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Addendum

Security Upgrades
Hillsborough Hospital
2625-16103

ADDENDUM #1 **Date : May 26, 2017**

The following amendment to the tender documents is effective immediately. This addendum shall form part of the contract documents.

Note: Please indicate this addendum number on the Contract Tender Form.

Item	Description

A-1-1 Summary of Bidder Site Walk-Through, 25 May 2017:

.1 In attendance: Matthew Edmonds (Stanley Security); Lantz Hansen (Hansen Electric); Glen Gardiner (Mr. Plumber); Aaron Gill (Olympia Electric); Randall Keizer (Tyco); Frank Robison (Hillsborough); Gardiner MacNeill (MCW); Nick White (TIE); Philip Jefferson (TIE).

.2 All in attendance received a full-sized hard copy of Drawings M1 and M2 which are also being issued with this Addendum.

.3 Contractors were advised the area available for their external staging (storage trailers, portable toilet, etc.) would be on the grass perimeter area across from the Hospital Receiving bay. Contractor parking will be at the rear of building in Staff Parking area. Return all damaged grassed areas to “as-found” condition when Contractor equipment is removed from site. All Contractor on-site storage / facilities/ equipment (including storage units for waste) are to remain locked at all times when not in use so that they are completely inaccessible to Hillsborough clientele.

.4 Similar to Item A-1.3 above, Contractors must never leave tools, equipment or waste material unattended or out of their immediate line of sight when working in and around the building. Report any missing items immediately to Hospital administration. Contractors who do not follow these guidelines will face immediate dismissal from site. The safety and protection of Hospital clientele must always be paramount in the minds of all Contractors working on site.

.5 Contractors are required to sign in and out daily at the main reception.

.6 Contractors were reminded to review the cash allowance requirements outlined as per Spec Section H–Cash Allowances.

.7 Contractors were advised that all required priming and painting (including conduit) will be undertaken by the Hospital’s on-staff painter. It is, however, still the requirement of this Contract to ensure all surfaces requiring future priming / painting are properly prepped to receive the necessary finishes by

Owner.

.8 Contractors were advised that the location and thickness of the wall between the toilet and shower in the Unit 3 WR is as per the architectural drawings rather than the mechanical drawings.

.9 Contractors were reminded that the project is to be executed as per the requirements of CSA Standard Z317.13-03 Infection Control During Construction or Renovation of Health Care Facilities with which Contractors must be familiar. Site-specific approaches to the various types of work required under this project are as listed in Spec Section 1G–Health, Safety & Infection Control.

.10 There are two locations in the main 1957-vintage building, over which it is anticipated new conduit will be run, that have tested slightly above acceptable levels for traces of asbestos-containing material in the original plaster base coat (one location is in the wall directly across the corridor from Stairwell #1 Door ID19 and the other is the page north side of the Sally Port between Doors ID4 and ID5). Any work required in these areas will be coordinated, directed and / or undertaken by a certified abatement contractor who will be hired and paid for by the Owner to assist the Contractor in this particular area(s) of the building. For their reference, the successful Security Upgrades Contractor will receive a full report of all hazardous materials testing results that have taken place within the facility, none of which, with the exception of the two walls noted above, will have an impact on the work under this Contract . Contractors were also advised that the 305mm x 305mm perforated ceiling tiles throughout the main 1957-vintage building do NOT contain asbestos as listed in the Legend on Drawing E1 of 5.

A-1-2 Reference: Specification Table of Contents

.1 Delete reference to 28 31 00 Multiplex Fire Alarm Extension

A-1-3 Reference: Section 8C–Steel Hollow Metal Frame

.1 Delete requirement for new HMF for Kitchenette window. Instead, reconfigure existing wood window frame to accept new 12.7mm (½") thick laminated polycarbonate security glazing as follows (see attached photo “Appendix A: Unit 3B Kitchenette Window” for reference):

.1 Carefully remove existing wood glazing stops on corridor side of window and retain for re-use.

.2 Remove existing glazing material and turn over to Owner.

.3 Install new 12.7 mm security glazing (see specifications in Spec Section 8d, below) in each of the three openings.

.4 Re-install existing wood stops retained for re-use.

.5 Provide additional 3/4" x 3/4" hardwood stops at all perimeter edges and both sides of window, to hold new security glazing securely in

place. Fasten stops to existing framing with security head-type, countersunk screws (in pre-drilled pilot holes), max. 6" o.c., length to suit. Harwood stops will be painted by Owner.

A-1-4 Section 8D–Aluminium Sliding Service Window, Accessories & Glazing

.1 Specifications for 12.7mm (½") thick laminated polycarbonate security glazing at service window (and Kitchenette window) as follows:
- .1 To ASTM I 1233 Class III step 15
- .2 Abrasion-resistant surfaces (outer plys)
- .3 Standard of Acceptance”
  - .1 Lexgard MPC500 by GE Structured Plastics
  - .2 Makrolon Hygard cG500 Sheffield Plastics Inc.

A-1-5 Reference: Section 8I - Finish Hardware / Schedule

.1 Re: SET #HW-03: Door #’s ID28 – Add the following items to this hardware set:
- .1 Quantity two (2), TA 714-4 ½ x 4 CC10, 26D (Prep / drill existing wood door to accommodate wiring from hinge to panic hardware).
- .2 Quantity two (2), LNJ LC 26D CSA

.2 Contractor to supply and install a red, rectangular, self-adhesive vinyl sign with white lettering for emergency exit doors ED12, ED13, ED14, ED15 and ID28 as follows:
- .1 Placement of signage: Just above panic hardware where clearly visible.
- .2 Minimum Height of letters: 1.5".
- .3 Typeface: “Helvetica Light”.
- .4 Standard of Acceptance: Arlon “Calon” vinyl film.
- .5 Wording (centred on the rectangular background):
  Line #1: “EMERGENCY EXIT”
  Line #2: Space
  Line #3: “PUSH BAR UNTIL ALARM SOUNDS”
  Line #4: “DOOR CAN BE OPENED IN 15 SECONDS”
- .6 Provide shop drawings for approval prior to fabrication.

Drawings

A-1-6 Reference: Detail 2/A1

Correction:

.1 Revise scale from 1:25 to 1:20.

.2 Depth of counter top in front of transaction window is to be 762mm not 610mm. (Side return of counter top beside door remains 610mm wide.)

A-1-7 Reference: Mechanical & Electrical Drawings

Clarification:
.1 Project Title should be noted as : “Hillsborough Hospital Security Upgrades”.
.2 Project No. should be noted as: “2625-16103".

A-1-8 Reference: Mechanical Drawings M-1 of 2 and M-2 of 2

The above-noted drawings are issued / attached with this addendum. Full-sized hard copies of these drawings can be picked up at the Transportation, Infrastructure & Energy office, 3rd Floor Jones Building, Charlottetown, or can be printed to scale directly from the digital version of this Addendum posted to the government website.

A-1-9 Reference: Electrical Drawings / Specifications

See Electrical Addendum Items from MCW Maricor (2 pages), dated May 26, 2017, attached to this addendum.

- END OF ADDENDUM -

Addendum

Date: May 26, 2017

PO Box 22123,
C/o 24 St Peter's Road
Charlottetown, PE
C1A 7J0

Phone (902) 218-0398
Fax (506) 859-8393
www.mcw.com

Project Name:	Hillsborough Hospital, Charlottetown, PE Security Upgrades	**Project No.:**	16-16-041
Client:	PEI TIR	**ADD No.:**	1 (Electrical)
To:	Philip Jefferson	**Page No.:**	1 of 2
Attention:	Philip Jefferson	**Office:**	Charlottetown, PE
Distribution:	Via E-Mail	**From:**	Gardiner MacNeill, P. Eng.
		Cc:	

In accordance with the drawings and specifications, provide in the tender all costs required to complete the work including items as listed below:

ELECTRICAL

1.0 Reference Electrical Drawing E-1

.1 Detail 1/E-1:

- .1 Clarification: Power transfer hinge is not applicable to this door.
- .2 Clarification: Junction box shown in accessible ceiling space is to be surface mounted. There is no accessible ceiling space at this location.

.2 Detail 2/E-1:

- .1 Contractor is to relocate existing conduits adjacent to the transaction window in Master Control Room (MCR) to allow for the installation of the new millwork.
- .2 Door ID-10 is to have two magnetic locks installed:
  - .1 Entry is to be by pushbutton release from MCR.
  - .2 Exit is to be by an egress sensor mounted above the door.
- .3 Door ID-19 is to have two magnetic locks installed:
  - .1 Entry into stairwell is to be by pushbutton release from MCR and from local key switch mounted on a single gang electrical box. Switch to be keyed to facility "A" key.
  - .2 Exit is to be by an egress sensor mounted above the door.
- .4 Contractor is to supply and install three (3) wall mounted CCTV video monitors; one above the transaction window and two on the left of the transaction window stacked vertically in MCR, refer to Arch elevation. Monitors to be as per Specification Section 28 23 00 – Video Surveillance, Paragraph 2.8.
- .5 Contractor to supply and install one (1) new Type A CCTV camera at door ID 27 facing door ID 20.
- .6 Door hold opens shown at door ID 27 and ID 32 are existing.

.7 Contractor to supply and install one (1) door contact at door ED 10.

.3 Detail 4/E-1:

.1 Clarification: 305 x 305 asbestos tile should read as 305 x 305 tile with no above ceiling access.

.4 Detail 5/E-1:

.1 General Notes: Remove and replace with the following:

.1 In areas where there is accessible T-Bar ceiling, all wiring is to be installed above the accessible ceiling supported every 2 feet by a "J" hook system.

.2 In areas where there is no accessibility to above the ceiling, all wiring is to be installed in surface mounted EMT supported every 4 feet. Ensure all offsets are minimized to reduce clearance between the conduit and wall or ceiling.

.3 Painting of new conduit is to be provided for by the Owner.

2.0 Reference Electrical Drawing E-2

.1 Detail 1/E-2:

.1 Contractor to supply and install power connection as per Specific Note 1 at at door ED 15.

.2 Clarification: Symbols OS and DL represent:

OS – Occupancy Sensor (Hubbell; ATD 500 or equal)
DL – Dome Light (Cornell; L-101 or equal)

.3 Contractor to supply and install one (1) new Type B CCTV camera; install in the Unit 5 Courtyard facing doors ED 19b.

.4 Contractor is to delete the door contacts from door ED 19b.

.5 Contractor is to delete the electric strike and install a set of door contacts on door ED 23b.

3.0 Reference Electrical Drawing E-3

.1 Contractor to delete the electric strike, request to exit button and video intercom from door ID 26.

4.0 Reference Electrical Drawing E-4

.1 Contractor to supply and install one (1) new door contact on door ID 42.

.2 Contractor to supply and install one (1) Type C camera and one (1) panic button in the vertical corridor to the right of camera #54.

.3 Contractor to supply and install one (1) new Type C camera in the entrance of the Gym facing the Gym interior.

END OF ADDENDEM

Add #1 - Appendix A: Unit 3B Kitchenette Window
Hillsborough Hospital Electrical Upgrades

PLUMBING FIXTURE		PIPING CONNECTIONS				
TAG	DESCRIPTION	HWS	CWS	WASTE	VENT	NOTES
P–1	WATER CLOSET – ANTI–LIGATURE	–	NPS 1	75mm.	38mm.	
P–2	LAVATORY – ANTI – LIGATURE	NPS ½	NPS ½	38mm.	32mm.	THERMOSTATIC MIXING VALVE, WALL CARRIER & P–TRAP
P–3	SHOWER TRIM & BASE – ANTI–LIGATURE	NPS ½	NPS ½	50mm.	38mm.	P–TRAP
P–4	TRENCH DRAIN	–	NPS ½	NPS 2	38mm.	P–TRAP C/W TRAP PRIMER CONNECTION
P–5	TRAP PRIMER DISTRIBUTION UNIT	–	NPS ½	–	–	REFER TO DETAILS 4 & 5 THIS DRAWING

7 M-1 PLUMBING FIXTURE SCHEDULE N.T.S.

LEGEND:

CLOUDED AREA INDICATES THE EXTENT OF IN–FLOOR WORK REQUIRED BY THIS CONTRATOR.

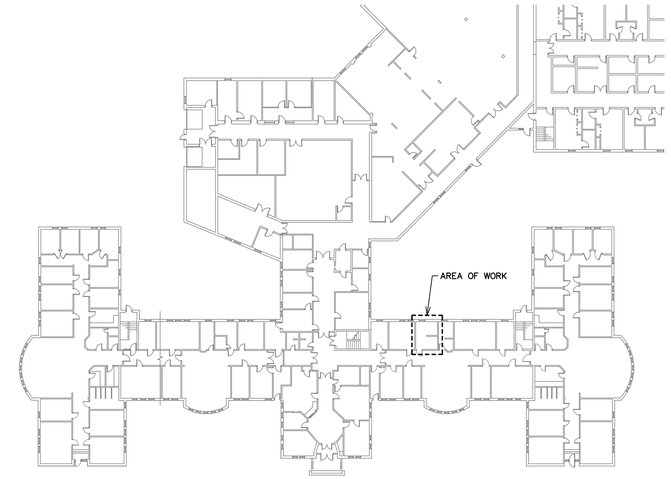
NEW PLUMBING FIXTURE.

EXISTING PLUMBING FIXTURE TO BE DELETED.

NEW TRENCH DRAIN.

TP TRAP PRIMER UNIT

8 M-1 LEGEND N.T.S.



6 M-1 KEY PLAN N.T.S.

DRAWING NOTES – DEMOLITION:

① – CONTRACTOR TO PROVIDE ALL LABOR & MATERIALS TO REMOVE EXISTING FLOOR MOUNTED WATER CLOSET & ASSOCIATED EQUIPMENT. CONTRACTOR TO DISPOSE OF WATER CLOSET & ALL OTHER ASSOCIATED EQUIPMENT OFF SITE. CONTRACTOR TO TEMPORARILY CAP EXISTING SANITARY SERVING THE WATER CLOSET IN FLOOR, DOMESTIC COLD WATER & VENT IN WALL FOR CONNECTION OF NEW WATER CLOSET IN THE NEW WORK PHASE OF THIS PROJECT.

② – CONTRACTOR TO PROVIDE ALL LABOR & MATERIALS TO REMOVE TWO (2) EXISTING COUNTER TOP SINKS, TRIM, WASTE & TRAP & TURN OVER TO OWNER, DISPOSE OF ALL OTHER ASSOCIATED EQUIPMENT OFF SITE. CONTRACTOR TO TEMPORARILY CAP EXISTING DOMESTIC HOT & COLD WATER, SANITARY & VENT IN WALL FOR CONNECTION OF NEW SINK IN THE NEW WORK PHASE OF THIS PROJECT.

③ – CONTRACTOR TO PROVIDE ALL LABOR & MATERIALS TO REMOVE EXISTING BATH TUB & ASSOCIATED EQUIPMENT, FAUCET, TUB FILLER & SHOWER HEAD & DISPOSE OF OFF SITE. CONTRACTOR TO CAP & SEAL EXISTING SANITARY IN FLOOR, TEMPORARILY CAP HOT & COLD WATER & VENT PIPING IN WALL FOR CONNECTION OF NEW SHOWER IN NEW WORK PHASE OF THIS PROJECT.

4 M-1 DRAWING NOTES - DEMOLITION N.T.S.

DRAWING NOTES – NEW WORK:

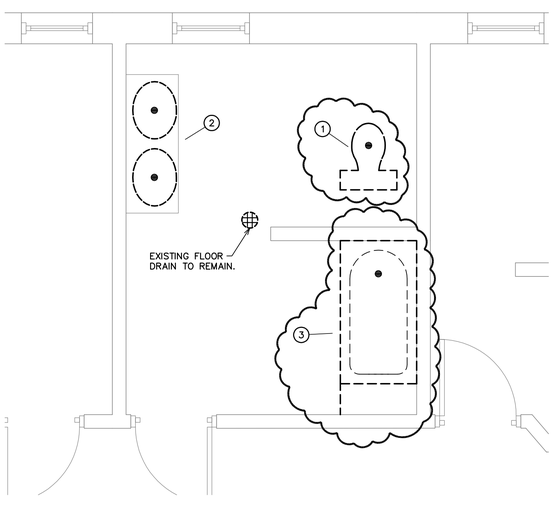
① – CONTRACTOR TO PROVIDE ALL LABOR & MATERIALS TO INSTALL A NEW ANTI–LIGATURE (BARRIER FREE) WATER CLOSET WHERE INDICATED. CONTRACTOR TO CONNECT NEW WATER CLOSET TO EXISTING BUILDING PLUMBING SERVICES, DRAIN TO SANITARY IN FLOOR, VENT & COLD WATER TO EXISTING IN CEILING SPACE.

② – CONTRACTOR TO PROVIDE ALL LABOR & MATERIALS TO INSTALL A NEW WALL HUNG ANTI–LIGATURE (BARRIER FREE) SINK WHERE INDICATED. CONTRACTOR TO CONNECT NEW SINK TO EXISTING BUILDING PLUMBING SERVICES, DRAIN, VENT & DOMESTIC HOT & COLD WATER IN WALL.

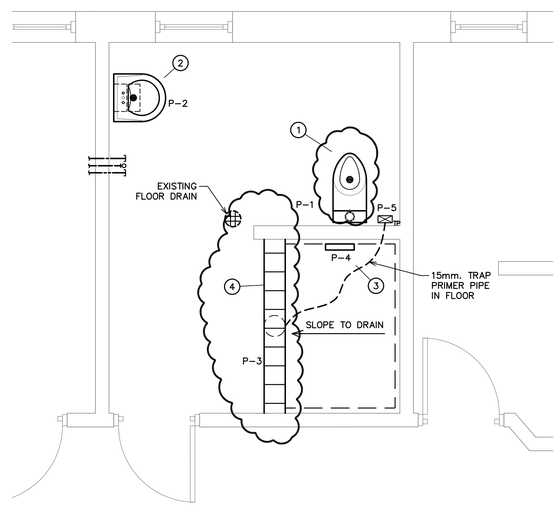
③ – CONTRACTOR TO PROVIDE ALL LABOR & MATERIALS TO INSTALL A NEW ANTI–LIGATURE SHOWER VALVE PANEL (BF) WHERE INDICATED. CONTRACTOR TO CONNECT NEW SHOWER VALVE PANEL TO EXISTING BUILDING PLUMBING SERVICES, DOMESTIC HOT & COLD TO MIXING VALVE IN PANEL.

④ – CONTRACTOR TO PROVIDE ALL LABOR & MATERIALS TO INSTALL A NEW TRENCH DRAIN COMPLETE WHERE INDICATED. CONTRACTOR TO CONNECT NEW TRENCH DRAIN COMPLETE WITH P–TRAP TO EXISTING SANITARY SERVING EXISTING FLOOR DRAIN & NEW TRAP PRIMER PIPING AS INDICATED.

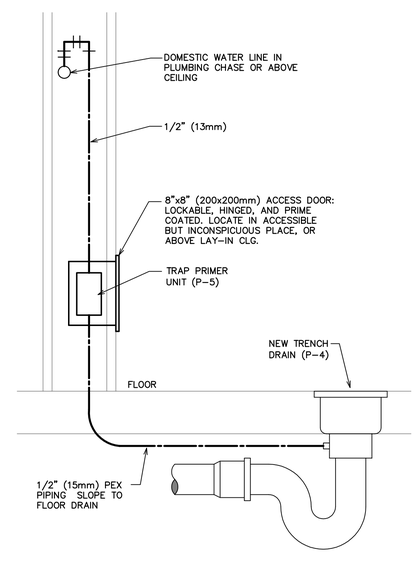
5 M-1 DRAWING NOTES - NEW WORK N.T.S.



1 M-1 ENLARGEMENT PARTIAL MAIN FLOOR PLAN - DEMOLITION SCALE 1:30



2 M-1 ENLARGEMENT PARTIAL MAIN FLOOR PLAN - NEW WORK SCALE 1:30



3 M-1 TRAP PRIMER DETAIL N.T.S.

REGISTERED PROFESSIONAL ENGINEER
BARRINGER A. MACNEILL
No. 417
May 18, 2017
PRINCE EDWARD ISLAND

0 ISSUED FOR TENDER MAY 18, 2017

MCW Maricor
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A = Detail #
BB = Sheet # (Where Detail Required)
CC = Sheet # (Where Detailed)

Project Title :
HILLSBOROUGH HOSPITAL

Drawing Title :
MAIN FLOOR PLAN
DETAIL & SCHEDULE

Scale : As Noted	Design By : SS
Drawn By : JK	Date : MAY 2017
Project No.: ### - ###	Drawing # : M-1 of 2

S:\ENG JOBS\16-16\16-16-041 HILLSBOROUGH HOSPITAL, SE\DRAWINGS\MECH\M-1, M-2.DWG

GENERAL CONDITIONS

.1 GENERAL
THE FOLLOWING GENERAL CONDITIONS SHALL BE READ IN CONJUNCTION WITH THE GENERAL CONDITIONS AND SPECIAL CONDITIONS ISSUED BY THE PROJECT MANAGER.

.2 SCOPE OF WORK
THE CONTRACTOR SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND ASSOCIATED SERVICES NECESSARY FOR, AND REQUIRED BY THE INSTALLATION OF COMPLETELY FINISHED, TESTED, BALANCED AND PROPERLY OPERATING MECHANICAL SYSTEMS AS SPECIFIED HEREAFTER AND SHOWN ON THE DRAWINGS. THE INTENTION IS TO PROVIDE FOR FINISHED WORK COMPLETE IN ALL ESSENTIALS AS CALLED FOR BY THE DOCUMENTS AND ACCEPTED GOOD PRACTICE.
THE WORK SHALL INCLUDE THE FOLLOWING:

PLUMBING:
- CONTRACTOR TO PERFORM ALL REMOVALS TO THE EXTENT DESCRIBED & SHOWN ON DRAWINGS.
- CONTRACTOR TO INCORPORATE EXISTING PORTIONS OF PLUMBING SYSTEMS BEING RE–USED INTO THE NEW LAYOUT AS INDICATED ON THE DRAWINGS. PROVIDE TRENCHING AS REQUIRED. EXACT SITE CONDITIONS MAY DIFFER FROM THE ONES SHOWN. CONTRACTOR TO VERIFY EXACT SITE CONDITIONS ON SITE.
- SUPPLY AND INSTALL NEW PLUMBING FIXTURES AND ACCESSORIES AS DESCRIBED & INDICATED ON DRAWINGS.
- SUPPLY AND INSTALL ALL PIPING, HANGERS, INSULATION, INSULATION SHIELDS, JACKETING AND ACCESSORIES FOR A COMPLETE AND WORKING INSTALLATION TO THE STANDARDS OF THE INDUSTRY.
- PROVIDE INSTALLATION OF APPROVED FIRESTOPPING SYSTEMS, FOR ALL PIPING PENETRATIONS, THRU FIRE RATED PARTITIONS, TO THE REQUIREMENTS OF THE FIRE MARSHAL'S OFFICE AND LOCAL AUTHORITY HAVING JURISDICTION.

.3 PERMITS AND BY–LAWS
THE CONTRACTOR SHALL ABIDE BY ALL CODES AND BY–LAWS RELATING TO THIS INSTALLATION. PROVIDE NECESSARY NOTICES, OBTAIN PERMITS AND PAY ALL FEES, IN ORDER THAT WORK SPECIFIED MAY BE CARRIED OUT. CHANGES AND ALTERATIONS REQUIRED BY AUTHORIZED INSPECTOR OF ANY AUTHORITY HAVING JURISDICTION, TO BE CARRIED OUT WITHOUT CHARGE OR EXPENSE TO OWNER.

.4 SITE VISIT
BEFORE TENDERING THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AT THE SITE WHERE THE WORK HAS TO BE DONE. NO EXTRA WILL BE ALLOWED DUE TO FAILURE TO TAKE SITE CONDITIONS INTO CONSIDERATION.

.5 COORDINATION OF WORK
THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH THE PROJECT MANAGER AND WITH ALL OTHER SUB–CONTRACTORS. COOPERATE WITH THE OWNER AND OTHER CONTRACTORS. WORK SHALL BE EXECUTED IN A MANNER SO AS TO CAUSE MINIMUM DISRUPTION. ALL SERVICES INTERRUPTIONS SHALL BE SCHEDULED OUTSIDE NORMAL WORKING HOURS. THIS CONTRACTOR SHALL INCLUDE IN HIS TENDER, COSTS FOR ALL OVERTIME WORK INVOLVED WITH THE CONSTRUCTION.

.6 GUARANTEE
THE CONTRACTOR SHALL GUARANTEE ALL WORK AND NEW EQUIPMENT PROVIDED AND INSTALLED UNDER THIS SPECIFICATION AGAINST ANY DEFECTS OF WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF SAME BY OWNER. REPAIR AND MAKE GOOD ALL DAMAGE TO BUILDING INCURRED AS A RESULT OF FAILURE OF MECHANICAL WORK.

.7 DRAWINGS
THE DRAWINGS FOR THE WORK ACCOMPANYING THESE SPECIFICATIONS ARE MADE AS ACCURATELY AS POSSIBLE, BUT ABSOLUTE ACCURACY OF DIMENSIONS CANNOT BE GUARANTEED. THEY ARE INTENDED TO SUPPLEMENT AND SIMPLIFY THE GENERAL CONTRACT DRAWINGS. NO CLAIM FOR EXTRA PAYMENT ON ACCOUNT OF DIFFERENCE OF ACTUAL AND ESTIMATED DIMENSIONS SHALL BE ALLOWED. IN THE CASE OF DISCREPANCY OF FIGURE DIMENSIONS ON THE DRAWINGS, THE MATTER SHALL BE IMMEDIATELY SUBMITTED TO THE ENGINEER FOR HIS DECISION. WITHOUT THE DECISION, THE DISCREPANCY SHALL NOT BE ADJUSTED BY THE CONTRACTOR SAVE AT HIS OWN RISK, AND IN THE SETTLEMENT OF ANY COMPLICATIONS ARISING FROM SUCH ADJUSTING, THE CONTRACTOR SHALL BEAR ALL EXTRA EXPENSE INVOLVED. INTERPRETATION OF ALL DOCUMENTS SHALL BE BY THE ENGINEER.

.8 EXTRA WORK
NO ADDITIONAL MONEY OVER CONTRACT PRICE SHALL BE PAID UNLESS CONTRACTOR RECEIVES A SIGNED APPROVAL IN ACCORDANCE WITH THE GENERAL CONDITIONS. NO ADDITIONAL MONEY SHALL BE PAID FOR USE OF EQUAL PRODUCTS.

.9 CUTTING AND PATCHING
THE CONTRACTOR IS TO LOCATE THE EXACT DIMENSIONS AND POSITIONS OF OPENINGS AND HOLES WHERE CUTTING MAY BE REQUIRED IN FLOORS, ROOFS, CEILINGS AND/OR WALLS FOR THE PASSAGE OF PIPES, DUCTS, ETC. WHERE CUTTING, PATCHING, EXCAVATION AND BACKFILLING IS NECESSARY, IT SHALL BE DONE BY THE PROJECT MANAGER.

.10 SLEEVES
THE CONTRACTOR IS TO SUPPLY AND SET IN PLACE PIPE AND/OR DUCT SLEEVES IN FLOOR, ROOF, OR FIRE WALLS BEFORE CONCRETE IS POURED.

.11 SHOP DRAWINGS
CONTRACTOR SHALL SUBMIT, WITHIN TWO WEEKS AFTER BEING AWARDED THE CONTRACT, A MINIMUM OF 6 COPIES OF CERTIFIED SHOP DRAWINGS FOR REVIEW BY THE ENGINEER OF ALL EQUIPMENT AND MATERIAL SPECIFIED AND SHALL NOT PROCEED WITH ANY OF THIS WORK UNTIL THE DRAWINGS HAVE BEEN RETURNED STAMPED AND SIGNED. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION OF CHECKING THE DRAWINGS HIMSELF OR FURNISHING THE MATERIALS SPECIFIED.

.12 CLEANING UP
THE CONTRACTORS SHALL, AT ALL TIMES, KEEP THE SITE NEAT, CLEAN AND FREE FROM ACCUMULATION OF WASTE, MATERIALS AND RUBBISH WHICH ARISE OUT OF THEIR WORK.

.13 REMOVALS
ALL MATERIAL DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF OFF SITE BY THIS CONTRACTOR.

.14 EQUIVALENT
EQUIPMENT OF THE FOLLOWING MANUFACTURERS, PROVIDING THE EQUIPMENT HAS EQUAL CHARACTERISTICS TO THAT SPECIFICALLY MENTIONED IN THIS SPECIFICATION, IS CONSIDERED AS EQUAL AND WILL BE ACCEPTED. THE ENGINEER HAS THE SOLE RIGHT TO DETERMINE AND INTERPRET THE 'EQUAL' QUALITIES. ANY MODIFICATIONS REQUIRED FOR INSTALLATION OF EQUAL PRODUCTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY

EQUIPMENT OF MANUFACTURERS NOT MENTIONED IN THE 'REVIEWED EQUALS LIST', WHO WISH TO HAVE THEIR EQUIPMENT LISTED AS EQUAL, MAY QUALIFY FOR THE 'REVIEWED EQUALS LIST'. SUBMIT ALL REQUIRED TECHNICAL DATA THROUGH THE OFFICE OF THE PROJECT MANAGER A MINIMUM OF TEN (10) DAYS PRIOR TO TENDER CLOSING.
AC UNITS: YORK, LENNOX, TRANE, CARRIER
GRILLES AND DIFFUSERS : AIRVECTOR, KRUEGER, TITUS, E. H. PRICE, NAILOR
HRV'S: VENMAR, LIFEBREATH, FANTECH, NU–AIR, RENEWAIRE
PLUMBING FIXTURES: CRANE, AMERICAN STANDARD, KOHLER

.15 OPERATING AND MAINTENANCE INSTRUCTIONS
CONTRACTOR SHALL INSTRUCT THE OWNER IN OPERATION OF MAINTENANCE OF ALL EQUIPMENT AND SYSTEMS INSTALLED. ALL SAFETY AND CONTROL FEATURES SHALL BE THOROUGHLY EXPLAINED. THREE COPIES OF OPERATING AND MAINTENANCE INSTRUCTIONS, TOGETHER WITH ALL APPROVED SHOP DRAWINGS AND SPARE PARTS LIST FASTENED IN A BINDER, SHALL BE SUBMITTED TO THE OWNER.

.16 AS BUILT DRAWINGS
CONTRACTOR SHALL MAINTAIN, AT THE JOB SITE, ONE SET OF PLANS ON WHICH HE SHALL CLEARLY NOTE ALL CHANGES OR DEVIATIONS FROM THE CONTRACT DOCUMENTS, AS THE JOB PROGRESSES. CONTRACTOR SHALL AT THE TIME OF FINAL INSPECTION SUBMIT TO THE OWNERS REPRESENTATIVE, ONE SET OF FINAL 'AS–BUILT' WHITE PRINT DRAWINGS.

.17 FIRE STOPPING
MECHANICAL CONTRACTORS SHALL PROVIDE AND INSTALL A ULC LISTED FIRE STOPPING MATERIAL AT PENETRATION OF MECHANICAL SYSTEMS WHERE SUCH SYSTEMS PENETRATE FIRE AND SMOKE SEPARATIONS AND RATED ASSEMBLIES IN THE STRUCTURE AS INDICATED ON ARCHITECTURAL DRAWINGS OR REQUIRED BY AUTHORITIES HAVING JURISDICTION. FIRE STOPPING SHALL BE INSTALLED AS PER MANUFACTURERS APPROVED INSTALLATION REQUIREMENTS AND SHALL BE INSPECTED PRIOR TO ENCLOSING WALLS OR CEILING WHERE FIRE STOPPING HAS BEEN INSTALLED.

PLUMBING SYSTEMS

.1 GENERAL
CONTRACTOR SHALL CONDUCT AND PAY FOR ALL PIPING TESTS. ALL TESTS SHALL BE CARRIED OUT IN THE PRESENCE OF THE ENGINEER OR HIS REPRESENTATIVE.

DRAINAGE PIPING SHALL BE SECURELY CLOSED BY MEANS OF APPROVED PLUGS AND THE ENTIRE PIPING SYSTEM INCLUDING RISING STACKS AND BRANCHES TO FIXTURES AND ALL HORIZONTAL MAINS AND DRAINS, SHALL BE FILLED WITH WATER UP TO THE TOP OF THE HIGHEST OPENING AND THIS WATER SHALL STAND AT THE SAME LEVEL FOR NOT LESS THAN TWO HOURS.

ALL DOMESTIC COLD AND HOT WATER PIPES SHALL BE TESTED FOR TWENTY–FOUR (24) HOURS AT 860 KPA (125 PSI) PRESSURE AND SHOW NO SIGNIFICANT PRESSURE DROP OR APPARENT LEAKS.

.2 PIPE MATERIALS
PIPE MATERIALS SHALL BE AS SPECIFIED BELOW:

BELOW GROUND	M.W. CAST IRON CLASS 4000, PVC–DWV
ABOVE GROUND 17mm (3") & LARGER	M.W. CAST IRON CLASS 4000 C.S.A. B70–1970. PVC–DWV*
ABOVE GROUND 62mm (2") & SMALLER	COPPER DWV, PVC–DWV* CSA B–181.2
SANITARY VENTS	COPPER DWV, PVC–DWV* CSA B–181.2
DOMESTIC HOT & COLD WATER (INSIDE BUILDING)	COPPER TYPE 'L' HARD

NOTE:
SEAL OPENING AROUND PIPES PASSING THROUGH FIRE PARTITIONS WITH A FIRE RESISTANT SEALANT. * – CEILING SPACE IS USED AS A RETURN AIR PLENUM. PVC PIPING SHALL NOT BE USED UNLESS IT IS RATED FOR CEILING PLENUM USE. IPEX XFR SYSTEM IS RATED FOR PLENUM INSTALLATION.

.3 UNIONS
PROVIDE UNIONS ON HOT AND COLD WATER LINES CONNECTED TO ALL EQUIPMENT.

.4 VALVES & GAUGES
DOMESTIC HOT & COLD WATER:
GATE VALVE – CRANE # 1320
BALL – CRANE # 9322
GLOBE VALVE – CRANE # 1312
CHECK VALVE – CRANE # 1343
PRESSURE GAUGE – WEKSLER EA14 0–100 PSI
THERMOMETER WITH WELL – WEKSLER EG5H9 30–180°F

.5 PIPE SUPPORTS
PIPING SHALL BE SUSPENDED FROM THE BUILDING STRUCTURE WITH GRINNELL, OR EQUAL, PIPE HANGERS AND STEEL RODS ATTACHED TO THE STEEL STRUCTURE BY MEANS OF "C" CLAMPS.
USE FIG. 269 FOR HORIZONTAL HOT AND COLD WATER PIPES,
FIG. CT–121C FOR VERTICAL HOT AND COLD WATER PIPES,
FIG. 260 FOR HORIZONTAL CAST IRON PIPES AND
FIG. 261 FOR VERTICAL CAST IRON PIPES.

HANGER SPACING SHALL BE AS PER THE FOLLOWING SCHEDULE:

PIPE DIAMETER	MAX. SPACING	STEEL RODS DIA.
12mm (1/2")	1500mm (5'–0")	9mm (3/8")
19mm (3/4")	1500mm (5'–0")	9mm (3/8")
25mm (1")	1800mm (6'–0")	9mm (3/8")
32mm (1–1/4")	2100mm (7'–0")	9mm (3/8")
37mm (1–1/2")	2400mm (8'–0")	12mm (1/2")
50mm (2")	2400mm (8'–0")	12mm (1/2")
62mm (2–1/2")	3000mm (10'–0")	12mm (1/2")
3"	3000mm (10'–0")	12mm (1/2")

SUPPORT ALL DRAINAGE PIPES ABOVE GROUND AT EVERY JOINT WITH APPROVED SUPPORTS DESIGNED FOR DRAINAGE.

BED SEWER PIPING ON 75mm (3") LAYER OF SAND, OR STONE DUST. PIPING SHALL BE EVENLY SUPPORTED THROUGHOUT ITS LENGTH. BACKFILL WITH SAND OR STONE DUST.

.6 GRADING OF PIPES
WASTE AND SOIL PIPING SHALL BE GRADED IN DIRECTION OF THE FLOW, WITH A PITCH OF NOT LESS THAN 3mm (1/8") IN 300mm (1'–0") UNLESS OTHERWISE INDICATED. ALL HORIZONTAL BRANCHES OF VENT PIPING SHALL BE PITCHED 6mm (1/4") IN 300mm (1'–0") TOWARDS THE FIXTURES. ALL HORIZONTAL LINES OF HOT AND COLD WATER SHALL BE PITCHED SO THAT THEY MAY BE COMPLETELY DRAINED THROUGH RISERS, FIXTURES, OR DRIPS.

.7 INSULATION
INSULATE ALL DOMESTIC HOT, COLD AND RECIRCULATION WATER PIPING; 25mm (1") THICK OF FIBERGLASS, HEAVY DENSITY PIPE INSULATION, WITH FACTORY APPLIED ALL SERVICE JACKET (ASJ). WHERE INSULATED PIPING IS EXPOSED TO VIEW WRAP WITH A WHITE PVC JACKET AND PRE–FORMED PVC FITTINGS. SECURE JACKET AS PER MANUFACTURERS INSTALLATION INSTRUCTIONS.

.8 ESCUTCHEON PLATES
WHERE EXPOSED PIPE PASSES THROUGH WALLS OR FLOOR, USE HEAVY CHROMIUM BRASS FLOOR OR WALL PLATES.

.9 WATER HAMMER ARRESTORS
SUPPLY AND INSTALL WATER HAMMER ARRESTORS ON HOT AND COLD WATER PIPING AT ENDS OF HORIZONTAL BRANCHES TO EACH FIXTURE TO PREVENT WATER HAMMER, EQUAL TO PPP INC.

.10 FIRE STOPPING
THE CONTRACTOR SHALL PROVIDE FIRE STOPPING AND/OR SEALING OF ALL PIPING, DUCTWORK TO MAINTAIN INTEGRITY OF ALL FIRE SEPARATIONS. ADD LISTED & APPROVED FIRE STOPPING SYSTEMS FOR ALL PENETRATIONS. HILTI OR APPROVED EQUAL. SUBMIT SHOP DRAWINGS FOR APPROVAL.

.11 PLUMBING FIXTURES

P–1 FLOOR MOUNTED ANTI–LIGATURE (BARRIER FREE) WATER CLOSET

MAKE: WHITEHALL
MODEL: WH2142–ADA–T–3_12WH2802
SLPT–ADA–EG10–1.28
COLOR: POWDER COATED WHITE
SEAT: INTEGRAL & ANTI–LIGATURE
DRAIN: 3"
CW: 1"
VENT: 1 1/2"
ACCESSORIES: –FLOOR FLANGE
–ANTI–LIGATURE FLUSH VALVE
–ADA COVER

P–2 WALL HUNG ANTI–LIGATURE (BARRIER FREE) SINK

MAKE: WHITEHALL
MODEL: 3775
COLOR: POWDER COATED WHITE
DRAIN: 1 1/2"
VENT: 1 1/4"
HW & CW: 1/2"
FIXTURE CARRIER JAY R SMITH 0844–M31
SUPPLIES: MCGUIRE MODEL LFH170BY THERMOSTATIC MIXING VALVE–LAWLER MODEL 570–80
FAUCET: WHITEWALL MODEL 3374 METERING FAUCET.

P–3 SHOWER

MAKE: WHITEHALL
MODEL: WH458–CSH
COLOR: POWDER COATED WHITE
TRENCH DRAIN (BARRIER FREE):
MANUFACTURER: JAY R. SMITH
MODEL: 9666
DIMENSION: 6.0 FT LONG
GRADE: STAINLESS STEEL
TRAP: P–TRAP C/W TRAP PRIMER CONNECTION

P–4 TRENCH DRAIN (BARRIER FREE)

MANUFACTURER: JAY R. SMITH
MODEL: 9666
DIMENSION: 6.0 FT LONG
GRADE: STAINLESS STEEL
TRAP: P–TRAP C/W TRAP PRIMER CONNECTION

P–5 TRAP PRIMER UNIT

MANUFACTURER: PRECISION PLUMBING PRODUCTS
MODEL: P2–500
C/W. AIR GAP FITTING

REGISTERED PROFESSIONAL ENGINEER
MARGUERITE A. MACNEILL
No. 417
May 18, 2017
PRINCE EDWARD ISLAND

0 ISSUED FOR TENDER MAY 18, 2017

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A = Detail #
BB = Sheet # (Where Detail Required)
CC = Sheet # (Where Detailed)

Project Title :
HILLSBOROUGH HOSPITAL

Drawing Title :
SPECIFICATION

Scale : As Noted	Design By : SS
Drawn By : JK	Date : MAY 2017
Project No.: ### - ###	Drawing # : M-2 of 2