

"SECON has done a great job and are capable of producing the same in any challenging job assigned"
Badger Energy Inc., USA

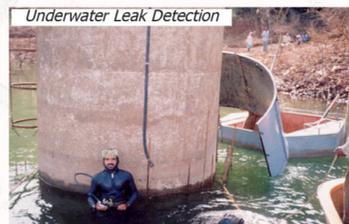
"Our main regret is that we didn't know of your existence at the time of starting work, that would have certainly solved many problems for us."
Spie-Capag

SECON
(CMMI Level 3, ISO 9001:2015, NABL Accredited)



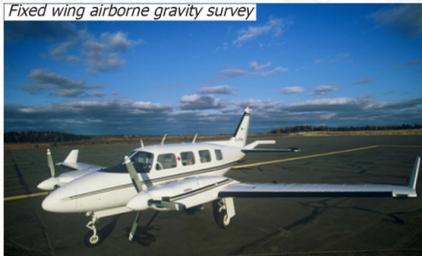
Underwater Leak Detection and Turnkey Solutions for Dams and Structures

- Diving services, videography and study of underwater structures
- Leak detection and evaluation
- Design of protective structures on turnkey for arresting leakage in underwater Dams, Shafts, Tunnels and Bulkheads



Underwater Leak Detection

Fixed wing airborne gravity survey



Airborne and Ground Geophysical Surveys

- Aeromagnetic, Gravimetric, TDEM and Associated Airborne Geophysical Survey for Hydrocarbon, Mineral and Ground Water Exploration
- Gamma-ray spectrometry
- Electrical Resistivity Profiling
- Seismic Refraction and Seismic Reflection Tests

Route Planning, 3D Corridor Mapping and Generation of GIS Database

- Centre line and detailed route survey
- Soil stratification, soil resistivity and corrosion survey
- Hydrological and geotech investigation for major river crossings
- ROU/ROW acquisition, way leave license and clearance
- Generation of GIS/ MIS database
- Detail engineering for raw water sourcing, storage and make up circulation.
- EIA and EMP studies



Geotech Investigation in major river crossings



CAD Center

GIS/CADD Data Processing

- Water and Sanitation
- Oil & Gas, Environment and Natural Resources
- Electric, Telecom and Utilities
- Watershed and Floodplains
- Parcel and Land Use Mapping
- City Gas, Townships and Industrial Layouts

Geodetic, Topographic, Engineering, Cadastral Hydrological Surveys

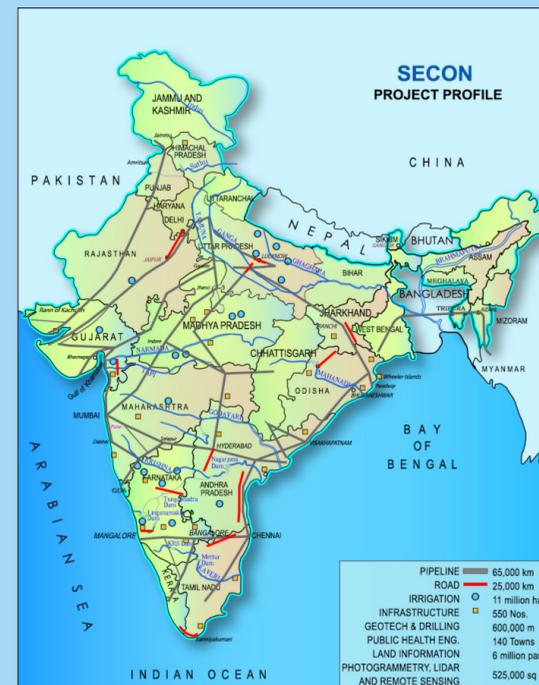
- Control survey, monumentation for planimetric and height control
- Rapid updation using satellite imagery and aerial photographs
- 3D contouring, terrain modelling and deformation study
- Property line survey, validation for large infrastructure projects
- Alignment surveys for utilities and transportation networks
- Sub bottom profiling and related investigations
- Route optimisation for navigation channels
- Ocean engineering, harmonic analysis for tides, current and wave studies



Topographic Survey

SECON's Core Strength

- Over 3 decades of experience (established 1981)
- Financially sound and zero debt company
- ISO 9001:2015, NABL and CMMI Level 3 Accredited
- Large database, in-house customized Software
- Major share of Pipeline, Irrigation and Road Projects in India
- Engineering and GIS Expertise to design and manage critical infrastructure and assets.
- Experienced professionals and global business partners
- Highly motivated and mobile crew exposed to different terrain conditions
- High precision tools for Survey and Geotechnical Investigation
- Comprehensive in-house Testing Laboratory
- Onshore - Offshore Service Model



High Resolution Satellite Imagery

The scope of services provided by SECON encompasses

- In-house capability for generation of GIS compatible Macro and Micro Level Base Maps in a Digital Environment by Traditional Modern Method, Aerial, Remote Sensing, Airborne and Ground LIDAR
- Investigation services for Geotechnical, Airborne Gravity Survey
- Detail Engineering, Bid Documents and Project Report
- Construction Supervision, Contract Management, Inspection Services
- Multitask and Multidiscipline approach in GIS compatible environment

SECON is the only firm that offers **Total Solution from a Single Window** for Data Capture, Planning, Design, Construction Supervision, GIS Solutions in-house

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GIS Driven Multidiscipline Engineering Consultancy

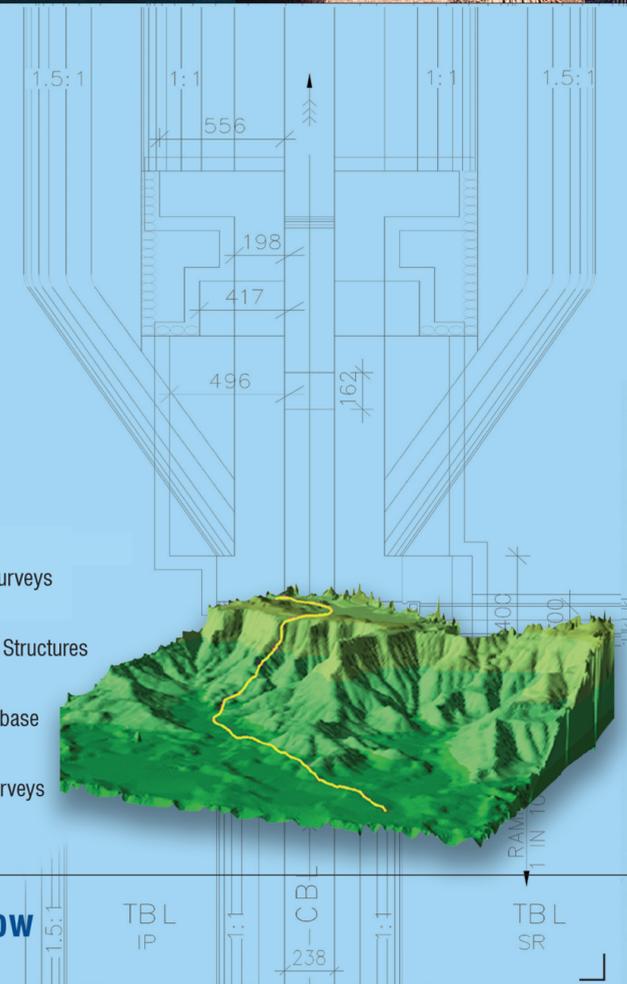


Design Consultancy and Engineering Services

- Highway Engineering & Construction Supervision
- Public Health Engineering, Water Supply, Treatment and Drainage
- Irrigation, Flood Control & Water Management
- Cross Country Pipeline Transportation, City Gas Network
- Establishment of Property Ownership Records and GIS Based Land Information Systems
- Environment Impact & Management Plan
- Town Planning, Electrical, Telecom & Utilities
- Right of Way Acquisition & Permitting and Clearance
- GIS driven Software for Asset and Land Information

Investigation and Services

- Photogrammetry, LiDAR & Remote Sensing
- Geotech Engineering, Deep Boring, Seismic and Geophysical Surveys
- Underground Utility Detection (GPR), Non Destructive Testing
- Underwater Leak Detection and Turnkey Solution for Dams and Structures
- Airborne and Ground Geophysical Surveys
- Route Planning, 3D Corridor Mapping & Generation of GIS Database
- GIS/CADD Data Processing
- Geodetic, Topographic, Engineering, Cadastral, Hydrological Surveys



Total Solution from a Single Window

SECON is driven by customer satisfaction,
on-time service and continuous improvement in products and services.

“SECON has completed the multidiscipline assignment in a meticulous and professional manner to our satisfaction.”
Defence Research & Development Organization, INDIA

“The first consultant to execute the job in a professional way. We have no hesitation in recommending SECON to others.”
Dept. of Irrigation, Govt. of Andhra Pradesh

SECON, established in 1981, is a CMMI LEVEL 3, ISO 9001 : 2015 and NABL Accredited Firm with over 700 personnel. The HQ in Bangalore, India, has an aesthetically designed 105,000 sft company owned office. Regional Offices at Mumbai, New Delhi, Vadodara, Bhopal, Lucknow and Tripoli, Libya, augment SECON's range and reach. SECON is the only company that offers in-house multitask / skill solutions for Design Engineering, Related Investigations including Software Development, Testing and R&D Services. SECON also render services on Onshore - Offshore Model.



Design Consultancy and Engineering Services

Highway Engineering and Construction Supervision

SECON provides Turnkey solutions in the field of Highways using Modern Technology, Remote Sensing, extensive Computer Application for Survey, Planning, Design, Construction Supervision of 4/8 lane Highways, Expressways, Urban, Hill Roads, Other Road Networks, Structures, Bridges, Flyovers and Land Acquisition.

Expressways and Major Road Length exceed 25,000 Km

Krishnagiri - Ranipet (NH 46)



Construction Supervision

- Project Supervision and Contract Management
- Technical Control, Project Monitoring and Inspection Services
- Quality Control and Certification
- Independent Engineering, Claims, Reviews and Arbitration

Public Health Engineering, Water Supply, Treatment and Drainage

>100 Towns in Libya and 80 Projects & 2000 km in India

- Feasibility Study, Survey, Geotech Investigation
- Hydraulic / Hydrological Investigations, Raw Water Sourcing
- Pipeline Alignment, Land Information and Land Acquisition

Design Engineering and Detailed Project Report (DPR)

- Pipeline Hydraulics, Intake, Water Treatment, Storage and Distribution, Electro Mechanical Components,
- Sewage Collection, Wastewater Treatment and Recycling
- Storm Water Drainage and Disposal
- Construction Phase Services

Survey and Investigation

- Feasibility Study of Road Corridor and Optimisation of Alignment
- Geotech, Material, Pavement and Sub Grade Investigations
- Hydraulic, Hydrological Investigations and Condition Survey
- Traffic and Social Surveys including Analysis
- Environmental Impact Study, Management and Clearance
- Turnkey Land Acquisition and Computerization of Land Records

Design Engineering and Detailed Project Report (DPR)

- Compliance to Standards, Code of Practices and QAP
- Road Geometrics, Intersections, Alignment Plan, Sections
- Road Furniture and Safety Features, Rigid and Flexible Pavement
- Design of Structures, Grade Separators, Drainage
- Bill of Quantities, Project Costs, Economic and Financial Analysis

Web Enabled Enterprise GIS, Highway Asset, Maintenance

- Generate Dynamic Database and Project Monitoring
- End to end Land Acquisition Process and Tracking
- Advanced Web Application, Automatic generation and Retrieval of Data

Raw Water Sourcing



Irrigation, Flood Control and Water Management

Over 50,000 sq.km of Survey, Investigation using Modern Technology 30,000 sq. km of Design of Irrigation and Water Management projects

- Macro, Micro Level Survey, Geotech and Geological Investigations
- Catchment Area, Reservoir, Dam and Canal Networks,
- Hydrology, capacity survey and Sedimentation analysis for Reservoirs
- Land Acquisition and Rehabilitation Plan for submerged area
- Hydraulic Model Study, Flood Control

Planning

- Comprehensive Planning for Command Area
- Barrages, Diversion Weirs, Overflow, appur tenants structures
- Extension, Restoration, Modernisation, Re-structuring, Rehabilitation
- River Basin Planning, Water Table Yield and Aquifer Studies
- Water Management and On Farm Development works

Design Engineering and Detailed Project Reports

- Design, Hydraulic Structures, Cross Drainage Works, Regulators, Escapes, Outlets
- Dam instrumentation, Canal Sections, Lining, Cutoff Statement, Ear thwork
- Flood control and Cyclone protection works
- Underwater Leak Detection and Turnkey Solutions for Dams and Structures
- Project Management and Construction Supervision



Cross Country Pipeline Transportation, City Gas Network

> 65,000 km of Pipeline corridor projects

Pre Construction

- Route Optimization and Identification of Pipeline Corridor
- Geological, Geo-physical, Foundation and Stratification Study for direction drilling
- Generation of Alignment Sheets, Sections, Route / Land Plans and Crossings
- Socio-economic, Environmental Impact Study and Management
- Right of Use (ROU) acquisition, Permitting and way leave license

During and Post Construction

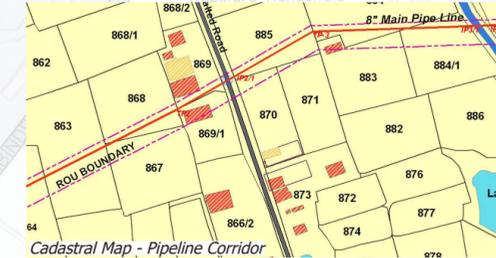
- As-Built Data Capture, GIS based Pipeline Asset and Corridor Management
- Assistance for Pipeline Construction, Land related issues
- Non Destructive Testing (NDT)

Environment Impact and Management Plan

- Extensive data collection and analysis
- Pollution monitoring, spill prevention and waste disposal
- Identification and evaluation of environmental impact
- Risk analysis and disaster management
- Develop vegetation, wildlife and habitat protection schemes
- Comprehensive EIA and EMP Report for Forest and Environmental Clearance

Town Planning, Electrical, Telecom and Utilities

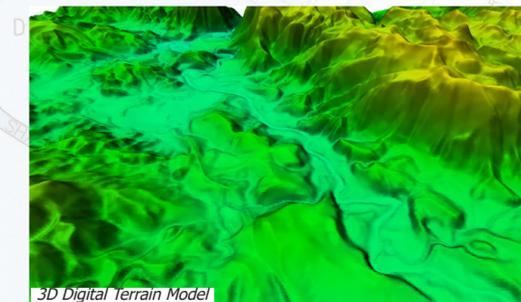
- Engineering survey and investigation
- Land use analysis, conceptual and layout plan
- Design of approach and internal road network
- Water Supply, Storm Water and underground drainage (UGD) system
- Design of Utility, Power Supply and Distribution Network



GIS driven Software for Asset and Land Information

- Field Data Collection and GIS Database generation
- System Study, Design of Multilingual Interface and Geo-database
- Needs Assessment, Gap Analysis and Architecture Design
- Web enabled Software for Asset and Maintenance Management
- City Gas, In-house Software Products for Land, Asset, Alignment Sheet, ROU/ ROW, Irrigation System etc.

Investigation and Services



Geotech Engineering, Deep Boring, Seismic and Geophysical Surveys

Over 6,00,000m of Geotechnical Investigation and Drilling

- Vertical, horizontal, inclined drilling with Hydraulic and Rotary Rigs
- Plate load, Static, Dynamic and Piezo Cone Penetration, Block Vibration, Pressure Meter, Cross Hole Seismic Test
- Physical, Engineering and chemical parameters of Soil, Rock and Water
- Aggressivity, Corrosion Survey and Non Destructive Tests of buried utilities
- Slope Stability Analysis and Mitigation
- Material Testing and Pavement Design

Underground Utility Detection (GPR), Non Destructive Testing (NDT)

Ground Penetrating Radar (GPR) is one of the latest available Geophysical techniques used for exploring the sub-surface to determine & validate the presence of underground utilities subject to soil conditions

- Detection and Interpretation of Buried Utilities, Water, Sewerage, Electrical and Optical Cables also be used for soil stratification including delineation of rock profile upto shallow depth
- Pipe Locator for buried Pipeline and carrying out NDT

Right of Use Acquisition and Permitting

- Assistance in site selection and evaluation
- Property & cadastral survey and validation
- Data management system for property inventory
- Assistance for ROU Acquisition, Permitting and Way Leave License
- Valuation of land, crop and fertility loss, for compensation



Photogrammetry, LiDAR and Remote Sensing

Clientele include National and Multinationals

- Precision Control Network and Pre / Post Pointing
- Aerial Triangulation and 2D / 3D Stereo Compilation
- Orthophoto Rectification, Mosaicing and Digital Terrain Model
- Feature Collection and Base Map Preparation
- Satellite Image Processing, Land Use Plan
- LiDAR Data Classification, Aerial and Mobile LiDAR Survey
- Aerial Photography, Hyperspectral and LiDAR Acquisition

Soil Investigation, Libya



Ground Penetrating Radar (GPR)

