

Nuvem



Google's New Cable Connecting Bermuda, Azores, Portugal and the U.S.

St. David's Town Hall
17 June 2025

Google Cloud

Agenda

Presentation

Submarine Cables

Bermuda's Cable Corridor

Local Infrastructure

Cable Landing Station Design

Project Timeline

Values / Community Engagement

Question & Answer Period

Google Cloud



Mike Lindstedt
Global Network Acquisitions

Mike is a Strategic Negotiator in Google's Global Network Acquisitions team, based in New York City. He has over 30 years of experience in submarine cable system engineering and deployment.



Javier Goas
Global Network Acquisitions

Javier is a Technical Program Manager in Google's Global Network Acquisitions team, based in Florida. He has over 20 years of experience in terrestrial networking and submarine cable system development.



Fiona Beck
Bermuda Liaison to Google

Fiona is Google's lead for Bermuda policy, government, and community engagement relating to subsea cables. Based in Bermuda, Fiona has over 30 years in leadership and policy development in the submarine cable and telecommunications industry.



Dustin Archibald
Bermuda Local Engineering Lead to Google for the gCLS

Dustin is Google's lead for our gCLS design. He has over 18 years of building engineering & design experience in Bermuda.



Geoff Parker
Bermuda Local Architect Lead to Google for the gCLS

Geoff is Google's lead for our gCLS Architectural design. He has over 16 years of architectural design experience in Bermuda.

Submarine Cables

Nuvm



Nuvm = “cloud” in Portuguese

Bermuda’s first direct connection to Europe

Designed to operate for 25 years

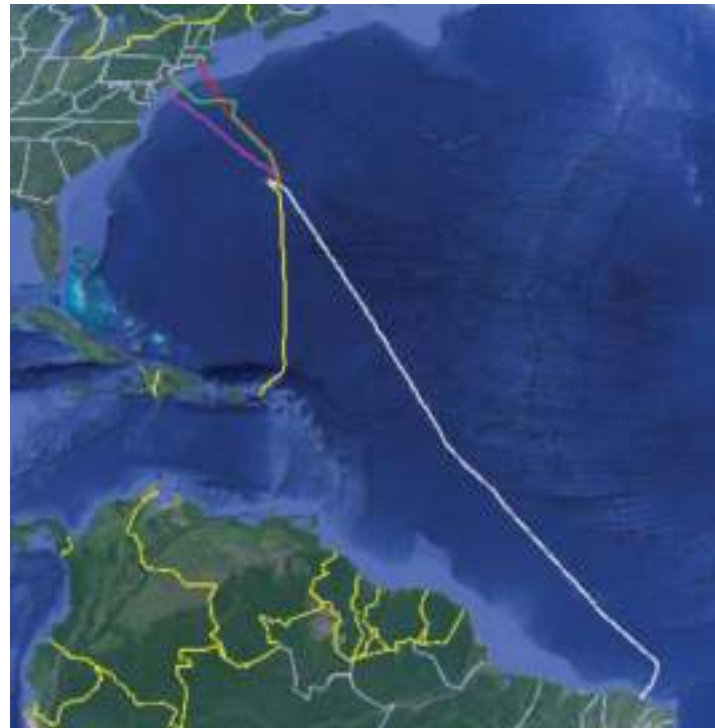
What is Connecting the World?

- **98%-99%** of all international communications are through undersea cables
- 1% to 2% by satellites above the earth (Mostly connecting rural area or temporary connections that lack access to fiber)



Bermuda's International Connectivity

- Five (5) existing cables
- Most recent cable to land in Bermuda was in 2008
- European communications must transit USA or Brazil (high latency)



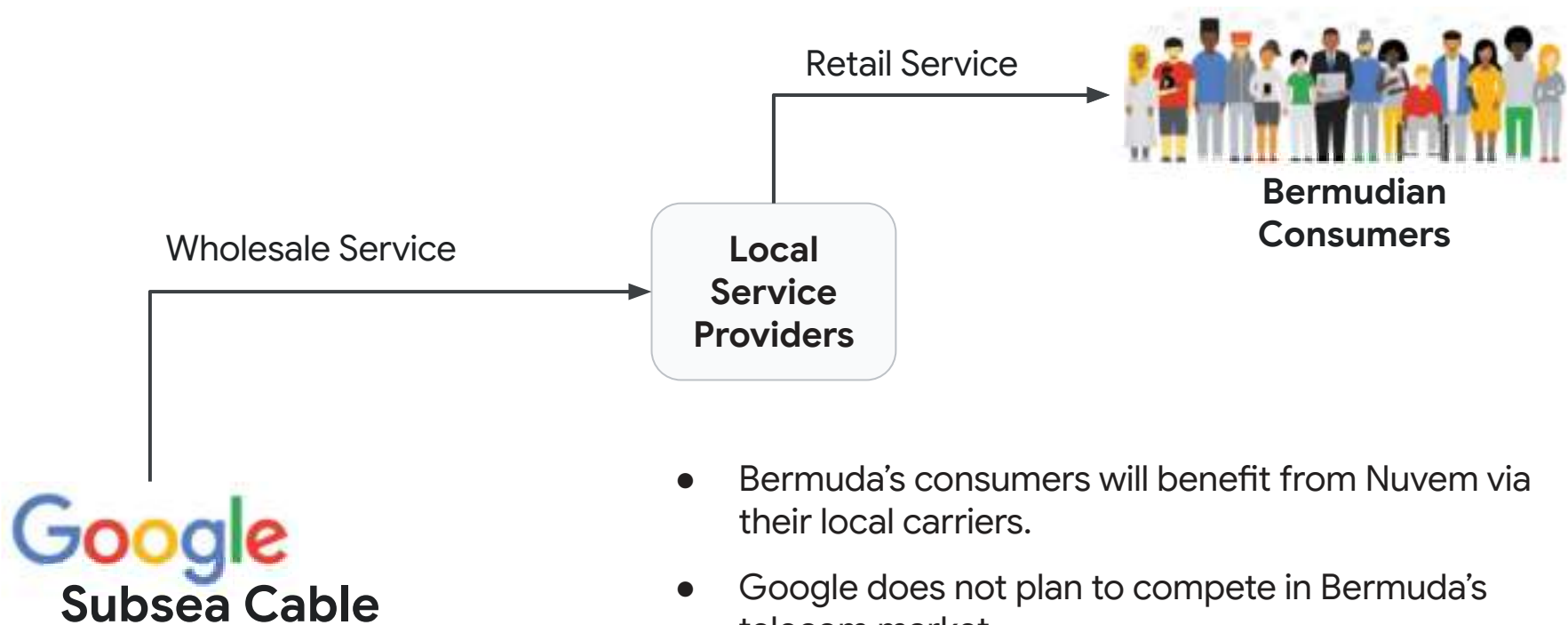


Why does Google need subsea cables?



- Artificial Intelligence / Machine Learning is accelerating demand for network infrastructure
- Data (Videos, Music, Photos, etc.) must be stored close to the user to create the best user experience.
- Data must be constantly updated, synced, and backed-up across our network to ensure availability and security.
- Fiber-optic cables enable fast and secure data flows.
- Investing in and maintaining our subsea cable network is a fundamental cost of operating a truly global digital platform to support our innovative services and applications.

Will this affect my phone or internet service?



- Bermuda's consumers will benefit from Nuvem via their local carriers.
- Google does not plan to compete in Bermuda's telecom market.

Subsea Cable Benefits to Bermuda?

- **Enhanced Connectivity & Capacity:** Nuvem brings significant additional internet capacity directly to Bermuda. This is crucial for handling the ever-growing demand for online services.
- **Increased Resiliency:** Having another diverse subsea cable route significantly strengthens Bermuda's overall internet resilience. If one cable experiences an issue, traffic can be rerouted, minimizing potential disruptions and ensuring continued connectivity.
- **Support for the Digital Economy:** A robust and reliable internet infrastructure is foundational for economic growth. It helps attract and retain businesses, supports innovation, and enables Bermuda to fully participate in the global digital economy.
- **Empowering Local ISPs:** Google is providing this capacity on a wholesale basis to Bermuda's local internet providers. This offers them access to Google's robust global network infrastructure, providing an alternative and highly resilient source of international bandwidth



What does a subsea cable look like?



“Lightweight” core cable
Used in deep water
About ½ inch diameter



“Armored” cable
Used in shallow water
Up to 2 inches diameter

Offshore Optical Bodies







Why Bermuda? It's a natural hub.

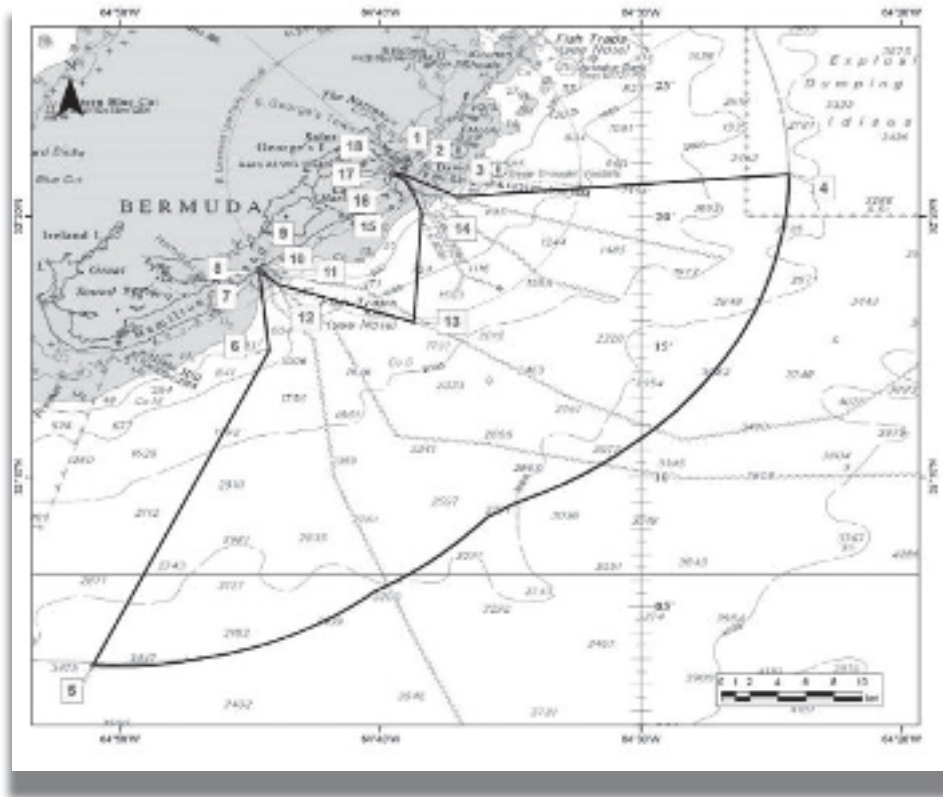
Fiber-optic cables are today's trade routes that deliver digital products, services and culture throughout the world

Google Earth

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Bermuda's Cable Corridor

Why Bermuda? It has a regulatory framework.



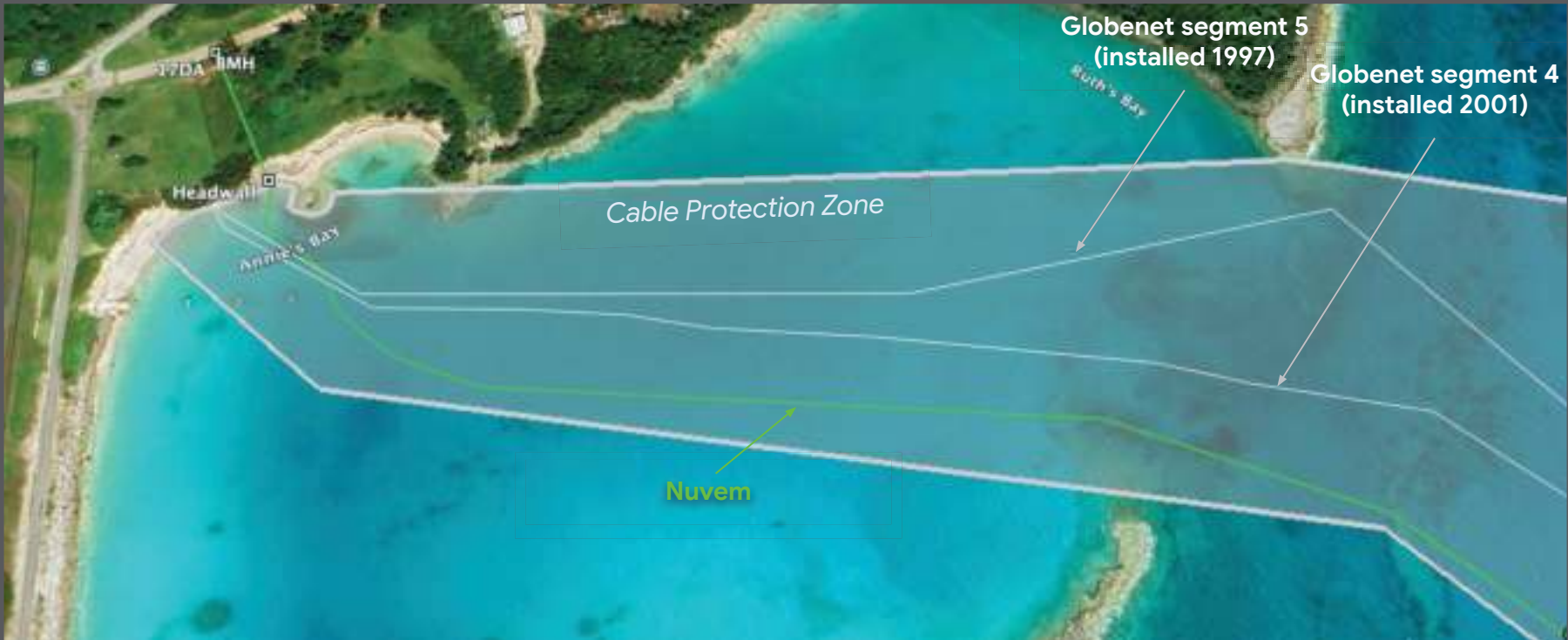
The Submarine Communications Cables Act 2020

Established a **Cable Protection Zone**

Created a regulatory process for cable and operator licensing

Specified all applicable fees

Specified timelines for government responses



Local Infrastructure

**Existing cable
landing at
Annie's Bay**

(Globenet, 2001)



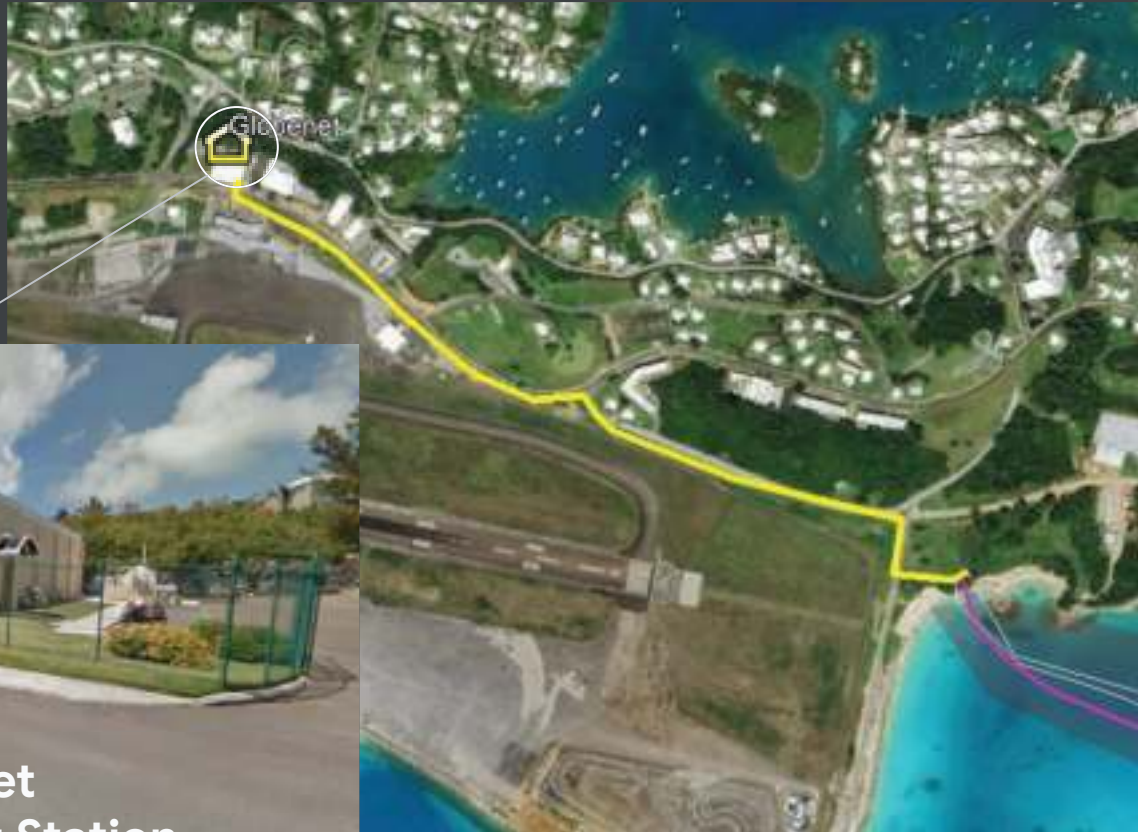
Cables w/ Split Pipe



Outfall pipe (buried)



Beach manhole



**Globenet
Cable Landing Station**



Nuvm Cable Landing Station

Nuvm land cable

Cable Landing Station (CLS) Site

- Southside Road, between the police station and Lamb Foggo Clinic
- Zoned for Mixed Use
- 5.9 acre plot leased from BLMC
- Nearby access to St. George's Harbour for delivery of construction materials
- Google is sponsoring an improved Remote-Control Car Track at a new location in the community



Cable Landing Station Design

Cable Landing Station

- A purpose-built facility for terminating subsea cables
- Design will be adapted to meet local building codes and appearance standards
- Scaled for long-term growth, to accommodate multiple cable systems
- No emissions during normal operation
- Highly secure. Low volumes of vehicular traffic.



Cable Landing Station - Front Entrance on Southside Road



Cable Landing Station - Front Entrance on Southside Road



Cable Landing Station - Rear Entrance on Stocks Road



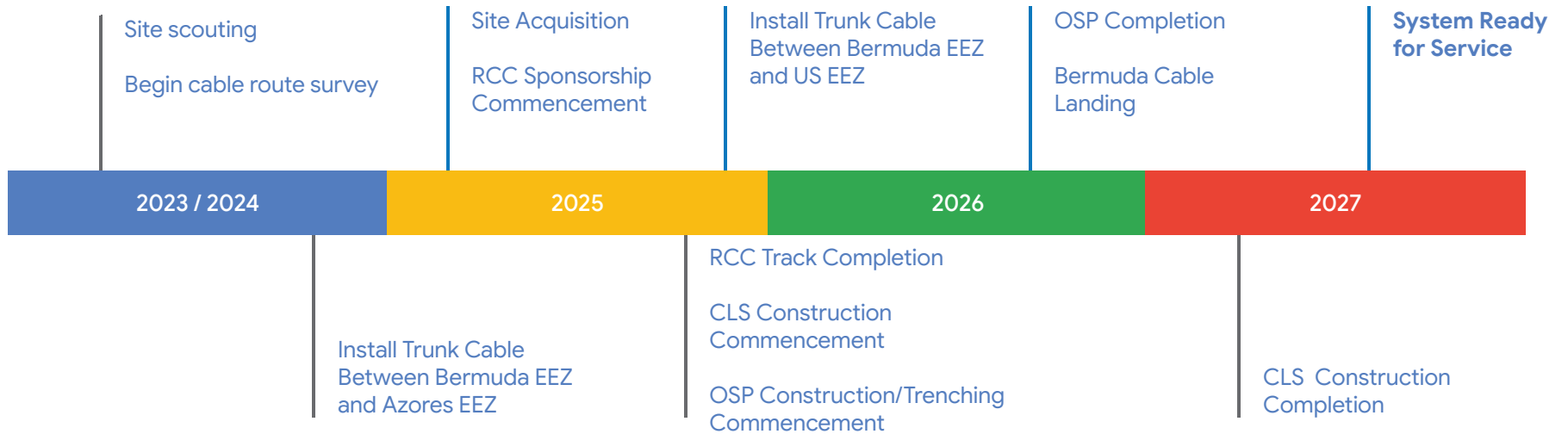
Cable Landing Station - Designed with the Community in Mind

- **Noise Mitigation:** The CLS building is designed with modern soundproofing to significantly dampen operational noise. The equipment inside is inherently quiet, and any necessary ventilation systems will be designed for low noise emission.
- **Light Management:** Lighting will be minimized and directed downward to prevent light spill into the surrounding area, complying to the regulations provided by the Bermuda Airport Authority.
- **Generator Usage:** The generator is for backup power in the event of a commercial power outage. It's designed to ensure continuous operation of the facility and the network. It will only start up automatically if grid power is lost or for short term routine maintenance checks.



Project Timeline

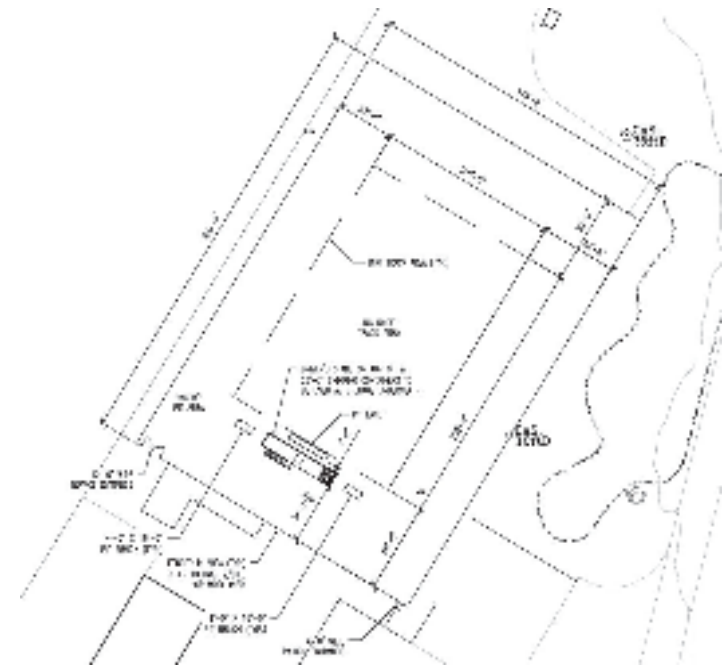
Nuvem Project Proposed Timeline



Community Engagement / Values

BNRA RCC Track Relocation - Status Update

- Project was submitted into Planning and subsequently approved on June 11th and is expected to be completed by the end of the summer.





Building for everyone

Investing in infrastructure, investing in the future

Google's Community Development & Engagement Team builds for everyone and is excited to begin working with the people of Bermuda on the issues that matter to you.

Together, we can:

- diversify the island's legacy economy
- develop and train local talent
- drive climate-positive innovation

All through a shared vision for long-term partnership that helps turn:

- connectivity into opportunity
- data into insight
- community priorities into measurable impact



Aligned with core pillars

We are driving economic growth, supporting local innovation, and creating career opportunities across three pillars:

- **Workforce Development & Education**
- **Environment & Ocean Science**
- **Digital Innovation & Finance**



Building trust, building together

Working on progress for Bermuda (2025-26)

As we listen to community needs and priorities we want to convert commitments into proof points in Bermuda.

Through key workforce, community and climate initiatives, Google partnership advances and helps protect Bermudian livelihoods, ecosystems and futures.

In progress:

- **Remote-Control Car Track relocation**
- **Grow with Google Scholarships**

In development:

- **Google x BITA Electrician-to-AI Training Track**
- **St. David's Primary tech & equipment grant**
- **Connectech education grant** for students & educators
- **Annie's Bay cleanup & reforestation**
- **AI-powered Google Earth pilot** to monitor and research illegal fishing activity in EEZ



Impact at-a-glance:

Community initiatives underway:

2 Scholarship partners (more being evaluated):

- Bermuda College & Connectech

7 Education focus areas: in-school coding, robotics, STEM camps, teacher PD, cybersecurity, maker labs, upskilling



Building for the future

Looking ahead to drive resilience & innovation (2026+)

2026/2027 Pilot Suggested Launches

- **AI-powered Resilience:** Kick off disaster-modeling & public-safety pilot
- **Prioritizing Conservation:** Launch education grants with the Bermuda Zoological Society to inspire island-wide stewardship
- **Place-based Programming:** Carter House historic support, St. David's Cricket Club youth programs, Bermuda Aquarium marine research and the St David's Islanders and Native Community Powwow

2028+ Flagship Scale-Ups

- **Marine & Climate Data Hub:** Partner with BIOS on Google Cloud to turn ocean data into exportable insights
- **BITA Innovation Lab:** Expand pilot workshops—including blockchain carbon-credit tests—into a full innovation lab



Grow with Google

Opportunity Bermuda College

Training next-gen workforce:

Provide expanded access to **Grow With Google Career Certificates and AI training** to upskill and prepare Bermudians for the digital economy – while meeting data-driven student–employer demand for micro-credentials:

- **76%** of students prefer programs with certificates
- **90%** say certificates aid hiring
- **88%** of employers value them

Our Values

Diversity & Inclusion

Building a workforce that is representative of the users we serve



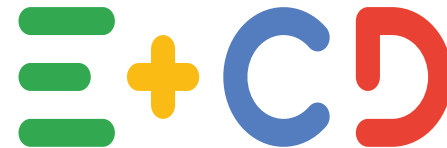
Sustainability

Working towards net-zero emissions across our operations and value chain by 2030



Economic & Community Development

Fostering thriving and diverse communities, robust partnerships and industry innovation





Thank you.

Send questions to:
nuvem@google.com - Cable & CLS
cdeteam@google.com - Economic &
Community Development

Google Cloud