COMPANY **PROFILE**

About **us**

Our Expertise Allows Us to Work through the Day and Night

For many years Universal Foundations has been providing clients with innovative, progressive and successful solutions to a vast range of construction projects. We have acquired an ever growing list of satisfied clients who have experienced our straightforward and professional approach, based on partnership and teamwork. The building foundation is the most important part of your build structure, if this part is not done properly it could cause you severe problems in the future with your build. We take pride in our resume and diverse experience in both the public and private sectors, and our history of satisfied clients. Our success lies in our commitment to our customers and our efforts to maintain those strong relationships. Universal Foundations leads the way with technically advanced and practical ground engineering. Our extensive knowledge of soil behavior and unrivalled experience of challenging jobs minimizes risks. We succeed in locations often considered unworkable.

At Universal Foundations we work closely with all parties to deliverer the requirements of our customers. As an independent company, we can respond to your request quickly and effectively, anywhere in the kingdom. Even in emergencies or up against tight deadlines, we're calm, efficient and effective.

We understand the most important issue to all involved in any project is delivery within the defined time, cost and quality parameters. Our management systems have been developed with this in mind. The success of this policy is evident from the large proportion of our turnover which is repeat business with satisfied clients. We'll support you in every aspect of your project, and achieve a successful outcome. We are environmentally aware and comply with all the latest regulations, including noise and spoil restrictions. Our operating values is obvious, a total commitment to achieving quality in all aspects of our work, working collaboratively with our partners and to exceed our clients expectations. Boosted by the strong experience of our team, Universal Foundations is focused on delivering on the core values of quality, safety, experience, and value.

Universal Foundations recognizes that people are its most important asset and acknowledge that a well trained workforce is fundamental to the delivery of quality services. We are totally committed to ensuring we have an enabled, empowered and competent workforce to meet our business needs, we always aim to employ highly skilled and trained employees.

Universal Foundations maintains strong links and association with a wide range of construction accreditation organizations as a way of demonstrating and reinforcing our commitment to high standards in all of our company wide activities. The policies, procedures and practices for the company are accredited with ISO 9001 Quality Standard, ISO 14001 Environment Standard, OHSAS 18001 Health and Safety Standard and Safe-T-Cert a standard developed from the 18001 documentation but enhanced for the construction industry. Our name is our product....**UNIVERSAL FOUNDATIONS.**

Mission & **Vision**

As one of Bahrain's leading foundation specialists, Universal Foundations has the resources and experience you need for the performance you expect.

In the foundation industry, there's no such thing as an overnight success. It takes years of commitment, backed by a track record of quality and performance, for a company to earn a leadership position in this competitive market, Universal Foundations is such a company.

Consistently providing this level of service takes more than skill and experience. It also takes teamwork. At Universal Foundations, working together means everyone, from site personnel to project managers to the company president. But our belief in the value of teamwork extends far beyond an internal company focus. We also work closely with architects, engineers, construction managers, and contractors from project conception to conclusion, providing the preconstruction services and on-site management availability and expertise that will resolve concerns quickly and optimize scheduling.

No matter the task, we find a way to get the job done. Since our early beginnings, Universal Foundation has been at the forefront of new technologies and evolving building trends. As we expand both locally and nationally, we continue to push the boundaries of innovation, finding ways to work faster and smarter, and respond to our clients' challenges with ingenuity.

Our portfolio features projects of all sizes and levels of complexity, from intricate interior renovations to some of the most complex civil operations in the country; we can build it all and we do. Universal's breadth of capabilities ensures that we are able to meet our clients' needs every time, on every front.

Universal Foundation is a specialist civil engineering company operating throughout the Kingdom. We are able to provide a cost effective solution to our clients that is bespoke to their needs with in-house design capabilities if required, providing further cost savings.

Customer **Service**

At Universal Foundations, we value our clients and recognize that they deserve the best we have to offer. That means the right foundation system for the job, constructed safely, within budget, and delivered on time. And since Universal Foundations is a multidisciplinary company, we can combine several techniques within a single site to provide a complete foundation package.

We also offer both free estimates and site visits, and would have pleasure in discussing your requirements either on site, at your property or premises. You should simply require information on foundation methods at an early stage of the development, thus we would have the pleasure in providing a free of charge assistance to help you finding a solution to your particular scheme.

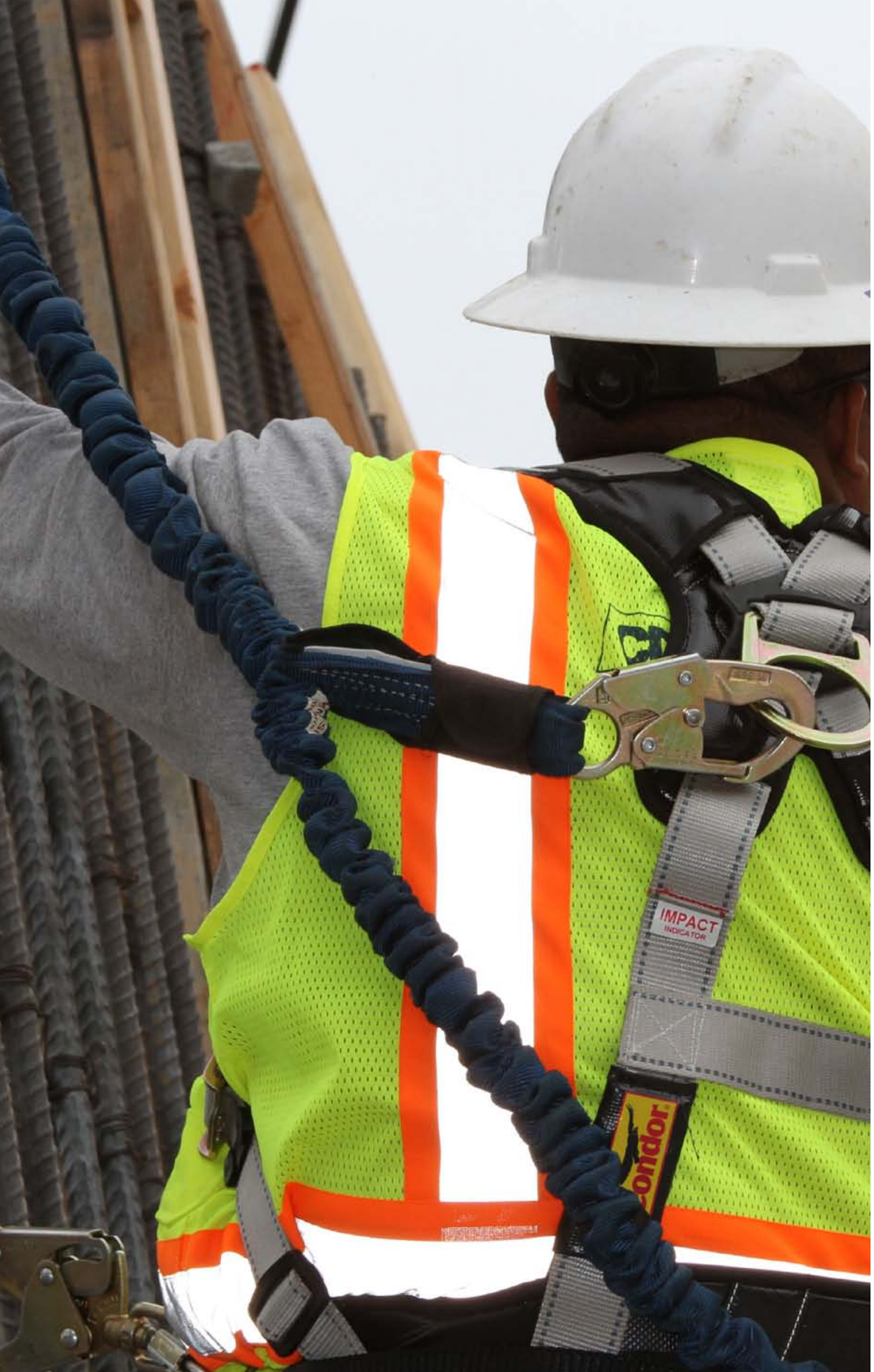
We are committed to ongoing improvement and development. Through this we are able to meet challenges head on and continue to push the boundaries. Whatever the project, our clients reap the rewards of our excellent design procedures, better geotechnical processes and unrivalled experience.

High Quality **Structural**

Universal Foundations is a foundation engineering company specializing in the design and construction of foundations for all types of buildings and structures in all kinds of ground conditions. Structural aspects of heavy foundation design are important and must be able to support all loads (weight, wind, etc.) of the above-surface structure. The load of the structure is transferred via the foundation through the weaker topsoil to the stronger subsoil below.

Universal Foundations offers specialized services to increase the stability of the built foundation. The company is utilizing the innovative process which combines the expertise of our field staff with the ingenuity of our engineers.

Universal Foundations provides a range of foundations and ground floor packages for both residential and commercial developments. All sizes of development can be catered for, from single dwellings to multi-plot residential or commercial sites.



Safety

Universal Foundation is committed to safety above all else. To us, no project is successful unless it is built safely. We believe that all accidents are preventable through proper planning, training, employee engagement, empowerment, and constant vigilance, we can ensure that everyone leaves the jobsite in the same condition that they arrived.

To promote safety for our colleagues and others impacted by our work, we have adopted a special safety framework. This is a system which links together different aspects of our safety management, including our safety goal, principles, and policy.

Our Safety Goal

The construction industry in which all our businesses operate poses significant safety challenges but we do not accept that people will inevitably be injured while working for us or with us. Our ultimate goal is to have zero injuries through the effective management of safety in all our operations.

Our Safety Principles

These Safety Principles define our safety culture, behaviors and performance standards and, in so doing, assist us in our progress towards eliminating injuries in our workplace. Underpinning this goal are three fundamental safety principles:

- **All incidents are preventable**
  We believe that all injuries and occupational illnesses are preventable. We are all responsible for preventing and correcting unsafe behavior or work conditions.

- **No repeat occurrences**
  Reportable accidents and high potential near misses are investigated to determine what happened and why. All necessary steps are taken to prevent recurrence.

- **Safety Standards**
  We have adopted a common set of safety standards throughout Universal Foundations. Management at all levels is responsible for implementing and maintaining the safety standards.

Our Safety Policy

Our managers and supervisors are responsible for the safety of our people and are expected to provide effective leadership in safety. Management of every business or operation is in charge for following the safety principles and implementing and maintaining the safety standards. We set appropriate objectives against which to monitor progress toward zero injuries. All employees are responsible for good safety behavior and it is only by working together and recognizing that we all have a part to play in safety that we will really make a difference.

Our **Services**

Shallow foundation

Shallow foundations are constructed relatively close to the ground level and can only be used where the soil at that level is capable of adequately supporting the load. Shallow foundations can be sub-divided into the following main types;

- **Strip foundations (footings)** – a linear foundation which generally supports walls.
- **Pad foundations** – a discrete square or rectangular foundation supporting columns or piers.
- **Raft foundations** – a large single foundation supporting a whole structure.

Deep foundations (excluding basement construction)

A deep foundation is used to transfer loads from a structure above ground through upper weak strata of soil to a more competent one at depth, beyond which shallow foundations become both impractical and uneconomic. There are many reasons a geotechnical engineer would recommend a deep foundation over a shallow foundation, but some of the common reasons are very large design loads, a poor soil at shallow depth, or site constraints (like property lines). There are different terms used to describe different types of deep foundations including the pile (which is analogous to a pole), the pier (which is analogous to a column), drilled shafts, and caissons. Piles are generally driven into the ground in situ; other deep foundations are typically put in place using excavation and drilling. The naming conventions may vary between engineering disciplines and firms.

Cantilever

The cantilever balanced foundation consists of a ground beam picking up loading from the superstructure and cantilevering out over a pad foundation with the pads designed, theoretically, to have uniform bearing stress. The need for a cantilever arrangement can be produced by restrictions from adjacent buildings or existing services.

Well Point System

Well point systems are used to lower groundwater levels to provide stable working conditions in excavations. Well point systems are particularly suited to dewatering for shallow foundations and trench works.

A well point system consists of a closely spaced series of small-diameter shallow wells. The well points are connected to a common header main and are pumped with a high-efficiency vacuum dewatering pump. For draw downs in excess of 6 m further stages of well points are required, installed at successively lower levels as excavation proceeds.

Rapid and cost-effective well point installation may be achieved in sandy soils by jetting using high-pressure water; drilling installation may be necessary in coarse or cohesive soils.

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Deep Well System

The deep well system is also a versatile pre drainage dewatering system which can pump high and low volumes of groundwater. This method is best suited to homogeneous aquifers that extend well below the bottom of the excavation. Deep well systems consist of one or more individual wells, each of which has its own submersible pump at the bottom of the well. Deep well systems are suitable for water-table or confined aquifers and will lower the water table 100 feet or more in a single lift without staging. The technique is particularly suited to deeper excavations or where artesian groundwater pressures threaten base stability. The system is reliable and the wide spacing of the wells reduces access restrictions to a minimum.

Demolition Works

Demolition is the dismantling of a building or structure, or part of a building or structure and includes refurbishment or destruction. Demolition is high-risk construction activity and therefore must be planned and controlled according to the regulatory requirements.

Backfilling Works

Backfilling foundation walls are somewhat of an art. If not done properly foundation walls can be knocked off their footings or cracked. In addition, prior to backfilling a foundation, preparatory work on and around the foundation is critical for ensuring a leak free basement.

Structural backfill is used to replace excavated earth around a newly constructed structure. Earth, soil or other materials can be used during this process to restore the strength of the structure's natural foundation. Structural backfill is an important component of building and wall construction as it restores the strength of the surrounding earth to ensure a sturdy structure. The process of structural backfill is fairly simple when done correctly and can be done by an individual for smaller projects around the home, or by a heavy industrial contractor for larger public and commercial projects.

Material Supply

Every builder knows how important it is to use the best materials and methods for foundations work. We are committed to providing you with the best building materials available. We approach every customer with a focus on honesty, quality and customer service. Quality products and dependable services are paramount to Universal Foundations and these are achieved with investment in modern, well maintained equipment and our own fleet of tipper, flat-beds, mixers, tankers... etc.

Excavation Works

Before any excavation work starts, you must plan the work carefully and give due consideration to the safety aspects, particularly any potential hazards such as services and cables beneath the ground.

The district surveyor will inspect the excavation and determine whether the base provides suitable load bearing capacity. Factors such as the proximity, height, and species of any trees will also be taken into account as well as the volume change potential of the soil. Trees can draw a lot of moisture from the surrounding ground and inadequate consideration of this may lead to subsidence of the new work.

Sheet Piling Works (Side Shoring)

Sheet piling is a form of driven piling using thin interlocking sheets of steel to obtain a continuous barrier in the ground. The main application of sheet piles is in retaining walls and cofferdams erected to enable permanent works to proceed. Normally, vibrating hammer, t-crane and crawler drilling are used to establish sheet piles. All sheet piling Works services are installed to meet or exceed current Bahrain's standards.

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Installation of the sheet piles can take place by vibration or press. The method of choice is to use a high frequency vibrating hammer conveyed through the drive head configuration of either an excavator mast or crane. If vibration to the adjacent buildings is a concern, then pressing sheets is the solution for you.

Universal Foundations has the ability to design, sign-and-seal and install a shoring system that meets all your excavation requirements. Universal Foundations has the equipment, engineering and construction expertise to complete the most challenging sheet piling projects anywhere in the kingdom. When you want to get out of the ground fast, you can trust your project with Universal Foundations.

Excavated Materials Removal

All removal work that might endanger for the new structure shall be completed before any work started in the new structure. Partial removals of any structure or adjustments to any utility shall be made with care to preserve the value of the structure. Work around any live service utility shall be done in such a manner that uninterrupted service is maintained. Excavated material that is unsuitable for backfill, and excess material not required for either, shall be disposed of.

Site Clearing Works

Preparation is a vital part of any job in the construction industry, because if site preparation is not correctly done it can jeopardize the building project. Site clearing operations must also be safe so that there is no chance of anybody being injured.

Before you can start construction of any building the site needs to be properly prepared. What gets done depends on the site itself and how the building has been designed. The ground may need to be leveled, rocks might have to be removed, trees might have to be cut down, and in some instances old buildings may have to be demolished.

Our **products**

Class 1 Fill

Class 1 fill is a crusher run type material normally used as a road base. It shall be good, hard well-graded material screened and crushed as necessary to lie within the given grading when tested. The fill material shall be non-plastic when tested and the content of clay and friable particles when determined, shall not exceed 1% for any individual sieve size fraction. The total sulphate content as SO3 of the material shall not exceed 1% and the total soluble salts shall not exceed 2%. When used as road base, CBR at 95% max. Dry density should be minimum 80%.

Class 2 Fill

Class 2 fill is normally employed as a road sub-base material and shall be good, hard well-graded material, screened and crushed as necessary to lie within the given grading when tested. The CBR of the material when tested at the density likely to exist in the field shall not be less than 30%. The liquid limit shall not be more than 25% and the plasticity index shall not exceed 6% when tested. The total soluble salts shall not exceed 2%.

Class 3 Fill (Desert Fine)

Class 3 fill is desert fill type material and shall be a selected, graded, hard granular material free from clay and deleterious substances. The total sulphate content as SO3 of the material shall not exceed 1% and the total soluble salts shall not exceed 2%. The grading of the fill shall lie within the given grading when tested. Where the percentage

passing the 0.075mm sieve is greater than 8%, the plasticity index shall not exceed 20%.

Class 4 (Dredged Marine Sand)

Class 4 fill is a dredged sand type material normally employed as common fill. The material shall be evenly graded and shall lie within the given grading when tested. The material shall be non-plastic when tested. The total sulphate content as SO3 of the material shall not exceed 1% and the total soluble salts shall not exceed 2%.

Class 5 Fill (Drinage Fill)

Class 5 fill is a single size-type material normally employed as a drainage blanket medium. The material shall be good hard rock screened and crushed to lie within the given grading and shall be free from deleterious material.

Class 6 (Crusher Dust/Fines)

Class 6 fill is a crusher dust type material. It shall be good, hard rock screened and crushed to lie within the given grading and free from natural sand, silt, clay and any other deleterious material. Class 6 fill shall also be non-plastic when tested and shall not be susceptible to breakdown under moist conditions.

The total sulphate content as SO3 of the material shall not exceed 1% and the total soluble salts shall not exceed 2%.

Class 7 (Hardcore)

Class 7 is a hardcore material. It shall be good stone, concrete, hard tiles or other approved material not exceeding 100mm gauge with not more than 1% passing a 20mm sieve. The fill shall not be susceptible to breakdown under moist conditions and shall not contain any deleterious materials. The total sulphate content as SO3 of the material shall not exceed 1% and the total soluble salts shall not exceed 2%.

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