Businesses and Labor**

**Lucienne Walpole:**

“There will be various opportunities for local businesses in areas such as concrete masonry, landscaping, plumbing, and security, among others. Our goal is to prioritise Bahamian talent and suppliers in these critical aspects of the project.”

### **Slide 11: Commitment to Bahamian Products and Services**

**Lucienne Walpole:**

“We’re dedicated to showcasing Bahamian culture by incorporating local artwork, music, and cuisine. At least 40% of our agricultural and landscaping supplies will be sourced locally, and we’ll integrate Bahamian culinary elements into our restaurant offerings.

And now I will turn it over to Mark Daniels to talk more about the environmental impact and how we will mitigate any impact”

### **Slide 12: Current Environmental Settings**

**Mark Daniels:**

“As Lucienne said, my name is Mark Daniels and I’m here representing BRON. Now, let’s discuss the environmental setting. The project site includes avian species and protected plant species. While the plant habitat consists primarily of invasive species, you can see from the pictures that there has already been disturbance of the natural habitat. We have found debris and trash on the property just through our initial surveys.”

### **Slide 13: Environmental Findings**

**Mark Daniels:**

“Our environmental impact assessment identified potential impacts, such as habitat loss and increased flooding risk. We’ve developed mitigation measures including restoring sand dunes, removing invasive species, reintroducing native flora, and using silt fencing to manage construction-related issues.”

### **Slide 14: Next Steps and Community Involvement**

**Lucienne Walpole:**

“Thank you, Mark. Just to close, as we move forward, we’re committed to transparency and regular communication with the community. We’ll provide ongoing updates and opportunities for feedback, while working closely with Bahamian businesses and stakeholders to ensure mutual benefit.”

### **Slide 15: QGA and Closing Remarks**

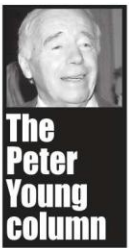
**Director Neeley:**

“Thank you, Mrs. Walpole and Mr. Daniels for the presentation. Thank you to the audience for your attention and interest. We’re now open for questions and would like to hear your feedback. If you have further comments or questions, please reach out through the provided contact details. I have already given you all the contact information for DEPP but you can see it up here, as well as the contact information for Two Roads. Remember, the period for submitting comments will end on November 11, 2024.”

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# Further escalation in the Middle East

AS indicated in last week's column, I realise only too well that it is superfluous to offer comment on issues that already receive wide media coverage unless there is a recent new dimension to consider. That was the case in relation to the new issue of use in Russian territory by Ukraine of US and UK-supplied long-range missiles which I wrote about last week.



The Peter Young column

The principle applies as well to the current conflict in the Middle East with which the world's media is preoccupied. The new dimension of this, which is receiving major publicity and cannot be ignored, is surely last week's unprecedented and audacious series of attacks on numerous handheld communications devices used by Hezbollah, which, reportedly, had opted for relatively primitive such devices to avoid detection. Hezbollah - the terrorist group based in Lebanon which is said to be its unwilling host - indiscriminately fires rockets and bombs into northern Israel on a daily basis, forcing some 60,000 residents to move away from the threatened border area.

This targeting and blowing-up of numerous individual pagers and walkie-talkies, resulting in large numbers of fatalities and injuries, is presumably the work of Mossad, Israel's renowned and chillingly effective intelligence service, though Israel has neither confirmed nor denied responsibility for

such an unorthodox and daring operation. Far from being one involving indiscriminate mass murder, as has been maintained by some, this was clearly a "precision" exercise specifically targeted against Hezbollah operatives. Since then, Israel and Hezbollah have been exchanging fire after Israel killed a top commander in a strike on southern Beirut, and the UN has warned that the region is "on the brink of imminent catastrophe" as fear of an all-out war grows.

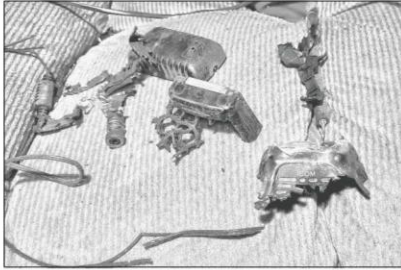
Not having worked directly on the issue during a career in the diplomatic service, I do not pretend to be any sort of expert on the overall Arab-Israeli dispute or its peace process over the years. But people of my generation recall the Six-Day War in 1967 when

five Arab countries invaded Israel and were defeated quickly and comprehensively. Like others I have, of course, read about the subsequent wars and endless limited conflicts together with efforts to achieve some sort of modus vivendi through developments like the Oslo Accords. But now, more than 75 years since the establishment of the State of Israel, the sad reality is that peaceful coexistence with the Palestinians has still not been achieved as the country now finds itself engaged in conflict on both its northern and southern fronts.

It has been interesting to do additional research about the history of the region in order to try to understand the situation better, particularly in relation to the legitimacy of claims by Palestinians to statehood while maintaining, with others, that Israel does not even have the right to exist so should be annihilated. There are various well documented and succinct histories of the Arab-Israeli dispute on the internet that are worth studying, not least by many of those who participate in pro-Palestinian marches but who apparently have little knowledge or understanding of the events they are protesting about.

This is, of course, a complex subject that in the space available one can do little more than touch on today. But, from all the evidence, it seems that there can be no real progress until the Palestinians become properly identified and unified as a people - bearing in mind, for example, that some 20 percent of Israeli citizens are Arabs living peacefully within Israel's borders - so that they can achieve the dignity of statehood under the two-state solution the West as the only way to resolve the issue.

Furthermore, there can be no overall normalisation of relations and lasting peace unless the Israelis become sufficiently confident about their own security within their existing borders to persuade them to make concessions. They seek to defend themselves and are widely slammed by others because of their ruthlessness and extreme methods in protecting what they see as their vital interests in fighting for their very existence. At the same time, it is indisputable that the wholesale killing of civilians can never be acceptable under any circumstances and should always be condemned. So it is equally understandable that the West should rail against Israeli brutality



THIS video grab shows a walkie-talkie that was exploded inside a house, in Baalbek, east Lebanon, last week.

Photo: AP

and excesses in bombing civilians in Gaza which the Israelis, for their part, see as inevitable in their efforts to root out and destroy Hamas who have become embedded in the local community. From what I have read, the area now known as the disputed West Bank was originally called Judea and Samaria in the Bible and was inhabited by a mixture of people. As well as places like Hebron, it includes Jerusalem which, of course, has been the spiritual and religious centre of the Jewish people for thousands of years and a vital part of Jewish history and culture. But, whatever one's interpretation of history - and the metaphorical one delves into this the more one realizes the extent to which it is unclear and disputed - the simple reality is that Israel, with a current population of nearly ten million, has existed formally since 1948 and will continue to do so with the support of the US and other Western countries. It possesses the military means, capacity, will and expertise to defend

itself as a democratic state under international law. In protecting its existence and sovereignty against external attack and destruction, it is bent on defending itself while, by contrast, Hamas and Hezbollah are illegitimate, non-state terrorists who bent on murdering and abducting Israelis in large numbers on October 7 last year.

Despite the current turmoil, it is too much even to harbor the hope that at some point these terrorist groups can be disarmed and sidelined and that Palestinians and Israelis can live peacefully in harmony in the same region. The 2000 Abraham Accords normalized relations between Israel and the Arab states of Bahrain and the United Arab Emirates. Is it realistic to think that these Accords could ever be extended - because the notion of wiping ten million people from the face of the map is clearly not

with his fiery rhetoric. He has played a pivotal role in the party's surge among voters and he himself was returned as one of its new MPs. He announced that Reform aimed to field over 2,000 candidates at the local elections in May next year. Thus, it appears that there could be a sea change in the UK's national politics with a move away from the traditional two and three party system, as the new Reform party represents the so-called "silent majority" in a bid to preserve the nation's culture and traditional values. It remains to be seen, of course, whether Reform's surge will be maintained. But, already, people are saying that the Tories should be worried.

## CHANGED POLITICAL LANDSCAPE IN BRITAIN

IT is said that on a government runs out of steam, as the outgoing Tories did well before Britain's General Election in July after 14 years in power, there is usually huge enthusiasm for a new one.

Despite appearances at last weekend's Labour Party annual conference, however, this has not happened following the Party's overwhelming election victory, which suggests that the electorate voted the Conservatives out rather than having much appetite for Labour as the alternative. But, according to the UK press, this lack of enthusiasm for the new prime minister, Sir Keir Starmer, and his colleagues has already

after less than three months in office, deteriorated into criticism of them at unprecedented levels, with his approval rating already well down. Indeed, as early as last month the press reported that the polls were showing that half the country thought that Starmer's new government, overshadowed as it has been by riots, was anyway already on the wrong track.

He is under fire for various reasons. For example, to name just two, cutting the winter fuel allowance for pensioners while giving substantial pay rises to public sector workers and taking so-called "personal pensions" and gifts, which may not be against the rules if

declared but the optics of which are terrible, especially for a Labour prime minister. The UK media and so many others seem to have turned against him to such an extent that it is being suggested his government may not last long given the level of dissatisfaction with its performance so far.

But what is also particularly interesting in Britain's national domestic politics is the sudden emergence of a new right-wing, populist political party called Reform UK. This is in addition to the success of the Liberal Democrats who won more than 70 seats at July's election which was a record for them.

In its strong performance at the election, Reform won 14 per cent of the vote and now has five MPs at Westminster, as the electorate is increasingly becoming disillusioned with the two main political parties.

Founded in 2021 out of the ashes of the Brexit Party, Reform UK has grown from a few thousand to 80,000 in a few months. It celebrated its impressive poll victory with a triumphant conference last week where it was announced that national support for the party now stands at 18 per cent, thus only narrowly trailing the Conservatives. Although, at this early stage it is light on policy substance as a national political party, Reform

offers common sense policies on immigration - that should be orderly and controlled - the cost of living, climate change and issues connected with sovereignty and economic stability while applying traditional Conservative values and policies that the Tories seem to have abandoned. There is also talk of limiting emphasis on diversity that can lead to social fragmentation.

The party's new leader, Nigel Farage, the redoubtable former leader of UKIP (UK Independence Party) and Member of the European Parliament until Britain's withdrawal from the EU in 2020, gave a bravura performance addressing the conference

## ARNHEM - 'A BRIDGE TOO FAR'



AERIAL reconnaissance photo of the Arnhem road bridge taken by the Royal Air Force on 19 September, showing signs of the British defence on the northern ramp and wrecked German vehicles from the previous day's fighting.

MANY people are familiar with this name of an epic war film depicting the Battle of Arnhem during the Second World War which took place 80 years ago. At the time of writing, commemorations of the famous battle were due to take place over this weekend in the town of Arnhem in the Netherlands, as part of the remembrance ceremonies of important events during the war.

I draw attention to this today because of the significance of this battle towards the end of the war not long after the successful D-Day landings in France in June of that year.

As part of what was called Operation Market Garden, Arnhem was claimed to have been the largest airborne assault in history and one of the boldest Allied operations of the war. It was said to have been an ambitious joint

airborne and ground forces endeavour designed to seize crucial bridges across the Rhine river as one element of an Allied attempt to outflank German defences in north-west Europe in order to hasten the end of the war.

Historians say that Operation Market Garden was a failure for the Allies since German forces were victorious at Arnhem. But, of course, the war ended the following year since Germany surrendered within months and the war in Europe ended on VE Day on May 8, 1945.

It must gladden the hearts of all those involved - including the families of the 2,000 British and Commonwealth soldiers who lost their lives at Arnhem - that Britain and its wartime allies keep alive the memories of such important wartime events; and the organisers should surely be applauded.

## The Department of Environmental Planning & Protection

Ministry of the Environment and Natural Resources  
Ground Floor, Charlotte House, Shirley Street

### DEPARTMENT OF ENVIRONMENTAL PLANNING AND PROTECTION NOTICE OF PUBLIC CONSULTATION

The public is hereby advised that A I Land Bahamas Ltd. proposes to carry out a project on Casino Drive, Paradise Island. The public is invited to participate in a public consultation meeting to be held on 10 of October 2024, by the project proponent to hear and discuss matters relating to the proposed project. The consultation meeting will be held at/via Queen's College on Village Road at 6:30 pm. The meeting can be accessed online during the same time via the following link <https://us05web.zoom.us/j/88244964785?pwd=SUlKRC0YUWp3S0YlTGZlbnRlZk1pYy1>. This is a Zoom Meeting with the following ID and passcode: Meeting ID: 882 4496 4785 Passcode: ZKMT02

A general description of the project is as follows:

1. Four (4) buildings which include Condominium-Hotel units,
2. A Back of House (BOH) area,
3. A Fitness & Spa Centre, Pools,
4. Two (2) Restaurants,
5. An Underground Parking Garage.

The project environmental document(s) are available online at:

<https://ocproject.info/environment/cia/>

The general public and interested parties are invited to submit written comments to the Department of Environmental Planning and Protection at [information@depp.gov.bs](mailto:information@depp.gov.bs) or [cec@depp.gov.bs](mailto:cec@depp.gov.bs) with respect to the proposed project.

The general public and interested parties are invited to submit written comments to the Developer at [Info@ocproject.info](mailto:Info@ocproject.info) with respect to the proposed project.

## 'Boom town' needed to absorb GB Power rise

FROM PAGE B1

The GB Chamber chief told this newspaper: "We just need disclosure. We need to understand."

"If they're losing a lot of money, we need the electricity and appreciate that this [the rate structure] is something that has to happen. But we also need to see what the outflow is."

The "outflow" refers to the dividends that Emera, the Canadian-owned utility giant, may have been taking out of GB Power in recent years.

None of this has been disclosed because GB Power is now a private company, no longer a publicly-traded one. Mr Carey also voiced misgivings about the utility relying so heavily on its customer base for capital investment financing, adding: "If it's capital expenditure that they're asking the customer to pay for, that becomes an issue."

"The returns, I'm sure, are not what they'd like it to be. In an area of New Providence that's fairly populated, for example, you have a tremendous number of customers connecting into the grid. In Freeport, you can have power supply going into an area where there are only a couple of people."

"The Power Company is still having to provide these energised lines throughout the whole area. I have to say it's not cost effective for them, and maybe the returns aren't as rapid as they'd like them to be. But it's one thing going into business. I'm in business myself. The returns are not what I'd like them to be, but it's one of those things you try to improve and grow and participate in the growth."

Asked whether Grand Bahama's economy can bear what GB Power is proposing, Mr Carey told Tribune Business: "We can absorb it easily if we can get the economy moving in Freeport. If it's going to stay as it is, no, but Freeport becoming a boom town, of course, we can easily afford it. But with so many business houses struggling and being marginal it's not really conducive at this point in time."

Besides the 6.32 percent base rate increase, which has been the focus of political and public protest, GB Power's tariff application for 2025-2027 is also seeking to "transfer the charge associated with the PharmaChem shutdown" to its rates.

What this means, and the implications for consumers, is not explained but PharmaChem - which went into Supreme Court-supervised liquidation earlier this year - was GB Power's largest customer accounting for 5 percent of total load demand.

Documents released by the Grand Bahama Port Authority (GBPA), in its capacity as GB Power's regulator and which would have to approve any tariff increase, affirm that the storm recovery charges related to Hurricanes Matthew and Dorian, which added around one cent per kilowatt hour (KWh) to customer bills, will fall away in 2024 and 2026, respectively.

However, GB Power is now seeking what it terms an "additional regulatory asset recovery" via its fuel charge "to catch up on amortisations that were suspended after Hurricane Matthew" to ease the financial burden on long-suffering businesses and residents.

This will add 0.5 cents to per KWh to consumer bills in 2025, it was revealed yesterday, and one cent in 2026 and 2027. As a result, even with the benefits of hedging that has locked in the price that GB Power will pay for much of its fuel, the utility is predicting that the fuel charge consumers will pay will increase from 12.44 cents per KWh in 2025 to 13.83 cents in 2026 and then to 14.39 cents in 2027.

As to what this means for consumers, the data released yesterday projects that - despite the 6.32 percent base rate increase - residential consumers who use less than 600 KWh per month will see a modest \$1 reduction in their all-in total monthly electricity costs in 2025 when compared to current rates.

However, residential consumers using above 600 KWh per month are forecast to see a slight increase in their monthly bill of \$1. And commercial customers using from 1,000 KWh per month to 50,000 KWh per month will see their all-in cost jump by between \$3.10 to \$67.57, or 0.79 percent to 0.37 percent, based on GB Power's submission.

While estimates for commercial customers will vary based on their specific demands, GB Power's estimates showed that all classes of customers - from the smallest residential user to the large industrial - will see their total monthly energy costs rise in 2026. The extent of the increase



GRAND BAHAMA POWER COMPANY HEADQUARTERS

will range from \$2.64 to \$803.91 (largest users), representing a rise of between 4.05 percent and 4.52 percent in percentage terms.

GB Power, using current rates and fuel charges as the base for its calculations, then forecast that the all-in electricity cost for

2027 will drop compared to 2026 although prices will still be slightly higher than those seen next year. It is also targeting an increase in average base rate revenue from \$269.9m in 2023 to \$277.5m over the next three-year period - a rise of \$7.6m.

GB Power is forecasting that a 10 percent increase in electricity sales over the three-year period through end-2027, calculated in mega watt (mWh) hours, will help it to achieve this base rate increase. Sales are forecast to jump from 286,431 mWh in 2023 to 315,177 mWh driven by increases in all GB Power's major customer categories - residential, commercial and general service/industrial.

Among the key investments that the tariff increase will finance are a \$3m expansion of GB Power's sub-station three years, which the utility touted will "ensure system reliability in a critical area that is experiencing growth".

What was termed "major maintenance" at GB Power's generation plants, worth \$2.8m in 2025 and

\$2.6m in 2027, is required "to ensure plant reliability and availability", while a collective \$9m investment in battery energy storage systems (BESS) is needed to support the utility's solar power drive.

These investments increase the availability of solar power to days and times when power is required, and the solar projects are not able to produce due to weather and/or time of day issues," it was stated.

GB Power plans to make some \$13.5m worth of capital investments in 2025, followed by \$16.5m in 2026 and \$22.8m in 2027. That totals \$52.7m across the three years covered by the present tariff proposal, with a further \$11.9m and \$12m planned for 2028 and 2029, respectively.



### The Department of Environmental Planning & Protection

Ministry of the Environment and Natural Resources  
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The project environmental document(s) are available online at:

<https://ocproject.info/environment/eia/>

The general public and interested parties are invited to submit written comments to the Department of Environmental Planning and Protection at [information@depp.gov.bs](mailto:information@depp.gov.bs) or [cec@depp.gov.bs](mailto:cec@depp.gov.bs) with respect to the proposed project.

The general public and interested parties are invited to submit written comments to the Developer at [info@ocproject.info](mailto:info@ocproject.info) with respect to the proposed project.

**CALL 502-2394 TO ADVERTISE TODAY!**

BAHAMAS PUBLIC SERVICES UNION



### NOTICE

The Bahamas Public Services Union in accordance with Article 7-(1) of the Union's Constitution will hold its Annual General Membership meeting on **Monday 30th September, 2024 at 6:30 p.m.** at The Bahamas Public Services Union Hall, East Street South Nassau Bahamas.

Important matters pertaining to the Union will be discussed

All members are urged to attend.

O'Neil T. Thurston  
SECRETARY GENERAL

GN-3108



### Ministry of Energy and Transport Road Traffic Department

#### Public Notice

The Road Traffic Department wishes to advise members of the public that inspection of all franchise vehicles (4 or less) in New Providence will be conducted at the eastern parking lot of Thomas A. Robinson Stadium from 1<sup>st</sup> October 2024 – 15<sup>th</sup> November 2024, during the hours of 8:00am to 4:00pm.

If further information is required, please contact the Department at [roadtraffic@bahamas.gov.bs](mailto:roadtraffic@bahamas.gov.bs) or (242) 427-9276.

26<sup>th</sup> August 2024  
Road Traffic Department  
Ministry of Energy & Transport  
Commonwealth of The Bahamas

# 'MANY' TAKING UP EXEMPTIONS FOR FIRST-TIME HOMEOWNERS

By FAY SIMMONS  
Tribune Business  
Reporter  
jsimmons@tribunemedia.net

INDIRA Wright, manager in the Real Property Tax Unit of the Department of Inland Revenue, said many individuals have come in to the department to take advantage of the Stamp Tax Amnesty and the VAT exemptions for first-time homeowners.

The amnesty allows homeowners to pay stamp tax based on the value of the land when it was purchased.

Once the amnesty ends on November 30, property owners will have to pay stamp tax on the current assessed value of their property.

Ms Wright said the new portal will expedite the process for persons that

with to take advantage of the amnesty period and exemptions.

"Thus far, it's been going really well," said Ms Wright.

"We've even introduced a new portal so that we can go ahead and quicken the process of your exemption period for that. In addition to that, we also have the amnesty period, and this amnesty was put into effect for those persons who did not have the opportunity to register their properties in years past. We've given them the amnesty to come into the VAT stamp department get your paper stamped, and you have until the end of November to do so at the same price as the value as when you first got your conveyance.

"We're doing everything necessary to make sure that you're getting that done.

the VAT stamp exemption, as well as those who never registered their property."

She warned that failing to register your property with the department will cause future issues and encouraged persons to take advantage of the initiative.

"Surprisingly, we have tons of Bahamians coming in," said Ms Wright.

"We always say the same thing over and over. If you don't register your property, that's a problem for you within the future. So, take advantage of what we're offering now and register."

She said there are generations of Bahamians paying real property tax debts and encouraged homeowners to pay their balances before they are due in March to capitalise on the 10 percent "early bird" discounts.

"There's a time frame in which you have to pay property taxes," said Ms Wright.

"I always encourage persons, if you know you have real property taxes, which all Bahamians do, come in and catch the 10 percent which is the early bird special, and then after that, you don't know how it's going to affect your future."

"You have persons carrying over taxes that makes no sense. You have generations and generations with debts. Come and deal with what you have now, so that you can get this out of the way, we have easier processes. You must be encouraged, because we're now empowering our Bahamian people. More knowledge, more power. The more you know, the more you want to get your business involved. So, I'm

encouraging, encouraging the Bahamas at large to come and deal with your properties."

Dexter Fernandez, operations manager at DIR, explained for first-time homeowners there is a VAT exemption and waived real property taxes for the first five years.

He added that senior citizens can receive a 50 percent discount on their real property taxes for an owner-occupied property on properties values less than \$1.5 m.

"There are some discounts for the first time owner, you have the exemption," said Mr Fernandez.

"There is an exemption that the property is up to 300,000, and as you are in that first home, you have five years on the real property tax side. You are

exempted from real property tax.

"Senior citizens over identified by National Insurance, or if you reach the age of 65 you have a 50 percent discount on your owner occupied, not your rental units or your commercial units, your owner occupied."

"The intent of the law was to assist those that are in the middle class and the lower income bracket. If your house is \$1.5 m you are not considered lower class, there's a cap. You would get a discount up to \$3,250 and then there's an early discount if you pay any billing cycle, if you pay before March 30, there is a 10 percent discount on that property."

## Customer event gives BTC chance to hear their views

FROM PAGE B1

at it as a more intentional effort to get that direct feedback, it's something that we want to continue to do as a company where letting them know that we take them really, we take their experience really important and we want to be able to make sure that we are able to stand up the necessary people, tools and systems to be able to better support them."

Consumers of course, aired their grievances bringing about varying topics including, roaming. One customer claimed it has been an issue for her.

"My top need that I desperately need from BTC, when I'm travelling, I cannot receive any calls and I cannot make any calls unless it's on WhatsApp and that has been a concern for me for a quite a while, but that is a major concern for me because I get to travel quite frequently and so the minute I depart the flight, it seems like my whole network is shut down."

Another customer had the opposite experience,

stating that her phone was the only one able to receive service while in the mountains in China. Customers mentioned trouble with television packages and hacking on WhatsApp among other things.

Gas vouchers and John Bull gift cards were awarded to customers during the luncheon via trivia questions. Sameer Bhatti, CEO of BTC, said: "One of the things I'm most proud of is driving broadband throughout The Bahamas. That's New Providence and the family islands. With that said, my remarks here are brief because I travel two ears to this conversation today. Really to hear from you, really to hear your needs, your points of pain, the opportunities that we have to delight you, not for 2024, but for 2025 and beyond."



INLAND REVENUE AND CLX LOGISTICS

THE EXCHANGE DISCOURSE AT ATRIUM

## GB 'better than in 25 years' in real estate performance

FROM PAGE B1

tend to focus on purchasing real estate in New Providence, the Family Islands offer the "best values" for persons wishing to invest.

He explained many Family Islands have little development on them and persons should look to secure investment

properties on Out Islands while prices are still low.

"When most people think about The Bahamas, 90 percent seems to focus on Nassau," said Mr Christie.

"I travel all over The Bahamas, and all we have is real estate. I mean, you go to most islands in the Bahamas, it's nothing but a sea of

green. You fly over and see very little development, just a little spot here, very little spot there. So, we're framing our real estate mindset based on Nassau and we've got to stop."

"The Family Islands offer the best values around. If you're in Nassau, prices are quite high, but if you want to get going and as an investment, you can buy a cheaper property. Even like \$20,000 can get a nice piece of property in Eleuthera, Cat Island, Abaco, anywhere like that. There's lots

of good deals still out there for people that want to get in the business.

He said the real estate market in Grand Bahama is performing better than it has in 20 to 25 years and most Family Islands, except the southern islands have seen an increase.

"It's been very solid," said Mr Christie.

"I mean, it hasn't really slowed down. Most of the islands in the south is still slow, but Abaco and Grand Bahama have been doing very well. Grand Bahama is doing great, better than it has in 20 to 25 years. Eleuthera is amazing, and Exuma even Long Island, so it's all doing well everywhere."

## Share your news

The Tribune wants to hear from people who are making news in their neighborhoods. Perhaps you are raising funds for a good cause, campaigning for improvements in the area or have won an award. If so, call us on 322-1986 and share your story.



## The Department of Environmental Planning & Protection

Ministry of the Environment and Natural Resources  
Ground Floor, Charlotte House, Shirley Street

### DEPARTMENT OF ENVIRONMENTAL PLANNING AND PROTECTION

#### NOTICE OF PUBLIC CONSULTATION

The public is hereby advised that A I Land Bahamas Ltd. proposes to carry out a project on Casino Drive, Paradise Island. The public is invited to participate in a public consultation meeting to be held on 10 of October 2024, by the project proponent to hear and discuss matters relating to the proposed project. The consultation meeting will be held at/via Queen's College on Village Road at 6:30 pm. The meeting can be accessed online during the same time via the following link <https://us05web.zoom.us/j/88244964785?pwd=SUak80YYPew3SYIGY2nxFSJzvk1PyI>. This is a Zoom Meeting with the following ID and passcode: Meeting ID: 882 4496 4785 Passcode: ZKMT02

A general description of the project is as follows:

1. Four (4) buildings which include Condominium-Hotel units,
2. A Back of House (BOH) area,
3. A Fitness & Spa Center, Pools,
4. Two (2) Restaurants,
5. An Underground Parking Garage.

The project environmental document(s) are available online at:

<https://ocproject.info/environment/eia/>

The general public and interested parties are invited to submit written comments to the Department of Environmental Planning and Protection at [information@depp.gov.bs](mailto:information@depp.gov.bs) or [ec@depp.gov.bs](mailto:ec@depp.gov.bs) with respect to the proposed project.

The general public and interested parties are invited to submit written comments to the Developer at [Info@ocproject.info](mailto:Info@ocproject.info) with respect to the proposed project.

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#### Key Responsibilities:

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- Client Targeting and Outreach
- Relationship Building
- Product Knowledge
- Product Development

#### Qualifications:

- Sales Experience: Proven experience in sales, preferably within the travel or cruise industry.
- Cruise Line Knowledge: Strong knowledge of European cruise lines.
- Language Skills: Fluency in German and English is MUST; proficiency in French and Spanish is a plus.
- Cultural Understanding: Fluency in German and English is essential; proficiency in French and Spanish is a plus.
- Communication Skills: Excellent communication and interpersonal skills.
- Relationship Management: Ability to build and maintain relationships with clients and partners.
- Product Knowledge: Stay up to date on the latest cruise line offerings, itineraries and promotions.
- Organizational Skills: Strong organizational and time management skills.

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You will be contacted by our Company if your skills and experience matches the position that you have applied for.

## Pintard: GBPA should say hard no to electric hike

By FAY SIMMONS  
Tribune Business  
Reporter  
fay@tribunemedia.net

**OPPOSITION** Leader Michael Pintard said the Grand Bahama Port Authority has not "gone far enough" in its decision to suspend its review of Grand Bahama Power Company's base rate increase proposal.

Speaking in Parliament yesterday, Mr Pintard said the GBPA should have given GBPC a "hard no" in response to its application for a 6.3 percent rate increase.

Mr Pintard said

Freeport's municipal government should have made GBPC aware that it is not the "appropriate time" to implement a rate increase,

not only due to unreliable service but because the electricity rates are already high.

"We agree that they should suspend the consideration of a 6.3 percent increase," said Mr Pintard.

"These companies like an albatross around the necks of Bahamians in many ways. We said they should have gone further. They should have not only indicated a suspension of consideration, they should give a hard no, that this is not the appropriate time to bring such an application."

"We are saying to the GBPA, you moved in the right direction, but haven't gone far enough. Indicate to the power company, not only because of your inconsistent supply of electricity, but because rates

were already high before you even considered the increase, we are not prepared to provide any kind of relief at this at this juncture."

Mr Pintard also suggested electricity companies have a five-year rate review instead of three and only be allowed to obtain a rate increase under "extraordinary circumstances."

"We've called for rather than a three-year review of electricity adjustments that you should go to a five-year, and only extraordinary circumstances should cause a company to raise an issue of a rate hike," he maintained.

Mr Pintard also noted the electricity supply in New Providence has been "inconsistent" while electricity bills remain high.

He accused the Davis administration of not conducting competitive bidding during its energy reform and keeping the details of the deal to provide generation a "closely guarded secret".

"The power bills are not going down in New Providence, but yet, if you live all over New Providence, we have inconsistent supply," said Mr Pintard.

What makes it even more damning is that BPL is in the process of a privatisation that the public does not understand the formula being used by the government.

"We know that most of the privatisation has not been competitive. Competitive bidding in very few sections, maybe a portion of the solarisation in

New Providence and the Family Island, but certainly not in the transmission and distribution contracts, certainly not in the generation component. That's the closely guarded secret. And I understand the profit margin for those in generation is substantially more than the persons in T and D."

The Veterinary Medicine Bill was passed in Parliament yesterday, creating a comprehensive regulatory regime for the practice of veterinary medicine and addressing critical areas such as the licensing of veterinarians, establishing professional standards, a veterinary council and the appointment of a registrar.

Mr Pintard advocated for livestock farmers to implement more renewable

energy sources to ensure they can continue to slaughter animals and store meat in a safe environment.

"One of the problems is that they're slaughtering in remote locations, and sometimes in residential areas because they lack power in those remote locations where they work," said Mr Pintard.

"As I think about the farmers in remote areas that need solarization, that need proper roads and infrastructure and light so that they can have a proper area and facilities for slaughtering animals as we grow our animal sector, I think about all Bahamians who today, one of the biggest costs to businesses and to Bahamians, especially the middle class, is the cost of energy."

## Bahamasair seeks expiring US permission's extension

By NEIL HARTNELL  
Tribune Business Editor  
nhartnell@tribunemedia.net

**BAHAMASAIR** wants regulators to extend its existing approval to operate in the US, which is due to expire today, until this authority is fully renewed amid opposition from major American airlines.

The national flag carrier, in an October 1, 2024, regulatory filing requested that the US Department of Transportation "continue the existing authorization" for it to provide passenger, cargo and mail services in the US while it awaits renewal of this permission for a further two-year period through to 2026.

That "existing authorization" is due to expire on October 3.

Bahamasair's latest move comes as both Chester Cooper, deputy prime minister with responsibility for tourism, investments and aviation, and the US embassy in Nassau each reassured that the airline will have no problems servicing its existing US

flight schedule, routes and markets until the Department's decision.

This is despite the Airlines for America consortium, whose members include American Airlines, Jet Blue, FedEx, Delta, Southwest Airlines and United Airlines, urging the US Department of Transportation not to renew Bahamasair's regulatory approval until their concerns over this nation's air navigation services fees are resolved.

The airline consortium, as reported by Tribune Business earlier this week, has made it crystal clear that its bid to create roadblocks for Bahamasair and other local carriers is merely a tactic to obtain leverage and force The Bahamas to bow to its will over the revised air navigation services charges that this nation plans to impose on all users of its sovereign air space.

Mr Cooper yesterday accused Airlines for America and its members of taking "a swipe at

Bahamasair", and attempting to interfere with its ability to provide services in the US, in a bid to find a new angle of attack on the Government and Bahamas Air Navigation Services Authority (BANS) over the fees.

Asserting that The Bahamas has "a sovereign right" to levy fees on all users of its air space, including the

US carriers, the deputy prime minister voiced confidence that "the principles of our position will hold" up against any challenge or attack from Airlines for America.

"This will have no impact on the ongoing operations of Bahamasair. The Department of Transportation has indicated to us that they have no concerns as it

relates to Bahamasair. They understand what the issues are. They understand what the previous complaints have been from this association of airlines," Mr Cooper told reporters outside the House of Assembly.

The conversations are continuing as it relates to the overflight fees and there is no interest in conflating the two issues. So Airlines for America are attempting to get attention to the

SEE PAGE B6



BAHAMASAIR BOEING JET

A reputable financial institution  
is seeking personnel for the following position:

### Senior Collections Officer

#### Key Responsibilities

- Review delinquent accounts, take timely and appropriate action to reduce collection risk and maximize total collections.
- Evaluate high risk accounts to implement recommendations for resolution
- Analyze accounts that need restructuring
- Ensures staff upholds Collection Compliance regulations
- Assist with the serving of Demand Letters and Summons
- Assist in repossessions

#### Requirements

- 3-5 years' experience in Collection/Delinquency Supervisory position
- Must have extensive experience collecting severely delinquent, charged-off debt
- Proficiency with office technology and software such as (Google Suite and Microsoft Office)
- Strong verbal and written communication skills
- Certification in Collections/Delinquency would be a plus

Apply to [hremplemen@bnow@gmail.com](mailto:hremplemen@bnow@gmail.com)

Only suitable applications will be contacted

Deadline for applications October 24, 2024

Local Destination Management Company invites applicants to apply for the position of:

## Event Sales Planner

#### Position Overview-

The Event Sales Planner is responsible for effectively guiding clients through event experiences, identifying solutions that meet their goals and objectives, resulting in a captivating experience. They will use all available tools to ensure maximum event and revenue capture. Grow, maintain and retain relationships with hotel personnel to increase the overall business relationship with hotels. Support company initiatives, core values and business strategies.

#### Job Qualifications

- 4-5 years sales or hospitality experience preferred.
- Prior sales experience in event planning is a plus.
- Knowledge of hospitality industry and sales processes.
- Ability to work unsupervised in a very fast paced environment.
- Be professional in work etiquette and appearance.
- Strong written and verbal communication skills

Remuneration: salary commensurate with experience and qualifications.

Deadline for application is October 10th, 2024 Only suitable applicants will be contacted.

Submit resume to: [destinationbahamas242@gmail.com](mailto:destinationbahamas242@gmail.com)



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- Assist in preparing the annual facilities management budget.
- Develop and manage preventative maintenance processes for sustainable systems.
- Oversee maintenance of our sustainable infrastructure, including solar, wind, rainwater collection, and permaculture systems.
- Prepare detailed project budgets and conduct data analysis for leadership review.

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## CAREER OPPORTUNITY

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A leading Group of Companies in the financial services sector, is seeking an experienced **Chief Executive Officer (CEO)** to manage and control all strategic and business aspects of the Group.

Strategic leadership, and an appreciation for the Group's culture for robust corporate governance, are priority requirements of the role. The CEO will work closely with the Board of Directors and the Executive Management team to drive and establish plans and policies across the Group.

The ideal candidate will have exceptional leadership and communication skills and will be a well-rounded and proven business strategist and relationship builder.

They will have a proven track record of financial acumen, good governance, knowledge and ability to implement a strong operational basis.

The CEO is the public face of the organisation. The ideal candidate will thrive in a high-integrity, high-performance and service-oriented culture, where exceptional customer quality service, transparency, openness and inclusivity are the standard.

The CEO reports to the Chair of the Board of Directors.

For a complete job profile, email **Gabriella Fraser** at [agfraser@viviangroupbahamas.com](mailto:agfraser@viviangroupbahamas.com).

The deadline to apply is October 15th, 2024.





## 12.9 APPENDIX I - ENVIRONMENTAL MONITORING CHECKLIST

|                                                                                                                                                                                     |                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Observer: _____                                                                                                                                                                     | Date: _____                                            |
| Time Started: _____                                                                                                                                                                 | Time Ended: _____                                      |
| Air Temperature: _____                                                                                                                                                              |                                                        |
| Contractor: _____                                                                                                                                                                   |                                                        |
| Site Description: _____                                                                                                                                                             |                                                        |
| Weather: <input type="checkbox"/> Sunny <input type="checkbox"/> Cloudy <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Rainy <input type="checkbox"/> Thunderstorm |                                                        |
| <b>Types of Construction Activities</b>                                                                                                                                             |                                                        |
| <input type="checkbox"/> Land clearing                                                                                                                                              | <input type="checkbox"/> Site Grading                  |
| <input type="checkbox"/> Erosion and Sediment Control                                                                                                                               | <input type="checkbox"/> Excavation                    |
| <input type="checkbox"/> Waste/Hazardous Material                                                                                                                                   | <input type="checkbox"/> Limestone Rock Import         |
| <input type="checkbox"/> Noise Pollution                                                                                                                                            | <input type="checkbox"/> Air Pollution or Dust Control |
| <input type="checkbox"/> Perimeter Fence Secured                                                                                                                                    | <input type="checkbox"/> Fueling                       |
| <input type="checkbox"/> Other                                                                                                                                                      | <input type="checkbox"/> Water/Drains Issues           |
|                                                                                                                                                                                     | <input type="checkbox"/> Oil spill                     |
|                                                                                                                                                                                     | <input type="checkbox"/> Building Construction         |

## 1 SITE CONDITIONS

### 1.1 SITE SAFETY AND HEALTH

| Areas of Compliance with the Approved Site EMP                        | Compliance with EMP |    |     | Remarks |
|-----------------------------------------------------------------------|---------------------|----|-----|---------|
|                                                                       | Yes                 | No | N/A |         |
| i. Appropriate usage of Personal Protective Equipment (PPE).          |                     |    |     |         |
| ii. Appropriate signage installed for restricted and hazardous areas. |                     |    |     |         |
| iii. Proper maintenance and availability of fire extinguishers        |                     |    |     |         |
| iv. Proper maintenance and availability of first aid resources        |                     |    |     |         |



## 1.2 AIR QUALITY MANAGEMENT

| <i>Areas of Compliance with the Approved Site EMP</i>         | <i>Compliance with EMP</i> |           |            | <i>Remarks</i> |
|---------------------------------------------------------------|----------------------------|-----------|------------|----------------|
|                                                               | <i>Yes</i>                 | <i>No</i> | <i>N/A</i> |                |
| i. Watering of construction sites to minimize dust generated. |                            |           |            |                |
| ii. Equipment properly maintained to reduce emissions.        |                            |           |            |                |
| iii. On-site vehicles not exceeding 10 mph.                   |                            |           |            |                |
| iv. Record Air Quality measurements                           |                            |           |            |                |

## 1.3 WASTE MANAGEMENT

| <i>Areas of Compliance with the Approved Site EMP</i>                                                                                                   | <i>Compliance with EMP</i> |           |            | <i>Remarks</i> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|------------|----------------|
|                                                                                                                                                         | <i>Yes</i>                 | <i>No</i> | <i>N/A</i> |                |
| i. Good housekeeping practices and general cleanliness of site.                                                                                         |                            |           |            |                |
| ii. Adequate on-site sanitary facilities.                                                                                                               |                            |           |            |                |
| iii. Sewage being properly disposed of, with no drainage into marine or freshwater bodies.                                                              |                            |           |            |                |
| iv. Appropriate waste (i.e., Used oil, chemical, hazardous, vegetative, and solid waste) storage containers being used are properly labeled and sealed. |                            |           |            |                |
| v. Proper collection and disposal of construction and hazardous wastes (licensed collectors, manifests).                                                |                            |           |            |                |



|       |                                                                                         |  |  |  |  |
|-------|-----------------------------------------------------------------------------------------|--|--|--|--|
| vi.   | Secondary equipment used to collect spills during fluid removal or transfer.            |  |  |  |  |
| vii.  | Spill kits and absorbents easily accessible for quick spill response.                   |  |  |  |  |
| viii. | Solid waste ticket receipts recorded for landfill disposal for onsite waste management. |  |  |  |  |

## 2 TERRESTRIAL RESOURCE MANAGEMENT

### 2.1 TERRESTRIAL RESOURCES

| Areas of Compliance with the Approved Site EMP                        | Compliance with EMP |    |     | Remarks |
|-----------------------------------------------------------------------|---------------------|----|-----|---------|
|                                                                       | Yes                 | No | N/A |         |
| i. List rare, protected, endangered, notable species observed, if any |                     |    |     |         |

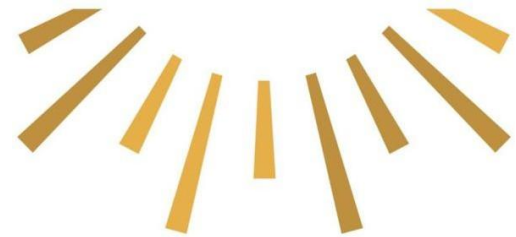
## 3 INCIDENTS / EMERGENCIES

### 3.1 ACCIDENT/INCIDENT REPORTING

| Areas of Compliance with the Approved Site EMP           | Yes | No | Remarks |
|----------------------------------------------------------|-----|----|---------|
| i. Did an accident or emergency occur on-site?           |     |    |         |
| ii. Was the Incident Investigation Report completed?     |     |    |         |
| iii. Were external Emergency First Responders contacted? |     |    |         |

## 4 DAILY EMP COMPLIANCE CODE

|                      |                                                                                             |
|----------------------|---------------------------------------------------------------------------------------------|
| Compliance Code:     | <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red |
| Additional Comments: |                                                                                             |



|                                                                                   |                       |  |
|-----------------------------------------------------------------------------------|-----------------------|--|
|                                                                                   |                       |  |
| Report prepared by:                                                               |                       |  |
|  | Environmental Monitor |  |

SITE PHOTOS



## 12.10 APPENDIX J – HAZARD ASSESSMENT CHECKLIST

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                          |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------|-------------------------|
| Location: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                          |                         |
| Inspected by: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                       |                                          |                         |
| Date and Time: _____ Time: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                       |                                          |                         |
| <p>To use this form correctly, you must look at each item and tick the appropriate box. If corrective action is required then select Yes by placing a check mark in the box ( <input checked="" type="checkbox"/> Yes ). If corrective action is not required then place a check mark in the No box ( <input checked="" type="checkbox"/> No ).</p> <p>If the item is not relevant to the type of project activity or phase of the project during the inspection, place a check mark in the Not Applicable box ( <input checked="" type="checkbox"/> N/A ).</p> <p>If a corrective action is required, you must describe the required corrective action.</p> <p>The person responsible for ensuring the corrective action is completed should be listed by First and Last name.</p> |                                                                                       |                                          |                         |
| <b>HEALTH HAZARDS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |                                          |                         |
| <b>Chemical Hazards</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                          |                         |
| Review Safety Data Sheet (SDS) and product labels to identify chemicals in your workplace that have low exposure limits, are highly volatile, or are used in large quantities or stored in unventilated spaces. Identify activities that may result in skin exposure to chemicals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                       |                                          |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Corrective Action Required                                                            | Describe Corrective Action, if necessary | List Person responsible |
| Chemicals are correctly labelled and stored                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                         |
| Emergency numbers are displayed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                         |
| Adequate ventilation for fumes and dust                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                         |
| Person protective equipment and clothing are available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                         |
| Emergency eyewash, showers are available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                         |
| SDS are available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                         |
| <b>Physical Hazards</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                          |                         |



|                                                                                                                                                                                                                                    |                                                                                       |                                          |                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------------|
| Identify any exposures to excessive noise (areas where you must raise your voice to be heard by others), elevated heat (indoor and outdoor), or sources of radiation (radioactive materials, X-rays, or radiofrequency radiation). |                                                                                       |                                          |                                               |
|                                                                                                                                                                                                                                    | Corrective Action Required                                                            | Describe Corrective Action, if necessary | List Person responsible                       |
|                                                                                                                                                                                                                                    | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
|                                                                                                                                                                                                                                    | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
|                                                                                                                                                                                                                                    | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
| <b>BIOLOGICAL HAZARDS</b>                                                                                                                                                                                                          |                                                                                       |                                          |                                               |
| Determine whether workers may be exposed to sources of infectious diseases, molds, toxic or poisonous plants, or animal materials (fur or scat) capable of causing allergic reactions or occupational asthma.                      |                                                                                       |                                          |                                               |
|                                                                                                                                                                                                                                    | Corrective Action Required                                                            | Describe Corrective Action, if necessary | List Person responsible for Corrective Action |
| Do workers work garbage, soils, waste?                                                                                                                                                                                             | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
| Is there a possibility of cuts, abrasions?                                                                                                                                                                                         | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
|                                                                                                                                                                                                                                    | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
| <b>ERGONOMIC HAZARDS</b>                                                                                                                                                                                                           |                                                                                       |                                          |                                               |
| Examine work activities that require heavy lifting, work above shoulder height, repetitive motions, or tasks with significant vibration.                                                                                           |                                                                                       |                                          |                                               |
|                                                                                                                                                                                                                                    | Corrective Action Required                                                            | Describe Corrective Action, if necessary | List Person responsible for Corrective Action |
| Is there high rates of repetitive motion?                                                                                                                                                                                          | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
| Are workers exposed to vibrations?                                                                                                                                                                                                 | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
| Do workers have to maintain the same position for extended periods of time?                                                                                                                                                        | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
| Is there adequate space around machines?                                                                                                                                                                                           | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |



|                                                                    |                                                                                       |                                          |                                               |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------------|
| Are worked involved in manual lifting, carrying, pushing, pulling? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
| <b>QUALITATIVE EXPOSURE ASSESSMENTS</b>                            |                                                                                       |                                          |                                               |
| When possible, using air sampling or direct reading instruments.   |                                                                                       |                                          |                                               |
|                                                                    | Corrective Action Required                                                            | Describe Corrective Action, if necessary | List Person responsible for Corrective Action |
|                                                                    | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |
|                                                                    | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                                          |                                               |