MolFarma

You are invited to quote for the required Architectural and Engineering Consultancy Services to design a new building for MolFarma/ Norwich Research Partners LLP at Norwich Research Park from Feasibility through Hand-over to Operations broadly in line with the works described in RIBA stages of development 1 to 6. The building is part of a project to provide a new transitional facility for the purpose of developing potential methods of producing high value material from plants. The overall project is currently expected to take approximately 12 months from start to hand-over.

Planning Permission will be required for the building and a Planning Consultant, Code DP, 17 Rosemary House, Lenwades Business Park, Kenford, CB8 7PN has been appointed to assist the successful Company to ensure that the applications and relevant approvals are completed in a timely manner. Currently an Ecological desktop study and Archaeological desktop study have been carried out.

Building Control Approval will also be required for the building and a Consultant will be appointed to assist the successful Company to ensure that the applications and relevant approvals are completed in a timely manner.

A cost consultant will be appointed by Norwich Research Partners LLP to assist with the project.

The works quoted for in this package will be divided over 2 distinct phases which will be ordered separately.

Phase 1 – The consultants will be appointed by Norwich Research Partners LLP to complete feasibility and concept design as indicated in the RIBA plan of works stages 1 and 2. This will include;

- 1. Organising and managing site investigations as part of a level survey and watching brief for Archaeological investigations.
- 2. A brief to allow a Principle Contractor cost for a design development and construction contract using NEC3-Engineering and Construction Contract.
- 3. Documentation to allow the MolFarma Board to visualise the Facility and agree to progress.
- 4. Documentation to allow the Planning Consultant to submit a suitable planning application.

Phase 2 – The consultant will be novated to the principle contractor to complete the project as indicated in the RIBA plan of works stages 3 to 6.

- 1. Complete the detailed design and provide documentation to allow the Principle Contractor and MolFarma/ Norwich Research Partners LLP fix the cost of the facility construction.
- 2. Provide assistance to the Principle contractor during construction.

- 3. Supervise commissioning and provide documentation to enable Building Control to issue a certificate of compliance.
- 4. To provide assistance to the Principle Contractor in providing an O&M Manual.
- 5. To assist in closing out any planning requirements to allow the Planning authority issue a letter of Compliance.

In accordance with CDM 2015 regulations, the consultant appointed will be appointed Principle Designer for the provision of the facility. The Principle Designer will be expected to carry-out the duties as indicated in the CDM 2015 Guidelines from appointment until the project is handed –over to MolFarma/ Norwich Research Partners LLP

QUOTATION REQUIREMENTS

Your quotation should be submitted to the Emptoris etendering facility by the date specified in the ITQ and should contain the following information;-

Question PROJ1.2

- 1. A cost development as follows:
 - a. Phase 1
 - i. Organising and managing site investigations as part of a level survey and watching brief for Archaeological investigations.
 - ii. A brief to allow a Principle Contractor cost for a design development and construction contract using NEC3-Engineering and Construction Contract.
 - iii. Documentation to allow the MolFarma Board to visualise the Facility and agree to progress.
 - iv. Documentation to allow the Planning Consultant to submit a suitable planning application.
 - b. Phase 2
 - i. Complete the detailed design and provide documentation to allow the Principle Contractor and MolFarma/ Norwich Research Partners LLP fix the cost of the facility construction.
 - ii. Provide assistance to the Principle contractor during construction.
 - iii. Supervise commissioning and provide documentation to enable Building Control to issue a certificate of compliance.
 - iv. To provide assistance to the Principle Contractor in providing an O&M Manual.
 - v. To assist in closing out any planning requirements to allow the Planning authority issue a letter of Compliance.
 - c. Principle Designer

This is to allow for an order to be placed for Phase 1 and Principle Designer and the novation for Phase 2.

- 2. Details of you estimated hours for each discipline.
- 3. A schedule of rates for each discipline which will be valid up to 31st December 2016.
- 4. Details of relevant experience in the last 4 years.
- 5. Clarifications/Exclusions.
- 6. Return address for documentation:- Tenders to be submitted through the Emptoris E-Tender system

- 7. Enquiry contact:- All enquiries to be sent through the Emptoris message facility
- 8. INDICATIVE TIMINGS FOR PROJECT

The following are the current milestones for the project;-

- Appointment of Consultant 30th July 2015
- 1st Review of Concept -21st August 2015
- Approval of Concept 11th September 2015
- Issue initial set of enquiry document to Design and Build Contractors 25th September 2015
- Planning application filed 2nd October 2015
- Design and Build Contractors return initial quotations 23rd October 2015
- Design and Build Contractors Appointed 30th October 2015
- Constructability Review 20th November 2015
- Final Build Costs confirmed and approved 13th November 2015
- Building Control Application Filed 2nd November 2015
- Notice of intent to grant planning approval 27th November 2015
- Enabling works commence 14th December 2015
- Setting out commence 28th January 2016
- Seal Building 4th May 2016
- Practical completion 22nd June 2016
- Sign-Off building 6th July 2016
- Building Control Certificate issued 13th July 2016
- O&M Manuals issued 20th July 2016
- Planning consent conditions fully closed out and sent to Planning authority 23rd September 2016

PROJECT BRIEF

INTRODUCTION

MolFarma in partnership with Norwich Research Partners LLP are proposing to provide a new building which is to be located in a currently undeveloped area adjacent to the main carpark and Hill House. The location of the building is dictated by the current Master plan for the development of the Research Park and the proposed location is based on the plot identified as "Single floor Option".

SITE

The site to be provided by Norwich Research Partners LLP will be positioned to allow for future expansion of the facility, should the business grow, without moving facilities.

The site will be fully serviced with Natural Gas (if required), Electricity, telephone, Water and Main drain connections all of which will be sized for the expected requirements of the facility plus a minimum allowance of 50% for future expansion of investigation services. The building fire alarm system will be linked with the JIC Reception in the Research Park to allow for monitoring when the building is un-occupied. The main drainage system will include a suitably sized collection tank which will collect all waste water, excluding foul water, from inside the building. The tank will be located to allow for monitoring and potential treating of the waste water, should the need arise. In addition a suitable UV system shall be installed and maintained on the outlet to ensure that the waste from the facility can be discharged safely to the main drainage system.

The site will be primarily accessed from the existing carpark and Norwich Research Park and will provide a minimum of 10 car park spaces for MolFarma staff and visitors adjacent to the building. It is expected that the additional 2 cars and any cycle spaces can be accommodated in the existing parking area for Norwich Research Park close to the building.

A service area/yard is to be provided at the rear of the building for visual impact reasons, the yard is to provide access to the growing area for the provision of raw materials and removal of waste, to provide storage/service space for the laboratory, to provide space for the Controlled environment Chamber Chillers and any Condensing units required for refrigeration in the building (both HVAC and Fit-out equipment). An access road is to be provided which is suitable for Heavy Goods Vehicles (HGV). The access road should be located so that it does not interfere with the future potential expansion of the building.

Building

The building to be provided will be initially a single floor building with a maximum height of 8 m, this is to comply with the current planning requirements for the area. The initial footprint of the building will not exceed 1,050m² (70mx15m) but an allowance will be made to expand the building in the future either by increasing the height over the Laboratory/Office area or by increasing the footprint.

The building will be a frame constructed unit with suitably cladded external walls to match the requirements of the operation and Park. Windows will be provide in the walls to provide natural light in the Offices and Laboratories. If possible natural ventilation will be provided in the office area.

The roof will be a combination of a Flat roof over the offices and Laboratory and a pitched roof over the remaining areas. Panels will be provided in the pitched roof to provide sufficient natural light to the main storage/plant growing area. Suitable opening vents shall also be provided in the storage/plant growing area for natural ventilation. These vents shall be protected by insect screens. Access and egress for normal operations and emergency escape shall be positioned at agreed locations.

Fire protection will be provide using a combination of electronic detection/alarms and suitable hand held extinguishers.

The building is to be constructed aspiring to BREEAM excellence rating and shall be constructed to prevent the ingress of either rodents, birds or insects when doors are closed.

The building should be designed to prevent the potential of cross contamination and the escape of Bacteria or Solvents into adjoining areas or the atmosphere.

MolFarma will be responsible for the fit-out of the building, however the design and construction team will provide, as part of the building, suitable service ducts, drainage points etc, which will be agreed during the design, to allow a damage free fit-out of the building.

ACCOMMODATION SCHEDULE

As part of the overall building package being provided, the following will be included:

See Table 1.

(Note sizes may change as building is developed)

Particular attention should be paid to the Laboratory areas where:

- 1. Layouts should conform to current best practice for movement and airflow
- 2. All benching and Fume cupboards should conform the current BS standard for use and containment.

MECHANICAL INSTALLATION

As part of the overall building package being provided, the following will be included:

- General Ventilation (Extract) for toilets
- Ventilation for changing rooms with relevant control system
- General ventilation, heating/cooling for the Offices and circulation areas with relevant control system
- Central vacuum system for Laboratories and Infiltrator
- Cold room and associated Condensers, piping, controllers, internal wiring and connections to drains
- Ventilation for the laboratories, heating/cooling with an allowance for Fume extraction points with relevant control system.
- Fume cupboard extract systems
- Local extraction systems
- Hot and cold water services to Showers, Toilets, Kitchenette, Laboratories, Service yard, CER Units, Autoclaves and Infiltrator.
- Polypropylene drains for above ground drainage from Laboratory Benches and fume cupboards.
- All underfloor drainage for both general and process waste water.

ELECTRICAL INSTALLATION

As part of the overall building package being provided, the following will be included:

- Any power transformers which are required as part of the site power distribution system.
- Main incoming power board with Isolators and meters.
- Power distribution boards
- Lighting distribution Boards
- Motive Control Panels
- Containment systems for all wiring installations
- Wiring to all General Lighting
- Wiring to all socket outlets
- Wiring to Laboratory Benches
- Wiring to all fume cupboards and fume extraction systems
- Wiring to all HVAC equipment
- Wiring to Isolators for all equipment nominated as part of fit-out.
- All general and emergency Lighting (LED)
- All Laboratory Lighting including any flameproof fittings.
- All main Isolators for equipment.
- Control systems and wiring for general building
- Fire alarm system, cabling, panels, detectors and break glass units.
- Telephone installation including provision of lines, small PABX and telephone instruments
- LAN system, including small HUB (32 ports) and CAT 6 or better Network cable.
- Wiring and controls for the waste collection tank.
- Intruder detection system. Linked to manned security location at JIC reception

SIGNS

As part of the overall building package being provided, the following will be included:

- Room name plates mounted on door.
- Toilet designation symbols mounted on doors
- Fire escape signage and emergency exit notices
- External signs and existing directional signage updating

Fit-out

MolFarma will be responsible for the specific fit-out of the building to suit their needs and it is expected that the Contractors used for the main construction work will be requested to assist in some of the installation works to ensure a timely installation in keeping with the overall quality standard for the facility. This work will be as follows:

- Controlled Environment Rooms with associated Condensers, piping, controllers, internal wiring and wiring from designated Isolators, connections to water and drains
- Controlled environment Cabinets with associated Condensers, piping, controllers, internal wiring and wiring from designated Isolators, connections to water and drains.
- RO unit for Controlled Environment Rooms and Cabinets
- Potting area and racking
- Hazardous material cabinets
- Infiltration unit with associated vacuum system and piping.

- Micro Biology Laboratory equipment and piping
- Autoclave for Plant and potting materials
- Harvesting area for plants
- Solvent extraction Laboratory equipment and piping
- Protein Laboratory equipment and piping
- General/Analytical Laboratory equipment and piping

| Accommodation schedule | | | | | | | | | |
|---|--------------------|------------------------|-----------------------|--------------|--|--|--|--|--|
| Area description | Approx. Dimensions | Floor Finish | Walls | Ceiling | Comments | | | | |
| Reception | 3m x6.6m | Vinyl flooring | Emulsion Paint | Ceiling Grid | 2 chairs and coffee table required | | | | |
| | 5mx10m | Carpet tiles | Emulsion paint | Ceiling Grid | 5 Desks with modesty panels | | | | |
| | | | | | 5 Office chairs | | | | |
| Offices | | | | | 5 pedestals | | | | |
| | | | | | 5 Filing cabinets | | | | |
| | | | | | 1 meeting table | | | | |
| | | | | | 6 chairs | | | | |
| Toilets (Male & Female) | | Vinyl Flooring | Emulsion Paint | Ceiling grid | 1 Toilet to be DDA compliant | | | | |
| Changing | | | | Ceiling grid | Step over benching and Lockers (6 People - 2 Lockers | | | | |
| | | Vinyl Flooring | Emulsion Paint | | each) | | | | |
| | | Viriyi Hooring | | | Drench shower | | | | |
| | | | | | General showering facilities | | | | |
| Microbiology Laboratory (BSL Class 2 room) | 8mx6.6m | Vinyl Flooring | Emulsion Paint | Ceiling grid | Benching with storage | | | | |
| | | | | | 2 Local Specific Extraction Points | | | | |
| | | | | | All waste liquid to be considered BSL class 2 | | | | |
| | | | | | Emergency Shower with eye wash | | | | |
| | | | | | Ventilated Solvent/Chemical storage cabinet | | | | |
| Solvent Use Laboratory | 8mx6.6m | Vinyl Flooring | Emulsion Paint | Ceiling grid | 1 Walk-in fume cupboard | | | | |
| | | | | | 2 Local Specific Extraction Points | | | | |
| | | | | | All waste liquid to be considered BSL class 2 | | | | |
| | | | | | 1 Fume cupboard and benching with storage | | | | |
| | | | | | Emergency Shower with eye wash | | | | |
| | | | | | Ventilated Solvent/Chemical storage cabinet | | | | |
| Protein Extraction Laboratory | 8mx6.6m | Vinyl Flooring | Emulsion Paint | Ceiling grid | 1 Fume cupboard and benching with storage | | | | |
| | | | | | 2 Local Specific Extraction Points | | | | |
| | | | | | All waste liquid to be considered BSL class 2 | | | | |
| | | | | | Ventilated Solvent/Chemical storage cabinet | | | | |
| General/Analytical Laboratory | 8.4mx8m | Vinyl Flooring | Emulsion Paint | Ceiling grid | 1 Fume cupboard and benching with storage | | | | |
| | | | | | 2 Local Specific Extraction Points | | | | |
| | | | | | Ventilated Solvent/Chemical storage cabinet | | | | |
| Cold room | 3m x 2.5m | Cold room with racking | | | | | | | |

| Accommodation schedule | | | | | | | | | |
|--------------------------|--------------------|--------------|-----------------------|---------|---|--|--|--|--|
| Area description | Approx. Dimensions | Floor Finish | Walls | Ceiling | Comments | | | | |
| Autoclave Area | - 28.5mX15m | concrete | Emulsion paint | none | All waste liquid to be considered BSL class 2 | | | | |
| Leaf Harvesting | | concrete | Emulsion paint | none | | | | | |
| Infiltrator Room | | concrete | Emulsion paint | none | | | | | |
| Controlled Environment | | concrete | Emulsion paint | none | | | | | |
| Area | | | | | | | | | |
| Potting Area and store | | concrete | Emulsion paint | none | | | | | |
| Area description | Approx. Dimensions | Floor Finish | Walls | Ceiling | Comments | | | | |
| Electrical switch room | 8mx5m | concrete | Emulsion paint | none | | | | | |
| Plant material and waste | 28.;5mx5m | Concrete | To match | None | | | | | |
| yard | | | building | | | | | | |
| Solvent storage and | 18.5mx5m | Concrete | To match | Nono | Spill containment required | | | | |
| waste yard | | | building | NOTE | | | | | |



Single floor Option (Maximum Footprint 16,000sq ft)

ATTACHMENTS

- 1. MolFarma proposed block layout
- 2. Current Ecological report The Ecology Consultancy
- 3. Archaeological desktop study NPS
- 4. MolFarma Plot Study nbbj
- 5. Current Construction Project Plan
- 6. Process Workflow
- 7. BSL 2 Code of Practice