

Ministry of Public Works Lands Buildings and Surveys Division

WASHROOM AND TUBROOM REFUBRSHMENT

ΑT

LEFROY HOUSE CARE COMMUNITY

Between the Owner: Works and Engineering

2 Aeolia Drive Devonshire DV05

Hamilton Bermuda 441-292-8485

And the Contractor: TBD

For the Project: Lefroy House Care Community

7 Heydon Road

Sandy's MA 01

Building #:

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APPENDICES

APPENDIX 01: LOCATION PLAN - A0.0

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APPENDIX 03: FORM OF CONTRACT

CONTRACT CONDITIONS

- 1.1. The proposal shall be submitted in strict accordance with the applicable requirements of the Contract Documents as defined in the proposal, including all modifications, amendments, or addenda issued or in force at the time and date of the Contract agreement.
- 1.2. The right is reserved to revise or amend any portion of the Contract Documents prior to the acceptance of any proposal. Such amendments, if any, will be made known by the issuing of an addendum to all bidders.
- 1.3. The Contractor shall carry out and complete the works shown in the Contract Documents in every respect to the reasonable satisfaction of the inspecting Owner's representative. The works shall be carried out expeditiously and in accordance with the full intent and meaning of the Contract Documents.
- 1.4. The form of Contract is included in Appendix 03

2.0 Definitions

- 2.1. The term **Owner** shall mean the Government of Bermuda, Public Works
- 2.2. The term **Owner's Representative** shall mean the Project Manager appointed by Owner to administer the project.
- 2.3. The Contractor shall mean the individual, firm or company contracted by the Owner and responsible for furnishing all necessary labour, materials, equipment, tools and required insurance to perform, in a good workmanlike manner and to the satisfaction of the Owner and Owner's Representative, the work called for by the Contract Documents including revisions and addenda.
- 2.4. The term **Subcontractor** shall mean any individual firm or company whom the Contractor subcontracts to provide labor, or labor and materials for the contract.
- 2.5. The term **Nominated Sub Contractor** shall mean any individual firm or company named by the owner, and Sub Contracted by the Contractor who provides labor, or labor and materials for the contract.
- 2.6. The term **Named Supplier** shall mean any individual firm or company named by the owner Sub Contracted by the Contractor who provides labor, or labor and materials for the contract.
- 2.7. The term **notice** shall mean written notice.
- 2.8. The term **approval** or **approved** shall mean written approval.
- 2.9. The term **appropriate** means compatible with, or suited to the material or situation under description.
- 2.10. The term **project development** shall mean the proposed development, which is contemplated under this contract.

2.11. The term **Making Good** shall mean to its fullest extent including proper jointing, cutting, toothing and bonding, painting, papering, etc., to suitable change of direction of margins, etc.

3.0 Construction Schedule

- 3.1 The Contractor is required to state along with the bid how many weeks will be needed to complete all the specified work.
- 3.2 The Contractor is required, no later than the first week of the construction program to submit to the Owner a full construction program for the entire work as described in the Specification.
- 3.3 The Date of Commencement is to be agreed by the Owner. Date of commencement shall be subject to: (1) the receipt of Statutory Approvals; (2) fabrication, shipping and custom's clearance of any/all Owner supplied items required to complete the noted works and achieve occupancy approval(s); (3) uncontrollable circumstances such as but not limited to inclement weather.
- 3.4 The Date of Substantial Completion for all works shall be agreed by the Owner and in accordance with receipt of Statutory Approvals and procurement of finishes/fixtures/owner supplier items.

4.0 Schedule Of Rates / Extra Work

- 4.1 The term extra work as used herein refers to and includes work required by the Owner which in the judgment of the Owner's Representative involves changes in or additions to that required by the Contract Documents and addenda and may only be carried out if issued as a written instruction by the Owner's Representative.
- 4.2 The Contractor shall provide quotations for any extra work for the Owner approval prior to the commencement of any extra work unless authorized by the Owner as a Construction Change Directive.
- 4.3 The term extra work as used herein refers to and includes work required by the Owner which in the judgment of the Owner's Representative involves changes in or additions to that required by the Contract Documents and addenda and may only be carried out if issued as a written instruction by the Owner's Representative.
- 4.4 The Contractor shall provide quotations for any extra work for the Owner approval prior to the commencement of any extra work unless authorized by the Owner as a Construction Change Directive.
- 4.5 Written instructions must be received by the Contractor prior to the commencement of any extra work and must unmistakably indicate the intention of the Owner and the Owner's Representative to treat the work described therein as extra work.
- 4.6 No item is to be carried out on a day work basis without the express prior agreement of Owner's Representative.

5.0 Examination Of The Site

The Contractor shall carefully examine the site so as to acquaint himself thoroughly with all conditions prior to the submission of the bid; no allowance will be made for lack of full knowledge of all conditions. The Contractor should carefully examine the areas adjacent to the site where he may place his materials and equipment, and ensure that protection to adjacent public areas is put in place at the start of the works.

6.0 Assignments

- 6.1 The Contractor shall not assign, transfer, convey, sublet or otherwise dispose of this contract, or his right title or interest in or to the same or any part thereof without the previous written consent of the Owner or Owner's Representative.
- No consent to any assignment or other transfers and no Subcontractor shall relieve the Contractor of any of his obligations under this contract. All assignees and Subcontractors shall be deemed as agents of the Contractor.

7.0 Omissions

- 7.1 Anything shown on the drawings but not mentioned in the specifications, or vice versa or anything not expressly set forth in either, but which is reasonably implied, shall be included without extra cost. Should anything be omitted from the drawings necessary to the proper construction of the work herein described, it shall be the duty of the Contractor to so notify the Owner's Representative before signing the Contract, and in the event of the Contractor failing to give such notice, he shall make good any damage or defect in his work caused thereby without extra charge.
- 7.2 Where a discrepancy occurs either within the drawings or between the drawings and the specification, the Contractor shall not make any assumptions or interpretations. However if for the sake of expediency a level of interpretation is included in the Tender submission, this shall be declared, with a separate allowance identified

8.0 Completion Of Contract And Final Payment

8.1 The date of Substantial Completion of the work is the date when the construction is sufficiently completed so that the buildings are ready for use. This date will be certified by the Owner's Representative and Owner.

9.0 Contract Obligations

9.1 The Contractor shall ensure all works are to be carried out in accordance with the Contract Documents and as shown on subsequent drawings that may be deemed necessary, at any time during the Contract Period, by the Owner's representative.

10.0 Statutory Requirements:

The Contractor shall:

- 10.1 Comply with all relevant statutory requirements, police requirements, safety, health and welfare requirements.
- 10.2 Ensure that all necessary approvals are gained where necessary before work is carried out.
- 10.3 The Contractor will undertake to inform the statutory authorities that work will be in progress at the site, stating anticipated daily times of work and contract period.
- 10.4 Be responsible for advising inspectors of the progress of the works and requesting inspections at appropriate stages.
- 10.5 Be responsible for obtaining the Occupancy Certificate.
- 10.6 Be liable for any opening up for inspection required by statutory inspectors where such work fails to comply with the requirements of the contract documents, and any repeated or abortive work arising from failure to satisfy inspectors.

11.0 Access to the Site:

11.1 The Owner will allow the Contractor access to the site in order that he may carry out the s sequential manner.

12.0 Use of the Site/Rubbish:

- 12.1 The Site is to be kept tidy and regularly cleared of rubbish.
- 12.2 The Site is not to be used for any other purpose other than carrying out the Works.
- 12.3 The Contractor shall regularly (minimum 1/wk at the end of the week) cart away any surplus or residual materials not included in the works and ensure that the site is left in a clean and tidy condition.
- 12.4 The Contractor shall agree with the Owner a suitable staging area for work materials and equipment, and shall restrict his use of the site as directed by the Owner.
- 12.5 The Contractor shall be responsible for protecting site access, driveway and staging area, and reinstating to pre-construction state at no additional cost to the Owner.

13.0 Site Safety:

13.1 Every precaution must be taken to ensure safe working conditions on site, and to protect both those involved in the work and anyone else who may be affected, from injury and hazards arising from the works.

13.0 Security:

- 14.1 The Contractor is to properly safeguard the site and existing building affected by the works from damage, and will accept full responsibility for ensuring the structural integrity and prevention of damage from inclement weather to all parts of the Works and related areas.
- 14.2 The Contractor shall ensure that the site is secure from vandals and theft at the end of each day.

14.3 The Contractor shall ensure that the site is enclosed and secure against trespass and/or injury to the general public.

15.0 Nuisance:

15.1 The Contractor will take all necessary precautions to minimize nuisance and prevent danger to the occupiers of the neighboring buildings, and shall carry out all necessary protection of the works in this respect.

16.0 Working Area:

The working area for the Contractor will be confined to the parts of the buildings defined on the Contract Drawings. The sequence of construction involving different parts of the building is to be agreed with the Owner's Representative prior to the start of construction.

17.0 Protection of Existing Buildings:

- 17.1 The Contractor shall provide and install all necessary hoarding, dustsheets and other protection necessary to ensure that no damage is caused to the existing fabric inside or outside of the work area. Any damage so caused shall be put right to the Owner's Representative's approval at no extra cost to the Contract.
- 17.2 The Contractor is to be responsible for all propping and shoring to existing properties to ensure structural integrity and stability of contract works and adjacent properties throughout the contract period, all to Structural Engineer's satisfaction. Any damage to adjacent properties by the Main Contractor, his subcontractors and/or suppliers, shall be made good by the Contractor at his own expense.

DIVISION 01. GENERAL REQUIREMENTS

01500 - Temporary Facilities and Controls

This work shall consist of the application of temporary measures throughout the life of the project.

01510 - Temporary Utilities

All connections and extensions required to provide temporary utilities shall be made by the Contractor at the Contractor's expense.

01511 - Temporary Electricity

Contractor is to provide and install temporary power for construction site. Connect to existing power service without disrupting local service requirements. Power feeder service characteristics shall be compatible with the service from which it is taken. Size, type and loading shall be per requirements as established by the National Electric Code (NEC). The contractor shall provide main service disconnect and over-current protection at a convenient location in accordance with the NEC. The Contractor shall provide power outlets for construction operations, with branch wiring and distribution boxes located as necessary and shall provide flexible power cords as required. Provide and install distribution equipment, wiring and outlets to provide single phase branch circuits for power and lighting.

01515 - Temporary Lighting

Contractor is to provide and install temporary lighting for construction site. Provide and install temporary lighting in all work areas sufficient to maintain a lighting level during working hours not less than the lighting level required by OSHA standards. As permanent lighting facilities are completed, they may be used in lieu of temporary facilities. Provide temporary lighting as required to satisfy safety and security requirements. Maintain a minimum illumination level of 30 foot-candles measured 3 ft. above floor in areas where finish trades are performing work. At exterior areas, provide 1 foot-candle of light after dark for security purposes.

01518 - Temporary Water

Contractor is to provide and install temporary water for construction site. Connect to an existing water source for construction operations.

01520 - Construction Facilities

Field offices and sheds shall be portable or mobile buildings, or buildings constructed with floors raised above the ground, securely fixed to foundations, with steps and landings at entrance doors. Structurally sound, secure, weather tight enclosures for office and storage spaces shall be maintained during progress of work and removed at completion of work. Size of field offices and sheds shall depend on contractors needs. Install appropriate fire extinguisher. HVAC shall be adequate to maintain comfortable conditions. At completion of work, all temporary facilities shall be removed and area restored to new condition.

01523 - Sanitary Facilities

Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees as will comply with laws and regulations.

01530 - Temporary Construction

The contractor shall provide and maintain for duration of work all required temporary stairs, ladders, ramps, runways and hoists for use of all trades.

01540 - Construction Aides

The contractor to provide all construction aids needed during construction which shall include but not limited to; elevators, hoists, cranes, etc.

01542 - Construction Scaffolding and Platforms

The contractor shall provide and maintain for duration of work all required temporary standing scaffolding. 'Independent tied' scaffolds will normally be provided for painting, pointing or other maintenance work.

01560 - Temporary Barriers and Enclosures

The contractor shall provide barriers to prevent unauthorized entry into construction areas and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

01600 - Product Requirements (Scope of Work)

All materials shall be installed in strict accordance with the manufacturer's written specifications or Material's Institute Standards. Where the manufacturer's recommended details are used, the manufacturer shall be responsible for the performance of their product. All Items not specifically mentioned that are required to make the work complete and operational shall be included.

Prior to submitting a bid, you must visit the site and satisfy yourself as to the nature and complexity and quantity of the works to be finally performed and the relevant equipment and labor skills, productivity and hours required to complete these works.

Installation and Storage - All materials, supplies and equipment shall be installed per manufacturer's recommendations and per applicable codes and requirements. Material stored on site shall be protected from damage by moisture, wind, sun, abuse or any other harmful affects.

01630 - Product Substitution Procedures

Contractor to investigate proposed products and determine that they are equal or superior in all respects to products specified. Coordinate installation of accepted substitutions into the Work, making such changes as may be required for the Work to be complete in all respects. Meet with clients and get change order request signed.

01640 - Owner Furnished Products

Contractor is not responsible for products furnished by the owner that are damaged prior to opening or receiving. Additional work required to install owner furnished products will be charged to the owner and due upon installation.

01700 - Execution Requirements

The execution of all work shall be in strict accordance with these specifications and manufacturer's written specifications or Material's Institute Standards. Where the manufacturer's recommended details are used, the manufacturer shall be responsible for the performance of their product. All work not specifically mentioned that is required to make the work complete and operational shall be included.

Codes - Construction shall comply with the Bermuda Building Code. It is the responsibility of the Contractor to insure compliance with said codes and modify the specifications as needed to comply with such codes.

Measurements - The Contractor shall check and verify all dimensions and conditions before proceeding with construction. Do not scale drawings. Noted dimensions take precedence.

Workmanship - Workmanship shall conform to the best and highest standards of quality in each trade and shall include all items of fabrication, construction and installation. All work shall be completed by skilled tradesmen and mechanics. Installation of all equipment and materials shall be in strict accordance with manufacturer's recommendations.

Insurance - Builders Risk Insurance shall be maintained by the contractor during the course of construction until final acceptance by the owner. All bonding and insurance requirements shall be coordinated with the Owner prior to beginning construction. All contractors shall provide and be solely responsible for necessary barricades and safety precautions, and strictly adhere to all governing codes on safety, including the OSHA Act.

01740 - Cleaning

Construction site is to be kept in a clean and orderly condition throughout the construction process. Clean interior spaces prior to the start of finish painting and the application of other finishes. At the conclusion of construction, the project shall be properly cleaned. This should include but not be limited to; cleaning the interior and exterior glass, surfaces exposed to view, remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surface areas, sweep and mop all tiled surfaces, etc. Replace filters of operating equipment. Clean equipment and fixtures to a sanitary condition. Clean exterior such as debris from roof, gutters, landscape areas, driveways and walks, etc. Remove all waste and surplus materials.

01760 - Protecting Installed Construction

Contractor is to protect all installed construction. If products or materials come with a protective coating, contractor shall maintain protective coating until construction is complete. Contractor shall replace any items that become defective or damaged. All materials and labor shall be provided by the successful contractor and shall therefore be included in his price.

The successful contractor will be responsible for all protection to all adjacent surfaces, clean up and supply of all materials and equipment to undertake the work and maintain the site in a tidy state

01903 - Hazardous Materials Abatement

Contractor is to abate any hazardous material or substance before beginning construction. Contactor shall contract with a properly licensed and qualified hazardous material contractor.

01904 - Hazardous Materials Removal and Disposal

Remove and dispose of any hazardous material before beginning construction. Contactor shall contract with a properly licensed and qualified hazardous material contractor.

DIVISION 02. SITE WORK

02000 - General

The works at Lefroy House Care Community involve the supply of labour and materials for the refurbishment of the Washroom and Tub room

02220 - Site Demolition

Provide all labor, materials and equipment to perform the required demolition of walls, ceilings, A/C units, windows, internal and external doors and shutters as indicated on drawings. Protect all adjacent areas not to be demolished. Remove all debris from job site before construction begins.

DIVISION 03. CONCRETE

03000 - General

Contractor shall provide labor and materials pertaining to concrete as required and as specified herein, while complying with all applicable building codes.

03050 - Concrete Specifications

All concrete work shall be designed on the basis of "Strength Design" in accordance with ACI 318 "Building Code Requirements for reinforced Concrete." Concrete work shall be proportioned in accordance with ACI 301 "Specifications for Structural Concrete" and ACI 211.1 "Recommended Practice for Selecting Proportions for Normal Weight Concrete". Concrete slabs, patios, driveways, walls and foundations shall be constructed of a minimum 3000 to 3600 psi concrete, 28 day test, with a 4" minimum to 6" maximum slump maximum, airentrained to 5 - 8%. No additional water shall be added to concrete after slump test is recorded. Concrete should be a mix of high grade Portland cement, clean sand or granular fill and washed gravel or crushed stone as coarse aggregate per ACI 530. Maximum aggregate size shall be 34". All aggregates shall conform to ASTM C33. Gravel should be well graded and not exceed 1 1/2" in size. Water shall not exceed 5 1/2 gallons for each bag, unless sand is very dry. Concrete shall be mixed using an approved batch machine or mobile mixer until uniform in color and providing a 4" minimum to 6" maximum slump.

03100 - Concrete Formwork, Reinforcement and Materials

Provide all labor, materials and equipment necessary for the completion of the plain and reinforced concrete called for on the plans.

Construction of Forms - Construct wood forms of sound material, and of the correct shape and dimensions, constructed tightly and of sufficient strength. Brace and tie the forms together. Make joints and seams mortar tight. Install leakage control materials in accordance with manufacturer's installation instructions.

Chamfered Corners - Unless otherwise noted, provide chamfered corners on all exposed corners. Provide 3/4 inch moldings in forms for all chamfering required.

Embedded Items - make provisions for sleeves, anchors, inserts, water-stops and other features.

DIVISION 04. MASONRY

04000 - General

Contractor shall provide labor and materials pertaining to masonry work as required and as specified herein, while complying with all applicable building codes.

04060 - Mortar and Masonry Grout

Mortar shall be Type "M" or "S" in accordance with ASTM C270, 2500 psi. Grout shall be in accordance with ASTM C270, Type M, 2500 psi concrete using pea gravel for coarse aggregate with a maximum aggregate size of 3/8" and an 8" minimum to 11" maximum slump. Mortar joints shall be 3/8" thick, finished to produce a flush form. Mortar or grout not used within 2 1/2 hours after mixing shall not be used in masonry work. In hot weather add water as needed to supplement evaporation losses.

04220 - Concrete Masonry Units (CMU)

Shall be in accordance with ASTM C90 or C145, 1500 psi compressive strength, grade N, Type 1, hollow core load bearing CMU and shall have minimum net compression strength of 1900 psi. Use Grade N, type 1, specialty shapes load bearing concrete masonry units as specified. Standard width of mortar joints for both horizontal and vertical joints shall be 3/8 inch Joints shall have a full mortar coverage. Lay CMU plumb with all courses level using appropriate corner blocks at corners, window and door jambs. Reinforcing mesh shall be installed in the three courses above all openings and shall extend 3 feet 9 inches beyond each side of opening. Mesh shall be installed in every third course of all masonry unit walls. Cut block with a carborundum saw. Use solid load-bearing block when required for structural purpose.

DIVISION 06. CARPENTRY

06000 - General

Contractor shall provide labor and materials pertaining to carpentry work as required and as specified herein, while complying with all applicable building codes.

DIVISION 08. DOORS & WINDOWS

08000 - General

Contractor shall provide labor and materials pertaining to the doors and windows as specified herein, while complying with all applicable building codes.

Interior Door Frames – As specified on drawings

08500 - Windows

As specified on drawings.

08501 - Blinds

As specified on drawings

08582 - Screens

As specified on drawings.

08710 - Door Hardware

Finish hardware shall include keyed deadbolt locksets at all exterior doors. Interior doors shall be a combination of privacy and passage locks. Hardware shall be as per allowance. Specify in chart below the type of hardware for each door. All exterior locksets shall be keyed the same.

Finish As specified on drawings

DIVISION 09. FINISHES

09000 - General

Contractor shall provide labor and materials pertaining to the finishes as required and as specified herein, while complying with all applicable building codes.

09250 - Gypsum Wallboard

Gypsum board must be held firmly against the framing while fastening to avoid later movement of gypsum board on the shank of the nails or screws.

Nails or Screws: Nails and screws shall be a minimum 3/8" and a maximum of 1/2" from edges and ends of wallboard and the heads shall be seated slightly below the surface without breaking the paper. Nails shall be spaced not to exceed 7" on ceilings or 8" on sidewalls. Head diameter shall be a nominal 1/4" with the length 1 1/2" to penetrate a minimum of 7/8" into nailing member. Drywall screws shall meet the minimum requirements of ASTM C1002. Bugle-shaped heads shall be 0.315" in nominal diameter and contain a No. 2 Phillips driving recess. Type "W" screws are designed for easier fastening in wood.

Joints: At gypsum wallboard joints install a 2" strong, cross threaded tape with a cross tensile strength of 45 lbs per linear inch. Press a strong, good quality tape firmly onto sheathing joints and around openings, imbedded in joint cement. At corners and angles, install metal corner beads as specified by manufacturer. If corners are rounded, install corner reinforcement as required. Spread gypsum wallboard mud at all tape joints, corner beads, nails and screw penetrations and where a smooth surface is needed. Apply second coat of wallboard mud after a minimum 24 hours. After drying (minimum 48 hours), sand all joints and other areas to a smooth consistent surface.

Interior Walls: Sheath walls with 1/2" gypsum wallboard, either vertically with long edges parallel to framing, or horizontally with long edges at right angles to framing members. Apply one layer of 1/2" x 4' x, 8' foot lengths to all wall surfaces. Offset joints between layers at least 10".

09300 - Tile

Tile shall be appropriate grade and finish in accordance with applicable building codes and owner requirements. Contractor shall properly clean all surfaces to be covered and install appropriate underlayment per manufacturer's recommendations. Installation should be carried out with a slow setting cement adhesive, well mixed per manufacturer's recommendations. Grouting of control joints can be executed either with cement based grout or with resin based organic materials.

Floors: Contractor shall properly clean all surfaces to be covered and install appropriate underlayment per manufacturer's recommendations.

Tile & Grout - As specified on drawings

Walls: Contractor shall properly clean all surfaces to be covered and install appropriate underlayment per manufacturer's recommendations.

Tile & Grout - As specified on drawings

09513 -Tile Ceiling

Comply with the instructions and recommendations of the ceiling tile manufacturer. Install materials in accordance with governing regulations, fire resistance rating requirements and industry standards applicable to work. Ceiling areas shall be measured to establish layout of acoustical units to balance border widths at opposite edges of each ceiling. Avoid use of half width units at borders. Field cut acoustical panels as required, in accordance with manufacturers recommended procedures and equipment.

Grid layout shall be symmetrically laid out in each space. Coordinate work with other trades so that lighting fixtures, grills and other ceiling fixtures work with grid layout. Support for suspension system shall be from structure above, not from ductwork, metal deck, equipment or piping. Hangers shall not be spread more than 6" from ends and not more than 4 feet on centers on runners. Wall moldings shall be installed at the perimeter of each acoustical ceiling area and at locations where edge or units would otherwise be exposed.

Secure moldings to supporting construction by fastening with screw anchors into the substrate through holes drilled in vertical leg. Space holes not more than 3" from each end and not more than 16" on center along each molding. Level moldings with ceiling suspension system, to level tolerance of 1/8". Miter corners of moldings accurately to provide hairline joints, securely connected to prevent dislocation. Cope exposed flanges of intersecting suspension system members, so that large faces will be flush

Finish As specified on drawings.

09700 - Wall Finishes

Walls shall be clean and free of defects such as cracks or unfinished joints prior to installation of wall finishes. If mildew is evident, mildew must be removed and surface properly treated to inhibit further mildew growth.

Finish As specified on drawings.

09900 - Paints and Coatings

Prepare each surface to receive scheduled work as set forth below.

- (i) All work inclusive of surface preparation.
- (ii) All surfaces are to be coated with minimum of one <u>primer and two finishing</u> <u>coats</u> of painting products (colour to be advised) as supplied by one of the below suppliers.

Bermuda Paint Co. Ltd Brighton Hill Devonshire DV 06 Tel: (441) 236 4662 www.bermudapaint.bm

S.A.L. Trading Limited P.O. Box HM1190 Hamilton HMEX Bermuda

Phone: (441) 232-2000 Fax: (441) 236-2978

Pembroke Paint Co. Ltd. Market and Bakery Lanes Pembroke HM 02

Tel: (441) 292 8368

Email: paint@northrock.bm

(iii) All materials and labour shall be provided by the successful contractor and shall therefore be included in his price

09912 - Interior Walls

All nail heads shall be set below the surface and finished smooth. Joints should be taped and covered with a suitable drywall joint compound. Sand the spackled nail heads and joint

compound smooth and dust well before priming. Interior walls shall receive a primer coat and two coats of flat or semi-gloss paint. Surfaces shall be sanded before each finish layer is applied.

Wall Paint: As specified on drawings

09930 - Interior Wood

Wood surfaces shall be sanded smooth before finish is applied. Putty areas with a wood based filler where nails or other defects appear in the surface.

Paint - Prime wood surfaces including faces, edges and ends before installation. After installation, apply at least one coat of wood primer and two coats of finish paint. Surfaces shall be sanded before each finish layer is applied.

Trim Paint: As specified on drawings

DIVISION 10. SPECIALITIES

10000 - General

Contractor shall provide labor and materials pertaining to the specialties as required and as specified herein, while complying with all applicable building codes.

10810 - Toilet Accessories

Restroom facilities must be designed for ease of maintenance. Specify all stainless steel or chrome plated brass fittings for long lasting quality. All floors and walls shall be covered with ceramic tile. At a minimum, one lighting fixture to be connected on emergency power.

Exhaust Fans – Provide individual exhaust to prevent sound transmission. **Specify:** 665RP HVL Vent / Heater / Light unit from ESC, one

Receptacles - Provide two (2) 120 V receptacles on a separate 20 amp service spaced along wall above basin and adjacent to wall mounted mirror. Specify GFCI receptacles.

Basins - As specified on drawings

Water Closets - As specified on drawings Specify

Mirrors - As specified on drawings

Bathroom Accessories - As specified on drawings

DIVISION 13. SPECIAL CONSTRUCTION

13000 - General

Contractor shall provide labor and materials pertaining to the specialty systems as required and as specified herein, while complying with all applicable building codes.

13854 - Smoke Alarms

Install at least one smoke alarm outside each sleeping area and to living area. Smoke alarms are required in all sleeping rooms, according to the NFPA 72, *National Fire Alarm Code*®. Mount the smoke alarms on ceilings or high on walls. Ceiling-mounted alarms should be installed at least four inches away from the nearest wall; wall-mounted alarms should be installed at least four inches, but not more than 12 inches away from the ceiling. On vaulted ceilings, be sure to mount the alarm at the highest point of the ceiling. Don't install smoke alarms near windows, outside doors, or ducts where drafts might interfere with their operation. Do not paint, apply finish or obstruct smoke alarms.

DIVISION 15. MECHANICAL

15000 - General

Contractor shall provide labor and materials pertaining to the mechanical systems as required and as specified herein, while complying with all applicable building codes.

15100 - Plumbing

Plumbing shall be a fully operational system of hot and cold water. Provide and install all piping, soil, vents, drains, sewage removal and water supply systems to connect with appropriate water and sewage systems. Provide and install appropriate insulation around piping. All permits and inspections are to be obtained by contractor as required by local building codes and the Uniform Plumbing Code.

Sewer and Waste Piping - Drainage system shall be Schedule 40 PVC pipe, or cast iron. All connections shall have PVC cement or appropriate joint compound and assembled tight for no leakage. Condensate drains shall be constructed of Schedule 40 PVC. Valves shall be Milwaukee Brand or equal.

Water Pipes - Use 1/2", minimum lines from supply lines to each plumbing fixture as required. At water heaters and hose bibs install a minimum 3/4" pipe. From water heater install 3/4"-1" pipe to each room with branches to fixtures as described above. Fittings shall be Kohler. Use polished chrome adjustable brass P-traps with wall escutcheons at all exposed locations.

Provide shut-off valves at sinks, toilets, water heater and other fixtures as required. Test all pipes under 100 lbs pressure per building code requirements.

Waste Drainage - Install sewage clean-out at the end of each horizontal drainage run and every 100 feet per building code requirements. Vents shall be installed throughout plumbing connections and connected with the vertical stacks and vented through the roof. Check with local building code officials for specific venting requirements.

15410 - Plumbing Fixtures

Provide necessary piping, water and drains for plumbing fixtures as shown on the construction documents and listed herein. Fixtures allowances are listed in the drawings.

DIVISION 16. ELECTRICAL

16000 - General

Contractor shall provide labor and materials pertaining to the electrical system and as specified herein, while complying with all applicable building codes, local utility requirements and building restrictions.

16001 - Rewire

Property to be rewired in isolated areas existing electrical points to be removed, walls chased and new conduit put in place.

16100 - Electrical

From electrical meter box, install wiring to building. Raceways to be buried shall be PVC #2 Plastic Electrical conduit. Where permitted by code, non-metallic sheathed cable may be used. Type THW or THWN 600 volt insulation conductors shall be used; minimum wire size shall be #12. Wiring shall connect into metal recessed electrical panel. Electrical service shall be rated at 200 amps. Wiring from the outside meter box shall be SE cable.

16120 - Conductors and Cables

Provide and install necessary circuits and breakers for appliances as stated in manufacturer's recommendations per applicable building code requirements. For general illumination, provide a minimum 15 amp circuit for each 500 sq. ft. of living area (load 3 watts per sq. ft.) Branch circuits shall be wired with No. 12 gauge wire.

Install GFI circuits with No. 12 gauge wire in all wet areas, baths and exterior outlets.

Appliance circuits shall be installed as follows per applicable building code requirements.

16130 - Raceway and Boxes

Flexible or rigid conduits, couplings, supports and non-metallic ducts. Install conduit concealed in all areas, excluding mechanical and electrical rooms/areas, connections to motors and connections to surface cabinets. Coordinate installation of conduit in masonry work. Unless indicated otherwise, do not install conduit larger than 2 1/2 inches in concrete slabs. Provide a minimum concrete cover around conduits of 2 inches. Install conduit free from dents and bruises. Plug ends to prevent entry of dirt and moisture. Minimize crossovers. Provide flashing and pitchpocets, making watertight joints where conduits pass through roof or waterproofing membranes. Route all exposed conduits parallel or perpendicular to building lines. All fittings shall be UL approved.

Fasten raceways securely in place. Firmly fasten within 3 feet of each outlet, junction box, cabinet or fitting. Support every 10 feet.

16140 - Wiring Devices

Install white receptacles, switches and cover plates. For exterior receptacles install gray cover plates. When two or more switches or receptacles are located together, gang with one common faceplate. If they cannot be ganged, install with a minimum distance between units. Install all receptacles at 18"on center (OC) above finished floor (AFF), unless otherwise noted. At counters, locate receptacles at 44"on center (OC), above finished floor (AFF). Install switches at 48"on center (OC) above finished floor (AFF). Locate light switch cover plates 6" from frame of door or corner of wall.

16500 - Light Fixtures

Provide necessary circuits and wiring for light fixtures as listed on drawings. All lighting shall be switched.

APPENDIX 01

(LOCATION PLAN - A0.0)

APPENDIX 02

(DRAWINGS - A0.1, A1.1 & A1.2)

APPENDIX 03

(Form of Contract)