

# "ENDLES SURVEY SOLUTIONS"





#### SEMA "Your partner in surveying"

# \*About Us

# SEMA Surveyors is privately-owned

**Engineering and Land Surveying Firm** in the city of Hargeisa - Somaliland. Since our establishment, we have been committed to delivering top-notch service to fit the needs of our clients. SEMA Surveyors provides a complete surveying solution for construction industries, roads and civil infrastructure, monitoring services, cadastral and land development, commercial properties, service locating and mapping, utility survey, geodetic and control survey, as built survey, GIS services and more.

# - OUR SERVICES -



- Engineering Surveying
- Land Surveying
- Monitoring Surveys
- Aerial Mapping
- **GIS Solutions**



## \* Our Values

We have a strong desire to produce the highest quality deliverables to help our clients achieve success. Our business has been built on consistency of service, commitment to our clients, our people, and our growing desire for excellence in our profession.



Our Vision

Our vision at SEMA Surveyors is to be a regional leader in providing surveying and geospatial solutions that exceed our clients' expectations.

# **Our Mission**

Our mission is to provide "Endless Survey Solutions" and create client partnership through our people, technology, and innovation.



## \* Our Engineering surveying modules :-



#### Infrastructure surveying

Rail and Road infrastructure surveys can be provided as part of a larger Topographical Survey or surveyed specifically for highway or rail improvement. SEMA Surveyors provide a range of survey services used in conjunction with the planning, designing and construction phases of roads, bridges, tunnels, and other public infrastructure projects.



#### **Construction surveys**

Generally, the objective of these surveys is to acquire enough and definite survey data to provide accurate and real-time data to confirm that the construction project and associated ancillary works are constructed within design tolerances and according to the project budget. SEMA Surveyors provides surveying services for small to large size construction projects including residential developments, warehouses, and commercial buildings



#### Volumetric & Earthwork Surveys

A volumetric survey is merely an application of topographical surveys to accurately quantify the volume of specific material removed or hauled at a location together with budget and time considerations:

• Conventional Ground Surveys using either GPS or Total Station Survey Equipment.

• Remote Sensing Surveys using either Satellite Imagery (repetitive), Digital Aerial photography & LiDAR surveys, UAV, drones

#### **Pipeline surveys**

Pipelines Surveys SEMA Surveyors team is qualified to carry out pipeline surveys to strengthen the absolute position and alignment of the pipeline. Using a mixture of conventional and modern survey techniques, our experienced surveyors can successfully help install pipelines from excavation through installation, to final burial and reporting. Our experienced surveyors can control a variety of pipe-lay guidance



#### As-Built surveys

As-built Surveys comprise the collection of sufficient and accurate information of an existing structure in order to represent the structure in a digital 2D or 3D CAD environment. An as-built survey is normally performed to compare the position and dimension of a constructed feature compared to its designed dimensions and position. Asbuilt surveys form a vital part of the quality control in any construction project.



#### Minning Surveys

Mine Surveying comprises all survey measurements and mapping which serve to establish and formally record geospatial information in all stages – from the initial exploration to the actual mining and the eventual closure and rehabilitation – of mineral deposits by both surface and/or underground working. This information is critical in the design, planning, statutory compliance, and safety of all mining operations.



## \* Our Land surveying modules :-

#### Topographic & contour mapping

SEMA Surveyors provide topographic mapping services that supports engineers and consultants in designing roads, infrastructure and building projects. The topographic survey services help in route planning, thematic data preparation, and decisionmaking for telecom and transport services and disaster management. Our services include creating comprehensive topographic maps and 3D maps to the specified projection parameters, including generating contours. Our survey records all features visible above the ground including the position of the street furniture, road lines, buildings, services, contours, embankments, vegetation etc. We are using latest surveying equipment for our projects including RTK GNSS systems, Drones, Total Stations, levels, etc.



#### **Under-ground Utiliy Mapping**

Utility Surveys are the accurate mapping of the utility services below ground level. Imprecise data or information on underground utility services (electrical, water, sewage, fiber, etc.) directly affects delays, conflicts, and interruptions in services, all of which have stern contractual implications. Moreover, the inaccurate geospatial definition of these underground services can lead to serious injuries and fatalities. Utilizing GPR (Ground Penetrating Radar) and EML (Electro-Magnetic Locating) techniques, the survey will establish exactly what services are present in the surveyed area in both horizontal and vertical position. Information is presented in (AutoCAD .dwg/.dxf in 2D or 3D).

#### **Planning & Land division**

SEMA Surveyors can carry out planning and subdivision designs in all matters of parcel divisions in accordance with local governments and development by-laws. SEMA Surveyors can also handle preliminary presentations, reports, and applications in dealing with cities and municipalities. Our team also offers consultations on public and private lands/common good use and designing alternatives for a smart cities.



#### **Geodetic and control surveys**

SEMA Surveyors understands the importance of solid and repeatable control that meet project requirements. We establish geodetic and control networks which consist of different orders of accuracy, tying together by extremely accurate observations. The control stations can be adjusted to millimeter accuracy, which allows for precise stations to be in place throughout the construction activities. The control network can be produced using conventional methods such us Total Stations, traverse methods, Least Square calculations, triangulations and trilateration or satellite surveying by processing GPS observations in either kinematic or static mode .



# **3\* Monitoring surveying**



A monitoring survey should be carried out when a structure may be experiencing movement. SEMA Surveyors will work with you to design custom monitoring survey solutions that is fit for purpose and most appropriate for your project. We provide detailed analysis of the dynamics and movement to the highest level of confidence. We do this by achieving millimeter accuracy structural deformation monitoring and sub-millimeter accuracy vertical deformation monitoring. Monitoring surveys will give you peace of mind, indicating early warning signs of movement and prompt for immediate remedial work.

#### Our monitoring survey services covers:

- Building settlement monitoring
- Structural settlement survey
- Bridges, Dams, Tunnels, and Retaining walls settlement survey
- Crack monitoring
- Ground settlement monitoring
- Settlement and movement during construction
- Deformation monitoring
- Road settlement monitoring

# 4\* - Aerial Mapping

#### -Photogrammetry & Drone Mapping



The use of drones involves technology which is well established at present and continually developing. SEMA Surveyors lay the foundation to support reliable planning, design, and construction work across a wide range of industries. Our advanced geospatial technology solutions deliver survey and mapping data and insights, even in the most complex urban environments or in challenging terrain. The result is a clean, accurate 3D digital dataset optimized for 3D modeling within client workflows. Our ability to scale national resources, presence, and dedicated project management ensure that quality deliverables are completed in a timely matter.

#### - Remote Sensing

Remote sensing is defined as "the acquisition of information about an object or phenomenon without making physical contact with the object and thus in contrast to on-site observation, especially the Earth". SEMA Surveyors, through strategic partnerships with Remote Sensing Service Providers, is delivering innovative geomatics solutions in Satellite Imagery, Digital Aerial Photography and Oblique Aerial Photography. Our experience and ability to combine and integrate remote sensing survey products with engineering and cadastral survey products enables us to deliver an unsurpassed geomatics solution to our clients, whilst discounting both time and cost on their projects.





# 5\* -GIS Solutions



SEMA Surveyors understands that an effective GIS begins with quality data. We bring the high standards of land surveying to our GIS collection efforts. This means we help our clients perform GIS data collection that is based on a solid foundation of good survey control, that obtains accurate attribute data, and that produces useful metadata. This commitment to highquality GIS data collection means your GIS can be used confidently by your organizations decision makers. We package GIS data in all ESRI Formats, i.e., Personal Geodatabase (PGDB), File Geodatabase (FGDB) and Shapefiles (SHP) and the conventional CAD formats. Through the project stages, SEMA Surveyors performs, GPS Data Collection, Maintenance & Data Support, and Mapping & Data Analysis.



There are a number of wide-ranging valued clients we served and serving currently, Our priority is to serve our clients honestly, on time, and on a planned budget.



# **#Projects**

# Our Latest projects



Location :berbera oil terminal Client :- Trafigura, Switzerland



Location :Baki,boorama ,s/land Client :- RDA(s/land ROAD AUTHORITY )



Location :Freedom road,hargeisa Client :- Hargeisa municipality



Location : road n.1, Hargeisa Client :- s/land presidential off.

## **Our partners**

Our partners also provide us unbeatable software solutions that enables us to deliver endless survey solutions to our valued clients, Besides our partners provide us unbeatable equipment that enables us to deliver endless survey solutions to our valued clients.





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# -Equipment & Technology



**Stonex S900A** is equipped with a high performance GNSS board 800 channels and Capable of supporting multiple satellite constellations: GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS, including L-Band correction. Through the 4G GSM modem a fast internet connection is guaranteed for the reception of correction data and the management maps.



Stonex UT10 Rugged Tablet (controller) Rugged by nature, the UT series by UniStrong thrives in harsh operating environments. The UT10 is built to handle heavy work load over an extended period of time. It is designed to be drop resistant at heights of 1.5m with an IP68 protection rating and certified to MIL-STD.

Unistrong G970II RTK GNSS Receiver is Equipped with a high performance GNSS board 400 channels and supporting multiple satellite constellations: GPS, GLONASS, BEIDOU, GALILEO, QZSS. RTK accuracy: Horizontal: ± 8mm + 1ppm, Vertical: ± 15mm + 1ppm Static accuracy: Horizontal: ± 2.5mm + 1ppm, Vertical: ± 5mm + 1ppm Channel.

Enterprise-Level Drone Mapping Solution Distortion Calibrated 1" CMOS Sensor , Icm+1ppm RTK Horizontal Accuracy TimeSync Alignment for Accurate Metadata , 1.5cm+1ppm RTK Vertical Accuracy Controller with Display and GS RTK App, Photogrammetry & Waypoint Flight Modes Up to 30 Minutes Flying Time



# -Equipment & Technology



GEOmax Zipp10r Pro With a 250 m non-prism range, coaxial visible laser beam, and sealed durable housing, the Zipp10 Pro can work in the most challenging environments. The Zipp10 Pro is the world's first total station in its class (EDM) options .

CHCNAV i80 GNSS Receiver The i80 GNSS is a highly versatile GNSS receiver designed to provide robust accuracy even in harsh environments to any demanding surveying project. Its full-GNSS 220-channel GNSS core engine starts outputting survey-grade centimeter RTK results to significantly increase your productivity.

**LEICA NA720** is a member of a new generation of construction levels. The instrument is ideally suited for all applications of a reliable and robust construction level.

Garmin GPSmap 64st comes with a built-in worldwide base map with shaded relief, preloaded TOPO 100K and a 1-year subscription of BirdsEye Satellite Imagery for a photo-realistic view. Adding more maps is easy with our array of detailed topographic, marine and road maps. With its quad helix antenna and high-sensitivity, GPS and GLONASS, receiver.





Meet our **professional team** that made possible for the motion of this entity







Ali Y Kahin er - Principel Surveyor Mohamud Osman

# **Our Team**



Ali Y Kahin Founder- Principal Surveyor



Amin Timosalax Field crew manager



Mahamud osman

Co-founder geometrics technician



Mengistu alamneh Cad-designer/Surveyor

# Thank You !

# **CONTACT US**



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