Report to the Development Applications Board

Application Reference: SDO0001-23
Application Type: Special Development Order (SDO)
Applicant: Westend Properties Ltd.
Location: The Fairmont Southampton, 101 South Road, Southampton
Parcel Number: 42290
Lot Size: 3,519,583 sq. ft.

Description of Proposal: Proposed Maximum 250 Unit Tourism/Residential Development Comprising up to 159 Tourism and 91 Residential Units Contained Within Buildings of 2 to 4 Storeys with Associated Access, including Realignment of South Road, Vehicle Parking and Modifications to Golf Course (In-Principle Approval Sought)

Date of Submission: 12 April 2023 (Revised 26 July 2023)
Date Advertised: 12 April 2023, 26 July 2023 & 8 August 2023
Representation Deadline: 18 August 2023
Meeting Date: 20 September 2023

<table>
<thead>
<tr>
<th>Site/Proposal Figures (As Provided by Applicant)</th>
<th>Existing</th>
<th>Proposed Additional</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Coverage</td>
<td>140,168 sq. ft. (3.98%)</td>
<td>229,126 sq. ft.</td>
<td>369,294 sq. ft. (10.50%)</td>
</tr>
<tr>
<td>Gross Floor Area</td>
<td>655,589 sq. ft.</td>
<td>619,129 sq. ft.</td>
<td>1,274,718 sq. ft.</td>
</tr>
<tr>
<td>Hard Surfacing</td>
<td>636,683 sq. ft. (18.09%)</td>
<td>440,610 sq. ft.</td>
<td>1,077,293 sq. ft. (30.60%)</td>
</tr>
<tr>
<td>Dwelling Units</td>
<td>0</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>Car Parking Spaces</td>
<td>61</td>
<td>414</td>
<td>475</td>
</tr>
<tr>
<td>Bike Parking Spaces</td>
<td>164</td>
<td>0</td>
<td>164</td>
</tr>
</tbody>
</table>

Development Plan: The Bermuda Plan 2018
Planning Zones: Recreation (Conservation Base Zone)
Tourism (Development Base Zone)
Residential 2 (Development Base Zone)
Open Space Reserve (Conservation Base Zone)
Park (Conservation Base Zone)
Conservation Areas: Woodland Reserve
Other Site Features: Fairmont Southampton Resort Master Plan (Southampton Parish) Special Development Order 2009
Historic Protected Areas (Turtle Hill West, Turtle Hill East, Ingham's Fort)
Section 34 Agreement
Water Resources Protection Area

CONTENTS

1. Procedural Matters
2. Site and Surrounding Area
3. Planning History
4. Proposal
5. Submission
6. Consultations
7. Objections and Representations
8. Policy Framework
9. Planning Assessment
  9.1. Need for Proposed Development
  9.2. Land Use and Sustainability
  9.3. Density
  9.4. Geology and Soils
  9.5. Hydrology and Hydrogeology
  9.6. Air Quality and Odour
  9.7. Noise and Vibration
  9.8. Landscape and Visual
  9.9. Waste and Wastewater
  9.10. Energy
  9.11. Freshwater
  9.12. Traffic and Parking
  9.13. Terrestrial Ecology
  9.15. Cultural Heritage
  9.16. Human Health and Safety
  9.17. Natural Hazards
  9.18. Alternatives
10. Summary
11. Conclusion

Appendix A: Summary of Representations
1. PROCEDURAL MATTERS

Submission

The original submission, as received and originally advertised on 12 April 2023, contained the following description of the proposed development:

*Proposed Maximum 261 Unit Tourism/Residential Development Comprising up to 114 Tourism and 147 Residential Units Contained Within Buildings of 2 to 6 Storeys with Associated Access Roads, Vehicle Parking and Modifications to Golf Course (In-Principle Approval Sought)*

The applicant provided the following details with the original submission:

A letter was sent to the applicant on 10 May 2023 setting out a number of concerns of the Department over the original submission, including the methodology used for the Environmental Impact Statement.

The above description of the proposed development and proposal information were subsequently amended to those set out on the cover page of this report when a revised proposal with additional and updated information was submitted on 26 July 2023.

A further letter was sent to the applicant on 28 August 2023 requesting additional details and the correction of discrepancies in the submission, some of which were addressed by the updated documentation which was submitted on 6 September 2023.

SDO Procedure

The Department of Planning’s ‘Procedures for the Making of Special Development Orders January 2023’, published under section 15A of the Development and Planning Act 1974 (the ‘Act’), set out that:

“SDOs may only be made for projects deemed to be of national significance and importance which cannot be approved by the Board under the usual planning application process.”

The current proposals satisfies both such criteria for the following reasons:

- Given the substantial amount of development proposed and the number of potentially significant environmental impacts together with the considerable public interest over this proposal, this case is considered to be of clear national significance and importance.
The vast majority of the site is zoned Recreation and, as such, policy REC.3 is applicable, which states that “only recreational forms of development and accessory development shall be permitted and, subject to policies REC.4 to REC.7, all other forms of development shall be prohibited”. REC.4 through REC. 7 go on to specify other acceptable forms of development within Recreation zones, which do not include tourism and residential development. The proposal is therefore not permitted by any of the aforementioned policies and, as such, cannot be approved by the Board under the usual planning application process.

These Procedures require the applicant to submit either an ‘Environmental Impact Assessment Screening’ or ‘Environmental Impact Assessment Scoping’ and the latter was issued in final format on 28 March 2023 (Annex B of the EIS).

The current submission meets the criteria of these Procedures for requests for the Minister to make an SDO and, as such, all procedural matters have been satisfied by the applicant.

This submission is being presented to the Board to ascertain whether the Board is in agreement with the contents of this report and, ultimately, to obtain a recommendation from the Board as to whether the Minister should make an SDO.
2. SITE AND SURROUNDING AREA

This submission relates to the 80.8 acre lot of the Fairmont Southampton Hotel and golf course (the ‘Application Site’), located in the eastern portion of the parish of Southampton. The lot is some 0.8 kilometres wide and spans 0.7 kilometres longitudinally, from its southern boundary onto South Road to its northern boundary abutting the Railway Trail.

The Fairmont Southampton complex includes three other lots; the beach club at Whale Bay to the south (10.26 acres) and two lots to the north accommodating the Waterlot Inn (2.06 acres) and the northern site entrance (0.36 acres). These lots together with the main Hotel lot span an area of 93.58 acres, extending from Middle Road (adjacent to) Jew’s Bay to the north to the resort’s south shore beach club.

The Fairmont Southampton Hotel was constructed in 1972, is Bermuda’s largest Hotel, containing 593 guestrooms, and has been vacant since October 2020. The Hotel building has six storeys accommodating Hotel rooms, all of which are afforded balconies, above the ground floor level which accommodates the foyer and various amenities. The Hotel also accommodates multiple restaurants, conferencing facilities and indoor and outdoor pools. The lot also includes Turtle Hill Golf Club, an 18-hole 2,684 yard par 3 golf course and a club house of which is located in the Boundary Sports Bar and Grill to the west of the Hotel building.

The Application Site has a rolling topography, comprising a basin between the Hotel building and South Road which represents the lowest part of the site (an elevation of 46 feet), where a large man-made pond (a feature of the golf course) is located. The Hotel building sits on an elevation of some 200 feet and the northeastern part of the site, known as Turtle Hill, represents its highest point, with an apex of 220 feet. The part of South Road which abuts the Application Site slopes downward from west (112 feet elevation) to east (75 feet elevation), with the greatest gradient occurring across the ‘S-bend’ to the north of Cross Bay Road.

The main parking area of the lot lies immediately to the east of the Hotel building accommodating approximately 60 car parking spaces. There is an additional parking area adjacent to the Boundary Sports Bar and Grill, which accommodates around 70 further car parking spaces. The service area of the Hotel is situated in its western recess, which provides parking space for delivery vehicles.

The Application Site currently contains two, one million gallon water storage tanks exist (one immediately to the north of the Hotel building and one on Turtle Hill) which form part of a centralized distribution system which receives piped water either from the Fairmont Southampton Reverse Osmosis plant or Watlington Water. A Wastewater Treatment Plant (WWTP) is located to the northernmost part of the Application Site and a BELCO substation with two 2500kVA transformers is located between the Hotel building and WWTP which is almost entirely dedicated to serving the Hotel.

The current zoning of the Application Site comprises:

- Recreation - 40.95 acres (50.68%)
- Tourism - 31.31 acres (38.75%)
- Residential 2 - 8.54 acres (10.57%)

The Application Site contains two Historic Protection Areas within Turtle Hill, one of which represents Turtle Hill Battery, and a further Historic Protection Area outside the southern boundary of the Application Site between Harbour View Drive and South Road. A 21,500 square foot Water Resources Protection Area is situated in a northern part of the site adjacent to the Hotel’s wastewater treatment plant, 7,500 square feet of which lies within the Application
Site, with the remainder extending beyond the northeast boundary into the residential street of Music Heights. The Application Site does not contain any Conservation Areas, although there are a number of Conservation Areas in proximity including the aforementioned area of Music Heights (Agricultural Reserve), a 115,000 square foot Woodland Reserve to the north of Turtle Hill, a 50,000 square foot Woodland Reserve in the adjacent residential estate to the northwest and a 77,500 square foot Woodland Reserve on the south side of South Road.

The surrounding area is predominantly residential, with a typically high-density residential estate zoned Residential 1 to the north and east, a low-density residential estate zoned Residential 2 to the west and further residences zoned Residential 2 along South Road beyond the southern lot boundary. Other noteworthy features of the local area include Horseshoe Bay National Park to the southeast, the Hamilton Princess Beach Club (former Sonesta Beach Hotel) to the southwest, Gibb’s Hill Lighthouse to the west and various restaurants/bars along South Road, including Henry VIII to the west and Gulfstream, Seaside Grill and the Rum Beach Bar of Horseshoe Bay to the east. Warwick Camp lies around 1 kilometre to the east on South Road, Heron Bay Market Place is situated approximately 1 kilometre to the northeast on Middle Road and Heron Bay Primary is the nearest school, which lies some 500 metres to the northeast of the existing Hotel building.
3. PLANNING HISTORY

The Fairmont Southampton Resort Master Plan (Southampton Parish) Special Development Order 2009 granted in-principle approval for the development of 71 fractional tourism units, 37 residential villas and 22 town homes on this site. None of the approved buildings have been constructed.

The current proposal was subject to an Environmental Impact Assessment Screening pre-consultation, which was reviewed by all parties listed in the ‘Consultations’ listed below apart from BELCO and the Department of Parks, wherein the Department of Planning set out its position on the scope of topics to be included in the Environmental Impact Statement, as summarised by the table below:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Scoped In or Out of EIS</th>
<th>Construction Phase</th>
<th>Operational Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use</td>
<td>Out</td>
<td>In</td>
<td></td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>In</td>
<td>Out</td>
<td></td>
</tr>
<tr>
<td>Hydrology and Hydrogeology</td>
<td>In</td>
<td>In</td>
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<td>Air Quality and Odour</td>
<td>In</td>
<td>In</td>
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<td>Noise and Vibration</td>
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<td>In</td>
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<tr>
<td>Visual and Landscape</td>
<td>In</td>
<td>In</td>
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<tr>
<td>Waste and Wastewater</td>
<td>In</td>
<td>In</td>
<td></td>
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<tr>
<td>Energy</td>
<td>Out</td>
<td>In</td>
<td></td>
</tr>
<tr>
<td>Freshwater</td>
<td>In</td>
<td>In</td>
<td></td>
</tr>
<tr>
<td>Traffic and Parking</td>
<td>In</td>
<td>In</td>
<td></td>
</tr>
<tr>
<td>Terrestrial Ecosystems, Flora and Fauna</td>
<td>In</td>
<td>In</td>
<td></td>
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<tr>
<td>Socio-Economics</td>
<td>In</td>
<td>In</td>
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<tr>
<td>Cultural Heritage</td>
<td>In</td>
<td>In</td>
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<tr>
<td>Human Health and Safety</td>
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<tr>
<td>Natural Hazard</td>
<td>In</td>
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4. **PROPOSAL**

This submission seeks in-principle planning permission with all matters reserved for subsequent approval other than ‘Use’ and ‘Density of Units’ to construct up to 159 tourism and 91 residential units, for a maximum of 250 units in total and associated works including upgrades to supporting infrastructure (water, electricity, wastewater, energy, roadways and parking). In total, the proposal would provide up to 729 rooms; 441 for tourism and 288 for residential, although the particular type of the proposed accommodation has not been specified.

The proposal is to be developed in three phases, as set out below.

<table>
<thead>
<tr>
<th>Phase 1: Tourism ('Hotel Residences')</th>
<th>Turtle Hill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Two- and three-storey buildings</td>
</tr>
<tr>
<td></td>
<td>Located northeast of Hotel building</td>
</tr>
<tr>
<td></td>
<td>Zoned Tourism</td>
</tr>
<tr>
<td></td>
<td>110 units</td>
</tr>
<tr>
<td></td>
<td>21 two-bedroom</td>
</tr>
<tr>
<td></td>
<td>69 three-bedroom</td>
</tr>
<tr>
<td></td>
<td>20 four-bedroom</td>
</tr>
<tr>
<td></td>
<td>1,900 to 2,800 square feet gross floor area per unit</td>
</tr>
<tr>
<td></td>
<td>Total build area 247,700 gross square feet</td>
</tr>
<tr>
<td></td>
<td>138 car parking bays</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Golf Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four-storey buildings</td>
</tr>
<tr>
<td>Located south of Hotel building</td>
</tr>
<tr>
<td>Zoned Tourism and Recreation</td>
</tr>
<tr>
<td>49 units</td>
</tr>
<tr>
<td>28 two-bedroom villas</td>
</tr>
<tr>
<td>7 two-bedroom penthouses</td>
</tr>
<tr>
<td>14 three-bedroom penthouses</td>
</tr>
<tr>
<td>1,726 to 2,672 square feet gross floor area per unit</td>
</tr>
<tr>
<td>Total build area 100,072 gross square feet</td>
</tr>
<tr>
<td>61 car parking bays</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase 2: Residential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Hilltop Villas</td>
</tr>
<tr>
<td>Located west of Hotel building</td>
</tr>
<tr>
<td>Zoned Residential 2 and Recreation</td>
</tr>
<tr>
<td>31 units</td>
</tr>
<tr>
<td>7 two-bedroom</td>
</tr>
<tr>
<td>18 three-bedroom</td>
</tr>
<tr>
<td>6 four-bedroom</td>
</tr>
<tr>
<td>2,165 to 3,666 square feet gross floor area per unit</td>
</tr>
<tr>
<td>Total build area 87,893 gross square feet</td>
</tr>
<tr>
<td>39 car parking bays</td>
</tr>
</tbody>
</table>

| Southern Hilltop Villas               | Two-storey buildings |
| Located west of Hotel building        |
| Zoned Recreation                      |
| 26 units                              |
| 4 two-bedroom                         |
| 14 three-bedroom                      |
The proposed buildings would have a total footprint of 229,126 square feet, or 5.26 acres, and have been arranged into ‘building parcels’ (Figure 1-16 of the EIS) totalling 21.3 acres (927,828 square feet) which would be distributed within the zones of the Application Site as follows:

- Tourism – 10.7 acres (466,092 square feet)
- Residential 2 – 5.6 acres (243,936 square feet)
- Recreation – 5 acres (217,780 square feet)

In addition to the 314 parking bays noted in the table above, a separate car parking area is proposed for patrons only adjacent to the northern boundary of the Application Site accommodating approximately 100 cars, resulting in the creation of 414 additional car parking spaces and 545 total car parking spaces for the lot, inclusive of the existing provision to be retained. The applicant anticipates that all parking spaces will be fitted with electric charging points in the long-term, however in the immediate term 10% of spaces would accommodate electric charging points in accordance with the current provisions of the Bermuda Plan 2018 (policy TPT.24). The applicant also confirms that all new roadways would align with the requirements of the Bermuda Plan 2018, namely 16 feet in width with 4-foot wide sidewalk and 3-foot wide verge.

The EIS also sets out the following additional preliminary details on servicing and supporting infrastructure:

Freshwater – the existing centralized distribution system which includes two, one million gallon water storage tanks and ring loops for isolation, would be retained. Each proposed residential building unit/group will have its own water tank and catchment, which will be topped up by this existing potable supply water network from the central Hotel system.
Wastewater - a new, modular tertiary Wastewater Treatment Plant (WWTP) will be built adjacent to, and replace, the existing WWTP. The new facility will be built to accommodate a load from the Hotel and amenities of 210,000 gallons per day and an additional 84,000 gallons per day for the new units, although its modular design will allow it to be expanded as new phases of the residential development become operational. Lift stations will be installed at each development site and pumped to gravity tie-in manholes and force mains and gravity lines are to be trenched through green space where possible to avoid roadway disruption. Wastewater would continue to be re-used on the site for watering the golf course and further irrigation lines will be tapped into the existing system for irrigation around the new developments.

Waste – the EIS assumes that waste collection will rely on the existing public municipal waste collection system and communal collection points will be developed for each development. The existing chemical storage for the golf course, which is currently located along the part of South Road which is proposed for realignment, will need to be re-located, however no details of an alternative location have been provided at this time.

Stormwater – no particular details have been provided, although the EIS notes that, where there is shallow grade and minimal hard surfacing, stormwater will drain to grade and, elsewhere, stormwater will be directed through road drains and trench drains to soakaway chambers and boreholes, where necessary.

HVAC – the HVAC systems will be individual air sourced variable refrigerant flow-type air conditioning. There will be no central chilled water loop or ground water sourced system.

Energy – the aforementioned existing BELCO substation is proposed to be upgraded with 5000kVA transformers, subject to the approval of BELCO, which are to be accommodated within the existing structure. The EIS notes that all residential buildings will meet the requirements of the International Energy Conservation Code, it is intended that solar PV will be installed on all rooftops where feasible and aesthetically acceptable and fossil fuel demand will be limited by the use of induction cooktops instead of gas and the installation of electric vehicle charging points. No other particular sustainable energy measures are specified at this time, although the EIS notes that feasibility studies are being carried out in respect of large-scale solar installations, a micro-grid, Combined Heat and Power / Combined Cooling Heat and Power (which would be located adjacent to the existing Hotel building) and micro waste-to energy systems.

The existing golf course is to be reduced and reconfigured to accommodate the proposed development. The proposed reconfigured course would retain 18 holes, 13 of which would remain unchanged, although the overall length of the course would be reduced by 348 yards or 13%.

The submission also proposes a number of ‘community benefits’, namely:

- the designation of three areas of land as Protected Conservation Areas totalling 7.5 acres (subject to the agreement of the Minister of Home Affairs)
  
  Area 1: 4.9 acres adjacent to the south shore zoned Coastal Reserve, Open Space Reserve and Woodland Reserve
  
  Area 2: 1.4 acres to the north of Turtle Hill zoned Open Space Reserve and Woodland Reserve
Area 3: 1.2 acres of land to the north of the Hotel zoned Tourism

No details of any improvement works to any of these areas have been provided at this juncture; the applicant proposes to submit a Conservation Management Plan with the application for final planning permission for Phase 1;

- the incorporation of 10 additional bluebird boxes and retention of the 14 existing boxes, to be installed during Phase 1, with some boxes re-installed during Phase 2 due to the proposed reconfiguration of the golf course;

- the realignment of the ‘S-bend’ of South Road by the end of Phase 1, subject to coordination with the Highways Section of the Department of Works and Engineering;

- the installation of a three-way traffic light system at the northern site access junction with Middle Road and Lighthouse Hill by the end of Phase 1, subject to coordination with the Highways Section of the Department of Works and Engineering;

- improvements to a section of the Railway Trail to the north of the Application Site, comprising the replacement of an existing staircase with a ramp, the installation of lighting and the removal of invasive species, to take place during Phase 1; and

- the preservation of, and retention of public access to, the historic gun emplacements on Turtle Hill inclusive of the provision of seating and signage at the time of completion of Phase 1.

The EIS confirms that no construction of the proposed development will commence until after the Hotel renovations have been substantially complete and anticipates that the project would be completed over a 16-year period, of which construction would take place over 12 years. A construction timeline has been included setting out the following key dates, which is subject to change:

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2023</td>
<td>Mobilisation for commencement of refurbishment of Hotel</td>
</tr>
<tr>
<td>May 2025</td>
<td>Hotel soft opening</td>
</tr>
<tr>
<td>2025</td>
<td>Commencement of Phase 1</td>
</tr>
<tr>
<td>2030</td>
<td>Completion of Phase 1</td>
</tr>
<tr>
<td>2033</td>
<td>Commencement of Phase 2</td>
</tr>
<tr>
<td>2036</td>
<td>Completion of Phase 2</td>
</tr>
<tr>
<td>2039</td>
<td>Commencement of Phase 3</td>
</tr>
<tr>
<td>2040</td>
<td>Completion of Phase 3</td>
</tr>
</tbody>
</table>

The EIS (section 3.4) goes on to specify the activities which would be carried out and equipment which would be used during the construction periods as well as an indication of the types of materials which would be required and transport routes for the importation and disposal of materials, although the EIS notes that the particular types and quantities of materials to be used are not available at this time.

The applicant estimates that 57 staff would be engaged for the annual operations of the proposed development and 100 construction workers will be employed on an annual basis during the construction periods.
5. SUBMISSION

This submission is supported by an Environmental Impact Statement (Revision 5, as updated on 1 September 2023 (the ‘EIS’)), which has been prepared in accordance with the Government of Bermuda Guidance Note 106: Environmental Impact Assessments and Environmental Impact Statements (July 2010) as well as UK best practice. The EIS aligns with the agreed Environmental Scoping Report, as noted in the ‘Planning History’ section above.

Each chapter includes identification of baseline conditions and sensitive receptors, assessment of the magnitude and significance of the likely effects, identification of any mitigation where deemed necessary and an evaluation of the residual and cumulative effects, where appropriate. The EIS assesses each topic in respect of its likely impact, ranging from not significant (or negligible), to minor, moderate and major, both before and after mitigation. The EIS also considers alternatives where appropriate, including the ‘do nothing’ scenario wherein the site would remain in its existing state. Whilst not an effect of the proposed development, the EIS also considers the susceptibility of the proposed development to natural hazards.

The EIS includes the following annexes:

- Annex A EIA/Technical Study Authors
- Annex B Environmental Scoping Report (including stakeholder feedback)
- Annex C Special Development Order
- Annex D Government of Bermuda Guidance Note GN106
- Annex E Traffic Impact Study
- Annex F Public Transit Study
- Annex G Economic Impact SDO Project
- Annex H Economic Impact SDO Project (revised July 2023)
- Annex I Wider Economic Impact SDO Project
- Annex J Statement of Justification

The submission is also accompanied by the following documentation:

- Non-Technical Summary of the EIS dated 24 July 2023
- ‘Fairmont Southampton Residential and Golf Master Plan’ dated 1 September 2023
- ‘Justification Memo’ prepared by the applicant, Westend Properties Limited
- Survey stamped by a registered surveyor dated 8 January 2017
- Letters from Adwick Planning dated 26 July 2023 and 1 September 2023 inclusive of applicant’s response to representations and supplementary email correspondence

The EIS also includes details of public consultation carried out by the applicant, which took the form of a meeting with members of the public on 20 and 21 February 2023 and separate meetings with Government departments and non-Government organisations. The outcomes of these consultations are published in Annex B of the EIS.
6. CONSULTATIONS

Consultation on the original submission was carried out on 12 April 2023 and a further consultation was carried out on 26 July 2023 following receipt of the revised proposal, the results of which are set out as follows.

The Accessibility Officer of Ageing and Disability Services and the Bermuda Fire and Rescue Service were included in both rounds of consultation, however no response from either of these consultees has been received to date.

The Bermuda Electric Light Company (BELCO) advised that, with a large scale development such as this, the expectation is that the Developer will reach out to BELCO in the early stages with all key technical requirements such as proposed system load, site design/plan, adoption of distributed energy resources (DERs) and interconnection arrangements. BELCO will then undertake any necessary system studies which will highlight whether there is a need for infrastructure upgrades to ensure security of supply.

The Chief Engineer of the Department of Works and Engineering confirmed his team’s agreement with the comments provided by the Pollution Control Section of the Department of Environment and Natural Resources (as set out below) in respect of water and waste water and provided feedback on the ‘Waste’ section of the original EIS, in particular figures in section 6.7.3 regarding to quantities of waste and recycled materials, which were updated to the satisfaction of the Chief Engineer’s team in the revised EIS. Chief Engineer requested clarification on two points in respect of water infrastructure in relation to the revised EIS, as noted in the ‘Waste and Wastewater’ section of this report.

The Department of Energy provided detailed feedback on the ‘Energy’ section of the original and revised EIS, wherein concerns are raised that the submission does not provide any strong commitment to incorporate measures to reduce energy consumption or incorporate renewable energy systems. It is encouraging that the applicant intends to develop to the International Energy Conservation Code, however the applicant’s claim that there are no requirements to adhere to this Code are not accurate. Further concerns are raised over a lack of any apparent detailed consultation with BELCO and consequent impacts to the grid in the local area.

Environmental Health of the Department of Health noted, in respect of the original and revised submissions, that many detailed aspects of the proposal are not currently available and it is intended that detailed engineering design will accord with best practice and all relevant Government regulations. Environmental Health set out a number of points for the developer to take into consideration and notes that it will provide comprehensive comments when details are provided as part of subsequent planning and building permit applications.

The Historic Buildings Advisory Committee has requested the addition of conditions, in the event that planning permission is granted, requiring archaeological assessment and a management plans within the Historic Protection Areas (HPAs), noted that there should be careful monitoring of the monuments within the HPAs for any potential damage caused by vibration, dust or any other potential sources during construction and raised concerns that public access to the HPAs may not be retained. The Committee reviewed the revised submission and noted its appreciation of the additions to the Cultural Heritage section of the EIS, including the pre-emptive consideration of the required piling.

The Highways Section of the Department of Works and Engineering raised a number of concerns to the original submission but confirmed no objections to the revised EIS, although requested clarification in respect of when the proposed realignment of the –S-bend’ of South Road would be implemented, noting that it is unlikely to be realised if reserved until Phase 3.
The **Department of Parks** was consulted only on the revised proposal which:

- requested a more comprehensive plan to prevent and mitigate stormwater runoff risks to Horseshoe Bay, which already has fragile infrastructure;

- requested that Parks be informed if access is needed to the gated Horseshoe Bay parking lot during the construction phase, which would be restricted during the summer season;

- noted that the proposed additional 100 parking bays could pose visual impacts on the Railway Trail, which would need to be mitigated by design, and requests that it be made publicly available for users of the Railway Trail; and

- welcomes the proposals to improve part of the Railway Trail, with which Parks would like to be involved, noting that the removal of invasives is critical to the maintenance of the existing bike lift, the western portion of this section of the Trail would benefit from a ramp and lighting would be welcome for safety purposes.

The **Department of Public Transportation** of the Ministry of Transport was consulted on only the revised proposal, who provided feedback on the Public Transit Capacity Study prepared by Brunel Engineering Consultants Limited and the corresponding section of the EIS. This feedback is set out in detail in the ‘Traffic and Parking’ section of this report.

The **Pollution Control Section** of the Department of Environment and Natural Resources (DENR-PCS) has provided a response based on limited details which have been provided by the applicant, noting that the consultation response is consequently limited. DENR-PCS does not offer any significant concerns based on the information provided and the contents of this consultation response have been incorporated into the respective ‘Geology and Soils’, ‘Hydrology and Hydrogeology’, ‘Air Quality and Odour’, ‘Noise and Vibration’, ‘Waste and Wastewater’, ‘Energy’ and ‘Freshwater’ sections of this report below. DENR-PCS was subsequently consulted on the revised submission and noted that it does not deviate significantly from the previous submission with regard to those matters on which DENR-PCS can provide recommendations. It is recommended that, as the project progresses, the developer should work closely with DENR-PCS to ensure all necessary permissions have been granted and that impacts to the environment are properly managed.

**Terrestrial Conservation Services** of the Department of Environment and Natural Resources (DENR-TCS) provided detailed consultation responses to the original and revised submissions, as will be expanded upon in the ‘Terrestrial Ecology’ section below. In response to the revised submission, the proposed Protected Conservation Areas (PCAs) are acknowledged, but DENR-TCS notes that two of the three proposed PCAs are already protected as Conservation Areas and ‘conservation gain’ can only be achieved through the implementation of associated Conservation Management Plans; details of which have not been provided. DENR-PCS therefore recommends that:

- an ‘umbrella or master’ Conservation Management Plan (CMP) be prepared as part of the proposed SDO for the removal and zero regrowth management of all Level 1 invasive plant species within all three proposed PCA locations and the installation of the proposed 10 additional blue bird boxes. No new plantings would be required at this stage, although this CMP should set out timelines for the submission of the subsequent CMPs detailed below;
• a detailed/comprehensive CMP be conditioned to coordinate with Phase 1 for Area 2, Area 3b and Area 3c to implement additional removal of Level 2 invasive species and substantial plantings and installation of Longtail nesting sites (as appropriate), inclusive of timescales setting out completion targets;

• a detailed/comprehensive Conservation Management Plan be conditioned to coordinate with Phase 2 for Area 1 to implement additional removal of Level 2 invasive species and substantial plantings, inclusive of timescales setting out completion targets; and

• a detailed/comprehensive Conservation Management Plan be conditioned to coordinate with Phase 3 for Area 3a to implement additional removal of Level 2 invasive species, substantial plantings and installation of Longtail nesting sites (as appropriate), inclusive of timescales setting out completion targets.

DENR-TCS goes on to recommend robust landscaping plans with the majority of plants to be endemic or native, the ‘Bermuda image’ should be a foundational and fundamental part of the built and landscape design process to reduce the aesthetic/visual impact of the proposed development, all Level 1 invasive plant species be removed site-wide with replanting, as appropriate, with endemic, native or quality ornamental species and a total of 22 alternative Longtail nesting boxes / igloos / bunkers be installed along the entirety of the property’s coastal area.

The Tourism Regulation and Policy Unit notes that, under the Fairmont Southampton Hotel Act 2023 (the ‘2023 Act’), customs duty relief will be applied to the ‘Hotel redevelopment’ as defined by the 2023 Act (namely the renovation of guest rooms, restaurants, bars, meeting rooms, spa, pool, beach club, kitchen, laundry and staff housing) and Hotel occupancy tax relief, land tax relief and employer’s share of payroll tax will apply to the ‘Hotel’, which comprises the existing Hotel “and its associated restaurants and facilities, including any development or redevelopment of the scheduled land as developed or redeveloped by the Hotel developer”. The Tourism Regulation and Policy Unit further notes that it is not aware of an estimated timeline for the completion of the “Hotel redevelopment” or the development proposed by this SDO and raises concerns that the construction of the currently proposed development may be prioritised by the developers over the “Hotel redevelopment”. The Tourism Regulation and Policy Unit was subsequently consulted on the revised submission but has not provided a response to date.
7. OBJECTIONS AND REPRESENTATIONS

The applicant displayed site notices in six locations in the local area on 11 April 2023, as detailed in the submission.

The submission was originally published in the Official Gazette on 12 April 2023, which afforded 21 days for representations to be made. It was subsequently agreed, following a request from three objectors, that this consultation period be extended to 26 May 2023 (29 May 2023 taking into account the Public Holiday). A total of 101 representations were received during this period, of which 98 object to the proposal.

Further publications were made in the Official Gazette on 26 July 2023 and 8 August 2023 following the receipt of the aforementioned revised proposal and additional information, which extended the public consultation period to 18 August 2023. Objections were received from three additional people during this period (one of which was submitted out of time) and 25 of those who previously submitted made further representations (one of which was submitted out of time), 24 of which upheld their original objection and 1 of which does not object.

A summary of all representations which have been received is appended to this report.
8. POLICY FRAMEWORK

This application has been assessed against the legislative framework set out in the ‘Procedural Matters’ section above and the policies and objectives of the Bermuda Plan 2018.

The Bermuda Plan 2018 is framed around three overarching strategies; the Conservation Strategy (STY.2), the Development Strategy (STY.3) and the Community Strategy (STY.4). A balanced assessment against these strategic elements of the Plan is required, including prioritising the development of brownfield sites, the incorporation of sustainable transport options, protecting open spaces and providing sufficient development potential to meet the community’s needs.

From these strategies, five principal ‘goals’ are identified under Policy STY.5, as set out below.

<table>
<thead>
<tr>
<th>Policy STY.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the framework of its three strategies, the Plan has the following five goals:-</td>
</tr>
<tr>
<td>(a) to conserve open space and protect the Island’s natural and built heritage;</td>
</tr>
<tr>
<td>(b) to provide sufficient development potential to meet the community’s needs;</td>
</tr>
<tr>
<td>(c) to facilitate community improvements in neighbourhoods to create better, healthier and safer places to live and visit;</td>
</tr>
<tr>
<td>(d) to encourage a more efficient and sustainable use and development of land and buildings; and</td>
</tr>
<tr>
<td>(e) to ensure a high quality of design and accessibility in all new developments.</td>
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</table>

The respective topics of the Planning Assessment, as set out under the sub-headings below, are assessed against these goals and the applicable detailed policies of the Bermuda Plan 2018, where relevant.
9. **PLANNING ASSESSMENT**

The assessment of the proposed development is set out as follows, which broadly follows the content and order of the EIS with additional headings to address other key considerations:

9.1. **Need for Proposed Development**
9.2. **Land Use and Sustainability**
9.3. **Density**
9.4. **Geology and Soils**
9.5. **Hydrology and Hydrogeology**
9.6. **Air Quality and Odour**
9.7. **Noise and Vibration**
9.8. **Landscape and Visual**
9.9. **Waste and Wastewater**
9.10. **Energy**
9.11. **Freshwater**
9.12. **Traffic and Parking**
9.13. **Terrestrial Ecology**
9.14. **Socio-Economics**
9.15. **Cultural Heritage**
9.16. **Human Health and Safety**
9.17. **Natural Hazards**
9.18. **Alternatives**
9.1. Need for Proposed Development

The Island’s need for the proposed development is a key planning consideration which, together with the economic benefits of the proposal, must be weighed carefully against the development of a significant amount of Bermuda’s limited land supply, particularly in respect of the loss of land zoned Recreation / part of a key asset in the form of a world class par 3 golf course, together with all other considerations as set out subsequently in this report.

Section 1.5.1 of the EIS sets out that, due to ‘changing economy and changing real estate market conditions, and the need to drive business to support the hotel resort, the proponent feels that there is a need to:

a) diversify the type of accommodation available within the Fairmont Southampton Hotel inventory, including offerings for families for example that allow them to self-cater;

b) develop residential housing to create a more diversified financial model; and

c) secure the capital investment necessary to support the refurbishment and ongoing operations of this signature tourism resort.’

The applicant has also provided an ‘SDO Justification Memo’ which essentially sets out that the proposed development is required in order to provide investors with a 2.5 times return on their original investment which, in turn, will allow the project to be implemented. This Memo cites a rise in construction costs as a key reason for the additional development currently proposed, claiming that the construction costs for the project have increased by 70% since 2019. However, no verifiable figures have been provided to substantiate this estimate and, even if it is taken as being accurate, this justification only attempts to address need from the perspective of securing investment in respect of the viability of the project. This matter is considered further in the ‘Socio-Economics’ section of this report.

Section 6.12.3.8 of the EIS states that there is a recognized need for low-income housing in Bermuda and this appears to form the basis for the subsequent discussion on housing land numbers. However, the EIS does not specify how the proposed development will address this need and it is unclear how the proposal would have any impact in this regard, particularly given that other parts of the submission have made it clear that the proposed units are likely to be primarily purchased by overseas residents and all of the proposed units would most likely be beyond the budget of low-income households.

In terms of Bermuda’s need for residential development generally, the findings of the Review and Strategy Report 2018, prepared in support of the Bermuda Plan 2018, provide a clear indication that there is a sufficient supply of zoned residential land to meet the Island’s needs over the plan period and beyond.

The EIS assumes that the number of households will increase at 0.78% per year, however no details have been provided detailing the basis of figure, which appears to be directly contrary to recent migration statistics. The EIS further states that “The Bermuda Plan [2018] suggests that there is the capacity for an additional 1,764 dwelling units on currently vacant registered Residential 1, Residential 2 and Rural lots up until 2028.’ However, the aforementioned Review and Strategy Report presents two different scenarios for housing land numbers, both of which are based upon historical build rates, and the assertion of the EIS that these figures are applicable ‘up until 2028’ is not accurate. It is also inaccurate to suggest that it is necessary to address the alleged housing shortfall immediately whereas, based on the assumption of the EIS, such a shortfall would only arise if the Bermuda Plan was to be operative until 2028.

The submission does not contain any data on the number of residential units created since the Bermuda Plan 2018 became operative and therefore does not provide an up-to-date...
understanding of the housing land situation. This includes a failure to account for residential development activity within the City of Hamilton, which has the potential to make a substantial contribution towards Bermuda’s housing land supply.

Even if it were accepted that there is a chronic shortage of housing land supply in Bermuda, there are a variety of alternative approaches that could be taken which would be preferable to building on undeveloped areas of open space and land which is zoned and actively used for recreation. Such alternatives, such as the use of brownfield sites or developing within the City, have not been considered by the applicant. The EIS also cites ‘digital nomads’ and the conversion of residential units to ‘Airbnbs’ as key reasons for the recent depletion of the residential rental market. Whist no particular details of such have been provided, such as the current number of digital nomads in Bermuda, it is apparent that the discontinuation of the digital nomad initiative and/or legislative reform by Government to restrict the conversion of units to Airbnbs could entirely resolve this issue and would be a far more desirable alternative to giving up greenfield land for development.

In terms of the need for additional tourism accommodation, it is noted that the existing Hotel contains 593 guestrooms; it is unclear from the submission why this number of rooms would be insufficient to meet the needs of the site or the wider Island and that such substantial additional accommodation (159 tourism units to provide additional 441 rooms) is needed. Such a need is further questionable in respect of the prospective development of vacant tourism developments such as Elbow Beach which could make significant contributions to the Island’s hotel inventory.

On an Island with such a limited land resource, the merits of releasing greenfield land for development when there is no evidence of demand and when alternatives have not been considered and discounted is considered to be highly unsustainable and puts the Island at risk of running out of this irreplaceable resource. There may come a point in time whereby Bermuda is forced to pursue radical planning policy initiatives to provide land for additional housing, however no evidence has been provided to suggest that this is presently the case.
9.2. Land Use and Sustainability

This section assesses the proposal against the relevant zonings of the Application Site, the objectives of each zone as set out in the relevant chapters of the Bermuda Plan 2018 and, notwithstanding such zonings, the loss of the land in its current form to development and the suitability of the proposed uses in terms of the location and features of the site.

As noted above, the Application Site contains three zones; the size of each and the ‘building parcel’ proposed within each respective zone is set out as follows:

<table>
<thead>
<tr>
<th>Zone</th>
<th>Size</th>
<th>Building Parcel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreation</td>
<td>40.95 acres</td>
<td>5 acres</td>
</tr>
<tr>
<td>Tourism</td>
<td>31.31 acres</td>
<td>10.7 acres</td>
</tr>
<tr>
<td>Residential 2</td>
<td>8.54 acres</td>
<td>5.6 acres</td>
</tr>
</tbody>
</table>

Recreation (Conservation Base Zone)

Objectives

REC (1) To allocate sufficient land throughout the Island for a variety of recreational activities

REC (2) To retain recreational lands in their open state and to protect significant natural features

Pursuant to these objectives, the policies of Chapter 19 of the Bermuda Plan 2018 set out permitted uses within Recreation zones, which are primarily intended to protect or support the existing recreational use. Policy REC.3 specifically sets out that ‘all other forms of development shall be prohibited’ and neither residential nor tourism development, as proposed, are identified as being appropriate within Residential zones. The proposal is in direct conflict with both of the objectives set out above.

The proposal to take up 5 acres, or 12%, of the part of the Application Site which is zoned Recreation is considered to be significant, which would clearly compromise the existing primary use of the site as a golf course by reducing the length of holes and interrupting its existing open aspect. In particular, the EIS sets out that 3.7 acres, or 348 yards (13%) of the length, of the golf course would be lost and the proposal would retain 18 holes, of which 13 would remain unchanged. The EIS further notes that the course will need to be closed during periods of renovation and to allow for the installation of underground services, although the scheduling of such work cannot be provided at this juncture.

In terms of acreage, the EIS sets out that the proposal would represent a 0.46% reduction in the Island’s golf course provision and a 1.86% reduction for Southampton. However, it is noteworthy that the EIS relies upon figures from the Environmental Statistic Compendium 2022 undertaken by the Department of Statistics, which uses data taken from 2001 and 2016. Given that the Riddell’s Bay golf course has since been closed and redeveloped, which spanned an area of some 93 acres, the proposal would actually reduce the Island’s golf course provision in terms of land use alone by around 0.53%. Regardless of the proportion of golf course land which would be lost relative to Bermuda’s overall supply, the loss of 3.7 acres is considered to be significant in terms of Bermuda’s limited land supply and setting a precedent for the loss of other protected open spaces.

In addition to the reduction in the length of the course, it is considered that the addition of a series of two- and three-storey buildings through the middle of the western part of the course, together with associated accesses, parking areas and other ancillary residential paraphernalia
would diminish the quality of the course by transforming its current open aspect environment to what would essentially appear as predominantly a residential neighbourhood. Whilst the EIS claims that protective netting would not be needed, this position is not accepted given the particularly close proximity of the Hill Top Villas to greens and fairways, which would further compromise the quality of the course. There are notable other examples of local golf courses that have required the installation of nets due to the proximity of residential neighbourhoods, specifically the Mid Ocean Club Limited and the St. Regis hotel development.

It must also be noted that Turtle Hill has been recognised internationally as being one of the best par 3 golf course in the world (see https://worldgolfawards.com/award/world-best-par-3-golf-course/2020), so compromising its quality has the potential of adversely impacting Bermuda’s tourism product.

As per the objectives set out above, the purpose of Recreational zoning is to, not only preserve land for recreational activities, but to ensure that such land is retained in an open state whilst protecting natural features. The proposal would be contrary to this objective, which is discussed further in the subsequent ‘Landscape and Visual’ section of this report.

Tourism (Development Base Zone)

Objectives

TOU (1) To provide for the orderly development, expansion and upgrading of a range of top quality tourism, cultural and entertainment facilities consistent with the operation of a successful tourism industry

TOU (2) To prevent the over-development of sites and to ensure that the massing, scale, design and density of development are compatible with the Bermuda Image and sensitive to the physical characteristics of the site and its surroundings

The proposed ‘GSL’ residential units would take up 0.6 acres (26,136 square feet) and one of the Protected Conservation Areas would take up some 1.2 acres (52,272 square feet) of land zoned Tourism, which the EIS notes represents a total loss of 0.74% of total Tourism zoned land in Bermuda, and some 2% in Southampton. Policy TOU.6 of the Bermuda Plan 2018 allows the Board discretion to approve residential development within Tourism zones subject to the satisfaction of various criteria including support from the Ministry responsible for Tourism, which has not been provided in this case following formal consultation.

Notwithstanding, the proposed development of the parts of the Application Site zoned tourism is considered to be broadly acceptable, in principle, subject to the considerations set out in TOU (2), as will be considered subsequently in this report.

Residential 2 (Development Base Zone)

Objectives

RSD (1) To optimise the use of land allocated for residential development without prejudicing high standards of residential amenity

RSD (2) To encourage the development of a range of housing types to meet the specific needs of different sections of the community

RSD (3) To ensure that the density, scale, layout and design of residential development are appropriate for the site and neighbouring area
RSD (4) To secure a high standard of living accommodation and residential environment

The proposed residential Hill Top Villas would occupy the Residential 2 zoning adjacent to the golf course in the western part of the Application Site, in accordance with the uses permitted by Chapter 27 of the Bermuda Plan 2018. However, policy RSD.4 does not permit attached house development and policy RSD.11 restricts building heights to two storeys within Residential 2 zones. This departure from the criteria of these policies would result in a form of development which would appear at odds with the Residential 2 area which surrounds the western part of the Application Site, which is comprised almost exclusively of single- and two-storey detached houses.

At Turtle Hill, 20 tourism units occupying a building parcel of 2.9 acres (126,324 square feet) would be located on land zoned Residential, which the EIS notes represents a total loss of 0.46% of total Residential zoned land in Bermuda, and 0.47% in Southampton. Policies RSD.29 through RSD.31 of the Bermuda Plan 2018 allow the Board discretion to approve tourism development within Residential 2 zones subject to the satisfaction of various criteria including support from the Ministry responsible for Tourism, which has not been provided in this case following formal consultation.

Notwithstanding, the proposed development of the part of Turtle Hill for tourism is considered to be sensible in that it reflects the predominant tourism use and zoning of the eastern part of the Application Site and it is noted that all buildings within this area would be limited to two storeys, appropriately representing a more residential scale of development.

Sustainability

The United Nations General Assembly defines sustainable development as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’. When considering development proposals, key sustainability principles include managing land resources and minimising energy consumption, including the use of private vehicles.

In terms of land resources, the EIS aptly provides the following summary of the implications of developing greenfield or brownfield sites from the perspective of sustainability.

‘6.1.4.6 When land is limiting the ongoing development of virgin land is clearly not sustainable. From a land conservation perspective, on a heavily developed island with limited space such as Bermuda it is highly desirable for new developments to be placed on formerly developed land or brownfield sites. This approach avoids development on virgin land, restores functionality to abandoned land often with positive social outcomes for the neighbourhood, and may benefit from installed infrastructure. Brownfield sites are generally more complicated and expensive to develop, particularly if environmental contamination or hazardous materials are discovered. For these reasons undeveloped or greenfield sites are often preferred by developers.’

The EIS classes Turtle Hill as a brownfield site and notes that approximately 45% of the proposed development would be located in this area. The claim that Turtle Hill is brownfield is not entirely accepted as, whilst large parts are hard surfaced and some buildings remain, other parts of Turtle Hill on which development is proposed are comprised of vegetation and do not appear to have been previously developed. In any event, it is not disputed that the majority of the proposed development would occupy greenfield land.
The EIS goes on to state that ‘although Bermuda currently has ample brownfield sites awaiting redevelopment plans, of the property under control of this owner at this site, all available brownfield is planned to be used’. This position cannot be accepted as a reason for discounting brownfield sites as, by this logic, every developer could discount developing any brownfield site simply because the land which they currently own is not brownfield. In this case, the applicant made the decision to purchase the Application Site with the intention of developing and could reasonably consider the option of purchasing other sites for development which would be more sustainable and better suited to residential or tourism development. Testing alternative sites is a required exercise under the Environmental Impact Assessment process and the applicant has made no attempt to consider developing brownfield land as an alternative to the proposed greenfield development.

As noted above and as recognised by the EIS, another critical aspect of sustainable development is allowing occupants to meet their needs without relying on private vehicles, which is particularly critical to address climate change and reduce carbon emissions. This can typically be achieved by concentrating development near to cities or local centres, providing convenient access to high-quality public transport and promoting other means of transport such as cycling or walking.

The EIS notes that the Application Site ‘is quite removed from most sources of critical supplies with the closest shopping centre being over 1.5km distant by the shortest route’ which suggests that most excursions for the proposed developments to secure supplies or services will be made by vehicular transport’. It is further noted that, whilst there are bus stops on South Road adjacent to the site, they would be a considerable walking distance (in excess of 1 kilometre in some cases) from most of the proposed units and the site is particularly sloping, making walking even more difficult.

Therefore, it is likely that the vast majority of the proposed residential units would be reliant upon private vehicles whilst the tourism units would require the provision of additional coaches and tourist vehicles. This is considered to be highly unsustainable, which would be compounded by the amount and density of development proposed.

**Overall Land Use / Sustainability Assessment**

Without mitigation, the EIS identifies Moderate Adverse impacts in respect of non-conformity to the policies of the Bermuda Plan 2018 (particularly Residential 2 height restrictions and development of the Recreation zone), how neighbours view and use the area, effects of the proposed Turtle Hill development on residents to the north and east and on Fairmont Drive and effects of the Hill Top Villas and overflow car park on the neighbourhood. Minor Adverse impacts are identified in respect of non-conforming use of the Tourism and Residential 2 zones, how the area community views and uses the area.

Whilst mitigation is not typically possible for land-use considerations, the EIS notes that residential development in Tourism zones would offset tourism development in Residential 2 zones and vice versa and the proposed PCAs would partly mitigate the loss of open space / recreational land. No mitigation measures are proposed in respect of sustainability.

The EIS identifies a moderate beneficial impact on neighbours in respect of the addition of PCAs, which would prohibit future development of part of the Application Site zoned Tourism along Shawn Acres Lane. However, given its contours and extent of vegetation, it is questionable as to whether this area is realistically developable, only four properties abut this
area of land and a Conservation Management Plan has not been provided detailing any commitment to improve such Areas, as detailed in the 'Terrestrial Ecology' section below. Therefore, such benefits are conservatively considered to be Minor Beneficial.

It is considered that the EIS notably underplays land use and sustainability effects based on the considerations set out above, particularly in respect of the loss of 5 acres of land zoned Recreation and the highly unsustainable nature of the proposal. It is noteworthy that all of the development proposed on land zoned Residential 2 also exists as open space, as does much of the development proposed on land zoned tourism, so the total amount of open space which would be lost would comfortably exceed 10 acres. Whilst it could be argued that some of this land is zoned for development, it has not been developed to date and some of this land could reasonably have been exchanged for the development of conservation land rather than developing both, as proposed.

Having regard to the proposed residential units in particular, it is noted that the incorporation of residential uses to a tourism product is becoming more commonplace and necessary for viability purposes, particularly during off-seasons. However, the proposal to create 91 residential units goes far beyond what could reasonably be considered supplementary to the main tourism product and, whilst details of such have not been provided, it is likely that at least some of the proposed 159 additional tourism units would be made available for residential occupation for at least part of each year.

Based on the above, considering Bermuda's particularly limited land resource, the degree to which the proposed development is in conflict with the strategies, goals, objectives and policies of the Bermuda Plan 2018 and the degree of unsustainability of the proposed development together with the minor benefits of incorporating PCAs, it is considered that the proposal would pose Major Adverse residual effects in respect of land use and sustainability.

The EIS identifies some cumulative impacts in respect of Tourism zoning, having regard to sites which were re-zoned, and appropriately concludes that such re-zonings would not notably affect such effects of the proposed development whilst no cumulative impacts in respect of land zoned Recreation or Residential 2 are identified, which is accepted.
9.3. Density

Whilst ‘Siting and Layout’ and ‘Building Lines’ have been identified as reserved matters for subsequent consideration, approval is being sought for ‘Use’ and ‘Density of Units’ and, as such, the applicant must demonstrate that a reasonable form of development at the quantum proposal can realistically be accommodated on the site.

To this end, it is noted that the proposed ‘South Road Townhomes’ are illustrated on the site plans of the ‘Fairmont Southampton Residential and Golf Master Plan’ as falling partly outside of the Application Site and overlain on the proposed realigned South Road, as per the extract below. In addition, the ‘2023 Proposed Parking Quantities’ page of the Master Plan document indicates a provision of 23 car parking spaces within the same area which, together with means of access and private and communal open space, would need to be accommodated in this area of limited size between the boundary of the Application Site (shown in red) and South Road.

![Diagram showing area of concern](image)

This concern was raised to the applicant within the letter from the Department dated 28 August 2023, however the applicant has declined to make the necessary revisions to the Master Plan document. Consequently, the applicant has failed to demonstrate that the proposed density of units can reasonably be accommodated within the Application Site.

In addition to the above, as set out in the previous ‘Land Use / Sustainability’ section of this report, it is not considered that the proposed residential development is reflective of the established density or character of the area surrounding the western part of the Application Site, which is comprised almost exclusively of detached houses. Furthermore, against as set out in the preceding section, the particularly low sustainability value of the Application Site in terms of its location suggests that a significantly reduced, lower density form of development would be more appropriate for this site.

It is further noted that no conclusive justification has been provided to demonstrate that the proposed number of units represents the minimum amount of development required to enable the Hotel refurbishment and ensure its long-term success.
9.4. Geology and Soils

As agreed with the applicant and Department during the EIA Screening process, this section considers likely effects at only the construction phase of the proposed development.

The EIS identifies the Application Site as being located within the Southampton geological formation, which is associated with generally sandy soils, and anecdotal evidence is presented of significant sand run-off in the Riviera Heights neighbourhood when the Fairmont Southampton Hotel was constructed in the early 1970’s. The Application Site is not located within a Cave Protection Area and there is no evidence of caves on the property. The EIS identifies that chemicals used for the maintenance of the golf course may be present, although they are likely to leach quite rapidly due to the sandy nature of the bedrock and the use of fertilizers and pesticides has been limited through the management of the golf course.

The EIS sets out that potential changes to soil quality are possible due to vegetation removal, topsoil removal, the stockpiling of topsoil, erosion and runoff during construction. The EIS notes that soil contamination may exist due to previous and current land uses and new contamination could occur through accidental leaks or spills, which could affect workers and result in impacts to soils and the mobilization of soil contamination into groundwater or surface water. In addition, the EIS notes that the proposal may result in changes to the soil structure.

The EIS further notes that an assessment of impacts to geology and soils would normally include the volume of material to be excavated and available for re-use, including fill, aggregate and sand. However, as no information is available at this stage of the volumes of material that will need to be excavated, and therefore no information of the volumes that may be generated, or volume of fill that may be needed, this assessment has only be undertaken in very general terms.

As noted by the Pollution Control Section of the Department of Environment and Natural Resources (DENR-PCS), given the limited details provided at this juncture, it is not possible to make a detailed assessment of geology and soil impacts at this time. However, the EIS concludes a major magnitudes of impacts from physical disturbance to soil, erosion and loss of sand due to clearance of vegetation and bulk earthworks and a moderate magnitude of impacts from excavation resulting in extraction of valuable construction materials for the overall development. These are considered to be reasonable evaluations based on the characteristics of the site and amount of development, particularly in respect of Turtle Hill where the greatest amount of development is proposed.

The EIS identifies the erosion of sand as a result of vegetation clearance and the exposure of workers to contamination affecting materials to be excavated from leaks and spills as potential Major Adverse impacts without mitigation. A number of moderate potential adverse effects are also identified, including leaks and spills contaminating rock, soils and aggregate, the loss of soil integrity due to the removal of vegetation and excavation, the extraction of valuable rock and aggregate given that there is likely to be a shortfall of fill for the development. Overall, without mitigation, these are considered to represent Major to Moderate Adverse effects.

Proposed mitigation measures include:

- stockpiling of excavated soils and careful site management (damping of soil piles, erection of wind barriers);
- increasing setback distances (although distances are not specified);
- the re-use of suitable extracted material within the Application site (although this will not satisfy the demand) or elsewhere on the Island;
- regular, offsite maintenance of construction equipment;
- on-site servicing/re-fueling areas with impermeable surfaces;
- dedicated storage sealed storage areas for hazardous materials;
- use of environmentally-friendly hydraulic oils; and
- training of workers, including spill preparedness/response protocol and proper PPE.

Following mitigation, the EIS concludes that likely significant effects of impacts associated with increased soil/sand susceptibility to erosion or change in physical properties due to compaction and the potential contamination of soils due to leaks or spills of contaminants are reduced to minor, at worst, and effects on human health due to contact with contaminated soils can be reduced to minor. However, the identified Moderate Adverse impact for demands for rock and aggregate for the proposed development, including the fill required for the proposed realignment of South Road, cannot be mitigated.

Demand for rock, aggregate and sand is extremely high on Island due to a local shortage and the EIS provides a reasonable conservative assumption that there is likely to be a shortfall of building material generated through site excavations for construction use, which will require extraction from elsewhere in Bermuda or import. The EIS notes that ‘that there is likely to be sufficient sand generated on site for the building needs’, however this conclusion cannot be accepted as no quantities have been provided in the submission.

It is unclear why reasonable estimates of the amount of construction material needed could not have been provided given that the submission includes specific details of proposed gross floor areas, numbers of buildings, the number of storeys of each building and an indicative site layout. In lieu of such details of quantities of materials and given the significance of the impacts noted above together with the identified mitigation measures, it is considered that Moderate Adverse residual effects on geology and soils during the construction phase is an appropriately robust overall conclusion.

The EIS also critically notes that there may be cumulative impacts with regards to other major development projects underway at the same time in respect of demand for rock, although the scale of these impacts cannot be determined at this time as other projects cannot be forecast over the time span of the master Plan construction. However, it can reasonably assumed that there will be at least some other major construction projects taking place during at least some of the construction phase of the proposed development, which would compound concerns over impacts on the construction industry due to a lack, or increased cost of, construction materials.
9.5. Hydrology and Hydrogeology

The EIS correctly notes that the Application Site does not overlay any of Bermuda’s freshwater lenses but one part of the subject site is designated as a Water Resources Protection Area (WWPA), located across the northeast boundary near to the existing Wastewater Treatment Plant (WWTP). The EIS notes that one of the two manmade ponds within the Application Site is tied to the WWTP, facilitating a programme of water re-use for irrigation.

WWPAs are addressed by the policies of Chapter 24 of the Bermuda Plan 2018 which aim to achieve the following objective.

**Objective**

WAT (1) To protect the Island’s water resources through the sensitive and appropriate siting, scale, density and design of development

To highlight the importance of this consideration, policy WAT.2 of the Bermuda Plan 2018 sets out that ‘the protection of Bermuda’s water resources shall take precedence over all other planning considerations’.

The EIS identifies the removal/loss of vegetation/habitat contributing soil and vegetative debris into surface waters or stormwater runoff and/or leading to groundwaters and/or surface waters, accidental land-based spills of hazardous materials (e.g. oils) causing contamination of surface waters or stormwaters and/or subsequently impacting groundwaters and/or surface waters, increase in / relocation of hard surfacing adding to stormwater volumes and/or subsequently impacting groundwaters and/or surface waters and ingestion or dermal contact of contaminants in surface waters by construction workers or residents/golfers/hotel guests as potential pathways for impacts on ground and surface waters.

The EIS considers groundwater to be of medium sensitivity in this case given that, although there is no freshwater lens near the subject site, the groundwater includes zones of strata of medium permeability, the groundwater on adjacent sites is used for domestic or commercial uses but is not used for human consumption, the groundwater is vulnerable to leaching and transportation of contaminants due to zones of high permeability of material, the proximity of groundwater connected marine ecosystems and the likelihood that the resource currently has low levels of contamination, although this has not been tested.

In respect of surface water, the EIS notes that, whilst most rainwater will immediately soak into the ground, increased hard surfacing will cause stormwater to be re-directed. The EIS attributes medium receptor sensitivity to existing on-site drains from risks associated with increased contamination from additional hard surfacing and the main pond due to the aforementioned water re-use programme linked to the WWTP whilst low sensitivity is attributed to the smaller pond as it is not used as a water source for landscaping.

The EIS identifies major potential adverse impacts without mitigation to construction workers due to exposure to contamination from leaks and spills during construction and to residents, hotel guests, golfers and workers during the operational phase due to leaks and spills during maintenance and landscaping. A number of Moderate Adverse impacts are also identified in respect of leaks and spills and increased sediments in surface waters, changes to groundwater flow/recharge rates and interactions with surface waters due to increased hard surfacing whilst some minor pre-mitigation impacts are also identified similar to those noted above as well as potential contamination due to increased sewage effluent. Overall, these are considered to represent likely Moderate Adverse effects during the construction and operational phases without mitigation.
The EIS sets out the following mitigation measures.

Construction Phase:

- Good site management
- Soil and erosion control measures
- Siting of stockpiles away from water bodies
- Roadways drained to grade and/or stormwater collected with road and trench drains and diverted to settling chambers and boreholes
- Regular, offsite maintenance of construction equipment
- On-site servicing areas with impermeable surfaces
- Dedicated storage sealed storage areas for hazardous materials
- Use of environmentally-friendly hydraulic oils
- Training of workers
- Spill preparedness/response protocol

Operational Phase

- On-site servicing areas with impermeable surfaces
- Dedicated storage sealed storage areas for hazardous materials
- Use of environmentally-friendly hydraulic oils
- Training of workers
- Spill preparedness/response protocol
- Proper PPE for workers
- Works in the affected area will stop and the area will be cordoned off to restrict personnel access
- Tertiary WWTP/Septic system
- Offset/part-offset by increased water available for re-use from WWTP effluent

The Pollution Control Section of the Department of Environment and Natural Resources (DENR-PCS) has confirmed its support for the proposal to assess the disposal requirements of each new area of impermeable ground rather than to connect to existing rainwater disposal infrastructure, which may not have sufficient capacity to accommodate the proposed development. The need for deep-sealed boreholes and, based on perceived risk, oil/particulate separators could be assessed on a case-by-case basis via pre-consultation with DENR-PCS or via the formal application procedure for water rights under the Water Resources Act 1975.

Subject to the identified mitigation measures and the details provided at this junction, it is considered that likely effects on hydrology and hydrogeology would be reduced to not significant for the construction and operational phase.

In respect of cumulative impacts, the conclusion of the EIS is accepted that the other identified approved developments are sufficiently geographically removed from the Application Site so as not to significantly affect any of the potential effects discussed above.
9.6. Air Quality and Odour

The EIS takes baseline air quality conditions from studies undertaken by the Department of Environment and Natural Resources in 2015-2016 and sets out likely effects from the generation of dust during construction and operational activities at a radius of 50 metres, 100 metres and 150 metres from each specific development area, noting the number of properties contained within each radii.

The EIS confirms that a new Wastewater Treatment Plan (WWTP) will be constructed in place of the existing facility, which would accommodate the additional sewage of the proposed development and Hotel, including its amenity, to a capacity of 294,000 gallons. The EIS notes that on-site Combined Heat and Power (CHP) generation is also being considered, which would most likely be located adjacent to the Hotel. Whilst specific details of such have not been provided, the EIS appropriately considers impacts from emissions which would be generated from a CHP in this location.

Without mitigation, the EIS identifies, based on conservative estimates, likely Major Adverse effects from the occasional exposure of construction workers and local residents (affecting more than 50 properties) to dust in exceedance to Bermuda’s air quality standards (and vehicle emissions in respect of construction workers), either directly or through roof water catchments. Minor or Moderate Adverse pre-mitigation effects are identified in respect of exposure of hotel staff, guests and golfers to dust and the exposure of residents to odours from the WWTP. This is considered to represent Major Adverse effects during construction and Moderate Adverse effects during operations without mitigation.

As noted by the Pollution Control Section of the Department of Environment and Natural Resources (DENR-PCS), the new WWTP may be located closer to off-site neighbours than the existing facility and, as such, odour control will need to be factored into the design.

The EIS sets out the following mitigation measures.

- Use of appropriate dust masks / proper PPE
- Site management to avoid surface dust accumulation
- Damping down of piles or similar actions taken to prevent wind-blown dust
- Machinery, equipment and vehicles maintenance and annual testing of emissions control, as required by the Transport Control Department
- Strategic location of crushers
- The establishment of a complaints register
- Cleaning of roofs, as necessary
- Locating the WWTP sufficient distance from the nearest neighbours
- Fitting new plant with odour control systems with capped tanks in accordance with local regulations

Other than the exposure of construction workers to dust in exceedance of air quality standards, which would be reduced to a Moderate Adverse impact, the EIS sets out that such mitigation measures would reduce the impacts identified above to minor or not significant. Overall, subject to such mitigation measures, it is considered that the proposal would pose **Minor Adverse** residual effects during construction and **Negligible** effects during operations on air quality and odour.

The conclusions of the EIS that the other identified approved developments would not result in any cumulative effects as their scheduling will not overlap that of the proposed development.
9.7. Noise and Vibration

The EIS notes that no readings of existing noise and vibration levels have been carried out and identifies sources of noise from the operations of a hotel, maintenance of the golf course, traffic noise from the local road network and typical residential maintenance and landscaping activities when considering baseline noise levels. The EIS notes that baseline vibration levels are practically non-existent, with only minimal vibration caused by road traffic. Based on such factors, the EIS reasonably concludes that noise and vibration levels of the Application Site and surrounding area are typically low, with occasional exceedances in World Health Organisation guideline noise levels due to maintenance and landscaping activities.

To assess likely impacts during construction, the EIS sets 32 metre, 128 metre and 512 metre radii from the application site for noise and 10 metre, 20 metre and 50 metre radii from each sub-development site for vibration, based on estimated exposure levels for each distance, and states the number of properties contained within each radius.

The EIS notes that construction workers would be the most vulnerable to noise and vibration during construction but reasonably assumes that workers will conform to the Occupational Safety and Health Regulations 2009 which limit daily sound level and require hearing protection on noisy sites. During construction, the EIS recognises local residents and Hotel guests as being of high sensitivity as well as the historic gun placements on Turtle Hill given their status as Protected Conservation Areas whereas golfers are deemed by the EIS to be of low sensitivity as they could choose not to visit the site. The EIS identifies all receptors as being of low sensitivity during the operational phase.

The magnitude of potential noise and vibration impacts on each receptor during the construction phase as set out in the EIS is summarised in the table below.

<table>
<thead>
<tr>
<th>Receptor</th>
<th>Magnitude of Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Noise</strong></td>
<td></td>
</tr>
<tr>
<td>Construction workers</td>
<td>Major</td>
</tr>
<tr>
<td>Residents within 32 metres (37 properties plus the Hotel and golf club)</td>
<td>Major</td>
</tr>
<tr>
<td>Residents between 32 and 128 metres away (69 properties)</td>
<td>Major</td>
</tr>
<tr>
<td>Residents between 128 and 512 metres away (350 to 400 properties)</td>
<td>Moderate</td>
</tr>
<tr>
<td>Golfers</td>
<td>Minor</td>
</tr>
<tr>
<td>Tourism product</td>
<td>Minor</td>
</tr>
<tr>
<td><strong>Vibration</strong></td>
<td></td>
</tr>
<tr>
<td>Residents within 32 metres (37 properties plus the Hotel and golf club)</td>
<td>Major</td>
</tr>
<tr>
<td>Residents between 32 and 128 metres away (69 properties)</td>
<td>Moderate</td>
</tr>
<tr>
<td>Residents between 128 and 512 metres away (350 to 400 properties)</td>
<td>Negligible</td>
</tr>
<tr>
<td>Golfers</td>
<td>Negligible</td>
</tr>
<tr>
<td>Tourism product</td>
<td>Negligible</td>
</tr>
<tr>
<td>Historic gun placements</td>
<td>Negligible</td>
</tr>
</tbody>
</table>

Such noise would be generated through the use of jackhammers, impact drivers, dump trucks, cement mixers and cutters, electric saws, hand tools and landscaping equipment. The EIS also identifies back-up generators as a potential significant noise source, although it is not known at this time where there would be located. As noted by the Pollution Control Section of the Department of Environment and Natural Resources (DENR-PCS), any emergency back-up generators will require a construction permit and operating licence under the Clean Air Act.
1991, which is recognised by the EIS. Sound level modelling to demonstrate compliance with Environmental Authority policy will be required. DENR-PCS also notes that, if a combined heat and power system is not adopted, large diesel-fired back-up electricity generators may be required to provide power during outages.

The EIS sets out a similar assessment of magnitudes of impacts during the operational phase, noting moderate for residences within the 32 metre noise and 10 metre vibration radius, given that there may be occasions of exceedance of Occupational Safety and Health Regulations, and minor for residences within the 32 to 128 metre noise and 10 to 20 metre vibration radius as noise would be loud but not harmful and would persist long-term. The magnitude of impacts on other receptors are concluded to be negligible during the operational phase.

The mitigation measures set out by the EIS include:

- ensuring construction workers are properly trained and wear appropriate PPE;
- appropriate scheduling of activities;
- ensuring idling engines are switched off and radio volumes are kept low;
- ensuring heavy vehicles travel slowly during areas of greater housing density and are appropriately loaded;
- using the existing service road that branches off the Middle Road hotel service entrance Drive to Turtle Hill to minimise impacts to the residents on Fairmont Drive;
- the use of vegetative screening or more robust sound barriers, although no details of such are provided;
- installing protective fencing around the historic gun placements on Turtle Hill and following a watching brief during excavation works in this area;
- the construction of a back-up generator room, with the generator appropriately located to minimise noise disturbance; and
- a structural inspection of the nearest properties to Turtle Hill on Fairmont Drive.

The EIS also notes that reducing vehicular traffic on site during operations will help mitigate noise impacts and careful initial landscaping may help minimise the use of noisy equipment, however it is unclear how such measures could reasonably be implemented, particularly given the substantial scale of the proposed development.

Having considered the contents of the EIS, the level of information provided with the submission, including the duration of the construction phase, and the mitigation measures set out above, the table below sets out the Department’s assessment of likely impacts during the construction and operational phases of the proposed development.

<table>
<thead>
<tr>
<th>Receptor</th>
<th>Pre-Mitigation Impact</th>
<th>Post-Mitigation Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction workers</td>
<td>Not Significant</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Residents within 32 metres (37 properties plus the Hotel and golf club)</td>
<td>Major Adverse</td>
<td>Major Adverse</td>
</tr>
<tr>
<td>Residents between 32 and 128 metres away (69 properties)</td>
<td>Major Adverse</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Residents between 128 and 512 metres away (350 to 400 properties)</td>
<td>Moderate Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Golfers</td>
<td>Minor Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Tourism product</td>
<td>Moderate Adverse</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Historic gun placements</td>
<td>Major Adverse</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>
## Operational Phase

<table>
<thead>
<tr>
<th>Category</th>
<th>Construction Phase</th>
<th>Operational Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents within 32 metres (37 properties plus the Hotel and golf club)</td>
<td>Minor Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Residents between 32 and 128 metres away (69 properties)</td>
<td>Minor Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Residents between 128 and 512 metres away (350 to 400 properties)</td>
<td>Not Significant</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Golfers</td>
<td>Minor Adverse</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Tourism product</td>
<td>Minor Adverse</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Historic gun placements</td>
<td>Not Significant</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

The above assessment is broadly in line with the conclusions of the EIS, however it is considered that the EIS somewhat underplays the noise impacts of the construction phase on the proposal on the tourism product. The EIS states that ‘tourists will mostly be inside the hotel building so not exposed to the noise for extended periods’, which is considered to be a highly questionable assumption given, as per the admission of the EIS, the Hotel is located within the radius which would be subject to Major Adverse noise effects (indeed some of the proposed development would be located immediately adjacent to the Hotel) and tourists do not typically visit Bermuda to remain indoors, particularly given that the Hotel includes a number of outdoor amenities for guests, including the golf course. The conclusion of the EIS that the proposal would pose Minor Adverse residual effects on the tourism product has been revised accordingly.

Applying this assessment to the overall development, it is considered that, without mitigation, there would be likely Major Adverse effects during the construction phase and Minor Adverse effects during the operational phase. Following mitigation, effects from vibration would be negligible and likely residual effects from noise would be **Major to Moderate Adverse** during the construction phase and **Minor Adverse** during the operational phase.

The EIS reasonably concludes that the other identified approved developments would not result in any significant cumulative effects to the above given their geographical distance from the Application Site and, whilst the renovation of the Hotel, particularly the Beach Club, could pose cumulative impacts to residents of Fairmont Drive, there is anticipated to be at most a two month overlap, which is not considered to be significant.
9.8. Landscape and Visual

It is imperative that landscape and visual effects of development proposals are considered separately as ‘related but very different considerations’ (LI and IEMA, 2013).

Landscape assessment considers the effects of the proposed development on the landscape as a resource whereas visual assessment considers the effects of the proposed development on specific views and on the general visual amenity experienced by people.

Chapter 9 of the Bermuda Plan 2018 sets a series of seven objectives in respect of design, the first of which is the most pertinent to the landscape and visual impacts of this proposal, as set out below.

Objectives

DSN (1) To protect the character and scenic quality of undeveloped areas which contribute to the visual quality of Bermuda

The EIS correctly describes the baseline conditions of the site, which has a long established tourism use comprising a manicured golf course, amenity spaces and its existing buildings, interspersed by small woodlands. A series of viewpoints (or receptors) were agreed between the applicant and the Department in order to assess landscape and visual impact, as depicted below. The EIS also considers views from Morgan's Point and Paradise Lakes.

The EIS sets the sensitivity of each such receptor based on the number of people likely to experience changes in views and landscape character, distance, elevation and the extent to which the visual changes resulting from the development fit with that expected given the zoning of the Application Site. The EIS assesses the magnitude of the impact on each receptor based primarily on the scale of change which would be experienced from that receptor,
including potential impacts on visual amenities, as well as distance, inter-orientation, duration of the change and perceptions as to whether the changes are likely to be viewed positively or negatively.

The conclusions of the EIS, based on the entire proposed development, are set out as follows:

<table>
<thead>
<tr>
<th>Receptor</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gibb’s Hill Lighthouse</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Dolphin Ridge</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>South Road hotel entrance</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Southampton Rangers, South Road</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Riviera Crescent Railway Trail</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Heron Bay School, Middle Road</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Morgan’s Point</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Paradise Lakes</td>
<td>Minor Adverse</td>
</tr>
</tbody>
</table>

Identified mitigation measures are limited to the potential incorporation of vegetative screening, however the EIS does not consider that such measures would reduce any of the identified impacts from as noted above.

Such conclusions are considered to be reasonable in respect of assessing visual impact from each of the specific identified receptors, however the assessment presented by the EIS is considered to be somewhat lacking in respect of landscape impacts. As noted in the above ‘Land Use / Sustainability’ section of this report, the proposal would effectively result in the development of more than 10 acres of land which currently exists as open space, which is considered to be significant relative to Bermuda’s limited land resource. The proposed buildings, Whilst reduced in height in the case of the Hill Top Villas from as originally proposed, would nevertheless appear conspicuous given their elevated position and linear arrangement and would present development along a ridgeline which is currently predominantly characterised by trees. This would be compounded by protective netting which more likely than not would be required to protect residences from being struck with golf balls.

Such landscape impact has been partially mitigated by setting development away from the north side of South Road, retaining a greater open aspect than the original proposal, however the currently proposed South Road Townhomes, by virtue of having three storeys with no setback to South Road, would appear highly prominent and visually dominant when travelling west along South Road.

Having regard to all such considerations, together with increased traffic and associated infrastructure which will be required to support the development, it is concluded that the proposal would pose Minor Adverse residual landscape and visual impacts during the construction phase and Major to Moderate Adverse residual landscape and visual impacts during the operational phase.

Whilst not addressed by the EIS, it is not considered that the other identified approved developments would result in any significant cumulative effects to the above given their geographical distance from the Application Site.
9.9. Waste and Wastewater

The EIS sets out baseline conditions by providing a description of Bermuda’s waste management system inclusive of volumes of waste which are generated and processed and details measures for processing wastewater, including Wastewater Treatment Plants (WWTP) such as that which exists on the Application Site.

As noted above, the EIS confirms that a replacement WWTP is to be constructed to accommodate 210,000 gallons per day from the hotel and amenities and the additional capacity required for the proposed development, with its modular design allowing it to be expanded as new phases development become operational. Lift stations will be installed at each development site and pumped to gravity tie-in manholes to the new WWTP and force mains and gravity lines are to be trenched through green space, where possible, to avoid roadway disruption, although trenching for the South Road Townhouses will need to be coordinated with the South Road re-alignment.

During construction, without mitigation, the EIS identifies Moderate Adverse impacts on the Sally Port hazardous waste facility due to the use of paints, glues and solvents and servicing of machinery, on Tynes Bay from the generation of municipal waste and on the Bulk Waste Airport Facility due to the generation of bulk waste whilst Minor Adverse impacts are anticipated on Marsh Folly through the disposal of vegetative waste. This is considered to represent Moderate Adverse impacts overall without mitigation.

Before mitigation at the operational phase, the EIS identifies Major Adverse impacts on trash collection due to exceeding current pick-up capacities. Moderate Adverse pre-mitigation impacts are identified on Tynes Bay, Sally Port and the Bulk Waste Airport Facility for the same reasons given above and Minor Adverse impacts are identified on the Recycling Centre, the operation of the WWTP and Marsh Folly. Overall, the above are considered to represent Moderate Adverse pre-mitigation effects.

The EIS anticipates that the Major Adverse impact on trash collection can be mitigated by careful ordering of supplies, the use of biodegradable/recyclable materials, the centralised collection of waste on-site or on-site compacting of waste whilst the use of private contractors would eliminate this impact entirely, although it has not been confirmed whether this would be the case. Other mitigation measures set out by the EIS include the following.

- On-site composting facility
- Regular, offsite maintenance of construction equipment
- On-site servicing areas with impermeable surfaces
- Dedicated storage sealed storage areas for hazardous materials
- Use of environmentally-friendly hydraulic oils
- Coordination with Bermuda Government Hazardous Waste Section
- Reduction of waste stream through careful sourcing
- Repair of appliances and use of second-hand market
- Treatment of effluent in accordance with Government standards
- Increase water available for re-use from WWTP effluent

The Pollution Control Section of the Department of Environment and Natural Resources (DENR-PCS) has confirmed its support of the proposed use of a centralised WWTP to serve the entire development, including the existing Hotel. DENR-PCS further notes that it would not support the use of individual cesspits or septic tank systems for each new unit, or any other new or existing building. A construction permit and operating licence under the Clean Air Act 1991 will be required for the new WWTP and it is strongly recommended that the developers
engage in pre-consultation discussions with DENR-PCS before the specifications for any new WWTP is agreed with the WWTP manufacturer/provider.

DENR-PCS has also confirmed its support of the proposed assessment of waste water reuse and/or injection into the shallow groundwater; consultation between the developer and DENR-PCS during these assessments is strongly recommended.

DENR-PCS notes further that it has already had some pre-consultation with engineering companies representing the developer to highlight the wastewater policies of the Environmental Authority that will need to be met prior to a formal submission for a construction permit and operating licence.

Although not discussed in the application, DENR-PCS has also confirmed its support of the use of deep, saline groundwater for HVAC cooling but notes that the existing disposal pipe (which is above sea level) should be modified so that it extends below the low water mark and allows the disposal of HVAC water without highlighting the presence of an outfall, albeit discharging the warmer, cooling water. DENR-PCS further notes that any abstraction well or disposal borehole will require a water right under the Water Resources Act 1975.

The Chief Engineer of the Department of Works and Engineering requested clarification as to whether the site/hotel has an active service level agreement with Bermuda Water Works Limited to provide supplementary water, if required, and confirmation of the potable water demand of the proposed development given that differing figures have been provided by the EIS. The applicant confirmed that ‘the property is currently supplied by Bermuda Water Works and the applicant is in negotiation with Bermuda Water Works to create a new supply from South Road’ and the potable water demand estimate for the proposed development is 93,600 gallons per day (84,080 GPD was a previous iteration) based on 80 GPD per person for hotel-occupied units (maxed to 2 people per room, hotel meals & resort activity demand not included) and 40 US GPD per person for residential-occupied units (conservatively maxed to 2 people per room due to preliminary unit/bedroom mix).

The applicant was asked to provide clarification of both such points, however no such clarification has been provided to date. To provide a robust assessment, it will therefore be assumed that the applicant does not have an active service level agreement with Bermuda Water Works Limited whilst it is reasonable to reserve specific details of potable water demand for subsequent consideration given that only in-principle planning permission is being sought at this juncture.

Overall, whilst a number of the aforementioned mitigation measures are not realistically enforceable or likely, it is considered that pre-commencement conditions could reasonably be imposed requiring the submission of detailed waste management matters. Subject to such conditions, residual impacts on waste and wastewater could reasonably be reduced to Minor Adverse during the construction and operational phase.

The EIS sets out that there are likely to be cumulative impacts on all aspects of Bermuda’s waste management system from other projects, however this cannot currently be assessed without knowing the full details of the other proposals. Such cumulative impacts would also apply to construction waste generated through the approved renovations to the Fairmont Southampton hotel, however given that only a two month overlap is anticipated between these works and the commencement of construction at Turtle Hill, it is not considered that such cumulative impacts would be significant. Such conclusions are considered to be reasonable.
9.10. Energy

As agreed during the EIA Scoping process, the energy impacts during only the operational phase of the proposed development are considered in the submission.

In addition to the goal set out by STY.5 of the Bermuda Plan 2018 ‘to encourage a more efficient and sustainable use and development of land and buildings’, the sixth of the seven objectives of Chapter 9 of the is relevant to this assessment, which is set out below.

Objectives

DSN (6) To encourage the incorporation of sustainable development principles into site planning, building design and layout

To assist in achieving this aim, policy UTL.6 of Chapter 13 affords the Board discretion to approve energy generation facilities in any Base Zone, Conservation Area or Protected Area.

The EIS notes that ‘there is no local regulatory standard, to which energy usage and sustainability must comply’ in Bermuda. However, as noted by the Department of Energy in its consultation response, this statement is not accurate as there are clear requirements set forth in the International Energy Conservation Code (IECC).

The EIS sets out baseline conditions for this assessment based on Bermuda’s annual energy consumption, noting that some 97% of the Island’s energy is provided and distributed by BELCO which currently has a maximum capacity of 140 MW and has retired roughly 79.5 MW of its existing generating capacity, which has been partly replaced with 56 MW of new capacity. It is, however, somewhat concerning, as noted by the Department of Energy, that the applicant does not appear to have held any meaningful consultation with BELCO to date in respect of the proposed development.

The anticipated electrical load for the proposed development, as set out by the EIS, is 9.294 kW connected load and 2,138 kW demand load, which would represent 3.6% of total 2021 consumption for Bermuda, whilst data from 2015 suggests that the Hotel has an annual demand of around 1.169 MW.

The EIS concludes Major Adverse effects in respect of achieving Government renewable energy targets (85% renewable energy by 2035) and Moderate Adverse impacts in respect of the demand which the proposed development would place on the grid.

As noted by the Department of Energy, whilst the EIS demonstrates that there is Island-wide capacity for the proposed development (although it must be recognised that the additional demand generated by the proposed development is not insignificant), localised impacts on the grid have not been considered beyond the recognition that transformers and hard infrastructure will be required. Therefore, the impact to the local grid and to those specific circuits is thus far unknown, based, on the details presented by the EIS.

In terms of mitigation, the EIS sets out that the installation of a renewable energy supply (i.e. solar PV, Combined Heat and Power, a micro-grid and/or micro-waste to energy) together with the use of LEDs, where appropriate, the installation of light sensors and smart thermostats, reducing fenestration on south- and west-facing façades, using low-emissivity glass in all windows and predictive maintenance would reduce such impacts. However, as the applicant has not committed to any such measures, the identified impacts remain as noted above.
The Pollution Control Section of the Department of Environment and Natural Resources (DENR-PCS) strongly supports the incorporation of a combined cooling, heating and power plant for this large site in order to maximise the efficiency of the electrical generation system by making use of the waste heat to run adsorption chillers, noting that waste heat from electrical generators can be as high as 50% of the overall energy that is typically wasted.

It is unfortunate that the submission fails to commit to measures to reduce energy consumption nor incorporate renewable energy features in the project at this stage, which is considered to be a missed opportunity given the size of the site and wide range of options available. It was recommended by the Department to the applicant that energy efficiency and renewable energy form a central feature of the development proposal, however to date no firm proposals have come forth.

Consequently, based on the submission as it has been presented, it is concluded that the proposal would pose **Moderate to Major Adverse** likely residual effects on energy.

In terms of cumulative impacts, the EIS recognises that other projects would add to future energy demand, although without details of such the degree of such impacts cannot be ascertained. In any event, the EIS notes that there is no indication that there would be any Island-wide capacity issues at this time. It is further noted that the other identified projects are sufficiently geographically removed from the Application Site so as not to pose any further significant cumulative impact on the local grid.
9.11. Freshwater

The EIS notes that the Hotel currently secures potable water from three sources; roof/cistern collection and storage, piped water from Watlington Waterworks and a Reverse Osmosis plant that produces 150,000 gallons per week. It is noted further that Watlington Waterworks, which supplies the western parishes, has built a 3 million gallon reservoir in Southampton parish and has recently completed major upgrades with the installation of a new water main in Middle Road from Belmont to Barnes’ Corner Southampton ‘with redundancy to distribute via South Road, Middle Road and Harbour Road’. Two one million gallon tanks are to be provided within the Application Site with a centralised distribution system.

The EIS further notes that the Fairmont Southampton is one of a few facilities in Bermuda currently licensed to re-use wastewater, which after secondary level treatment via the Wastewater Treatment Plant (WWTP) is further purified through natural treatment in a man-made pond located on its golf course, filtered through natural reed beds and used for irrigation.

During construction, the EIS notes that, whilst there is no information at this stage on the water demand during this phase, it can be assumed that much of the water can be drawn from existing water supplies on the Application Site, supplemented with water truck deliveries, whilst contamination of the pond which represents the source of the water re-use programme for irrigation may impact the integrity of this infrastructure. The EIS assesses such matters as constituting Minor Adverse pre-mitigation impacts.

Subject to the identified mitigation measures, namely water conservation and re-use during construction, good construction site management to prevent soil erosion, run-off and accidental spillage of hazardous materials and roof collection and increased storage capacity, the EIS concludes that construction impacts would be reduced to Not Significant.

In respect of impacts at the operational phase, the EIS sets out an estimated increased potable water demand of 93,600 gallons per day which the EIS notes that, even if all of this demand had to be satisfied by the municipal piped supply network, this would equate to 2% of the Island’s current capacity of approximately 5.5 million gallons per day, so is assessed as a Minor Adverse impact without mitigation. The EIS notes that the proposed mitigation measures, namely roof collection, increased storage capacity, upgrades to the WWTP and installation of water saving appliances and fixtures, would reduce this impact to Not Significant. The EIS further notes that the planned upgrades to the on-site WWTP would increase the amount of water for re-use for landscaping, which represents a Minor Beneficial impact.

The Pollution Control Section of the Department of Environment and Natural Resources (DENR-PCS) confirmed its support for the continued use of three potable water supply options and note that any well required to abstract groundwater (there are thin generally brackish lenses in the area) to provide feedstock to a reverse osmosis plant will require a water right under the Water Resources Act 1975, as would any disposal borehole. Pre-consultation with DENR-PCS is recommended in respect of disposal of reverse osmosis effluent, which could include deep sealed boreholes and connection to the HVAC waste water disposal infrastructure, or any disposal of sewage effluent or other potentially polluting effluent within the area of the Application Site designated as a WRPA. Such details would be required as part of subsequent planning application stages relating to waste and water management.

Overall, it is considered that the residual freshwater impacts of the proposed development would be Not Significant. Whilst cumulative impacts are likely, as noted by the EIS, they cannot be quantified at this time whilst only a two-month overlap is projected with the Hotel renovations.
9.12. Traffic and Parking

Chapter 12 of the Bermuda Plan 2018 is relevant to this section, which sets out the following objectives in respect of transportation and accessibility.

Objectives

TPT (1) To facilitate the reduction in traffic congestion by encouraging the use of alternative, more sustainable modes of transport and to support development within areas which are served by good public transport links

TPT (2) To provide for the safe movement of traffic and pedestrians including disabled and elderly persons

TPT (3) To provide for adequate and safe parking areas for vehicles

This section of the EIS is informed by a Traffic Impact Study (July 2023) (the ‘TIS’) and a Public Transit Capacity Study (March), both undertaken by Brunel Engineering Consultants Limited, and considers impacts on the local road network including parking, road design, safety and the public bus service.

Peak hour (7:15am to 8:15am and 5:00pm to 6:00pm) turning movement traffic volume counts were conducted by Brunel on Wednesday January 25 2023 at the following intersections:

- Middle Road and Site Access
- Lighthouse Road and Site Access
- Lighthouse Road and South Road
- South Road and Site Access

The EIS details that 414 car parking bays have been included in the Master Plan to accommodate the proposed development, which will total 475 car parking bays. However, the EIS also notes that there are a further 70 car parking bays adjacent to the existing Golf Club and Restaurant which are to be retained but have not been included in the calculations of the TIS. The EIS notes that the site also includes 124 cycle spaces adjacent to the hotel and approximately 40 overflow cycle spaces near the hotel.

The EIS identifies the movement of containers and construction and waste vehicles together with construction worker travel as potential sources of impact during construction and identifies the potential origins and destinations of construction traffic. At the operational phase, the generation of additional vehicles on the local road network together with the realignment of South Road and additional demand on public transport are identified by the EIS as potential sources. In respect of the local road network, particular reference is made to:

- the Lighthouse Road Junction with Middle Road and Shawn Acres Road / the northern hotel access;
- the Harbour View Drive Junction with South Road; and
- the Harbour View Drive Junction with Lighthouse Road.

Potential impacts from such are identified by the EIS as follows:

- Road network disruption
- Impacts to public transit
- Impacts to existing hotel parking
- Impacts to road traffic infrastructure
- Impacts to pedestrian/cyclists
- Accidents and Safety
- Environmental impacts

There are concerns over the reliability of the traffic survey undertaken by Brunel given that it was carried out in the ‘off season’ of the tourism industry when the Hotel was not operational and, as noted in the ‘Geology and Soils’ section above, it is unclear why reasonable estimates of the amount of construction material needed could not have been provided. However, as noted above, no objections have been raised by the Highways Section of the Department of Works and Engineering and it is considered that the EIS provides an appropriately robust assessment of impacts of the proposed development before mitigation, as set out below.

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Pre-Mitigation Impact</th>
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<tbody>
<tr>
<td>Road traffic delays</td>
<td>Moderate Adverse</td>
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<tr>
<td>Road traffic delays at junctions</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Road traffic disruptions</td>
<td>Minor Adverse</td>
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<tr>
<td>Road infrastructure</td>
<td>Moderate Adverse</td>
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<tr>
<td>Capacity of Public transit</td>
<td>Moderate Adverse</td>
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<tr>
<td>Pedestrian/cyclist routes</td>
<td>Moderate Adverse</td>
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<tr>
<td>Road user safety</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Noise, vibration, air quality and potential hydrocarbon spills</td>
<td>Moderate Adverse</td>
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<tr>
<td>Road traffic disruptions middle Road, Lighthouse Road and South Road</td>
<td>Moderate Adverse</td>
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<tr>
<td>Road traffic disruptions junction of the northern site access with Middle Road</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Road traffic Disruptions – road users within Application Site, including road design</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Road infrastructure</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Road infrastructure – realignment of South Road and traffic light system on Middle Road</td>
<td>Moderate Beneficial</td>
</tr>
<tr>
<td>Capacity of Public transit</td>
<td>Moderate to Major Adverse</td>
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<td>Parking</td>
<td>Moderate Adverse</td>
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<tr>
<td>Noise, vibration, air quality and potential hydrocarbon spills</td>
<td>Moderate Adverse</td>
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The EIS sets out the following mitigation measures to address the adverse impacts noted above.

<table>
<thead>
<tr>
<th>Construction Phase Mitigation</th>
<th>Operational Phase Mitigation</th>
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<tbody>
<tr>
<td>Traffic controls and site management practices</td>
<td>Traffic controls and signage at each new development site</td>
</tr>
<tr>
<td>Adherence to speed limits</td>
<td>Adherence to speed limits</td>
</tr>
<tr>
<td>Advance public warning regarding works</td>
<td>Encouraging carpooling, use of taxis, bicycles and electric vehicles</td>
</tr>
<tr>
<td>Damping down of soil piles and rinsing vehicle tyres when leaving site</td>
<td>Use of public bus system outside of peak hours</td>
</tr>
<tr>
<td>Covering of vehicle loads and spill control response measures</td>
<td>Installation of three-way traffic light system</td>
</tr>
<tr>
<td>Switching off idling engines</td>
<td>TDC testing, licensing and emissions control</td>
</tr>
</tbody>
</table>
Appropriate scheduling of works to avoid peak user hours | Hotel shuttle system
---|---
Adoption of code of construction practice to control construction traffic routes, vehicle types, construction worker travel plans and controls on delivery hours | Development of appropriate pedestrian sidewalks
Use of public bus system outside peak hours | Conformance to minimum parking standards of the Bermuda Plan 2018
Encouragement of carpooling and use of bicycles | Development of a sustainable travel plan to encourage staff to use sustainable methods of transport to and from work, including walking or cycling
Careful ordering of supplies to minimize trips | Chipping/composting on site

A number of the measures set out above are not considered to be reasonable or enforceable mitigation measures, such as adherence to speed limits, which is a legal requirement, and using public busses outside of peak hours, given that workers’ hours are likely to coincide with peak hours and residents and guests cannot be restricted from using buses. Therefore, the Department does not agree with the conclusions of the EIS that all impacts identified above can be mitigated to either Minor Adverse or Not Significant. Having regard to the identified Major Adverse impact in particular, namely on bus routes 7 and 8 during peak hours, this residual impact is considered to remain Major Adverse.

As noted above, the Highways Section of the Department of Works and Engineering confirmed no objections to the revised proposal and updated EIS, although requested clarification in respect of when the proposed realignment of the 'S-bend' of South Road would be implemented. It has subsequently been confirmed by the EIS that such works are anticipated to be completed by the end of Phase 1 of the development, although this timescale would be contingent on coordination with the Highways Section.

The Department of Public Transportation (DPT) of the Ministry of Transport notes that off-season capacity is likely to be sufficient to service the projected additional demand of the proposed development, but reiterate that peak season capacity is typically strained on Route 7 and 8 due to the movements of cruise ship passengers, particularly between the south shore beaches and Dockyard. DPT notes that Barnes Corner buses play a critical role in relieving the strain between Southampton and Paget, but have been prone to cancellations which, it is hoped, will be improved by ongoing fleet replenishment, which will play a critical role in peak season service to the redeveloped Fairmont Southampton and the south shore in general.

DPT further notes that the Public Transit Capacity Study which informs the EIS:

- uses only a single day’s ridership data;
- was conducted in February, so does not reflect the strain on Routes 7 and 8 during cruise season; and
- is mainly focused on peak hour service whereas, during the cruise season, capacity constraints also frequently take place on Routes 7 and 8 outside of the traditional peak hour service.

It can therefore reasonably be concluded that impacts on public transport are likely to be greater than as indicated by the EIS.

Having regard to the aforementioned issues with the proposed mitigation measures and other considerations noted above, including the beneficial impacts of the proposed realignment of
South Road and traffic light system to Middle Road (although these would partly mitigate impacts from the proposed development), it is considered that the proposal would result in Minor Adverse residual effects during construction and Moderate Adverse residential effects during the operational phase.

In respect of cumulative impacts, it is accepted that the other approved projects are unlikely to notably effect any of the impacts identified above due to differing construction schedules whilst the assessment by Brunel appropriately assumes a 0.5% annual increase in road traffic to provide an appropriately robust assessment. Whilst the renovations of the Hotel would partly overlap with the construction of the proposed development, the EIS identifies that this would be largely limited to interior fit-outs.
9.13. Terrestrial Ecology

As noted above, the Conservation Strategy is one of the three overarching strategies of the Bermuda Plan 2018, which is set out as follows:

**Policy STY.2**

The Conservation Strategy comprises the following principles:

(a) protecting and conserving ecologically sensitive areas and habitats including nature reserves, parks, coastal areas and woodlands;
(b) protecting and rehabilitating existing open spaces;
(c) designating new areas for conservation and creating new green spaces;
(d) protecting and conserving agricultural land for arable uses as well as amenity spaces;
(e) providing for the protection of historic and architecturally important buildings and areas;
(f) encouraging sustainable development principles including energy efficient building design, water conservation and the development of renewable energy sources; and
(g) supporting climate change adaptations to address increases in temperature and greater risks of flooding by creating more green spaces, landscaping, shading and pervious surfaces, and by continuing to limit development in coastal areas.

Setting baseline conditions, the EIS notes that the Application Site would have formerly comprised 'upland hillside' habitat, but since its development as a golf course, now comprises a mix of grass with scattered wooded areas comprising mainly of invasive species with the occasional endemic specimen, primarily Bermuda cedars and palmettos, although due to a lack of maintenance due to the Hotel closure the EIS notes that many specimen trees are being choked out by invasives such as the Indian laurel. The EIS also notes that the Application Site contains two brackish ponds which are important to local bird life whilst forming part of the aforementioned system of water re-use for irrigation via the Wastewater Treatment Plant (WWTP).

The EIS further notes that the land to the south of South Road, which is also currently owned by the applicant, is of far greater ecological value which, whilst dominated in sections by invasive species, there are some large stands of bay grape as well as swathes of Bermuda snowberry.

As noted by Terrestrial Conservation Services of the Department of Environment and Natural Resources (DENR-TCS), no permanent protected species would be directly affected by the proposal, although several bird species which may use the site to nest are protected, namely the White Eyed Vireo (endemic – Level 1 Protected Species) Blue Birds, Red Birds, Gray Cat Birds (native) as well as all song birds and migrants.

During the construction phase, the EIS identifies adverse pre-mitigation impacts in respect of the loss of bird nests and some endemic palmettos and cedars as the result of site clearance, the exposure of birds to contamination due to accidental spillage from construction activities, birds being entangled by, or ingesting, waste materials and disorientation of birds at critical stages of their life cycles due to noise. Such impacts are considered by the EIS to be Moderate Adverse in respect of Level 1 and 2 protected bird species and Minor Adverse in respect of Level 3 protected species, as defined by the Protected Species Act 2003.
At the operational phase, the EIS identifies the same pre-mitigation impacts in respect of birds being entangled by, or ingesting, waste materials and Moderate (for Level 1 and 2 protected species) and Minor (for Level 3 protected species) Adverse impacts from lighting. The EIS also concludes a Moderate Beneficial impact as a result of the proposed Protected Conservation Areas (PCAs), as described in the above ‘Proposal’ section of this report.

Having regard to this latter point, as per the feedback of DENR-TCS, it is noted that two of the three proposed PCAs are already protected as Conservation Areas whilst it is questionable as to whether the part of the site which would be dedicated to Protected Conservation Area 3 (to the north of the Hotel) is realistically developable given its gradient. ‘Conservation gain’ can only be achieved through the implementation of a Conservation Management Plan (CMP), which has not been provided despite requests from the Department for such from the applicant. Without an accompanying CMP, it is considered that the effects of the proposed PCAs on terrestrial ecology would be Not Significant.

The mitigation measure set out by the EIS include:

- scheduling of activities to avoid bird breeding seasons;
- good waste removal practices to avoid entrapment of birds and limit vermin;
- good site management during construction to reduce contamination, dust and noise;
- the incorporation of new bluebird nest boxes around the existing and proposed holes/fairways of the golf course;
- a comprehensive landscaping plan that includes planting new specimen shade and perching trees along the periphery of the fairways, with an emphasis on endemic species, and replacing any lost cedars at a ratio of 12 to 1;
- careful scheduling of work (especially for the Hilltop Units) to minimize disturbance during the bird breeding season (April to early July); and
- the proposed PCAs (7.5 acres cumulatively).

It is accepted that, other than impacts resulting from the loss of bird nests, such mitigation measures would reduce most identified impacts on terrestrial ecology to Minor Adverse or Not Significant, as per the conclusions of the EIS. However, it is not considered that the suggested mitigation relating to controlling night lighting are realistically enforceable. Therefore, having regard to lack of at least an outline CMP confirming commitment to the claimed conservation gains, it is considered that the proposal would result in Minor Adverse residual impacts during the construction and operational phases overall.

The EIS notes that there are likely to be cumulative impacts on all aspects of Bermuda’s terrestrial ecology from other major developments, noting that all other identified approved projects are on brownfield site, but does not provide an assessment of such. However, it is accepted that such impacts cannot realistically be accurately assessed at this time and it is considered unlikely that such impacts of other projects would directly affect the terrestrial ecology impacts of this proposal.

Socio-economics comprise, not only the direct economic impacts of a proposal, but also its potential effects on the population and community, including impacts on services and local facilities, the demographic composition of the affected area and housing.

The EIS is based on the economic analyses undertaken by PriceWaterhouse Coopers Advisory Limited (PWC), which form Annexes, G, H and I of the EIS. In addition to overall economic impacts and changes in Gross Domestic Product (GDP), the EIS considers impacts:

- from visitors coming to the island and renting the proposed units, and consequently spending money in the local economy, such as shops, restaurants, taxis, leisure and tourist activities;
- from owners of the proposed units spending money similarly and engaging local businesses to provide goods and services; and
- on the capacity of the local social infrastructure, including housing availability, schools, healthcare and community facilities, including recreational.

It is noteworthy that the EIS states that 'most of the data was extracted from desk studies although it should be noted that this is limited in scope and also the extent to which it is current' given that it was taken from the 2016 Census. The EIS further notes that the analyses undertaken by PWC were based on project data provided by the applicant to consider the economic impact over a 20-year period.

Economy

The EIS sets out a number of factors in establishing baseline conditions, including Bermuda being the most expensive jurisdiction and having one of the highest levels of per capita GDPs in the world and ongoing economic challenges due to significant Government debt. The EIS identifies the Island’s reduced hotel inventory as a significant factor to the decline in the tourism industry in particular, noting that the number of hotel rooms has declined to 1,800 in 2023 from its peak of 13,000 in the 1980s. The EIS also identifies a decline in Bermuda’s construction industry from 2021 to 2022, although this is based only on the number of planning and building applications which were submitted during these years. The EIS also provides commentary on employment rates, noting that they have declined in Bermuda in recent years, and that non-Bermudians are often needed for certain skilled professions and low paid jobs.

PWC estimates the total cost of the proposed development at $540 million, which is anticipated to achieve a total sale revenue of $630 million, and estimates the overall economic benefit of the project as some $1.4 billion, comprising $287.5 million from the construction phase and over $1.1 billion of ‘wider economic impact’. The overall economic impact of the project is anticipated by PWC to contribute between $23.6 million and $84.7 million per annum to GDP, depending on the stage of the development, which would represent 1% of Bermuda’s GDP overall. This benefit is broken down by the GDO of various sectors as follows:

- 3% of accommodation and food services (based on wider impact)
- 5% of wholesale and retail trade
- 14% of financial and insurance services
- 15% of real estate
- 26% of international business
- 4% of construction sector
The EIS concludes that the contribution of the proposal to GDP represents a Moderate Beneficial effect whilst the effects of the $540 million foreign investment are considered by the EIS to represent Major Beneficial effects.

Having regard to the Island’s tourism product in particular, which is a key component of Bermuda’s economy, the EIS identifies Major Beneficial effects as a result of the proposed 441 additional tourism rooms.

**Employment**

PWC estimates that the construction phase of the proposed development would employ 100 construction workers per year and assumes that most would be local, although details cannot be confirmed at this time as this would be dependent on other concurrent construction projects. The EIS considers this to represent a Moderate Beneficial impact whilst Minor Beneficial impacts are noted by the EIS in respect of the employment of engineers and architects for final designs of the Master Plan.

At the operational phase, it is anticipated that the development will require 57 positions, comprising 24 room employees, 32 food and beverage employees and a sale manager. The EIS reasonably considers this to represent a Major Beneficial impact.

**Population**

Based on current and projected birth and death rates, the EIS notes that Bermuda’s population has declined and is projected to decline further, with the population of Southampton in particular declining from 6,633 in 2010 to 6,421 in 2016. The EIS also recognises that Bermuda has an aging population; the median age was 44.1 years in 2016, which is due to increase to 48.6 years by 2026. As a result, the EIS notes that Government has set a target for increasing the working population by 8,418 individuals.

The EIS identifies Moderate Beneficial effects on the working age population from the employment of 100 construction workers. However, given that the intention is to primarily hire local workers, which would have no effect on Bermuda’s population, but considering the likelihood that some overseas workers will be required, it is considered that this effect should be Minor Beneficial.

Based solely on the number of bedrooms, the proposed residential units have the capacity to add 379 people to Bermuda’s population. However, it is likely that a proportion of purchasers would be foreign (PWC assumes 50%) and PWC assumes a 30% occupancy rate of foreign-owned units. Given these assumptions and other currently unknown variables, including such purchasers are already on-Island, it is projected that the proposed residential units could add to Bermuda’s population by any number up to 247.

Whilst this is a reasonable methodology for the purposes of this assessment, it is noteworthy that the applicant has not committed any units for Bermudian-only ownership, which seems to be a reasonable and practical way of providing more certainty to this issue. From the perspective of the character, ambiance and safety of the area, it is concerning that a high proportion of the proposed residential units would remain vacant for large periods of time, particularly given that foreign ownership could conceivably exceed the estimated 50%.

For the proposed tourism units, which have a total capacity for 620 people, PWC assumes 90% foreign ownership who, on average, would reside in Bermuda for 4 weeks per stay, which would, conservatively, add 52 people to the ‘resident’ population of the Island. This is considered to be an appropriate assumption for the purposes of this assessment.
Housing

The EIS identifies Moderate Adverse effects from overseas workers on local housing supply during the construction and operational phases. Whilst ‘100% local hire’ is set out as a mitigation measure, no commitment to this has been made by the applicant and, as such, this residual impact should remain Moderate Adverse.

The EIS states that ‘it is not possible to quantitatively determine the impact on the real estate market’ yet concludes Moderate Beneficial effects based on anecdotal evidence from local press and realtors noting a shortage of housing stock for prospective purchasers and renters. As detailed in the above ‘Need for Proposed Development’ section of this report, the applicant has not demonstrated a need for additional residential and tourism development beyond what can be accommodated on brownfield sites and/or sites zoned for development. As noted above, the applicant has not committed any units for Bermudian-only ownership; in lieu of such a commitment it is concluded that the proposal would have Minor Beneficial impacts on local housing supply.

It is noteworthy that the EIS has identified a clear and demonstrable need in Bermuda for affordable and seniors housing, yet the applicant has not proposed or stated an intention to provide any of such.

Health Care / Emergency Services

The EIS sets out that the number of physicians and nurses in Bermuda was 2.7 and 7.9 per 1,000 population respectively in 2016, which are almost identical to comparable figures of the UK, and sets out Bermuda’s current healthcare infrastructure.

The EIS identifies impacts during the construction phase in respect of foreign workers placing greater strain on Bermuda’s existing services, particularly given that construction is considered to be a high-risk occupation. The EIS concludes that this impact can be reduced from Moderate to Minor Adverse on acute care / emergency services and from Minor to Not Significant on primary care and other health service providers through ensuring appropriate construction site details and health and safety plans for workers.

Similar impacts are identified by the EIS during the operational phase wherein Moderate Adverse effects are identified from additional residents and tourists on acute care / emergency services, with Minor Adverse effects on primary care and other health service providers. Given the significant additional numbers of residents and tourists associated with the proposed development, it is not considered that the suggested mitigation measures, namely health care, insurance coverage and encouraging electric vehicle renting rather than scooters, would mitigate such impacts below the levels identified above.

Community and Shopping Facilities

The EIS details Minor Beneficial effects in respect of construction workers and residents supporting local shops and services during the construction and operational phases, which is considered to be an appropriate assessment and would also extend to tourists supporting such facilities.

Schools

The EIS notes that total school enrolment has decreased by 2% year-over-year to a low of 8,757 students, Government school enrolment declined by 4% (continuing a trend of the past decade) and private school enrolment increased rose by 5%.
The PWC reports estimate that the proposed residential units would provide for up to 58 Bermudian children and 18 foreign children, although the number of foreign children is likely to be less given the projected 30% occupancy rate of foreign purchasers. PWC does not anticipate that the proposed tourism units would house any children, however this is based on the assumption that owners of the tourism units would occupy the units for an average of 4 weeks at a time. This is not considered to be a reasonable assumption given that the applicant has not given any indication of the type of tourism accommodation which would be provided to date; indeed some existing models in Bermuda allow occupancy up to six months.

The EIS concludes that the above represents negligible impacts on the basis that, according to data from 2022, 162 children left the Government school system. However, for the reason noted above, the number of additional children may be greater than anticipated and the proposed development is aimed at the higher-income market, making it more likely for such children to attend private schools, to which enrolment has increased. It is therefore considered Minor Adverse impacts on Bermuda’s school system during the operational phase represent a more appropriate and robust conclusion.

**Overall Socio-Economics Assessment**

Overall, despite the concerns noted above, it is apparent that the proposal would bring about notable economic benefits to Bermuda, either directly or indirectly, although the consideration of socio-economics must consider other factors beyond economics, as noted above.

The applicant committing to measures such as providing a proportion of the development to only Bermudian ownership, dedicating a proportion of the proposed units as affordable housing or incorporating accommodation for seniors would have gone some way to addressing the above concern relating to units remaining vacant and directly addressing some of Bermuda’s critical housing needs. In lieu of such commitments, it is concluded that the proposal would result in *Moderate Beneficial* residual socio-economic impacts during the construction and operational phases.

The conclusion of the EIS that cumulative impacts with other projects cannot be assessed at this time given that the timescales for the construction of such projects is currently unknown and, in any event, are unlikely to significantly affect the conclusions noted above.
Chapter 22 of the Bermuda Plan 2018 sets out the following objectives in respect of Bermuda’s historic environment:

**Objectives**

HSC (1) To preserve buildings, structures and features of architectural and historical importance, and their settings

HSC (2) To preserve areas of special architectural, historical or cultural significance

HSC (3) To preserve sites of archaeological significance and to ensure that archaeological excavation work is conducted prior to development

In addition, section 31 of the Development and Planning Act 1974 provides legal protection to structures within Historic Protection Areas (HPAs) and requires the Board to refuse planning permission for development which would cause detriment:

(a) to the established historic, architectural or cultural character of the Area;
(b) to the aspect, appearance or view of the Area; or
(c) to an environmentally important prospect or view from one or more parts of the Area.

In addition to the two HPAs on Turtle Hill, for which a preliminary archaeological assessment was carried out, the EIS considers cultural heritage impacts in relation to outdoor recreation, in particular golf, shows/events and the Railway Trail, as well as the tourism industry.

The EIS also identifies correspondence from Dr. Michael Jarvis detailing that ‘the area is of international importance to both Bermuda history and African Diasporic Atlantic history as an extremely well documented (1610s) early site where at least two independent African/Hispanic households operated and presumably left archaeological signatures of their activities and architecture reflecting creole/cultural hybrid influences’, noting that such sites would be entirely subterranean. However, due to insufficient information being available at this time, the EIS concludes that it is not currently possible to make such an assessment.

During the construction phase, the EIS identifies Moderate Adverse effects on golfers and tourists from noise and disruption (and visual impact in respect of tourists) from construction activities and on the HPAs in respect of potential damage and preventing visitation. The EIS considers that such impacts would be reduced to Minor Adverse through proper construction management and screening, the closure of the Hotel rooms which would be most affected, the adoption of a Construction Environmental Management Plan and following a watching brief during vegetation clearance.

At the operational phase, the EIS identifies a Moderate Beneficial impact by providing more tourism accommodation and Minor Beneficial impacts in respect of bringing more golfers to the site, bringing more clientele to attend shows/events, greater appreciation of the HPAs and greater and more inclusive use of the Railway Trail. The EIS details that an open amenity space at the HPAs will ensure public access is maintained, natural seating and discrete signage with QR codes would be provided and the remains will be appropriately preserved.

The proposed mitigation measures align with the recommendations of the Historic Buildings Advisory Committee in respect of careful monitoring of the monuments within the HPAs during construction for any potential damage caused by vibration, dust or any other potential sources during construction and public access to the HPAs.
It is noteworthy that this section the EIS does not identify that all or part of the golf course would need to be closed during the construction phase and, given the proximity of the proposed development, the effectiveness of the identified mitigation measures on golfers and tourists is questionable. In respect of the potential international archaeological importance of the site as noted above, whilst the EIS does recognise that the proposed development presents an opportunity for a collaborative approach to further archaeological investigation, no such investigations have been carried out to date nor are proposed by the applicant. It is therefore considered that likely residual effects on cultural heritage during construction would be **Moderate Adverse**.

The conclusions of the EIS in respect impacts during the operational phase are considered to be generous. In particular, the provision of additional tourism is considered to be Minor Beneficial in relation to cultural heritage, which would be partly offset by the adverse impacts of the proposed development on the quality of the tourism product of the Hotel. The possibility of the proposed residential units remaining vacant for large parts of the year has not been considered, as noted in the preceding section of this report, nor has the reduction in the size and quality of the golf course and landscape and visual impact of the proposal on the golfing and tourism experiences. It is therefore considered that, overall, the net impacts of the proposal on cultural heritage would be **Not Significant**.

The EIS identifies that cumulative impacts are anticipated ‘from other major tourism developments on the island with regards to Cultural Heritage as they will generate visitation to the golf course as well as hotel amenities, events and show and historic sites’. Whilst the EIS does not provide a consequent assessment, it is considered reasonable to conclude that any such impacts would not significantly compound any of the impacts of the proposed development.
9.16. Human Health and Safety

This section of the EIS considers impacts in respect of ‘noise levels on community annoyance, sleep disturbance and hypertension; air pollutant concentrations of particulate matter and nitrogen oxides on premature mortality and asthma exacerbations; offensive odours on residential receptors; and traffic volume effects on other road vehicle users or pedestrians’. It is noted that some of these impacts have been addressed in previous sections, namely ‘Air Quality and Odour’, ‘Noise and Vibration’, ‘Traffic and Parking’, ‘Socio-economics’ and ‘Cultural Heritage’, but are reiterated in this section in order to provide for a comprehensive assessment of effects on human health and safety.

The conclusions of the EIS in respect of notable impacts are summarised in the table below.

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Pre-Mitigation Impact</th>
<th>Post-Mitigation Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction Phase</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in road traffic accidents</td>
<td>Minor to Moderate Adverse</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Construction-related accidents</td>
<td>Moderate Adverse</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Noise nuisance on residents within 32 metres (37 properties plus the Hotel and golf club)</td>
<td>Major Adverse</td>
<td>Major Adverse</td>
</tr>
<tr>
<td>Noise nuisance on residents between 32 and 128 metres away (69 properties)</td>
<td>Major Adverse</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Noise nuisance on residents between 128 and 512 metres away (350 to 400 properties)</td>
<td>Moderate Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Dust nuisance on residents within 150 metres</td>
<td>Major Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Quality of life of permanent residents / home renters</td>
<td>Moderate / Minor Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Elimination of existing anti-social behaviour on Turtle Hill</td>
<td>Minor Beneficial</td>
<td>Minor Beneficial</td>
</tr>
<tr>
<td>Attraction of anti-social behaviour to construction site on permanent residents / home renters</td>
<td>Moderate / Minor Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Access to means of livelihood from construction jobs</td>
<td>Major Beneficial</td>
<td>Major Beneficial</td>
</tr>
<tr>
<td><strong>Operational Phase</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decrease in road traffic accidents from realignment of South Road</td>
<td>Moderate Beneficial</td>
<td>Moderate Beneficial</td>
</tr>
<tr>
<td>Decrease in road traffic accidents from 3-way traffic light system at Middle Road</td>
<td>Moderate Beneficial</td>
<td>Moderate Beneficial</td>
</tr>
<tr>
<td>Access to means of livelihood from hospitality and trade jobs</td>
<td>Moderate Beneficial</td>
<td>Moderate Beneficial</td>
</tr>
<tr>
<td>Increase in vermin from increased waste stream</td>
<td>Moderate Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Quality of life of permanent residents / home renters</td>
<td>Moderate / Minor Adverse</td>
<td>Moderate / Minor Adverse</td>
</tr>
<tr>
<td>Improved safety of users of Railway Trail</td>
<td>Minor Beneficial</td>
<td>Minor Beneficial</td>
</tr>
</tbody>
</table>
The mitigation measures set out by the EIS include:

- good traffic management, improved sight lines, advance warning to motorists of construction access, the re-alignment of the South Road and the installation of 3 way traffic lights at the northern site access to improve traffic safety in the neighbourhood;

- good construction site management, worker training, daily health and safety briefings and adherence to PPE standards to ensure safety for construction workers;

- methods for mitigating construction noise and dust nuisance on neighbours, including:
  - appropriate scheduling of noisy activities;
  - advance warning to area residents;
  - site management to avoid idling engines;
  - managing surface dust accumulation;
  - damping down of piles or similar actions to prevent wind-blow dust;
  - machinery, equipment and vehicles maintenance; and
  - annual testing of emissions control, as required by TCD;

- appropriate on-site security through all phases of the Master Plan; and

- establishing good communications with neighbours.

The conclusions of the EIS as set out in the table above are considered to be generally reasonable. However, given the scale of proposed development and significant duration of the construction phase, it is not considered that potential additional road traffic accidents can reasonably be mitigated to a level of Not Significant; Minor Adverse residual effects are considered a more realistic conclusion on this point. For the same reasons, it is not considered that the impact of the construction phase on the quality life of area residents (whether permanent or rentals, bearing in mind some rentals are long-term and Bermuda’s current rental market offers very few alternatives) can realistically mitigated beyond Moderate Adverse impacts. In addition, it is considered that the conclusion of the EIS that the traffic light system to be installed at Middle Road should be deemed Minor rather than Moderate Beneficial given that the proposed development will concurrently increase the amount of traffic using this junction. It is also noteworthy that, whilst not addressed by the EIS, the prospect of the proposed residential units remaining vacant for significant periods of the year could pose adverse safety impacts.

Overall, it is considered that the proposal would result in net Moderate Adverse residual impacts on human health and safety during the construction phase and Minor Beneficial residual impacts during the operational phase.

The conclusion of the EIS that there are unlikely to be cumulative health and safety impacts with other identified approved projects due to their geographical distance is accepted and that the adverse impacts noted above in respect of traffic, or pedestrian accidents, noise, dust and quality of life would be compounded by the overlap of renovating the Hotel with the construction of the proposed development. However, as noted previously in this report, such an overlap is forecast to last two months so, provided that the applicant commits to such a schedule, it is not considered that such additional impacts would be significant.
9.17. Natural Hazard

This section of the EIS does not form part of the assessment of the environmental impacts of the proposal, but instead provides an assessment of the challenges which natural hazards could pose on the proposed development. Whilst the proposal would not affect the likelihood of natural hazards occurring and, as such, this is not included as a potential environmental impact, it is considered sensible to include this as a consideration in respect of ascertaining the suitability of the site for proposal.

The EIS reasonably notes that the risk of the geological hazards, namely earthquakes, tectonic movement and tsunamis, to Bermuda are particularly low and, given that the Application Site is adequately removed from the south shore, in terms of distance and/or elevation, the proposed development would not be unduly exposed to impacts resulting from storm surge and waves from extreme storm events or sea level rise.

The EIS details that increasing tropical storm intensity could damage structures and infrastructure of the proposed development whilst less frequent but more intense rainfall could result in increased risk of flash flooding, potential drought resulting in water shortages. The EIS further notes that rising CO₂ levels will also result in increased ocean acidification which may inhibit coral reef growth and, in turn, reduce the effectiveness of Bermuda’s natural storm barrier with rising sea levels.

A number of mitigation measures are recommended by the EIS, including:

- preparation of a Construction Environmental Management Plan to:
  - identify potential vulnerabilities and to detail actions to be taken to mitigate these, including monitoring weather forecasts and assessing threats;
  - detail lines of responsibility in the management of the construction phase; and,
  - ensure a process by which the proposed development is updated as conditions change to ensure risks are minimised, managed or eliminated;
- compliance with the Bermuda Building Code 2014 which references the International Building Code 2012/2015, both of which require the design and construction of structures that resist the effects of extreme winds and earthquake motions;
- providing open lawns and a heavily planted landscape scheme along with minimal hardscaping to minimise surface runoff;
- the use of roof catchments along with supplemental piped water, reverse osmosis and re-use of tertiary treated wastewater; and
- incorporating renewable energy solutions to meet Bermuda’s renewable energy commitments, which may also help mitigate power outages during storm events.

Such mitigation measures are considered to be comprehensive and reasonable although, as set out in the ‘Energy’ chapter of this report, it is apparent that the applicant has failed to make any notable commitment to renewable energy generation or reducing energy usage from the grid. Consequently, the proposed development would indirectly add to the potential hazards to the proposed development associated with climate change.
9.18. Alternatives

The EIS includes an assessment of alternatives to the proposed development, namely the:

1. ‘Do nothing’ option – the Application Site would remain in its current state

2. ‘Hotel refurbishment only’ option – none of the proposed development would be implemented

3. ‘Hotel refurbishment to accommodate residential component’ option – residential units could be incorporated within the existing Hotel building

4. ‘Implementation of the existing 2009 SDO’ option – comprising 130 units, as described in the ‘Planning History’ section above

The EIS effectively discounts options 2 and 4 for financial reasons whilst option 3 is not considered by the EIS to be viable due to the need for an adequate room inventory and a lack of flexibility in respect of having to use existing configurations and timescales for implementation.

The EIS notes that, under option 1, the Hotel would remain closed and the ‘associated socio-economic implications to the local tourism product and job market’ would not be realised. The EIS does not, however, consider that this option would also avoid the numerous adverse impacts of the proposed development as identified by this report and other parts of the EIS.

Details of alternative designs and scales are also noted by the EIS, including previous proposals for 366 units, 309 units and 261 units of up to six storeys in height, with consequent greater reductions in the size of the golf course. Whilst the EIS does not provide an assessment of likely impacts of these first two alternative, all such options would clearly exacerbate practically all of the adverse impacts identified by this report. The EIS also notes that the current proposal provides improvements in respect of siting and zoning impacts, however the EIS critically does not set out that any alternatives sites have been considered for the proposed development, which is considered to be a significant omission in respect of principles of sustainable development and brownfield development as set out in the ‘Land Use and Sustainability’ section of this report.
10. SUMMARY

The Bermuda Plan 2018 ‘provides for the land use and development requirements of the Island in a way that makes the most effective use of its resources, protects its natural and built environment, and provides a good quality of life for the Island’s residents’. So as not to undermine this effort, it is imperative that development proposals adhere to the provisions of the Plan and that proposals which do not adhere to the Plan are approved only in exceptional circumstances based on other material planning considerations.

It is apparent that the proposed development does not adhere to the provisions of the Bermuda Plan 2018. The reasons for this conclusion can be summarised based on the following assessment of the proposal against the goals of the Plan as set out by policy STY.5, as noted below:

(a) to conserve open space and protect the Island’s natural and built heritage;

The proposed development would result in the loss of a significant amount of open space, including 5 acres of land zoned Recreation which contributes positively to the local area in terms of forming part of an award-winning internationally recognised golf course and providing a break in physical development with an attractive green environment.

(b) to provide sufficient development potential to meet the community’s needs;

The Bermuda Plan 2018 allocates adequate land to meet the residential and tourism needs of the area together with any other recognised needs of the community. The applicant has failed to demonstrate otherwise nor how the proposed development would meet any particular need of the community.

(c) to facilitate community improvements in neighbourhoods to create better, healthier and safer places to live and visit;

Whilst some improvements are proposed, as noted above the development proposal which has been presented would result in a number of net adverse environmental effects, which would cause the neighbourhood to become a lower quality and less healthy place to live and visit.

(d) to encourage a more efficient and sustainable use and development of land and buildings; and

The proposal is considered to rank particularly low in terms of sustainability based on its location away from any public transport links which will result in a heavy reliance on private vehicles whilst using greenfield land with no consideration given to instead focusing development on alternative brownfield sites. Such concerns are compounded by a lack of any meaningful efforts to reduce energy usage from the grid or incorporate renewable energy systems.

(e) to ensure a high quality of design and accessibility in all new developments.

Whilst design has been reserved for subsequent consideration, based on the details provided to date, particularly in respect of building heights and attached house arrangements, the proposal is not considered to be in-keeping with the character of the surrounding Residential 2 area.
The applicant has not demonstrated that Bermuda has any current or future need for the proposed number of residential or tourism units beyond that which could be accommodated within existing development zones and the City of Hamilton. Despite the EIS confirming that there is a clear and demonstrable need for affordable/low-income housing and housing for seniors in Bermuda, the applicant has failed to make any such commitments or even statements of intention to provide such. This is a critical consideration given the particularly limited land resource of Bermuda; releasing greenfield land for development without such evidence and when alternatives have not been considered and discounted is highly unsustainable and puts the Island at risk of running out of its irreplaceable land resource.

The table below sets out the Department's conclusions of each topic based on the cumulative impacts of the previously approved and currently proposed development.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Construction Phase</th>
<th>Operational Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before Mitigation</td>
<td>After Mitigation</td>
</tr>
<tr>
<td>Land Use and Sustainability</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>Moderate / Major Adverse</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Hydrology and Hydrogeology</td>
<td>Moderate Adverse</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Air Quality and Odour</td>
<td>Major Adverse</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Noise and Vibration</td>
<td>Major Adverse</td>
<td>Minor to Major Adverse</td>
</tr>
<tr>
<td>Landscape and Visual</td>
<td>Minor Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Waste and Wastewater</td>
<td>Moderate Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Energy</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Freshwater</td>
<td>Minor Adverse</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Traffic and Parking</td>
<td>Moderate Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Terrestrial Ecology</td>
<td>Moderate Adverse</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Socio-Economics</td>
<td>Moderate Beneficial</td>
<td>Moderate Beneficial</td>
</tr>
<tr>
<td>Cultural Heritage</td>
<td>Moderate Adverse</td>
<td>Moderate Adverse</td>
</tr>
<tr>
<td>Human Health and Safety</td>
<td>Moderate Adverse</td>
<td>Moderate Adverse</td>
</tr>
</tbody>
</table>

Having regard to sustainability in particular, the proposal has clearly not been designed having regard to key principles of sustainable development, such as incorporating sustainable transport options, protecting open spaces, focusing on the development of 'brownfield' (i.e. previously developed) sites near to services or high quality public transport links, utilising sustainable energy generation whilst reducing energy consumption and providing...
development to meet the community’s needs. This is particularly the case for the proposed ‘Hilltop Villas’, ‘Golf Units’ and ‘South Road Townhomes’, which would occupy ‘greenfield’ (i.e. previously undeveloped) land which, in part, forms part of an active golf course and is predominantly zoned Recreation, a Conservation Base Zone. This is compounded by the high probability that many of the proposed residential buildings would remain vacant for most of the year.

The density of the proposed development further compounds the sustainability concerns noted above and the submission fails to demonstrate that it is even physically possible to fit the South Road Townhomes on the affected part of the Application Site.

It is concerning that the submission fails to incorporate a number of mitigation measures which would have addressed, or at least alleviated, some of the identified adverse effects of the proposed development and enhancements could have been provided to improve some net beneficial impacts. However, fundamentally, it is not considered that any such further mitigation or enhancement measures could adequately address the issues set out in this report, which stem principally from the amount and type of development proposed.

Overall, the submission focuses heavily on the applicant’s model for securing investment as an overriding consideration to support the proposal whilst failing to consider the benefits of not implementing the previously approved or currently proposed development from the perspective of avoiding all adverse impacts identified by this report.
11. CONCLUSION

For the reasons noted above, the proposal is in direct conflict with the strategies, goals and objectives of the Bermuda Plan 2018 and is considered to represent an unsustainable form of development which would result in several adverse environmental effects which the applicant has failed to demonstrate can or would be satisfactorily mitigated whilst failing to commit to enhancements of beneficial effects. The applicant has failed to demonstrate a need for the proposed development, nor that the quantum or density of development can be satisfactorily accommodated on the Application Site.

It is noted that the business model which the applicant has chosen to finance the refurbishment of the Hotel is, according to the applicant, reliant on approval being granted for the quantum of development proposed. There is therefore a greater possibility that the Hotel will not be reopened if approval is not granted, although the extent of this possibility nor the amount of time the Hotel would remain closed cannot reasonably be assessed based on the limited data and lack of alternative financing models which have been presented. In any event, it is not considered that this consideration outweighs the harm which would be caused by the proposed development as identified by this report.

Whilst an SDO has been made for tourism and residential development of the Application Site, the development approved by this 2009 SDO is significantly less (almost half) than the amount of development current proposed and, as such, would pose significantly lesser harm.

It is therefore recommended that the Minister responsible for Planning does not proceed with making a Special Development Order based on the proposal as it has been presented.

Prepared by:

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Reviewed by:

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