24 May 2019

Mr. Thomas Valenti
Department of Engineering
25 Kirkpatrick Street
New Brunswick, New Jersey 08903

Re: Stormwater Narrative
RWJ Barnabas Health South Building Expansion
Block 24.01, Lot 1.01
New Brunswick, Middlesex County, New Jersey
Langan Project No.: 130141101

Dear Tom:

On behalf of RWJ Barnabas Health, Langan Engineering is submitting this stormwater narrative to support our site plan application for the proposed South Building Expansion project on Block 24.01, Lot 1.01.

The project proposes the construction of 29,000 square feet (sf) of new hospital space and renovation of approximately 60,000 sf of existing hospital space within the RWJ Barnabas South Building.

The approximately 0.3-acre project site is bound by the RWJ 1958 and Tower Building to the north, French Street (Middlesex County Road 27) to the south, Core Building and an existing parking garage to the east, and the RWJ Utility Building to the west.

The project proposes a decrease in impervious surface and will maintain existing drainage infrastructure and drainage patterns as detailed in this narrative. Since the project disturbs less than 1-acre and does not increase impervious coverage by more than 0.25 acres, it is not considered a major development. As a result, no stormwater detention or water quality measures are required.

STORMWATER NARRATIVE

Existing Conditions

The property (approximately 8.25 acre per the City tax map) is located in the City of New Brunswick, Middlesex County, New Jersey. Approximately one acre of the property will be developed as part of this project but the extent of soil disturbance is only approximately 0.3 acre.

The site is currently occupied by an asphalt parking lot for non-emergency ambulances. Concrete sidewalks and gravel areas also occupy the site. Elevations from the site range from el. 72 near the western portion of the site to el. 69 near the eastern portion of the site. Runoff from the site sheet flows to the on-site storm inlets, is detained in the existing on-site underground detention system, and is conveyed to the city-owned stormwater conveyance system within French Street.

Proposed Development

The proposed development will consist of the construction of 29,000 square foot (sf) of new hospital space and the renovation of approximately 60,000 sf of existing hospital space.

On the ground level, columns and elevators are proposed to support the proposed infill building structure above. The project will require the relocation of the existing underground stormwater detention system slightly to the south. The detention system will maintain its preexisting capacity and layout – only its location will change.

Proposed site grades will generally maintain existing conditions and will range from approximate el. 72 at the western portion of the site to el. 69 at the eastern portion of the site.

Stormwater Management Analysis

The project proposes a decrease in impervious coverage and will maintain existing drainage patterns. Since the project disturbs less than 1-acre and does not increase impervious coverage by 0.25 acres, it is not considered as a major development. As a result, stormwater detention and water quantity measures are not proposed.

Roof runoff from the proposed building will be piped into the relocated underground detention system and then piped to the existing stormwater conveyance system within French Street. Runoff generated from the proposed development will consist of roof runoff. Roof runoff is considered clean and does not need to be treated prior to discharging. In addition, since the project is not a major development, it is not subject to water quality regulations.

The development is also exempt from the state's groundwater recharge requirements because the project is not considered a major development and is located in a Metropolitan Planning Area.

Stormwater Conveyance System Analysis

The proposed stormwater conveyance systems have been adequately sized to convey flow resulting from a 25-year storm event. Hydraulic surcharging above rim or grate elevations does not occur during a 25-year or less storm event.

CLOSING

Please do not hesitate to call should you have any additional questions or require additional information.

Sincerely,
Langan Engineering and Environmental Services, Inc.

Christian Roche, P.E., LEED-AP
Senior Associate/Vice President