

Memo

To:	DA Mattox
From:	Thomas Melville
Date:	March 27, 2018
Subject:	SAFEbuilt Permit Review – Design Team Comment Response

The purpose of the memorandum is to capture and provide response to SAFEbuilt Permit Drawing Review Comments for East Tower Expansion as received on March 23, 2018. Drawings are in the processes of being revised and are to be issued as Addendum No. 2 to direct the CM for revisions. Subsequent to this issuance, a full permit set will be issued to SAFEbuilt.

MMC EAST TOWER – BUILDING REVIEW

SAFEbuilt Comment No. 1

Per IBC 407.4 and 1001.4 fire safety and evacuation plans shall be provided in accordance with section 404 of the International Fire Code and shall identify the building components necessary to support a defend-in-place emergency response. IFC section 404 requires that specific procedures are detailed in addition to locating the fire-resistance rating requirements for physical life safety building components.

Design Team Response

Current Maine Medical Center Fire Safety Management Plan has been provided as an appendix clarifying specific procedures. Appendix C outlines procedures already in effect for lower Inpatient Units and which will apply to the (2) new inpatient levels. This document in conjunction with the Code Report and Code Compliance Drawings shall provide clarity to the intent of IBC 407.4 and 1001.4

SAFEbuilt Comment No. 2

Provide the required fire-resistance ratings for the primary structural frame. A project code summary / analysis is not provided and the various details that show protected primary steel members (exterior section details on sheet A32-01 for example) note the protective material but do not provide a thickness or hour rating.

Design Team Response

Fire resistive ratings for primary structural frame provided in Code Report distributed 3/16/2018.

SAFEbuilt Comment No. 3

Per IBC 403.5.4, interior exit stairways shall be smokeproof enclosures in accordance with sections 909.20 and 1023.11. 1023.11.1 details the termination requirements at the level of discharge. Provide additional information about the lower level plans verifying compliance with 1023.11.1 or an exception therein.

Design Team Response

Drawings showing compliant discharge will be provided with Addendum No. 2.

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SAFEbuilt Comment No. 4

Per IBC 403.2.3.2, interior exit stairways and elevator hoistway enclosures shall be constructed of impact resistant materials in accordance with one of the three options included therein. Wall partition details C40 and K30 do not comply as currently drawn on sheet A61-01.

Design Team Response

Drawings are to be revised and issued as Addendum No 2 within the Construction Documents indicating revisions to the partitions to provide impact resistant materials.

SAFEbuilt Comment No. 5

Per IBC 403.5.5 and 1025, luminous egress path markings are required in the interior exit stairs in accordance with IBC.

Design Team Response

Required markings are currently indicated within the Documents on Sheets A41-01 and A41-02.

SAFEbuilt Comment No. 6

Exterior section details (sheet A32-04, etc.) specify pressure-treated wood blocking which is not included on the list of permitted combustible materials in Type 1 construction per IBC 603.1.

Design Team Response

Pressure-treated blocking will be replaced with fire-retardant-treated blocking. This revision will be indicated in Addendum No.2. IBC 603.1 allows fire-retardant-treated wood in non-bearing exterior wall where fire-resistance-rated construction is not required. Refer to Table 602 discussion in Code Report.

SAFEbuilt Comment No. 7

ICC/ ANSI A117.1-2009 is a referenced standard per IBC 1102.1. In accordance with A117.1 section 604 vertical sidewall grab bars are required in all accessible toilet rooms / compartments. Interior elevation sheet A18-04 and A18-05 do not show any vertical grab bars.

Design Team Response

Vertical grab bars to be indicated for Addendum No. 2 where required. Reference drawing A00-02 TYPICAL MOUNTING HEIGHTS as this drawing that dictates dimensioned control locations as required for all locations.

SAFEbuilt Comment No. 8

Plans appear to indicate, and reviewer assumes, that all patient toilet rooms are intended to be accessible in compliance with A117.1 section 1002. If this assumption is not accurate, a code summary should be provided indicating the number and type of units in accordance with IBC 1107.5.3. The following 3 comments are based on this assumption.

Design Team Response

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All Patient Toilet Rooms are not intended to be accessible. Number and types of accessible units will be indicated in accordance with IBC 1107.5.3 for Addendum No. 2.

SAFEbuilt Comment No. 9

Accessible, transfer type showers shall adhere to A117.1 section 608.2.1. A compliant configuration requires that the 48x36 clear floor area is measured 48" perpendicular from the control wall, not the seat wall. In doing so the clear area extends 12" past the shower opening on the seat side of the shower, and not the control side, enabling a safe transfer from a wheelchair to the shower seat. The toilet rooms associated with the following patient rooms have this required configuration reversed: 6701, 6707, 6708, 6713, 6718, 6724, 6729, 6730, 6732, 7701, 7707, 7708, 7713, 7718, 7726, 7731, 7732, 7734. Please note, all other toilet / shower clear areas are technically compliant, however, the layout will require a patient to position a wheelchair with the back against the wall to use the toilet and then rotate their wheelchair 180 degrees and face the wall to use the shower.

Design Team Response

Comment does not apply – see No. 8 above.

SAFEbuilt Comment No. 10

The toilet rooms associated with the following patient rooms do not include adequate turning space as required by A117.1 section 603.2.1: 6712, 6725, 6732, 7712, 7727, 7734. Additionally, angled toilet rooms 6712, 6725, 7712, and 7727 do not comply with section 604.3 for clear floor area at the toilet. Section 604.3 requires clear space next to the toilet on the opposite side of the side wall grab bar. In these rooms the sink and equipment next to the sink encroaches on the required clear space.

Design Team Response

Comment does not apply – see No. 8 above.

SAFEbuilt Comment No. 11

Accessible transfer type showers require vertical grab bars in accordance with A117.1 section 608.3.1 and control locations in accordance with section 608.4. Enlarged patient room plans and elevations on sheet A18-01 do not include vertical grab bars or dimensioned control locations.

Design Team Response

Vertical grab bars to be indicated for Addendum No. 2 where required. Reference drawing A00-02 TYPICAL MOUNTING HEIGHTS as this drawing that dictates dimensioned control locations as required for all locations.

MMC EAST TOWER – HVAC REVIEW – Revisions will be required

SAFEbuilt HVAC Comment No. 1

The following rooms are enclosed by 2hr rated fire barriers and the duct penetrations into each shall be protected as required by IBC section 717: Emer Elec 6010, Elec 6032, Elec 6082, Emer Elec 6083, Elec 7010, Emer Elec 7032, Elec 7082, and Emer Elec 7083.

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Design Team Response

HVAC drawings will be revised for Addendum No. 2 to coordinate with ratings.

MMC EAST TOWER – STRUCTURAL REVIEW – Plans are Conditionally approved

MMC EAST TOWER – FIRE ALARM REVIEW – Plans are Conditionally approved with the following comments.

The review of the above referenced project is for an addition to an existing fire alarm system that will be installed to provide notification coverage to the East Tower 6 and 7 Addition. The plans submitted were architectural only. Shop drawings and calculations were not included in the submittal. They will be considered a differed submittal.

Conditional approval is based on the following:

1. Complete information regarding the system, including specifications, type of system and service, shop drawings, input/output, matrix, battery calculations, and notification appliance circuit voltage drop calculations, shall be submitted for approval. 10.18.1.2
2. Shop drawings shall include, to an extent commensurate with the extent of the work being performed, including riser diagrams, control panel wiring diagrams, point-to-point wiring diagrams, conduit, conductor routing, typical wiring diagrams, and other information as required.
3. Fire alarm riser diagrams shall include the following information:
 - General arrangement of the system in building cross-section
 - Number of risers
 - Type and number of circuits in each riser
 - Type and number of fire alarm system components and devices one each circuit, on each floor or level (Include cut sheets)
4. Control unit wiring diagrams should be provided for all control equipment (listed), power supplies, battery chargers, and annunciators and shall also include the following:
 - Identification of the control equipment depicted
 - Locations
 - All field wiring terminals and terminal identifications
 - All circuits connected to field wiring terminals and circuit identifications
 - All indicators and manual controls, including the full text of all labels
 - All field connections to supervising station signaling equipment, releasing equipment, and fire safety control interfaces
5. Typical wiring diagrams shall be provided for all initiating devices, notification appliances, remote indicators, annunciators, remote test stations, and end-of-line and power supervisory devices.
6. Installation of wiring, cable and equipment shall be in accordance with NFPA 70, National Electric Code, and specifically with Articles 760 and 800, where applicable. NFPA 72 2.2

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7. Prior to requesting a final inspection, the installing contractor shall provide a final set of as-built drawings that reflect the necessary field changes. The submittal must include written documentation and a statement of compliance that reflects that the system has been installed and tested per the Maine Building Code, NFPA 1 NFPA 101 and NFPA 72, 2010 edition.

Further review notes regarding this proposed installation of the fire alarm system will be addressed upon submittal of the shop drawings and any other required construction documents.

Design Team Response

Comments will be addressed as part of the shop drawing process. Indicated conditions are a requirement of the Construction Documents as outlined within the specifications.

MMC EAST TOWER – FIRE SPRINKLER REVIEW – Plans are Conditionally approved with the following comments.

The review of the above referenced project is for new fire suppression system connecting to an existing six, four and two inch supply lines. Suppression systems include wet, dry regulating and deluge foam systems. Light Hazard Design Criteria is used for patient care spaces and Ordinary Hazard design criteria are used for mechanical spaces. These plans also include the addition of a 1500 GPM fire pump connected to an existing eight inch fire pump. The addition includes a Class 1 Standpipe system. The plans submitted were architectural only. Shop drawings and calculations were not included in the submittal. They will be considered a differed submittal.

Conditional approval is based on the following:

1. Complete information regarding the fire protection system(s) shall be submitted to indicate conformance to applicable codes and regulations. The construction documents shall be approved prior to the start of system installation. Shop drawings shall contain all information as outlined in Chapter 9 of the Maine Building Code and NFPA 13. (IFC Figure 903.3)
2. The sprinkler system(s) shall be electronically supervised in accordance with the Maine Building Code and this submittal. NOTE: Fire alarm plans have also been submitted for review.

Further review notes regarding this proposed installation of the fire suppression system will be addressed upon submittal of the shop drawings and any other required construction documents.

Design Team Response

Comments will be addressed as part of the shop drawing process. Indicated conditions are a requirement of the Construction Documents as outlined within the specifications.

cc: Project File

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