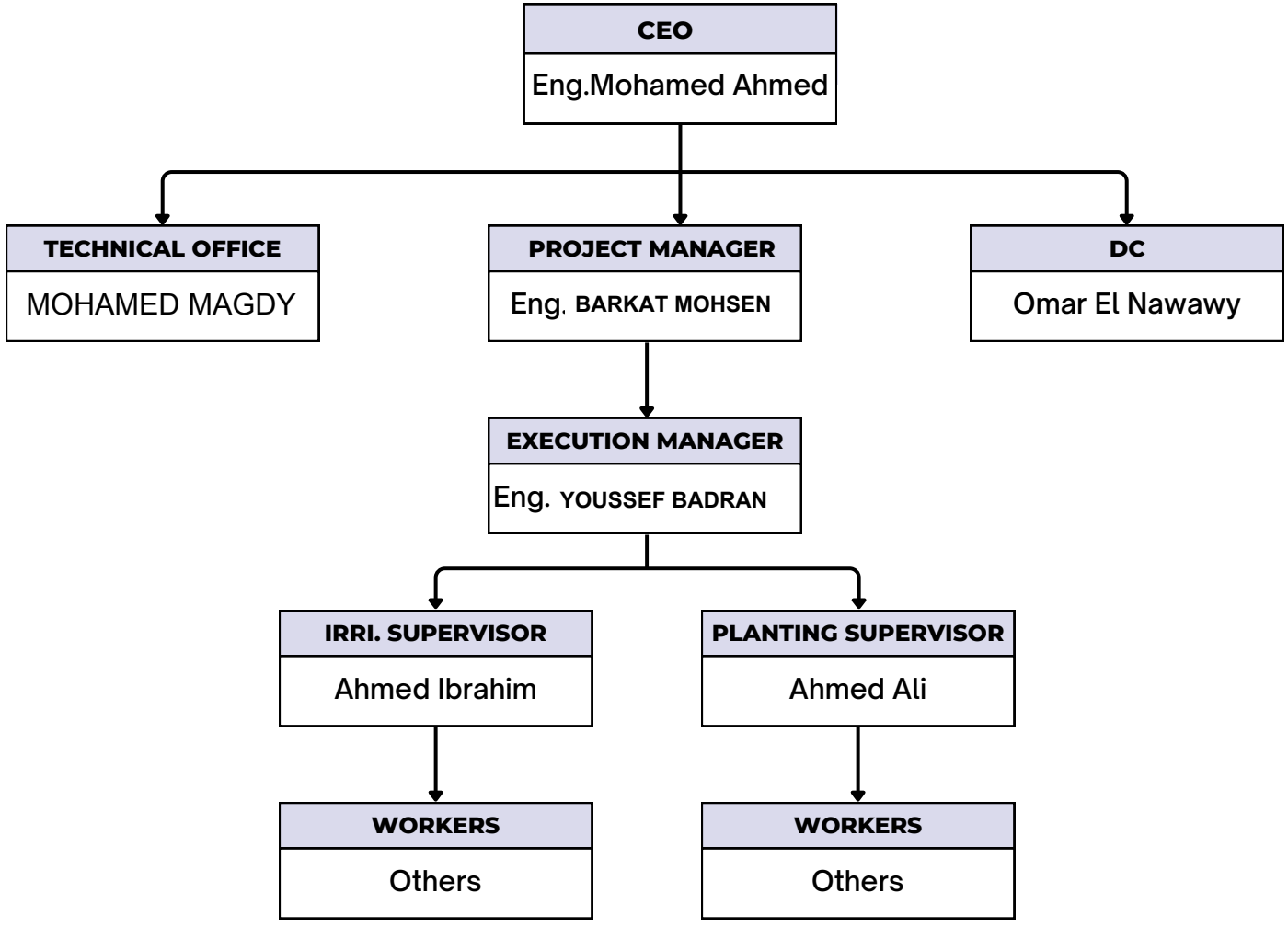
ORCHID LAND
ORGANIZATIONAL CHART



ORCHID LAND

LANDSCAPING

MOHAMED AHMED

GENERAL MANAGER

+201017119957

www.orchidland .com

Elshrouk city

orchid_land@yahoo.com

ORCHID LAND

LANDSCAPING

BARAKAT ABD ELMOHSEN

PROJECT MANAGER

+20 100 6956534

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Elshrouk city

orchid_land@yahoo.com

Irrigation & Landscape Professional

ENG BARKAT ABD ELMOHSEN

Mobile: 00201006956534

EMAIL:ORCHID_LAND@YAHOO.COM

Experience

Total experience **16** Years, (Irrigation & Landscape) Following every new in my field.

Career Objective

Motivated **Irrigation & Landscape** Manager /Assistant Manager/Team Leader bringing extensive knowledge with experience in landscape field especially in luxurious living communities (More than 6 years in Real State + 6 years as a Landscape consultancy + 4 years as Landscape contractor) with all related operations, besides managerial capacities through **Facility Management and customer satisfaction experience**.

I can demonstrate my technical and business skills and contribute to the company, designing all types of irrigation systems (manual, automatic, central control system & Integration with Scada/PMS) by mixed products.
(Hunter - Rain Bird - Toro - Nelson - Weather Matic).

High capacities through facility management and customer satisfaction experience from Emaar Egypt.

Summary of qualifications:

Fields	**Type of Engineering works**
• Golf courses (Irrigation & Subsoil drainage system) • Resorts & Compounds • Playgrounds (Football – Tennis) • Public Area (Gardens–Streets–parks) • Farms (Vegetables–Fruits-Nursery)	• Design • Shop drawing • As Built • Quantity Surveyor • Installing • Maintenance

Duties & Responsibilities:

- Establish and monitor agile performance KPIs for the project team with a target to enhance team performance – Facility Management.
- Coordinates with all departments to ensure high efficiency in work progress.
- Tendering department (Studying all projects and present Technical & Financial Offers For Irrigation systems & landscape works)**.**
- Design all types of Irrigation networks and extracting B.O.Q for the system. as a **technical office manager.**
- All Landscape irrigation & softscape technical office works (Design, Shop drawing, As Built, Quantity Surveyor)
- Team Leading., Attending client's meetings & Submissions time scheduling.
- Handle projects either in the design stage or implementation in the fields (Irrigation & Landscape) and ensure customer satisfaction with the products.
- Make technical and financial offers for Irrigation & Landscape system for Landscape projects upon the local market prices.
- Visit consultancy and generate good relation and try to get Landscape PKs from them.
- Responsible of maintaining the quality and improving the work system in the company.
- Supervise all landscape projects and managing the technical and labor team.
- Communicate effectively and assessment the customer requirements and future needs from the company products also co-operate with companies to find the best solutions for work's obstacles.
- Participate in developing knowledge of competitors' strategies and equipment's.

Achievements:

Designed projects (Irrigation System) More than one million square meter of landscape area.

- Irrigation designed for Madinaty project (B #73 - B#72 – Streets)
- Irrigation designed Hurghada Airport.
- Irrigation designed El-Mansora #1 (New Capital).
- Irrigation designed El-Mansora #2 (New Capital).
- Irrigation designed El-Mansora #7 (New Capital).
- Irrigation designed – R3 (New Capital).
- Irrigation designed – R6 (New Capital).
- Irrigation designed King Ibn Abdel Azizi Road (Saudi Arabia).
- Irrigation designed Imam Sauad Ibn Abdel Azizi Road (Saudi Arabia).
- Irrigation designed Al Eskan Road (Saudi Arabia).
- Irrigation designed Ghanamya Compound (Saudi Arabia)
- Irrigation designed Aweeda Landscape (Saudi Arabia)
- Irrigation designed Nile Street (Cornishe El Aguza)
- Irrigation designed for Dahshour Village Phase 2.
- Irrigation designed for Taba Heights Diving Center
- Irrigation designed for Al Guezira Compound - EL Shiekh Zaid city.
- Shark Bay. (SH. ELSHIEKH) it is Owner: Travco Co.
- Aqua Marina (phase 2). (HURGHADA) it is Owner:Travco Co.
- Coral Beach Phase (2). (HURGHADA) it is Owner: MAC Company.
- The Sacred Heart School Football Courts. (Heliopolis)
- Jaz Crestal (Almaza 3) (MARSA MATROH) it is Owner: Travco Co.
- Final As built of Aqua Marina (HURGHADA) it is Owner:Travco Co.
- Final As built of Royal City (Compound) EL Shiekh Zaid city.
- Private Villas.

- **Employment History**

☑	ORCHID LAND LANDSCAPING		2022 Till Now
1	EMAAR MISR • Participate in some of Landscape special projects of UTC. (Celesta Village – Fourteen Village - Sports arena – Admin Building - Golf Plaza – 1C & 2C roads ----- etc.) landscape renovation with a total budget exceeding 50 million EGP. • Maintain an excellent customer experience in living zones. (FM Department). • Managing all irrigation systems for all UTC Villages through one central control system	Egypt	17- 4 -2022 to 1-4-2025

2	SHIRA FOR TRADE & AGENCIES Hunter Agencies • Areas Technical support. • Helping some of consultants for receiving the irrigation system from the contractors with high efficiency (ECG-Dar El Handasa) • Provide the sales team with technical data which they needed.	Egypt	2-1-2018 to 15-4-2022
3	ARCHPLAN ARCHITECTS & PLANNERS Landscape Consultant • Team Leader of the Irrigation Sector	Egypt	1-5-2016 to 1-1-2018
4	• **LANDMASTERS** Landscape Contracting LANDMASTERS landscape contracting since 1978 • All technical office works. • Design all types of Irrigation networks. • Design & Stablishing irrigation network for Hurghada Airport	Egypt	1-5-2014 to 2016

5	• **Civil Home** **Trading & contracting** Civil Home Trading and Contracting • Stablishing & Technical office Engineer which responsible for all irrigation works for all the projects. **1 - HYDE PARK PROPERTIES FOR DEVELOPMENT** **Cluster 3** **New Cairo** HYDE PARK PROPERTIES FOR DEVELOPMENT **2 – Emaar Misr** **MARASSI** **Sidi Abdel Rahman Resort Village (D)**	Egypt	1-6-2012 to 1-6-2014
6	• **Rabya Landscaping** RABYA landscaping Senior Project Manager UTC Golf course • Present all document required from the consultant (Daily, Weekly & Monthly report) • QS Sheets for the invoices	Egypt	1-10-2011 to 1-6-2012

7	• **Rabya Landscaping** Technical office Engineer (Head office)	Egypt	15-10-2010 to 1-10-2011
8	• **Value Trade Company** Technical office Engineer Landscape Irrigation designer	Egypt	21-9-2029 to 14-10-2010
9	• **(ITC)** **International Company** **For Trade and agricultural development.** Technical office & Site Irrigation Engineer	Egypt	01-12-2008 to 20-04-2009

Courses &Training:

- From (15/6/2007 - 15/7/2007) Training in Helwan Company for Diesel Engines.
- A lot of Irrigation and landscaping Lectures (Rain bird – Hunter – Toro)
- Computer (I.C.D.L course)
- English (Lighthouse Institute - 12 levels English & job hunting)

Skills:

Computer Skills

Auto CAD 2024 - **Excellent**.
Rain CAD 2018 - **Very Good.**
Water Cad 2018 - **Very Good.**
Microsoft Office (Word, Excel, PowerPoint) **Excellent.**
Photoshop 9 cs2 **Good.**
Knowledge on the Internet and Outlook - **Very Good.**
Windows (WIN 7 ,10 & 11) **- Excellent.**

Languages:

Arabic (**functional native proficiency**).
English (**Very Good**).

Hobbies:

Reading – Walking – Car news – Chess – football

Personal Information:

Name **:** Mahmoud Nady Mohamed.
Nationality **:** Egyptian.
Gender **:** Male.
Date of birth : 23/12/1986.
Place of birth: Cairo - Egypt.

Education

: 1- Agricultural engineering, irrigation and Landscaping from Ain Shams University 2008.

2- An engineering student (Final 4th year) at Cairo University Mechanical Power Engineering department.

Military service: Exemption.
Status: Married**.**

References are furnished upon Request.
Thanks for concerning.

Hosseny Mahmoud Elhosseny

Landscape, Irrigation & Drainage Engineer
+20 1016513589 | hossamelhosseny63@gmail.com
El-Senbellawein, Mansoura, Dakahlia, Egypt

Professional Summary

Detail-oriented and passionate Landscape, Irrigation & Drainage Engineer with solid hands-on experience in construction, operation, and maintenance of irrigation and drainage networks. Skilled in designing irrigation systems, solving on-site problems, and coordinating between site and technical office teams. Proficient in AutoCAD, Real-Time, and Microsoft Office. Always aiming to deliver work with efficiency and high quality.

Professional Experience

Green Point Company – Al-Monto Galala Project, Ain Sokhna

Irrigation & Drainage Construction Engineer | Mar 2024 – Present

- Supervising the execution of irrigation and drainage networks across large-scale landscape zones.
- Coordinating with site engineers and technical office teams to ensure design accuracy and project quality.
- Managing materials, implementation reports, and ensuring adherence to project deadlines.
- Following up on control systems and irrigation panels (traditional and decoder types).

Lily Company – Gate 5, Villas 23 & 24

Irrigation Maintenance Engineer | Feb 2023 – Feb 2024

- Managed the operation and maintenance of irrigation systems for multiple residential sectors.
- Diagnosed and repaired system faults efficiently.
- Suggested and applied improvements to enhance irrigation performance.

Education

Bachelor of Agricultural Engineering – Irrigation Engineering Department
Mansoura University, Egypt – 2023

Courses & Skills

- Modern Irrigation Network Design using AutoCAD & RainCAD
- Technical Office Documentation and Drawing Review
- Microsoft Office (Word, Excel, PowerPoint)
- Understanding of Control Systems (Traditional & Decoder Panels)
- Experience in Drainage Network Installation & Maintenance

Soft Skills

Problem Solving
Time Management
Teamwork
Communication

Languages

Arabic – Native
English – Good

يوسف بدران أحمد عبد الباقي



رقم الهاتف: +20 1098798586
البريد الالكتروني: yousefuosef362@gmail.com
العنوان: القاهرة، مصر

نبذة شخصية

مهندس زراعي طموح ومتخصص في أنظمة الري وتصميم اللاندسكيب، أتمتع بالقدرة على إدارة المشاريع ميدانيا وتحقيق أفضل النتائج باستخدام أحدث الأساليب والتقنيات الزراعية. أطمح إلى تطوير مهاراتي المهنية والمساهمة في مشاريع نوعية تدعم الاستدامة والابتكار في إدارة الأراضي والمساحات الخضراء.

الخبرات العملية

مهندس موقع ري – شركة طيبة للمناظر الطبيعية والمقاولات | (من يوليو 2024 إلى مارس 2025)
مهندس مكتب فني ومبيعلت الي الان

- الإشراف على مشاريع الري في المواقع والتأكد من التركيب والصيانة السليمة للأنظمة.
- التنسيق مع العمال والمشرفين لضمان تنفيذ المشروع بكفاءة وفي الوقت المحدد.
- إجراء حسابات كميات المياه باستخدام برنامج AutoCAD لتطوير استراتيجيات ري فعالة.
- اختيار الرشاشات ومكونات الري المناسبة حسب متطلبات المشروع.
- الاستخدام الأمثل للعمالة والمواد لتحقيق الأهداف ضمن الميزانية المحددة.

تدريبات ميدانية خلال الدراسة

- تدريب عملي خلال فترات العطلات الجامعية في مجالات متعددة تخص الهندسة الزراعية وتصميم اللاندسكيب.
- التدريب على استخدام طرق الري بالبيفوت في ري المزارع

التعليم

بكالوريوس في الهندسة الزراعية

- جامعة الأزهر
- سنة التخرج: 2024
- التقدير: جيد جدا مع مرتبة الشرف

الدورات التدريبية والشهادات

- دورة تصميم شبكات الري وتنسيق الحدائق – أكاديمية أغا خان العلمية، القاهرة
- إجادة برامج: AutoCAD، Microsoft Word، Excel، PowerPoint

المهارات

مهارات فنية:

- إجادة استخدام AutoCAD لتصميم أنظمة الري وحساب الكميات.
- كفاءة عالية في استخدام برامج مايكروسوفت أوفيس.
- معرفة متعمقة بمكونات أنظمة الري وتنسيق الحدائق.
- خبرة في إدارة المشاريع والإشراف على العمال والفنيين.

مهارات شخصية:

- القدرة على العمل ضمن فريق متنوع والتعاون مع المشرفين والعاملين.
- مهارات تواصل فعالة لضمان سير العمل بسلاسة.
- سرعة التعلم والمرونة في استخدام التقنيات الجديدة.

اللغات

- اللغة العربية: اللغة الأم
- اللغة الإنجليزية: متوسطة (تحدثا وكتابة)

معلومات شخصية

- تاريخ الميلاد: 19 ديسمبر 2002
- الجنسية: مصري
- الحالة الاجتماعية: أعزب
- الموقف من التجنيد: معفى



Mohamed Magdy Mohamed Desouki Agricultural Engineer

magdymedo627@gmail.com 01097850828
32 Mohamedy Al-Attar Street, Mansheyet Al-Nour, Banha, Qalyubia, Egypt Dec 14, 1998
Egyptian

PROFILE

Agricultural engineer, I have many experiences and high motivations, I have the ability to use and develop engineering equipment to serve agricultural projects of all kinds such as green spaces, farms, landscapes and garden decoration, experience in the procedures of analysis, design and planning of various irrigation systems and the use of water distribution systems on agricultural lands, drainage channels, water dams and others, in addition to high capabilities in the design and implementation of irrigation networks familiar to welding pipes and their types Valves, their purposes and importance to the network, strong background in agricultural sciences Soil conservation and crop production. I have a proven track record of success in developing and implementing strategies to improve agricultural yields and efficiency, a strong background in soil and crop management, soil analysis and seed selection, following up and monitoring the implementation of a corrective and preventive maintenance schedule for irrigation systems and ensuring the use of irrigation systems that help improve soils and designing, building, installing and operating irrigation systems and drainage networks.

PROFESSIONAL EXPERIENCE

2024 – 2025 **Pamira Company**, Irrigation Engineer

2023 – 2024 **Landmaster Company**, Irrigation Engineer

EDUCATION

Jun 2023 **Bachelor of Agriculture, Department of Agricultural Engineering, irrigation and drainage orientation,**
Faculty of Agriculture, Benha University
Grade: Good

TRAINING

Agricultural Engineer, Albeit Almasry Company for a month
- Irrigation design in Orascom

SOFT SKILLS

- Effective communication that makes managing situations easier.
- The skill of collaborating with others in a team.
- The power of observation and attention to subtleties to determine the appropriate treatment of the soil.
- Listen carefully to the problems that farmers face during their activities.
- Accuracy of information analysis to reach the root of the problem and properly deal with it.
- Physical ability to stand in the ground for long periods.
- Managing teams efficiently helps achieve goals.
- Continuous research to develop cultivation methods and improve soil properties.
- Ability to deal with problems through solutions commensurate with financial capabilities and compatible with planting seasons.

TECHNICAL SKILLS

- Deep understanding of scientific rules Proficientin agricultural equipment's and technologies.
- Familiar with welding pipes, types of valves and their purposes such as air valves, insulation and electrical valves.
- Understanding irrigation mechanics systems and network design.
- Perseverance, determination and the ability to perform basic tasks on a computer.
- Social Media Skills.
- Ability to design and develop engineering equipment and machinery that assist in the completion of projects.
- Familiar with filters and their importance such as the media filter, connecting pumps in series and parallel, pump capacity, methods of installing the main line on it, and calculating the diameter of the main line.
- Good understanding of different irrigation systems and soil types.
- Microsoft Office.

COURSES & CERTIFICATES

Manual and Digital Irrigation Network Design Course
Kayan Academy

Autocad course
Kayan Academy

Rain Cad course
Kayan Academy

Excel course
Kayan Academy

LANGUAGES

Arabic : Mother tongue

English: Good (Speaking – Writing - Reading)

MARWA ZIEN EL-ABIDEN

IRRIGATION ENGINEER

matwazian123@gmail.com 01146649467 GIZA,EGYPT

linkedin.com/in/marwa-zien-980618276

PROFILE

Skilled technical office irrigation engineer known for high productivity and efficient task completion, prioritize tasks, appropriate designs, project management and communication, ensuring successful project outcomes and effective team collaboration.

EDUCATION

Bachelor of Agricultural Engineering 2022
Ain Shams University

PROFESSIONAL EXPERIENCE

Irrigation Engineer 03/2024 – present
E-CAD company
MEAC-Hunter Design Office.
Nesma Contracting.(Saudi-Arabia)
King Salman Park (KSP)

Chemist 01/2019 – 12/2023
Medical analysis field
Saridar labs, El Baraka labs, Cure labs

TECHNICAL SKILLS

Design of lateral networks.

Design of mainline and cables networks.

Irrigation hydraulic calculations

Technical documentations.
Irrigation bill of quantity (BOQ)
Irrigation time schedule

COURSES

Agricultural Research Institute
Design of irrigation and drainage networks, Network equipment and components.

Agricultural Professions Syndicate
Water needs and irrigation network design.

Aga Khan Scientific Group
-Design and installation of modern irrigation systems by Eng.Kareem Hesham.
-Engineering drawing using autocad and raincad.
-Implemrntaion and maintenance of irrigation networks

CAD MASTERS
Revit MEP

CERTIFICATES

Graduation project
Hydroponics system with an excellent grade.

Scale For Construction Company
Technical office and landscape projects.

ECS-Egyptian Company For Supplies
Technical office, Rainbird products, irrigation systems and landscape design training program.

SOFTWARE

- AUTOCAD
- MICROSOFT OFFICE
- REVIT
- RAINCAD
- WATERGEMS
- LAND F/X

REFERENCES

ENG.KAREEM HESHAM, *Technical office manager,* E-CAD company
01116276620

Ahmed abdelaziz Hegazy

Agricultural Engineer

002 01067468475
Ahmedhegazy1453@gmail.com
linkedin.com/in/ahmed-hegazy-488926113
El qaluobia, Egypt

SUMMARY

Agricultural Engineer with over 6 years of experience in managing greenhouse projects.
as well as management of modern irrigation, fertilization and environmental control systems.
Ability to install and maintain irrigation systems in landscape projects.

EXPERIENCE

Agricultural Engineer 2024 - 2025
Qassim - Kingdom of Saudi Arabia

- Design and installation of irrigation system (HDPE) for open agriculture.
- Follow up on open field agriculture and palm trees.
- Follow-up periodic examination of pests and diseases and follow-up

Irrigation Engineer 2023
Al Marasem Company

Follow-up on the implementation and installation of the irrigation systems in the Five Square project.

Follow up on landscape maintenance

Senior Agricultural Engineer 2021 - 2022
Silwana Diamond Company

- Responsible for managing greenhouses, hydroponics, developing planting plans, conducting feasibility studies, fertilization and control programs.
- Responsible for the green areas sector (grass).
- Follow-up of the construction of greenhouses and installation of the irrigation systems.

Agricultural Engineer 2018 - 2020
National Company for Protected Agriculture

- Responsible for managing agricultural operations in medium and high-tech clusters Spanish design and technology.
- Responsible for managing irrigation and fertilization based on the nutrient solution system.
- Follow-up environmental control greenhouses through follow-up control unit for meteorology.
- Follow-up periodic examination of pests and diseases and follow-up and control.
- Follow-up and record the data and operations of each of the cultivated varieties.

EDUCATION

Faculty of Agriculture - Benha University - Bachelor of Agricultural Engineering 2012 - 2016

CERTIFICATES

- **Certificate of landscape Irrigation system's Design course systems for landscape.**
- **Design and management of drip irrigation networks based on meteorological data.**
- **Training program for the 100 thousand acres greenhouses project.**
- **Irrigation systems design and installation course.**
- **Computer courses.**

SKILLS

Driving and have a license.
CAD software
Microsoft Office , computer programs
Analytical skills
Problem-solving
Communication skills
Team collaboration
Project management

LANGUAGES

Arabic	Native	English	Intermediate

#	Items	No.	Notes
1	Personal Car	1	Project Manager & Engineers
2	Suzuuki Small Car	1	labours and supervisors
3	Small Loader	1	Mixing and move planting soil
4	Small Crane	1	Lifting Pipes and tools
5	Hand Tools	1	Others

Irrigation Method Statement

1. GENERAL

1.1 Description

The purpose of this method statement is to describe the procedures, sequence and responsibilities for the secondary irrigation to be executed in **LD-04** project preparation, manufacture recommendation, and safety guidelines throughout the progress of works.

1.2 Scope of work

1.2.1 The scope of this method statement is to describe how the secondary irrigation construction will be executed and to detail the methods, sequence and quality procedures for the works.

1.2.2 This work method statement explains and covers the installation and inspection of the secondary irrigation in accordance with project specification, drawings and applicable standards.

1.3 Roles & Responsibilities

1.3.1 The secondary irrigation works will not start until the finish conditions are satisfactory and acceptable.

1.3.2 Site engineer shall be responsible for supervision of construction activities and ensure that work is done as per specification, approved materials and all safety measures are implemented.

1.3.3 Designated foreman / Supervisor shall be supervising closely the activities designated to them and ensure that all instructions are followed, and all necessary work permits are in place prior to commencing the work and safety procedures of the project are strictly adhered to.

1.4 References

1.4.1 Approved Drawings

1.4.2 Project Specifications

1.4.3 Applicable Hardscape Construction Standards

1.4.4 Parameters & Guidance Provided by Suppliers

1.5 Quality Assurance

General

1.5.1 Codes and Standards. Reference to the standards of any technical society, or- ganization, or association, or to codes of local authorities, shall mean the latest standard, code, specification, or tentative standard adopted and published at the date of taking tender, unless specifically stated otherwise.

1.5.2 In the absence of a specified referenced code or standard, the Contractor may propose other recognized international codes and standards, and in such a case the Contractor shall demonstrate to the satisfaction of the Engineer, suit- ability and equivalence of the substitute codes and standards as well as pro- vide proof of previous successful use.

1.5.3 Work specified by reference to the published standard or specification of a government agency, technical association, trade association, professional society or institute, testing agency, or other organization shall conform or surpass the minimum standards of quality for materials and workmanship established by the designated standard or specification.

1.5.4 Where the specific date or issue of the standard is not included with the reference to the standard, the latest edition, including all amendments published and available on the first published date of the Invitation to Tender, shall ap- ply.

1.5.5 Where two or more standards are specified to establish quality, the product and workmanship shall conform to or surpass the requirements of both. In case of conflict between referenced standards, the more stringent shall apply.

1.5.6 Where both a standard and a brand name are specified for a product in the Contract Documents, the proprietary product named shall conform to or sur- pass the requirements of the specified reference standard.

1.5.7 The listing of a trade name in the Contract Documents shall not be construed as warranting that such product conforms to the respective reference standard.

1.5.8 Copies of applicable referenced standards have not been bound in this Con- tract Document. Where copies of standards are needed by the Contractor for superintendence and quality control of the work, Contractor shall obtain a copy or copies directly from the publication source and maintain in an orderly manner at the jobsite, available to the Contractor's personnel,

1.5.9 Contractors shall clearly identify and submit for approval any requests to use products conforming to printed standards or publications with a different publication date from that effective under the Contract. Clearly indicate the changes in product or workmanship quality involved in the proposed change, if any, and reasons for the request.

a- ISO/Third Party Inspection:

A copy of the MANUFACTURER's QA/QC plan shall be submitted to /End users/ENGINEER with its quotation for review and concurrence prior to award. If MANUFACTURER's facility is ISO certified, QA audit requirements shall be waived in favor of ISO 9000; ISO 9001:2000 registered or provide the services of an Independent Inspection Agency. registrar audits, unless /End users/ENGINEER'S trend analysis program indicates areas of concern.

b- **Inspection**:

a. All pipes, Valves, Irrigation equipment's and fittings shall be subject to inspection at the place of manufacture, in accordance with the provisions of the referenced standards.
b. The Contractor shall give appropriate written notice to the Engineer before offsite inspection services are required, and shall provide for the producer, manufacturer, or fabricator to furnish safe access and proper facilities and to cooperate with inspecting personnel in the performance of their duties.

c- Tests:

a. All materials used in the manufacture of the pipes, fittings and specials shall be tested in accordance with requirements as applicable.

d- Test Costs:

a. The MANUFACTURER shall perform said material tests to the OWNER. The ENGINEER shall have the right to witness all testing conduct- ed by the MANUFACTURER, provided that the MANUFACTURER's and CONTRACTOR's schedule is not delayed for the convenience of the ENGINEER.

e- Plant Access:

a. During the manufacture of the pipe, valves, irrigation equipment's and fittings, the ENGINEER shall be given access to all areas where manufacturing and test- ing is in process and shall be permitted to make all inspections necessary to confirm compliance with the Specifications.

f- Affidavits:

a. Upon request the CONTRACTOR shall submit affidavits of compliance from the MANUFACTURER for the following:
b. an independent test audit of any portion of the tests noted in ISO 4427 and this specification.

g- Valves

a. Manufacturer's Name or Trademark
b. Nominal Diameter(s) (N.D) in mm.
c. Pressure Rating in Bars.
d. Individual Serial Number which relates directly to the Manufacturers test certificate on steel plate
e. Date of Manufacture mentioned on steel plate fixed on valve.
f. Weight of valve for sizes above 300mm dia.

1.6 Protection of Products

g. Prevent over stressing, distortion and any other type of physical damage.
h. Keep clean and free from contamination, prevent staining, chipping, scratching or other disfigurement.
i. Store the products in dry and in a suitably low humidity atmosphere to prevent premature setting, moisture movement and similar defects.
j. Keep products in their original wrappings, packings until they are used.

1.7 General Quality of Workmanship

k. Workers must be appropriately skilled, trained and experienced for the type and quality of secondary irrigation construction.
l. Take all necessary precautions to prevent damage to the work from sun, rain and other hazards.

1.8 PRODUCTS

Materials

1- UPVC Pipes
1.1- UPVC Ø110mm -10bar
1.2- UPVC Ø90mm -10bar
1.3- UPVC Ø75mm -10bar
1.4- UPVC Ø63mm -10bar
1.5- UPVC Ø50mm -10bar
1.6- UPVC Ø32mm -10bar

2- PE Tube
2.1 PE Ø16mm Pipes
2.2- LDPE Ø16mm
2.3- PCND Ø16mm

3- Drippers
3.1- Drippers 25L/H
3.2- Drippers 12L/H
3.2- Drippers 8L/H

4- Electrical Solenoid Valves
3.1 Solenoid valve 2 inches
5.2- Solenoid valve 1.5 inches
5.3- Solenoid valve 1 inches

5.5- Filter 1 inch

5.5- Filter 1.5 inch

5.7- Filter 2 inch

5.8- single station decoder

5.9-Rectangular Valve Boxes

6- QUICK COUPLER

7- CONTROLER

7.1- CONTROLER UNIT

7.2- CABLES

2.2 Delivery, Handling AND STORAGE

1.2 A Vendor Documentation

1. Each pipe, fitting and special appurtenance shall be marked with permanent identification which shall include but not necessarily limited to the following:

    a. Nominal diameter
    b. Name or trade mark of manufacturer
    c. Serial number
    d. Class of pipe, pressure rating in compliance with referenced standards
    e. Date of manufacture
    f. Type of service
    g. Details on fittings such as angle of change and taper
    h. Clearly marked on the inside and outside to indicate the top of the pipe when laid.
    i. Certificate from Manufacturer
    j. Certificate from PE 100 + Association
    k. Local agent name and address.

2. Each Valve shall furnish following vendor data as a minimum, with the bid:

    a. Detailed reference list to fulfill criteria for acceptance.
    b. Catalogues/Brochures.
    c. Cross section drawings with detailed parts list, as applicable.
    d. Detailed material specifications.
    e. Completely filled-in and stamped data sheet.
    f. Dimensioned general arrangement drawing, as applicable.
    g. Complete details of testing facilities at manufacturers works.
    h. Local agent name and address.

3. Bids not accompanied by any of above mentioned information/data shall be considered incomplete, and liable to be rejected.

B **Delivery**

1. The acceptability of the pipes and fittings on delivery to the Site will be based on the results of tests carried out by one or more of the following:

    a. The manufacturer at the place of manufacturer
    b. The Engineer

c. A third party on behalf of the Engineer

2. The Engineer shall be permitted at all reasonable times to visit places of manufacture to witness tests.
3. The Engineer may require checking dimensional accuracy of pipes and fittings at the place of manufacture, the cost of such verification shall be borne by the Contractor.

C **Transport, Handling and Storage**

1. Transport, handling and storage of pipes valves, irrigation equipment's and fittings shall be carried out as follows:

   a. In accordance with the manufacturer's recommendations subject to the approval of the Engineer
   b. Effective precautions shall be taken to prevent damage to the pipe, valves and fittings.

2. During transport

   a. Pipes and fittings shall be well secured and adequately supported along their length
   b. Bolsters and binding of approved type shall be used
   c. Nesting of pipes (placing a smaller pipe inside a larger) may be permitted for pipes of certain materials and size provided that methods statements demonstrate that effective precautions will be taken to protect all pipe surfaces and coatings from damage
   d. No pipe shall overhang the end of a vehicle
   e. Pipes and fittings of plastic materials shall be covered.

3. Handling shall be carried out as follows:

   a. Pipes should be lifted singly and not handled as bunches
   b. Pipes shall be handled only by means of

      1) Approved hooks, of the type having a plate curved to fit the curvature of the inside of the pipe, on ends of sections
      2) Fabric slings not less than 250 mm wide
      3) Other methods approved for the pipe used

   c. Use of w ire rope, chains and fork lift trucks will not be permitted
   d. For strings of pipe longer than the standard-length precautions shall be taken to avoid curvature and longitudinal stress in excess of allowable limits
   e. Pipes and fittings of plastic materials

      1) Smaller than 300 mm diameter may be handled manually
      2) Larger than 300 mm diameter and greater than 4 meters in length shall be lifted using fabric lifting straps or large diameter rope slings positioned at a quarter of the pipe length from each end
      3) There should be enough slack in the slings to keep the hook approx-

imately 600 mm over the pipe

4) Steel chain or hooks shall not come into contact with the pipe

f. Pipes and fittings shall not be dropped or bumped

g. Pipes shall not be dragged over the ground

h. If rolled, pipes shall be rolled only over adequate timber bearers to prevent damage

i. Where necessary, chocks shall be used to prevent lateral movement of pipes.

j. Valves greater than 500 mm diameter shall be individually packed. Two valves may have the packing joined provided the combined weight does not exceed 3 tones. Gate valves (up to 300 mm diameter) may be placed together provided that the packages do not exceed 4 tones in weight and individual valves are prevented from moving within the package. Air valves and fire hydrants shall be packaged in a similar manner to gate valves. Each box shall be clearly marked with Municipality name, order number, valve size and class. The following documents shall be included in suitable wrapping and shall be enclosed with the shipment:

1) Packing list.
2) General arrangement and catalogues.
3) Operation and maintenance manual as applicable.
4) Installation instructions

4. All pipes, valves, fittings and materials shall be stored in accordance with the manufacturer's recommendations and the following:

a. Pipes may be stored in the open on a flat level area and raised above the ground on timber bearers so that the lowest point of any pipe or fitting is not less than 150 mm above the ground

b. Timber bearers not less than 200 mm wide and 75 mm thick to be provide d at 4 m intervals maximum

c. If on pallets or crated, on the pallets or in their crates until required

d. If not on pallets or not crated, stacked one above the other as follows:

1) In accordance with the manufacturer's recommendations but not to a greater number of tiers than the following:

Pipes ≥	900 mm diameter	2 tiers	
<	900 mm ≥ 600 mm diameter	3 tiers	
<	600 mm diameter	4 tiers	

2) Suitable protective packing shall be placed between tiers to the approval of the Engineer

3) Wrapped pipes shall not be stacked

e. If spigot and socket, stacked so that successive pipe layers have sockets protruding at opposite ends of the stack

f. With pipes of different sizes and thick ness stacked separately

g. With maximum height of stacked pipes not exceeding 2m, or that recommended by the supplier if less than 2 m.

h. Pipes and fittings of plastic materials shall be:

1) Stored under cover and out of direct sunlight
2) Adequately supported along their length
3) Provided with a free flow of air around the pipe.

i. Storage of jointing materials shall be as follows:

1) Under cover
2) Rubber ring gaskets shall
3) Stored in their original packing
4) Not be exposed to sunlight
5) Protected from exposure to greases and oils
6) Gasket lubricants shall be stored so as to prevent damage to the container.

j. Pipes and fittings shall be protected in storage to the approval of the Engineer by means of an impermeable membrane which shall cover the pipes and fittings and separate them from the ground on which they are supported. The membrane shall be strong and durable in the prevailing climate conditions.

k. Pipes and fittings shall be subject to visual inspections after off-loading at site and before installation.

l. Storage of valves shall be as follows:

1) Valves should be stored in a location that protects the valve from any pollution or contamination.
2) The valves must be stored in upright position and in an almost closed position to prevent long-term compression of the wedge rubber.
3) The valve must be kept out of sunlight to prevent oxidation of the rubber and coating. Valves stored in cold storage must be protected against freezing.
4) Gate valves with PE pipe connection have to be stored and handled carefully to avoid damage of the pipe.

5. The following procedures shall be followed for dealing with damaged pipes and fittings:

a. Pipes and fittings damaged during transportation handling and storage shall be set aside and the damage brought to the attention of the Engineer
b. Pipes or fittings that show signs of corrosion or deterioration during storage shall immediately be treated to arrest and prevent the corrosion or deterioration or removed from Site, as the Engineer directs
c. Proposals for repair shall be submitted in writing for the Engineer's approval
d. No attempt shall be made to repair damage without the Engineer's approval
e. If in the Engineer's opinion the nature of any damage is such that the condition of a pipe has been impaired and cannot be repaired the pipe concerned shall not be incorporated in the Works

f. All rejected pipes shall be immediately removed from the Site

g. Damaged pipe shall be replaced or repaired by the Contractor at his ex- pense and such repairs shall be to the approval of the Engineer

3. EXECUTION(to modify refer to site a, specs and experience)

1. General

a. This work shall consist of furnishing and installing complete irrigation systems to provide water for the trees, ground cover and lawn areas as shown on the drawings in accordance with the specifications and as di- rected by the Engineer.

b. The system shall be a combination of drip irrigation utilizing bubblers and sprinkler system utilizing pop-ups and shall include buried main and sub-main and either buried lateral piping for sprinklers. The system shall have control valves, air valves, pressure gauges, and computerized con- trol system.

c. The system as shown on the drawings is diagrammatic only. The final layout of system is to be established in the field by the Contractor and is subject to review and approval by the Engineer. The various components of the system shall be installed so as to provide complete and adequate coverage of the areas to be watered.

d. The contractor shall stake out the location of each run of pipe and all valve and equipment locations prior to ditching. Before installation is started in any given area, the engineer will check all locations and give his approval.

e. All pipe fittings, valves, and concrete access boxes shall be carefully placed in the trenches with concrete thrust blocks poured at all changes in pipe alignment and at all fittings and valves, and where required by the engineer. The interior of pipes shall be kept free from dirt and debris and when pipe laying is not progress, open ends of pipe shall be closed by approved means.

f. The sub-main and lateral lines shall be installed to the depth as shown on the drawings and/or as directed by the engineer. Excavation, trench- ing and backfill shall be carried out in accordance with the relevant sec- tion of these Specifications and as directed by the engineer.

2. Pipes

a. Main and Sub-main pipes shall be laid in such a manner that there will be a minimum loss of load upgrade, otherwise the natural slope of the terrain should be followed in longest possible straight line. Provisions shall be made for expansion and contraction as recommended by the manufacturer.

b. Plastic pipe shall be cut with a hand saw or hack saw with the assistance of a square in sawing vice, or in a manner so as to ensure a square cut. Burrs at cut ends shall be removed prior to installation so that a smooth unobstructed flow will be obtained.

c. All plastic-to-plastic joints shall be solvent-weld joints. Only the solvent recommended by the pipe manufacturer shall be used. All plastic pipe and fittings shall be installed as outlined and instructed by the pipe manufacturer and it shall be the Contractor's responsibility to make ar- rangements with the pipe manufacturer for any field assistance that may be necessary. The Contractor shall assume full responsibility for the cor- rect installation.

d. All plastic-to-metal joints shall be made with plastic male adopters.

e. The solvent weld joints shall be made in the following manner:

f. The mating pipe and fitting shall be thoroughly cleaned with a clean dry cloth.

1) A uniform coat of solvent shall be applied to the outside of the pipe with a non-synthetic bristle brush.
2) Solvent shall be applied to the fitting in a similar manner.
3) A light coat of solvent shall be applied to the pipe quickly inserted into the fitting.
4) The pipe or fitting shall be given a quarter turn to ensure even dis- tribution of the solvent.
5) The pipe shall be inserted to the full depth of the fitting socket.
6) The joint shall be held in place for 15 seconds.
7) Excess of solvent that appears at the outlet shoulder of the fitting shall be wiped off.

g. Care shall be taken so as not use an excessive amount of solvent, there- by causing a burr or obstruction to form on the inside of the pipe.

h. The joints shall be allowed to set at least 24 hours before pressure is ap- plied to the system.

i. All piping under roadways shall be concrete encased. The concrete en- casement shall conform to Division 3 of these Specifications. Locations and sizes of encasements are as shown on the drawings and as directed by the engineer. Pipe and encasement, shall be placed prior or during construction of the roadway. Any piping

installed after completion of the roadway construction shall only be placed by first jacking a pipe sleeve under the roadway. Under no circumstances will the contractor be al- lowed to cut the roadway section for pipe installation.

3. Cleaning

a. Flush dirt and debris from piping before installing sprinklers and other devices.

4. System Components

a. Installation of miscellaneous components such as base mounting, fittings and valves of the system shall be in accordance with manufacturer's in- structions and as directed by the engineer.

b. All remote-control solenoid valves, air valves, pressure access boxes of proper size for easy access. Access boxes shall be complete with lockable covers. All access boxes shall be installed on suitable base of gravel for proper foundation of box and easy leveling of box to proper grade and also to provide proper drainage of the access box.

c. Automatic-Control System Installation

1) Place and secure anchorage devices. Use setting drawings, tem- plates, diagrams, instructions, and directions furnished with items to be embedded.

2) Install anchor bolts to elevations required for proper attachment to supported equipment.

3) Equipment Mounting: Install exterior freestanding controllers on precast concrete bases.

4) Place and secure anchorage devices. Use setting drawings, tem- plates, diagrams, instructions, and directions furnished with items to be embedded.

5) Install anchor bolts to elevations required for proper attachment to supported equipment.

6) Install control cable in same trench as irrigation piping and at least 51 mm below or besides piping. Provide conductors of size not smaller than recommended by controller manufacturer. Install cable in separate sleeve under paved areas.

d. Connections

1) Drawings indicate general arrangement of piping, fittings, and specialties.
2) Ground equipment according to Electrical Division “Grounding”.
3) Connect wiring according to Electrical Section “Wires and Cables.”
4) Tighten electrical connectors and terminals according to manufac- turer's published torque-tightening values. If manufacturer's torque values are not
5) Indicated, use those specified in UL 486A and UL 486B.

e. Labeling and Identifying

1) Equipment Nameplates and Signs: Install engraved plastic-laminate equipment nameplates and signs on each automatic con- troller.
2) Text: In addition to identifying unit, distinguish between multiple units, inform operator of operational requirements, indicate safe- ty and emergency precautions, and warn of hazards and improper operations

5. Testing

a. Before any portion of pipeline is backfilled, and were directed by the en- gineer, water shall be turned into that portion of the line and maintained at full pressure for a period of not less than eight consecutive hours after all air has been expelled from the line. Any leaks that develop in portion of the system installed by the contractor shall be repaired and all defec- tive materials shall be replaced by him and the test repeated until satis- factory results are obtained

6. Field Quality Control

a. Perform the following field tests and inspections and prepare test re- ports:

1) E.1 Pressure Test
2) E.2 Leak Test:
3) E.3 Operational Test: After electrical circuitry has been energized,

operate controllers and automatic control valves to confirm prop- er system operation.

b. Test and adjust controls and safeties. Replace damaged and malfunc- tioning controls and equipment.
c. Remove and replace units and [retest] as specified above.

7. Start-up Service

a. Verify that controllers are installed and connected according to the Con- tract Documents.
b. Verify that electrical wiring installation complies with manufacturer's submittal and installation requirements in electrical Division.
c. Complete start-up checks according to manufacturer's written instruc- tions.

d.

8. Adjusting

a. Adjust settings of controllers.
b. Adjust automatic control valves to provide flow rate of rated operating pressure required for each sprinkler circuit.
c. Adjust sprinklers so they will be flush with, or not more than 1/2 inch (13 mm) above, finish grade

9. Demonstration

a. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain automatic con- trol valves and controllers.

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4. INSPECTION & TEST PLAN(to finish this ITP table,refer to attachme "See attachment number (1)"

5. RISK ASSISMENT

"See attachment number (2)"

MIXED USE SERVICE AREA CMA AT PHASE 3 - LANDSCAPE PACKAGE

HEALTH, SAFETY &

ENVIRONMENT (HSE) PLAN

General

1.0 HEALTH, SAFETY & ENVIRONMENTAL POLICY STATEMENT

SIAC recognizes the importance of Health, Safety & environmental (HSE) issues and is committed to establishing and implementing the HSE plan & procedures as outlined in SIAC HSE Manual. This commitment to HSE matters is highlighted by SIAC's policy statement as signed by SIAC Chairman.

1.1 PURPOSE OF HSE PLAN

Whereas the HSE policy provides the backbone for the management of HSE matters in general and the HSE plan the detailed rules and procedures for HSE related issues. This HSE Plan is a project specific manual of action on how SIAC intend to address HSE matters during the execution of Scope of Work on any project.

Based on our HSE policy statements and frequently referring to our HSE Manual, this HSE Plan will detail how the Policy is translated into day-to-day activities through the implementation of specific HSE rules and procedures.

SIAC will ensure that the HSE Manual is disseminated and understood by all staff & Subcontractor's employees. This shall be achieved by training and education and other communications means, such as meetings, toolbox meetings, circulars, posters etc.

Monitoring of performance will be done via inspections and audits. The measurements and reports from the monitoring activities will be used to measure variations, identify trends & modify systems to enhance achieving SIAC target Zero accident rate on the project.

1.2 PHILOSOPHY & OBJECTIVES

SIAC is dedicated to the concept that all accidents are preventable. Accordingly, SIAC is committed to achieving and sustaining the "ZERO ACCIDENT" goal through continuous improvement practices.
The following main project objectives have been defined:

1.2.1 GENERAL

Set out a project HSE Plan compatible with client HSE regulations and applicable governmental laws.
Plan activities and setup systems/boundaries to achieve the "ZERO ACCIDENT" goal.
Communicate plan requirements to all personnel and disseminate Information by:

1) Training and empowering employees,
2) Ensure compliance by monitoring, inspection & audits,
3) Establish and utilize a structured HSE communication/ reporting system, and
4) Regularly review & update HSE plan in line with new findings/measurements &'new regulations.

1.2.2 HEALTH

- Ensure that proper medical resources are setup and available to all employees.
- Maintain appropriate health surveillance and reporting systems.
- Modify health manuals and enhance resources as more information and measurements become available.

1.2.3 SAFETY

- Ensure that Subcontractors employees comply with Safety procedures, work permit procedures.
- Ensure that Safety training and education are conducted and documented.
- Actively encourage near miss as well as incident reporting and ensure follow-up to document "LESSONS LEARNED" and enhance the Manual.
- Address road Safety as a top priority including driver training and testing, vehicle inspections & Journey management.
- To Inspect/spot check facilities and audit Safety activities.

1.2.4 ENVIRONMENT

- Increase awareness of environment among all employees.
- Ensure friendly and positive attitude towards water bodies.
- Adhere to waste management procedures.
- Inspection/spot checking of facilities to verify compliance to environmental requirements.
- Ensure Site reinstatement on completion of construction activities.
- Report regularly on environmental issues to allow enhancement of HSE Manual.

1.3 SIAC HSE MANAGEMENT STRUCTURE

HSE matters can be managed effectively only when they are considered as a line responsibility. All employees are empowered to manual, implement and consistently strive for the "ZERO ACCIDENT" goal.

The main responsibilities for the various functions are described below:

- **Project Manager:**

  Ensures that planning and systems are in place for effective HSE management and that all employees understand the HSE Plan.

- **Site Manager:**

  Ensures that training and communications means are in place to disseminate HSE Plan requirements to all SIAC employees & Subcontractor's employees spearheads the process of continuous improvement to achieve the Zero Accident Target.

- **SIAC Site HSE Manager:**

  A part-time Safety Manager shall be a minimum requirement employed on all contractors employing less than 100 employees.
  A full time senior Safety Manager shall be employed on all contractors employing 100 or more employees, and on those, which are deemed by SIAC to be high risk.
  For larger contractors where there are more than 200 employees a second Safety Manager shall be employed for every additional 200 or part of 200 employees .at least one of the Safety Managers shall be of senior staff level. More Safety personnel at senior staff level may be required on the contract if called for SIAC

Site HSE Manager shall be responsible for overall HSE matters and his duties will include but not be limited to: -

A. Under Commissioning without a PTW and relevant tool box talk.

B. Ensure there is an effective HSE plan for the project.

C. Monitor through audits & inspections compliance with this manual.

D. Prepare, modify, control & issue of HSE plan.

E. Ensure that personnel and subcontractors are able to meet the EHS requirements of the Project prior to commencement at Site, stopping all or part of the works should requirements not be met.

F. Identify the hazards of the work to be performed; assess the risks arising from these hazards; determine the control measures; record the findings and control measures in a MSRA; then inform its own personnel how these risks are to be controlled.

G. Monitor EHS compliance of persons under their supervision and those working around them and should there be a risk to the safety or health of persons or the environment stop works and inform both line and CSM

H. Submit an EHS Management plan for its scope of works

I. Inform CSM of any fatality, injury, ill health or dangerous occurrence as defined under the Construction Site Regulations, and Applicable Laws. Participate full and ensure availability of their staff for incident investigations.

J. Co-operate with the CSM and other Contractors working on Site in all EHS matters.

K. Provide EHS training and information to its employees.

L. Participate in establishing open communication lines between all parties involved in the Project.

M. Execute the works only when ensuring that risks to persons and the environment are mitigated as far as reasonably possible.

N. Provide proper training for the work to be performed to all individuals that will be involved and ensure records of this training are maintained.

O. Issue all documents describing the safe work methods and procedures.

P. Deliver the contents of all the EHS documents to its personnel (including temporary staff) and the personnel of its Sub-contractors (e.g. in trainings).

Q. Ensure the presence of trained and qualified personnel on Site as required under Applicable laws, Procedural requirements and good construction practice.

R. Ensure that no personnel under their control perform works on an operation system/ in an Area Under Commissioning without a PTW and relevant tool box talk.

S. Regular inspection of all areas under his responsibility including site facilities and recommendations where required.

T. Preparation on contractor's daily inspection sheet Safety that shall be retained and available for inspection all times.

U. Accident investigation SIAC requirements.

V. Specific training courses as approved in the Safety program and supplemented by any additional requirements of the company.

W. Ensuring all records for vehicles drives and lifting equipment as required by the company.

X. Preparation of emergency producers.

Y. Preparation of Safety statistics monthly return as required by the company Safety training for all his employees each upon his activity.

Z. Liaison with site representatives and site discipline supervisors when necessary.

AA. Obtain and be fully conversant with relevant SIAC Safety documents, and emergency procedures.

Safety Officers:

Manuals and monitors construction activities to ensure compliance with HSE Plan. Ensures that all personnel, site & equipment are suitable for safe job execution.
Conduct induction and subsequent Safety training.

Supervisors:

Plan and organize the work so that it is executed with no exposure to personnel, equipment or environment.

Site Engineers & Office Employees:

- To use the correct methodology, material, equipment and tools for the execution of their duties. Also to report and suggest improvements/modifications to existing manuals and methods.

- Advises project personnel on HSE related matters and monitors compliance with HSE Plan recommendations.

The Project Safety Officer will have a dual reporting line. He will report to both the Site Manager and to SIAC HSE Manager in order to ensure autonomous operation of this very important project function and prevent conflict of interest.

1.4 MANAGEMENT COMMITMENT TO HSE ISSUES

SIAC project management team is fully committed to the task of assuring all HSE aspects on this project. In order to emphasize the practices, set forth in this Plan the project management team will perform the following activities:

1. At the start of the project, the Project Manager shall (As part of the contract review) ensure that all project staff familiarize themselves with the HSE Safety requirements.

2. All Field Supervision/Staff members will be trained so they fully understand the HSE Manual requirements prior to start of work. The training to be done by the Site Safety Manager/Officer.

3. Senior management of SIAC will review HSE highlights weekly.

4. The Site Manager will review project Safety performance with the Project Team weekly.

5. The Project Manager will plan some of the audits and monitoring with assistance from Site Manager and Safety Manager/Officer.

6. Executive Management of SIAC will review Safety performance and highlights with the field organization on site monthly in order to demonstrate management's' commitment to HSE aspects. Monthly HSE meetings will be attended by the Project Manager.

7. The Site Manager will follow up all reported accidents & near misses.

8. The Project Manager and Site Manager will participate in the Site investigation of all fatalities, and any accident/near miss at their discretion. Pre-mobilization meetings will be held with all Subcontractors management and supervision prior to commencement of any work activities to review project HSE issues. The Site Manager will chair these meetings.

2.0 ***HEALTH***

2.1 HEALTH RECORDS AND HAZARDS IDENTIFICATION

It is SIAC's intention to ensure that all personnel involved in this project are fit for the job, healthy and live in hygienic conditions. All personnel will be made aware of health hazards surrounding their working environment.

In order to achieve this, the following manuals shall be implemented:

A Medical nurse will examine all personnel working and exposed to highly potential risk.

2.2 IMPROPER MANUAL LIFTING

Effects on the body due to incorrect handling/lifting of loads shall be explained & demonstrated to all personnel prior to start of work at induction and once every six months. Employees with repetitive lifting tasks will be provided with back support belts and trained how to use them.

Back injury cases will be monitored and reported. This data will be used to modify and improve the manual.

2.2 FIRST AID

2.2.1 FIRST AID in SIAC Offices: At least two persons will be fully qualified to provide first aid during the Engineering & Construction phase of the Project. On the construction Site, the nurse will train & qualify at least three staff members at each work location to provide first aid.

A First aid box will be provided. It will contain the necessary resources & will be checked weekly against a list of contents.

SIAC supervisors will be trained to treat first aid cases especially the ones related to the health hazard tasks as identified in HSE plan.

2.2.2 FIRST AID TRAINING

The Nurse will be fully qualified to provide the training. All Construction Foremen

and Charge Hands will be trained during the mobilization period to handle first aid cases especially the ones related to the health hazard tasks identified in SIAC HSE Manual. The Site Safety Manager/Officer shall attend and record these training sessions.

2.2.3 MEDICAL TREATMENT AND FIRST AID

a- In the absence of an infirmary, clinic, hospital or physician that quickly accessible in terms of time to the work site at least one person who has a valid certificate in first aid training shall be available at work location while work is in progress
Specialized knowledge of the Training first aids shall include:

- Artificial respiration
- Control of bleeding
- Immediate treatment for burns of varying
- Transportation of the injured

b- The prime objective of first aid is to sustain life and to prevent deterioration of vital functions until professional services are obtained. Another objective to assure prompt and proper treatment for minor cuts burns and other injuries, is to avoid infection or other accomplishing.

The principal means of accomplishing these objectives are:

- Maintain breathing
- Stop heavy loss of blood
- Treat for shock
- Send for a physician or arrange for transportation to a medical facility

c- The first aid kit should be replenished as necessary

d- Where a person may be exposed to injurious materials such as acids, caustics and solvents, a supply of water shall be maintained to enable quick drenching and flushing of the eyes and body

2.3 EMERGENCY RESPONSE

This procedure will be followed in the event of an emergency incident occurring in the work Site. It defines the actions to be followed by all SIAC and its Subcontractors personnel in case of emergency incident.
The procedure is identified in SIAC HSE plan. The phone numbers to call in case of emergency will be posted on Site in English and Arabic languages.

2.4 HEALTH COMMUNICATION

2.4.1 COMMUNICATION

SIAC is committed to the continuous improvement of their working conditions and towards educating their employees about the potential health hazards in the operations they are involved in. In order to achieve this, the following will be affected:

A) Prior to start of each major activity the Site Manager will hold a meeting to discuss health issues involved, means to mitigate them, and that the training required is done. This meeting will be held weekly and will be attended by all supervisors in the work area, as well as the Safety officer. Minutes of meeting will be issued.

B) The Supervisor will discuss health-related issues with Foremen & workers in toolbox meeting weekly, listen to their feed back and comments and initiate the necessary actions.

2.4.2 HYGIENE IN WORK SITES

SIAC will maintain high hygiene standards in all accommodation, offices and work locations especially the following:

A. Potable water storage & transport/distributing system
B. Recreation facilities
C. Accommodations and rest rooms
D. Site Offices

The Site Manager will monitor the mobilization and setup of these facilities. Safety Officer will inspect & report monthly on hygiene issues in these facilities.

2.5 HEALTH HAZARDS

A. Both abrasive materials and abraded pulverized coatings can impact the health of exposed workers due to inhalation. Inhalation of paints containing toxic components can produce severe body trauma. Heavy metals such as lead, chromate or organic tin compounds present in vessel primer, anti-fouling paints and primer coatings can accumulate in the body from ingestion and/or inhalation.

all abrasive blasting operations produce noise levels in excess of acceptable limits. Even short-term exposure on a regular basis may result in hearing loss. Earplugs and/or earmuffs must be worn during

B. abrasive blasting operations.

C. Oil, water, carbon monoxide and other products of incomplete combustion may be present in breathing air if proper precautions are not taken.

2.5.1 GENERAL HEALTH HAZARDS AND ITS CONTROL MEASURES

A. All personnel are to be made aware of the requirements of the JSA, including the MSDS pertaining to the paints, solvents, and soaps being used. The MSDS will be read to all involved prior to starting the job. Strictly adhere to the precautions of the hazardous materials.

B. PPE for face, hands, body, lungs, etc. shall be provided and used by all personnel when performing specific jobs such as mixing, handling, or using chemicals and paints this means:

- Safety glasses are the minimum eye protection to be used when painting by spray, brush, or roller. The Safety Representative may deem that more protection is required as circumstances dictate, such as spray painting in a small, confined room.

- Air-fed type must be worn while spray painting in enclosed or confined spaces.

C.

D. Supervisors shall ensure cleanliness and hygiene for workers spraying hazardous materials. Emphasis will be place on washing hands and face before smoking or eating and leaving work. Washing facilities will be conveniently located to the spray paint area.

3.0 SAFETY

3.1 ORGANIZATION AND RESPONSIBILITIES

The Safety management is a line responsibility and the main responsibilities for the various functions are given in this HSE Plan.

All personnel involved in this project will abide by this HSE plan.
No distinction shall be made whether the staff is SIAC's or SIAC Subcontractor.

The Project Safety Manager shall arrange with Client's Safety department, an appropriate exchange mechanism for mutually beneficial information. A similar exchange shall be organized with the Subcontractor's Safety Officers.

Project's specific Organization Charts highlight the responsibilities of the members of the team indicated on them as follows:

Project Manager:

a. Implementation of Safety Policy and Safety Manuals within the Project premises & site locations.
b. Review Investigation reports of incidents and near misses with the help of Project Safety manager to establish causes and put into place measures to prevent the reoccurrence.
c. Participate in & render reports of incidents and near misses to the Client
e. Recommend incentives or corrective measures depending upon performance of employees on the project.
f Establish a Safety award program to modify/reinforce Safety behavior and awareness.
g. Liaison with the Client and Subcontractors.

Project Safety Manager:

A. Site Safety supervision and monitoring.
B. Report to Project Manager any incidents and to client in case of the absence of the project manager
C. Investigation of incidents.
D. Instructions to Supervisors/Foremen on implementation of Safety measures, initially and as follow-up.

E. Carry out personal Safety awareness visit once a week and record.

F. Carry out supervisory inspection for Safety measures.

G. Implementation of corrective measures.

H. Line Responsibilities for all other Supervisory Staff up to the level of Area Supervisor and Engineers.

I. Site supervision and monitoring of activities pertaining to their specific field and perform as per directions in SIAC HSE PLAN.

J. Daily inspection and participation in toolbox meetings at Site s.

K. Monitoring reporting and investigations of incidents and near misses.

L. collection and collation of data.

M. interaction with Departmental Heads, Supervisors and Workers.

N. Interaction with client/main contractor Safety Department.

O. Inspection of vehicles/equipment en route.

P. Safety audit on specific instructions.

Q. Ensure all personnel attend Safety induction course prior to commencing work.

Project Safety Engineer:

a. Assist the Site Safety Manager in formulating Health and Safety prevalence, in line with policy of the Client's requirements of contract and activities involved.

b. Training of supervisors and workers.

c. Daily inspection and participate in toolbox meetings.

d. Monitor Safety on Site s and review performance on new Safety measures.
e. Formulate new Safety measures in conjunction with Site Manager.
f. Organize training on Health and Safety aspects within the Project.
g. Render reports on Safety to Site Manager.
h. Render necessary advice to Engineers/Supervisors/Foreman during Site visits.
i. Monitor toolbox meetings conducted by Supervisors.
j. Checking & verifying driver's permits.
k. Carry out weekly inspection of site offices in reference to environmental protection, Hygiene, Sanitation, Fire Prevention & protection, Control measures, emergency drills and reports to Site Safety Manager.
l. Coordinate with Safety Department of Clients, Subcontractor, and Safety Manager
m. Issue necessary directives to Safety Engineers and render advice to Site Safety Manager as required.

3.2 SAFETY MEETINGS

During the project execution, the following Safety meetings will be held:

1. Daily Safety meeting.
2. Safety meeting with subcontractors.
3. T.B.T. meetings.
4. Training Safety meetings.

All the above-mentioned meetings shall be attended and recorded by the Project Safety Officer or Safety Engineers except those meetings held in the Client's Office or where attendance by these parties is impractical. Major Subcontractors will attend the monthly Site meetings and the weekly Site meetings.

The Project Safety Engineer will generate the agenda for the Safety meetings in line with the project objectives. He will also be responsible for monitoring the quality and attendance level of Safety meetings.

وزارة المالية

المديرية العامة للمالية

شهادة تسجيل

بمنظومة الدورة الالكترونية

إن هذه الأمر لتشرف بأن تقدم مستنفذ من دستور الذي يهمه

مصورية	بشوار
الاسم	محمد عبد محمد علي الأدهم مقاولات عامة
رقم التسجيل	545-256-323

تسجيل على منظومة تعامل الالكترونية اعتبارا من : 2023-01-22

قدمت هذه الشهادة بناء على طلب المعنون

تحريرا في : 2023-01-29

يعتمد

خالد الشعر

جمهورية مصر العربية
وزارة المالية
مصلحة الضرائب المصرية

/ابشواي فردي

محمد احمد محمد علي محمد الادعم
٠٠٠٠٠عماره الضرائب العامه ش الجمهوريه ابشواي الفيوم
تشييد المبانى

بدء النشاط : ٢٠١٧/٠٧/٠١ كود النشاط 4100
٣٢٣-٢٩٦-٥٤٥ ٢٠٢٢/٠٨/٢٩ ٢٠٢٧/٠٨/٢٨

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منطقة :شمال الصعيد

مأمورية :مكتب أبشواى

العنوان : أبشواى

هذه شهادة منا بأن :محمد احمد محمد علي الادعم مقاولات عامه

العنوان : عماره الضرائب العامه / ابشواي الفيوم

قد تم تسجيله وفقاً لنصوص قانون الضريبة على القيمة المضافة

تحت رقم : 323 - 296 - 545

وذلك إعتباراً من : 2019-09-30

تاريخ إصدار الشهادة : XXXXXXXXX

تاريخ إنتهاء الشهادة 2025-10-20

تاريخ إنتهاء الشهادة 2030-10-19

خاتم شعار الجمهورية

رئيس المأمورية

٠٣٣٣ ٣١-١٢-٢٠٢٥ ١٣:١٢:٤٢

وزارة التموين والتجارة الداخلية
جهاز تنمية التجارة الداخلية
الادارة المركزية للسجل التجارى
مكتب سجل تجارى ابشواى المميز

مستخرج سجل تجارى رقم:٦٦٨٦ (افراد محل رئيسى-الفروع القائمة٠ من اجمالي ٠)
الرقم القومى للمنشأة:٥٤٥٢٩٦٣٢٣ الرقم الموحد للسجل التجارى (٠٦٦٨٦ ٠١٠٠٠ ١٠٥١٠)
أى كشط أو شطب أو تعديل أو تحشير أو أختام بخلاف شعار الجمهورية يلغى هذه الوثيقة

(١)	(٢)	(٣)	(٤)	(٥)	(٦)	(٧)
(أ) رقم الايداع (ب) تاريخ الايداع (ج) رقم القيد فى السجل التجارى (٢) (أ) رقم ايداع طلب التجديد (ب) تاريخ ايداع طلب التجديد (ج) تاريخ التجديد	١- الاسم التجارى (أ) ٢-السمة التجارية ٣-الاسم الذى يباشر به التاجرتجارته ١-نوع الشركة (ب) ٢-عنوان الشركة أو اسمها أو اسم الجمعية التعاونية ٣-السمة التجارية (ج) السمه التجارية للفرع	(أ) إسم التاجر ولقبه وتاريخ ومحل ميلاده وجنسيته (ب) أسماء وألقاب الشركاء المسئولين بالتضامن فى شركات التضامن أو التوصية البسيطة وتاريخ ومحل الميلاد لكل منهم وجنسيته (ج) اسماء وألقاب الشركاء أو غيرهم المنوط بهم إدارة الشركة ومن لهم حق التوقيع باسمها وصفة كل منهم وتاريخ ومحل ميلاده وجنسيته ومدى سلطتهم فى الإدارة والتوقيع (د) أسماء وألقاب أعضاء مجلس الإدارة فى شركات المساهمة أو الجمعية التعاونية ووكلائها المديرين وصفة كل منهم وتاريخ ومحل ميلاده وجنسيته ومدى سلطتهم فى الادار والتوقيع (هـ)اسم ولقب مدير الفرع الرئيسى أو الوكالة العامة فى جمهورية مصر العربية وتاريخ ومحل ميلاده وجنسيته إذا كان المركز العام للشركه فى الخارج	(أ) نوع التجارة أو (ب) الغرض من تأسيس الشركة أو الجمعية التعاونية	١- التاريخ الذى بدأ فيه التاجر اعماله (أ) التجاريه بجمهورية مصر العربية ٢- تاريخ الترخيص بمزاولة التجارة (ب) تاريخ ابتداء الشركة وتاريخ انتهائها وتاريخ الترخيص بمزاولة التجارة أو موافقة هيئة الاستثمار (ج) تاريخ افتتاح الفرع أو الوكالة	(أ) عنوان المحل الرئيسى (ب) عنوان المركز العام للشركة أو الجمعية التعاونية (ج) رقم قيد المحل الرئيسى أو المركز العام (فى حالة قيد الفرع)	(أ) عناوين الفروع والوكالات التابعة للمحل الرئيسى أو المركز العام (ب) عنوان الفرع أو الوكالة (فى حالة قيد الفرع)
(١) أ -٦٨٣ ب -٢٠١٧/٠٧/٢٧ ج- ٦٦٨٦ (٢) أ -١٠٧٥ ب -٢٠٢٢/٠٧/١٧ سارى حتى ٢٠٢٧/٠٧/٢٦ **(نهاية البيانات)**	(أ) ١- محمد احمد محمد على \\\ ٢- اوركيد لاند للمقاولات المتكامله \\\ ٣- محمد احمد محمد على \\\ تأسس بقانون ٣٤ لسنة ١٩٧٦ (أ) افراد خاص ***(نهاية البيانات)***	(أ) محمد احمد محمد على مواليد٠٣/٠٨/١٩٨٧ مصر-الفيوم رقم قومى ٢٨٧٠٨٠٣٢٣٠٠٣٧٣ تاجر-كامل الاهلية . \\\ **********(نهاية البيانات)**********	النشاط الاساسي : أنشطة أخرى لتشييد المباني السكنية وغير السكنية. الكود : ٤١٠٠٩٩. تاريخ بدء النشاط : ٢٠١٧/٠٧/٢٧. (أ) مكتب لاعمال المقاولات المتكامله. \\\ ******(نهاية البيانات)******	(أ) ١- تاريخ الأفتتاح ٢٠١٧/٠٧/٢٧ ٢- تاريخ الترخيص ٢٠١٧/٠٧/٢٧ ****(نهاية البيانات)****	(أ) الفيوم مركز ابشواى شارع الجمهورية - مركز ابشواى بملك / زيتب محمد جوده \\\ ***(نهاية البيانات)***	(أ) **(نهاية البيانات)**

إسم طالب المستخرج محمد احمد محمد على - طلب رقم ٦٤٥٢٩٤٦
وقد سدد الرسوم وقدرها ٢٣٠.٤ جنيه (عدد ١ نسخه) بموجب سداد إلكتروني في ٢٠٢٥/١٢/٣١
اصدار مكتب غرفة القاهرة المميز١ تحريرا فى ٢٠٢٥/١٢/٣١ مسئول الطباعة باسم محمد صلاح
**** يتم اصدار نسخة واحدة فقط من مستخرج السجل التجارى فى حالة عدم اثبات رقم تسجيل ضريبي عليه****

٠٣٣٣ ٣١-١٢-٢٠٢٥ ١٣:١٢:٤٢

وزارة التموين والتجارة الداخلية
جهاز تنمية التجارة الداخلية
الادارة المركزية للسجل التجارى
مكتب سجل تجارى ابشواى المميز

مستخرج سجل تجارى رقم:٦٦٨٦ (افراد محل رئيسى-الفروع القائمة، من اجمالي ٠)
الرقم القومى للمنشأة:٥٤٥٢٩٦٣٢٣ الرقم الموحد للسجل التجارى (٠٦٦٨٦ ٠١٠٠٠ ١٠٥١٠)
أى كشط أو شطب أو تعديل أو تحشير أو أختام بخلاف شعار الجمهورية يلغى هذه الوثيقة

(أ) الوكلاء المفوضون (ب) مدير الفرع او الوكالة واسم و لقب كل منهم تاريخ و محل ميلاده وجنسيته (٨)	(أ) مقدار راس المال المستثمر فى المحل الرئيسى للتاجر والفروع والوكالات التابعة له (ب) مقدار راس مال الشركة او الجمعية التعاونية ١- المبالغ المؤداة منه ٢- مبالغ تعهد الشركاء بادائها ٣- مقدار حصة الشركاء الموصين ٤- قيمة الحصص العينية ان وجدت (ج) رصيد الفرع المدين للمركز العام للشركة (٩)	(أ) المحال التى كانت للتاجر سابقا (ب) المحال التى تكون له: ١- فى دائرة نفس المكتب ٢- فى دائرة مكاتب اخرى (١٠)	رقم التسجيل: (أ) العلامات التجارية (ب) براءات الاختراع (ج) الرسوم و النماذج الصناعية (١١)	(أ) النظام المالى الذى حصل الزواج على مقتضاه (ب) الاهلية التجارية (ج) كل عقد يقضى بحل الشركة او وضعها تحت التصفية (١٢)	(أ) الاحكام و القرارات الصادرة بتوقيع الحجز على التاجر او بتعيين القامة و الوكلاء عن الغائبين بعزلهم او برفع الحجز (ب) الاحكام و الاوامر المتعلقة بالافلاس (ج) احكام اعادة الاعتبار (د) الاحكام الصادرة بالطلاق او التفرقة الجسمانية او المالية و القرارات الصادرة باعطاء الاذن للتاجر بالاتجار او الغائه او الحد منه (هـ) احكام فصل الشركاء او عزل المديرين واحكام حل الشركات او بطلانها وتعيين المصفين او عزلهم (و) البيانات المتعلقة ببيع المحل التجارى او رهنه طبقا للقانون رقم ١١ لسنة ١٩٤٠ (١٣)	هامش (١٤)
(نهاية البيانات)	(أ) مقدار رأس المال ١٠٠٠٠٠ جنيه مصرى فقط مائه ألف جنيه مصرى لاغير \\\ [ملاحظات] مائة الف جنيه مصرى فقط لا غير \\\ *****(نهاية البيانات)*****	**(نهاية البيانات)**	**(نهاية البيانات)**	**(نهاية البيانات)**	**********(نهاية البيانات)**********	[١] ١٠٧٥ ٢٠٢٢/٠٧/١٧ ****(نهاية البيانات)****

إسم طالب المستخرج محمد احمد محمد على - طلب رقم ٦٤٥٢٩٤٦
وقد سدد الرسوم وقدرها ٢٣٠.٤ جنيه (عدد ١ نسخه) بموجب سداد إلكتروني في ٢٠٢٥/١٢/٣١
إصدار مكتب غرفة القاهرة المميز١ تحريرا فى ٢٠٢٥/١٢/٣١ مسئول الطباعة باسم محمد صلاح
****يتم اصدار نسخة واحدة فقط من مستخرج السجل التجارى فى حالة عدم اثبات رقم تسجيل ضريبي عليه****

مدير المكتب