



Surveying & Mapping

Site Surveys

Land Surveying

Engineering Surveying

Building Surveying

Mapping & Scanning

Marine Surveying

Design Services

Geospatial Products & Services

Company Profile

25 years

140 projects

13 countries

New Zealand
Owned & Operated

Regional Experience
SE Asia

Regional Base
Ho Chi Minh City

Our Mission

Integrity
Accuracy
Reliability
Efficiency

Services

Surveying
Mapping
Scanning
Design

Sectors

Transport Infrastructure
Real Estate & Property
Energy, Oil & gas
Natural Resources

Geomatic Consulting International ...

... has, in the last **25 years**, completed over 140 surveying and mapping projects in 13 countries for **over 125 clients** from over **27 countries**.

... is an **independent** technical and consulting firm engaged in all aspects of geomatics: land and engineering survey, topographic and hydrographic mapping, building and construction surveying, 3D scanning and modelling and geospatial products and systems.

... started operations surveying on Vietnam’s first cable-stayed bridge in **1997** and has since then completed assignments throughout Vietnam and the South East Asia region.

... operates on New Zealand-based **best-practise principles** through legal entities in New Zealand, Vietnam and Hong Kong.

GCI’s mission is to **expand and enhance our position as the leader in surveying and mapping** in Vietnam and the region through the provision of independent, responsive and innovative services. This goal continues to be realised through:

- Honesty & ethics are emphasised throughout the organisation
- Operations performed to the appropriate level of accuracy
- Data, plans & reports can be relied upon
- The appropriate use of technology to optimise resources



With a core business in engineering and geodetic surveying, GCI applies the principles of professional practise to our entire service range:

- Topographic/hydrographic surveying, civil/mechanical engineering surveying, construction surveying, building surveys and dimensional surveying
- Aerial (aircraft and drone) photogrammetric and LiDAR mapping, remote sensing, base mapping and image processing, bathymetric mapping
- Photometric and laser scanning of buildings and spaces for design, construction, HSE, training, VR and management functions
- Preliminary design services for access roads, construction platforms, haul roads and provincial roads, earthworks and drainage

The company has gained considerable experience providing services throughout the project cycle in a variety of sectors, including:

- Bridges, highways, railways, mass rapid transit, light rail, metro, tunnels, ports & harbours
- Residential, office and commercial buildings, mixed-use developments, golf courses and resort developments
- Hydroelectric & thermal power stations, oil & gas processing facilities and pipelines and renewable energy (wind, solar) projects
- Mineral exploration, rural development, irrigation, forestry and agriculture

GEOMATIC CONSULTING INTERNATIONAL

HISTORY & BACKGROUND

GCI first began surveying in Vietnam in 1997 and the firm was formally incorporated in 1998. Our Vietnam Registered Representative Office was established in 2003 and operated until 2013.

Geographic Technology Solutions was established as GCI's legal Vietnamese entity in 2004 and since 2007 has operated as a fully licensed surveying and mapping company (Cong ty TNHH TM – DV Dia Ly Ky Thuat Giai Phap). Geomatic Consulting International Ltd was re-incorporated in New Zealand in early 2018.

The firm is managed by qualified survey engineers with over 45 years experience in the South East Asian region. Their mission is to ensure the highest level of service and reliability for GCI's real estate, geospatial, consulting, land development, civil engineering and construction clients.

We employ high-tech equipment and technology (GNSS, UAV, LiDAR, Scanners, SBES, GPR, MASW) in the field and leading edge software in the office to provide an unparalleled level of service to our clients.



GCI employs a team of survey engineers and technicians, Directed by an international survey engineer with over 30 years' experience land and engineering surveying in the region.

The Managing Director is a member of the New Zealand Institute of Surveyors and as well as a Bachelor of Surveying from the University of Otago (NZ), has a Post-graduate Diploma in Construction and Real Estate from the University of Reading's (UK) College of Estate Management.

Our Survey Project Managers all speak English, have been with GCI for at least 10 years and have extensive experience on infrastructure, development and construction projects working alongside international client engineers, managers and supervisors.

GCI has partnerships and alliances with:

- **HeliMap** – Helicopter-borne LiDAR mapping solutions,
- **GSS** –3G (wireless) meshed-based geotechnical monitoring solutions

Since 1997

26 years Survey Operations

45 years

Collective experience

Licences

*DOSM (MONRE) Licensed
(Vietnam)*

Technologically

Advanced

Degree Qualified

Survey Engineers

International

Management

Multi-lingual

*English
Vietnamese
French*

Experience

*Infrastructure
Construction
Land Development
Heavy Industry
Mining
Oil and Gas
Exploration
Hospitality
Energy
Golf*

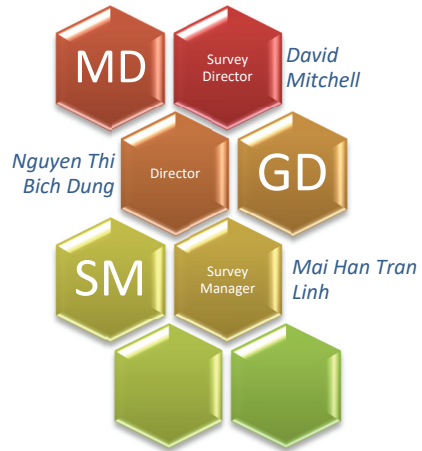
Partnerships

*HeliMap (Switzerland)
GSS (HK)*

KEY PERSONNEL

International Management

The overall management of GCI's day to day operations is overseen by its Founder and Managing Director, David Mitchell.



GCI's Vietnamese corporate entity, Geographic Technology Solutions, is governed by the General Director, Nguyen Thi Bich Dung.

David Mitchell
B.Surv, PgDip, NZIS

David graduated with a Bachelor of Surveying degree from the University of Otago (New Zealand) in 1992. He has completed a Post-graduate Diploma in Real Estate and Construction from the University of Reading's College of Estate Management.

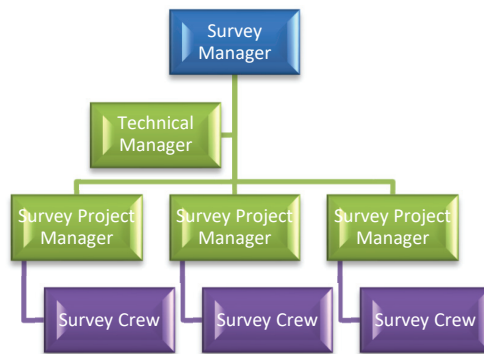
David has over 30 years hands-on survey and mapping experience and has completed assignments in Bangladesh, Cambodia, Hong Kong, India, Indonesia, Laos, Myanmar, New Zealand, Thailand and Vietnam. He has lived in Vietnam since 1995 and has been based in Ho Chi Minh City since 1997.

Nguyen Thi Bich Dung

Bich Dung is a dual French-Vietnamese national and is the General Director of Geographic Technology Solutions. She is a shareholder and Director of GCI NZ and GCI Hong Kong.



Mai Tran Han Linh
B.Eng.Surv



Linh is Survey Manager, responsible for the overall management of field survey operations.

He graduated from Bach Khoa University of Technology in 2007, joined GCI after graduation and is a Registered Surveyor.

Steve Fox
B.Eng.Tech (Highways)

Steve is a Senior Civil Design engineer (NZCE Civil Engineering, 1986, Bachelor of Engineering Technology Highways, 2010), with over 25 years hands-on engineering design experience in countries as diverse as New Zealand, Sri Lanka, France, New Caledonia, Algeria and Vietnam. Steve has lead design teams on highway projects and first worked with GCI in 2001 on the Saigon East West Highway, leading the highway design team.

GEOMATIC CONSULTING INTERNATIONAL

KEY PARTNERS

AIRBORNE LIDAR

Helimap System SA is a Swiss company providing services in LiDAR and Digital photogrammetry data acquisition and processing, using exclusively helicopters.

HeliMap operates in the fields of:

- ✚ Corridor mapping
- ✚ Oblique mapping for complex and inaccessible terrains
- ✚ High accuracy and resolution mapping (2-10cm)
- ✚ Small surfaces mapping
- ✚ Thermal imagery

The original setup of the system provides unequalled flexibility in terms of deployment and a unique capability to map vertically or obliquely the terrain from the air. Helimaps small team deploys quickly and provides affordable high quality LiDAR mapping for small and medium areas.

Helimap System SA works in partnership with several Swiss and foreign companies, and operates globally.

GCI has an exclusive Partnership Agreement for airborne LiDAR scanning and high resolution digital photography with Helimap in Bangladesh, Cambodia, Hong Kong, India, Indonesia, Laos, Myanmar, Nepal, New Zealand, Thailand and Vietnam.



Airborne LiDAR

Corridor Mapping

Oblique Mapping

Thermal Imagery

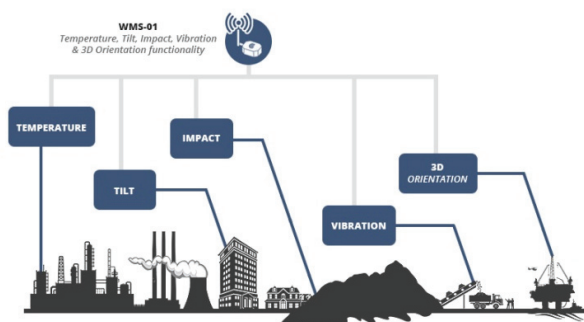
High Resolution

Steep & Inaccessible Terrain

STRUCTURAL MONITORING

GSS is a Hong Kong based company developing, manufacturing and marketing Automated 3D wireless mesh remote sensing and condition monitoring technology.

The technology includes miniature 3D sensors (tilt and vibration) that are an important part of automated instrumentation solutions where measured, monitored and reported data is converted into useful information.



GSS solutions are designed for safety and stability of buildings, bridges, dams, embankments, excavations, mines, reservoirs, railways, roads, slopes, tunnels and pipelines.



Solutions are easily installed, remotely configured and managed, self-powered, energy efficient, and provide sensor data in a more accurate and timely manner than outdated wired and wireless hub technologies.

GCI represents GSS in the Indochina region

POLICY: QUALITY

Consultant of Choice

Geomatic Consulting International is committed to be the consultant of choice for the provision of geodetic, geomatic and engineering survey services. The Company recognises the importance of Quality Assurance and is committed to operating its business responsibly and in compliance with all legal requirements.

Accurate & Reliable

The Company aims to provide excellence, accuracy and reliability in survey and engineering data, plans, drawings and reports provided to its clients, on time and within budget.

Client Focused

It is the Company's objective to maintain a practical Quality Management System in order to fulfill its aim of client satisfaction and continuous improvement through the implementation of the following:

Continuous Improvement

- Develop & continually improve the effectiveness of the QMS,
- Enhancing the Client's satisfaction, determining & fulfilling the client's needs & expectations,

Statutory and Regulatory Compliance

- Communicate the importance of the client's needs, relevant statutory and regulatory requirements throughout the Company,

Quality Objectives

- Adhere to the Quality Policy and its objectives,
- Regularly review quality objectives & internal audits to measure the effectiveness of the QMS,

Appropriate Resources

- Ensure the availability of appropriate resources,
- Ensuring the Company complies with all relevant statutory and regulatory requirements,

Continual Review

- Monitor the Company's quality performance and implement improvements when appropriate,

Monitor, Review & Improve

- Review the Quality Policy regularly to ensure its continuing suitability.



This statement is communicated to all employees, suppliers and sub-contractors and is made available to the public.



GCI follows Best Practice guidelines and policies set out by:

- The New Zealand Institute of Surveyors
- The Australian Institute of Geoscientists
- The Royal Institute of Chartered Surveyors
- The Survey Association (UK)
- The American Land Titling Association
- Vietnamese Standards

GEOMATIC CONSULTING INTERNATIONAL

POLICY: HEALTH & SAFETY

SAFETY IS SERIOUS.

Safety must be and is our top priority; for our staff, clients, partners, sub-contractors and the general public.

All our field staff has extensive experience on projects of high safety standards and are well versed in the best health, safety and environmental (HSE) practises. GCI has a solid record of safety in its 26 years of operations on project sites, with no fatalities or serious accidents during that period.

PERSONAL PROTECTION EQUIPMENT

All field staff are issued with Personal Protection Equipment (PPE), following our set of Site HSE Codes:

Green <i>Greenfield Sites</i>	Orange (Green +) <i>Sites Under Construction</i>	Red (Orange +) <i>Oil & Gas, heavy Industrial Sites</i>	Aqua (On Water) <i>Hydrographic/ Bathymetric Survey</i>
Safety boots Hi-Vis vest/shirt Gaiters	Safety helmet Safety glasses	Gloves, Coveralls Ear plugs, Dust mask	Life jackets Buoys
+ Working At Height (>2m) Safety Harness		+ Wet Weather Raincoat/leggings	

Traffic cones, signs, lights and warning sirens may also be deployed as further safety precautions when surveying on roads and railways.

Our field staff are uniformed and assigned uniquely numbered field shirts for easy identification, motivating the wearer to comply with site safety regulations.

A full list of personnel is maintained online and is made accessible to client's HSE and site staff so that in the event of a safety incident blood type and other medical related information on the staff member is readily accessible.

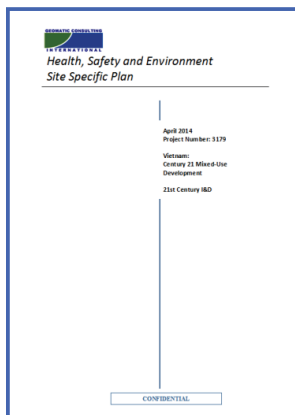
PERMIT TO WORK

GCI operates a Permit to Work (PTW) system on all projects. The PTW includes the completion of a Job Risk Analysis (JRA), prepared and submitted to clients prior to mobilisation.

PTW's are task specific and are OPENED and CLOSED at the end of each task or day's work.

The following HSE documents may also be prepared as required by the project:

- Health and Safety Management Plan,
- Environmental Management Plan,
- Waste Management plan.



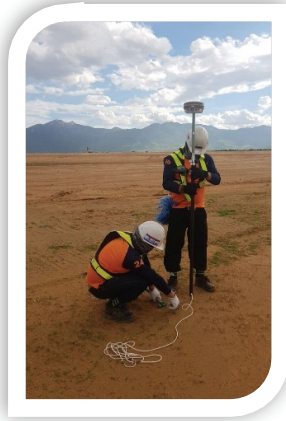
OUR CAPABILITIES

We pride ourselves on our wide range of both consulting and technical services in geomatics and geophysics, backed by education, training and practical experience.

Consulting

- Survey project management
- Due diligence surveys for land and building acquisition
- Advisory services on survey systems, specification & methodologies
- Client representation
- Advice & specifications for equipment procurement
- Advise on building line restrictions, setbacks, easements and mean sea level
- Terms of Reference design
- Supervision of third party survey operations
- Validation of third party data, reports and drawings
- Data integrity and validation services
- QC/QA audit surveys
- Provision of staff for assignments under direct client supervision

Land Survey



- Site survey and investigations
- Topographic mapping for engineering design
- Radar surveys for sub-surface analysis
- Earthwork & volume calculations
- UAV (drone) mapping
- Boundary, lease and ROW surveys
- GNSS reference networks
- Digital surface, elevation & terrain modelling (DSM/DEM/DTM)
- Route & corridor mapping
- Stockpiles and overburden surveys
- Exploration grids
- Erosion/accretion surveys

Engineering Survey

- Civil & mechanical engineering surveys
- Control network design and establishment
- Precise levelling & alignment
- Setting out of structures, embedded elements & machinery
- As-built surveys & drawings
- Dimensional surveys
- Settlement monitoring
- Inclinator monitoring
- Tilt & vibration monitoring

Building Surveying



- Construction surveying
- Building condition & dilapidation surveys
- 3D laser scanning & modelling
- 3D photometric scanning & modelling
- Floor plans, elevations and sections
- Dimensional surveying
- As-built surveys
- Nett leasable area plans
- Setting out

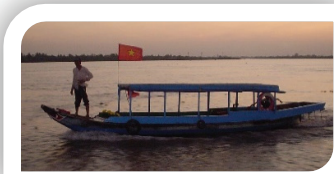
GEOMATIC CONSULTING INTERNATIONAL

OUR CAPABILITIES

- Airborne photography and mapping
- LiDAR surveying from airborne platforms
- Satellite mapping, high resolution (0.3m)
- Ground based topographic mapping
- Utility & service mapping
- Underground services mapping with GPR
- Point-of-interest (POI) mapping for PNDs
- Geographic Information Systems (GIS) mapping
- Land use and resource mapping



Mapping



- Hydrographic & bathymetric surveys
- River, lake & seabed mapping
- Sediment build-up surveys
- Site investigation for pipeline & cable landfall
- Tide & flow metering
- Current velocity surveys
- Underwater & diving inspection surveys

Marine Surveying

- Road and highway route alignment, corridor and interchange design
- Scheme plan, concept plan and subdivision design drawings
- Access roads, haul roads, intersections and over/under passes
- Platform, bund, pad, hardstand and parking design
- Stormwater drainage and pond design
- Serial map & plan production
- As-built drawings, profiles and sections
- Data conversion, digitisation, transformation and vectorisation

Design



- High resolution (30cm) satellite and UAV (30mm) imagery
- Aerial photography and LiDAR
- Surveying for remote sensing
- Feature & attribute data collection for asset management
- Ground control point surveys for satellite imagery & aerial photography
- Pre- and post marking for photogrammetry
- Geographic Information services
- Image processing & rectification

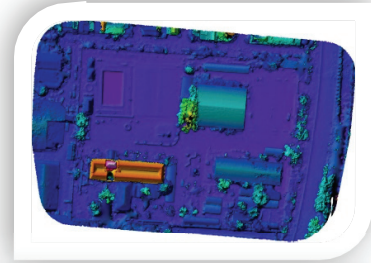
Geospatial Services

OUR PRODUCT

Data

Data can be supplied in many different processed formats, from point clouds, xyz coordinate files, contour models, triangulation files, surface models, elevation models and so forth.

Processed data is always supplied to our clients but in certain cases raw data can also be delivered for the client to carry out their own data processing. We can provide data in industry standard formats such as .las, .dxf, and .tin that can be input into most engineering software packages.



Imagery & Video

High resolution imagery, either from satellite (0.3m to 0.5m GSD) or from our own UAVs (2cm to 10cm GSD) can be supplied in raw or processed formats. Imagery can be supplied by individual shot or combined into an orthophoto (mosaic). High resolution video (4K) can also be supplied from our UAVs.



Maps/Plans

Models

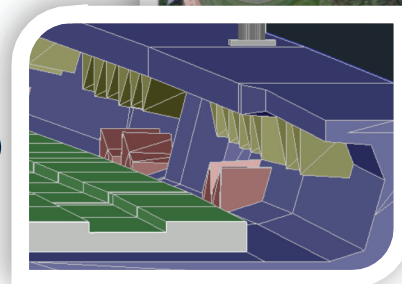
Satellite imagery can be delivered in panchromatic (black & white), natural colour, infrared, near infrared, 4-band or 8-band formats, depending on the SV and it's sensors.

The maps and plans delivered to our clients will depend on scope and client specifications, and may include:

- Survey Control Plan
- Boundary Plan
- Topographic Plan
- Utility and Services Plan
- Cut/fill Drawings
- As-built Plans
- Volumetric Plans
- Plan/Profile drawings
- Floor Plans
- 3D models (GENIO/DGN/DWG,++)
- Section Drawings
- Setting Out Plans

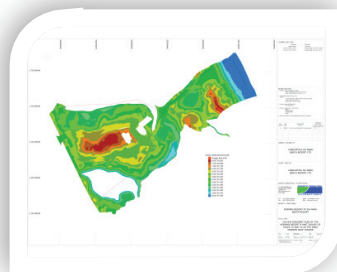
Drawings

Profiles



Sections

Reports



GCI back up drawing and data sets with full survey reports for all our survey and design work. Reports include scope and methodology, data processing and results, design assumptions and parameters, standard references, data sheets (control, boundary, features, etc), site and feature photos, conclusions and recommendations.

GEOMATIC CONSULTING INTERNATIONAL

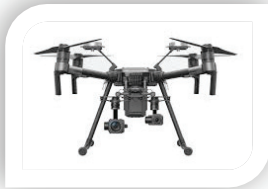
OUR TECHNOLOGY

GCI's primary field equipment is GNSS, either in static mode for control point coordinate transfer, or in Real-Time-Kinematic mode for topographic and feature mapping. RTK is quick, reliable and provides output data directly in the project coordinate system

Our RTK systems include SL600's and SL900's from SatLab.



Global Navigation & Surveying Systems (GNSS)



Fast becoming our go-to equipment for site surveys and topographic mapping, our UAVs (drones) are an essential part of our field deployment.

GCI uses DJI UAVs (Phantom 4 Pro V2, Mavic Pro) because of their proven quality, ease of operation and reliability.

Unmanned Aerial Vehicles (UAV)

Our UAV systems can quickly obtain high-resolution (20mm GSD) aerial imagery, which are processed into very dense (100's of points/m²) and accurate point clouds, digital terrain models and contour data.

For bathymetric surveying of rivers, lakes and seabeds, we utilise the SD100 digital echo-sounder from SatLab. This unit is portable, lightweight, accurate and can easily be deployed onto almost any type of vessel.



Digital Bathymetry



For engineering as-built, architectural and construction surveys we use a state-of-the-art Trimble x7 laser scanner. The scanner collects dense point cloud as well as RGB images of the target objects.

For building condition (dilapidation) and architectural surveys, GCI employs the Matterport 3D camera. This amazing device allows 3D data capture to be obtained quickly and efficiently, providing high definition models in 3D for renovation, refit and remodelling design.

Laser and 3D Camera Scanning



Included in our range of structural and environmental monitoring services, GCI can supply short-or long term structural monitoring as well as tilt, vibration, noise and dust monitoring.

We use various instruments from GSS (wireless), Instanetel and TSI to provide full and accurate data.



Geotechnical Instruments & Sensors

For engineering surveying on infrastructure and construction sites, GCI uses electronic total stations from Leica.

Total Stations



OUR CLIENTS

COFIVA
Grande Entreprise de France

TOPOSAT

FREYSSINET

TRIPLE PLATE JUNCTION PLC

YARA

NOKIA

TOTAL

GEO SYS
Growing agriculture

mace

MTHøjgaard

VINCI CONSTRUCTION

GRANDS PROJETS

menARD

Hyder Consulting

bp

ACDL
ASIAN COAST DEVELOPMENT LTD.

BIFFINGER

SIEMENS

OHL

P&G

sh p

CDM Smith

LANGAN

VSL

ALSTOM

Holcim

ASTALDI

- Agricultural Scientists
- Architects and Design Firms
- Builders
- Civil Works Contractors
- Engineering Consultants
- Golf Course Contractors
- Logistics firms
- Manufacturers & Industrial Zones
- Mining & Exploration Companies
- Oil and Gas Corporations
- Project & Construction Managers
- Power Generators
- Real Estate and Property Developers
- Steel Fabricators
- Structural Engineers
- UXO Search & Clearance

GEOMATIC CONSULTING INTERNATIONAL

OUR CLIENTS

The image displays a world map with blue lines connecting various client logos to their geographical locations. The logos are arranged in several groups around the map:

- Top Left:** links shape GOLF, J | S | M, MILLENNIUM GROUP.
- Top Center:** KUKDONG, POSCO ENGINEERING.
- Top Right:** SUMITOMO MITSUI CONSTRUCTION CO., LTD., TAISEI, Yachiyo, KUMAGAI GUMI, KEI.
- Left Side:** The Clearwater Bay Golf & Country Club HONG KONG, DP WORLD, COVA, Vattanac PROPERTIES, ae ADVANCING ENGINEERING CONSULTANTS, GCM, Coilcraft, VSIP.
- Right Side:** citygarden, THE DALAT AT 1200, designhub, INDOCHINA CAPITAL, REFICO, OUT-2 DESIGN, NuiPho Mining, HO TRAM PROJECT COMPANY LTD., IC INDOCHINE ENGINEERING, VinaCapital, HOABINH, SANCTUARY VILLAS, SAPPHIRE, NORFOLK GROUP, VCC VINA GOLF CONSTRUCTION, DEUTSCHES HAUS HO CHI MINH CITY, NOVARE DESIGN.
- Bottom Row:** AIRCRAFT SUPPORT INDUSTRIES, AECOM, aurecon, BAULDERSTONE HORNIBROOK, GHD, J STEEL Australasia, MacDow, Maunsell, M Mitsuru.

INDUSTRY SECTORS

Transport Infrastructure

Highways, bridges, and tunnels
Light rail, mass rapid transit, monorail
Airport terminals, runways, approach paths
Ports, harbours & inland waterways

Energy

Thermal power plants
Hydroelectric power stations
Renewable & alternative energy
Transmission networks

Sanitation

Water supply facilities & distribution
Wastewater collection networks
Water treatment stations
Disposals & outfalls

Communications

Submarine cable networks
Cell network planning and design
Land network, landfall design & construction

Land Administration

Land management
Land use planning & development
Cadastral & legal system of land tenure
Forestry management

Mining

Mineral exploration & exploitation
Infrastructure and processing facilities
Extraction and carriage audits
Quarries and excavations
Access and haul roads

Resource Management

Irrigation planning
Water resource planning
Forestry & biodiversity management
Coastal & marine resources

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INDUSTRY SECTORS

Habitat retention
Sustainable development
Disposal of hazardous materials
Heritage conservation
Impact assessment

Environment

Market research
Retail location planning
Inventory & stock monitoring
Distribution network planning

*Marketing,
Distribution
& Retail*

Subdivisions and residential communities
Commercial & retail complexes
Office buildings
Mixed-use & integrated complexes

*Real Estate
& Property*

Hydrocarbon exploration
Gas pipelines & gathering systems
Offshore platforms & production facilities
Gas processing terminals and depots

Oil & Gas

Golf courses & sports facilities
Hotel & resort developments
Entertainment complexes & theme parks
Marinas, wharfs & jetties

*Hospitality
& Recreation*

Oil refineries
Petrochemical plants
Fertiliser plants
Plastics facilities

Petrochemical

Factories & mills
Production & processing plants
Export processing zones
Industrial parks

Manufacturing

LANDMARK PROJECTS

Lego Factory

HCMC Metro Line 1

Thu Thiem 2 Cable-Stayed Bridge

Hoiana Championship Golf Course

My Thuan Cable-Stayed Bridges (1 and 2)

Ham Thuan Hydro

Can Tho Cable-Stayed Bridge

Phu My Cable-Stayed Bridge

Nam Con Son Gas

Saigon East West Highway

Phu My 3 CCPP

Ca Mau I & II CCPP

Nuclear Power 2

Nokia Factory Hanoi

City Garden (I and II)

Ho Tram Strip Resort

The Bluffs Championship Golf Course

Thilawa SEZ (Myanmar)

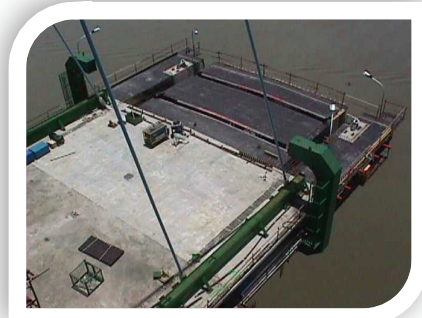
Rural Access Road Improvement Project (Laos)

Kampong Thom Reforestation (Cambodia)

Clearwater Bay Golf & Country Club (Hong Kong)



Ham Thuan Hydroelectric (1997 -2000)



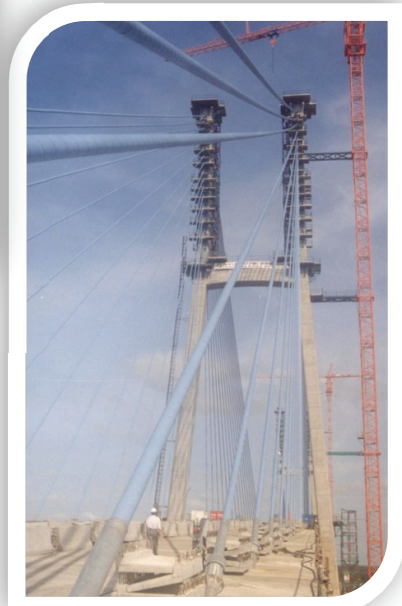
My Thuan Cable Stayed Bridge (1997 – 2000)



Nam Can Son Gas (2001 – 2002)



Ho Tram Strip Resort (2009 - 2022)



Phu My Cable Stayed Bridge (2007 – 2009)



Ca Mau I & II CCPP (2006 – 2007)



HCMC Metro Line 1 (2015 – 2022)

GEOMATIC CONSULTING INTERNATIONAL

PROJECTS INFRASTRUCTURE

Transport infrastructure projects are one of GCI's core business sectors. We have provided engineering survey services for well over 20 projects in this sector, from railway tunnels, cable-stayed bridges, highways and metro lines to expressways and airports.

Services we provide for infrastructure projects include:

- **Site Surveys** *Topographic & geotechnical surveys for planning and engineering design, landscape design & earthworks estimates*
- **LiDAR & Aerial Mapping** *Airborne mapping for engineering design using airborne LIDAR & aerial photo*
- **Building Condition Surveys** *Dilapidation surveys of neighbouring properties, before, during and post construction. Measurements & 3D photometric scanning.*
- **Client Representation** *On-site client representative surveying for the owner or project/construction manager*
- **Construction Surveying** *Full construction survey services, on-site crew*
- **Engineering Survey** *Setting out, pre-pour check, verification and as-built surveys*
- **Setting Out** *Ground marking of legal lot boundary, line of MSL, building line setbacks, RoW, building footprints, piles, foundations, site grids, embedded elements, etc*
- **Casting Yard Survey** *Survey tasks for geometry control of pre-cast units and segments*
- **Erection Surveying** *Engineering surveying ensuring segments are glued and span placed in accordance with design*
- **As-built survey** *Final as-built surveys of built elements, structures and embedded elements*
- **Structural Monitoring** *Settlement, position, tilt and verticality, baseline, during and post construction*
- **Verification Surveys** *Checking contractors setting out of piles, foundations, slabs and other "works"*



"I confirm that GCI has provided professional survey for multi-million US\$ transport infrastructure projects in Vietnam over many years. Their work was high quality and professional, ready to carry out any survey work at short notice."

SC Ling, Opus International Consultants

My Thuan 2

Cable-Stayed Bridge
Vinh Long

HCMC Metro Line 1

Urban Rail
Ho Chi Minh City

Thu Thiem 2 Bridge

Cable-Stayed Bridge
Ho Chi Minh City

National Airports

11 Cities, Thailand

Ben Luc - Long Thanh

Expressway
Southern Vietnam

Cuu Long (Can Tho)

Cable-Stayed Bridge
Can Tho City

My Thuan 1

Cable-Stayed Bridge
Vinh Long

My Thuan

Upstream Bank
Vinh Long

Ninh Binh - Bai Vot

Expressway
Northern Vietnam

Noi Bai - Lao Cai

Expressway
Northwest Vietnam

Phu My

Cable-Stayed Bridge
Ho Chi Minh City

Rao II

Cable-stayed Bridge
Vinh Long

Saigon East West

Highway
Ho Chi Minh City

Southern Line

Railway Cambodia

PROJECTS REAL ESTATE

Nexus

Mixed Development
Ho Chi Minh City

Ba Son Development

Mixed Development
Ho Chi Minh City

The River Thu Thiem

Apartments
Ho Chi Minh City

Hoi An South

Urban Development
Hoi An

Ho Tram Strip

Hotel and Resort
Ba Ria – Vung Tau

Sanctuary

Residences & Villas
Ho Tram

City Garden

Apartments
Ho Chi Minh City

Coastar

Residential Resort
Ba Ria – Vung Tau

Dalat at 1200

Golf Resort - Dalat

Greg Norman

Estates - Da Nang

Ha Long Star

Residential Resort
Ha Long Bay

Holm

Residences
Ho Chi Minh City

Star Bay

Mixed-Use Development
Phu Quoc

Vinh Thai

Urban Development
Nha Trang

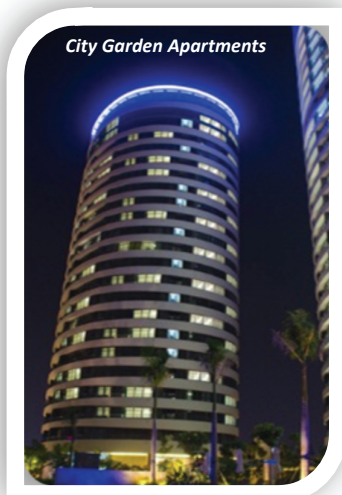
Arata

Urban Development
Phnom Penh

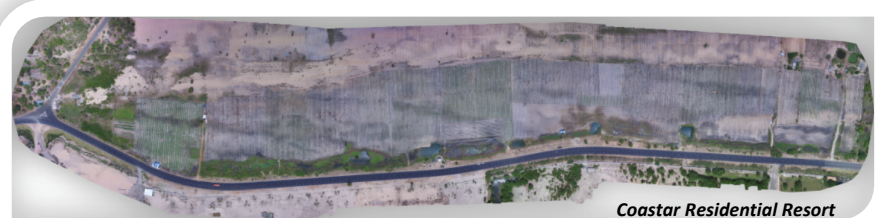
Real estate projects have been one of GCI's core business areas for over 15 years. Our services cover the full scope of the construction cycle from site investigation and due diligence to as-built surveys and post-construction monitoring.

Our services for real estate and property projects include:

- Due Diligence *Verifying lot dimensions and areas, legal status, land use and ownership*
- Site Investigation Surveys *Topographic & geotechnical surveys for planning and engineering design, infrastructure engineering design, landscape design, earthworks estimates*
- Building Condition Surveys *Dilapidation surveys of neighbouring properties, before, during and post construction. Measurements & 3D photometric scanning.*
- Setting Out *Ground marking of legal lot boundary, MSL, building line setbacks, building footprints, piles, formwork, etc*
- Verification Surveys *Checking contractors setting out of works*
- Construction Surveying *Client representative surveying for the owner or project/construction manager*
- As-built survey *As-built surveys of built elements, buildings, utilities & services*
- Structural Monitoring *Settlement, position, tilt and verticality, baseline, during and post construction*
- Lease Plans *Nett leasable area, BOMA plans and certificates, legal title plans*
- BIM *Conversion from as-built drawings to REVIT BMS format*



City Garden Apartments



Coastar Residential Resort



Sanctuary Ho Tram Residential Resort

"I would recommend GCI for any future projects for ourselves and those who require professionals."

Ray Lobb, Director, VGC

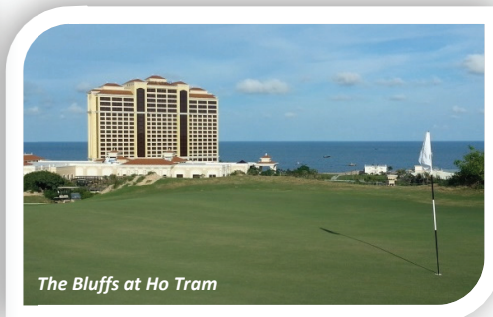
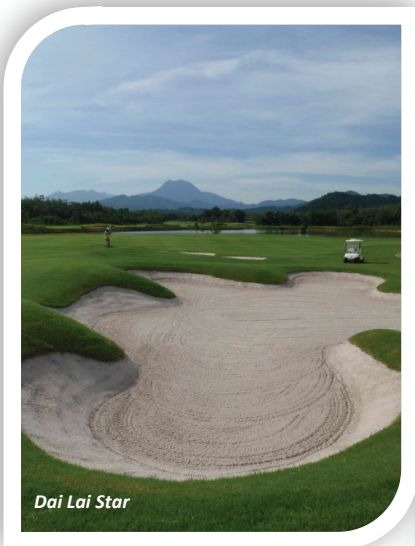
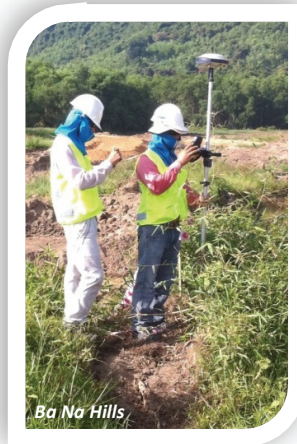
GEOMATIC CONSULTING INTERNATIONAL

PROJECTS GOLF

GCI has completed a number of survey contracts on golf courses in Vietnam and Hong Kong. Our services have ranged from surveys for course renovations, to full construction surveys and final As-builts plans.

Some of the services we provide during golf course construction include:

- Site Survey *Topographic survey for golf course design, infrastructure engineering design, landscape design, earthworks estimates*
- Horticultural Survey *Tree selection, retention and replanting,*
- Setting Out *Boundaries, clearing, golf features (tees, turning points, greens, bunkers) irrigation, drainage*
- Pre-construction survey *Topographic survey of an area to be worked prior to earthworks*
- Post-construction survey *Topographic survey of an area to be worked after earthworks, volumetric plans & quantities*
- In-situ verification *Check surveys of golf infrastructure*
- As-built survey *Final as-built plans of golf features, irrigation, drainage, facilities, cart paths, amenities*
- Yardage plans *Yardage values for plaques & sprinkler markers*
- Golf GIS/MIS *Production of a golf Geographic Information System for on-going operations & maintenance*



Hoiana Shores

Golf Course
Hoi An

Clearwater Bay

Golf & Country Club
Hong Kong

Ba Na Hills

Golf Course
Da Nang

The Bluffs

Ho Tram Golf Club
Ba Ria –Vung Tau

Dai Lai Star

Golf Course
Yen Phuc

Dalat at 1200

Golf Resort
Dalat

Els Performance

Golf Academy
Hanoi

Laguna Banyan Tree

Golf Course
Thua Thien- Hue

Lotus Cam Ranh

Golf Course
Cam Ranh

Saigon

Golf & Country Club
Ho Chi Minh City

Discovery Bay

Golf & Country Club
Hong Kong

“Running golf construction projects we need accurate survey data. GCI support all our survey and as-built requirements on a professional level. I would personally recommend GCI for any future projects.”

Stuart Stone. Director. Linksshare

PROJECTS ENERGY

BIM2

PV (Solar) Power
Ninh Thuan

Burl Rapids

Wind Power
Finland

Lynx River

Wind Power
Finland

Ninh Thuan

Solar Power
Ninh Thuan

Ca Mau I & II

Thermal Power
Ca Mau

Ham Thuan

Hydroelectric Power
Lam Dong

Nam Con Son

Gas Terminal
Ba Ria – Vung Tau

Nghi Son

Refinery
Thanh Hoa

Ninh Thuan NP2

Nuclear Power 2
Ninh Thuan

Phu My 3 & 4

Thermal Power
Ba Ria – Vung Tau

Nam Thuen 2

Hydroelectric Power
Laos

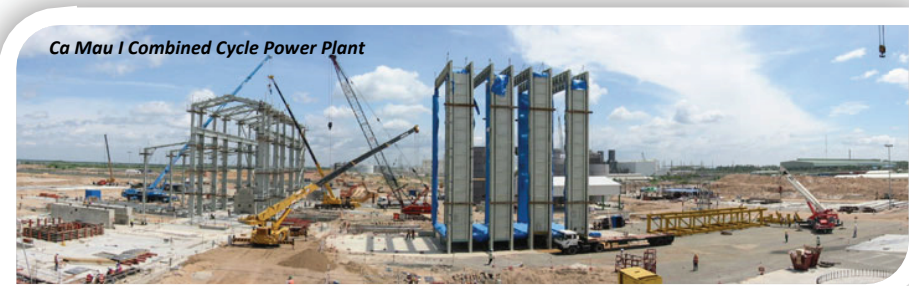
Yadana

Gas Pipeline (onshore)
Myanmar

GCI has completed a number of survey contracts on projects in the energy and oil and gas sectors in Vietnam and Cambodia. Our services have ranged from site surveys for plant design to full construction surveys for main contractors, to as-built surveys and surveys for plant renovation.

Services we provide the energy, oil and gas sector include:

- **Due Diligence** *Verifying lot dimensions and areas, legal status, land use and ownership*
- **Site Surveys** *Topographic & geotechnical surveys for planning and engineering design, landscape design & earthworks estimates*
- **LiDAR & Aerial Mapping** *Airborne mapping for engineering design using airborne LIDAR & aerial photo*
- **Client Representation** *On-site client representative surveying for the owner or project/construction manager*
- **Land Use Maps** *Mapping of existing land use & land cover*
- **Engineering Survey** *Setting out, pre-pour check, verification and as-built surveys*
- **Construction Surveying** *Full construction survey services, on-site crew*
- **Verification Surveys** *Checking contractors setting out of piles, foundations, slabs and other works*
- **Setting Out** *Setting out of piles, foundations, site grids, embedded elements, etc*
- **As-built survey** *Final as-built surveys of built elements, buildings, utilities & services*
- **Structural Monitoring** *Settlement, position, tilt and verticality, baseline, during and post construction*



GCI was employed to provide the survey for a US\$100 million cable stayed bridge in Vietnam. Exact survey is vital, and very difficult. GCI provided this service brilliantly.

Matthew Duly, Commercial Manager, Baulderstone

GEOMATIC CONSULTING INTERNATIONAL

PROJECTS CIVIL DESIGN

GCI staff have been involved the design of civil infrastructure projects ranging from multi-lane highways and interchanges to small drainage and access road works. We have designed at all stages of the design cycle, from preliminary feasibility and option selection to detailed design and temporary works during construction.

Designs are completed using 3D design software such as Bentley MX (OpenRoads) and Autodesk Civil 3D. Drawings are completed using AutoCAD. All designs are done in accordance with the relevant guidelines and with a pragmatic approach to providing the best solution.

Some of the civil infrastructure design services we provide include:

- Highway Geometry



3D design of horizontal and vertical alignments, applying cross sections to the alignments and super elevation to the cross sections.

Designing junctions, interchange ramps, roundabouts, parking and access and pedestrian and cycleways.

- Earthworks Design

Design of pavement layers, embankments, platforms, bunds, dredging and stockpiles.

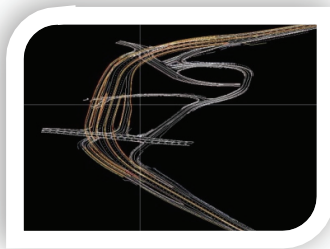


- Drainage Design

Calculation of runoff and network capacity.

Design of piped networks, swales, drains, canals and culverts.

- Drawing Production and Quantity Estimation



Detailed 3D model for the extraction of base drawings for final drawing production & annotation, as well as the extraction of

volumes for quantity estimates.

- Verification

In addition to the internal verification of all of our work, GCI is able to provide expert evaluation and verification of road and highway projects.

Rural Access Roads

Improvement Project
Laos

Saigon East West Highway*

Ho Chi Minh City

Southern Transport Development Project

Highway*
Sri Lanka

F6 Highway Extension

Highway*
Australia

WestConnex Stages 1b & 3 M4 East & M4-M5 Link

Highway*
Australia

Ramp Up, Goro Nickel

Mine civil works*
New Caledonia

Tauranga Eastern Link

Highway*
New Zealand

East-West Highway

Highway*
Algeria

Post-Tsunami Reconstruction

Road*
Samoa

Project Aqua

Hydro-electric power*
New Zealand

* Indicates projects completed by Steve Fox prior to GCI

PROJECTS RESOURCES

Bong Mieu

Gold Mine
Quang Nam

Dak To

Forest Management
Vietnam

Phu Sam Cap

Mineral Concession
Lai Chau

Nui Phao

Tungsten Mine
Thai Nguyen

Truong Son

Forest Management
Vietnam

Uong Thuong

Coal Mine
Quang Ninh

Water Supply

Pipeline
Ho Chi Minh City

Forest Preservation

Pilot Project
Cambodia

Groundwater

Study
Cambodia

Sustainable Forestry

Plantation
Cambodia

Xepon

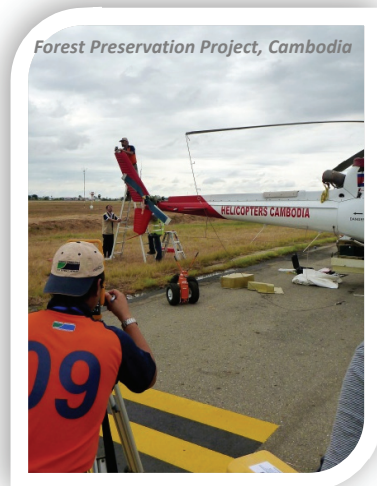
Gold & Copper Mine
Laos

The resources sector has engaged GCI on a variety of projects from exploration and mining to reforestation and resource management in Vietnam and Cambodia.

Our services have ranged from provision of high resolution satellite imagery to airborne LiDAR and UAV mapping services and stockpile volume quantities.

Services we provide to the resource projects include:

- Imagery and Mapping *Mapping from high resolution satellite imagery for preliminary design studies*
- Site Survey *Topographic surveying and mapping, digital terrain modelling,*
- UAV Mapping *Site surveying using UAVs and aerial photography*
- Ground Control Survey *GPS surveying of GCPs for image orthorectification*
- Carbon Mapping *LiDAR mapping for forestation preservation and carbon estimates*
- Geological Surveys* *Mineral exploration, discovery & assessment*
- Geophysical Surveys* *MASW and seismic surveys for resource identification and assessment*



* Services provided by GCI Partners

GEOMATIC CONSULTING INTERNATIONAL

PROJECTS INDUSTRIAL

GCI has completed a number of survey contracts for blue-chip clients in the industrial sector in Vietnam and Cambodia. Our services have ranged from site surveys for plant design, full construction surveys for main contractors, monitoring of heavy lifts to as-built surveys and surveys for plant renovation.

- Site Survey *Topographic, land use, site feature and sub-surface geotechnical surveys*
- Ground Control Survey *Design, installation and coordination of survey control networks for construction*
- Setting Out *Ground marking of legal lot boundary, MSL, building line setbacks, building footprints, piles, formwork, etc*
- Verification Surveys *Checking of: survey control, site boundaries, contractors setting out of works, etc*
- Construction Surveying *Client representative surveying for the owner or project/construction management team*
- As-built survey *Final as-built surveys of infrastructure, utilities and buildings*
- Structural Monitoring *Settlement, position, tilt and verticality, baseline, during and post construction*



David and his team have always displayed a professional client focused attitude which combined with his easy going, can-do work ethic makes him a pleasure to do business with. I would recommend his company without hesitation.

David Watkins, REFICO

Lego Factory

Manufacturing Plant
Binh Duong

Coilcraft

Factory Site
Phu Yen

Holcim

Clinker Plant
Ba Ria – Vung Tau

Nokia

Hanoi Facility
Bac Ninh

P&G

Liquid Plant
Binh Duong

Vietnam Sheet Glass

Screen Plant
Ba Ria – Vung Tau

Water Transmission

Pipeline
Ho Chi Minh City

Water Treatment

Treatment Station
Phnom Penh/Siem Reap

Waste Water

Network Rehabilitation
Ho Chi Minh City

Yara

Warehouse
Ba Ria – Vung Tau

Nagaworld

Aircraft Hangar
Phnom Penh

Apparel

Garment Factory
Phnom Penh

GEOMATIC CONSULTING

INTERNATIONAL



New Zealand



Vietnam



Hong Kong