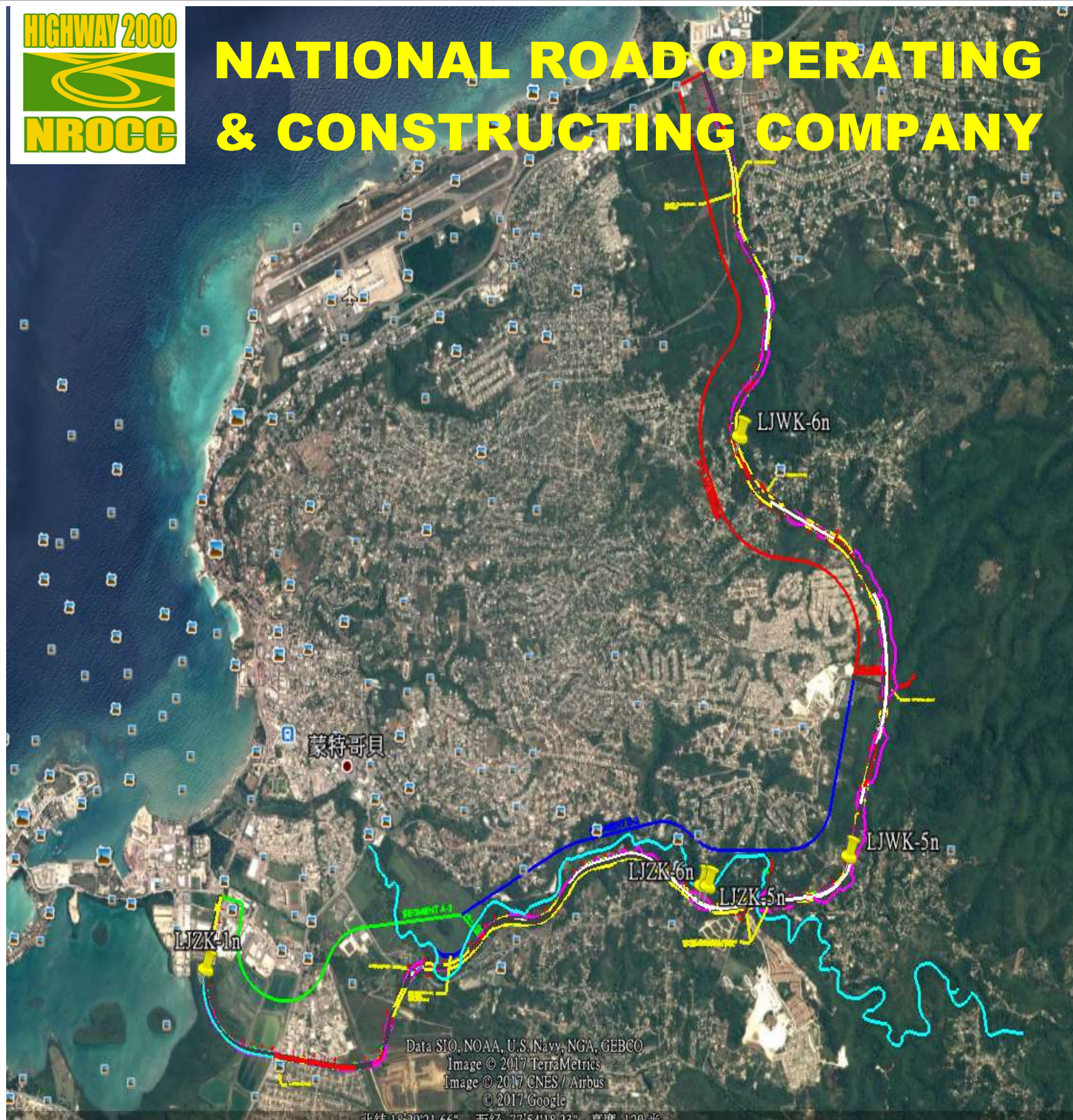


# **NATIONAL ROAD OPERATING & CONSTRUCTING COMPANY**



## **ENVIRONMENTAL IMPACT ASSESSMENT 2018 OCTOBER TERMS OF REFERENCE MONTEGO BAY BYPASS**

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## I. PROJECT BACKGROUND:

### I. Overview:

The National Road Operating and Constructing Company Limited (NROCC), working through the Ministry of economic Growth and Job Creation, has acquired funding for the development of an alternative route around the central business district (CBD) in Montego Bay to reduce congestion in the city and to spur economic benefit.

The proposed Montego Bay Bypass will provide additional capacity to the road network as well as offer the possibility of opening up new areas to development along the corridor. As the only city in the western region of Jamaica, Montego Bay provides major governmental services to the neighboring parishes. The demand for a bypass road therefore includes demands for improved road infrastructure and network linkages, as well as social and economic demands.

Figure 1: Geographical Location of Montego Bay Bypass Project



Montego Bay is Jamaica's second largest City and has a population of approximately 110,000 citizens (STATIN). It is Jamaica's premier tourist destination with possibly the largest

concentration of tourist destinations on the island. It is also the home of Jamaica's busiest airport and welcomes cruise ships to its port 2 days per week. Montego Bay therefore, has a significant impact on the economy of Jamaica since tourism accounts for 15% of the gross domestic product (GDP).

The Jamaica Tourist Board's (JTB) Annual Travel Statistics Report for 2015 estimated an average annual growth rate of approximately 3.8% for the tourism sector. Growth in the tourism sector will result in additional traffic being generated by the Airport and Sea Port, as well as additional traffic through the City to access different attractions in and around Montego Bay; this includes traffic intending to bypass the City of Montego Bay.

## II. Tourism Demand

Montego Bay, referred to as the tourism capital of Jamaica, has the largest and busiest airport in Jamaica due to the movement of tourist in and out of the country. There is also a high concentration of hotels and tourist destinations in and around the city centre. With the tourism sector expected to grow at 3.8% per annum (Annual Travel Statistics Report for 2015, Jamaica Tourist Board), there is also expected to be a continued growing demand on the transportation infrastructure. Growth in the tourism sector will result in additional traffic being generated by the Airport and Sea Port. This This increase in traffic due to the increasing arrivals at the airport and the sea port will result in (1) additional traffic through the City as the visitors try to access different attractions in and around Montego Bay and (2) increase in traffic intending to bypass the City of Montego Bay as visitors seek to access attractions in other tourist destinations such as Negril and Ocho Rios.

## III. Access and Transportation

The commercial centre, with all its amenities, lies at the heart of the city with its main thoroughfare along the coast. This coastal corridor carries over 30,000 vehicles per day but operates as a major urban arterial with closely spaced signalized intersections to provide access to the city centre. Along the North Coast Highway (Elegant Corridor) traffic signals are spaced every 1 km while Howard Cooke Boulevard and Alice Eldemire Drive traffic signals are spaced 300m – 500m apart. The closely spaced signals on Howard Cooke Boulevard in particular have serious capacity constraints with high turning volumes headed into the city centre. Even with modest traffic projects around the City, the main coastal roads have existing capacity constraints and limited right-of-way

for expansion. Currently, the coastal roads must provide access to the city, as well as provide access through the city with limited viable alternatives.

#### IV. Project Rationale

Historically, it is well documented that in developing countries investment in transportation infrastructure generates economic benefits by reducing transportation costs for existing activities, providing access to new areas with economic development potential and creating investment activities. This proposed highway will meet international standards and requirements of projects of this nature and will alleviate the current traffic problems in the poorly built and insufficient roads infrastructure in Montego Bay and its environs.

The following are examples of the generalized benefits/justification of the project which are given in Vision 2030:

- Reduce traffic
- Reduce travel time
- Reduce accident potential for both vehicular and pedestrian traffic
- Stimulate economic growth
- Create jobs

The construction of Montego Bay Bypass will provide significant benefits to the travelling public to include:

- Travel time savings (possible increase productivity and lower transportation costs)
- Vehicle operating cost savings
- Public safety savings (reduced accident costs)
- Rehabilitation and maintenance cost savings on the existing highway network, and;
- Savings related to other externalities (primarily air pollution related).

#### V. Scope of Works

- a. The construction of approximately 15 kilometers of 4-lane, divided arterial toll road circling Montego Bay city business district; in keeping with the Concept Design.

- b. The construction of approximately 10.5 kilometers of 2-lane, rural arterial highway with climbing lanes and escape ramps where required, in accordance with AASTHO Standards, leading from Montpelier intersection of B8 Road and B6 Road to Temple Gallery Road (Long Hill Bypass); in keeping with the Concept Design.
- c. Upgrading of approximately 1.7km of urban road and construction of an additional 2-lane bridge across the Montego River.
- d. The construction of one (1) Toll Plaza consisting of toll lanes, canopy, admin building, storage and fencings. The toll plaza shall be similar to the existing at May Pen on the main line (East-West Corridor). Total area of building to be 900 square meters. Details to be finalized during the design process.

I. Montego Bay Perimeter:

The Montego Bay Perimeter road alignment will have grade separated intersections at Bogue Road (K11+600), Fairfield Road (K13+400), Riverside drive (K15+900), Irwin road (K17+000), Adelphi Road (K17+170), Cornwall courts (K19+400), Cottage road (K20+660) and Salt Spring road (K21+400). The alignment will have a round-about at Quebec road and Ironshore subdivision Road (K24+400).

II. Long Hill Bypass:

The Long Hill bypass will begin at the intersection of the proposed Montego bay Bypass and the Temple Gallery/Clarence Nelson Drive, in the vicinity of the Bogue Village and Montego Bay West Village Housing Estates as an urban Intersection with “at-grade” crossing. The alignment will proceed in a general southerly direction through scrub land towards Bogue Hill crossing the Ramble Hill road with a grade separated overpass. The grades for this section will range from approximately 2% to 8%. The Long Hill Bypass will have grade separated intersections at Whales Pond Road, Bogue Hill Drive and Anchovy Main Road. The alignment will have a round-about in the vicinity of Montpelier.

### III. Barnett Street Dualization:

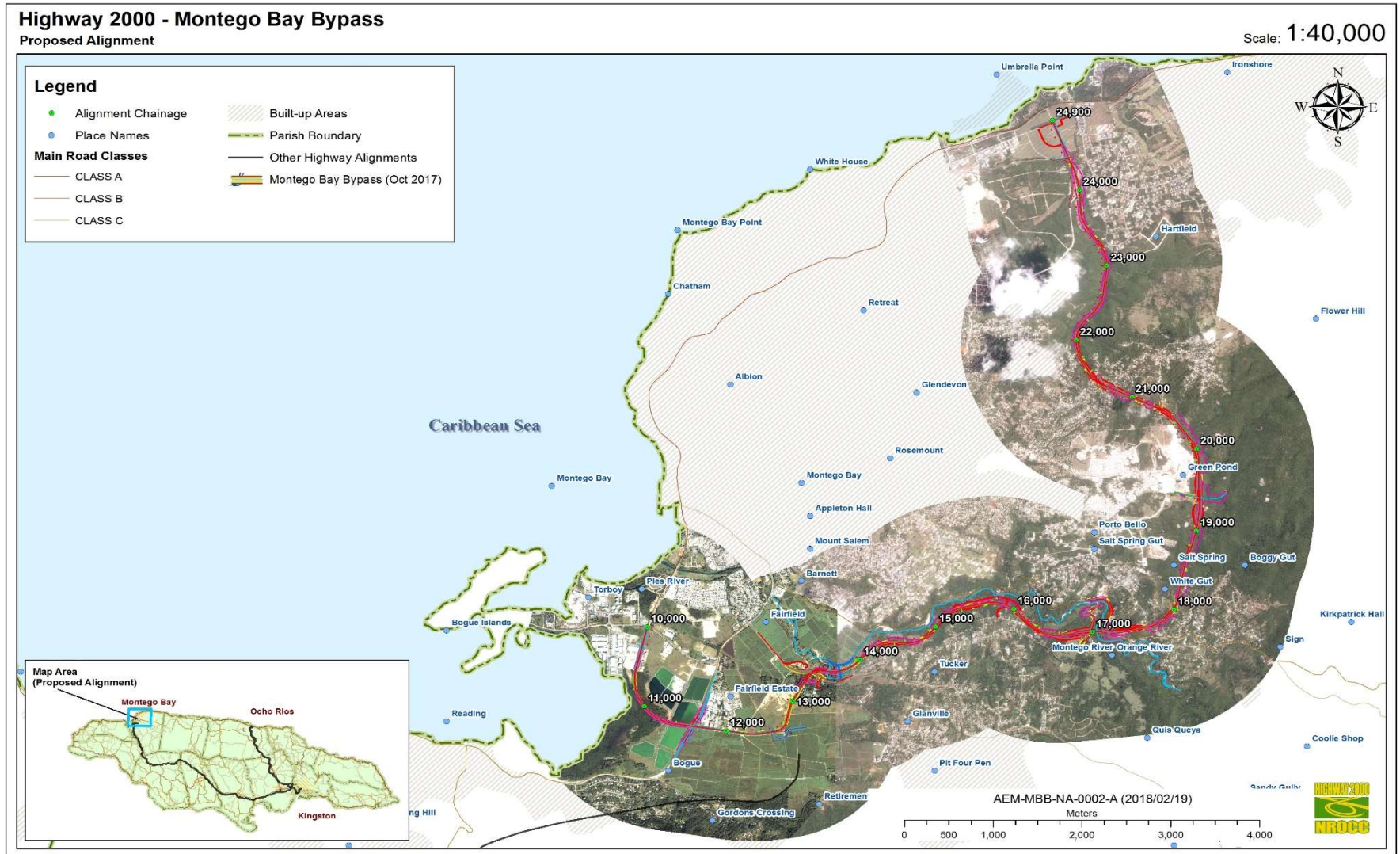
Barnett Street improvement is the dualization of 1.06 km of the existing two-lane road section from the intersection of West Green and Fairfield road in a northerly direction and ending at Cottage road. The proposed works will involve the construction of an additional two-lane bridge over the Montego Bay River in the vicinity of the West gate Shopping Center. The implementation of this section of road is designed to complement the Montego Bay Bypass by moving approximately 27,000 VPD in and out of the Central Business district.

### IV. West Green Avenue to Fairfield Road Dualization:

West Green Avenue improvement is the dualization of the .82 km existing link road between Howard Cooke Boulevard and the Bogue Road at the Fairfield Road intersection. The construction will result in the removal of the existing round-a-bouts and the creation of signalized intersections, construction of sidewalks, concrete median barrier and drainage improvement. The aim is to improve the capacity to convey traffic between these two busy corridors and by extension the proposed Montego Bay Bypass and reduce travel time. The length of the roadway is .82 km



Figure 2: Schematic Diagram of the proposed Montego Bay Bypass Road



## TERMS OF REFERENCE:

The Terms of Reference for conducting the EIA are based on the Generic Terms of Reference (TOR) provided by NEPA for the Construction of Roads, Railways, Cables and Bridges and the Minimum Standard Requirements for TOR's for EIA's prepared by NEPA. The TOR's have been modified to include project-specific conditions and are now being submitted to NEPA for approval.

### Task 1: Description of the Project

Provide a comprehensive description of the project, noting areas to be reserved for construction and verges. The description of the project will give the total length of the alignment, the width of the right-of-way, width of verges, drainage requirements, bridges and crossings and the location of a toll plaza.

This will also include an account of activities and features, which will introduce risks or generate impacts (negative and positive) on the environment. This may include secondary activities such as fuel dispensing stations, concrete batching plants and camp sites with the various auxiliary activities. This will involve the use of maps, site plans, aerial photographs and other graphic aids and images, as appropriate, and include information on location, general layout and size, as well as pre-construction, construction, and post construction plans. For projects to be done on a phased basis it is expected that all phases be clearly defined, the relevant time schedules provided, and phased maps, diagrams and appropriate visual aids are included.

A description will also be given of:

- i) The impact that the construction of the road will have on the adjacent road network.
- ii) Methods and location of construction surplus material disposal
- iii) Any changes to associated water diversion management system
- iv) Management of modifications, vehicular traffic, equipment and waste
- v) The proposed off-site facilities such as construction camps and infrastructure service
- vi) Proposed decommissioning and abandonment of works and/or facilities

- vii) Possible source of suitable material for road fill and the likely impacts the quarry operation will have on the physical, biological and socio-economic environment.
- viii) Public Health and Safety
- ix) Workers Health and Welfare

## Task #2: Description of the Environment:

Baseline data will be generated to give an overall evaluation of the existing environmental conditions, values and functions of the area, as follows:

- i) Physical environment
- ii) Biological environment
- iii) Socio-economic environment
- iv) Archaeological environment

Baseline data will include:

### 2.1 Physical

- i) Detailed geotechnical studies of the areas that will have the slopes modified and propose recommendation to address these, with emphasis on the existing and long-term storm water runoff requirements. Emphasis must also be placed on the geological faults in the vicinity of the highway in addition to any other geological structure (s) vis-à-vis fracture plains and orientation of bedding on, or in close proximity to the site.
- ii) Identification of old landslides on or in close proximity to the highway route.
- iii) Reference will be made to future development of lands. Special emphasis should be placed on storm water run-off and drainage patterns and any slope stability issues that could arise will be thoroughly explored.
- iv) Water quality and quantity of any existing rivers, ponds, or streams in the vicinity of the highway, and particularly to be crossed by the highway.
- v) Quality Indicators should include but not necessarily be limited to suspended solids, turbidity, oil and grease.

- vi) Climatic conditions and air quality in the area of influence including particulate matter, NO<sub>x</sub>, SO<sub>x</sub>, wind speed and direction, precipitation, relative humidity and ambient temperatures,
- vii) Noise levels of undeveloped site and the ambient noise in the area of influence.
- viii) Obvious sources of pollution existing and extent of contamination
- ix) Availability of solid waste management facilities.
- x) Availability of public sanitary facilities (rest stops) along the corridor
- xi) Identify and assess the impact of the project on potential wells, ground water pre, during and post construction phases and its associated effect on water supplies to the adjacent communities.
- xii) Outline methods to assess the potential impact on the air quality during construction and operation to include baseline air quality information
- xiii) Outline methods to assess the potential residual air quality impact.
- xiv) A section will be included called “Issues of Natural Hazard and Geotechnical Stability”.
- xv) Proximity of Raw material to haulage route and stockpile area
- xvi) Proximity of the corridor to established residential settlements

## 2.2 Drainage and Storm Water Issues:

An assessment of Storm Water Drainage should be conducted. The EIA Report will cover but not be limited to:

- i) Drainage for the site during construction to include mitigation for erosion and sediment control.
- ii) Drainage for the site during operation, to include mitigation for erosion and sediment control.
- iii) Drainage control for crossings of rivers and/or gullies, to include impacts that drainage control features could have on aesthetics, water quality and sedimentation of rivers and/or gullies.
- iv) Assessment of the impact of draining the site on adjacent communities and on future developments including mitigation measures. This should be calculated and designed to facilitate the storm runoff without causing flooding of these development. Underpasses for the highway should be designed to accommodate the volume and velocity of storm water post construction.

- v) Assessment of drainage channels for debris flow associated with up gradient land use as well as impacts related to climate change.
- vi) Assess the use of detention ponds to regulate peak flow.
- vii) Identify and clearly map locations of sinkholes based on the Water Resources Authority data base, to ensure that where necessary, these are not traversed by the highway alignment.
- viii) Identify other effects of storm water such as the input of oil and grease into the aquatic environment.

### 2.2.1 Realignment of a section of Montego River

- i) Assess the hydrological issues that are likely to be associated with the 800 meters realignment of the Montego River at Km 13+600 – 14+400 downstream facilities vis-à-vis, Barnett Street Road Bridge, West Gate Shopping Center, West Green Housing Scheme and the Charles Gordon Market.
- ii) Assessment the likely impacts of the realignment viz-a-viz, potential increased flow velocities on downstream scour etc.
- iii) Asses any impacts on any upstream water channel (Irwin and Tucker Gullies)

### 2.2.2 Highway Impact on a section of the Bogue Wetland.

- i) Describe the area of wetland to be impacted by the road construction and the mangrove species that will be destroyed.
- ii) Asses the possible impact of wetland modification activities on surrounding areas.
- iii) Assess the likely impacts of raising the area 2-3 meters above existing ground viz-a-viz, potential land flooding.
- iv) Provide options that are suitable to compensate for the unavoidable loss of wetland resources and the likely changes in biodiversity that are likely to occur.
- v) Provide recommendations mitigation measures that can be implemented as part of the proposed highway works. This may include option for replanting or compensation.
- vi) Discuss possible alternative to this alignment that could lead to the prevention of loss of the mangroves as well as the Bogue lagoons.

## 2.3 Biological

Present a detailed description of the flora and fauna (terrestrial and aquatic) of the area, with special emphasis on rare, endemic, protected or endangered species. Migratory



species should also be considered. Information will be presented on existing vegetation, proposed vegetation loss and resulting loss and/or fragmentation of habitat for fauna. Generally, species dependence, niche specificity, community structure and diversity will be considered.

A description will be given of:

- i) The general flora and fauna of the terrestrial areas that are impacted by the road construction.
- ii) Provided a detailed inventory of migratory species that utilize the mangrove wetland and other areas close to the proposed highway project.
- iii) Indicate the types of waterfowls that are likely to be found in this area and the possible impact of the project.
- iv) Different ecosystem types including cave and sinkholes and their species, if present
- v) Nocturnal species within the project site. Attention should be paid to the species of tree dwelling bats (*Arctus flavescens*) inhabiting areas in close proximity to the proposed alignment.
- vi) Biological diversity importance of the area
- vii) Invasive and economically important species
- viii) Mitigation measures to avoid or minimize negative impacts on wildlife, wildlife habitat, and vegetation communities/ecosystems.

## 2.4 Socio-economic and Cultural

A Socioeconomic analysis will be prepared and will include present and projected population; present and proposed land use; planned development activities, issues relating to squatting, compensation and resettlement, community structure, employment, distribution of income, goods and services; recreation; public health and safety; community health, health facilities and medical services; cultural peculiarities, aspirations and attitudes should be explored.

### 2.4.1 Archaeological Environment

The historical importance of the area should also be examined, augmented by consultation with the Jamaica National Heritage Trust (JNHT). While this analysis is being conducted, an assessment of public perception of the proposed development should be conducted.

This assessment may vary with community structure and may take multiple forms such as public meetings, interviews with key stakeholders or the distribution of interview instruments (questionnaires).

#### 2.4.1.2 Archaeological Impact Assessment (AIA)

- i) The aims of the AIA are to document in a concise manner the significant cultural issues to include: historical documentation, maps, plans, estate accounts, published or unpublished narratives, data and photographs.
- ii) Examine the major and possible impacts of project on these resources and recommend where necessary, mitigation actions.
- iii) Prepare a “stand alone” report of the AIA based on the requirements of the Jamaica National Heritage Trust (JNHT)..

#### 2.4.3 Survey of Impacted Structures:

The aim of the Impacted Structure Profile study is to identify and characterize the structures to be impacted by the construction of the proposed Highway link. The specific objectives are as follows:

- i) Create a geospatial database inclusive of impacted structures and associated attribute information such as building type, materials and condition; number of occupants and building and lot use.
- ii) Acquire photographs of each impacted structure. An important aspect of the field survey is the collection of social and economic information for each impacted structure. Information such as household size, weekly income, attendance at educational institutions, building and lot use, material types and building conditions are examples of the type of information that were required. Further, the interviewee’s awareness of the proposed project and willingness to relocate were also considered vital essential pieces of information.
- iii) Prepare an analytical report showcasing statistical analyses and spatial mapping.

#### 2.4.4 Community Perception Surveys

Consultations to be conducted in various communities and with various interest groups on the perception of the highway development. The following communities are to be given due consideration based on their proximity to the proposed alignment.

- i. Salt Spring,
- ii. Cornwall Courts,
- iii. Meadows of Irwin,
- iv. Porto Bello,
- v. Bogue Village, and;
- vi. Granville/Tucker
- vii. Catherine Hall
- viii. Montego Bay West Village
- ix. Bogue Hill/Heights
- x. Anchovy
- xi. Mount Carey (York Bush, Mt. Carey Village)
- xii. Mount Pelier

#### 2.5 Economic Activity and Livelihood Issues in the Montego Bay Area

- i) Assess the likely economic benefits of the road project on the various communities and stakeholders and how they are likely to be distributed among the zones are key considerations.
- ii) The following will also be identified:
  - ✓ Private land acquisition concerns and issues
  - ✓ Local economic benefits and cost overall and on an individual community basis
  - ✓ Implications of the project during the construction phase for resident commuter travel and travel times; accommodation for construction workers; access to and delivery of health, educational and social services and emergency support to local communities

- ✓ Correlation between the roadway construction and possible traffic issues for the adjoining communities
- ✓ Economic impact of the construction phase on local economic benefit on the project and in the adjacent communities, road closures, delays and detours as well as quality of experience for visitors (tourists)
- ✓ Implications during the construction and operation phase on: - Emergency support to local communities - Resident commuter travel and travel time - Access to and delivery of health and other social amenities.
- ✓ Social rights of ways and pedestrian crossings
- ✓ Security and safety issues that may impact construction activities as work is carried out in volatile areas such as Salt Spring, Green Pond and Granville.

### TASK #3: LEGAL AND REGULATORY CONSIDERATIONS

- i) Outline the pertinent regulations and standards governing environmental quality, safety and health, protection of sensitive areas, protection of endangered species, siting and land use control at the national and local levels.
- ii) The examination of the legislation should include at minimum, legislation such as the NRCA Act, the Public Health Act, the Town and Country Planning Act, the Toll Roads Act, the Main Roads Act, St. James Parish Development Order and the appropriate international convention/protocol/treaty where applicable.

### TASK #4 IDENTIFICATION OF POTENTIAL IMPACTS

Identify the major physical, environmental, biological and social issues of concern and indicate their relative importance to the development project. Identify potential impacts as they relate to, (but are not restricted by) the following:

- i. Flooding potential and change in drainage pattern
- ii. Blasting/blast vibrations and other such activities on human settlements adjacent to the highway corridor.

- iii. landscape impacts of excavation and construction
- iv. loss of and damage to geological and paleontological features
- v. landscape impacts of excavation and construction
- vi. slope stability
- vii. loss of species and natural features
- viii. Impact on migratory birds
- ix. habitat loss and/or fragmentation
- x. biodiversity/ecosystem functions
- xi. pollution of potable, surface or ground water
- xii. air pollution
- xiii. socio-economic and cultural impacts
- xiv. maintenance of any alternative routes identified
- xv. impact on private and commercial property owners and recreational facilities
- xvi. impact of flooding, loss of natural features, excavation and construction on the historic landscape, architecture and archaeology of the site
- xvii. risk assessment and hazard management (slope stability, flooding, debris torrents and seismic activity).
- xviii. Impact on downstream communities from runoff and realignment of a short section of the Montego River.
- xix. Impact on ecosystem service/function of the Bogue wetlands
- xx. Spoil site management
- xxi. Climate change impact on coastal areas
- xxii. Siltation and sediment loading
- xxiii. technological hazards o noise o solid waste disposal
- xxiv. soil and change in land use

The following will be addressed:

- i) A detailed emergency and remediation plan to be implemented if water bodies or land become contaminated as well as if irrigation and domestic water supply are disrupted due to the project (to be addressed in mitigation measures).
- ii) Emergency Response and Safety Plan for workers protection.



- iii) Mitigation measures for erosion and sediment control management for each construction section.
- iv) Aesthetics/scenic values of the highway alignment; include an evaluation of opportunities to provide viewpoints or scenic lay-by along the corridor.
- v) Access to, from and across the highway- including bicycle/pedestrian access requirements for corridor communities; a description of how emergency access requirements (fire, police, ambulance) will be addressed during construction.
- vi) Traffic management and road safety; consider the risk of forest fire impacts on safety in use of the highway as well as animals intruding onto the highway.
- vii) Identification of any known contamination sites that would be disturbed as a result of project-related actions and propose mitigation measures to deal with any contamination of material.
- viii) Effects of the environment on the project (in particular, identify and describe any potential geotechnical and weather-related factors on the Project, and proposed mitigation measures
- ix) Cumulative environmental impacts- identify and describe any residual environmental impacts that are likely to result from the project in combination with other projects or activities that have been or likely to be carried out.
- x) The assessment will identify relevant significant positive and negative impacts, direct and indirect, long term and immediate impacts. Identify avoidable as well as irreversible impacts.
- xi) Characterize the extent and quality of the available data, explaining significant information deficiencies and any uncertainties associated with the predictions of impacts.
- xii) A major environmental issue is determined after examining the impact (positive and negative) on the environment and having the negative impact significantly outweigh the positive. It is also determined by the number and magnitude of mitigation strategies which need to be employed to reduce the risk(s) introduced to the environment.

## TASK #5    MITIGATION

Prepare guidelines for avoiding, as far as possible, (e.g. restoration and rehabilitation) any adverse impacts due to proposed usage of the corridor and utilizing of existing environmental attributes for optimum development. Quantify and assign financial and economic values to mitigating methods. Guidelines should include the issues of restoration and rehabilitation.

## TASK #6 ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

Design a plan for the management of the natural, historical and archaeological environments of the project to monitor implementation of mitigatory or compensatory measures and project impacts during construction and occupation/operation of the highway.

An Environmental Management Plan and Historic Preservation Plan (if necessary) for the long-term operations of the site will also be prepared. An outline Environmental Monitoring Program (EMP) for the construction phase will be prepared, indicating the parameters to be monitored, and the recommended frequency of monitoring. A detailed version of the EMP will be submitted to NEPA for approval after the granting of the permit and prior to the commencement of the development. At the minimum the monitoring program and report should include:

- i. Introduction outlining the need for a monitoring program and the relevant specific provisions of the permit license(s) granted.
- ii. The activity being monitored, and the parameters chosen to effectively carry out the exercise.
- iii. The methodology to be employed and the frequency of monitoring.
- iv. The sites being monitored. These may in instances, be pre-determined by the local authority and should incorporate a control site where no impact from the development is expected.
- v. Frequency of reporting to NEPA
- vi. The Monitoring report should also include, at minimum:
  - a) Raw data collected. Tables and graphs are to be used where appropriate

- b) Discussion of results with respect to the development in progress, highlighting any parameter(s) which exceeds the expected standard(s).
  - c) Recommendations
  - d) Appendices of data and photographs if necessary. Consideration will be given to the development of a Resettlement Action Plan.
- vii. During construction and occupation/operation of the highway, health impact assessment on the toll booth operators for the effect of emission
- viii. A system to be developed to address public complaint

## TASK #7 PROJECT ALTERNATIVES

- i) Examine alternatives to the project including the no-action alternative. This examination of project alternatives will incorporate the use history of the overall area in which the site is located and previous uses of the area itself.
- ii) Alternatives should be identified in relation to the disturbance of the Bogue Wetlands and realignment of the Montego River. Where realignment can reduce environmental impacts, those measures should be included as alternatives.

## TASK #8 PUBLIC PARTICIPATION

### 8.1 Stakeholder Consultation:

Consultation will take place in several communities along the proposed alignment to garner feedback on their perception of the highway alignment. The communities are listed in the section 2.4.4 above.

### 8.2 Public Presentation of EIA findings:

- i) A Public Presentation on the findings of the EIA will be conducted to inform, solicit and discuss comments from the public, on the proposed project. Considering the geographical scope of the project, one consultation is recommended.

- ii) All Findings will be presented in the EIA report and will reflect the headings in the body of the TORs. Information and data presented will be supported by references.
- iii) Ten (10) hard copies and an electronic copy of the report will be submitted to NEPA. The report will include an appendix with items such as maps, site plans, the study team, Terms of Reference, photographs, and other relevant information.
- iv) Key Stakeholders to be consulted will be identified and the mechanisms for consultation and disclosure of the project, from the project design to the operational phase will be given.

## Task #9 CONCLUSION

Provide information that, in the opinion of the Consultant and based on the findings, indicate the possible impact of the proposed project on the environment. Highlight, whether these are positive, negative, reversible/irreversible or neutral.

## Task #10 LIST OF APPENDICES AND REFERENCES

The appendices should include but not be limited to the following documents:

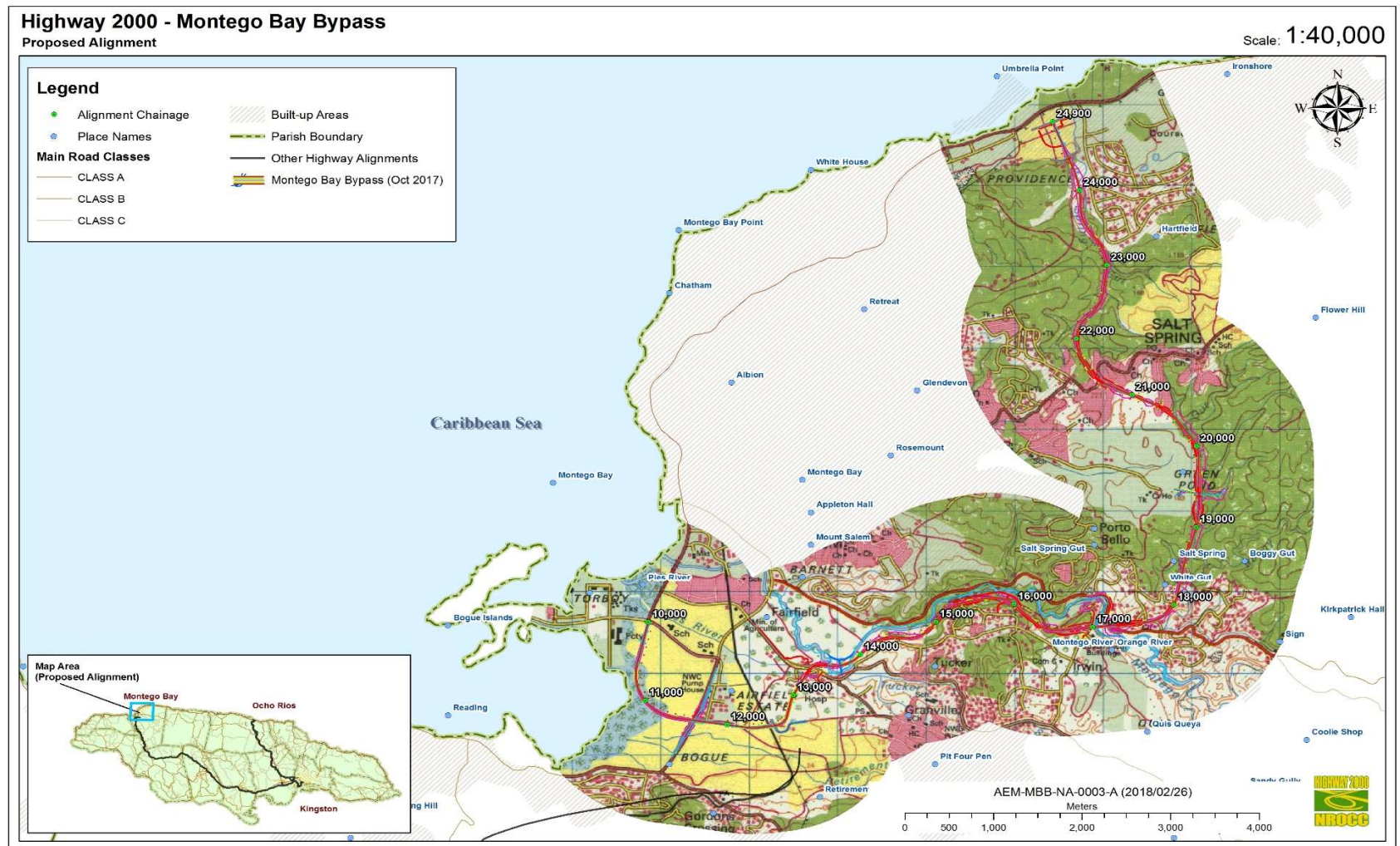
- i. Reference documents
- ii. Photographs/ maps
- iii. Data Tables
- iv. Glossary of Technical Terms used
- v. Final Terms of Reference
- vi. Profile of the project proponent and implementing organization
- vii. Composition of the consulting team, team that undertook the study/assessment, including name, qualification and roles of team members
- viii. Notes of Public Consultation sessions
- ix. Instruments used in community surveys

All findings must be presented in the EIA report and must reflect the headings in the body of the TORs, as well as, references. GIS references should be provided where applicable. One hard copy and an electronic copy must be submitted to NEPA for review after which the Agency will indicate the number of hard copies along with an electronic copy of the report to be submitted. One copy of the document should be perfect bound.

The report should include appendices with items such as maps, site plans, proposed streetscapes (that will demonstrate the preservation of the windows to the sea concept from the roadway), the study team and their individual qualifications, photographs, and other relevant information. All of the foregoing should be properly sourced and credited.

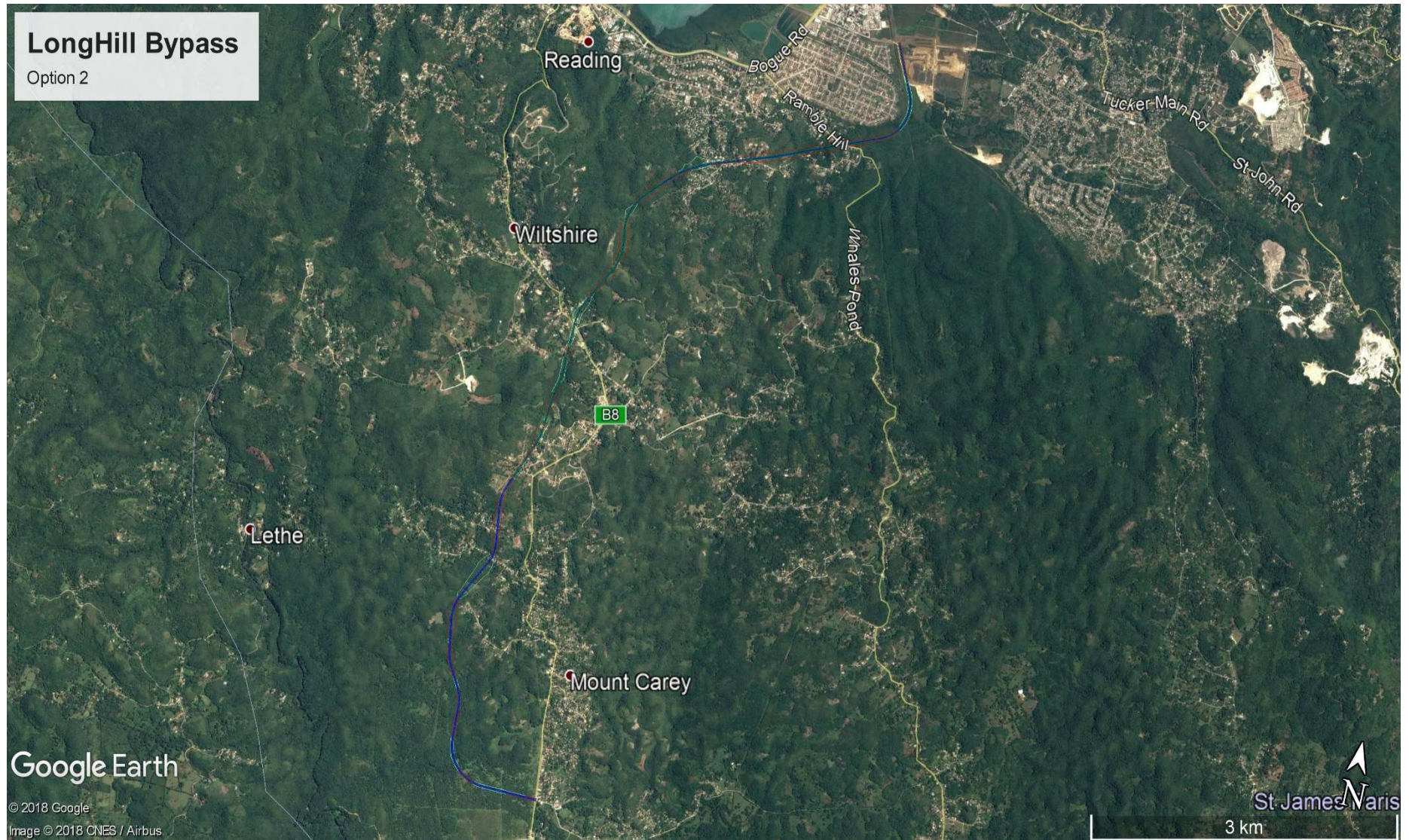


## APPENDIX 1: MONTEGO BAY BYPASS ALIGNMENT



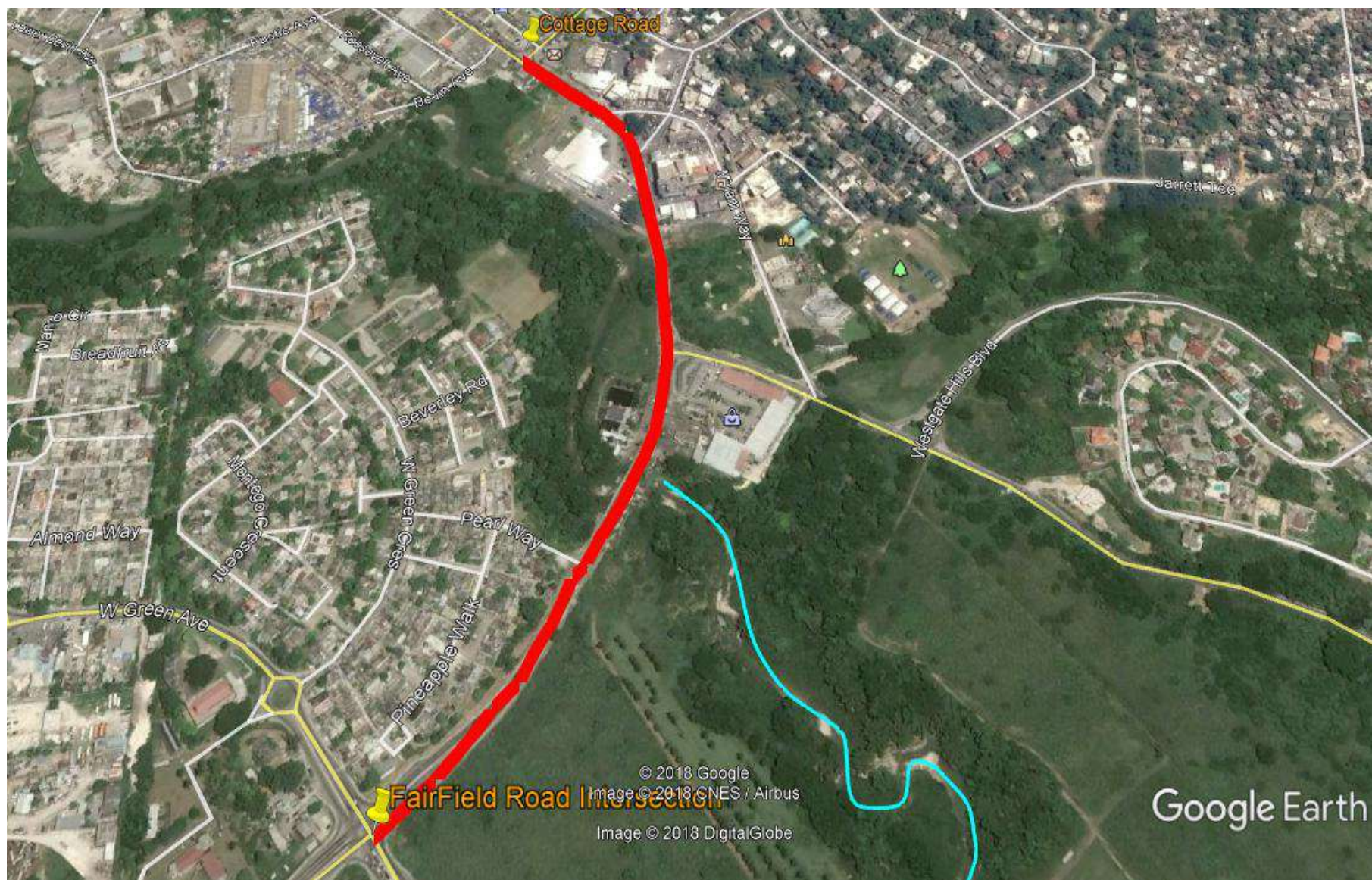


## APPENDIX 2: LONG HILL BYPASS





## APPENDIX 3: BARNETT STREET





## APPENDIX 4: WEST GREEN AVENUE

