A TECHNICAL REPORT ON STUDENT INDUSTRIAL TRAINING EXPERIENCE SCHEME [SIWES]

UNDERTAKEN AT:

PRIME SURVEY LIMITED is located at:

EBUNOLUWA COMPLEX, LAJORIN STREET,

SABO OKE, ILORIN, KWARA STATE

PRESENTED

By
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ND/23/SGI/FT/0054

SUBMITTED TO THE DEPARTMENT OF SURVEYING AND GEO- INFORMATICS

FACULTY OF ENVIRONMENTAL STUDIES, KWARA STATE POLYTECHNIC. ILORIN KWARA STATE.

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AN ORDINARY NATIONAL DIPLOMA (OND) IN SURVEYING AND GEO- INFORMATICS.

MARCH, 2025

CERTIFICATION

I, **MAFTAU AISHAT OMOWUNMI** with Matric number **ND/23/SGI/FT/0054** hereby certify that the information contained in this SIWES report were obtained as a result of my experiences during my 4 month SIWES programme at **PRIME SURVEY LIMITED** in accordance with survey rule and regulations and departmental instructions. I therefore submit the report as a partial fulfillment of the requirements for the student work experience scheme requirements for KWARA STATE POLYTECHNIC ILORIN , KWARA STATE , student work experience scheme.

__________________________ ______________

DATE

(SIWES SUPERVISOR)

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DATE

(SIWES COORDINATOR)

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DATE

(HEAD OF DEPARTMENT)

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SURV F.DIRAN **DATE**

DIRECTOR, DIRECTORATE OF

INDUSTRIAL LIAISONS PLACEMENT

DEDICATION

This Siwes report is dedicated to my lovely supporter/guidance

MR & MRS MAFTAU

ACKNOWLEDGEMENT

Praises and thanks to the Almighty GOD for his showers of blessing throughout my Industrial Training period and for a successful completion. I would like to express my deepest and sincere gratitude to my training supervisor and management of **PRIME SURVEY LIMITED** and other sectional heads in person of **SURV. DIRAN**. He has given me the opportunity to carry out this Industrial training; providing invaluable guidance throughout the training period. His supervision, vision, sincerity and motivation was deeply inspired me. I am extremely grateful for what he has offered me. I would also like to thank him for his friendship, empathy and great sense of humor.

Nevertheless, my profound acknowledgement will extend to my Head of Department of Surveying and Geo- informatics Kwara State Polytechnic and all other departmental lecturers for the advice, support and correction made to me while in the classroom, during practical and every time I need their assistance. I pray you all continuous to leave in good health and more promotion on your field sir and ma.

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CHAPTER ONE

1.0 INTRODUCTION

This report presents my experiences and achievements during my six-month industrial attachment at **PRIME SURVEY LIMITED** The report provides an overview of the organization, its objectives, and the activities I was involved in during my attachment.

It also highlights the skills and knowledge I acquired during the period, including practical experience with surveying equipment, geospatial software, and project management techniques.

1.1 INCEPTION OF STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME

The Students Industrial Work Experience Scheme (SIWES) is a program that was established in Nigeria to bridge the gap between theoretical knowledge acquired in the classroom and practical skills required in the workplace. SIWES was initiated in Nigeria in 1973 by the federal government as a response to the need for practical exposure of students in higher institutions to real work environments. Its relevance in the education system cannot be over emphasized as it develops the student to become skilled and experience professionalism in the various disciplines. It enables students to appreciate the basic concept involved in their field of study. SIWES, which involves the university authorities and the industrial sector, runs for 24 weeks for students in the fourth academic year in the universities. The scheme was organized by the federal Government and jointly coordinated by the Industrial Training Fund (ITF) and the Nigerian Universities Commission (NUC). The importance of the training scheme is justified as it is a research field, which enables students to be totally in- depth in finding the working culture, practice and tools in their various areas of specialization.

1.2 OBJECTIVES

The Students' Industrial Work Experience Scheme (SIWES) was created with the goal of fostering and supporting the development of skills in business and industry in order to create a pool of qualified native workers sufficient to meet the demands of the economy. Any industrial organization's most valuable resource depends on the technical proficiency of its workforce to operate and maintain its non- human assets and resources, which is why SIWES is required. According to the program's operational norms and guidelines, students are assigned to a structured environment (private or public), whose operations are related to their course of study. The purpose of this training time is to help students at different levels connect the theory they learn in class to real- world applications. According to the government's education policy,

CHAPTER TWO

2.0 DESCRIPTION OF THE ESTABLISHEMENT OF ATTACHMENT

PRIME SURVEY LIMITED is a private surveying and geospatial services company located in Kwara State The company was established in 2020 with the aim of providing innovative and cutting-edge solutions in surveying, mapping, and geospatial consulting.

The company has a flat organizational structure, with a managing director at the helm. The managing director is supported by a team of experienced surveyors, geospatial analysts, and administrative staff.

Facilities and Equipment

PRIME SURVEY LIMITED has a well-equipped office with state-of-the-art surveying and geospatial equipment, including:

- Total stations
- GPS receivers
- GIS software (ArcGIS, QGIS)
- Surveying software (Autodesk, Carlson)
- Computers and laptops

Services Offered

The company offers a range of services, including:

- Topographic surveys
- Boundary surveys
- GIS mapping
- Geospatial consulting
- Project management

2.1 LOCATION AND BRIEF HISTORY OF ESTABLISHMENT

PRIME SURVEY LIMITED is located at:

EBUNOLUWA COMPLEX, LAJORIN STREET, SABO OKE, ILORIN, KWARA STATE

Brief History of Establishment

PRIME SURVEY LIMITED was established in 2008 by **Surveyor FELIX DIRAN BELLO** a seasoned surveyor with Six (6) years of experience in the industry.

The company started as a small surveying firm providing services to local clients but has since grown to become a leading provider of surveying and geospatial services in [Kwara State]. Over the years, the company has built a reputation for delivering high-quality services and has worked on numerous high-profile projects in Industry

PRIME SURVEY LIMITED is a private Survey firm. The company was established and legal registered under C.A.C corporate commission in the year 2019, the firm name has been in existences since seven year back. And the firm has fully involved in both government and privates survey job both in the state and outside the Lagos State.

The mandate of the ministry is primarily to formulate and implement the policies, programmes and projects of the Federal Government of Nigeria (FGN) with respect to road transport, highway construction and rehabilitation; highways planning and design monitoring and maintenance of federal roads and bridges nationwide.

2.3 OBJECTIVES OF ESTABLISHMENT

The primary objective of establishing **PRIME SURVEY LIMITED** is to provide innovative and cutting-edge surveying and geospatial services to clients in various industries, including:

Infrastructure Development : To support the development of infrastructure projects, such as roads, bridges, and buildings, by providing accurate and reliable surveying and mapping services.

Land Administration: To assist in the management and administration of land resources by providing services such as land surveying, mapping, and GIS analysis.

3. **Environmental Monitoring**: To support environmental monitoring and management

efforts by providing services such as GPS tracking, GIS analysis, and remote sensing.

4. **Professional Development** To provide training and development opportunities for surveying and geospatial professionals, promoting capacity building and skills development in the industry.

aims to become a leading provider of surveying and geospatial services in the region, known for its excellence, innovation, and commitment to delivering high-quality services.

Topographic Surveying

Geographic Information System Analysis

Digital Mapping and Street Guide Mapping

Drone Mapping and Analysis

Hydrographic Surveying

2.5 Departments and Units in the Firm

The following departments/section were operated and function well, they are:-

ii. Managing Director

iii. GIS Section

iv. Admin. Section

v. Finance and Accounting Section

vi. SIWES/IT Student Section

ORGANIZATION STRUCTURE

MANAGING DIRECTOR

GIS SECTIONS

ADMIN SECTION

SIWES/ IT STUDENTS

CHAPTER THREE

Introduction To Cadastral Survey

This cadastral is a report on the cadastral survey conducted during the Students' Industrial Work Experience Scheme (SIWES) program. The survey was carried out to gain practical experience in cadastral surveying and to apply theoretical knowledge in a real-world setting.

Objectives

The objectives of the cadastral survey were to:

1. Determine the boundaries: Determine the boundaries of the parcel of land using cadastral surveying techniques.

2. Identify encroachments: Identify any encroachments or discrepancies along the boundary.

3. Prepare a cadastral map: Prepare a cadastral map showing the boundaries, dimensions, and other relevant details of the parcel of land.

Equipment Used

The following equipment was used during the cadastral survey:

1. Total Station: A Leica TS06 total station was used to measure the angles and distances between boundary markers.

2. GPS Receiver: A Trimble Geo XT GPS receiver was used to establish the location of the parcel of land in relation to the surrounding area.

3. Tape Measure: A 100-foot tape measure was used to measure the distances between boundary markers where the total station could not be used.

4. Boundary Markers: Iron pins and concrete monuments were used to mark the boundaries of the parcel of land.

Methodology

The cadastral survey was conducted using the following methodology:

1. Reconnaissance: A reconnaissance survey was conducted to identify the approximate location of the parcel of land and to determine the best approach for the survey.

2. Establishing the Datum: A datum point was established using the GPS receiver to provide a reference point for the survey.

3. Measuring the Boundaries: The total station was used to measure the angles and distances

between boundary markers. The tape measure was used to measure the distances between boundary markers where the total station could not be used.

4. Identifying Encroachments: The survey team checked for any encroachments or discrepancies along the boundary.

Results

The results of the cadastral survey are presented below:

1. Boundary Length: The total length of the boundary was measured to be [Length] meters.

2. *Boundary Markers*: A total of Four (4) boundary markers were identified and mapped.

3. Encroachments: encroachments were identified along the boundary.

4. Cadastral Map: A cadastral map was prepared showing the boundaries, dimensions, and other relevant details of the parcel of land.

Conclusion

The cadastral survey was successful in determining the boundaries of the parcel of land, identifying encroachments, and preparing a cadastral map. The results of the survey will be useful for land administration, planning, and development purposes.

Recommendations

Based on the results of the survey, the following recommendations are made:

1. Update Land Records: The land records should be updated to reflect the results of the cadastral survey.

2. Resolve Encroachments: The encroachments identified along the boundary should be resolved through negotiation or legal action.

3. Use Cadastral Map: The cadastral map prepared during the survey should be used for land administration, planning, and development purposes.

CHAPTER FOUR

Introduction To Perimeter Survey

A perimeter survey is a type of land survey that involves measuring and mapping the boundaries of a parcel of land. The purpose of this report is to document the results of a perimeter survey conducted during my siwes programme

Objectives

The objectives of the perimeter survey were to:

1. Determine the exact boundaries of the parcel of land.
2. Identify any encroachments or discrepancies along the boundary.
3. Provide a detailed map of the perimeter showing the location of all boundary markers and monuments.

Equipment Used

The following equipment was used to conduct the perimeter survey:

1. **Total Station**: A Leica TS06 total station was used to measure the angles and distances between boundary markers.

2. **GPS Receiver**: A Trimble Geo XT GPS receiver was used to establish the location of the parcel of land in relation to the surrounding area.

3. **Tape Measure**: A 100-foot tape measure was used to measure the distances between boundary markers where the total station could not be used.

4. **Boundary Markers**: Iron pins and concrete monuments were used to mark the boundaries of the parcel of land.

Methodology

The perimeter survey was conducted using the following methodology:

1. **Reconnaissance**: A reconnaissance survey was conducted to identify the approximate location of the parcel of land and to determine the best approach for the survey.

2. **Establishing the Datum**: A datum point was established using the GPS receiver to provide a reference point for the survey.

3. **Measuring the Boundaries**: The total station was used to measure the angles and distances between boundary markers. The tape measure was used to measure the distances between boundary markers where the total station could not be used.

4. **Identifying Encroachments**: The survey team checked for any encroachments or discrepancies along the boundary.

5. **Mapping the Perimeter**: A detailed map of the perimeter was created showing the location of all boundary markers and monuments.

Results

The results of the perimeter survey are presented below:

1. **Boundary Length:** The total length of the boundary was measured to be 2,500 feet.

2. **Boundary Markers**: A total of 20 boundary markers were identified and mapped.

3. **Encroachments**: Two encroachments were identified along the boundary, one from a neighboring property and one from a utility easement.

4. **Discrepancies**: One discrepancy was identified along the boundary, where a boundary marker had been moved from its original location.

Conclusion
The perimeter survey was successful in determining the exact boundaries of the parcel of land and identifying any encroachments or discrepancies along the boundary. The results of the survey will be used to update the property records and to resolve any boundary disputes.

Recommendations

Based on the results of the survey, the following recommendations are made:

1. **Update Property Records**: The property records should be updated to reflect the exact boundaries of the parcel of land.

2. **Resolve Boundary Disputes**: Any boundary disputes should be resolved using the results of the survey.

3. **Monitor the Boundary**: The boundary should be monitored regularly to ensure that any future encroachments or discrepancies are identified and addressed promptly.

Appendices
The following appendices are included:

1. **Survey** Map: A detailed map of the perimeter showing the location of all boundary markers and monuments.

2. **Field Notes**: A copy of the field notes taken during the survey.

3. **Calculations**: A copy of the calculations used to determine the boundary lengths angle.

CHAPTER FIVE

5 0 Summary of attachment activities

5.1 Problem Encounter during the program

The Student Industrial Work Experience Scheme (SIWES) is undoubtedly a crucial program for bridging the gap between classroom learning and practical experience. However, despite its many benefits, SIWES is not without its challenges.

These challenges can significantly impact the overall effectiveness of the program and the experiences of the students involved.

Placement Issues

One of the most significant challenges of SIWES is securing relevant placements for all students.

This issue is particularly pronounced in regions with limited industrial activities or specific industries.

Students often struggle to find organizations that are willing to take them on for their industrial training. This can be a source of immense frustration and anxiety, especially for students who are eager to gain experience in their specific field of study.

Financial Constraints

Financial constraints pose another significant challenge for many students. The cost of transportation, accommodation, and other expenses during the industrial attachment can be burdensome. While some institutions or companies provide stipends, these are often insufficient to cover all expenses, leaving students to bear the additional costs.

5.2. Suggestions for the improvement of the scheme

5.3 Recommendation

The challenges of SIWES, from securing placements and ensuring quality training to financial constraints and inadequate supervision, can significantly affect the experiences and outcomes for students. These challenges highlight the need for better support systems, more effective collaboration between educational institutions and industries, and increased financial aid to ensure that students can fully benefit from the program. Addressing these issues can help make SIWES a more enriching and valuable experience, enabling students to gain the practical skills and confidence needed to excel in their professional careers.