

TERMS OF REFERENCE

CONSULTING SERVICES FOR PREPARATION OF DETAILED AND ARCHITECTURAL & ENGINEERING (A&E) DESIGN FOR THE CONSTRUCTION OF TWO (2) – STOREY DA CARAGA REGION OFFICE BUILDING WITH ROOF DECK LOCATED AT BRGY. TAGUIBO, BUTUAN CITY

I. INTRODUCTION

A. BACKGROUND/OBJECTIVES:

DA-Caraga intends to engage the services of a qualified and experienced Consulting Architectural and Engineering Firm. The Approved Budget for the contract of the above-mentioned consulting project is Php 2,200,000.00

This to tap an expert service for the preparation of a detailed of Architectural and Engineering (A&E) Designs for the construction of Two (2) – Storey DA Office Building with Roof Deck. It includes, among others, interior design, landscape design, and various pre-design works such as soil testing and investigation. It must also be ensure that the designs shall be implementable within the prescribed budget and timeline.

The overall design of the project should incorporate sustainable design or green design elements and shall adhere to the latest applicable engineering and architectural codes in relation to the construction of infrastructure and adopt principles of resilient design in response to climate change in compliance with the Philippine Green Building Code (GB Code).

B. BASIC INFORMATION ON PROPOSED BUDGET

- | | |
|--------------------------------|---|
| 1. Site Location | : ILD, Brgy. Taguibo, Butuan City |
| 2. Floor Area | : 1 st Floor – 2200 sq.m
2 nd Floor – 2200 sq.m
Roof Deck – 2200 sq.m
Total Floor Area – 6600 sq.m |
| 3. No. of Level | : Three (3) level |
| 4. No. of Personnel/ Employees | : 450 |
| 5. Service Contract Duration | : Sixty (60) calendar days |

C. PROJECT LOCATION:

The proposed building is to be built on lot area approx. 3,000 sq.m located at Brgy. Taguibo, Butuan City focusing on Green Architecture, and adopting principles of sustainable design responsive to climate change.



Figure 1. Satellite image showing the project location in a red block located at Brgy. Taguibo, Butuan City



Figure 2. Site Development Plan of DA-ILD, Taguibo, Butuan City showing the Project location

D. DEFINITION OF TERMS:

The following terms and acronyms are defined to ensure common terms of reference:

- A&E Design Consultant - refers to the entity (whether sole, association and/or joint venture of design firms) providing Detailed Architectural and Engineering Design (DAED), including Interior Design, Landscape Architecture, and all the allied Engineering fields relative to the project; may be used interchangeably with CONSULTANT

- DA-Caraga - refers to the Department of Agriculture Caraga Region; may be used interchangeably with OWNER
- Similar projects - refers to multi-storey (two-storey or higher) office, commercial or buildings of similar or greater magnitude or complexity

II. DESIGN PARAMATERS

The office space plan, in accordance with the conceptual layout, shall cover/reflect the following areas/spaces:

1. Office of the Regional Executive Director with T&B and pantry
2. Offices of the Two (2) Regional Technical Directors with T&B
3. Workspace requirement for four hundred fifty (450) personnel at five (5) sq. m. per person;
4. One (1) Main Conference Room with Serving/Pantry Area – can be divided into three (3) mini conference room and with three (3) entry point.
5. Rooms allotted for the following:
 - a. Field Operations Division
 - b. Regional Agricultural Engineering Division (RAED)
 - c. Administrative & Finance Division
 - i. Administrative Officer
 - ii. Information Section – with Radio/Broadcasting Room; Audio Visual Room; and Media Lounge
 - iii. Accounting Section
 - iv. Budget Section
 - v. Records Unit
 - vi. Human Resource Section
 - vii. Cashier Section
 - viii. General Services Section
 1. Procurement Unit/BAC
 - d. Regulatory Division
 - e. Research Division
 - f. Integrated Laboratory Division (ILD)
 - g. Planning, Monitoring, & Evaluation Division
 - h. Agribusiness and Marketing Assistance Division (AMAD)
 - i. Display Area
 - ii. Incubation Room
 - i. Philippine Rural Development Project (PRDP) & Special Projects
 - j. Commission on Audit (COA)
 - k. Regional Agriculture and Fisheries Council (RAFC)
 - l. Mindanao Inclusive Agriculture Development Project (MIADP)
 - m. Gender and Development (GAD) Room
6. Supply/Storage Room
7. Data Center/Server Room/Repair Room
8. Electrical Room/Surveillance Room
9. Separate Male and Female Toilet areas
10. Prayer Room (2 rooms)
11. VIP Holding Area
12. Gazebo
13. Parking Area

The consultant may also suggest improvements on the Conceptual layout for consideration by DA Caraga.

III. DESIGN CRITERIA

For the implementation of the services, the Consultant should take notice of the criteria of the building to conform to its functionality and complexity, and are as follows:

1. Conditions of allotment and intensity:
 - 1.1. To ensure that the Buildings are constructed based on the regulation of spatial plan and building plan determined by the local authority.
 - 1.2. To ensure that the Building will be used to conform to its functions.
 - 1.3. To ensure the safety of the users, community and environment.
 - 1.4. To conform to the state budget principles:
 - 1.4.1. Economical, not luxurious, efficient and conforms to the technical purposes specified.
 - 1.4.2. To be focused and controlled to conform to the plan, program, and its functions.
 - 1.4.3. To utilize local products and resources as much as possible to promote national prosperity.
2. Conditions of architecture and environment:
 - 2.1. To ensure that the Building is constructed based on the environment characteristics, determination of the nature of building and local culture, in order to obtain balance, harmony and compatibility with the environment.
 - 2.2. To ensure the creation of green space that is balanced and in harmony with the environment.
 - 2.3. To ensure that the building is constructed and utilized with no negative impacts to the environment.
 - 2.4. To ensure that the roof deck has the provision to be utilized as rooftop vegetable garden with gazebo.
3. Conditions of building structure:
 - 3.1. To ensure the structural stability of the building to support the loads as the result of its utilization to conform to its functions, and as the result of the natural and human behavior (based on the national structural code of philis)
 - 3.2. To ensure the creation of the Building designed as earthquake resistant, storm, wind, and flood resilient.
 - 3.3. To ensure the safety of the people from possible accidents or injury due to building structure failure.
 - 3.4. To ensure the welfare of the people from losses or damages of their properties due to the failure of the Building Structure.
 - 3.5. To ensure the protection for the other properties from physical damages due to the failure of the Building Structure.
4. Conditions of water supply:
 - 4.1. To ensure that the Building is provided with water supply facilities.
 - 4.2. Fulfill the quality standard, sufficient discharge minimum 100 liters/person/day.

- 4.3. Fulfill the requirement for fire protection adequate for minimum 45 minutes operation of fire tackling.
- 4.4. Installation of water tank to supply for the building and rain water collector to be used for non-potable fixtures (toilets, washer, etc.)
5. Conditions of sanitation:
 - 5.1. To ensure that the Building is equipped with facilities for discharging the wastewater from the kitchens, bathrooms, and washrooms to the drainage canals.
 - 5.2. To ensure that the installed septic tank must conform to its function.
 - 5.3. The discharge of wastewater from the kitchens, toilets and washrooms should use pipes or open channels to conform to the specifications.
 - 5.4. The discharge of the wastewater should appropriate to the local authorities.
6. Conditions of solid waste:
 - 6.1. To ensure the availability of trash bins and temporary solid waste collecting points for 3 liters/person/day. The temporary solid waste collecting points should be made of watertight materials and enclosures.
7. Conditions of drainage canals:
 - 7.1. A system where the rainwater should be collected to a rainwater collector tank and ensure that the excess of the tank will be discharged to the drainage canal or as required by the local authorities.
8. Conditions of fire:
 - 8.1. To ensure the creation of buildings that could be stable when it is on fire.
 - 8.2. To avoid damages of the other properties.
 - 8.3. A Public Announcement (PA) system must be installed per floor for any emergency announcement.
 - 8.4. To ensure compliance with the existing Fire Code of the Philippines.
9. Conditions of access entry and exit ways:
 - 9.1. To ensure safe, proper and comfortable access to entry and exit ways to the Building and its facilities, as well as to service areas inside the building.
 - 9.2. To ensure the creation of efforts to protect the dwellers from pains and injuries during evacuation in emergency situations.
 - 9.3. To ensure the provision of easy access for the disabled.
10. Conditions of transport facilities inside the building:
 - 10.1. To ensure the provision of proper, safe and comfortable transport facilities inside the Building.
 - 10.2. To ensure the provision of transport facilities for the disabled.
11. Conditions of emergency situation, exit signs and early warning systems of danger:
 - 11.1. To ensure the provision of an early warning system if an emergency situation occurs.
 - 11.2. To ensure the dwellers to evacuate easily and safely in emergency situations.

12. Conditions of electrical installations, lightning rod, and communications facilities:
 - 12.1. To ensure that the installations of electrical facilities adequately and safely support the activities inside the building to conform to its functions.
 - 12.2. To ensure the safety of the Building and its occupants from the danger of lightning.
 - 12.3. To ensure that the provision of communication facilities adequately support the activities inside the building to conform to its functions.
13. Conditions of sanitation facilities inside the Building:
 - 13.1. To ensure the provision of adequate sanitation facilities to support the activities inside the building to conform to its functions.
 - 13.2. To ensure the creation of clean, hygienic and comfort for the dwellers of the Building and the environment.
14. Conditions of air conditioning and ventilation:
 - 14.1. To ensure the fulfillment of air conditioning needed adequately, either naturally or man- made, to support the activities inside the building to conform to its functions.
 - 14.2. Design a sliding window with a screen to establish a natural ventilation on each room.
15. Conditions of lighting:
 - 15.1. To ensure the fulfillment of lighting needed adequately, either natural or man- made to support the activities inside the building to conform to its functions.
16. Conditions of noises and trembles:
 - 16.1. To ensure the creation of comfortable situation from unexpected noises and trembles disturbance.
 - 16.2. To adopt environmental pollution mitigation measures resulting from construction activities. Cost of such measures should be included in the detailed construction cost estimates.

IV. SCOPE OF SERVICES

The scope of services to be rendered by the consultant in accordance shall include the following:

1. Conduct of Preliminary Engineering Surveys and Investigations
 - 1.1. Conduct applicable detailed engineering surveys and soil investigations of the site including elevations and contours, location, and other pertinent data on the existing improvements and utilities (e.g., water, power, communication lines, etc.) within the proposed office area and building premises, and other field surveys and investigations necessary to carry out the Project.
2. Presentation of Perspective Views
 - 2.1. Develop three (3) perspective views (exterior and interior) and a walkthrough of the new DA Caraga Office Building for consideration of the DA Caraga Management Committee (ManCom).

2.2. The consultant may suggest improvements or revisions on the layout or orientation of the building as it deems more advantageous or suitable subject to the review and approval of the ManCom.

3. Preparation and submission of the following:

3.1 Final and complete Site Development Plans consisting of but not limited to: a. Building, driveways, Parking area, green areas, and other landscape elements.

3.2 Final and complete Architectural Plans consisting of but not limited to: a. Floor Plans including Furniture and Partition Layouts and Details; b. Reflected Ceiling Plans and Ceiling Details including Lighting Fixtures Specifications; c. Architectural Specifications;

3.3 Final and complete Civil and Structural Plans, consisting of but not limited to: a. Foundation Plans; b. Columns and Beams Details; c. Floor Slabs details; d. Wall Footing and Wall details; e. Roof Framing details; f. Stairs Details; g. Elevator's Shaft details; h. Structural analysis and design notes.

3.4 Final and complete Sanitary/Plumbing Plans consisting of but not limited to: a. Piping Computation for Water, Drainage and Sewer Systems; b. Water System Layout; c. Drainage System Layout; d. Sewer System Layout; e. Sanitary Specifications.

3.3.1 Measures on water efficiency shall be considered, e.g. water efficiency in structural landscaping, storm water retention and management, etc.

3.3.2 A system for sustainable collection and treatment of water and wastewater shall also be introduced.

3.3.3 An elevated water tank shall be included which will sit on the frontage area. It will be designed as a landmark for the office. This supplies the sufficient volume of water to the office building through the distribution lines.

3.5 Final and complete Electrical Plans consisting of but not limited to: a. Electrical Load Computations; b. Power Distribution Single-Line Diagram, including power layout; c. Lighting Layout; d. Electrical Specifications.

3.5.1 An electric generator shall be provided as a secondary power to operate the emergency lights during brownouts/power supply interruption. Measures in optimizing energy performance shall be considered in the design

3.5.2 Primary power for fire alarm systems is provided by connecting into the local power provider. A separate power supply that will operate automatically when the primary power fails and is capable of operating the entire system is considered a secondary power supply.

3.5.3 The secondary power supply should activate automatically if the primary power failure to maintain its normal operating voltage.

3.5.4 If the building need a transformer based on the load computations, it must be include in the total estimate of the project

3.6 Final and complete Mechanical Plans consisting of but not limited to: a. Ventilation and Air Conditioning Systems General Conditions and Analysis; b. Ventilation and Air Conditioning Systems Layout and Specifications; c. Fire Protection System including Stairways with Fire Escape, Fire Alarm and Automatic Water Sprinkler System, d. Elevator's Layout and Specification.

3.6.1 All floors levels shall be accessible by two (2) stairways with one serving as fire escape and shall be located at the rear side of the building. Established an evacuation ground at the rear side of the building.

3.6.2 Fire and smoke alarms and water sprinklers shall be installed in all floors of the building.

3.6.3 Centralized air conditioning and Ventilation will be used. Every room has an individual control on the temperature.

3.7 Final and complete Electronics Plans consisting of but not limited to: a. Telecommunication System including Telephone, Direct Cable and Internet connectivity facilities and other electronics system layout; b. Security Layout (CCTV, Access Control System, etc.)

3.7.1 Communication lines for voice, data and security services shall be provided / distributed to all floors. This shall include current and future requirements for information services.

3.7.2 Ethernet/Network lines must be distributed to all workstations. Network cabinet, Wireless Access Point (WAP), Network access line for Wi-fi, IP Phones and Network Printer must be provided per room.

3.7.3 Provide a Public Address (PA) system distributed by floor. It will be installed at the broadcast studio.

3.7.4 Install CCTV at the designated areas (AMAD Display area, Hallway, receiving area, Admin & Finance division)

The building design shall conform to the provisions of the National Building Code of the Philippines (PD 1096), Accessibility Law (BP 344), National Structural Code of the Philippines, Electrical Engineering Law (RA 7920), Mechanical Engineering Law (RA 5336), Plumbing Code (RA 1378, 1993-1994 Revisions), Fire Code (RA 9514), Sanitation Code (PD 856), and should also comply with the other laws and regulations covering environmental concerns and local ordinances and regulations.

The Consultant shall also be required to submit the initial/preliminary drafts of the above described drawings for approval by the DA Caraga prior to the submission of the final drawings signed and sealed by the respective Engineers/Architect.

4. The Consultant shall also prepare and submit DA Caraga the following:

4.1. Consolidated Technical Specifications describing the color scheme, type and quality of materials, finishes, manner of construction and the general conditions;

- 4.2. Consolidated definitive Cost Estimate for the construction of the proposed Building and supported with Bill-of-Quantities (BOQ). All costs for application permits and other permits shall be included in the project cost.

5. Other Requirements:

- 5.1. The foregoing plans and documents duly signed and sealed by the concerned architect/engineer must include his/her valid registration/professional license number, date of registration and current PTR Number affixed/stamped on every page/sheet.
- 5.2. All Plans and Documents shall be delivered in sets as follows:
 - 5.2.1. One (1) set Original Copies of Architectural, Civil and Structural, Sanitary/Plumbing, Electrical and Electronic, and Mechanical Plans and details, scaled not more than 1:100 meters prepared in AutoCAD editable Format, Printed/plotted in tracing paper; A1 size
 - 5.2.2. Five (5) sets Blue Print copies for each plan.
 - 5.2.3. Two (2) sets E-copies of all documents in original formats, (All drawings/plans in CAD and PDF Files; Bill of Quantities in Excel and PDF; other Documents in Word and PDF) in Universal Serial Bus (USB) and email.
 - 5.2.4. One (1) copy of Perspective (full color) on a 15"x 20" Illustration Board.
 - 5.2.5. One (1) original and five (5) other copies of the detailed cost estimates, unit price analysis, technical specifications and tender documents in A-4 size quality paper.
 - 5.2.6. One (1) original and five (5) other copies of the Structural Analysis and Design in A-4 size quality paper
- 5.3. The Consultant shall also be required to attend regular update/progress report meetings with the DA Caraga throughout the duration of the engagement.
- 5.4. The Consultant may be called by the DA-Caraga during procurement stage to clarify matters pertaining to the drawings and designs.

6. CONSULTANCY SERVICE REQUIREMENTS

A local consultancy firm/company with experience in Architecture and Detailed Engineering Design with the following profile:

1. Must be operational for at least five (5) years
2. Must have at least three (3) years of consulting experience in A & E design
3. Must have previously handled/ managed similar contracts with scope of works related to the preparation of architectural design and detailed engineering of other vertical structures (government/public and private buildings)

7. MANPOWER AND QUALIFICATION REQUIREMENTS

1. The consultant, as a minimum requirement of the project, must be able to provide different personnel for each position the following manpower:

POSITION	NO. OF PERSONNEL (min.)	QUALIFICATIONS
Team Leader	1	<ul style="list-style-type: none"> ○ Must be a Licensed Architect or Civil Engineer ○ At least five (5) years of experience in design, contract and project management of buildings, and preferably with experience in green building
Structural Engineer	1	<ul style="list-style-type: none"> ○ Must be a Licensed Civil Engineer ○ At least three (3) years of relevant experience in the design, project management, or construction of modern structures ○ Duly Accredited Structural Engineer and a member of the Association of Structural Engineers of the Philippines (ASEP).
Civil Engineer	1	<ul style="list-style-type: none"> ○ Must be a Licensed Civil Engineer ○ At least three (3) years of relevant experience in design and project or construction management of buildings
Electrical Engineer	1	<ul style="list-style-type: none"> ○ Must be a Registered Electrical Engineer ○ At least three (3) years of relevant experience in design and project or construction management of buildings
Mechanical Engineer	1	<ul style="list-style-type: none"> ○ Must be a Registered Mechanical Engineer ○ At least three (3) years of relevant experience in design and project or construction management of buildings
Electronics and Communications Engineer	1	<ul style="list-style-type: none"> ○ Must be a registered Electronics and Communications Engineer ○ At least three (3) years of relevant experience in design and project or construction management of buildings
Sanitary Engineer	1	<ul style="list-style-type: none"> ○ Must be a Licensed Sanitary Engineer ○ At least three (3) years of relevant experience in design and project or construction management of buildings
TOTAL	7	

2. The consultant shall provide adequate technical and administrative support staff as may be required for the proper and timely completion of the project, but at no additional cost to DA-Caraga

3. The consultant must provide the Professional Regulation Commission (PRC) License and Professional Tax Receipt (PTR) of assigned staff for this project, as well as any relevant proof of skills, qualifications, work experience and professional certifications that shall establish the qualifications of the staff for the job.

8. CONTRACT PERIOD

Using the Quality Based Evaluation (QBE) procedure, the contract shall be awarded to prospective bidder with the Highest Rated Bid (HRB). (please see annex B)

The consultant's contract period for undertaking the services set out in this Terms of Reference shall be for a duration of Sixty (60) days.

The consultant shall commence work within the seven (7) days from the date of Notice to Proceed

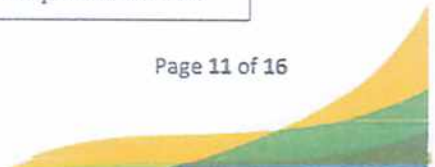
9. OWNERSHIP OF DOCUMENTS AND CONFIDENTIALITY OF DATA

1. The ownership and all rights thereto of all designs, drawings, specifications, and copies thereof including electronic files, prepared, and furnished by the consultant in the performance of the services subject of the Agreement shall be vested with DA - Caraga.
2. All data and information related to this project shall be treated with strict confidentiality and shall not be released without the written consent of DA - Caraga.
3. The consultant, its affiliates, and subcontractors shall abide by and comply with all the applicable laws, rules and regulations of any Philippine government or regulatory body having jurisdiction over their professional practice and the services provided in this agreement.

10. DELIVERABLES AND PAYMENT SCHEDULE

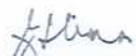
The following are the expected deliverables/ outputs from the consultant and the corresponding schedule of payment subject to the usual Government accounting and auditing requirements:

Deliverable	Timeline	Payment
Submission of the results of Preliminary Engineering Surveys and Investigations	Within fifteen (15) calendar days from receipt of Notice to Proceed	20% of the Total Contract Price upon approval of the outputs delivered
Draft Architectural & Engineering Design, which includes at least three (3) different scheme of Perspectives	Within ten (10) calendar after review of the results of engineering surveys and investigations	20% of the Total Contract Price upon approval of the outputs delivered
Submission of 2nd Draft/ Improved Design	Within fifteen (15) calendar days after review of the draft design by DA Caraga	30% of the Total Contract Price upon approval of the outputs delivered



Deliverable	Timeline	Payment
Submission of Final Architectural & Engineering Design, Consolidated Technical Specifications and all others as stipulated in Sec. 5.2	Within Twenty (20) calendar days after the review of the 2nd Draft/ Improved Design by DA Caraga and concurrence of DPWH Caraga	30% of the Total Contract Price upon approval of the outputs delivered

Prepared:


 ENGR. THESSA LYN B. LIMAS
 Engineer III, RAED

Submitted:


 ENGR. RENE Q. MORALES
 Chief, RAED

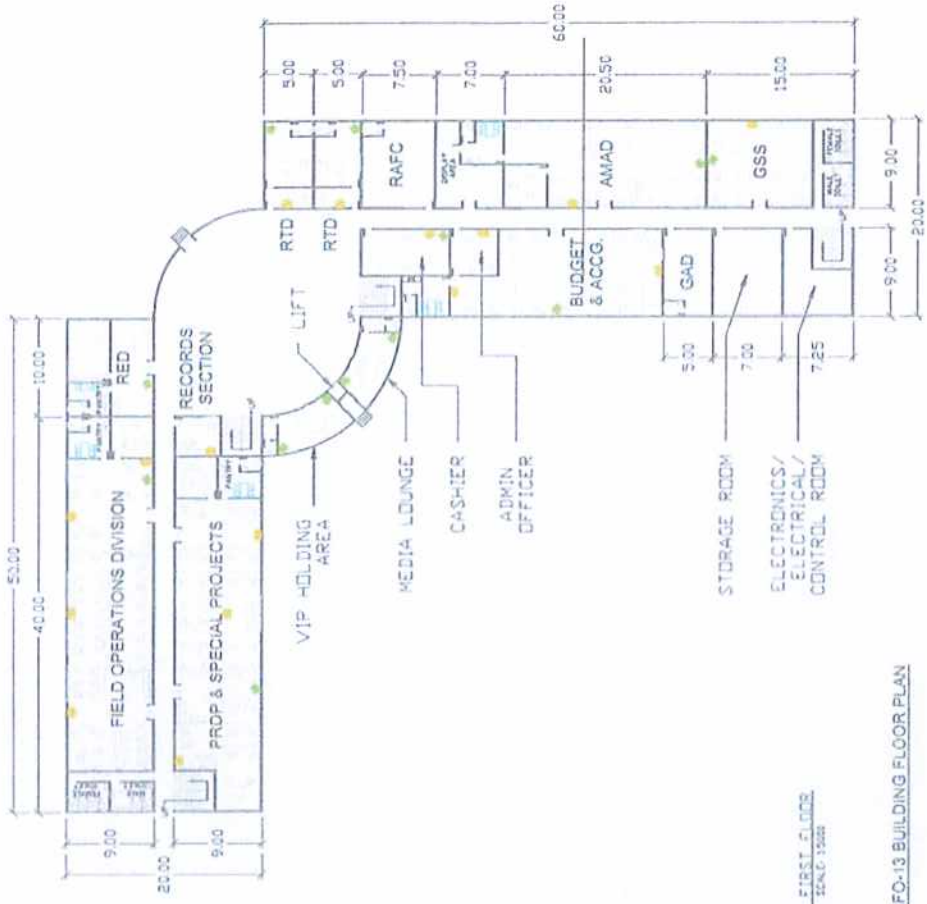
Recommending Approval:


 ABEL F. WAGAS
 RTD for Research and Regulations

Approved:

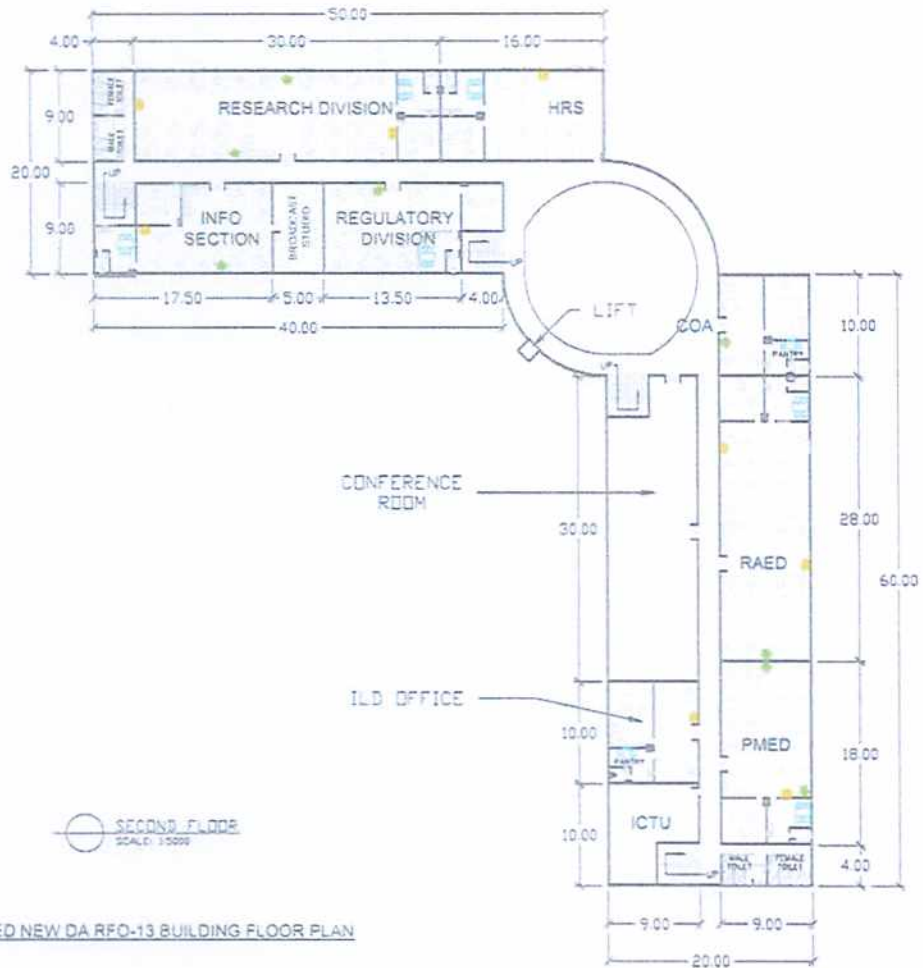

 ARLAN M. MANGELEN
 Regional Executive Director





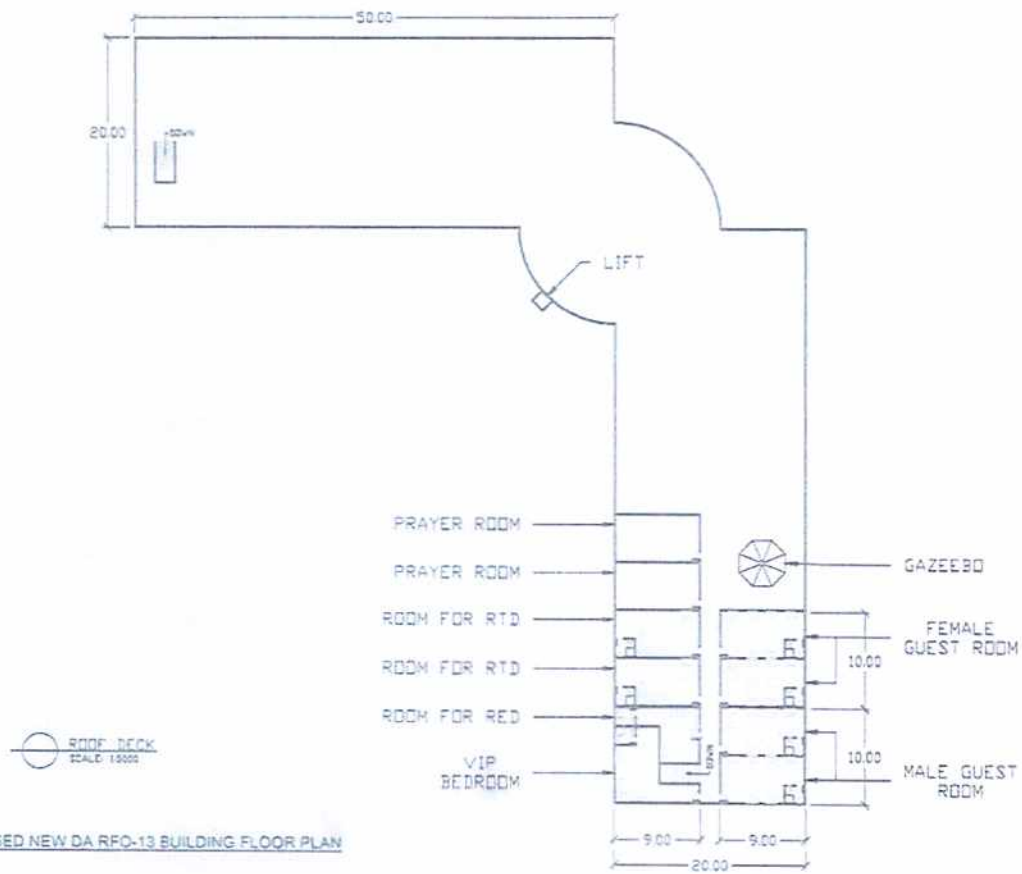
FIRST FLOOR
SCALE: 1:500

PROPOSED NEW DA RFO-13 BUILDING FLOOR PLAN



PROPOSED NEW DA RFQ-13 BUILDING FLOOR PLAN

Annex A.



PROPOSED NEW DA RFO-13 BUILDING FLOOR PLAN



LEGEND:

- EXISTING BUILDING
- ▬ CONCRETE ROAD
- GRAVEL ROAD
- ① REGIONAL ANIMAL DISEASE DIAGNOSTIC LABORATORY
- ② REGIONAL HED CHEMICAL ANALYSIS LABORATORY
- ③ MOLECULAR LABORATORY
- ④ EMBRYO LABORATORY
- ⑤ NATIONAL SEED QUALITY CONTROL SERVICES
- ⑥ PARTICULATED LABORATORIES DIVISION OFFICE
- ⑦ OLD WAREHOUSE FLESH STORAGE
- ⑧ BEE WAREHOUSE
- ⑨ POULTRY SHED
- ⑩ REGIONAL SOILS LABORATORY
- ⑪ ORGANIC PROCESSING
- ⑫ SHED
- ⑬ MEET PURVISH HALL
- ⑭ GUEST HOUSE
- ⑮ HATCHERY STORAGE BUILDING
- ⑯ GOAT HOUSE
- ⑰ SHEEP HOUSE
- ⑱ STAFF HOUSE
- ⑲ BEE WAREHOUSE
- ⑳ CORN WAREHOUSE
- ㉑ PIGGERY SHED
- ㉒ ORGANIC WAREHOUSE



○ SITE DEVELOPMENT PLAN
SCALE: NTS