



October 28, 2019

Donna Jerry
Senior Health Policy Analyst
Green Mountain Care Board
144 State St.
Montpelier, VT 05602

RE: Docket No. GMCB-003-19con, Emergency Department Modernization Project

Dear Donna:

Thank you for your September 16, 2019 requests and questions regarding the above-referenced project.

Attached you will find our responses to your questions and the verification under oath form.

I hope you will find these clarifications complete and satisfactory. If you have any additional questions, please contact Jonathan Billings, NMC's Vice President of Community Relations & RiseVT, at jbillings@nmcinc.org or (802) 524-1044.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jill Bowen', is written over the typed name and title.

Jill Berry Bowen, RN
Chief Executive Officer

CC: Jonathan Billings, NMC Vice President of Community Relations & RiseVT
Anne Cramer, Esq.

Verification Under Oath

**STATE OF VERMONT
GREEN MOUNTAIN CARE BOARD**

In re: Northwestern Medical Center's)
Emergency Department) Docket No. GMCB-003-19con
Modernization Project)
Response to 09/16/19 Request)

Verification Under Oath to file with Certificate of Need Application, correspondence and additional information subsequent to filing an Application.

Jill Berry Bowen, being duly sworn, states on oath as follows:

1. My name is Jill Berry Bowen. I am the Chief Executive Officer of Northwestern Medical Center. I have reviewed Northwestern Medical Center's response to the Green Mountain Care Board's questions dated 09/16/19 regarding NMC's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con).
2. Based on my personal knowledge and after diligent inquiry, I attest that the information contained in Northwestern Medical Center's response to the Green Mountain Care Board's questions dated 09/16/19 regarding NMC's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con) is true, accurate and complete, does not contain any untrue statement of a material fact, and does not omit to state a material fact.
3. My personal knowledge of the truth, accuracy and completeness of the information contained in the Northwestern Medical Center's response to the Green Mountain Care Board's questions dated 09/16/19 regarding NMC's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con) is based upon either my actual knowledge of the subject information or upon information reasonably believed by me to be true and reliable and provided to me by the individuals identified below in paragraph 4. Each of these individuals has also certified that the information they have provided is true, accurate and complete, does not contain any untrue statement of a material fact and does not omit to state a material fact.
4. The following individuals have provided information or documents to me in connection with Northwestern Medical Center's response to the Green Mountain Care Board's questions dated 09/16/19 regarding NMC's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con) and each individual has certified, based either upon his or her actual knowledge of the subject information or, where specifically identified in such certification, based on information reasonably believed by the individual to be reliable, that the information or documents provided are true, accurate and complete, do not contain any untrue statement of a material fact, and do not omit to state a material fact:

- Tyson Moulton, Director of Facilities
- Jonathan Billings, Vice President of Community Relations & RiseVT

5. In the event that the information contained in the Northwestern Medical Center's response to the Green Mountain Care Board's questions dated 09/16/19 regarding NMC's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con) becomes untrue, inaccurate or incomplete in any material respect, I acknowledge my obligation to notify the Green Mountain Care Board and to supplement the Northwestern Medical Center's response to the Green Mountain Care Board's questions dated 09/16/19 regarding NMC's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con) as soon as I know, or reasonably should know, that the information or document has become untrue, inaccurate or incomplete in any material respect.



[signature]

On October 28, 2019, Jill Berry Bowen appeared before me and swore to the truth, accuracy and completeness of the foregoing.



Notary public

My commission expires 1/31/2021
[seal]



**Northwestern Medical Center Certificate of Need Response to 080719 Requests/Questions
Emergency Department Modernization: GMCB-003-19con**

The following are Northwestern Medical Center's (NMC's) responses to the Green Mountain Care Board's (GMCB's) requests/questions dated 09/16/19 regarding NMC's Certificate of Need application and request for expedited review relating to NMC's Emergency Department (ED) Modernization project – GMCB-003-19con.

HVAC:

- **Schematic Design Narrative**

Emergency Department Renovation

a. A VAV rooftop system has been chosen for the renovation and is equipped with chilled water and hot water coils and selected for a heating set point of 70F and a cooling set point of 48F.

1. Identify the intended heating/cooling/humidity set points.

Heating, cooling and humidity set points will be per recommendations outlined in ASHRAE 170 based on space types assigned by project.

2. Explain whether 48F LAT will be sufficient for maintaining space below upper humidity limits in the summer.

Air handler selection will have a Leaving Air Temperature to satisfy space conditions taking into account existing chilled water temperature system supply temperature of 45F. Chilled water conditions will provide adequate humidity control for the space types identified.

3. Explain how the outside air flow will be measured and managed.

Design intent is to include air flow monitoring station in Air Handling equipment.

b. A zoning chart with VAV box designations, total airflow and exhaust requirements has been provided.

1. Clarify whether the total airflow listed is the minimum or the maximum airflow of the box.

Table lists Maximum air flows. Flow may change based on critical load.

Electrical:

- **Schematic Design Narrative**

It is unclear what equipment will be tied into the proposed "Critical" and "Life

Safety” electrical branches. Clarify whether the system is provided with a “Non-Essential” emergency backup power branch.

There is no non-essential emergency backup power, the essential electrical system consists of an Equipment Branch, a Life Safety Branch, and a Critical Branch.

The following will be connected to the Life Safety Branch: Egress lighting, Exit & Emergency Lighting, Fire Alarm NAC Panels and Power Supplies, Medical Gas Alarms, Hospital Communications Systems, and Automatic Doors used for Egress.

The following will be connected to the Critical Branch: Nurse Call Power Supplies, Headboard receptacles in all exam and isolation rooms, Blanket Warmers, Emergency Mobile Cart Stations, Nurses stations, med prep areas, pharmacy areas, acute areas, and psych areas.

The following will be connected to the equipment branch: Relocated medical oxygen systems, relocated medical vacuum systems, new HVAC equipment and controls for ED department.

Clarify how “Critical” & “Life Safety” equipment and cabling will be protected with two-hour rating.

The cabling will be installed in areas that are fully protected by automatic fire suppression systems and installed in EMT conduit.

There is no mention of an Uninterruptable power supply (UPS) system. Please verify whether there is UPS and describe this system.

There is no UPS system proposed.

There is no mention of isolated ground receptacles for computer (PC) loads. Please clarify.

There will be no isolated ground receptacles.

Article 517.41(e), of the “National Electric Code”, (NEC) requires receptacles to have a distinct color and/or illuminated outlets. Please clarify where these receptacles are located and which type will be used.

Receptacles fed from the essential electrical systems will be Red in color with Red device plates. These receptacles will be located at the headboard of each patient bed in all exam rooms and isolation rooms, at blanket warmer locations, emergency mobile cart locations, Nurses stations, med prep areas, pharmacy areas, acute areas, and psych areas.

Section (a.)(iv.) of your specifications indicate that hospital grade MC type cable and device installations “MAY” be used. Clarify what other FGI compliant options

will be actually be used for this project.

Metal boxes will be used throughout. Color coded EMT conduit will also be used for this project.

Clarify the use of different colors & markings to provide clear indication between normal / emergency / critical receptacles, wiring, conduit & junction boxes.

Normal devices will be ivory, critical and emergency devices will be red. Devices will be labelled with panel name and circuit numbers. The panel names will indicate normal, life-safety, critical, or equipment feeds.

Clarify the color coding of the fire alarm wiring system.

The fire alarm wiring system will be RED in color. Red EMT conduit and junction boxes will be used. The following color coding will be used for each system:

- Red — Fire alarms systems
- Green – Health care systems
- Blue — Data communication systems
- Yellow — High voltage systems
- Orange — Fiber optic systems
- Purple — Security systems

Clarify the labeling of all receptacles, switches, electrical switchgear, etc.

All electrical devices will be labeled with panel name and circuit number. Panels will be labeled with Panel name to match the existing panel naming scheme on campus, the panel names will indicate normal, life-safety, critical, or equipment branch.

Fire Protection:

- **Schematic Design Narrative:**

Confirm that new sprinklers will have the same response time index (RTI) as existing sprinklers.

Currently the space is covered by quick response sprinkler head. The renovations will include quick response sprinkler heads. These will be the same RTI as the existing heads.

Verify if sprinklers are required above ceiling spaces.

Sprinklers will not be required in above ceiling spaces.

Verify from a current flow test that adequate pressure has been provided to comply with the pressure and flow requirements as outlined in NFPA for the furthest most remote sprinkler zone.

The design team will be creating a performance specification that will include the requirement adequate pressure will be provided. Sprinkler calculations will be supplied by sprinkler contractors engineer and will be reviewed as part of submittal process. We are confident that there will not be any issue with meeting required pressures as this project is primarily a renovation project of a space that is currently fully sprinklered.

Clarify whether you have confirmed with local Fire Marshal's office requirements for pressure and flow.

The Fire Marshal's office indicated that defining sprinkler system pressure and flow is the responsibility of the design engineer. The sprinkler system shall be designed with adequate pressure and flow.

Plumbing:

- **Schematic Design Narrative:**

Verify that provisions have been provided to prevent Legionella bacterial growth in domestic hot water system.

Design will maintain stored hot water at a min 140F. Hot water distribution system will have hot water recirculation component.

Verify that medical gas systems conform to NFPA 99 (applicable edition).

Design will comply with NFPA 99.

Verify that a third-party testing company will be included as part of the plumbing close-out requirements.

Third party testing to be done in compliance per NFPA 99-2018 by an ASSE 6020 certified inspector.

Confirm adequate pressure and flow is available to provide the required flows and pressures.

The project will be reusing existing water system which currently has adequate pressure and flow.

Verify that adequate drainage will be provided for the discharge requirements for

the new reduced pressure zone backflow preventer.

An indirect drain connection will be located at backflow preventer.

Verify that anti-microbial flush valves and lavatory handles have been provided.

Electronic/battery controlled flush valves will be used. No handles are to be provided.

Clarify whether bariatric fixtures are required.

Section 2.2-3.1.3.6 (5) of the FGI Guidelines requires that 'all plumbing fixtures, grab bars, and casework shall be floor-mounted and/or designed to accommodate the maximum patient weight established in the planning phase'. The room designated for bariatric use, Trauma, will have floor mounted case work and will meet all other requirements under this section. Additionally, a bariatric commode will be utilized for toileting alleviating the need for specialty fixtures.

Verify which piping materials will be installed for each plumbing, including medical air, medical oxygen and medical vacuum.

Plumbing fixture supplies will be type L copper. Medical gas, Oxygen and Vacuum will be Type L copper tube with brazed joints meeting ASTM B 819. Tubing will be cleaned and capped when delivered to site.

Verify that all medical gas piping will be medical grade and will have brazed fittings.

Yes, all medical gas piping will be specified to meet medical grade requirements and piping joints will be specified to be brazed.