

INTERNATIONAL OFFICES:

INDIA #402, 27/1, Jasmine Arcade 5th A Cross HAL 2nd Stage, Kodihalli Bangalore, India

USA # 1515 Ualakaa Place Honolulu Hawaii 96822 USA

LONDON 3rd Floor 14 Hanover Street London W1S 1YH Phone: +44 208 144 9029

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8C high street, Southampton, Hampshire, SO14 2DH Ph: +44 (0) 8444 150 944 Fax: +44 (0) 8444150 925



OUR VISION

A SALEANYTREY?

"To be the outstanding, intelligent, innovative, design and advisory consultancy of specialist and integrated services in the built and natural environment".

INDEX

Our Team

SUSTAINABLE ARCHITECTURE

HQ Building of Sa Aden emergency

The consultancy

DESIGN-MAST CITY DEVELOP

New Carter City M Mukalla city mast Taiz City Master F

GREEN GUIDEL TRAINING AND

Satellite City Urba Ecosystem Servic Freedom Ring the

TECHNO ECON

Sustainable Infras London Cycle Hir Public Realm and

WATER & WAST

Canal/River clean Planning, Develop Waste Managem

RENEWABLE EI

SUSTAINABLE (CABLE CAR, MI

OUR INTERNAT

DEVELOPMENT
E & DETAILED DESIGN(STRUCTURAL DESIGN) 4
as Aldeyar company5
center
services for Kuwait embassy in Yemen7
TER PLANNING MENT PLAN, DPRS, ECO CITY8
Master Plan Development9
ter Plan Development 10
Plan Revising and Updating 11
INES, POLICY AND BYE LAWS,
an Design Kolkata (Calcutta), India 13
es Raritan, New Jersey
e Philippines15
OMIC FEASIBILITY & PREFEASIBILITY 16
structure17
e Scheme
l Improvement of Public Spaces in London
TE MANAGEMENT20
ing work 22
ping and Distribution of Recycled & NE Water
ent 23
NERGY / POWER SECTORS 24
TRANSPORT SYSTEM ETRO, MONO RAIL,RAILWAYS, HIGHWAYS)
TION PROJECT LOCATIONS 28

Global Green Solutions has drawn upon a pool of committed professionals who have established leadership in providing sustainability related decision support to public and private organisations. The organisation is a consortium with people who have proven track record in the field of sustainable development of cities, renewable energy, recycled/ desalinated water and sustainable transport system.

We are experienced in engaging with all relevant stakeholders to ensure both buy-in and momentum in terms of deployment whether for an individual building, Master plan, City Development Plan, at organisational level, we can help to:

- 1. Formulate planning and future policy bye laws and regulations.
- 2. Maintain sustainability standards through strategic development and implementation.
- 3. Maximise opportunities for innovation.

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ABOUT US

ARCLAYS

16309

4. Planning, Development and Implementation of different scheme for the sustainable development of cities.

Our Values & Goals:

Innovation Sustainability Trust Valued and Committed

Balanced

Intelligent Employees **Excellent Client Care** Integrated Delivery **Commercial Approach**

We have a team of experts and academia who have established leadership in research and innovation and have worked on award winning/landmark projects across the world. Some of our experts are BREAM and LEED Accredited Professionals and are members of American Institute of Architect/RIBA, ICE, IStructuE, APM and CMI, London.

The company has the expertise of Dr.Sebastian MacMillan, Director, Design & Built Environment, University of Cambridge, and New York Institute of Technology (NYIT) who gives their support and quidance as a an advisor.

DR.HARI NAIR: DIRECTOR ENERGY

A committed results-oriented business development leader with extraordinary global success consistently delivering mission-critical bottom line impact.

Photo

Photo

Photo

JOHN PITRE FOUNDER, PRESIDENT & CHIEFTECH-NOLOGIST Equal parts engineer, aviator and artist, John Pitre is an accomplished and successful inventor who is frequently compared to a modern day Leonardo da Vinci.

TOM RITCHIE

CHAIRMAN OF ADVISORY BOARD Tom Ritchie has more than 30 years experience in the financial and real estate development sectors.

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SUSTAINABLE DEVELOPMENT **ARCHITECTURE & DETAILED DESIGN** (STRUCTURAL DESIGN)



HQ BUILDING OF SAS ALDEYAR COMPANY THIS PROJECT CONSISTS OF TWO BLOCKS IN ADU DHABI

Project's Brief:

In this project the first block is mixed use commercial and offices consist of a reinforced concrete building of two floors; the ground floor include three commercial stores, and a reception hall leading to the first floor. The first floor is an open area contains the manager office, WCs, small buffet and open plan offices for about 20-25 person. The second block is a steel structure building, with bricks for the exterior walls, established for storage. The project consist of industrial interlocking one way lopping road and 9 car parking's.

SCOPE OF SERVICE: DESIGNSERVICE

- **1.** Study and review contract documents, drawing and specifications.
- 3. Prepare and submit all periodical reports.
- 4. Review/ensure conformity of Contractor's Works to contract documents.
- 5. Prepare Cash Flow Projections.
- 6. Prepare Interim and Final Payment Certificates.
- 7. Monitoring of Project Progress.

LOCATION: ABU DHABI



2. Review all planning and programming activities to verify contract will be completed according to agreed time schedule.



ADEN EMERGENCY CENTER

AL GOMHOURIA HOSPITAL

Project's Brief

Our project is located in Khormaksar, Al Gomhouria hospital compund, Aden city. The project to be stand-alone facilities comprising all the general diagnostic treatment services. Such as imaging, labs, rehabilitation therapy, surgery, endoscopy etc. as well as a large comprehensive outpatient and ambulatory care facility in addition to the inpatient and intensive care accommodation. The general services are to include, the electro- mechanical plant, kitchen and laundry facilities housekeeping, CSSD, material management, Solid waste treatment plant, Helicopter landing facilities, Car parking facilities, Security office facilities, Mosque, Nurses housing facilities, Administration building, etc.

SCOPE OF SERVICES:

- **1.** We prepared conceptual and preliminary architectural designs.
- 2. Final detailed architectural, structural and MEP drawings and details.
- 3. Special general technical specifications, bill of quantities and cost estimation.
- 4. Tender documents including the special general condition and the forms of contract.

LOCATION: ADEN

THE CONSULTANCY SERVICES FOR KUWAIT EMBASSY IN YEMEN

Project's Brief:

Our project is located in South East Sana'a, adjacent to Sheraton. It consist from three main buildings, Embassy, Consulate and Ambassador Residence building. The design of landscape and surface parking and the key elements in designing the complex in the traditions of Islamic and Kuwaiti culture adapted to the setting in Yemen in the 21st Century. Addressing the sun in Yemen with covered arcades, relatively small windows and openings and mindful building orientations.

Exploiting the cooling and humidity regulating effects of plants, and breeze enhancement via building configuration and sitting.

SCOPE OF SERVICES:

- 1. Our company prepared conceptual and preliminary architectural designs.
- 2. Final detailed architectural, structural and MEP drawings and details.
- 3. Special and general technical specifications, bill of quantities and cost estimation.
- 4. And tender documents including the special, general condition and the form of contract.

LOCATION: SANA'A

NEW CARTER CITY MASTER PLAN DEVELOPMENT

Project's Brief

Our company was selected for master planning and design for the new Crater city on 2,000,000 m2 total area with approximate population of about 250,000 persons.

The work included two districts:

North District: located in the north and the middle of city: total area 11482433 m2, 252 m above sea level, divided into 4 sectors, with residential area about 506936 m2 area of center is 44281,3 m2.

South District: located in the south on irregular topographical land above AL-Aidaroos hill: total area 513189 m2, 220 m above sea level, divided into 1 sector, with residential area about 162500 m2, area of center is 23945,7 m2.

SCOPE OF SERVICE

Complete conceptual, preliminary, detailed architectural design, preparation of tender documents, and services for infrastructure and buildings including landscaping, preparation of roads utilization plan for urban traffic, Roads network, parking, general concept for construction, authorization planning & preparation of the executive planning and expansion of sewage treatment plant, water supply, storage storm water drainage, electrical network and external lighting system, feasibility study for assessing economic and financial.

LOCATION: ADEN

DESIGN-MASTER PLANNING, CITY DEVELOPMENT PLAN, DPRS, ECO CITY



MUKALLA CITY MASTER PLAN DEVELOPMENT

Project's Brief

We studied the area corresponds to the whole of Mukalla Directorate, which includes the central area of Mukalla City, the western suburb of Fowah City, and the eastern suburban extensions stretching to Rayan International Airport. The incorporated coastal strips to the west and east are, respectively, in Burum/Mifaa and Al Shihr municipalities, and Ghail Bawazir city falls administratively in a municipality with the same name. The primary objectives of the consultancy services for revising and updating the master plan of Al Mukalla.

SCOPE OF SERVICE

- 1. Analysis of existing Drawing condition in collaboration with Key stockholders
- **2.** Forecast scenarios of future growth
- 3. Draft master plan recommendations and stockholders feedback.
- 4. Final Master Plan recommendation and approval process
- 5. Immediate and short term capital investment plans 6
- 6. Final report

LOCATION: MUKALLA

TAIZ CITY MASTER PLAN REVISING AND UPDATING

Project's Brief

The region of Taiz city and its suburbs constitute the most important industrial center in Yemen. The population of the city is about 540,000 people on an area of 15,000 hectares.

We studied the area covering three districts; Al-Qahira, Al-Mozafar, and Sala. In addition, two other parts of the adjoining districts are considered; Taiziya and Sabir.

The project included development of the corridors along the main regional roads and the city's future extensions, where detailed neighborhood plans have already been developed.

SCOPE OF SERVICE

- 1. Analysis of the city condition, in collaboration with stockholders
- 2. Prognosis scenarios of future growth, in collaboration Taiz Urban Planning Department
- 3. Strategic operational procedures for implementation
- 4. Master plan Development
- 5. Long and short term capital investment plans

LOCATION: TAIZ

10 GLOBAL GREEN SOLUTIONS



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SATELLITE CITY URBAN DESIGN KOLKATA (CALCUTTA), INDIA **CLIMATE-RESILIENT URBAN DESIGN**

We have been hired as an urban design consultant from 2010-2011 to conduct a sustainable satellite cities project in the Kolkata (Calcutta) Metropolitan Area funded by the United Kingdom's Department for International Development (DFID), under the auspices of the Government of West Bengal. A team of Indian urban infrastructure experts from Louis Berger-India worked in collaboration with us to develop approaches, methods and tools to configure sustainable regional satellite settlements in the West Bengal region surrounding Kolkata.

In Kolkata's surrounding West Bengal region, an important challenge was configuring a compact development pattern to respond simultaneously to strong winds, flood risks and high temperature and humidity. We developed prescriptive measures and performance standards for a climate-resilient public realm, including urban ventilation, green infrastructure, and solar design.

URBAN DESIGN PLANNING + DEVELOPMENT ARCHITECTURE GREEN GUIDELINES + POLICY

- **1.** Urban heat island mitigation
- 2. City street orientation: Prevailing breeze and solar impacts
- 3. Intermodal transportation access Sustainable urban drainage system Protected green-belt zone

LOCATION KOLKATA (CALCUTTA)







ECOSYSTEM SERVICES RARITAN, NEW JERSEY

BALANCING DEVELOPMENT & FRAGILE WATERSHED ECOSYSTEMS

We prepared "best practice" sustainable design prototypes for the New Jersey Water Supply Authority that illustrate how to balance watershed protection, economic development and stronger physical connections within the Somerset Regional Center. These goals are promoted at the development site level to reduce the amount of impervious cover, to increase the natural lands set aside for conservation, and to use pervious areas for more effective storm water treatment, all while improving local economic opportunity.

The final documents include design scenarios, illustrated guidelines, and site uses to provide a model for future watershed protection and economic growth opportunities in the Raritan watershed areas and beyond to the entire state of New Jersey.

GREEN INFRASTRUCTURE

Peer Review for Sustainable Design "Best Practices" High Performance Infrastructure Guidelines, NYC. Department of Design and Construction & Design Trust for Public Space, 2004.

URBAN DESIGN PLANNING + DEVELOPMENT GREEN GUIDELINES

- **1.** Watershed protection
- 2. Storm-water treatment & capture
- 3. Bike-ped access
- 4. Permeable pavements
- 5. Urban heat island mitigation

LOCATION NEW JERSEY





FREEDOM RING THE PHILIPPINES

ARCHITECTURAL + PLANNING SERVICES

The outdoor amphitheater is one of the largest in Asia, located at the former Clark United States Air Force Base, in the shadows of volcanic Mount Pinatubo. It is the dominant feature of the Philippine Centennial Exposition commemorating the 100th anniversary of the Philippine liberation from Spanish rule.

A radial ring of towers-remnants of the site's previous use as a Cold War-era listening post-generated the current site plan. The Freedom Ring is a perfect circle whose edges are defined by these towers, and whose center point lies directly at the amphitheater's Center Stage. All other elements (audience chamber, circulation, structural supports) are organized radially out from this point.

The "Ring" site is 300 meters in diameter, with a capacity of 35,000 people.

ARCHITECTURE URBAN DESIGN

- 1. Light-Weight, Prefabricated
- 2. Structures
- 3. Urban Heat Island Mitigation
- 4. Permeable Paving
- 5. Local Materials
- 6. Adaptive Reuse

LOCATION PHILIPPINES





LIGHT-WEIGHT TENT STRUCTURE.



TECHNO ECONOMIC FEASIBILITY & PREFEASIBILITY



SUSTAINABLE INFRASTRUCTURE

Infrastructure is the key to creating a healthy, happy living and thriving economic climate in communities around the world. It is important to our future success and plays a critical role in creating and enhancing sustainability.

We consciously understand the aforesaid fact that is why we have a team of expert consultants and academia that have carried out work of this nature around the world for the last four decades.

The firm recognises its privileged opportunity and role of gathering and integrating knowledge and experience from around the world to help to create better and design sustainable use and development of infrastructure without compromising the ability of future generations to meet their own needs.

Our objective is to set a responsible standard of sustainable design in both the short and the long term. As a responsible citizen we all have a significant impact on the world around us and each of us should tend to play a part in protecting future generations.

Engineers and planners shoulder a big responsibility to set standards of design that may help build safe, happy and prosperous environment to suite the people who live in thereon. It is at the core of our design and advisory services and is intrinsic to the firm's approach to each and every project that we do.

LONDON CYCLE HIRE SCHEME

BARCLAYS

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This is an initiative taken by Transport for London (TfL) as part of London's strategy to reduce carbon emission and promote cycling in and around central London. The scheme enables the public to use a cycle for short journeys and return it to one of the many docking stations located around London. It will be on a self-serve basis, operating 24 hours a day throughout the year.

PUBLIC REALM AND IMPROVEMENT OF **PUBLIC SPACES IN LONDON**

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Part Pedestrianisation of 'Exhibition Road' and other major streets in London e.g., Kingly Street, Hanover Street, Regent Street etc. The scheme is a new initiative taken by different boroughs/council to provide public realm and improvement of public spaces on the various streets in London.

The objective of the scheme is to create one of the finest streetscapes in London and a greater awareness of the world-class institutions based around it maintaining reduction in CO².





1. Master planning for providing 24x7 water supply amd safe drinking water to all.



environment. Access to safe drinking water has been improved steadily and substantially over the last decades in almost every part of the world. However some observers have estimated that by 2025 more than half of the world population will be facing water shortage problems. Water services have been a source to gain experience and expand the name of the firm over the last ten years. We have performed a diverse array of technical and support team to achieve and offer all the services that can be





CANAL/RIVER CLEANING WORK

The Canal Restoration Methodology helps the Canal Embankment Protection, Mitigate the reduction of Water Contamination, Cleaning of Water, Urban Greening, Ecological Balance & Environmental Sustainability.

Sustainable technologies to restore contaminated canals, water bodies, river embankments, solid waste management, contaminated site management, MSW dumps site restoration & greening.



MATERIAL USED FOR ENVIRONMENT RESTORATION & METHODOLOGY

Jute & Coir Geo textile, Jute / Coir Biomass, Sustainable Plants, Bamboo and Beneficial Microbes (BM) isolated from Natural Sources to use in an integrated methodology through Bio-Remediation, Phyto-remediation & Bio-engineering.

All restoration materials are available in West Bengal.

PLANNING, DEVELOPING AND DISTRIBUTION OF RECYCLED & NE WATER

MAIN SCOPE OF SERVICES

- Feasibility Studies
- Site Analysis
- Master plan development
- Urban regeneration and rehabilitation
- Roads and road network
- Landscaping
- Infrastructure
- Engineering
- Circulation and Road System Studies
- Environmental Services and Permitting
- Condition Surveys
- Structural Restoration
- Materials Research
- Seismic Evaluations
- Quality Assurance
- Construction Management and Support
- Project Management

WASTE MANAGEMENT

GGS have developed and extended their services to meet these challenges of waste management, sustainable disposal and are committed to the principle of sustainable development and management. We advise government bodies, local authorities, waste producers and investors as well as the waste management industry and its regulators providing support in the development of strategy and the implementation of practicable cost effective strategies to manage waste in a more sustainable fashion.

OUR WASTE AND RESOURCE MANAGEMENT SERVICES INCLUDES:

- Waste Strategy Development
- Waste Treatment and Services Procurement
- Service Reviews and Options Appraisals
- Waste Modelling, Legislative Compliance
- Policy Advice and Research
- Waste Minimisation and Recycling Behavioural Change Programmes
- Independent Certification
- Planning and Licensing and Waste Awareness Training.



RENEWABLE ENERGY / POWER SECTORS

Generating our own energy can be good for the environment and good for our pocket too. Low-carbon technologies such as wind turbines, solar panels and wood fuel boilers use renewable sources of energy, use of less fossil fuel; all these reduces the carbon footprint as well as our fuel bills.

GGS in association with Natural Power Concepts (NPC) a Hawaii-based alternative energy technology incubator developing innovative new ways of harvesting electricity from natural forces such as wind, waves, tidal and current flow, solar and geothermal heat. Our devices are designed to generate power for distribution to the grid or for industrial and consumer applications, utilizing efficient, cost effective, elegant, environmentally safe, and wildlife friendly approaches.

GGS – NPC has compiled an extensive list of competing products, companies, and organizations, and constantly updates its knowledge base with the latest information on state-of-the-art technologies. With the unique talents of its highly creative team, NPC is differentiating from its primary competitors through several specific guiding principles, including the following:

Our devices take advantage of natural forces in new and previously unexploited ways.

- Our devices are designed to be highly efficient, cost effective, and rugged. The designs are elegant, creative, and artistic.
- Our devices focus on solving common industry problems, such as storm damage avoidance for wind turbines.
- We have designed wind devices for lower velocity wind to capture more power than most current technologies allow.
- We have established a remarkably fast and efficient workflow and methodology for bringing concepts from the idea stage all the way through to tested prototype.

HYDROGEN FUEL CELLS, BIG ISLAND, HAWAII, USA:

This project was done in association with University of Hawaii for the Municipality of Big Island, Hawaii, USA. The scheme enables to generate electricity through geo-thermal heat and electrolysis process to produce Hydrogen and then converting it to fuel cells. These fuels are then used to run the public transport.

- Blades, fins, and airfoils with highly efficient properties that are designed to eliminate many of the significant problems usually associated with marine and wind turbines, such as noise, bird and fish kills, damage from storms, debris entanglement, and inefficiency.
- High velocity mountain wind turbine generator systems designed to capture the strong winds found in mountainous up-sloping terrain.
- Low velocity wind turbines designed to capture the slow moving winds that are otherwise unusable in and around major population centers.
- Wind Turbine (Folding Blade and Roof Mounted) and Spoked Wheel – Wind turbines and devices for capturing wind on high-rise and commercial buildings.



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SUSTAINABLE TRANSPORT SYSTEM (CABLE CAR, METRO, MONO RAIL, RAILWAYS, HIGHWAYS)

Globally transport is the sector where green house emissions are rising most quickly. Demand for oil is set to rise from 84.7m barrel per day in 2008 to 105m barrel per day in 2030. The transport sector is predicted to account for 97% of this increase as the global number of road vehicles will double from just over 1billion in 2010 to 2 billion in 2020.

Copenhagen has strugged with increased traffic congestion. Almost 100,000 hours are lost each day in the capital region. However, this number would have been substantially higher if it had not been for the integrated transport system of the city.

Due to the integrated public transportation system of Copenhagen, thousands of people leave their cars at home because it is the fastest and most convenient way for them. This saves gas money and keeps the roads less congested. Because of this, billions are saved. The benefits of integrated public transport in Copenhagen are considerable. Without this integrated system much more than 100,000 hours would be lost each day and 5.7 billion DKK per year for the Capital Region – the equivalent of \$ 1 billion. The cost would be considerably higher if it had not been for the integrated transport system of the city.

Infrastructure is not only about transportation. Infrastructure is about the economy. Competitive cities ensure that people and goods are moved around efficiently.

- Feasibility and Prefeasibility Report for Metro/Monorail for a City.
- Preparation of Preliminary and Detailed Design Report for Station Buildings, Platform Canopy, Bridges and highway Structures.
- Study of Park & Ride Schemes.
- Cycle Hire Scheme.
- · Integrated transport systems and the green guidelines and policies.



OUR INTERNATION PROJECT LOCATIONS



