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Omaha VA Hospitals Facility Condition Comparison

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Executive Summary

Statement of Purpose

The purpose of this study is to provide a comprehensive assessment and comparison of two facilities, the existing Omaha VA Medical Center (VAMC) and the Creighton University Medical Center (CUMC), for future use by the VAMC Omaha. The assessments include consideration of the following factors: physical condition, space deficiencies, suitability to meet program requirements, functionality, location, access, schedule to renovate, and cost to renovate.

The study has developed three options for consideration.

Option 1: Renovate the existing VAMC beginning with construction of a new Central Energy Plant (CEP) and Surgery addition, followed by a logical phased renovation which includes upgrading of deficiencies in the infrastructure distribution and termination, along with functional and aesthetic upgrades.

Construction Project Duration: 10 years **Cost: $241,814,630**

Option 2: Renovate the CUMC facility and relocate the VA Medical Services to the upgraded CUMC facility.

Construction Project Duration: 2 years **Cost: $127,496,240**

Option 3: Temporarily relocate the VA Medical Services to the CUMC facility to allow for single phased renovation of the existing VAMC facility, and relocation back to the upgraded VAMC facility.

Construction Project Duration: 4 years **Cost: $179,943,620**

Complete descriptions of the options, along with schedule and cost estimates are included in the Option section of this report.

Introduction

The Omaha VAMC is part of the integrated Nebraska Western Iowa Healthcare System (NWIHCS). The Omaha division is the tertiary care site, providing inpatient medical, surgical, and psychiatric care services, outpatient medical care services, and clinical research programs. The campus dates from 1950 when the hospital was designed and constructed as a 400 bed general medical facility. There have been two major additions: a research building in 1975, and an outpatient addition in 1987, as well as a few smaller additions: a new front entrance in 2004, an ICU addition in 2007, and an MRI in 2009.

The Creighton University Medical Center dates from 1977. It was designed as a 288 bed general and teaching medical facility. There have been several small additions including an MRI addition in the late 1980's, a linear accelerator addition in the early 1990's, and a NICU infill of an existing courtyard in 1995.

Process

The survey team conducted on site interviews with facility engineering staff and surveys of the existing facilities during the week of December 1 – 5, 2014. The team consisted of:

Mark Jasmin	Project Manager	BWBR Architects
David Leighly	Project Architect	BWBR Architects
Scott Holmes	Medical Planner	BWBR Architects
Eric Granzow	Mechanical Engineer	SES Engineering (VAMC)
Nate Timm	Electrical Engineer	SES Engineering (VAMC)
Joe Hazel	Mechanical Engineer	SES Engineering (CUMC)

John Larson	Electrical Engineer	SES Engineering (CUMC)
Raleigh Loerch	Structural Engineer	Palanisami and Associates
Marcie Weslock	Civil Engineer	Elan Design Lab
Dennis Seih	Cost Estimator	Building Cost Consultants, Inc.

The 2009 and 2012 FCA reports for the VAMC Omaha were reviewed and discussed with VA staff to determine status of maintenance projects. CUMC staff were also interviewed and a list of facility upgrade projects dating back to 2002 obtained. An amended 2009 VAMC FCA report and a CUMC project list are included as appendixes to this report.

At both facilities, the survey teams conducted investigations in small teams accompanied by facility staff to ensure access to all critical areas including roofs, data closets, mechanical spaces, Surgery, Emergency, Behavioral Health, etc.

The standard FCA grading system used by the VA was applied to the CUMC survey in order to present the facility condition data in a consistent manner.

Cost estimates in this report contain constructions costs only. They do not include total project costs or escalation. Final budgetary estimates must be developed for the option selected.

Conclusions

Overview

The Creighton University Medical Center compares favorably to the existing VA Medical Center Omaha for a number of compelling reasons, not the least of which is the discrepancy in the age of the facilities. The VAMC opened in 1950, and is currently 64 years old; the CUMC opened in 1977 and is currently 37 years old. In addition to 27 additional years of wear and tear, the age discrepancy is compounded because:

- Construction materials and technologies are continually improving. The VAMC Omaha, as a post-WWII structure, reflects construction technologies from that era with un-insulated exterior masonry walls and clay tile interior partitions. The CUMC facility reflects improvements in construction materials and technologies including insulated brick cavity walls, thermally broken windows and metal stud wall interior partitions. The masonry exterior of the CUMC will provide better energy performance, human comfort and durability in the years to come.
- Hospital planning and design for the CUMC reflects a much better understanding of infrastructure planning, as evidenced in the Mechanical Mezzanine floor (3M), the greater floor to floor heights, and the structural bay sizing which is much more accommodating to medical planning, especially for today's large Operating Room standards. Of the two Options presented in this report for renovating the existing VAMC facility, both include construction of a new Surgery Addition because of the inability of the existing structure to accommodate the open floor space and overhead clearance required.

It should be noted that the CUMC facility reflects the hospital planning trend for that era in the radial patient wards built around centralized nursing stations. This geometry, along with the interior plumbing stacks, present challenges to the renovation and repurposing of the floors.

From an infrastructure standpoint the VAMC Omaha has reached a critical stage and has begun replacing major equipment including a new 1,000 ton chiller (2012), steam boilers (2014), and humidifiers for surgery (2014). Other pending projects include further boiler replacements and replacement of the emergency power generator. By contrast, the CUMC facility is fed by district energy steam and chilled water. Therefore, major equipment costs are included in the utility payments, and do not present a major capital expense.

Upgrading the distribution of MEP systems in the VAMC will be difficult and expensive due to:

- Lack of swing space – any infrastructure renovation work will disrupt hospital function, requiring shut down or temporary relocation for the duration of the project.
- Lack of overhead space - the low floor to floor heights will present challenges for systems competing for overhead space, including supply and return air ducts, plumbing, lights, and fire protection.
- Clay tile partitions - distribution of electrical, low voltage, plumbing and med gas systems is not possible in the existing walls. Upgrading systems to contemporary standards will require wholesale replacement of interior partition walls.

The CUMC facility does not present the same physical constraints to infrastructure improvement. The interior partitions are metal stud construction, and the floor to floor height is remarkably generous. The overall size and volume of CUMC create a favorable framework for flexibility in both infrastructure and medical planning. Neither site, in its present condition, meets the SEPS space requirements projected to year 2018 or beyond. Significant additions to either facility, or a replacement hospital, would be needed to satisfy the projected program requirements.

VAMC

Building Gross Square Feet:	556,982
Departmental Gross Square Feet:	437,710
Typical Structural Bay Size:	10′, 15′, 20′
Floor to Floor Heights:	13′-2″ Basement, 13′-6″ Fourth Floor Surgery, 11′-11″ Tower

CUMC

Building Gross Square Feet:	650,052
Departmental Gross Square Feet:	487,838
Typical Structural Bay Size:	30′ typical
Floor to Floor Heights:	20′-8″ First Floor, 18′-8″ Second Floor, 19′-4″ Third Floor, 22′-0″ Floor 3M, and 16′-0″ Floors 4 , 5 and 6.

Facility Conditions

The survey team found CUMC to have the newer, more comprehensive and robust infrastructure systems with a few exceptions. The summary below captures the conclusions of the survey team, showing which facility had the better system. Where neither facility is noted, the systems are of comparable condition. The Systems Narratives and Comparisons are included in the Facility Comparison section of this report:

Site	VAMC	CUMC
Site Systems (Accessibility, Parking, Wayfinding, Landscaping and Walks)	X	
Utilities (Water, Storm water and Sanitary)		X
Physical Security	X	
Architectural Systems		
Accessibility	X	
Exterior Walls		X

Fixed Equipment	No Advantage	
Life Safety		X
Roofs		X
Signage/Wayfinding		X
Interior Finishes	No Advantage	
Mechanical/Electrical Systems		
Central Energy Systems		X
Ventilation Equipment		X
HVAC Distribution		X
Plumbing and Medical Gases		X
Fire Suppression		X
Electrical Site System	No Advantage	
Essential Electrical System		X
Normal Electrical System		X
Lighting	No Advantage	
Telephone/Data/Special Systems		X
Structural Systems		
Foundation Systems	No Advantage	
Vertical Support Systems	X	
Floor Systems		X
Lateral Force Resisting Systems	No Advantage	
Parking Structures	X*	
Vertical Transportation Systems		
Passenger and Service Elevators	No Advantage	

*VAMC has no parking structure.

Environment of Care

The VAMC and CUMC facilities each have their unique strengths in terms of functionality. The VAMC currently has superior facilities for ICU, Medical/Surgical Patient Rooms and Mental Health; CUMC provides more functional spaces for Surgery, Emergency Department, Pathology/Laboratory and Radiology. The VAMC has implemented a comprehensive patient lift program, installing lifts in all patient rooms, ED and ICU. CUMC has only four permanent lifts in the facility, and uses portable lifts when needed.

Neither facility is clearly superior in the status of the environment for care at this time. However, all three Options considered in this report include significant renovation to clinical and institutional space. When the infrastructure, construction systems, floor to floor heights and other constraints which impact the ability to renovate the space are considered, CUMC is clearly better suited to support the mission of the VA Health System going forward.

Cost and Schedule

Option 2 – Renovate and Relocate to CUMC

Option 2 provides the least expensive construction alternative of the three options due to the economic advantage of renovations of an unoccupied building, avoiding both the cost and schedule impacts of temporary relocations, utility shut downs, interim life safety, and infection control measures. CUMC will also require considerably fewer upgrades to infrastructure.

Option 1 – Renovate VAMC while Occupied

Option 3 – Renovate VAMC while Unoccupied

Both options to renovate the VAMC include complete demolition and renovation of the floors, due to the fact that systems distribution will be difficult and expensive to execute in the existing clay tile partition wall construction.

A complete description and comparison of the options, along with cost and schedule estimates is included in the options portion of this report.

Location and Access

The VAMC campus is in a quieter location, with good public transit service, although access via private vehicle is average. The site is large, allowing more flexibility for expansion, supplemental uses or parking. The CUMC campus is in a busier location with good public transit service and excellent vehicle access. The site is tighter, providing little opportunity for expansion. However, there may be opportunities for future use of the Boys Town or Dental School Buildings. These structures are not included in the scope of this report.

Neither facility presents a clear advantage based on location.

Facility Condition Comparison

This section provides a synopsis of the condition of each facility for each of the categories listed below, along with a brief comparison.

Architectural

Accessibility

VAMC

This building was reviewed for compliance with the provisions of the Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA). It was not reviewed for compliance with the provisions of PG-18-13, because the structure was built before this standard was in place. The building has generally good access from the front door through the public spaces and main corridors. Most interior routes and public, patient and staff toilets comply for Basement, Floors 1, 5, 6, 7, 8 West and 9 West. Patient bedrooms have been upgraded for accessibility on Floors 5 East, 6 East and 7 East. The remainder of the facility is in need of a program to replace door knobs with lever handles. Toilets require upgrading to provide accessible facilities on Floors 2, 3, 4, 8 East, 9 East, 10, 11 and 12. Approximately fifty percent of the elevators within this facility meet current accessibility standards.

CUMC

This building was reviewed for compliance with the provisions of the Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA). It was not reviewed for compliance with the provisions of PG-18-13, because the structure was built before this standard was in place. The building has generally good access from the front door through the public spaces and department circulation. Public toilets on the 2nd Floor are accessible and a handful of the patient care pods (4100, 4400, 4600, and 5400) have been upgraded with accessible patient rooms. The remainder of the facility, with a few exceptions has small inaccessible toilet rooms which should be upgraded. Also, replacement of door knobs with lever handle hardware has been intermittent, and a significant upgrade program is needed. Approximately one third of the elevators within this facility meet current accessibility standards.

Comparison

The VAMC facility has the more advanced accessibility upgrade program. Also, it should be noted that, due to the geometry of the CUMC nursing pods, upgrading patient toilets to meet accessibility requirement will prove challenging. Upgrades of the elevators that do not meet current accessibility requirements should be undertaken at either facility.

Exterior Walls

VAMC

The 1950 VA Hospital building is constructed with non-load bearing masonry walls, clay tile backup with face brick veneer, no cavity or insulation. The facility has a history of wall deterioration and tuck pointing. This will be a recurring maintenance item due to the exterior wall assembly. Energy performance of this wall type is very poor, resulting in high energy costs and poor occupant comfort.

CUMC

The 1977 CUMC Hospital building is constructed with non-load bearing masonry and metal panel walls, metal stud backup with insulated cavity wall construction and face brick veneer. The brick is in excellent condition for its age. The cavity wall construction appears to be well vented and flashed, indicating that the moisture is well managed within the system, and should be a low maintenance item going forward. The metal panels have been regularly painted and are generally in good condition.

Comparison

The CUMC wall system is superior in its design, construction, performance and condition and provides the better opportunity to support the mission of the VA Health Care system.

Fixed Equipment

VAMC

Surgical equipment is in average condition.

Radiology and Nuclear Medicine equipment has been recently upgraded and is in good condition.

Food Service equipment in the Canteen Retail and 3rd Floor Dietetics has been recently upgraded and is in good condition. Walk-in coolers and freezers are good condition. The canteen dishwashing and potwashing equipment has exceeded its useful life and should be replaced.

Laboratory benches and equipment have exceeded their useful life and should be replaced.

Morgue and Autopsy equipment have exceeded their useful life and should be replaced.

Research laboratory benches and equipment have exceeded their useful life and should be replaced.

Audiology testing rooms have exceeded their useful life and should be replaced.

Casework is in mixed condition:
5% like new condition
10% good condition
70 % average condition, replace within 5 years
10% poor condition, exceeds useful life and should be replaced
5% failing condition, should be replaced.

CUMC

Surgical equipment is in good condition.

Radiology equipment is average condition and technology.

Foodservice storage and prep equipment is nearing or has exceeded its useful life and should be replaced. The retail foodservice equipment in the cafeteria is in good condition.

Laboratory equipment was not observed.

Morgue and autopsy equipment was not observed.

Research equipment was not observed.

Casework is in mixed condition:
10% like new condition
10% good condition
60% average condition, replace within 5 years
10% poor condition, exceeds useful life and should be replaced.
10% failing condition, should be replaced.

Comparison

Both facilities have equipment and casework of various ages and conditions, with considerable upgrades needed to casework in both facilities. Overall this is not a category where a distinguishable advantage can be assigned to either location.

Life Safety

VAMC

This facility is reviewed under the provisions of the 2012 and 2015 NFPA 101 Life Safety Code (LSC) as surveyed by The Joint Commission (TJC). Compliance with local building code requirements, the 2006 International Building Code (IBC) was considered in this review.

The inpatient, outpatient, and clinical research areas are considered a single structure. The facility maintains current Statement of Condition documentation and houses existing healthcare, existing business, existing ambulatory health care, existing residential board and care, and existing assembly occupancies. The existing ambulatory health care occupancy is separated from the existing health care occupancy by two hour rated fire barrier construction. The building construction type is classified in the SOC as Type II-222, although there is a portion of occupied space on the twelfth floor that is not fireproofed. In addition, the floor assembly of Building 1 provides only a one and one half hour rating, not the two hour rating required, because the thickness of the concrete within the pans is insufficient. The building is sprinkled throughout with the exception of a portion of Building 15 and is considered a high rise structure. Floors housing the existing health care and existing ambulatory health care occupancies are subdivided into smoke compartments of compliant areas by smoke barrier walls. Corridors within the existing health care occupancy are a minimum of eight feet in width, exceeding the minimum required corridor width for an existing facility. There are many dead end corridors that exceed thirty feet in length in the patient care areas. As existing construction, these corridors are required to be corrected if ''practical'' under the existing construction provisions of the LSC. These dead end corridors will be required to be corrected if remodeled under the new construction provisions of the LSC, and the provisions of the IBC. Many areas are organized as suites. The upper levels of the building are served by multiple compliant two hour rated stair enclosures. All of these stairs except one discharge to the building exterior either directly or by exit passageway except one. This stair discharges to the exterior through the building lobby, in compliance with the requirements for an existing facility.

CUMC

This facility is reviewed under the provisions of the 2012 and 2015 NFPA 101 Life Safety Code (LSC) as surveyed by The Joint Commission (TJC). Compliance with local building code requirements, the 2006 International Building Code (IBC) was considered in this review.
This building abuts the adjacent Boys Town National Regional Hospital facility, which is separated by a two hour rated fire barrier. The facility maintains current Statement of Condition documentation and houses existing healthcare, existing business occupancies, and an enclosed private vehicle parking area. Levels 1, 2, and 6 are existing business occupancy floors, with the enclosed private vehicle parking area on Level 1 separated from the adjacent existing business occupancy by a two hour fire barrier wall. The building is mostly compliant for construction type (classified in the SOC as Type I-332), although the addition at the loading dock is not fireproofed. The building is sprinkled throughout and is classified as a high rise structure. Every floor of the building, regardless of occupancy, is subdivided into smoke compartments of compliant areas by smoke barrier walls, excluding level 3M. Level 3M houses existing business occupancy and mechanical functions and is subdivided into two large smoke compartments. Under the provisions of the 2015 NFPA Life Safety Code, as an existing condition, subdivision of this level into smoke compartments is not required. If Level 4 above is remodeled, additional subdivision of this level will be required. Corridors within the existing health care occupancy are a minimum of eight feet in width, exceeding the minimum required corridor width for an existing facility. There are few dead end corridors. Dead end corridors within the patient units are designed to not exceed the thirty foot maximum dead end requirement in the Life Safety Code. These corridors exceed the maximum dead end length permitted under the IBC. Several areas are organized as suites. The upper levels of the building are served by multiple compliant two hour rated stair enclosures. All of these stairs discharge to the building exterior either directly or by exit passageway. No stairs discharge through the building lobby.

Comparison

All scenarios being considered for either building include considerable renovation. Renovated areas will be required to comply with the new construction chapters of the 2015 NFPA 101 Life Safety Code as surveyed by The Joint Commission (TJC). Provisions of the IBC would need to be considered where remodeling takes place. While both facilities have been well maintained by the facility staff, the CUMC has the advantage of being a younger facility with a more contemporary and flexible code compliance design concept.

Renovation of the VAMC would require the fire proofing of the area of the twelfth floor of Building 1 that is not currently fireproofed (approximately 3,600 square feet) and installation of sprinklers in Building 15 where they are currently missing (approximately 4,300 square feet). In addition, correction of the deficient floor fire rating of Building 1 through the addition of spray fireproofing on the bottom of all floor slabs will be very costly. The building would need to be upgraded to comply with any high rise requirements, including the construction of elevator lobbies, and the addition of stair pressurization. Any dead end corridors that exceed twenty feet in length in renovated areas would need to be corrected. Integrity of all occupancy separation fire barrier walls and smoke barrier walls will need to be confirmed and upgraded if necessary. Renovation of any health care occupancy floor will require the subdivision of the floor below, regardless of occupancy, into compliant smoke compartments. Room to room exiting limitations would need to be confirmed within existing suites and achieved for any new suites proposed. The exiting of the internal stairs through existing first floor exit passageways will constrain renovation designs in these areas.

Renovation of the CUMC would require the fire proofing or demolition of the non-compliant loading dock addition. Assuming the Boys Town National Regional Hospital facility would not be included within the relocated VA facility, separation of this facility as a separate building would require the construction of a three hour rated fire wall (IBC requirement) in compliance with local building codes. The building would need to be upgraded to comply with any high rise requirements, including the construction of elevator lobbies, and the addition of stair pressurization. Dead end corridors will need to comply with the maximum dead end length for new construction in the LSC, and the limitations of the local building code (twenty feet). Integrity of all occupancy separation fire barrier walls and smoke barrier walls will need to be confirmed and upgraded if necessary. Renovation of any floor will require the subdivision of the floor below, regardless of occupancy, into compliant smoke compartments. This will require additional smoke barrier subdivision of level 3M. Room to room exiting limitations would need to be confirmed within existing suites and achieved for any new suites proposed. The design of the exit passageways serving the buildings west stairs is very flexible and will not inhibit any renovation proposed for the second level lobby and public areas.

Roofs

VAMC

The roofing age and condition varies. The 4th floor roof above Surgery and SPD is a single ply EPDM membrane (2000) which is still in good condition, but approaching the end of its useful life. The 11th floor roofs are a combination of Built up Roofing in poor condition, and a recently installed vented EPDM system at Wing E. The Ambulatory Care addition single ply EPDM roof is original and needs replacement.

CUMC

The roofs on the five story inpatient pods and the six story clinical wing are a modified bituminous adhered system with a reflective coating. The membrane is in good condition, but in need of new coating. The roofs on the courtyards above the Level 3M, are a built up roof system with 1" insulation board on top of the BUR held in place with rock ballast. The system is prone to leakage and should be replaced. Triangle roofs, resulting where tower walls are truncated above a square floor below, have recently been replaced with standing seam metal roofs.

Comparison

Over 80% of the CUMC roof is a reliable modified bituminous system in good condition. The quality and condition of this system is preferable to the VAMC roofs of varying types and conditions. In addition, the CUMC roofs are relatively free of rooftop equipment, which can be a source for maintenance problems due to roof penetrations

Signage/Wayfinding

VAMC

Way finding signage in the public areas is inconsistent, incomplete and needs to be upgraded. Identification, directional, and code required signage is good in many areas including Nuclear Medicine, Radiology, Library, Canteen, Surgery Preop, Recovery and Locker areas, 5th Floor Surgery Evaluation, Pathology, Nursing Units on Floors 5, 6 and 7 east, and the Director's Suite. The Ambulatory Care signage is dated, inconsistent or missing, and should be upgraded.

CUMC

Signage and wayfinding throughout the facility is outdated and incomplete. The entire system requires a modernization upgrade.

Comparison

The VAMC has the more up to date signage program, although there is a significant portion of the building which needs upgrading.

Fenestration

VAMC

Double glazed thermally broken casement windows with integral blinds were installed in the mid-1980s. These windows exceed their useful life. Gaskets and seals have begun to break down, and the windows are in need of replacement.

CUMC

Most of the windows are 1977 vintage thermally broken fixed aluminum windows in average condition. Some were replaced in 1988. In some locations, separation was observed at corner joints, but no condensation was noted due to failure of the sealed glass units. These windows are approaching the end of their useful life, and should be replaced within the next 10 years.

Comparison

The CUMC windows are in better condition overall than the VAMC windows. It should be noted, however, that useful life of the windows has been exceeded, and they are due for replacement within the next 10 years.

Interior Finishes

VAMC

Interior finishes vary widely from new to 1950 vintage materials. Wall finishes include both paint and wall coverings. Flooring finishes vary from carpet to vinyl composition tile (VCT), to sheet vinyl, and terrazzo. Ceilings are finished with both accessible lay-in ceiling tiles, and limited areas of inaccessible painted hard ceilings. Interior finishes in many areas are approaching the limits of their lifespan. Employee areas including the third floor kitchen and fourth floor SPD are still finished with the original 1950 vintage materials. Other areas including the seventh floor Chemotherapy Department, fourth floor Procedure area, third floor Canteen, and second floor Pet/CT area, have been recently refinished with a contemporary design aesthetic. The public areas of the east wings of levels five, six, and seven are scheduled for finish upgrades in the near future.

CUMC

Interior finishes within this facility range from new to functional but needing replacement. Walls within the hospital areas are finished predominantly with paint, which has been utilized because it is easily repairable. Walls within the clinic spaces are mostly painted, although more wall coverings were observed. Flooring finishes vary from carpet to vinyl composition tile (VCT), to sheet vinyl. Ceilings are finished with both accessible lay-in ceiling tiles, and limited areas of inaccessible painted hard ceilings. The areas with the most current finishes include the second floor Dining Center (renovated in 2012). The

areas with the most aged finishes include the third floor ICU and the public areas of the third floor. A reexamination of the interior finishes could also improve way finding within the facility.

Comparison

The work required for renovation of either facility is significant, and will result in enough disruption that new finishes will be required in many areas. The VAMC facility currently is a varied mixture of different vintages and aesthetic concepts, and could improve the quality of the healing environment greatly with the application of an overall contemporary aesthetic theme. The interior finishes of the CUMC facility, while well maintained, do not reflect current trends in hospital design, and would also benefit from a contemporary interior finish upgrade.

Elevators

Elevator Systems

VAMC

The current vertical transportation conditions at the VA in Omaha vary widely and comprise a number of recently modernized elevators and the remainder made up of primarily original equipment installations.

There is a glaring need for upgrades to the main bank of elevators, 1-4. These units encounter a lot of inter-floor traffic and as such have long wait times due in part to limited dispatching capabilities and the simple fact there are not enough elevators to support the amount of passengers using these at any given time. These units utilize inefficient DC powered motor generators and have obsolete components with limited reliability.

Car #6 located in the surgery area is also in need of upgrades as it too has original equipment installed in the 1950's and open contact control components.

Building 15 housing the research area of the hospital is adequate for the current usage however it does contain 1970's vintage equipment that is in need of modernization as parts become more difficult to obtain and in the event this area of the hospital is repurposed reliability may become diminished with increased usage.

The general overview is that the current facility does not have an adequate number of lifts to accommodate passenger flow. Capital projects will be needed to increase the reliability of the vertical transportation in this facility. Upgrades to elevators 5, 7-10 and building 9 being a relatively modern control system are benefits associated with the current facility.

CUMC

Similar to the VA the Creighton facility has a mix of recently modernized elevators and a number of units in need of upgrades.

The CHI Creighton facility has some deficiencies to the main bank of passenger elevators as well as west building units that will need to be addressed soon. This includes elevators 2, 3, 5, 6, 8 and 9 which are all original installations with components installed in 1977-78. All units have relay logic controls and open contacts utilizing a pie plate selector system that is obsolete. These units are driven by motor generator, DC motors and need upgrades to both hoisting equipment and controls. Rope grippers have been installed as a secondary means of braking however this doesn't address the efficiency and dispatching needed to improve these units.

Elevator 19 is the single hydraulic unit in the building and it too has an upgraded power unit. The controls and fixtures are original and need replacement as it has surpassed its expected useful life. Modernization is necessary to improve door operation, dispatching and also ADA required fixtures.

The remaining elevators 11, 12, 14 and 17 have new controls, hoisting equipment and related components. These elevators meet the most current code requirements and should be reliable for the next 30+ without major component replacement.

The number of elevators appears to be sufficient for the current traffic population however if we project full capacity there are likely not enough units for acceptable people movement. The main lobby in particular is large and the two duplexes work independently of one another making for inefficient movement.

Comparison

Both locations have an immediate need to replace antiquated equipment and are under elevated for the population of the hospital.

Mechanical, Electrical, Plumbing, and Technology

Central Energy Systems

VAMC Central Heating/Cooling Plant:

The VAMC campus has a central energy plant (Building 2), which provides steam and chilled water to multiple buildings on campus. The cooling system originally installed in 1950 was made up of two steam absorption chillers located in Building 17. One (1) of these has been decommissioned and replaced with a new electric chiller located outdoors in an enclosure. The second is in poor condition and requires replacement in order to maintain campus operations as the new electric chiller is only capable of carrying the hospital load for 90% of the cooling season and no redundancy exists should the electric chiller fail.

The CEP has three gas/oil-fired boilers which produce steam delivered to and condensate received from the main hospital and a few outbuildings along the distribution system. One (1) of the three boilers is in the process of being replaced. The remaining two are in poor condition and require replacement soon. Ancillary support equipment and distribution piping are in poor or failing condition, and will require significant replacement activities to maintain the campus operations. The campus requires 1 boiler on peak heating load and 1 boiler during summer operation. Original design conditions required two boilers for summer operation to maintain the required chiller capacity. This was necessary because both original chillers were steam absorption, and did not have adequate to individually provide adequate chilled water.

CUMC Energy Plant

The CUMC campus does not have a central energy plant, but purchases both chilled water and steam from a district energy source. There are no chillers or boilers located at the site. Chilled water is purchased from Energy Systems Company (ESC). Chilled water supply and return piping enters the northeast corner of CUMC and passes by the First Floor Facility Plant Operations Room, where the pumping system distributes chilled water to air handling units throughout the facility. The ESC metering system is located adjacent to the pumping system. District energy is a gridded system with multiple utility plants; however, only one service is provided to the facility.

High pressure steam is also purchased from ESC. Steam and condensate return piping enters the northeast corner of CUMC and enters the First Floor Facility Plant Operations Room, where high pressure (100 PSIG) steam is reduced to medium (60 PSIG) and low (15 PSIG) pressure steam. The ESC condensate metering system is located adjacent to the pressure reducing stations. Similar to the district energy chilled water system, only one service is provided to the facility.

Chilled water pumping and distribution systems are original equipment installed in 1977, but have not exhibited any significant system failures. The chilled water pumps have been completely rebuilt with a variable frequency drive installed to serve each pump. Two (2) 2,000 GPM pumps are fully redundant with capacity to serve the entire facility. A third pump at 1,240 GPM is utilized when cooling loads are reduced. There are no reports of inadequate chilled water distribution to the air handling unit coils.

Heating hot water generation, pumping, and distribution systems are original equipment installed in 1977, but have not exhibited any significant system failures. The three steam-to-water heat exchangers are all fully redundant. Hot water pumps are operated with a variable frequency drive installed to serve each pump. There are no reports of inadequate hot water distribution to the air handling unit coils or perimeter heating systems.

Comparison and Opinion of Systems

The VAMC central energy plant has several deficiencies that will require significant investment to upgrade to fully redundant systems. The CUMC Energy Plant is served by a reliable, gridded system; however, only 1 service is provided to the facility. This can be corrected by installing a secondary redundant service to the facility. It appears the CUMC Energy Plant provides the best opportunity to continue to support the mission of the VA Health Care system.

Ventilation Equipment

VAMC Ventilation Equipment

The original system installed in 1950 is a mixture of 2-pipe, 4-pipe, and induction units with ventilation air provided by 100% outdoor air units and exhaust. The 1950 original system included energy recovery on the exhaust system through runaround coils, but many of them are no longer functioning due to age and lack of available parts. The majority of air distribution equipment has exceeded planned life expectancies and is in poor condition in need of replacement. Many of the units have casing failures, leaking seals, and components which require replacement. Additionally, many of the terminal devices are original, installed in 1950, and are beginning to fail. The systems, in general, are outdated and energy inefficient and should be modernized to meet current standards for indoor air quality and energy efficiency.

CUMC Ventilation Equipment

The CUMC system consists of central station type air handling units served by hot water heating coils and chilled water cooling coils. Forty-two (42) of the air handling units are original equipment, installed in 1977, but have not exhibited any significant system failures. Three (3) additional units serving Operating Rooms were replaced in 2007 are in excellent conditions, requiring no further modifications. The remaining units should be upgraded with redundant modular fan systems, new hot water and chilled water coils, electronic controls, and sound attenuators removed. The air handling units and terminal reheat units are approaching the end of their useful anticipated life and should be replaced. All existing air distribution systems and ductwork should be professionally cleaned in accordance with the National Air Duct Cleaning Association.

Comparison and Opinion of Systems

The VAMC ventilation system has numerous deficiencies that will require significant investment to upgrade to current healthcare standards, if even possible due to the lack of accessibility and space. The CUMC ventilation systems appear to remain reliable, and can be upgraded to current healthcare standards due to the relative ease of access to the systems. It appears the CUMC ventilation systems provide the best opportunity to continue to support the mission of the VA Health Care system.

HVAC Distribution

VAMC HVAC Distribution

Most of the pumps, piping, and ductwork are original to the building, installed in 1950. The pumps are past their useful life expectancy and are beginning to fail. Some sections of piping are beginning to fail due to age and corrosion. Many of the valves in the systems have failed due to age and lack of use. Many of the steam traps are inaccessible and have failed. In general, the systems are outdated and in need of full replacement.

CUMC HVAC Distribution

The CUMC HVAC distribution system consists of secondary chilled water pumps serving the ESC chilled water system and steam-to-water heat exchangers served by hot water pumps operated by variable frequency drives. Piping and ductwork are original equipment, installed in 1977, but have not exhibited any significant system failures. Patient care areas lack a return duct system. A ducted return system must be installed to comply with current FGI and VA Design Guides that state the space between the structural ceiling and suspended ceiling is not permitted as an air plenum for air distribution.

Approximately 40% of the original humidifiers installed in 1977 have failed and have been replaced with Carel atomizer humidifiers. The remaining humidifier units should be replaced as they fail.

Terminal units installed in 1977 are original equipment, but have not exhibited any significant system failures. Existing pneumatic controllers should be replaced with electronic controls. The HVAC systems operated by the legacy Staefa building management system should be upgraded to the Siemens Apogee System and remaining pneumatic controllers should be replaced with new electronic controls.

Comparison and Opinion of Systems

The VAMC HVAC distribution system appears to be in a poorer condition and significantly more outdated than that at CUMC. The CUMC HVAC distribution systems will require upgrades to the duct system to comply with current codes. The humidification system also will require investment to replace failing systems. It appears the CUMC HVAC distribution systems provide the best opportunity to continue to support the mission of the VA Health Care system.

Plumbing and Medical Gas Equipment

VAMC Plumbing and Medial Gas Distribution

The existing hot water heaters are past their useful life expectancy and are due for replacement. There are multiple sets of medical gas equipment that have been installed and abandoned over the years as various portions of the system have been expanded, modified, and reused. The most recent equipment is in good condition and can continue in service. Much of the older equipment is in need of removal and piping modification should be made to ensure no prohibited interconnections exist.

Most of the fixtures and piping are original to the building installed in 1950. Some sections of piping are beginning to fail due to age and corrosion. Many of the valves in the systems have failed due to age and lack of use. In general, the systems are outdated and in need of full replacement. Additionally, the systems in place do not meet the current guidelines for the treatment and minimizing of Legionella. There are sections of piping that are not circulated and hot water distribution times in some locations are outside acceptable norms. Modifications to the system should be made to bring the system within current guidelines.

CUMC Plumbing and Medical Gas Equipment

The existing domestic hot water system is generated in the Facility Plant Operations Room utilizing two steam-fed heat exchangers. The domestic heat exchangers are original equipment installed in 1977 but fully redundant systems. A gas-fired boiler is available to back up the heat exchangers. Domestic hot water systems and piping, also installed in 1977 are original equipment, but has not exhibited any significant system failures. The domestic hot water system appears to meet the current VHA Directive 1061 for the prevention of Legionella and scald injury. All sections of piping appear to be fully circulated and hot water distribution delivery is acceptable. Mixing valves temper the hot water to safe levels.

The plumbing fixtures and piping are primarily original 1977 equipment but have not exhibited any significant system failures. Domestic cold water enters CUMC at both the northeast and southwest corners. The water is metered at both locations.

Sanitary sewer galvanized steel piping installed in 1977 is original equipment and has developed leaks. Approximately 40% of the piping has been replaced where accessible, but the remaining piping will require replacement in ceilings and inaccessible areas. Sanitary sewer piping from CUMC exits to the

south. The sanitary piping occasionally plugs at CUMC and the sanitary system backs up, which requires a pumping truck to evacuate sewage until the plugged piping is cleared. A new sanitary storage tank system with associated costs is included in the narrative for Civil in the Facility Condition Comparison.

Medical gas systems installed in 1977 are original equipment but have not exhibited any significant system failures. The distribution system located from the medical gas storage to main corridors is undersized for current requirements; however, medical gas piping from corridors to patient rooms and other areas with medical gas outlets has been sized to current guidelines. This will require approximately 50% of the existing piping be replaced. Oxygen is stored in a tank farm adjacent to the Facility Plant Operations Room. Medical vacuum is generated in the Facility Plant Operations Room; medical air is generated on the Third Floor Mechanical Mezzanine. Nitrous oxide is stored in a bottle facility adjacent to the Facility Plant Operations Room. New medical gas terminations have been provided in patient rooms and the piping sized for future capacity.

Comparison and Opinion of Systems

The VAMC plumbing and medical gas distribution systems appear to be in a more deteriorated condition than CUMC and will require significantly more investment to upgrade. The CUMC plumbing and medical gas distribution systems will require replacement of portions of the sanitary piping and upgrades to the medical gas systems. It appears the CUMC plumbing and medical gas distribution systems provide the best opportunity to continue to support the mission of the VA Health Care system.

Fire Suppression Systems

VAMC Fire Suppression System

The building is fully protected by a conventional wet-pipe fire suppression system with the exception of approximately 10% of Building 15, which comprises the loading dock and animal housing areas. Sprinkler system varies in age from 30 to 65 years, and portions are beginning to fail. Code requires sprinkler systems exceeding 75 years of age to be replaced, meaning portions of this system have no more than ten years functional lifespan remaining. Piping and associated accessories should be replaced in all areas where piping exceeds 30 years.

CUMC Fire Suppression System

The building is fully protected by a conventional wet-pipe fire suppression system. A 150 HP fire pump and jockey pump are located in the Facility Plant Operations Room. Fire department connections are located at each corner of CUMC, which all connect to the fire pump supply piping. The fire pump and controller installed in 1977 are original equipment and tested as required. Fire protection piping is also 1977 original equipment, but has not exhibited any system failures.

A 6,000 gallon underground fuel storage located adjacent to the Facility Plant Operations Room serves the two emergency generators. The fuel supply lasts over 72 hours.

Comparison and Opinion of Systems

The VAMC fire suppression system appears to be fully functional; however, the system has been installed for 65 years. Sprinklers that have been in service for 50 years require additional testing of 1% of the sprinklers every 10 years; and sprinklers in service for 75 years require the test frequency increase to every 5 years. The CUMC fire suppression system does not appear to require any significant modifications at this time. It appears the CUMC fire suppression system provides the best opportunity to continue to support the mission of the VA Health Care system.

Electrical Site Systems

VAMC Site

The VAMC campus electrical distribution system is fed from two electrical services provided by OPPD. Primary voltage distribution is generally in good condition, with sufficient capacity for the existing loads and future growth. Site lighting provides adequate coverage, but is plagued by about lighting conductor

failures in its underground wiring. All site lighting circuits should be tested, and any faulty conductors should be replaced.

CUMC Site

The CUMC campus electrical distribution system is served from an Omaha Public Power District's (OPPD) automatic throw-over switch at 13.8 kV. This switch is fed from two separate utility substations. Primary voltage distribution was installed in 1977 and is obsolete. Site lighting on the CUMC campus provides adequate coverage with no know problems.

Comparison and Opinion of Systems

The VAMC site electrical system appears to be fully functional. There are failures of the underground lighting conductors at VAMC that should be tested and any faulty conductors replaced. The CUMC site electrical system does not appear to require any modifications at this time. It appears the site electrical system at either campus will continue to support the mission of the VA Health Care system.

Essential Electrical Systems

VAMC Essential Electrical System

Generators and transfer switches supplying the essential electrical system, consisting of critical, life safety and equipment branches for the facility, are beyond their useful life expectancy. The generator serving Building 15 was installed in 1974, and the generators serving Buildings 1 and 25 were installed in 1988. The generators are served from a single-wall, underground, 5000 gallon storage tank, which should be replaced with a larger, double-walled, aboveground tank for increased generator runtime and improved safety from fuel leaks. The transfer switches are generally of the same vintage as the generators and are mostly not bypass-isolation transfer switches. Additionally, the essential electrical system is not separated into branches as required by current electrical code. New bypass-isolation transfer switches and distribution equipment should be provided to separate the system into the code required branches. The existing quantity and location of essential electrical system outlets is inadequate for the current facility operation. Fixing the current essential electrical system deficiencies would require a complete redesign and replacement of the entire system.

CUMC Essential Electrical Distribution System

The diesel engine generators and the vintage automatic transfer switches (ATS) installed in 1977 have exceeded their serviceable life. These items were commissioned in 1977. Approximately half of the ATS's were replaced. NEC-required separation of branches has been reviewed by the Nebraska State Fire Marshal's Office and corrected to a level of no known deficiencies in separation. The generators' distribution switchboard has been replaced, but does not have physical barriers separating the Life Safety and Critical Branches as required by the current NEC. The engine generators, generators' switchboard, and some transfer switches are located in the same room as the normal main 15 kV primary switches lineup, normal branch unit substations and some ATS's, without "double the working clearance" distances. Some TS's installed in 1977 are located within normal unit substation lineups. One (1) of the Third Floor Mezzanine's ATS's has failed and has been replaced with a standalone ATS. The original portions of this system installed in 1977 were manufactured by FPE, which is no longer in existence. Most of the critical branch and equipment branch lighting type panelboards have no circuit breaker or ampacity capacity for new loads. Obsolete components should be replaced.

Comparison and Opinion of Systems

The VAMC essential electrical system will require investments in generators, ATS's, and distribution systems. VAMC must also separate the essential electrical system into branches as required by current electrical code. The CUMC essential electrical system requires similar investments for both the generators, ATS and distribution system. Replacement of obsolete distribution equipment installed in 1977 should be completed. It appears the CUMC essential electrical system provides the best opportunity to continue to support the mission of the VA Health Care system.

Normal Electrical Systems

VAMC Normal Electrical Distribution System

Most of the existing normal electrical distribution systems are in acceptable condition for their age. Many of the distribution components, however, are past their useful life expectancy, obsolete, and have limited space for future expansion. Additionally, there is very little 480Y/277 volt distribution within the facility; most of the distribution is 208Y/120 volt distribution, limiting the efficiency and flexibility of future expansion. There is also very limited physical space in the existing electrical rooms, further limiting future expansion of the system. The obsolete electrical distribution equipment should be replaced, especially the equipment containing PCBs and equipment manufactured by companies no longer in existence such as Federal Pacific Electric. New electrical rooms should be built on each floor, containing both 480Y/277 volt and 208Y/120 volt distribution. Most of the conductors in the facility are THHN/THWN, single conductors in raceway. There are a few areas remaining that still contain obsolete, cloth-insulated conductors. Those circuits should be replaced with new, THHN/THWN conductors. No issues with the grounding system at VAMC were observed.

CUMC Normal Electrical Distribution System

The normal electrical distribution system is mostly 1977 vintage equipment, feeders, and branch circuits. These normal and the essential systems, consisting of critical, life safety and equipment branches, are IR scanned yearly. They are generally in acceptable condition for their age, but most distribution components are past their serviceable life expectancy. Most of the distribution equipment was manufactured by FPE. The main switchboard does not have two levels of ground fault protection. The aging electrical distribution equipment installed in 1977 should be replaced. There is no known problems resultant from deteriorating grounding.

Comparison and Opinion of Systems

The VAMC normal electrical system will require investments for the distribution system and corrective action for the ground fault protection system; but also is in need of expanded space on each for the electrical systems with multiple voltage distribution. VAMC must also replace existing equipment utilizing PCB and inadequately insulated wiring. The CUMC normal electrical system requires investments for the distribution system and corrective action for the ground fault protection system. Replacement of distribution equipment installed in 1977 should also be completed. It appears the CUMC normal electrical distribution system provides the best opportunity to continue to support the mission of the VA Health Care system.

Lighting

VAMC Lighting

Most of the lighting in the facility utilizes fluorescent luminaires and T8 lamps. There are a few areas with inefficient T12 fluorescent lamps, but these luminaires are being replaced with T8 luminaires and more recently LED luminaires as they fail. There are limited lighting controls beyond manual wall switches in the facility. The lighting system in any areas of renovation should be replaced with modern, LED luminaires and a digital, networked lighting control system utilizing manual controls, occupancy controls, and scheduling as appropriate to reduce the energy consumption and maintenance needs of the facility.

CUMC Lighting

Most of the lighting utilizes fluorescent T8 luminaries with electronic ballasts. Automatic lighting controls are limited.

Comparison and Opinion of Systems

The VAMC lighting system appears to be fully functional. The CUMC lighting system does not appear to require significant modifications at this time. Both facilities would be well served to replace T8 and T12 fixtures with LED fixtures, and implement automatic lighting controls. It appears the lighting system at either campus will continue to support the mission of the VA Health Care system.

Telephone/Data/Special Systems

VAMC Telephone/Data/Special Systems

Most of the existing telecommunications rooms are not ideally located or sized for the current needs or future expansion of the facility's telecommunications systems. Several of the spaces used for telecommunications infrastructure are mechanical chases. These chases contain many systems (piping, ductwork, etc.) unrelated to the telecommunications space. These systems introduce risk of systems' disruptions due to equipment being destroyed by moisture from condensation, leaks, or failures of the systems. Dedicated telecommunications spaces, free from unrelated systems, should be provided on each floor of the facility as required. The telecommunications systems in renovated areas of the facility are in generally good condition. Most of the cabling is Category 5 (Cat 5) or Cat 6 cabling. There is some older cabling in the facility, but most appears to be unused. The older areas of the facility are hampered by a previous practice of abandoning unused systems and cabling rather than removing those systems. These areas can be corrected, but may require disruption of current services to remove the abandoned systems and cabling and provide modern infrastructure.

The existing nurse call system is a Rauland Responder IV system in generally good condition. The manufacturer still supports the basic system, but has stopped supporting the modules for reporting, staff tracking, SIP phones, etc., but still supports the basic Responder IV system. It is anticipated spare parts will become difficult to acquire within the next 5 years. It is recommended that the system be upgraded to a Rauland Responder V system. This upgrade would affect the headend equipment of the nurse call system; the existing pull stations, dome lights, etc. can remain and be integrated into the new system.

The camera/security system was recently upgraded and a new control center was constructed. The systems are in excellent condition.

The fire alarm system is a Simplex 4100U addressable, voice evacuation fire alarm system installed in 2004, and is in good condition.

CUMC Telephone/Data/Special Systems

The voice and data rooms and associated infrastructure are viable. Cat 6 cable is used for data. Telephone cable is about half Cat 6 and half Cat 5. A large raised floor data center is located on the Third Floor Mezzanine Level.

The existing nurse call system is a Responder IV system and is generally in good condition. The manufacturer still supports the basic system, but has stopped supporting the modules for reporting, staff tracking, SIP phones, etc., but still supports the basic Responder IV system. It is anticipated that spare parts will become difficult to obtain within the next 5 years. It is recommended that this system be replaced with a Responder V system.

The perimeter camera system is in good condition.

The fire alarm system is a Siemens MXL addressable system that is in good condition. Smoke detectors need to be added to the dining area.

Comparison and Opinion of Systems

The VAMC telephone, data, and special systems appear to be fully functional, but are in need of dedicated closet space for telecommunication equipment. The CUMC telephone, data and special systems do not appear to require significant modifications at this time. Both facilities would be well served to replace the existing nurse call system. It appears the CUMC telephone, data, and special systems provide the best opportunity to continue to support the mission of the VA Health Care system.

Structural

Foundation System

VAMC

The foundation of the VAMC varies between buildings. At Building 1, the foundation system consists of conventional reinforced shallow concrete spread and raft footings. Footing depths are typically shallow. Building 15 consists of deep pile foundations at the original building, and shallow spread footings at the south addition. The pile foundations at the original building are concrete-filled steel pipe piles, arrayed in groupings, and supporting concrete pile caps and grade beams. The piles do not bear on bedrock, but rather rely on surface friction of the surrounding soil to provide vertical load capacity. The piles were driven to approximately 70 feet below grade level. The south addition is supported by conventional reinforced concrete spread footings, similar to Building 1. The foundation system at Building 25 consists of round concrete caissons, between four feet and six feet in diameter, with thirteen feet diameter flared bearing surfaces. Caisson depth is approximately 30 feet below grade. The load capacity of the caisson is provided by direct bearing on the soil.

CUMC

The foundation system of the CUMC incorporates both reinforced concrete spread footings, and pile foundations. This variation is due to the soil conditions of the site. Spread footings are more economical than pile foundations, and thus they were used where the soil conditions were favorable. At the CUMC, this area consists of roughly the northwest quadrant of the building. The remainder of the building is supported by pile foundations. The two footing types are similar in nature to those at the VAMC.

Comparison

Similar foundation systems are used at both facilities. In general, conventional spread footings, caissons, and pile foundation systems are considered very reliable. The particular foundation systems used at each facility are optimal for the building loads and the soil conditions present at each site. With regards to the foundation system, there is no preference for one site over the other.

Vertical Support System

VAMC

The vertical support system varies between buildings. Building 1 is supported by wide-flange steel columns encased in clay brick tiles. Building 15 is supported by cast-in-place concrete beams. Building 25 is supported by wide-flange steel columns encased in cast-in-place concrete.

CUMC

The vertical support system consists of wide-flange steel columns that are either covered by cast-in-place concrete, or coated with a spray-applied fire proofing material. The concrete coverings occur at the interior garage columns and at the level 3M columns.

Comparison

The column types at both facilities are generally very reliable. However, the spray-applied fire proofing at the CUMC columns is a less durable covering than either the clay tile or the cast-in-place concrete. Care must be taken to maintain the condition of the fire-proofing material in order to maintain the fire rating of these columns. Thus, the columns at the CUMC will potentially require more care and maintenance, if disturbed, than those at the VAMC.

Floor Systems

VAMC

The floor system varies between buildings. The floor system at Building 1 consists of wide-flange steel girders supporting a concrete pan & joist system. The joists are typically 5 inches wide by 8 inches deep, separated by 30 inch wide pans, with a 2 – ½ inch thick concrete slab and 1- ½ inch thick concrete

topping. The floor system at Building 15 consists of reinforced cast-in-place concrete beams supporting 6 inch thick reinforced concrete slab. The floor system at building 25 consists of steel girders and junior beams, supporting a 1- ½ inch thick composite metal deck with 5 inch (total depth) lightweight concrete slab. The lowest floor levels at all buildings consist of concrete slab-on-grade construction.

CUMC

The floor system typically consists of steel wide-flange girders and junior beams supporting a 3 inch thick composite metal deck with 7 - 3/16 inch (total depth) lightweight concrete slab, with spray-applied fire proofing covering girders and junior beams. The framing at floor level 3M is an exception, in that this floor framing consists of concrete-encased girders and junior beams supporting an 8 inch thick reinforced concrete slab.

Comparison

Structurally, all the floor systems are adequate for supporting the loads that were assigned to these floors at the time of construction. However, the ability to repurpose the floors of Building 1 of the VAMC may be hampered by the shallow pan and joist floor system. The floor systems at Buildings 15 and 25 are more robust and are adaptable to a change in design loads. Also, as the floor framing systems vary between the buildings that comprise the VAMC, the fire resistance ratings also vary. Per the current International Building Code, the floor slab system at Building 1 has a fire resistance rating of between 1 and 1 – ½ hours. At Building 15, the rating is approximately 3 hours. The fire rating for the floor slab system at Building 25 is approximately 2 hours. In contrast, at the CUMC the fire rating of the floor slab is typically 3 hours at all levels. Furthermore, the floor structure of the CUMC is typically robust, and the exposed steel framing presents fewer obstacles to future structural modifications.

Lateral Force Resisting System

VAMC

The lateral force resisting systems vary between buildings. At Building 1, the wind loads are resisted by steel frames integrated with the floor and column framing. The wind loads are resisted at Building 15 by a series of concrete frames integrated with the floor and column framing. At Building 25, steel cross-bracing members are located between columns to provide resistance to wind loads.

CUMC

The lateral force resisting system consists of a series of steel frames integrated into the floor and column framing.

Comparison

At each facility, the lateral system was designed to resist the design wind loads at the time of construction. In general, the design wind loads of the current codes have decreased slightly since these buildings were constructed. Thus, the lateral systems are considered serviceable at each facility. However, as the lateral systems are integrated into the floor and column framing at both buildings, any renovations requiring removal of these structural members must be carefully evaluated.

Seismic

VAMC

Bracing conditions of non-structural equipment were not observed.

CUMC

Bracing conditions of non-structural equipment were not observed.

Comparison

Based on the 2006 IBC, the H-18-8, and the original boring logs, the Seismic Design Category should be "C". The Soil Site Class "D" is an appropriate choice, based on the original boring logs that we had observed. The implication of this site class designation is that H-18-8 requires that the attachment of

any permanent equipment and non-structural components to the building structure must be designed to resist seismic forces. Note that the building structure itself does not need to be designed for seismic forces, just the attached equipment. There are a number of exceptions cited in H-18-8 (Ref. Seismic Design Requirements H-18-8, sections 4.0-4.2). I downloaded a copy of this publication from the VA website (see attached). Note that this requirement is specific to the VA and not required under the governing local code.

Both the VAMC and the CUMC have identical soil profiles. So, if the existing equipment and non-structural components in the VA facility already meet this requirement, than that puts the VAMC at an advantage over the CUMC in this regard.

CUMC Parking and Emergency Ramp Structures

The CUMC is unique in that it possesses a parking ramp structure, as well as a raised emergency room parking plaza and drive ramps. Because both of these structures are exposed to the elements, vehicle traffic and deicing chemicals, they are susceptible to accelerated deterioration and will likely require extensive rehabilitation in the very near future. These two structures will require regular maintenance to remain serviceable and to maintain public safety, the cost of which may be significant.

Civil

Accessibility

VAMC

The existing building is located on a site with a significant amount of elevation drop with the building being at the highest elevation. Several of the routes designated for accessibility do not meet the current Architectural Barriers Act (ABA) accessibility standards due to steep slopes. Many of the walks do not have detectable warning strips at the pedestrian ramps. In addition, several of the accessible parking stalls are not properly striped to meet the minimum requirements for access aisles.

CUMC

There are two parking areas that are easily accessible to the main entry for patients and visitors. Parking Lot 1 is located directly out front of the facility and Parking Lot 3 is the top level of the parking ramp. Both lots have accessible parking stalls that are properly sized, striped, and signed. The striping has faded and should be repainted in all parking lots. The accessible route to the building meets the proper slopes, however detectable warning tiles should be installed at all pedestrian ramps. Lot 2 is located underneath the ER ramp and the grade transition is too steep to meet ABA requirements. There are accessible stalls striped in this area, however there is no accessible route to the CUMC. The accessible stalls located in parking lot 4 on the south side of the facility are not striped correctly, nor are there proper detectable warning strips at the ramps at the south end of the facility.

Comparison

Both sites require restriping of accessible stalls and installation of detectable warning strips to meet ABA and VA requirements. The VAMC requires regrading to accommodate proper slopes along the accessible routes, however it is feasible to meet these requirements on site. The CUMC facility is limited in its expansion opportunity. Additional parking could be accommodated by building a new parking ramp along the south side of the facility, but this location isn't readily accessible to the main entry. Overall, the VA site is preferred as it provides more options to improve accessibility conditions.

Landscaping

VAMC

Landscaping is mature and in decent shape.

CUMC

Landscaping is mature and in decent shape. The exterior patio is located east of the facility and results in a steep slope that leads down to N 28th Plaza. Erosion is evident on the slope and has left several trees root systems exposed. In addition, the ground is bare where water has formed a channel in the slope, especially alongside the stairs.

Comparison

Both sites are similar in regards to landscaping. The existing landscaping is in decent shape and both sites have steep slopes that require on-going maintenance.

Parking

VAMC

The VA parking lots provide approximately 1,224 stalls that are generally full by mid-morning. The VA leases an additional 100 stalls from The Center located south of the facility across Center Street for a total of 1,324 stalls. This parking area is not well marked to indicate there are dedicated VA parking stalls available. The main parking lot (Lot 2) is organized inefficiently with parking lot dimensions that exceed VA requirements. Ninety degree parking stalls would work with the space provided and with some curb rework and restriping, Lot 2 could yield another 120-130 parking stalls.

The VA site is largely developed. There are certain areas in front of the main entry near Parking Lot 2 that could be regraded and paved to optimize parking. However, increasing the building footprint or adding impervious surface will require on-site treatment of sanitary and storm sewer due to the condition of the City system. See the utility section below.

Generally speaking, the parking lots have surpassed their useful life and the asphalt pavement needs to be replaced. The internal roads are concrete and were rebuilt in 2008. The system of access roads remain in good shape. The parking lots along the south and southwest side of the facility are starting to show signs of distress likely due to the age of the pavement, the severe slope, and likely the use of salt. It is possible that settlement of this slope has caused some gradual movement in the parking lot, specifically in Lot 3 where a crack has formed parallel with the slope.

CUMC

The CUMC site is fairly compact with a three level parking structure, surface parking surrounding the facility, and garage parking underneath the building. The facility utilizes Lot 9 across North 30th Street as an additional 108 parking storage for valet. The remaining portion of Lot 9 has 256 stalls bringing the total site to 1,684 stalls. It should be noted that some of the parking in the Parking Ramp (Lot 3), as well as portion of Lot 2 is utilized by Creighton University School of Dentistry. In addition, Lot 9 is likely utilized by visitors of the Cardiac Center.

The site is completely developed. Future growth could be an option if the existing Boys Town National Research Hospital (BTNRH) is utilized, as they have use of the remaining parking lots south of the facility. Without removal of an existing facility or adding parking vertically, the site has been fully utilized. The existing heliport near the emergency entrance to CUMC, could be utilized for parking, however the stall count would be minimal. In addition, this would need to be controlled parking to ensure proper circulation and access by emergency vehicles.

Generally speaking, the parking lots are starting to show signs of wear and deterioration from age, use, and salt application. Lot 1, 9, and the north stalls against Lot 3 are asphalt and are in ok shape, but should be replaced eventually. The remaining parking lots and the internal roads are concrete. The concrete generally shows signs of distress with cracking and spalling in several spots. In addition, the concrete has been patched several times over the years due to various construction activity, such as utility trenching.

Comparison

The amount of parking available at CUMC is greater than what is currently available at the VAMC. However, some of this parking is currently shared with other adjacent buildings. The VA site is larger and has better expansion potential whether it be restriping Lot 2 to optimize stalls, addition of more surface parking, or installation of a parking ramp. In fact the VA site is almost twice the size of the CUMC site. It should be noted that the CUMC facility has high visibility and is easily accessible from Highway 75. However, circulation through the facility is required by other adjacent uses. The largest surface parking available is located across a busy street, which is shared with other Creighton University facilities.

The CUMC facility is limited in its expansion opportunity. Additional parking could be accommodated by building a new parking ramp along the south side of the facility, but this location isn't readily accessible to the main entry. The VAMC site is the preferred option due to the larger site size that provides better expansion opportunities.

Walks

VAMC

Sidewalks around the facility show signs of frost heave and have been ground down in a few spots to eliminate tripping hazards. Generally, they are in good shape.

CUMC

Walks around the facility show some sign of frost heave and have been ground down in a few spots to eliminate tripping hazards, but are generally in good shape.

Comparison

Both sites are similar in regards to existing walks. Both show signs of frost heave and require regular maintenance.

Wayfinding

VAMC

Wayfinding on VA campus is acceptable, but additional signage could improve circulation to indicate building uses and location of parking, especially offsite parking.

CUMC

Wayfinding is adequate, but additional signage could improve circulation, especially to alert visitors to the valet parking.

Comparison

Both sites are similar in regards to wayfinding. Both need additional signage to improve circulation.

Water

VAMC

The onsite utilities have passed their useful life, as the facility is well over 60 years old. The water is supplied from one source through the Metropolitan Utilities District (MUD), however the site is fed from more than one location from the main. No additional storage is provided on site to accommodate the water demand were the City system to go offline. No major repairs have been necessary in recent years on the exterior water main system, however there were several water main breaks that were repaired over 15 years ago.

CUMC

The water is supplied from Metro Utilities District (MUD), but per the facility is fed from two separate plants. No additional storage is provided on site to accommodate the water demand. It should be noted that the CUMC facility shares utility services with the Boys Town National Research Hospital (BTNRH).

Comparison

The CUMC site is preferred as the infrastructure still has 10 years of useful life remaining. The VA has one water source, while the CUMC facility has two separate sources. Neither site provides onsite storage of water. The BTNRH is fed from the CUMC facility as the two buildings are attached.

Sanitary Sewer

VAMC

The sanitary sewer system is combined with the storm sewer within the City of Omaha. The city is currently working to separate the system to meet a Federal Mandate. The VA has begun preparations for this new connection along the west side of their campus providing separate sanitary sewer connections to the buildings. However, the east side has four buildings that still need to be internally separated before a connection can be made to the municipal system. In addition, no wastewater containment area has been provided onsite if the main system were to fail.

CUMC

The sanitary sewer system is combined with the storm sewer within the City of Omaha. The city is currently working to separate the system. From the original plans, the CUMC has maintained separate sewers until combined in a manhole located east of Parking Lot 5. The CUMC will have a similar restriction to treat onsite if loads increase. In addition, no wastewater containment area has been provided onsite if the main system were to fail.

Comparison

The CUMC site is preferred as the infrastructure still has 10 years of useful life remaining. In addition, the CUMC site has a separate system for storm and sanitary sewer, even though the City has not provided a separate system for a connection at this point. Both sites would require onsite treatment of water if additional load is added to the combined sewer system. As noted previously, the BTNRH is fed from the CUMC facility as the two buildings are attached. Neither site has a containment area for wastewater were the main system to fail.

Storm Sewer

VAMC

The storm sewer system is combined with sanitary sewer system. With the exception of the southeast corner of the site, the VAMC has separated the storm sewer from the sanitary sewer system on site. The City will require any additional loading on the system be treated on site. Since the system is combined, onsite treatment would be required for addition of any hard surface such as a building or parking areas. There is no existing stormwater management on site that treats the water or reduce the volume of runoff.

CUMC

The storm sewer system is a combined sewer system, but the storm sewer has been separated from the sanitary sewer system onsite. The city system is at capacity and any additional loading on the system would have to be handled onsite. This includes any additional impervious surface such as parking areas. There is no existing stormwater management on site that treats the water or reduce the volume of runoff.

Comparison

The CUMC site is preferred as the infrastructure still has 10 years of useful life remaining. In addition, the CUMC site has a separate system for storm and sanitary sewer, even though the City has not provided a separate system for a connection at this point. Both sites would require onsite treatment of water if additional load is added to the combined sewer system.

Physical Security

VAMC

The existing VA site does not have perimeter fencing, as required. In addition, the site does not meet the standoff distance of 50'. There is also no vehicle or pedestrian screening at this facility. Bollards have been placed at the main entry as passive barriers to protect the building and visitors.

CUMC

The existing CUMC site does not have perimeter fencing. In addition, the site does not meet the standoff distance of 50 feet. There is currently no vehicle or pedestrian screening at this facility. The main entry has raised masonry planters that act as passive barriers, however columns are exposed and not protected from vehicles. The CUMC site has parking underneath the main facility, however this is a controlled access and is currently staff only parking.

Site illumination is generally good, but may require supplemental lighting to meet the requirements of the VA Physical Security Design Manual (VA Standards). The security office is located on the main concourse and security presence near the main entrance to the facility, however the desk is not fortified to meet the VA Standards, and there is no police holding room. Currently, the Board Room is fitted with communications technology to serve as a situational control room, but is not fortified to meet VA Standards. The facility contains an ESS (Electronic Security System) including identification access badge door controls, camera system with full time monitoring station, but would require supplemental cameras and fortification of the monitoring station to meet the VA Standards for an Incident Control Station. The main server room is located on the 3rd Floor Mezzanine and is secured, but not visually monitored to meet the VA Standards. Emergency power generators are currently located in the SE corner of the First Floor. The location is not in compliance with VA Standards for siting generators outside of the building footprint. There are provisions for connecting mobile chilled water and steam generation to the building in the event of service interruption from District Energy. Medical gases do not have a similar connection. Uninterruptable Power Source (UPS) backup is provided for the Telecom and Computer Server equipment and is compliant with the VA Standards.

Comparison

Neither facility meet the physical security requirements for perimeter fencing, stand-off distance, or vehicle screening. The VA site could more readily accommodate a perimeter fence, as the CUMC circulation is shared with adjacent facilities. In addition, there is more space on the VA site to incorporate the 50 foot setback at the main entry. The CUMC site is already compact and moving traffic to 50 feet from the main entry would eliminate parking that is not readily replaced without major construction. The ER ramp does not have controlled access and is immediately adjacent to the CUMC facility. In addition, this ramp is supported on columns that are integrated into Lot 2, which is part of the site circulation allowing vehicles in direct contact with the structure. With the proximity of the BTNRH to the CUMC, it would be difficult to monitor and maintain proper security without operation of this facility.

The existing VA facility is the preferred option when comparing physical security as there is more flexibility to incorporate the Physical Security standards on this site without compromising site circulation or parking capacity. In addition, the site is more easily defined and therefore controlled.

Environment of Care

The Environment of Care varies greatly between the two facilities. At VAMC narrow floor plates and small structural grids compromises the efficiency and flow of departments. The CUMC has larger floor plates and larger structural bays but in many cases key rooms (patient rooms, exam rooms, ORs, etc) are similar in size to spaces at the VAMC.

Ambulatory Care Clinics

VAMC

Clinics and outpatient spaces are primarily located on the Level 1 but clinics are also located on Level 2, 5, 6, 7 and 8. Clinic areas are treated as small stand-alone clinics which don't offer these areas the ability to flex throughout the week or over time. The clinic pod design doesn't reflect the current trend for larger team spaces supporting integrated teamwork. Waiting areas appear to be undersized.

CUMC

CUMC has a large footprint which allows better adjacency and flexibility between clinics. However a majority of these spaces are being used for faculty and resident offices and only a small proportion of the footprint is actually used for patient care. Exam rooms are small (80-90 sf) and are not adequate for mobility impaired patient populations.

Comparison

The CUMC footprint offers better opportunities but will require a total gut and renovation to convert these spaces into functional clinic space,

Emergency/Urgent Care

VAMC

The ED/Urgent Care area was recently renovated. This space has 13 treatment areas (1 trauma, 7 exam areas, 2 psych and 3 fast track). The footprint is undersized but treatment spaces are reasonably sized and the areas functions well. Staff sit at the nurse station with their backs to the treatment spaces. Walk-in access and parking is located on the west side of the building. Radiology spaces are located on a different floor, so mobile imaging equipment is brought down to this area as needed. Treatment spaces are equipped with ceiling mounted patient lifts.

CUMC

The ED at CUMC is designed as a trauma center. This space has 19 treatment areas (3 trauma bays and 16 exam rooms). Spaces are sized appropriately and the area functions well. ED has an overhead x-ray machine on rails in the trauma area and a dedicated radiographic room. ED is located near the Radiology department if access to other modalities is needed. ED is located one level above the entry level and accessed by ramp on the north side of the building. A heliport and some vehicle parking is available outside on the elevated parking deck. The heliport has provisions for re-fueling. The building overhang and adjacency of drop-off and parking pose some perimeter security concerns. This arrangement also poses a potential safety risk for patients with suicidal ideation who could jump off the side of the elevated parking deck.

Comparison

The CUMC space offers more treatment spaces and more support space. Some renovations will be needed to make safety upgrades for mental health/behavior patients. Patient lifts should also be added to the CUMC space. The existing CUMC trauma space exceeds the programmatic needs of the VAMC.

Intensive Care Unit (ICU)

VAMC

The MICU/SICU area consisting of 16 patient rooms was renovated in 2008. The patient rooms are 25-40 sf smaller than current VA room standards but are very functional. Water closets are located in the corner of the patient room rather in a toilet room due to the smaller room footprint. Glass sliding doors, charting areas between rooms and nurse station design allow for great visibility of patients. Patient rooms are equipped with ceiling mounted patient lifts.

CUMC

The 25 bed ICU area at CUMC is the original design dating back to the early 1970's. Building codes at this time didn't require patient rooms to have access to natural light therefore 14 of the patient rooms are without exterior windows. Only rooms with exterior windows can be counted towards required bed count. Patient rooms are about half the size of current VA room standards. Headwall units are original vintage and less functional than current products. There are no ceiling lifts in the CUMC space. There is poor visibility of patient rooms from centralized nurse stations. ICU shares a waiting room with Surgery. This space is small and remote from the ICU.

Comparison

The CUMC space requires a total gut and remodel to convert the ICU into a functional space. The CUMC footprint is much smaller than the VAMC ICU space and can only support 8-10 patient beds based on current VA design guidelines and the amount of perimeter wall available. Adjacent Emergency Trauma space could be captured to bring the bed count up to 10-12 beds.

Medical/Surgical Inpatient Unit(s)

VAMC

60 Med/Surg beds are located in the east tower on levels 5, 6 and 7. There are a total of 26 private patient rooms compared to 17 semi-private rooms. Private patient rooms range in size from 135-220 sf and are small compared to current VA room standards. Semi-private rooms are reasonably sized. Toilet rooms are sized for good access by mobility impaired patients and have adequate space to allow staff assistance to patients when needed. Patient rooms don't have a hand washing sinks for staff. All patient rooms are equipped with ceiling mounted patient lifts.

CUMC

CUMC currently operates about 144 beds in six inpatient bed units on both Levels 4 and 5. Bed units are arranged in a cross-shaped configuration with patient rooms are arranged around a central nurse station. Bed clusters are connected to each other by a series of links containing either shared support functions or additional semi-private patient rooms that can flex between two bed units. The geometry of the bed pods results in small and awkward shaped patient rooms. Private patient rooms range in size from 160-205 sf and are small compared to current VA room standards. Doors to toilet rooms are narrow and the room is too small to allow good access by mobility impaired patients and to allow staff assistance to patients when needed. Patient rooms don't have a hand washing sinks for staff. Four of the 12 bed units have been recently renovated. Patient lifts have only been installed in 4 patient rooms on the newly renovated Ortho Unit.

Comparison

CUMC has significantly more existing space dedicated to inpatient nursing units than the VAMC. However without significant renovation, the small patient toilet rooms and odd-shaped patient rooms offer no advantage over the VAMC spaces. We suggest combining two patient rooms in the center into a larger patient room. Patient toilet rooms in these rooms will be converted to accessible toilet rooms. The larger footprint and rectilinear shape of rooms at the ends of the existing units are more functional and don't require major renovation. The proposed approach will result in 16-18 bed per unit.

Pathology & Lab Medicine Services

VAMC

The VAMC Lab has less than half the space need identified in the VA SEPS. The footprint is narrow and limits design/planning options. The lab is located on Level 2 which is not convenient for specimen collection for the clinics which are mostly located on Level 1.

CUMC

The footprint of the CUMC closely matches the need indentified in the VA SEPS and the wider footprint allows more options to create efficient workflows. The CUMC Lab space is located on the main level near the main entry.

Comparison

The size and location of the CUMC Lab is much preferred over the existing VAMC Lab space.

Radiology

VAMC

The main VAMC Radiology area on Level 2 is remote from the ED and Clinics located on Level 1. An addition for MRI is located on the west side of the main clinic area on Level 1. An A separate addition is currently underway for to add a second (large bore) MRI; spaces are near each other but will not be contiguous. MRI patients will continue to check-in, change and wait in the original space and staff will escort patients through the adjacent clinic to the large bore machine. The sizes of imaging rooms are average. The imaging equipment has been replaced on regular intervals and the technology is above average condition. Imaging rooms are equipped with ceiling mounted patient lifts.

CUMC

The CUMC Radiology footprint is much larger than the VAMC space but still smaller than the space need identified in the VA SEPS. The current Radiology area and has better good proximity to clinics and the ED than the VAMC. The sizes of imaging rooms are adequate and there is a large space for film storage that could be converted into 2 additional modalities or support space as needed. The flow of the department works well. CUMC spaces don't have patient lifts.

Comparison

The size and location of the CUMC Radiology area seems to work better although the VAMC has more current imaging technology.

Surgery

VAMC

The VAMC Surgery area has 7 ORs ranging in size from 329-544 sf ; 5 of these rooms are smaller than 400 sf. Available footprint and structural bay size prohibit enlarging the ORs to meet current VA room standards. The surgery suite doesn't have a sterile core concept. The Pre/Post and PACU areas have been renovated and patient room sizes area reasonable. Ceiling mounted patient lifts have been installed in surgery,

CUMC

The CUMC Surgery area is currently utilizing 11 ORs. CUMC ORs tend to be larger in size than the VAMC due to a larger structural bay but most of these rooms don't meet current VA room standards. Rooms range in size from 385-620 sf ; 3-4 of these rooms are smaller than 400 sf. CAMU has expanded two of the ORs into adjacent sub-sterile spaces but location of structural columns and shear walls result in odd shaped rooms. It is possible to expand one more of the smaller ORs in a similar fashion. The surgery suite is configured with clusters of 6 ORs arranged around two sterile cores. It appears that there is inadequate amount of equipment storage space to support and CUMC currently uses one of the smaller ORs to store equipment. CUMC has also compensated for the lack of equipment storage space by using the perimeter circulation space at the back of the surgery suite. The Pre-Op and Post-Op rooms are small and are typically sized at 90 sf. The number of electrical and medical gas outlets in PACU is less than current design standards. There are no ceiling lifts in the CUMC space.

Comparison

The overall footprint at CUMC is almost twice as large as the VAMC space but size of ORs and patient prep and recovery rooms are still small compared to current VA room standards. BWBR suggests renovating the patient prep and recovery areas into larger patient rooms. Adjacent Anesthesia offices and Surgery resident sleeping rooms may need to be relocated to provide adequate space for the patient prep and recovery spaces.

Mental Health/Behavioral Services

VAMC

Inpatient Mental Health and PRRTP units are located on Level 9. These spaces have access to a large roof deck area that is used for recreation space. Substance Abuse is located on Level 10 and there is a free-standing building used for the Day Hospital.

CUMC

The CUMC doesn't have any Mental Health facilities.

Comparison

CUMC inpatient nursing units on Level 4 should be converted to Inpatient Mental Health and PRRTP units. This will allow use of the internal rooftop courtyards as outdoor recreational space. The existing NICU area on the same level is a large footprint and should be renovated for outpatient mental health and the Day Hospital/Treatment program.

Location and Access

VAMC

The VAMC campus, at located on Woolworth Avenue at 42nd Street, is moderately accessible by private vehicle via collectors Center Street on the south and 42nd Street on the west. The site appears to be well served by the public transit (bus) system with routes from all directions. Surrounding neighborhoods are considered safe, with moderate to high home prices. Property value appreciation is moderate to high.

CUMC

The CUMC campus, at the intersection of Interstate 480 and Nebraska State Hwy 75, is easily accessible by private vehicle via collectors Cumming Street on the north, 30th Street on the west and Dodge Street on the south. The site appears to be well served by the public transit (bus) system with routes from all directions. Surrounding neighborhoods on the north, east and south are considered among the least safe in the city with low home prices. However, property value appreciation rates are among the highest.

Comparison

There is significant contrast between the sites. While both have reasonable access via private or public transit, CUMC is better located to take advantage of existing transportation infrastructure. Advantages of the VAMC site include the quiet and stable neighborhood, along with the larger land area which is critical to security stand-off criteria, and more consistent with contemporary federal facility planning guidelines for locating in lower density neighborhoods.

Summary of Top Ten Deficiencies and Cost Estimates

The study identified top priority deficiencies within each discipline. This long list was shortened to a Top Ten for each facility and then assigned a ranking based on the probability of system failure, and the potential impact to the patient care environment in the event of failure.

VA Omaha Medical Center Top Ten Deficiencies

1.	New Central Utility Plant	**$45,310,610***
2.	Replace the plumbing fixtures, domestic water piping and sanitary water systems in Building 1 except for the new Urgent Care Addition.	**$10,787,000**
3.	Replace all of Building 1 induction units and majority of ventilation system.	**$20,636,000**
4.	Replace the rooftop unit serving the surgery suite with a new HVAC system complying with current VA design guide.	**$ 850,000**
5.	Replace the entire medical gas system in Building 1 and 15.	**$ 9,849,000**
6.	Replace fire sprinkler systems throughout Building 1 with new sprinklers, piping, standpipes, fire pumps and valves.	**$ 3,752,000**
7.	Essential electrical system branch separation and additional outlets. *Cost Estimate:*	**$ 2,814,000**
8.	Replace PCB containing, oil-filled equipment (especially the unit substation).	**$ 1,500,000**
9.	Provide additional physical security barriers to meet VA stand-off distance requirements.	**$ 600,000**
10.	Code upgrades: Building 1 - 3,600 SF of fireproofing; Building 15 - 4,300 SF of automatic fire protection	**$ 35,000**

Building 15 – Depending on the criticality of Building 15 operations:

A. Replace the steam, condensate, chilled water and heating hot water systems in Building 15 and tunnel.

B. Replace the majority of Building 15 air handling units with a new HVAC system complying with current VA design guide.

Creighton University Medical Center Top Ten Deficiencies

1.	Upgrade air handling units with redundant modular fan systems, new hot water and chilled water coils, electronic controls, and remove sound attenuators.	**$ 8,818,000**
2.	Install a return duct system for all plenum return in patient care areas.	**$ 2,952,000**
3.	Replace exterior windows throughout.	**$ 3,486,300**
4.	Replace two (2) 900 kW engine generators.	**$ 900,000**
5.	Replace emergency distribution system (switchboard, motor control systems, original Automatic Transfer Switches, panelboards, feeders and branch circuits). Location is also an issue.	**$ 3,690,000**
6.	Replace nominal 15kV interior switchgear lineup.	**$ 1,100,000**
7.	Replace normal distribution system (switchboards, motor control systems, panelboards, feeders and branch circuits.	**$ 4,182,000**
8.	Provide additional physical security barriers to meet VA stand-off distance requirements.	**$ 350,000**
9.	Facility doesn't have a sanitary storage tank.	**$ 600,000**
10.	The emergency room access ramp structure and heliport structure requires maintenance, repair and rehabilitation.	**$ 450,000**

Options

Option 1: Multiple-Phased Renovation of the Existing VAMC Facility While Occupied

Option 1 is phased to create one floor of swing space in phase 1B and throughout the project. Subsequent phases will benefit from the swing space, but all phases will require displacement of services to temporary space off campus. The intent is to displace ambulatory spaces as much as possible. Renovations to include gut and remodel with all new infrastructure, systems distribution and terminations, walls, floors, ceilings and finishes. See updated Cost Estimates.

Total DGSF – 491,452 SF (66% of 2018 SEPS)

Phase 1A – New Central Utility Plant **$45,310,610***
Construction Project Duration: 24 Months
Construct a new CUP on the south side of the hospital to include all new heating, cooling, electrical and emergency back-up systems for the hospital, vertical utility risers in an exterior shaft feeding all floors.

Phase 2A – New Surgery Addition - Operating Rooms and SPD **$24,499,200**
Construction Project Duration: 24 Months (Concurrent with 1A)
Construct 25,000 SF Surgery and Sterile Processing Department addition.

Phase 2B – New Surgery Addition- Pre-op, Post-op, PACU and Surgery Support **$22,633,050**
Construct 40,000 SF Pre-op, Post op, PACU and Surgery Support addition.

Phase 3 – Temporary Swing Space
Fit up 70,000 SF of leased space for Ambulatory Care including clinical, procedural, administrative and support space. **$21,771,750**

Phase 4 – 10 renovations include the complete demolition of the area to vanilla box, and remodel with all new infrastructure, systems distribution and terminations, walls, floors, ceilings and finishes.

Phase 4 - Renovate the 4th Floor **$ 9,649,750**
Construction Project Duration: 12 Months
Provide 22,000 SF of Ambulatory Care Space.

Phase 5 – Renovate 5W, 6W, 7W, 8W and 9W **$20,276,440**
Construction Project Duration: 18 Months
Provide 56,500 SF of new Inpatient Beds and Support Space

Phase 6 – Renovate 5E, 6E, 7E, 8E and 9E **$24,782,320**
Construction Project Duration: 18 Months
Provide 56,500 SF of new Ambulatory Care space.

Phase 7 – Renovate Floors 10, 11 and 12 **$15,072,750**
Construction Project Duration: 12 Months
Provide 42,000 SF of new Admin and Mental Health space.

Phase 8 – Renovate 1st Floor **$18,175,030**
Construction Project Duration: 12 Months
Provide 53,000 SF of new Ambulatory Care and Support space

Phase 9 - Renovate Basement **$10,000,650**
Construction Project Duration: 12 Months
Provide 38,000 SF of Admin and Support space.

Phase 10 – Renovate Floors 2 and 3 **$29,643,080**
Construction Project Duration: 12 Months
Renovate 59,000 SF of ICU, Diagnostic and Ambulatory Care space

Option 1 Total **$241,814,630**
Construction Project Duration: 10 Years

Option 2: Single Phased Renovation of the Vacated CUMC Facility

Option 2 includes selective demolition and renovation of the CUMC to accommodate the VAMC program. Construction would proceed in a single phased project with no temporary department relocations required.

Total DGSF = 487,838 SF (66% of 2018 SEPS)

Construction Project Duration: 24 Months **$127,496,240**

Infrastructure Renovation
Upgrade Air Handlers, replace windows, replace generators, upgrade normal and emergency power distribution, replace 15 kV switchgear, upgrade physical security, add sanitary storage tanks and repair Emergency Room ramp and deck

Floor 1 – Lower Level
No work.

Floor 2 – Street Level
Widen concourse and update finishes, Expand/Renovate Pharmacy, Renovate Pulmonary Rehab space to Ambulatory Care space.

Floor 3
30,000 SF of new Ambulatory Clinic space, 10,000 SF of new Pre-op/Post-op/PACU, 11,000 SF Renovation of ICU.

Floor 3M – Mechanical
No work.

Floor 4
Renovate 27,500 SF of Ambulatory Care space, Renovate 21,000 SF to Inpatient Mental Health beds (Existing Coronary and Telemetry Step Down), Renovate 15,000 SF to Mental Health Clinic/Day Hospital (Existing Clinical Decision Unit and NICU), Renovate 19,500 SF to PRRTP beds (Existing Birthing Unit), Renovate 21,000 SF to Mental Health beds (Existing Med Surg).

Floor 5
Renovate 22,500 SF to Ambulatory Care space, Renovate 31,000 SF of Med Surg space.

Floor 6
Renovate 25,000 SF to new Research space (Existing 50% Research/50% Ambulatory Care Clinic).

Option 3: Single Phased Renovation of the Existing VAMC Facility

Option 3 includes the temporary relocation of the VA Medical Services to the CUMC facility to allow for single phased renovation of the existing VAMC facility, and relocation back to the upgraded VAMC facility. See updated Cost Estimates.

Total DGSF – 491,452 SF (66% of 2018 SEPS)

Phase 1 - Interim renovation of CUMC **$ 5,426,850**
Construction Project Duration: 12 Months
Security upgrades to CUMC Floor 4 will be necessary to accommodate the Mental Health program. Other areas will be temporarily occupied as is for the duration of the VAMC renovation.

Phase 2 - Relocate Temporarily to CUMC **Cost Not Estimated**
Relocation Duration: 12 Months
A logical and orderly relocation of VA Health Services to CUMC has an estimated duration of up to twelve months. The CUP and Surgery Addition could proceed concurrently, however, the renovation work would follow the completion of the relocation phase.

Phase 3 - New Central Utility Plant **$35,936,000***
Construction Project Duration: 24 Months (Concurrent with Phases 1 and 2)
Construct a new CUP on the south side of the hospital to include all new heating, cooling, electrical and emergency back-up systems for the hospital and vertical utility risers in an exterior shaft feeding all floors.

Phase 4 - New Surgery Addition **$ 37,380,750**
Construction Project Duration: 24 Months
Construct new 65,000 SF Surgery Addition on the north side of the hospital to include Pre-op, Post-op, Ors, Sterile Processing and Surgery Support.

Phase 5 - Renovation – All Floors (Concurrent with Phase 4) **$101,200,020**
Construction Project Duration: 24 Months (Concurrent)
Fit up of vacated 4th Floor, renovation of all floors to include gut and remodel with all new infrastructure, systems distribution, terminations, walls, floors, ceilings and finishes.

Option 3 Total **$179,943,620**
Construction Project Duration: 4 Years

*** Note: Option 1 and Option 3 cost estimates for a New Central Utility Plant differ. Option 1 includes a higher multiplier for General Conditions because of the cost premiums associated with multiple-phased construction in an occupied building and site.**

Appendix I

Omaha VA Hospitals Facility Condition Comparison

VAMC SITE	Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Lot 7, 8, 9	Lot 10	Lot 11	Comments
ACCESS										
Accessibility (25)	C	D	D	D	D	C	D	C	C	See Note 7, 19, 32
Curb & Gutter (50)	C	C-	D	C	C	C	D	C	C	See Note 20, 25, 33, 35, 36, 37
Fencing (75)	N/A	D	D	D	D	N/A	D	D	D	See Note 3
Landscaping (75)	C	C	D	D	C	C	C	C	C	See Note 21, 26, 38
Parking (50)	C	C	D	D	C	D	D	D	D	See Note 4, 5, 18, 22-24, 27, 29-31, 34, 39
Retaining Walls	N/A	N/A	N/A	N/A	B	N/A	N/A	N/A	N/A	See Note 30
Roads (50)	C	C	D	C	C	C	C	C	C	See Note 6, 28
Standoff Distance	D	C	D	D	N/A	D	N/A	N/A	N/A	
Walks (50)	C	C	C	C	C	N/A	C	C	C	See Note 1, 2
Wayfinding (20)	C	C	C	C		C	C	C	C	

UTILITIES	Grade	Comments
WATER		
Fire Protection	D	See Note 8
Water Mains	D	See Note 8
Water Sources	D	See Note 9
Irrigation System	D	
Water Feature	N/A	
SANITARY		
Sanitary Mains	D	See Note 10
Sanitary Outflow	D	See Note 10-12, 14, 15
STORM		
Stormwater Inlets	D	See Note 16, 17
Stormwater Mains	D	See Note 12
Stormwater Outflow	D	See Note 12, 14, 15

NOTES

General Comments	1	Sidewalks are generally in good shape. There is evidence of spalling at the joints, likely from a sidewalk plow and salt use. Recommend spot repairs of sidewalk, as well as non-tooled joints. Simple sawcut joints will prolong the concrete in winter weather conditions.
	2	It is suggested in the VA Parking Design Manual that 5% of parking stalls meet accessibility requirements. This facility exceeds this requirement, however the site does not provide the proper Van Accessible stalls. One in Six accessible stalls should be Van Accessible. In additional not all stalls have the minimum 5' access aisle. Restripe to meet ADA requirements.
	3	No perimeter fencing/walls exist. Install perimeter fencing/walls around the entire site as required by the Physical Security Manual for VA facilities.
	4	A parking study is recommended to determine the required necessary spaces
	5	Parking lots operate at full capacity. The VA has approximately 1224 parking stalls available to staff and patients, plus an addition 100 stalls that are being leased from The Center located south of the VA. The stalls are located at the east, southeast portion of the Level 3 parking lot accessed from S 40th Street.
	6	In general, the site access roads lack adequate lane striping and directional markings to direct traffic flow. It also lacks crosswalks to direct pedestrians to building destinations. Correct poor traffic and pedestrian signage and markings. Repaint curbs; add lane striping and directional arrows to denote traffic flow and proper areas for patient drop-off.
	7	Though ramps are constructed with rumble strips, tactile warning strips, i.e. truncated domes or similar should be installed.
Utility Comments	8	Main water lines are original to the building and have exceeded their useful life. A single 8-inch and 10-inch distribution system provides both the potable and fire demand for the site. No recent repairs have been made to the water line. On going maintenance should exercise the gate valves on site.
	9	The building was originally designed with a 6,000 gallon storage tank on the 14th floor. However, the structure has been compromised

		and the piping system has been disconnected. The VAMC lacks backup water redundancy beyond the 14th Floor fire storage (if it were to be repaired). M.U.D. services this facility using separate distributions systems, however the VAMC could lose adequate fire protection, as well as domestic service if any one (or all) of the existing distribution system was compromised. Provide an onsite pumping and storage facility to handle demands based on the Mission Critical.
	10	Sanitary main and structures are original to the building and have exceeded their useful life. No sanitary sewer replacement has been done. Replace approximately 2,200 feet of existing 12-inch sewer line, once the City has complied with the Federal Mandate to separate sanitary sewer from storm sewer. At this time, the City has not prepared plans that address new sanitary outfall in the Center/42nd Street area.
	11	Provide Sanitary main structures with water tight lids to protect from surface water infiltration and construct concrete collars around rims of manholes outside of paved areas to protect from damage. Recommend lines to be televised to determine pipe material and structural integrity of the pipe.
	12	The sanitary sewer is interconnected with the onsite storm drain system as is the entire city. The City of Omaha is in the process of separating the sanitary sewer and storm drain system. The VA has separated their system along 42nd, but not at the SE corner of the site.
	13	The site currently lacks the ability to provide temporary on-site sanitary waste disposal that would allow the site to retain sewerage should there be an incident that prevents flow into the existing city sewer system.
	14	Unless the City separates sanitary from storm water, the VA, should they increase their discharge though the construction of new facilities will be required to treat waste on site.
	15	As additions to current sewer discharge increase via new construction, provide an on-site Zero Discharge facility.
	16	The existing drain inlets are deteriorating and reinforcing bar is exposed. This will continue to deteriorate with salt application. Recommend replacement of structures.
	17	There are water infiltration issues with existing electrical manholes. Replace existing rims and covers with water tight rims and covers. There are three manholes (8-1, 11-1, 4-5) that need sump pumps to drain accumulating storm water away.
Lot 1	18	Parking Lot 1 pavement is in good shape. The south end of the lot is being reconstructed to house a new MRI machine that will impact the current parking layout.
Lot 2	19	Sidewalks from Parking Lot 2 to the Main entrance do not meet Uniform Federal Accessibility Standards (UFAS). requirements. Provide proper slopes and landings to meet these
	20	There is no curb and gutter along the east end of Parking Lot 2. Recommend that this be added to prevent parking on turf and to direct stormwater to drain.
	21	Turf along the eastern edge of Parking Lot 2 is in deteriorating due to cars parking on this edge.
	22	Parking Lot 2 pavement is in good shape, however parking stall layout exceeds the minimal dimensional requirements listed in the VA Parking Design Manual. It is recommended that the parking lot layout be reconfigured to maximize the number of parking stalls and remove the angled parking stalls. Additional stalls have been added at the old basketball court. recommend paving the exit drive from this lot.
	23	Parking is lacking and patrons are parking on grass areas especially along the east edge of Parking Lot 2.
	24	Parking Lot 2 is laid out inefficiently. Reconfiguring Lot 2 to accommodate 90 degree parking, could gain ~130 additional stalls. Recommend restriping and rebuilding curb islands.
Lot 3	25	Curb and Gutter along the west side of Parking Lot 3 appears to be buried from overlays and possible settling. Some of the curb is completely deteriorated. Replace entire length of curb on west side of lot to ensure a barrier exists to protect cars from slope.
	26	The area directly adjacent to the south side of Building 15 is sloped to direct surface water to back to two (2) exit doors. Area shows erosion and lack of turf growth. Re-grade landscaping as necessary to correct water flow.
	27	Parking Lot 3 was milled and overlaid in 2008. Pavement shows signs of distress or deterioration from salt use. There is a severe slope adjacent to the lot that may be causing the longitudinal cracks that have appeared. Recommend a full depth pavement replacement. Recommend continued monitoring of asphalt cracks.
	28	Eisenhower Road between Buildings 1, 15, and 25 can still only accommodate one-way traffic. The signage is lacking to provide adequate motorist instruction. Proper striping to denote stop bars and crosswalk signage should be installed immediately. Still recommend to widen and replace approximately 275 feet of roadway to accommodate two-way traffic.
Lot 4	29	Parking Lot 4 was milled and overlaid in 2008. Pavement shows signs of distress or deterioration from salt use. Recommend a full depth pavement replacement.
Lot 5	30	Parking Lot 5 appears to be rebuilt after construction of addition to Building 6. The stairs leading down to 42nd Street have been rebuilt. The Building 6 addition installed a retaining wall in order to construct a sidewalk and foundation for the new structure.
Lot 6	31	No ponding was witnessed in Parking Lot 6, however previous assessments recommended repair or re-grading the parking lot to drain water runoff to the existing storm drain.
Lot 7	32	Sidewalk from Parking Lot 7 to Lot 4 do not meet UFAS. Provide proper slopes and landings to meet these requirements.
	33	There is no curb or gutter surrounding the Building 7 or 9 parking lot. Parking blocks are being used on Lot 9. Recommend curb be installed on Lot 7 to prevent vehicles from pulling forward into sidewalk.

	34	The asphalt at parking lots 7, 8, and 9 are in decent shape. However, the pavement has exceeded its useful life and full section should be replaced.
Lot 8	35	Sidewalk from Puller Drive to Parking Lot 8 do not meet UFAS. Provide proper slopes and landings to meet these requirements.
	36	Curb near Buildings 2 and 22 appears shortened due to numerous past overlays. Replace 85 LF± of curb.
Lot 9	37	There is no curb or gutter surrounding the Building 7 or 9 parking lot. Parking blocks are being used on Lot 9. Recommend curb be installed on Lot 7 to prevent vehicles from pulling forward into sidewalk.
Lot 10 & 11	38	The east side of Building 4&5 drains toward the building. Re-grade landscape area to drain away from building.
	39	The asphalt at parking lots 10 and 11 are in decent shape. However, the pavement has exceeded its useful life and full section should be replaced.

Omaha VA Hospitals Facility Condition Comparison

Architectural	Rec No	Seq No	Condition	Description
Accessibility	64864	1B	B	Building 1 entries substantially comply. Elevators provide access to all floors. Most interior accessible routes and public, patient, and staff toilets substantially complay for Basement, Floors 1,5,6,7.8 West and 9 West. Patient bedrooms substantially comply in Floors 5 East, 6 East, and 7 East.
Accessibility	65388	1D	D	Replace remaining door knobs along accessible routes with lever hardware. All floors and departments should be provided with accessible toilets. Provide additional accessible patient and staff toilets on 2nd, 3rd, 4th, 8 East and 9 East, and 10th through 12 floors.
Exterior Walls	65423	1C	A	Pending Description: Tuck pointing project (2011) underway to address remaining deficiencies at brick and stone wall areas.
Exterior Walls	64865	1C	A	Most brick at walls and stone spandrel panels are in average condition. Several areas were previously sealed and tuck pointed. Condition of mortar joints and tuck pointing varies widely.
Fixed Equipment	64866	1A	A	Nuclear Medicine: equipment updated with renovation in 2011. Radiology: one (1) PET scanner will be replaced in 2011. Nutrition and Food Service: Walk in refrgerator and freezers (2009) are in near new condition.
Fixed Equipment	64900	1C	C	Most equipment in the following areas is in average condition: Primary and Specialty Clinics; Chapel; Canteen: retail and serving line - CANTEEN A; Surgery; Audiology (2) booths.
Fixed Equipment	65424	1B	B	Most equipment in the following areas is in good condition: Nutrition and Food Service: most food preparation equipment is in good condition, including double convection oven, blast freezer, combi oven, kettle, heating cabinet, grills and stove, two (2) soup kettles, and milk cooler (all replaced 2008); and pass through cooler (2004). Pathology (6th Floor): casework, tops, and hoods (2009). Radiology: most equipment updated in 2009, including PET and SPEC CT's, two (2) ultrasound, MRI, upgrade to 40 slice CT, two (2) new DRs, and 64 slice CT. Basement and Floors 5 through 12: counters and casework are in average condition.
Fixed Equipment	193086	2D	D	Equipment in the following areas is at or past its useful life and should be replaced: Audiology: 2 test suites; Candeent: storage, preparataion, and ware washing - CANTEEN A; Dietetics: dishwasher and pot wash; Morgue: casework and autopsy equipment, refrigerator; Research: basement labs and reactor area; Pathology: replace casework and tops in 2nd floor lab.
Interior Finish/Door	65283	1B	B	Most equipment in the following areas is in good to above average condition: Floor 9 West: most finishes in executive suite are in above average condition: EXECUTIVE SUITE FINISHES B; Floor 7 West: Chemo Area (2006) is in very good condition; Floor 7 East: finishes and doors are in above average condition; Floor 2: Nuclear Medicine is in good condition; Floor 1: Inpatient Pharmacy is in good condition; Chapel is in good condition; Basement: HAS (Medical Administration) spaces have been remodeled and are in good condition. 7E Halls and Walls scheduled for replacement.
Interior Finish/Door	64901	1C	C	Following areas were updated in 2010 or 2011 and are in average condition: Floor 12: Finishes and doors are in average condition; Floor 10: center and east are still in average condition; Floor 8: most finishes and doors are in average condition; Floor 7: most finishes and doors are in average condition; Floor 3: Finishes in Main Kitchen are dated but serviceable; Floor 2: most finishes and doors are in average condition; Floor 1: most finishes and doors are in average condition.
Interior Finish/Door	64867	1A	A	Following areas were updated in 2010 or 2011 and are in excellent condition: Floor 10 West: Mental Health; Floor 6 West: Surgical Evaulation and Pathology; Floor 4: Surgery Preop, Recovery, and staff lockers, admin, and support areas; Floor 3: Canteen Serving and Dining, LIbrary; Floor 2: Nuclear Medicine.

Interior Finish/Door	64857	1D	D	Most finishes in the following areas are in below average condition: Floor 12: repair water damage in east stair; Floor 11: Finishes are serviceable but below average and due for remodel; Floor 9: Center and East: wall treatemtns are servicable but below average, replace wall coverings in corridors and functional areas; Floor 9 Wst: replace wall coverings; Floor 8 East: reaplce lay in ceiling panels in GI procedur rooms with cleanable panels; Floor 7 East: replace carpeting; Floor 7 Center: replace lay in ceiling panels in corridors; Floor 6 East: replace carpeting; Floor 6 West: replace VCT Flooring and ACT ceiling in main corridors; Floor 5: finishes in many rooms and functional areas are serviceable but dated (such as SFTU partitions), update finishes, replace corridor carpet in Floor 5 East and Center; replace ACT ceilings in Floor 5 Center main corridors; Floor 4 Surgery OR Suite: finishes are serviceable but below average or very dated, remodel ORs; FLoor 3: Canteen kitchen is due for renovation; Floor 1: update finishes in Eye Clinic; Basement: most finishes in corridors and functional areas are in below average condition and due for remodel, including Research (and former reactor), Morgue, and Bio Med. 7E Halls and Walls scheduled for replacement. 6E Halls and walls scheduled for replacement.
Interior Finish/Door	113883	2D	D	Surgery suites too small to meet current criteria. Enlarge.
Life Safety	64868	1A	A	Fully sprinklered healthcare occupancy.
Life Safety	64902	1D	D	Approximately 25 pairs of cross corridor doors are in poor condition and should be replaced. Opening schedule to be replaced.
Roof	64903	1C	A	EPDM roofing. Surgery roof recently replaced.
Roof	65285	1B	B	Floor 10: Membrane and pavers at outdoor activity area east wing (2009) are in good condition.
Roof	113879	2D	A/D/D	Ballasted EPDM roofing at Floor 11 and Penthouse roof is in poor condition, and at end of its useful life. Replace roofing and flashings; Floor 4: replace EPDM roof above SPD; Floor 2: Replace EPDM roof. Roof of Floor 11 is various roof systems - central spine and wing E replaced with vented EPDM roof - Grade A. Wing D - Existing BUR - Grade D. Wing F - Existing BUR - Grade D.
Signage/Wayfinding	65326	1D	D	Poor wayfinding/siganage should be upgraded or replaced.
Signage/Wayfinding	64870	1C	C	In most areas identification, directional, and code required signage is generally average.
Signage/Wayfinding	65394	1B	B	Identification, directional, and code required signage is generally good in the following areas: Nuclear Medicine; Radiology; Library; Canteen; Surgery Preop, Recovery, and Staff Locker areas; 5th Floor Surgery Evaluation and Pathology; Nursing Units on Floors 5, 6, and 7 East; Directors Suite.
Windows	65287	1D	D	Double glazed, aluminum casement windows with integral mini blinds were installed in the mid-1980's. Windows would be in average condition, except gaskets and weather stripping are deteriorating. Higher performing glazing and window systems are available. Painted metal louvers at upper penthouses (Floors 13 and 14) are in fair condition. Cleain, paint, and reseal perimeter frames to masonry.
Windows	65327	1C	C	Perimeter Sealant at windows has been replaced and is in average to above average condition.

Omaha VA Hospitals Facility Condition Comparison

Architectural	Rec No	Seq No	Condition	Description
Accessibility	65246	1D	D	Renovate to provide accessible entries and interior routes (including replace round door knobs with lever hardware). Upgrade toilet rooms to meet criteria. Provide accessible water coolers on each floor. Elevator provides access to all floors (accessibilty upgrades included with modernization under Transport subsystem).
Exterior Walls	65247	1C	C	Brick at exterior walls is in good condition.
Exterior Walls	152362	2D	D	Minor areas of tuck pointing and repair is still required. Seal penetrations in brick or mortar joints (misc drilled anchors, etc.).
Fixed Equipment	65248	1D	D	Following equipment in good condition: Two (2) glassware washers and one (1) Cage washer; One (1) sterilizer; Four (4) walkin refrigerators; Portable xray; 16 fume hoods; Surgical lights.
Fixed Equipment	193097	2B	B	Following equipment in good condition: Two (2) glassware washers and one (1) Cage washer; One (1) sterilizer; Four (4) walkin refrigerators; Portable xray; 16 fume hoods; Surgical lights.
Interior Finish/Door	65249	1B	B	Most walls have been painted (2008) and are in good condition.
Interior Finish/Door	193095	2C	C	Most VCT flooring, doors, and frames are still in average condition. Epoxy resin flooring in animal areas is in average condition. Painted plaster ceilings are in average condition.
Interior Finish/Door	248809	3D	D	Suspended ACT ceilings in corridors are in poor condition and should be replaced.
Life Safety	65250	1D	D	Partially sprinklered (except corridors). Extend fire sprinklers throughout. Verify labs, storage areas, and corridors comply with NFPA 101 and NFPA 45 for labs with flammable materials.
Roof	65251	1D	D	Southernmost addition is funded to receive a vented EPDM roof system.
Signage/Wayfinding	65252	1D	D	Although most content is still current, signage includes a varity of inconsistent or dated styles and materials. Hand lettered or other temporary signage is used to supplement or clarify signage and wayfinding. Add or update approximately 40% of signage in this portion of the building. Provide additional bulletin boards in lobbies, waiting rooms, and lounges.
Windows	65253	1D	D	Double glazed, aluminum casement windows (1976) are in fair condition and are leaking in some areas. Windows exceed their useful life. Replace windows.

Omaha VA Hospitals Facility Condition Comparison

Architectural	Rec No	Seq No	Condition	Description
Accessibility	65354	1B	B	Entry, interior routes, public, patient, and staff toilets substantially comply. Elevators provide access to all floors.
Accessibility	193088	2D	D	Add lever handles as necessary.
Exterior Walls	65355	1B	B	Brick at walls and stone spandrel panels are in good condition.
Fixed Equipment	65356	1B	B	ICU and ER Equipment (2008) is in very good condition. Inpatient Pharmacy casework and equipment is in good condition. Hoods and IV prep renovations (2009) for USP 797.
Fixed Equipment	248827	2C	C	Primary and Specialty Clinics with minimal fixed equipment. Most equipment is still in average condition.
Fixed Equipment	248828	3D	D	Ambulatory Care Clinics: casework at Nurse Stations and Receptin Counters is in average to fair condition. Replace units with damage or heavy wear.
Interior Finish/Door	65357	1B	B	Floor 2: ICU (2008) is in good condition. Floor 1: ER (2008) is in good condition, main entry (lobby) is in good condition. Basement: Inpatient Pharmacy (2009), basement corridor walls and flooring, Police, and QEM are in good condition.
Interior Finish/Door	113888	2D	D	Floor 1: Replace VCT flooring in Blood Draw area. Basement: replace ACT ceilings in corridors.
Interior Finish/Door	248833	3A	A	Floor 1: MRI suite (2011) is in new condition.
Interior Finish/Door	248834	4C	C	Floor 1: Most finishes in Primary Care clinics are still in average condition.
Life Safety	65358	1A	A	Fully Sprinklered. No problems observed.
Roof	65359	1B	B	Adhered EPDM roof at ICU Addition (2008) is in good condition.
Roof	248840	2B	B	Adhered EPDM roof at ER and west entry canopy is in good condition.
Roof	248841	3D	D	Ambulatory Addition (Floor 1 Roof): single ply EPDM with insulation and gravel ballast is from original construction and exceeds its useful life. Replace roofing and deck insulation.
Signage/Wayfinding	65360	1C	C	Most identification, directional, and code required signage is generally average.
Signage/Wayfinding	113889	2D	D	Although most content is still current, signage includes a variety of inconsistent or dated styles and materials. Hand lettered or other temporary signage is used to supplement or clarify signage and wayfinding. Add or update approximately 25% of signage in this portion of the building. Provide additional bulletin boards in lobbies, waiting rooms, and lounges.
Windows	65361	D	D	Double glazed aluminum casement windows with integral miniblinds were installed in the 1980's. Windows would be in average condition, except gaskets and weather stripping are deteriorating, particularly on north elevation where air and water leakage is causing damage to finishes. Higher performing glazing and window systems are avaiable; windows should be replaced.

Omaha VA Hospitals Facility Condition Comparison

BUILDING	SUBSYSTEM ID	CONDITION	DESCRIPTION
HVAC Equipment and Distribution	Air Handling Equipment	D	Induction units supplied with ventilation air using heating hot water from plant HW converters and chilled water from chiller plant. Supplement heat provided by steam convector units. Installed in 1975. Provide a complete new HVAC system in accordance with current VA criteria to include air handling equipment, ducts and water distribution system, new controls, new room area distribution and terminal units, and all required exhaust fans.
HVAC Equipment and Distribution	Ducts & Distribution	D	Ductwork serving induction units is in poor condition.
HVAC Equipment and Distribution	Engr. Control Sys	D	Controls for equipment serving areas condition by induction units are legacy pneumatic and are in poor condition.
HVAC Equipment and Distribution	Ventilation (OA and Exh)	D	AHU-1, 2, and 3 are 100% OA units serving induction units. The units were installed in 1975. Provide a complete new ventilation (outside air and exhaust) system in accordance with current VA criteria to include air handling equipment, ducts and water distribution system, new controls and all required exhaust fans.
HVAC Equipment and Distribution	Ventilation (OA and Exh)	D	The following Exhaust Fan Systems are in poor condition and rated D: Surgery exhaust fan is located in the 12th floor penthouse. Surgery exhaust fan has heat recovery coil (glycol/water). Exhaust fan system installed in 1975. Two (2) toilet exhaust fans are located in the 12th floor penthouse. One (1) toilet exhaust fan has heat recovery coil (glycol/water). Exhaust fan systems installed in 1975. Building exhaust fan is located in the 12th floor penthouse. Building exhaust fan has heat recovery coil (glycol/water).
Plumbing Equipment and Distribution	Fixtures/Piping	D	Many areas have fixtures and piping original to 1950 construction. Provide complete new fixtures and piping system in accordance with current VA criteria to include piping, accessories and fixtures.
Plumbing Equipment and Distribution	Medical Gases	D	Medical air, medical vacuum, and oxygen compressors are located either in the basement or in the 12th floor penthouse. Majority of equipment, main and branch distribution lines are original 1950 construction. Provide complete medical gas systems in accordance with current VA criteria to include piping, accessories and fixtures.
Fire Suppression System	Fire Sprinkler/Pump	D	Various areas of the building have fire sprinkler piping original to 1950 construction. Provide a complete new fire sprinkler system in accordance with current VA criteria to include piping, booster pumps, standpipes, etc.

Omaha VA Hospitals Facility Condition Comparison

BUILDING	SUBSYSTEM ID	CONDITION	DESCRIPTION
HVAC Equipment and Distribution	Refrigeration Equip	D	One existing steam absoption chiller remains in use. Condition is poor. Installed in 1975. Replace with new electric chiller.
HVAC Equipment and Distribution	Ventilation (OA and Exh)	D	AHU-1, 2, and 3 are 100% OA units serving induction units. The units were installed in 1975. Provide a complete new ventilation (outside air and exhaust) system in accordance with current VA criteria to include air handling equipment, ducts and water distribution system, new controls and all required exhaust fans.
HVAC Equipment and Distribution	Pumps	D	All distribuition pumps and associated piping were installed in 1975. System is in poor condition. Site personnel have experienced pipe failure in the past and are concerned about a catastrophic failure of the direct buried piping. Provide a complete new central utility distribution system in accordance with current VA criteria to include pumps, controls, piping and accessories.
HVAC Equipment and Distribution	Boilers	D	One boiler has been replaced. Remaining 2 boilers are in poor condition and require replacement.
Plumbing Equipment and Distribution	Fixtures/Piping	D	Many areas have fixtures and piping original to 1975 construction and is failing. Provide complete new fixtures and piping system in accordance with current VA criteria to include piping, accessories and fixtures.
Fire Suppression System	Fire Sprinkler/Pump	D	Various areas of the building have fire sprinkler piping original to 1975 construction and is in poor condition. Provide a complete new fire sprinkler system in accordance with current VA criteria to include piping, booster pumps, standpipes, etc.
Fire Suppression System	Hot Water Heater	D	Instantaneous 500 gallon hot water heater (utilizing steam) is in poor condition. Provide a complete new hot water heater system in accordance with current VA criteria to include piping, accessories, pumps and controls.
Fire Suppression System	Medical Gases	D	Lab air and lab vacuum in poor condition. Provide a complete new lab air and vacuum system in accordance with current VA criteria to include piping, accessories, pumps and controls.

Omaha VA Hospitals Facility Condition Comparison

BUILDING	SUBSYSTEM ID	CONDITION	DESCRIPTION
HVAC Equipment and Distribution	Air Handling Equipment	D	Induction units supplied with ventilation air using heating hot water from plant HW converters and chilled water from chiller plant. Supplement heat provided by steam convector units. Installed in 1975. Provide a complete new HVAC system in accordance with current VA criteria to include air handling equipment, ducts and water distribution system, new controls, new room area distribution and terminal units, and all required exhaust fans.
HVAC Equipment and Distribution	Ducts & Distribution	D	Ductwork serving induction units is in poor condition.
HVAC Equipment and Distribution	Engr. Control Sys	D	Controls for equipment serving areas condition by induction units are legacy pneumatic and are in poor condition.
HVAC Equipment and Distribution	Ventilation (OA and Exh)	D	AHU-1, 2, and 3 are 100% OA units serving induction units. The units were installed in 1975. Provide a complete new ventilation (outside air and exhaust) system in accordance with current VA criteria to include air handling equipment, ducts and water distribution system, new controls and all required exhaust fans.
HVAC Equipment and Distribution	Ventilation (OA and Exh)	D	The following Exhaust Fan Systems are in poor condition and rated D: Surgery exhaust fan is located in the 12th floor penthouse. Surgery exhaust fan has heat recovery coil (glycol/water). Exhaust fan system installed in 1975. Two (2) toilet exhaust fans are located in the 12th floor penthouse. One (1) toilet exhaust fan has heat recovery coil (glycol/water). Exhaust fan systems installed in 1975. Building exhaust fan is located in the 12th floor penthouse. Building exhaust fan has heat recovery coil (glycol/water).
Plumbing Equipment and Distribution	Fixtures/Piping	D	Many areas have fixtures and piping original to 1950 construction. Provide complete new fixtures and piping system in accordance with current VA criteria to include piping, accessories and fixtures.
Plumbing Equipment and Distribution	Medical Gases	D	Medical air, medical vacuum, and oxygen compressors are located either in the basement or in the 12th floor penthouse. Majority of equipment, main and branch distribution lines are original 1950 construction. Provide complete medical gas systems in accordance with current VA criteria to include piping, accessories and fixtures.
Fire Suppression System	Fire Sprinkler/Pump	D	Various areas of the building have fire sprinkler piping original to 1950 construction. Provide a complete new fire sprinkler system in accordance with current VA criteria to include piping, booster pumps, standpipes, etc.

BWBR

Omaha VA Hospitals Facility Condition Comparison

BUILDING	SUBSYSTEM ID	CONDITION	DESCRIPTION
Elec/Tele Closets	Physical Space	D	There is insufficient space for new equipment. Provide one (1) additional electrical room per floor. Install panic hadware on Substation 4 room door and reverse door swing to open outward.
Emergency Electrical Systems	Essential Electrical System	D	Replace generator and transfer switches at end of useful life. Replace existing, single-wall diesel tank with above ground storage tank. Relocate remote radiators to achieve better cooling and allow generator to reach full output.
Emergency Electrical Systems	Essential Electrical System	F	The essential electrical system is not separated into branches as required by current code. Provide proper branch separation. Add hospital AHUs and surgery chiller to essential electrical system. Additionally, the existing quantity and location of essential electrical system outlets is inadequate for current facility operation.
Lighting and Power	Obsolete lighting and conductors.	D	Replace remaining existing T12 lighting. Replace remaining (approximately 5%) cloth-insulated conductors.
Lighting and Power	Secondary Distribution	D	Install new distribution sections on Substations 1-5 with associated feeders and panelboards in new electrical rooms on each floor.
Low Voltage Systems	Telephone/Data	D	Provide proper clearance and working space for 5th floor by building new telecommunications room.
Low Voltage Systems	Telephone/Data	D	Replace telecommunications infrastructure in Telecomm Room 1422 on first floor. Remove existing abandoned cabling throughout facility. Reroute MEP systems not associated with the telecommunications rooms outside of those spaces.
Low Voltage Systems	Nurse Call		Existing system is Rauland Responder IV nurse call system, which is no longer supported. Recommend upgrading to Responder V nurse call system.

Omaha VA Hospitals Facility Condition Comparison

SYSTEM	SUBSYSTEM ID	CONDITION	DESCRIPTION
Emergency Electrical Systems	Essential Electrical System		Replace generator at end of useful life. Building 15 generator uses same obsolete tank as generator in Building 1.
Lighting and Power	Obsolete Lighting	D	Replace existing (approximately 75%) obsolete T12 lighting.
Lighting and Power	Secondary Distribution	D	Replace obsolete FPE electrical equipment and feeders.
Lighting and Power	Transformer	D	Replace obsolete FPE unit substation and medium voltage switch.
Low Voltage Systems	Paging	D	Remove unused paging system to avoid false operational expectations.

Omaha VA Hospitals Facility Condition Comparison

BUILDING	SUBSYSTEM ID	CONDITION	DESCRIPTION
Emergency Electrical Systems	Essential Electrical System	D	Replace generator and transfer switches at end of useful life. Building 25 generator uses same obsolete tank as generator in Building 1.
Emergency Electrical Systems	Essential Electrical System	F	The essential electrical system is not separated into branches as required by current code. Provide proper branch separation. Additionally, the existing quantity and location of essential electrical system outlets is inadequate for current facility operation.
Low Voltage Systems	Nurse Call		Existing system is Rauland Responder IV nurse call system, which is no longer supported. Recommend upgrading to Responder V nurse call system.

Omaha VA Hospitals Facility Condition Comparison

System ID	Condition	Description
Floor Systems	C	Concrete joinsts at 25 inches on center framed into steel beams encased in the concrete, with 4-inch thick concrete slab. Note: Fire resistance rating for floor systems is between 1 and 1.5 hours per IBC Section 721.2.2.
Foundations	C	Spread footings / Mat foundation.
Seismic / Wind Load	N/A	Low seismic area per VA criteria. No seismic requirements. The structure provides adequate wind bracing.
Vertical Members	C	Steel moment frame. Wide flange steel columns.

Omaha VA Hospitals Facility Condition Comparison

System ID	Condition	Description
Floor Systems	B	Concrete flat slab/perimeter concrete beams.
Foundations	B	60 ton piles 70 feet deep, skin friction 700 pounds per square foot.
Seismic / Wind Load	N/A	Low seismic area per VA criteria. No seismic requirements. The structure provides adequate wind bracing.
Vertical Members	B	Concrete columns.

Omaha VA Hospitals Facility Condition Comparison

System ID	Condition	Description
Floor Systems	B	Composite floor system: metal deck with lightweight structural concrete, supported by wide flange beams and girders.
Foundations	B	Caissons (65.K /Sft) approximately 30 feet deep with average 430 ton capacity.
Seismic / Wind Load	N/A	Low seismic area per VA criteria. No seismic requirements. The structure provides adequate wind bracing.
Vertical Members	B	Steel columns Fy = 50 Ksi.

BWBR

Omaha VA Hospitals Facility Condition Comparison

	Building 1										Building 9	Building 15
	Elevator 1	Elevator 2	Elevator 3	Elevator 4	Elevator 5	Elevator 6	Elevator 7	Elevator 8	Elevator 9	Elevator 10	Elevator 11	Elevator 12
INSTALL/MODERNIZATION YEAR	1987	1987	1987	1987	2005	1963	2007	2007	2006	2006	2001	1972
USE LIFESPAN	D	D	D	D	C	D	B	B	C	C	C	D
CONTROLLER	D	D	D	D	C	D	B	B	C	C	C	D
MACHINE	D	D	D	D	D	D	B	B	D	D	C	D
FIXTURES	D	D	D	D	C	D	B	B	B	B	C	D
DOOR EQUIPMENT	D	D	D	D	C	D	B	B	B	B	C	D
FIRE SERVICE	B	B	B	B	B	D	B	B	B	B	C	D
INTERIORS	D	D	D	D	C	D	B	B	B	B	C	D
ADA	D	D	D	D	B	D	B	B	B	B	B	D
BUILDING CONDITION FOR MODERNIZATION	D	D	D	D	D	D	B	B	B	B	B	C
TRAFFIC IN CURRENT STATE	D	D	D	D	D	C	D	D	D	D	B	B
OVERALL CONDITION	D	D	D	D	D	D	B	B	B	B	C	D

Comments	
INSTALL/MOD YEAR	Most elevators have been modernized since the original installation and are at varying degrees useful lifespan.
USE LIFESPAN	Elevators 1-4,6 and 12 have exceeded their useful life span.
CONTROLLER	Elevators 1-4 have Dover relay logic controls and pie plate selectors. These are not adequate for the application. Elevator 5 has a modern GAL microprocessor controller-2005. Elevator 6 has 1963 vintage relay logic controls. Elevator 7 and 8 have modern MCE microprocessor controls-2007. Elevators 9 and 10 have modern microprocessor controls-2006. Elevator 11 has Dover DMC solid state controls- 2001 in good condition. Elevator 12 has Montgomery relay logic controls 1972 vintage.
MACHINE	Elevators 1-4 have gearless traction machines DC motor generators with varying degrees of wear to the armature and field coils. Elevator 6 has a geared traction application with DC motor generator. Elevators 7 and 8 have modern Imperial ac gearless machines and are in good condition. Elevator 9 and 10 have McGill ac gearless machines that seem under sized for the application. Elevator 11 is a hydraulic unit and the power unit/ pump is in good condition. Elevator 15 has a Montgomery geared traction machine with a DC motor generator.
FIXTURES	Elevators 1-4 have antiquated fixtures and incandescent bulbs that are difficult to replace/repair. Elevators 6 is similar to 1-4 with parts availability and wear becoming a problem. Elevators 5, 7-10 have new led style fixtures in good condition. Elevator 12 has aged and worn fixtures that are not at ADA height should be considered for replacement. Car 11 is in fair condition with incandescent bulbs used for illumination.
DOOR EQUIPMENT	Elevator door operators are worn out and past the expected useful life for elevators 1-4,6, and 12. Elevators 7-10 are driven by closed loop operators replaced when modernizations were complete. Elevator 11 has door equipment in fair condition due to the age some component replacement will be needed in the next 3-5 years. i.e. rollers, motor, interlocks.
FIRE SERVICE	Elevators 1-4 have phase I and II fire service however they phase II is not behind a locked cabinet as required by current code. The switch is operated by a blade key in lieu of an FEO K1 standard fire service key per national code. Elevators 5,9, 10 and 11 contain both phase I and II without a locked cabinet. Elevators 7 and 8 are fully compliant. Elevators 6 and 12 have phase I only with no ability to capture the car from inside
INTERIORS	Interiors in elevators 1-4, 6 are scratched and dated with a standard fluorescent grid ceiling. Elevators 7-10 have newer interiors with stainless panels and additional bumpers necessary to prevent damage from cart traffic and LED lighting. Elevator 11 has a fluorescent grid ceiling and worn laminate panels in fair condition. Elevator 12 has steel shell with baked enamel finish and grid ceiling all of which are dated and worn.
ADA	Elevators have ADA compliant components with Braille tags, audible signals and emergency phones. Elevators 1- 4, 6 and 12 have hall buttons mounted above 42" and are not compliant
BUILDING CONDITION FOR MOD	Elevators 7-10 do not present any building related conditions in need of correction. Elevators 1-4, and 6 will require related work removing non elevator related equipment and preventing the room from being utilized as a passageway to additional mechanical areas. In the event modernization on these units occurs these items will need to be addressed . Access to elevator 5 is limited and additional means of access may need to be evaluated.

Omaha VA Hospitals Facility Condition Comparison

Site	Lot 1	Lot 2	Lot 3	Lot 4, 5, & 6	Lot 7	Patio	Lot 9	Comments
ACCESS								
Accessibility (25)	C	D	C	C	N/A	C	C	See Note 16, 20, 21, 22, 33, 34, 38, 42, 47, 52
Covered Walks (50)	N/A	N/A	C	N/A	N/A	N/A	N/A	See Note 30
Curb & Gutter (50)	C-	C-	D	C	C	N/A	C	See Note 1, 12, 13, 31, 43
Fencing (75)	D	D	D	D	D	N/A	N/A	No Perimeter Fence exists
Landscaping (75)	C	C	N/A	C	C-	C	C	See Note 26, 29, 45, 48, 49
Parking (50)	C	C	C	C-	C-	N/A	C-	See Note 2, 3, 11, 32, 35, 40, 50
Retaining Walls	N/A	C	See Struc.	C	C	C	C	See Note 51
Roads (50)	C	C-	C	C-	C	N/A	C	See Note 3, 17, 27, 37, 44
Standoff Distance	D	D	N/A	D	C	N/A	N/A	See Note 5
Site Planters (50)	B	C	N/A	N/A	N/A	N/A	B	Lot 1 & 2 have concrete planters; Lot 9 has a modular block retaining wall.
Walks (50)	C	C	B	C	C	C	C+	See Note 14, 15, 23, 24, 25, 47
Wayfinding (20)	C	C	C	C	C	N/A	C	See Note 4

Utilities	Grade	Comments
WATER		
Fire Protection	C	See Note 6, 7
Water Mains	C	See Note 6, 7
Water Sources	C	See Note 9
Irrigation System	C	
Water Feature	N/A	
SANITARY		
Sanitary Mains	C	See Note 6, 7
Sanitary Outflow	C	See Note 8
STORM		
Stormwater Mains	C	See Note 6, 7
Stormwater Outflow	C	See Note 8, 46
Stormwater Inlets	C	See Note 7, 10, 18, 28, 36, 41, 53

Remarks		
General Comments	1	Fire Lanes and No Parking areas should be repainted.
	2	All parking areas should be restriped.
	3	Total parking available to patients and staff is ~1,320 stalls. 108 stalls in Lot 9 are being utilized for valet. An additional 256 stalls are available in Lot 9.
	4	Wayfinding is minimal. Additional signage would be helpful to highlight the valet and location of visitor parking.
	5	Standoff distance is not met with the exception of the east side of the building.
Utility Comments	6	Infrastructure is 40 years old.
	7	Watermain, Fire, and Sanitary Sewer are shared between the CUMC Facility and Boys Town National Research Hospital.
	8	Stormwater is separate on site, but the City will require a new connection once the municipal sytem is separated. The combined MH is east of Lot 5.
	9	Water is provided from two different plants.
	10	Several inlets are starting to show wear, but are useable. They may need to be replaced in next 10 years.
Lot 1	11	Replacement of asphalt in Lot 1 is likely required in next 5 years. Showing spalling and cracking.
	12	Curb at North side of Lot 1 is only 3-4" tall due to numerous overlays. Replace curb.
	13	Curb is starting to show signs of deterioration. Some areas should be replaced in Lot 1 along dropoff, ~40'.

	14	Sidewalk at south end of drop off is heaving slightly. Monitor for future movement.
	15	Sidewalk near sunken patio is severely cracked and chipping. Replace ~12'x8'.
	16	Pedestrian access ways on north end of parking lot do not have tactile strips.
	17	Pavement at dropoff is in okay shape. There is a stress crack at curve. Suggest replacement with concrete.
	18	Trench drains are full of debris and should be cleaned out.
	19	Colored concrete path from Lot 1 to Main Entry shows signs of heaving, but is in okay shape.
Lot 2	20	Lot 2 area is under ER ramp and appears too steep to meet ADA requirements, but has ADA Parking Stalls.
	21	No van stalls are striped in Lot 2. Also, the slopes are too steep for ADA and there doesn't appear to be an ADA route to the MC.
	22	Pedestrian access ways do not have tactile strips.
	23	Spiral stairs from Lot 2 to ER ramp have been shut down for structural reasons.
	24	Concrete at patio area on north side of building showing signs of wear. Appears to have been ground down due to heaving panels.
	25	Concrete at timber stairs leading down towards 28th Avenue have heaved and should be replaced.
	26	Rock mulch under ramp at timber stairs show signs of erosion and the area should be reviewed for drainage issues and rock mulch replaced.
	27	Concrete at east end of Lot 2 is in bad shape and should be replaced. Curb leaving the lower building parkng is also chipped and should be replaced.
	28	Trench drain at bottom of Lot 2 should be cleaned out.
Lot 3	29	Landscape area adjacent to Level 3 of the parking garage appears to drain toward the structure. Consider revising this drainage pattern.
	30	Covered stair exists on east side of Parking Ramp (Lot 3) in okay shape.
	31	Curb at entry to Level 3 has deteriorated and should be replaced.
Lot 4	32	Lot 4 pavement is concrete and starting to show signs of distress. The pavement has patched areas and will need to be replaced eventually.
	33	Accessible stalls are not striped properly. The access aisles are missing and no van accessible stalls are available. Recommend restriping.
	34	A short sidewalk connects Lot 4 with the BTNRH parking area south of their building that exceeds ADA slopes. However, it does not connect to a sidewalk system.
Lot 5	35	Concrete is deteriorating with several patched areas. Pavement should be replaced eventually.
	36	Appears that the BTNRH drains to this lot.
	37	Roads between Lot 4 & 5 are spalling and will need to be replaced.
	38	Pedestrian access ways do not have tactile strips.
Lot 6	39	An existing house occupies land between parking lot 4 and the loading dock.
	40	The loading dock parking lot (Lot 6) is concrete that has been patched and shows signs of spalling.
	41	Area drain in loading dock area had standing water. Recommend cleaning out structures.
	42	Pedestrian access ways do not have tactile strips.
Lot 7	43	Curb along road at Lot 7 should be repainted.
	44	Concrete pavement is showing signs of wear. It has been patched due to utility trenching.
	45	East slope from patio is steep. Signs of erosion in spots with tree root systems exposed. Slope should be monitored for movement and bare spots repaired.
	46	Three locations of draintile daylight through slope and appears to be crushed and full of debris. Pipe should be cleaned and repaired.
Patio	47	Concrete is in ok shape. Several areas of previous heaving have been ground down to alleviate tripping hazards. Area should be monitored for movement.
	48	Evidence of erosion at both sets of stairs to the patio area. Drainage should be reviewed and slope repaired.
	49	Trees have been planted in patio area and at the top of the slope and are quite mature. Trees should be pruned regularly and monitored.
Lot 9	50	Pavement has been overlaid and will need to be replaced at some point.
	51	Retaining wall on west end has no handrailing and exceeds the 42" height.
	52	Pedestrian access ways do not have tactile strips.
	53	Storm inlet at the northwest corner has broke and started to sink. This will need to be replaced.

Omaha VA Hospitals Facility Condition Comparison

	West Façade	South Façade	East Façade	North Façade	High Roof areas	Courtyard areas	Notes
Masonry Veneer Exterior Walls	C+	C+	C+	C+	NA	NA	
Exterior Metal Panels	C	C	C	C-	NA	NA	
Exterior Windows/Storefront/Curtain Wall	C	C	C	C	NA	NA	
Exterior Doors	C	C	C	C-/D-	NA	NA	
Exterior Overhead Doors	C	C	C	B/F	NA	NA	
Dock Equipment	C	C	C	C	NA	NA	
Masonry Veneer Planters	D	NA	NA	NA	NA	NA	
Exterior Canopies	C-	NA	NA	NA	NA	NA	
Revolving Door	C-	NA	NA	NA	NA	NA	Revolving door will not function for VA clientelle
Elevated ED access ramps and platform	NA	NA	NA	C/F	NA	NA	Repair is scheduled for spalled platform concrete and ramp abutments
Roofing systems	NA	NA	NA	NA	B	C-	Courtyard roof areas (IRMA type) have had regular instances of leakage
Roof flashing and coping	NA	NA	NA	NA	C-	C-	

Remarks

1. Masonry deterioration at entry planters (D)
2. Metal panels on north façade at louvers are in poor condition (C-)
3. Aluminum windows are approaching maximum life span (C)
4. Some exterior doors require replacement (D)
5. Overhead doors below vehicle ramp have failed (F)
6. Loading dock area is sprinkled (information)
7. An EIFS finished exterior add on exists on the south side. This will not meet the required building construction type (d)
8. Front entry concrete beams and masonry pilasters show evidence of water intrusion and freeze/thaw damage
9. Acrylic coating on exterior walls at MRI building is delaminating (D)
10. Vehicle ramp grade bearing has deteriorated significantly (F)
11. Rusty metal panels and exterior doors are visible on the 1M level exit discharge along the north façade (D)
12. Rusty metal panels and louvers are visible on the 1 Floor along the north façade (D)
13. Water damage along the north wall from parapet water intrusion is visible along the north façade (D)
14. Rust and spalling of brick is visible at the north end of the east façade (D)

15. Exit stair #5 discharge door on Second Floor is in poor conditino (D)
16. A survey of the condition of the parking structure northwest of the hospital building is advised
17. A survey of the exterior brick veneer and the sealant joints is advised
18. The exterior CIP concrete stair extending from the ambulance/heliport level to grade has been closed due to deterioration (F)

Omaha VA Hospitals Facility Condition Comparison

	Plant Operations	Food Service / Kitchen	Receiving	Central Supply	Mail	Linen	Sterile Processing	Medical Staff Services	HIM/ Medical Records	Accounts Payable	CU	Public Spaces (60%)	Public Spaces (40%)
Finish Quality - general	C	C-	C-	C	C	C-	C	B	B	B	C	C	C-
Finish Quality - flooring, base	C	C-	C-	C	C	C-	C	B	B	B	C	C	C-
Finish Quality - walls	C	C-	C-	C	C	C-	C	B	B	B	C	C	C-
Finish Quality - ceilings	C	C-	C-	C	C	C-	C	B	B	B	C	C	C-
Finish Quality - doors	C	C-	C-	C	C	C-	C	B	B	B	C	C	C-
Fixed Equipment - Casework (general)	C	C-	C-	C	C	C-	C	B	B	B	C	C	C-
Fixed Equipment - Coolers	NA	C-	C-	NA	NA	C-	NA	NA	NA	NA	NA	NA	C-
Fixed Equipment - Scullery/Dish Wash	NA	C-	C-	NA	NA	C-	NA	NA	NA	NA	NA	NA	C-
Fixed Equipment - Prep Equipment	NA	C-	C-	NA	NA	C-	NA	NA	NA	NA	NA	NA	C-
Fixed Equipment - Sterilizers (CPD)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fixed Equipment - Cart Wash (CPD)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessibility - doors (hardware)	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-
Accessibility - interior route (corridors)	B	B	B	B	B	B	B	B	B	B	B	B	B
Accessibility - interior route (elevators)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessibility - public/staff toilets	C-	C-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessiblity - patient rooms (toilets)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessiblity - patient rooms	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessibility - signage and wayfinding	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-

Remarks

1. Have had past issue w/ water leakage into Medical Staff Services and HIM Medical Records from plaza above
2. Verify that cooler doors unlatch from the inside

CUMC Arch. Assessment - First Floor Mezzanine

December 19, 2014

U.S. Department of Veterans Affairs

BWBR Commission No. 3.2014249.00

Omaha VA Hospitals Facility Condition Comparison

	Exit Passages
Finish Quality - general	C
Finish Quality - flooring, base	C
Finish Quality - walls	C
Finish Quality - ceilings	C
Finish Quality - doors	C
Fixed Equipment - Casework (general)	NA
Fixed Equipment - Casework (nurse station)	NA
Accessibility - doors (hardware)	C-
Accessibility - interior route (corridors)	B
Accessibility - interior route (elevators)	C-
Accessibility - public/staff toilets	NA
Accessiblity - patient rooms (toilets)	NA
Accessiblity - patient rooms	NA
Accessibility - signage and wayfinding	C-

Omaha VA Hospitals Facility Condition Comparison

	MRI	Rehab Services (North)	Rehab Services (South)	Radiation Oncology	ACC Hem/Onc	Mammography	Hospital Administration	Atrium Conference Room	Credit Union	Admitting and PAC	Pre-Evaluation Clinic	ACC Ortho 60%	ACC Ortho 40%	OR Business Office	CU	GME	Staff Lockers	Nurse and Admin Education
Finish Quality - general	C	B	B	B	A	B	C	C	B	C	B	A	C	C	B	A	C	B/C
Finish Quality - flooring, base	C	B	B	B	A	B	C	C	B	C	B	A	C	C	B	A	C	B/C
Finish Quality - walls	C	B	B	B	A	B	C	C	B	C	B	A	C	C	B	A	C	B/C
Finish Quality - ceilings	C	C	C	B	A	B	C	C	B	C	B	A	C	C	B	A	C	B/C
Finish Quality - doors	C	C	B	C	A	C	C	C	C	C	C	A	C	C	C	A	C	B/C
Fixed Equipment - Casework (general)	C	C	B	B	A	B	C	C	B	C	B	A	C	C	B	A	C	B/C
Fixed Equipment - Casework (nurse station)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fixed Equipment - Casework (lab)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fixed Equipment - Hoods (lab)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fixed Equipment - Servery	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessibility - doors (hardware)	B	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-
Accessibility - interior route (corridors)	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Accessibility - interior route (elevators)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessibility - public/staff toilets	NA	A	B	A	C-	NA	NA	NA	NA	C-	NA	C-	C-	NA	NA	NA	NA	NA
Accessiblity - patient rooms (toilets)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessiblity - patient rooms	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessibility - signage and wayfinding	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-

	CU/CME	Quality	Morrison Seminar Room	Gift Shop	Pastoral Care	CU Pharmacy	CUMC Cancer Center	Security Office	Lab	Pulmonary Rehab	Staff Fitness Center	Teaching Office	Nursing Education	Meeting Rooms (East)	Meeting Rooms (West)	Servery	Dining Room	Public Spaces
Finish Quality - general	C	C	C	B	B	C	C+	B	C	B	C	B	C	B	C	A	A	C
Finish Quality - flooring, base	C	C	C	B	B	C	C+	B	C	B	C	B	C	B	C	A	A	C
~~Finish Quality - walls~~	C	C	C	B	B	C	C+	B	C	B	C	B	C	B	C	A	A	C
Finish Quality - ceilings	C	C	C	B	B	C	C+	B	C	B	C	B	C	B	C	A	A	C
Finish Quality - doors	C	C	C	C	C	C	C+	C	C	C	C	C	C	C	C	A	A	C
Fixed Equipment - Casework (general)	C	C	C	B	B	C	C+	B	C	B	C	B	C	B	C	A	A	C
Fixed Equipment - Casework (nurse station)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fixed Equipment - Casework (lab)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fixed Equipment - Hoods (lab)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fixed Equipment - Servery	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	A	NA	NA
Accessibility - doors (hardware)	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	D	NA	NA	C-
Accessibility - interior route (corridors)	B	B	B	B	B	B	B	B	B	B	B	B	B	B	D	A	A	B
Accessibility - interior route (elevators)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	C-
Accessibility - public/staff toilets	C-	NA	NA	NA	NA	C-	B	NA	NA	NA	C-	NA	NA	NA	NA	NA	NA	B
Accessiblity - patient rooms (toilets)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessiblity - patient rooms	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessibility - signage and wayfinding	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-

Omaha VA Hospitals Facility Condition Comparison

	Surgery	Pre/Post OP	ICU	ED/Trauma	Cath/EP Lab	Respiratory Therapy	Radiology	Trauma/ Admin	ICU Surgery Waiting	Office Space	CU Dept of Surgery Administration	ACC Surgery	Esophageal Lab	ACC Pulmonary	PFT Lab	Vascular Lab	Public Spaces
Finish Quality - general	C	B	C-	C	C	C-	C-	A	C-	A	A	B	B+	C	C	C	B
Finish Quality - flooring, base	C	B	C-	C	C	C-	C-	A	C-	A	A	B	B+	C	C	C	B
Finish Quality - walls	C	B	C-	C	C	C-	C-	A	C-	A	A	B	B+	C	C	C	B
Finish Quality - ceilings	C	B	C-	C	C	C-	C-	A	C-	A	A	B	B+	C	C	C	B
Finish Quality - doors	C	B	C-	C	C	C	C-	A	C-	A	A	B	B+	C	C	C	C
Fixed Equipment - Casework (general)	C	C-	F	D	C-	F	C/D	A	C-	A	A	B	B+	C	C/D	F	B
Fixed Equipment - Casework (nurse station)	C	C	F	D	C-	NA	C/D	A	C-	A	A	NA	NA	NA	NA	NA	NA
Fixed Equipment - Surgical Equipment	B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fixed Equipment - ED Exam Lights	NA	NA	NA	B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessibility - doors (hardware)	C-	B-	C-	B-	C-	C-	C-	B	C-	B	B	B	B	C	C-	C-	B
Accessibility - interior route (corridors)	B	B	B	B	B	B	B	A	B	A	A	A	A	B	B	B	A
Accessibility - interior route (elevators)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	C-
Accessibility - public/staff toilets	C-	C-	C-	B	C-	C-	C-	NA	C-	NA	C-	B	B	C-	NA	C-	B
Accessiblity - patient rooms (toilets)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessiblity - patient rooms	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Accessibility - signage and wayfinding	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-

Omaha VA Hospitals Facility Condition Comparison

	Inpatient Pharmacy	Information Services	Public Spaces	Remarks
Finish Quality - general	B	B	D	
Finish Quality - flooring, base	B	B	D	
Finish Quality - walls	B	B	D	
Finish Quality - ceilings	B	B	D	
Finish Quality - doors	B	B	C	
Fixed Equipment - Casework (general)	B	B	NA	
Fixed Equipment - Casework (Pharmacy)	B	B	NA	
Fixed Equipment - Hoods (Pharmacy)			NA	Hoods not reviewed in pharmacy
Accessibility - doors (hardware)	C-	C-	C-	
Accessibility - interior route (corridors)	B	B	B	
Accessibility - interior route (elevators)	NA	NA	C-	
Accessibility - public/staff toilets	NA	NA	C-	
Accessiblity - patient rooms (toilets)	NA	NA	NA	
Accessiblity - patient rooms	NA	NA	NA	
Accessibility - signage and wayfinding	C-	C-	C-	

Remarks

1. Not all spaces on this level were reviewed

Omaha VA Hospitals Facility Condition Comparison

	Clinic - ACC Cardio, OB/GYN (North 75%)	Clinic - ACC Cardio, OB/GYN (South 25%)	Clinic - Public Spaces	Unit - 4100 and Support	Unit - 4200 and Support	Unit - 4300	Unit - 4400	Unit - 4500	Unit - 4600	Unit - NICU and Support	Hospital - Public Spaces
Finish Quality - general	A	C-	B	B	C	C	B	B	B	C	C
Finish Quality - flooring, base	A	C-	B	B	C	C	B	B	B	C	B/C
Finish Quality - walls	A	C-	B	B	C	C	B	B	B	C	B/C
Finish Quality - ceilings	A	C-	C	B	C	C	B	B	B	C	C
Finish Quality - doors	A	C-	C	B	C	C	B	B	B	C	C
Fixed Equipment - Casework (general)	A	C-	NA	B	C	C	B	C	B	C	C
Fixed Equipment - Casework (nurse station)	A	C-	NA	B	C	C	B	C	B	C	NA
Accessibility - doors (hardware)	B	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-
Accessibility - interior route (corridors)	B	B	B	B	B	B	B	B	B	B	B
Accessibility - interior route (elevators)	NA	NA	C-	NA	NA	NA	NA	NA	NA	NA	C-
Accessibility - public/staff toilets	C-	C-	B+	C-	C-	C-	C-	C-	C-	C-	C-
Accessiblity - patient rooms (toilets)	NA	NA	NA	A	C-	C-	A	A	A	C-	NA
Accessiblity - patient rooms	NA	NA	NA	A	C-	C-	A	A	A	C-	NA
Accessibility - signage and wayfinding	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-

BWBR

Omaha VA Hospitals Facility Condition Comparison

BWBR Commission No. 3.2014249.00 R Commission No. 3.2014249.00

	Clinic - CU Research	Clinic - ACC Int Med (North)	Clinic - Endo	Clinic - ACC Int Med (South)	Clinic - Public Spaces	Unit - 5100	Unit - 5200 and Support	Unit - 4500	Unit - 4600	Unit - NICU and Support	Hospital - Public Spaces	Hospital - Public Spaces	Remarks
Finish Quality - general	A	A	C-	B+	B	C	B	B	B	C-	B	C	
Finish Quality - flooring, base	A	A	C-	B+	B	C	B	B	B	C-	B	B/C	
Finish Quality - walls	A	A	C-	B+	B	C	B	B	B	C-	B	B/C	
Finish Quality - ceilings	C	C	C	C	C	C	C	B	C	C	C	C	
Finish Quality - doors	C	C	C	C	C	C	C	C	C	C	C	C	
Fixed Equipment - Casework (general)	A	A	C-	B+	NA	C	B	B	B	C-	B	C	
Fixed Equipment - Casework (nurse station)	NA	NA	NA	NA	NA	C	B	B	B	C-	B	NA	
Accessibility - doors (hardware)	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	Lever hardware not provided
Accessibility - interior route (corridors)	B	B	B	B	B	B	B	B	B	B	B	B	
Accessibility - interior route (elevators)	NA	NA	NA	NA	C-	NA	NA	NA	NA	NA	NA	C-	
Accessibility - public/staff toilets	C-	C-	C-	C-	B+	C-	NA	C-	C-	C-	C-	C-	
Accessiblity - patient rooms (toilets)	NA	NA	NA	NA	NA	C-	A	NA	A	C-	C-	NA	
Accessiblity - patient rooms	NA	NA	NA	NA	NA	C-	A	NA	A	C-	C-	NA	Accessible patient toilet not provided in all units
Accessibility - signage and wayfinding	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	C-	Accessible signage not provided

Omaha VA Hospitals Facility Condition Comparison

	Clinic - CU Research	Clinic - CU/ACC Family Med (North)	Clinic - CU/ACC Family Med (South)	Clinic - CU Childrens	Clinic - Public Spaces
Finish Quality - general	C-	B-	A	A	B
Finish Quality - flooring, base	C-	B-	A	A	B
Finish Quality - walls	C-	B-	A	A	B
Finish Quality - ceilings	C-	B-	A	A	B
Finish Quality - doors	C-	B-	A	A	B
Fixed Equipment - Casework (general)	C-	C-	A	B-	NA
Fixed Equipment - Casework (nurse station)	NA	NA	NA	NA	NA
Accessibility - doors (hardware)	C-	C-	C-	C-	C-
Accessibility - interior route (corridors)	B	B	B	B	B
Accessibility - interior route (elevators)	C-	C-	C-	C-	C-
Accessibility - public/staff toilets	C-	C-	C-	C-	B
Accessiblity - patient rooms (toilets)	NA	NA	NA	NA	NA
Accessiblity - patient rooms	NA	NA	NA	NA	NA
Accessibility - signage and wayfinding	C-	C-	C-	C-	C-

Remarks

1. Animal research has taken place on this floor in the past. Some mechanical equipment to support this remains.

Omaha VA Hospitals Facility Condition Comparison

System	1st Floor	1st Floor Mezzanine	2nd Floor	3rd Floor	3rd Floor Mezzanine	4th Floor	5th Floor	6th Floor	Remarks
District Energy Plant	C	NA	NA	NA	B	NA	NA	NA	District Energy is provided by Energy Systems Company. District energy is gridded system with multiple utility plants; however only one service is provided to the facility.
Heating Hot Water Heat Exchanger System	C	NA	NA	NA	C	NA	NA	NA	Heat exchangers are original equipment but fully redundant systems.
Chilled Water Pumping System	B	NA	NA	NA	NA	NA	NA	NA	Chilled water pumps are original equipment but completely rebuilt. Pumps are fully redundant systems.
Heating Hot Water Distribution System	C	C	C	C	C	C	C	C	Heating hot water piping is original equipment but has not exhibited any significant system failures.
Chilled Water Distribution System	C	C	C	C	C	C	C	C	Chilled water piping is original equipment but has not exhibited any significant system failures.
Domestic Hot Water Generation	C	NA	NA	NA	NA	NA	NA	NA	Domestic heat exchangers are original equipment but fully redundant systems. A gas fired boiler is available to back up the steam-to-water heat exchangers.
Domestic Hot Water Piping System	C	C	C	C	C	C	C	C	Domestic hot water piping is original equipment but has not exhibited any significant system failures.
Domestic Hot Water Recirculation Piping	C	C	C	C	C	C	C	C	Domestic hot water recirculation piping is original equipment but has not exhibited any significant system failures.
Domestic Cold Water Piping System	C	C	C	C	C	C	C	C	Domestic cold water piping is original equipment but has not exhibited any significant system failures.
Sanitary Piping System	D	D	D	D	D	D	D	D	Galvanized steel piping is original equipment and has developed leaks. Approximately 40% of the piping has been replaced where accessible, but remaining piping will require replacement in ceilings and inaccessible areas.
Storm Piping System	D	D	D	D	D	D	D	D	Galvanized steel piping is original equipment and has developed leaks. Approximately 40% of the piping has been replaced where accessible, but remaining piping will require replacement in ceilings and inaccessible areas.
Air Handling Unit Condition	C	NA	NA	NA	C	NA	NA	NA	Forty two (42)units are original equipment. Three units serving Operating rooms were replaced in 2007. Remaining units should be upgraded with redundant modular fan systems, new hot water and chilled water coils, electronic controls, and remove sound attenuators
Air Distribution System	C	C	C	C	C	D	D	D	Air distribution system is original equipment but has not exhibited any significant system failures. Patient care areas lack a return duct system.
Humidification	D	NA	NA	NA	D	NA	NA	NA	Approximately 40% of the original humidifiers have failed and been replaced with Carel humidifiers The remaining units should be replaced as they fail.

Terminal Units	C	C	C	C	C	C	C	C	Terminal units are original equipment but has not exhibited any significant system failures. Existing pneumatic controllers should be replaced with electronic controls.
Building Management Controls									Upgrade HVAC systems operated by the legacy Staefa building management system to the Siemens Apogee system and replace remaining pneumatic controllers with new electronic controls
Medical Gas Storage	NA	NA	NA	NA	B	NA	NA	NA	Storage systems have been upgraded recently.
Medical Gas Distribution	C	C	C	C	C	C	C	C	Medical gas systems are original equipment but have not exhibited any significant system failures. Distribution system is undersized for current requirements.
Medical Gas Terminations	NA	NA	NA	B	NA	B	B	B	New gas terminations have been provided in patient rooms. Piping is sized for future capacity.
Fire Protection Pumping System	C	NA	NA	NA	NA	NA	NA	NA	Fire pump and controller are original equipment and tested as required.
Fire Protection Distribution System	C	C	C	C	C	C	C	C	Fire protection piping is original equipment but has not exhibited any system failures.

Omaha VA Hospitals Facility Condition Comparison

Electrical	Condition	Remarks
Electrical Closets	D	Existing FPE panelboards are obsolete
Telecom closets and rooms	B	The main TC room has raised floor and CRAC units; intermediate rooms have adequate ducted ventilation/cooling
Emergency Electrical Distribution Systems	D	Two 900 kW generators, original ATS's, feeders, motor control centers panelboards and associated feeders are
Emergency Switchboard	D	Switchboard has been replaced with Cutler Hammer brand. Is not located in a Level 1 location and does not
Separation of Branches	B/D	Required branch separation has been reviewed and corrected per the NE State Fire Marshals office review /
Exit signs	D	Exits signs are not LED type.
Normal switchboard GFP	F	The main normal switchboard does not have two (2) levels of ground fault protection
Patient bed location requirements	D	Receptacles and dedicated branch circuits need to be added and labeled at critical care patient headwalls.
OR Isolated (Ungrounded, UG) power panels and LIM's	B	UG panels and LIM's have been replaced.
Generator serve multiple buildings		The adjacent Boys Town National Research Hospital currently fed from the CUMC generators will need to be
Fire alarm	C/D	The existing Siemens MXL system is viable / Could not locate required smoke detectors in dining area.
Lighting	C	
Lightning Protection	D	Perform risk assessment per NFPA 780.
Nurse Call	D	Rauland Responder IV
Overhead paging (Intercom)	D	There is no standalone overhead paging system. The fire alarm system speakers are used for emergency
TV	B	
Security: door access control	B	At perimeter doors.
Security: Cameras and recorders	B	At selected locations
Normal Electrical Distribution Systems	D	15 kV switchgear, Unit substations/distribution switchboards, feeders, motor control centers, panelboards and
Unit sub transformers	D	Obsolete part of FPE unit sub stations
Telephone and data distribution	B	
Primary service	C	The facility is served from an OPPD 15 kV ATO with primary metering. This ATO has significntly reduced the
Primary switchgear	D	Located in same room as emergency systems. Original S&C 15 kV gear. Two cubicals serve the Boystown National
Site Lighting	C	
Site Security	C	Cameras only
Telephone service	D	Nortel Meridian and old switch

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CUMC Structural Assessment - Main Building

December 19, 2014

U.S. Department of Veterans Affairs

BWBR Commission No. 3.2014249.00

Omaha VA Hospitals Facility Condition Comparison

BUILDING	SUBSYSTEM ID	CONDITION	USEFUL LIFESPAN	REMAINING LIFE	CORRECTION COST	DESCRIPTION
STRUCTURAL COMPONENTS						
Main Building	Foundations	B	100	60		Conventional concrete spread footings at northwest quadrant of building.
Main Building	Foundations	B	100	60		Piles with concrete pile caps and grade beams at remainder of building.
Main Building	Vertical	B	100	60		Steel wide flange columns
Main Building	Floor Systems	C	100	60		Concrete slab on grade at first level. Condition "C" at interior parking garage. Concrete weathering, spalling and cracking observed in parking garage area. Slab repairs are advised. Remainder of Interior slab on grade considered "B" condition.
Main Building	Floor Systems	B	100	60		Steel wide flange girders and junior beams supporting 3" composite metal deck plus 4 3/16" concrete slab (7 3/16" total thickness). Typical at all levels except 3M.
Main Building	Floor Systems	B	100	60		Concrete encased steel wide flange girders and junior beams supporting 8" thick reinforced one-way concrete slab at level
Main Building	Wind / Seismic	B	*	*		Low Seismicity area per VA criteria. No seismic requirements. Lateral system consists of Steel Moment Frames.

BWBR

CUMC Structural Assessment - NICU Addition

December 19, 2014

U.S. Department of Veterans Affairs

BWBR Commission No. 3.2014249.00

Omaha VA Hospitals Facility Condition Comparison

BUILDING	SUBSYSTEM ID	CONDITION	USEFUL LIFESPAN	REMAINING LIFE	CORRECTION COST	DESCRIPTION
STRUCTURAL COMPONENTS						
NICU Addition	Foundations	B	72	60		New addition bears on existing main building roof. Floor construction consists of steel I-beams spanning over existing roof slab.
NICU Addition	Vertical	B	72	60		Steel wide flange columns
NICU Addition	Floor Systems	B	72	60		Concrete slab over I-beams, supported by existing main building roof structure.
NICU Addition	Wind / Seismic	B	*	*		Low Seismicity area per VA criteria. No seismic requirements. Lateral system provided by attachment of new roof structure to existing main

BWBR

CUMC Structural Assessment - Emergency Entrance Ramp

December 19, 2014

U.S. Department of Veterans Affairs

BWBR Commission No. 3.2014249.00

Omaha VA Hospitals Facility Condition Comparison

BUILDING	SUBSYSTEM ID	CONDITION	USEFUL LIFESPAN	REMAINING LIFE	CORRECTION COST	DESCRIPTION
STRUCTURAL COMPONENTS						
Emer. Entrance Ramp	Foundations	C	60	23		Conventional concrete spread footings, 3000 psf soil bearing capacity.
Emer. Entrance Ramp	Vertical Members	C	60	23		Concrete covered steel wide flange columns. Cracks in column covers. Further investigation is advised.
Emer. Entrance Ramp	Floor Systems	D	60	1		Concrete covered steel wide flange girders and beams supporting slab 9" thick one-way concrete slab. Cracks, spalling and corroded beam steel observed along underside of slab system at three beam locations, and various locations at slab. Repairs are needed within one year to restore to "C"
Emer. Entrance Ramp	Wind / Seismic	B	*	*		Low Seismicity area per VA criteria. No seismic requirements. Lateral system consists of Steel Moment

BWBR

CUMC Structural Assessment - Parking Ramp

December 19, 2014

U.S. Department of Veterans Affairs

BWBR Commission No. 3.2014249.00

Omaha VA Hospitals Facility Condition Comparison

BUILDING	SUBSYSTEM ID	CONDITION	USEFUL LIFESPA	REMAINING LIFE	CORRECTION COST	DESCRIPTION
STRUCTURAL COMPONENTS						
Parking Ramp	Foundations	C	60	23		Conventional concrete spread footings, 3000 psf soil bearing capacity.
Parking Ramp	Vertical	C	60	23		Concrete columns
Parking Ramp	Floor Systems	C	60	23		Concrete slab on grade at first level. Concrete heaving and settling at column isolations joints were observed. Replacement / repair of damaged slab on grade is advised.
Parking Ramp	Floor Systems	C	60	23		Post-tensioned beams and slab at main and upper levels. Weathered deck coating and some surface delamination observed. New deck coatings and deck patching repairs are advised.
Parking Ramp	Wind / Seismic	B	*	*		Low Seismicity area per VA criteria. No seismic requirements. Lateral system consists of Concrete Moment Frames.
Parking Ramp	Soil Retention	C	60	23		Concrete retaining wall along south end of parking structure. Spalling of concrete observed at inside face of wall. Wall repairs are advised.

BWBR

Omaha VA Hospitals Facility Condition Comparison

	Elevator 2 Northwest	Elevator 3 Southwest	Elevator 5 West Middle	Elevator 6 West Middle	Elevator 8 East Middle	Elevator 9 East Middle	Elevator 11 Northeast	Elevator 12 Southeast	Elevator 14	Elevator 17	Elevator 19
INSTALL/MODERNIZATION YEAR	1977	1977	1977	1977	1977	1977	2014	2014	2012	2013	1977
USE LIFESPAN	D	D	D	D	D	D	A	A	A	A	D
CONTROLLER	D	D	D	D	D	D	A	A	B	A	D
MACHINE	D	D	D	D	D	D	A	A	A	A	B
FIXTURES	D	D	D	D	D	D	A	A	A	A	C
DOOR EQUIPMENT	D	D	D	D	D	D	A	A	A	A	C
FIRE SERVICE	C	C	C	C	C	C	A	A	A	A	C
INTERIORS	C	C	C	C	C	C	A	A	A	A	C
ADA	B	B	B	B	B	B	A	A	A	A	D
BUILDING CONDITION FOR MODERNIZATION	C	C	C	C	C	C	N/A	N/A	N/A	N/A	B
TRAFFIC IN CURRENT STATE	B	B	C	C	C	C	B	B	B	B	B
ESTIMATED TRAFFIC AT FULL CAPACITY	C	C	D	D	D	D	C	C	C	C	B
Overall Condition	**D**	**D**	**D**	**D**	**D**	**D**	**A**	**A**	**A**	**A**	**C**

Comments	
INSTALL/MOD YEAR	Elevators 2 though 9 and 19 have were built in 1977 and are original. Elevators 11,12,14,and 17 have been modernized.
USE LIFESPAN	Elevators 2 through 9 have reached the end of their useful lifespan and are in need of machine and controller modernization. Elevators 11,12,14 and 17 have been recently modernized and are in good condition. Elevator 19 is a hydraulic unit with new a new power unit but old controller.
CONTROLLER	Elevators 2 through 9 have original Dover controllers which are in need of modernization. Elevators 11,12,14, and 17 have been modernized and are in good condition.
MACHINE	Elevators 2 through 9 have original Dover machines and are in need of modernization. Elevators 11.12, 14 and 17 have been modernized with new Hollister Whitney machines..
FIXTURES	Elevators 2 through 9 have functional fixtures but would be replaced with modernization. Elevators 11,12,14 and 17 have newer fixtures as they were modernized.
DOOR EQUIPMENT	Elevators 2 through 9 and 19 have original door operators Elevators 11,12,14,and 17 door operators have been modernized.
FIRE SERVICE	Elevator 2 through 9 and 19 have phase 1 and 2 fire service but it is not behind a locked panel and accessible with one key per current Nebraska state code. Elevator 11, 12 14 and 17 are per current code in regards to fire service.
INTERIORS	Elevator 2 through 9 have average car interiors for the age. Elevators 11,12, 14 and 17 have been modernized with panels and ceilings. Elevator 19 is a metal cab in fair condition.
ADA	All cars but 19 meet ADA requirements besides 19 has an emergency phone which is not at ADA height.
BUILDING CONDITION FOR MODERNIZATION	Elevators 2 and 3 share a machine as well as 5 through 9. There are items not related to the elevators in these rooms so work would be needed to bring them up to state code if modernized. Elevators 11, 12,14 and 17 have been modernized and machine rooms updated. Elevator 19 is a hydraulic unit with minimal upgrades needed to the building for modernization.

Omaha VA Hospitals Facility Condition Comparison

Department	Space Allocation	Size of Key Rooms	Contemporary Design	Key Adjacentcy	Flow/ Effeciency	Technology	Patient Lifts	Comments
Ambulatory Care								
Clinics	A	D	D	B	D	C	F	Majority of space is used for faculty and resident offices
Urgent Care/ED	A	B	B	B	B	B	F	
Inpatient Units								
Medical/Surgical	A	C	C	C	B	C	D	Lifts only in 4 rooms on Ortho Unit
ICU	B	D	F	C	D	F	F	4 units have been renovated with new headwalls and Nurse Station. Toilet rooms and doors are small.
Diagnostic & Treatment								
Cardiovascular Lab	C	C	C	B	C	C	F	
Pathology & Lab Medicine Service	A	A	C	B	C	C	F	
Radiation Therapy	C	B	B	B	B	B	F	
Radiology	C	B	B	B	C	C	F	
Surgery	C	C	C	B	C	C	F	12 ORs. Room sizes range from 385-620 sf. 4 ORs are smaller than 400 sf.
Mental Health/Behavioral Services								
Inpatient	F	F	F	F	F	F	N/A	No mental health facilities at CUMC
PRRTP	F	F	F	F	F	F	N/A	No mental health facilities at CUMC
Day Hospital/Treatment	F	F	F	F	F	F	N/A	No mental health facilities at CUMC
Mental Health Clinic	F	F	F	F	F	F	N/A	No mental health facilities at CUMC
Substance Abuse	F	F	F	F	F	F	N/A	No mental health facilities at CUMC

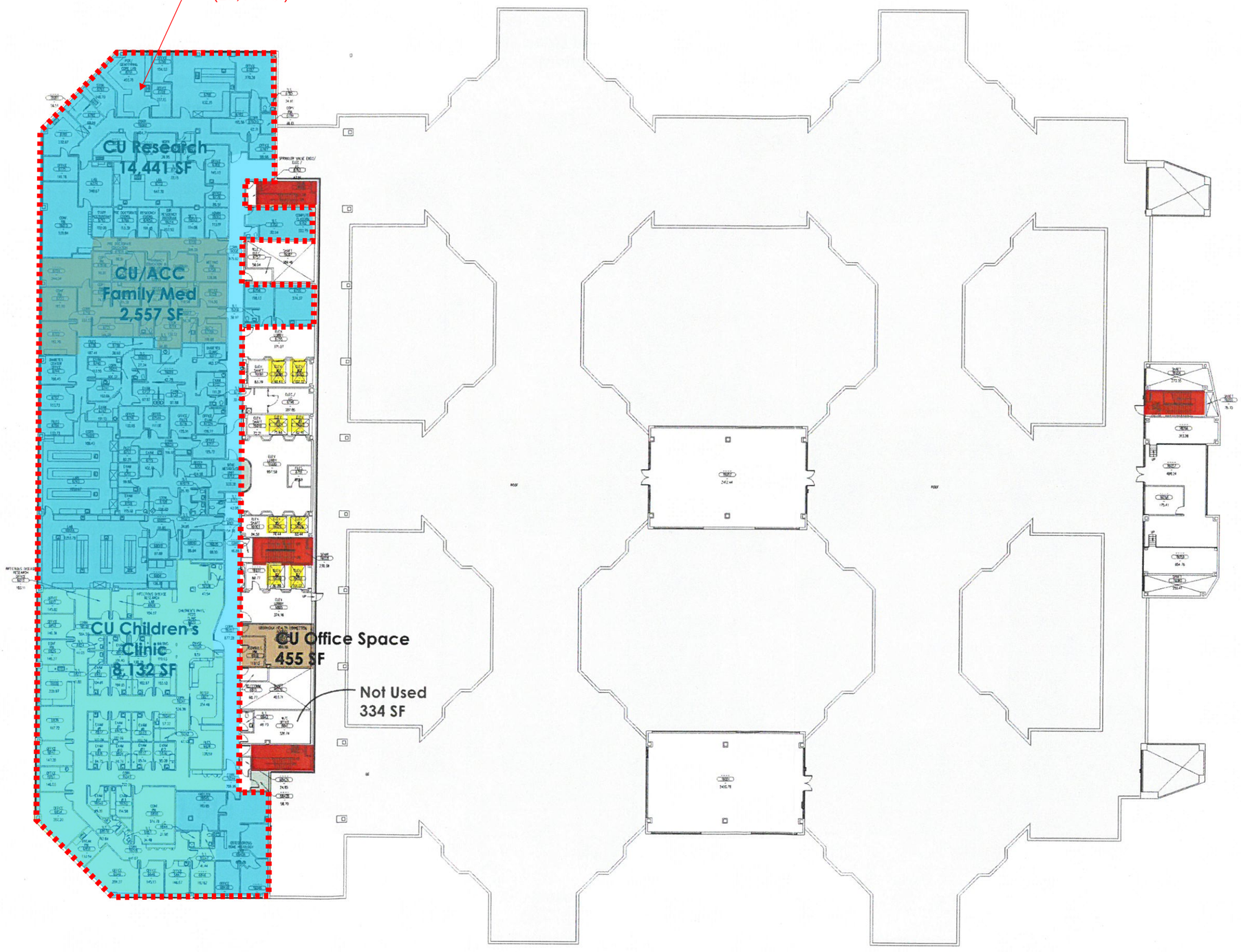
BWBR

Omaha VA Hospitals Facility Condition Comparison

Department	Space Allocation	Size of Key Rooms	Contemporary Design	Key Adjacentcy	Flow/ Effeciency	Technology	Patient Lifts	Comments
Ambulatory Care								
Clinics	C	B	B	B	B	B	NOT OBSERVED	
Urgent Care/ED	B	B	C	B	B	B	B	
Inpatient Units								
Medical/Surgical	C	B	C	C	C	C	B	Many patients rooms are semi-private but size of patient and toilet rooms are reasonable.
ICU	B	C	B	C	B	B	B	
Diagnostic & Treatment								
Cardiovascular Lab	D	C	C	B	C	C	B	
Pathology & Lab Medicine Service	D	C	C	C	C	C	N/A	
Radiation Therapy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Radiology	C	C	B	C	C	A	B	
Surgery	F	F	D	C	C	C	?	7 ORs. Size ranges from 329-544 sf. 5 ORs are smaller than 400 sf.
Mental Health/Behavioral Services								
Inpatient	D	C	C	C	C	N/A	N/A	
PRRTP	D	C	C	C	C	N/A	N/A	
Day Hospital/Treatment	B	NOT OBSERVED	C	C	C	N/A	N/A	
Mental Health Clinic	B	NOT OBSERVED	C	C	C	N/A	N/A	
Substance Abuse	C	NOT OBSERVED	C	C	C	N/A	N/A	

Appendix II

Gut and renovate existing space into new research facilities (25,130 sf)



Alegent - Creighton Health

Creighton Medical Center Master Plan

Omaha, Nebraska

CU Research	14,441 SF
CU/ACC Family Med	2,557 SF
CU Children's Clinic	8,132 SF
CU Office Space	455 SF
Total	**25,585 SF**
Misc. Circulation, Mech. & Exterior Wall	**16,044 SF**
Total Gross	**41,629 SF**

6th Floor

N

0 20 60

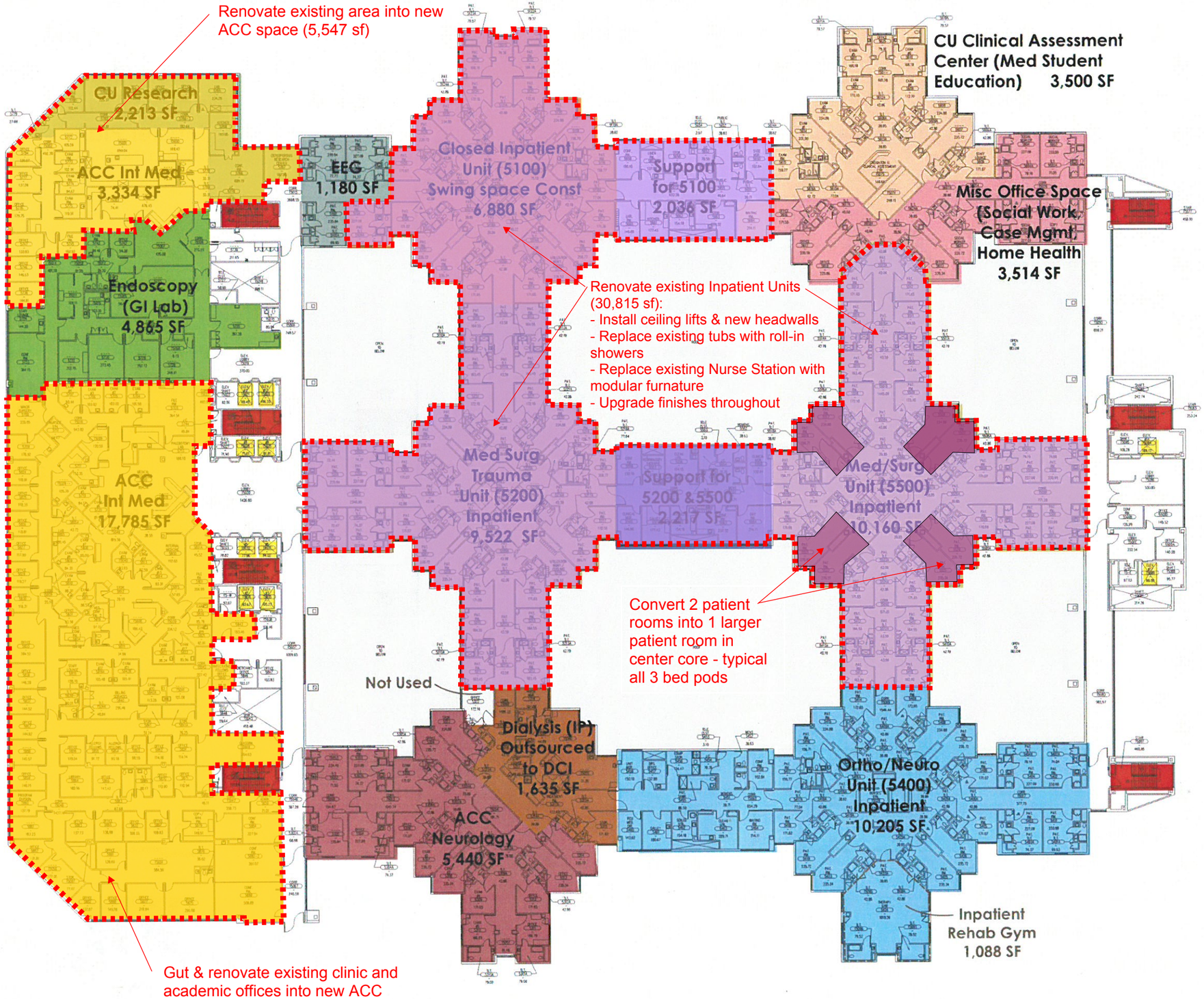
ALTUS architectural studios

CANNONDESIGN

Alegent - Creighton Health

Creighton Medical Center Master Plan

Omaha, Nebraska



CU Research	2,213 SF
ACC Int Med	3,334 SF
Endoscopy (GI Lab)	4,865 SF
ACC Int Med	17,785 SF
EEG	1,180 SF
Closed Inpatient Unit (5100) Swing space Const	6,880 SF
Med Surg Trauma Unit (5200) Inpatient	9,522 SF
ACC Neurology	5,440 SF
Dialysis (IP) Outsourced to DCI	1,635 SF
Support for 5100	2,036 SF
Support for 5200 &5500	2,217 SF
CU Clinical Assessment Center (Med Student Education)	3,500 SF
Misc Office Space (Social Work, Case Mgmt, Home Health	3,514 SF
Med/Surg Unit (5500) Inpatient	10,160 SF
Ortho/Neuro Unit (5400) Inpatient	10,205 SF
Total	**84,486 SF**
Misc. Circulation, Mech. & Exterior Wall	**20,315 SF**
Total Gross	**104,801 SF**

5th Floor

N

0 20 60

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CANNONDESIGN

Gut and renovate existing clinic and academic offices into new ACC space (27,510 sf)

Renovate existing med/surg units into inpatient mental health beds (20,744 sf)

Outdoor recreation area for inpatient mental health (8,215 sf)
- Replace windows in courtyard with laminated glazing

ACC Cardiology OB/GYN Osteoporosis Research 27,510 SF

Coronary Care Unit (4100) Inpatient 9,433 SF

Support for 4100 &4600 2,235 SF

Telemetry Step Down Unit (4600) Inpatient 9,106 SF

Clinical Decision Unit (4200) Procedural Recovery 7,861 SF

Support for 4200 &4600 2,010 SF

Family Birth Center (4500) Post Partum Inpatient 6,975 SF

NICU 6,405 SF

Peds/PICU Currently Closed 6,435 SF

Support for 4400 &4500 & NICU 1,831 SF

Labor & Delivery (4400) 9,725 SF

OR's for Labor & Delivery 1,473 SF

Academic On-Call for OB/GYN 1,865 SF

Renovate existing CDU and NICU into Mental Health Clinic/Day Hospital (15,266 sf)

Renovate into administrative offices (10,165 sf)

~1496 in old antenatal surg space

Renovate existing birthing unit into Mental Health PRRTP beds (19,541 sf)

Alegent - Creighton Health

Creighton Medical Center Master Plan

Omaha, Nebraska

ACC Cardiology OB/GYN Osteoporosis Research	27,510 SF
Coronary Care Unit (4100) Inpatient	9,433 SF
Clinical Decision Unit (4200) Procedural Recovery	7,861 SF
Peds/PICU Currently Closed	6,435 SF
Support for 4100 &4600	2,235 SF
Support for 4200 &4600	2,010 SF
NICU	6,405 SF
Academic On-Call for OB/GYN	1,865 SF
Support for 4400 &4500 & NICU	1,831 SF
Telemetry Step Down Unit (4600) Inpatient	9,106 SF
Family Birth Center (4500) Post Partum Inpatient	6,975 SF
Labor & Delivery (4400)	9,725 SF
Total	**91,391 SF**
Misc. Circulation, Mech. & Exterior Wall	**19,756 SF**
Total Gross	**111,147 SF**

N

4th Floor

0 20 60

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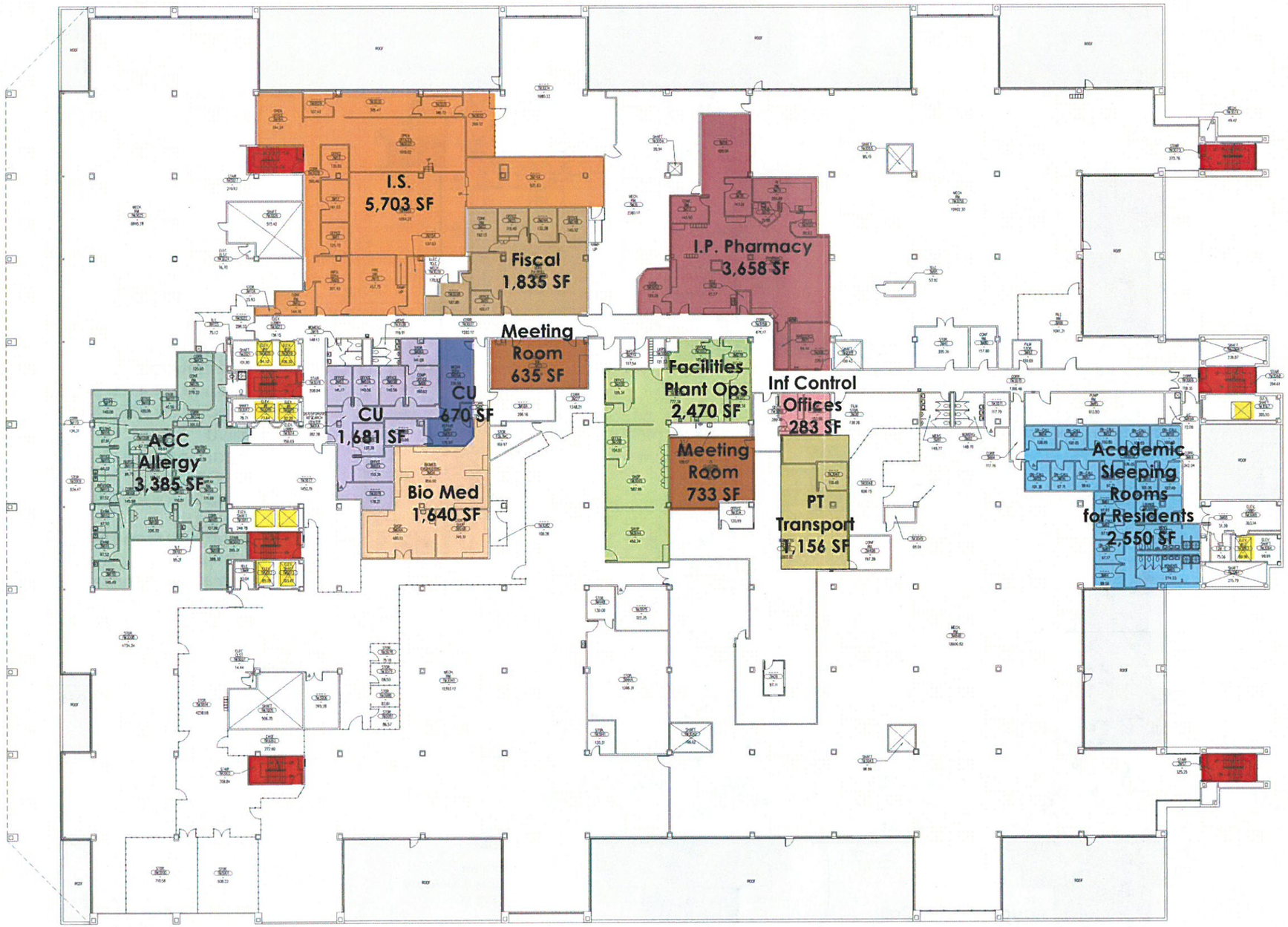
CANNONDESIGN

Creighton Medical Center Master Plan

Omaha, Nebraska



ACC Allergy	3,385 SF
I.S.	5,703 SF
Fiscal	1,835 SF
I.P. Pharmacy	3,658 SF
CU	1,681 SF
CU	670 SF
Bio Med	1,640 SF
Meeting Rooms	1,368 SF
Facilities Plant Ops	2,470 SF
Inf Control Offices	283 SF
PT Transport	1,156 SF
Academic Sleeping Rooms for Residents	2,550 SF
Total	**26,399 SF**
Misc. Circulation, Mech. & Exterior Wall	**93,501 SF**
Total Gross	**119,900 SF**

3rd Floor
Mechanical

N

0 20 60

ALTUS architectural studios

CANNONDESIGN

Alegent - Creighton Health

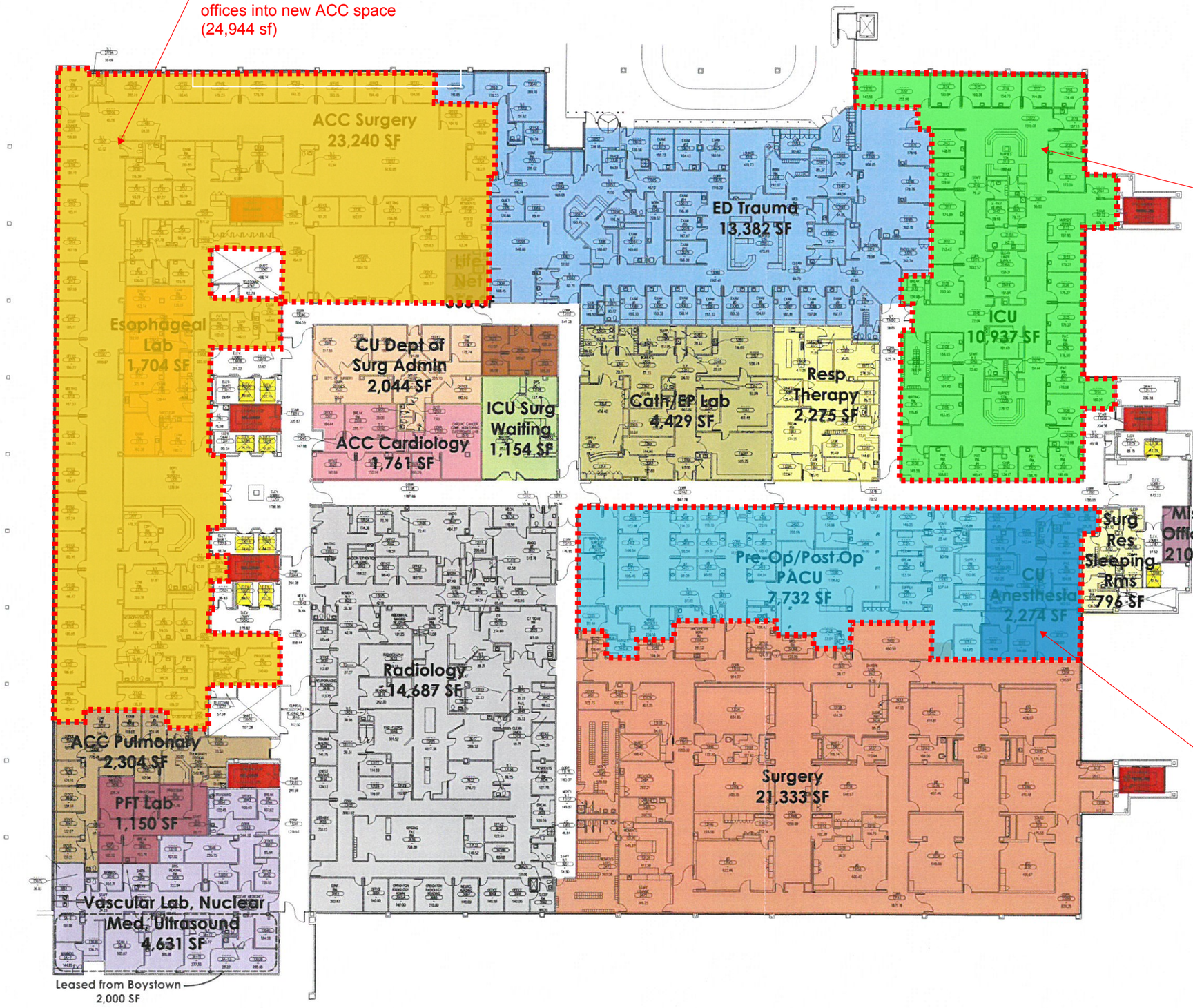
Creighton Medical Center Master Plan

Omaha, Nebraska

Gut and renovate clinic/academic offices into new ACC space (24,944 sf)

Gut and renovate existing ICU into new ICU with larger patient rooms (10,937 sf)

Renovate existing Pre-Op/Post-Op/PACU area. Provide ceiling lifts and new headwalls. (10,006 sf)



ACC Surgery	23,240 SF
Esophageal Lab	1,704 SF
ACC Pulmonary	2,304 SF
PFT Lab	1,150 SF
Vascular Lab, Nuclear Med, Ultrasound	4,631 SF
Life Net	355 SF
CU Dept of Surg Admin	2,044 SF
Ed/ Training	576 SF
ICU Surg Waiting	1,154 SF
ACC Cardiology	1,761 SF
Radiology	14,687 SF
ED Trauma	13,382 SF
Cath/EP Lab	4,429 SF
Resp Therapy	2,275 SF
ICU	10,937 SF
Pre-Op/Post Op, PACU	7,732 SF
Surgery	21,333 SF
CU Anesthesia	2,274 SF
Surg Res Sleeping Rms	796 SF
Misc Offices	210 SF
Total	**116,974 SF**
Misc. Circulation, Mech. & Exterior Wall	**20,601 SF**
Total Gross	**137,575 SF**

3rd Floor

N

0 20 60

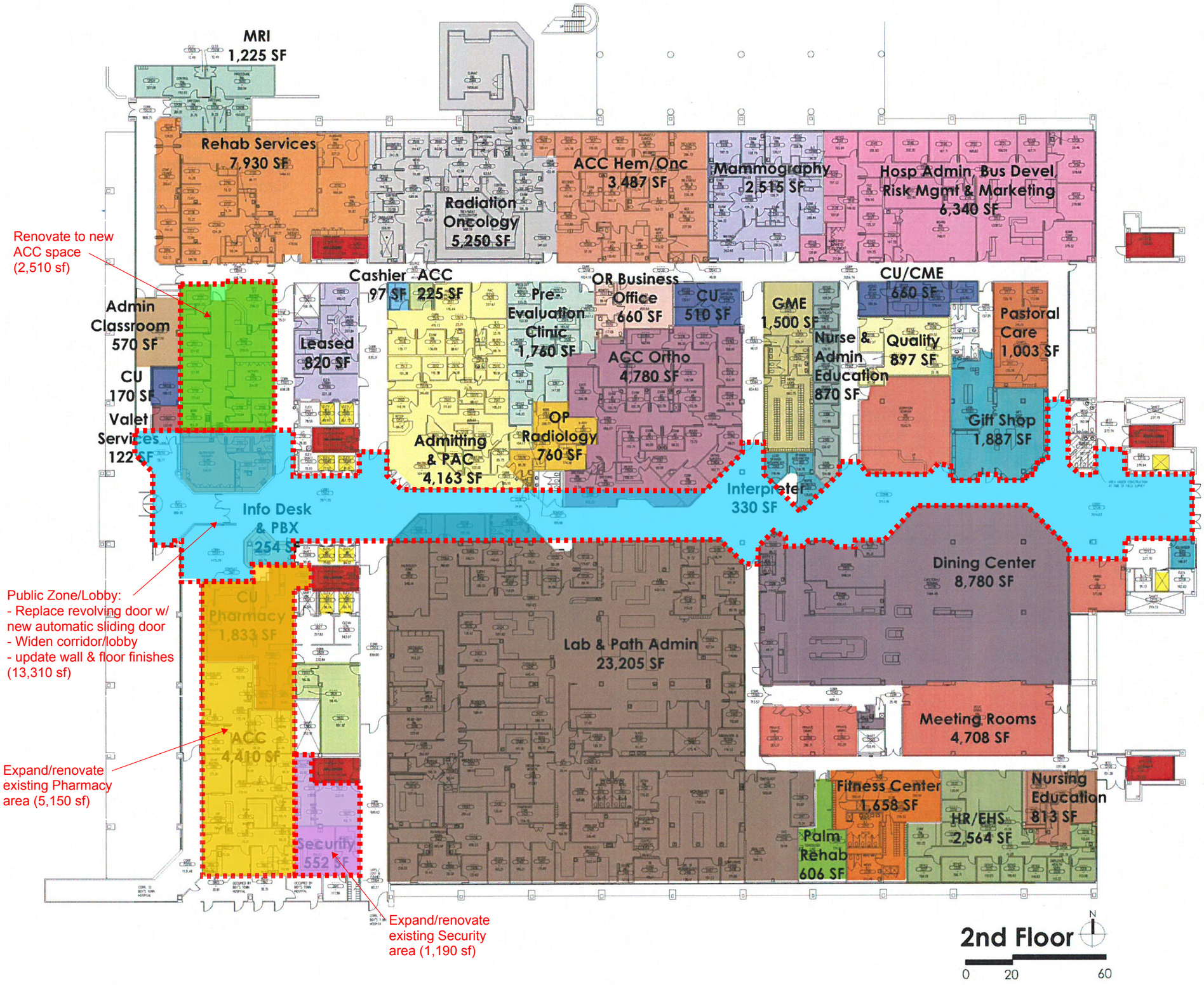
ALTUS architectural studios

CANNONDESIGN

Alegent - Creighton Health

Creighton Medical Center Master Plan

Omaha, Nebraska



MRI	1,225 SF
Rehab Services	7,930 SF
Admin Classroom	570 SF
Valet Services	122 SF
Leased	820 SF
CU	170 SF
Info Desk & PBX	254 SF
CU Pharmacy	1,833 SF
ACC	4,410 SF
Security	552 SF
Radiation Oncology	5,250 SF
Cashier	97 SF
ACC	225 SF
Admitting & PAC	4,163 SF
Pre-Evaluation Clinic	1,760 SF
ACC Hem/Onc	3,487 SF
OR Business Office	660 SF
CU	510 SF
ACC Ortho	4,780 SF
OP Radiology	760 SF
Lab & Path Admin	23,205 SF
Mammography	2,515 SF
Hosp Admin, Bus Devel, Risk Mgmt & Marketing	6,340 SF
GME	1,500 SF
Interpreter	330 SF
Nurse & Admin Education	870 SF
Pastoral Care	1,003 SF
CU/CME	660 SF
Quality	897 SF
Gift Shop	1,887 SF
Meeting Rooms	4,708 SF
Dining Center	8,780 SF
Palm Rehab	606 SF
Fitness Center	1,658 SF
HR/EHS	2,564 SF
Nursing Education	813 SF
Total	**97,914 SF**
Misc. Circulation, Mech. & Exterior Wall	**37,086 SF**
Total Gross	**135,000 SF**

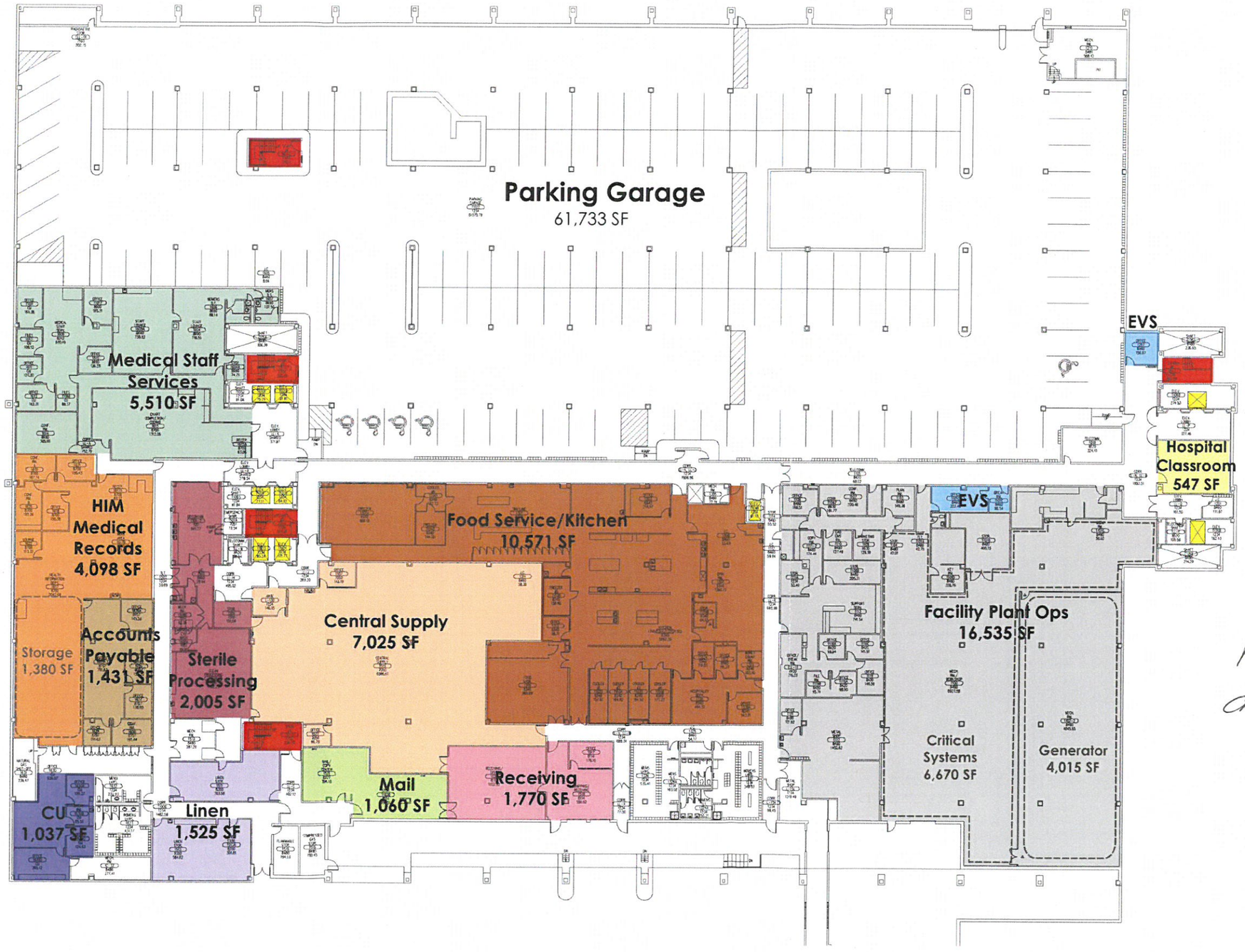
ALTUS architectural studios

CANNONDESIGN

Alegent - Creighton Health

Creighton Medical Center Master Plan

Omaha, Nebraska



interst. ceiling
cathodes
interst floor
ceiling tile
8 ft
floor

Medical Staff Services	5,510 SF
HIM Medical Records	4,098 SF
Accounts Payable	1,431 SF
Sterile Processing	2,005 SF
Linen	1,525 SF
CU	1,037 SF
Central Supply	7,025 SF
Food Service/Kitchen	10,571 SF
Mail	1,060 SF
Receiving	1,770 SF
Facility Plant Ops	16,535 SF
EVS	436 SF
Hospital Classroom	547 SF
Total	**53,550 SF**
Misc. Circulation, Mech. & Exterior Wall	**20,472 SF**
Total Gross	**74,022 SF**

Four Rivers TMS
Med
Comms

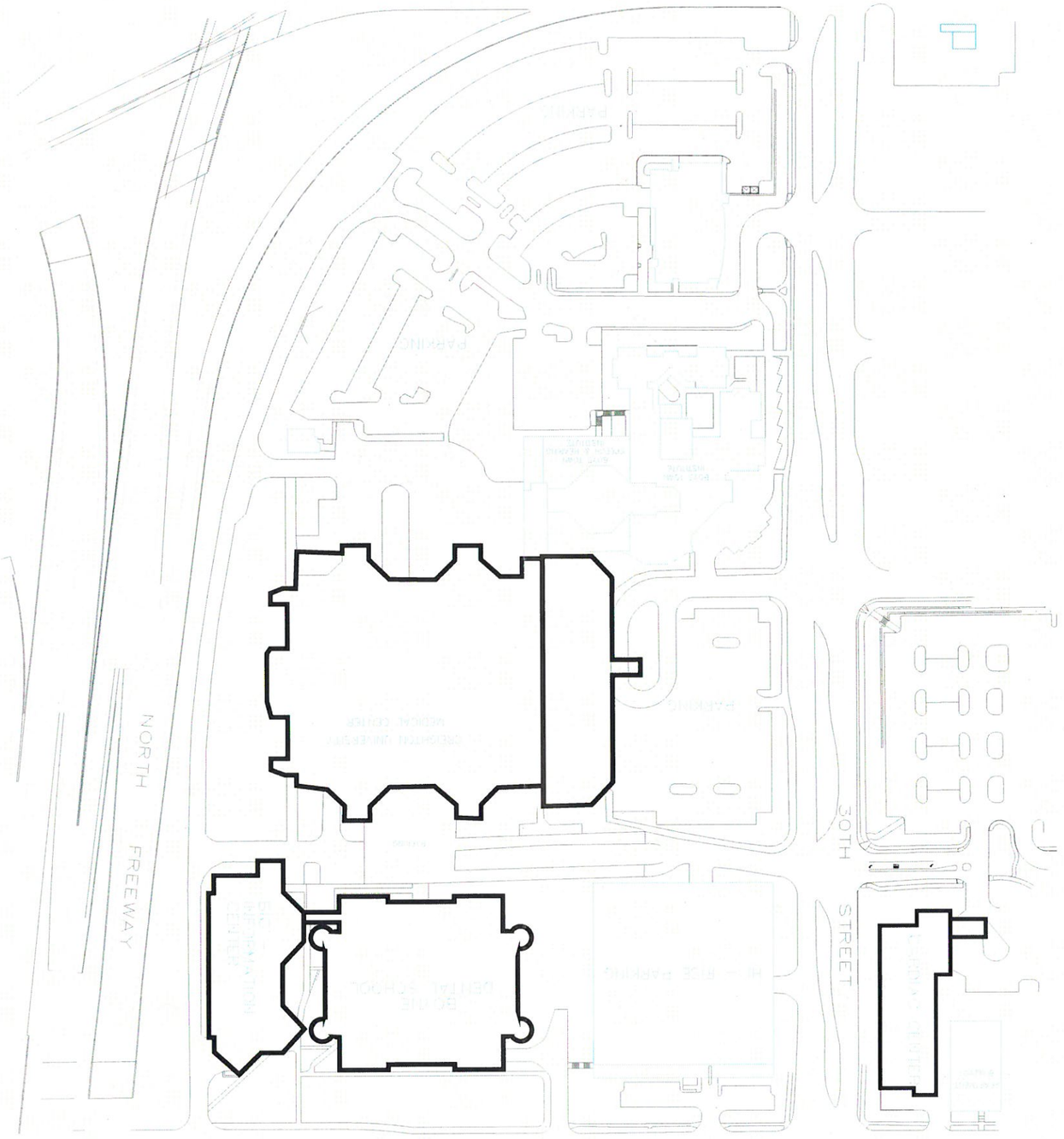
1st Floor

N

0 20 60

ALTUS architectural studios

CANNONDESIGN


NORTH FREEWAY
30TH STREET

Appendix III

Omaha VA Hospitals Facility Condition Comparison

Departments	Revised VA SEPS DGSF (a)	VA Omaha Existing DGSF (b)	VA Omaha % Program	VA Omaha Variance DGSF	Creighton Medical Center Existing DGSF (c)	Creighton Medical Center % Program	Creighton Medical Center Variance DGSF
Ambulatory Care/Outpatient	**135,312**	**87,175**	**64%**	**(48,137)**	**124,728**	**92%**	**(10,584)**
Amb Care (Includes Urgent Care)	102,175	73,964	72%	(28,211)	110,770	108%	8,595
Audiology & Speech Pathology	11,912	4,741	40%	(7,171)	-		(11,912)
Dental	11,369	3,314	29%	(8,055)	-		(11,369)
Eye Clinic	9,856	5,156	52%	(4,700)	-		(9,856)
ED/Trauma					13,958		
Inpatient Care Units	**67,768**	**49,776**	**73%**	**(17,992)**	**117,473**	**173%**	**49,705**
Intensive Care Unit (MICU/SICU)	21,528	17,179	80%	(4,349)	20,370	95%	(1,158)
Med/Surg & Nursing Care Units	46,240	32,597	70%	(13,643)	49,126	106%	2,886
Med/Surg Units - Closed/Vacant	-	-		-	14,741		14,741
Birthing Center/LDR	-	-		-	18,565		18,565
NICU	-	-		-	8,236		8,236
Pediatrics/PICU	-	-		-	6,435		6,435
Diagnostic & Treatment	**232,280**	**76,513**	**33%**	**(155,767)**	**111,745**	**48%**	**(16,877)**
Cardiovascular Lab	22,310	2,115	9%	(20,195)	4,429	-	-
Dialysis	16,877	7,003	41%	(9,874)			(16,877)
Digestive Diseases (Endoscopy)	9,344	8,191	88%	(1,153)	4,865	52%	(4,479)
EEG	2,798	1,161	41%	(1,637)	1,180	42%	(1,618)
MRI	8,483	2,787	33%	(5,696)	1,225	14%	(7,258)
Nuclear Med	9,746	2,320	24%	(7,426)	4,631	48%	(5,115)
Pathology & Lab Medicine Service	26,543	11,360	43%	(15,183)	23,205	87%	(3,338)
Physical Medicine & Rehab	7,844	3,537	45%	(4,307)	7,930	101%	86
Polytrauma Rehab Center	11,644		0%	(11,644)			(11,644)
Prosthetics/Sensory Aids	6,938	1,165	17%	(5,773)			(6,938)
Pulmonary Medicine	10,358	6,757	65%	(3,601)	3,425	33%	(6,933)
Radiation Therapy	15,635	-	0%	(15,635)	5,250	34%	(10,385)
Radiology	30,018	10,806	36%	(19,212)	17,962	60%	(12,056)
Surgical Service	53,742	19,311	36%	(34,431)	35,333	66%	(18,409)
Esophageal Lab	-	-		-	1,704		1,704
Palm Rehab	-	-		-	606		606

Departments	Revised VA SEPS DGSF (a)	VA Omaha Existing DGSF (b)	VA Omaha % Program	VA Omaha Variance DGSF	Creighton Medical Center Existing DGSF (c)	Creighton Medical Center % Program	Creighton Medical Center Variance DGSF
Administrative Services	**59,856**	**48,389**	**81%**	**(11,467)**	**38,962**	**65%**	**(20,894)**
Clinical Service Admin	17,555	11,615	66%	(5,940)	14,355	82%	(3,200)
Fiscal Service	3,643	1,453	40%	(2,190)	3,363	92%	(280)
Health Administration Service	13,532	13,538	100%	6		0%	(13,532)
Human Resources	3,051	3,296	108%		2,564	84%	(487)
Medical Center Director Suite	10,878	10,594	97%	(284)	6,910	64%	(3,968)
Medical Media	4,726	3,749	79%	(977)		0%	(4,726)
Nursing Service Administration	6,120	2,193	36%	(3,927)	2,863	47%	(3,257)
Regional Counsel	-	1,628					-
Social Work	351	323	92%	(28)		0%	(351)
Misc Offices	-	-		-	8,907		8,907
Support Services	**114,075**	**82,723**	**73%**	**(31,352)**	**58,584**	**51%**	**(55,491)**
AMMS: Administration	2,233	1,041	47%	(1,192)		0%	(2,233)
AMMS: Warehouse	22,341	10,907	49%	(11,434)	9,855	44%	(12,486)
EMS - Administration	4,865	7,917	163%	3,052		0%	(4,865)
EMS - Laundry & Linen	1,323	657	50%	(666)	1,525	115%	202
EMS - Lockers/Lounges/Toilets	-	3,289					-
Engineering Service	9,617	13,657	142%	4,040	9,960	104%	343
Information Resources Mgmt	13,581	9,086	67%	(4,495)	5,703	42%	(7,878)
Nutrition & Food Service	8,619	11,173	130%	2,554	10,571	123%	1,952
Pharmacy	17,077	8,504	50%	(8,573)	5,491	32%	(11,586)
Police & Security	3,428	671	20%		552	16%	(2,876)
Quarters, On-call	2,832	1,260	44%	(1,572)	2,550	90%	(282)
SPD	10,716	7,493	70%	(3,223)	2,005	19%	(8,711)
Veterans Canteen	14,870	6,457	43%	(8,413)	8,780	59%	(6,090)
Voluntary Service	2,573	728	28%			0%	(2,573)
Service Organization	-	924					-
EVS					436		
Patient Transport	-	-			1,156		1,156
Mental Health/Behavioral Inpatient	**46,108**	**7,352**	**16%**	**(38,756)**	**-**	**0%**	**(46,108)**
MH Patient Care Unit - PRRTP	21,103	4,568	22%	(16,535)		(21,103)	(21,103)
MH Patient Care Unit - Acute	19,069	6,756	35%	(12,313)		(19,069)	(19,069)
Psychology	5,936	596	10%			(5,936)	(5,936)
Mental Health/Behavioral Outpatient	**16,954**	**23,253**	**137%**	**6,299**	**-**	**0%**	**(16,954)**
Day Hospital (300)	-	2,796		-	-	-	-
Day Treatment (261)	-	3,935		-	-	-	-
Mental Health Clinic	10,374	14,499	140%	4,125	-	(10,374)	(10,374)
Substance Abuse	6,580	4,819	73%	(1,761)	-	(6,580)	(6,580)

Departments	Revised VA SEPS DGSF (a)	VA Omaha Existing DGSF (b)	VA Omaha % Program	VA Omaha Variance DGSF	Creighton Medical Center Existing DGSF (c)	Creighton Medical Center % Program	Creighton Medical Center Variance DGSF
Public Spaces	**8,022**	**6,598**	**82%**	**(1,424)**	**10,856**	**135%**	**2,834**
Lobby	768	2,619	341%	1,851	2,224	290%	1,456
Education	7,254	3,979	55%	(3,275)	6,623	91%	(631)
Valet	-				122		122
Gift Shop	-				1,887		1,887
Other	**64,349**	**50,161**	**78%**	**(14,188)**	**25,490**	**40%**	**(45,872)**
Chaplain Serv	5,447	3,135	58%	(2,312)	1,003	18%	(4,444)
Credit Union	735	199	27%		820	112%	85
Library	3,521	2,532	72%		-	0%	(3,521)
Research & Development	54,646	44,267	81%	(10,379)	16,654	30%	(37,992)
Fitness Center	-	-			1,658		1,658
Resident Spaces	-	-		-	5,000		5,000
Unassigned	-	3,163			355		355
Total Departmental Gross Area (DGSF)	***744,724***	***437,710***	***59%***	***(307,014)***	***487,838***	***66%***	***(256,886)***
DGSF to Building Gross Area Factor	1.35				#VALUE!		
Total Building Gross Area (BGSF)	**1,005,377**				**BGSF**		

Footnotes:

a.) Revised VAMC program dated September 2, 2010

b.) Existing DGSF taken from GLHN Volume 1-Feasibility Study

c.) Existing DGSF for Creighton Medical Center taken from Altus/Cannon floor plans

Appendix IV

Creighton University Medical Center Upgrades

Calendar Year 2002

- Replace (2) OR AHU's.
- Added (1) OR AHU.

Calendar Year 2003

- NICU.

Calendar Year 2005

- Tube System Replacement.

Calendar Year 2007

- New (64)-Slice CT Machine.
- Upgraded Angio Suite.

Calendar Year 2008

- 4100 remodel.
- Esophageal lab expansion.
- Core switch.
- Courtyard roofs.
- Three level parking garage stairs.
- Wireless network upgrade.
- GI waiting room remodel.
- Lobby refurbishment.
- OR lights in Rooms 2, 7, 8, and 12.
- Firewalls and compartments.
- Fire safing and penetrations.
- LIM replacement.
- Fire sprinkler upgrade.
- Gift shop remodel.
- Large number of smoke and fire dampers.

Calendar Year 2009

- Substation replacement (08-09).
- Lobby remodel.
- Replacement of revolving door.
- Replacement of MRI.
- Sprinkler system – total house.

Calendar Year 2010

- Upgrade OR No. 12 room to MIS.
- Patient room upgrade (4600).
- Common area renovation on third floor.
- HR renovation.
- Replacement of LINAC and remodeled space.

- Upgrade security surveillance system.
- Switchgear replacement started.
- Sterilizer replacement.

Calendar Year 2011

- Patient room remodel (4100).
- Switchgear replacement finished.
- Patient room remodel (5400).
- Patient room remodel (4400/4500).
- Front lobby upgrade and water feature.
- New Stevis washer in OR.
- Replaced morgue table.

Calendar Year 2012

- ADA project (did not complete).
- Upgrade Burt Street steam pipeline.
- Dining center upgrade.
- Pharmacy remodel.
- Conference room remodel.
- Triangle roof replacement.

Appendix V

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
FINAL SUMMARY SHEET		**Cost Per Square Foot**			
	VA Medical Center Omaha (Pages 2-3)	1	L.S.		$124,320,670.00
	Creighton University Medical Center (Pages 10-11)	1	L.S.		$32,672,810.00
NOTE:	The following mark-ups are included in the above costs:				
	General Conditions, Overhead, Profit, Insurance and Bond - 15%				
	Design Contingency - 10%				
	No Escalation - Present Day Costs - 0%				

QUALIFICATIONS

1 No sales tax is included. Assumed facility is tax exempt.

2 No asbestos removal is included.

3 No costs are included for furniture, furnishings or movable equipment.

4 No costs are included for major fixed equipment.

5 Assumed project to be competitively bid.

6 Assumed construction to be during normal working hours.

7 The construction costs shall be used for budgeting and planning purposes only and shall not be used as an actual bid as given by a contractor to build the project.

8 The construction totals are rounded to the nearest $10.00.

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
VA Medical Center Omaha (Pages 2-3)					
1	New C.E.P. Utility Plant (See Pages 4-9 for breakdown).	8,200	S.F.	5,525.68	$45,310,610.00
2	Replace the plumbing fixtures, domestic water piping and sanitary water systems in Building 1 except for the new Urgent Care Addition.	469,000	S.F.	23.00	10,787,000.00
3	Replace all of Building 1 induction units and majority of ventilation systems with a new HVAC system complying with current VA design guide.	469,000	S.F.	44.00	20,636,000.00
4	Replace the rooftop unit serving the surgery suite with a new HVAC system complying with current VA design guide.	1	L.S.	850,000.00	850,000.00
5	Replace the entire medical gas system in Building 1 and 15.	469,000	S.F.	21.00	9,849,000.00
6	Replace fire sprinkler systems throughout Building 1 with new sprinklers, piping, standpipes, fire pumps and valves.	469,000	S.F.	8.00	3,752,000.00
7	Essential electrical system branch separation and additional outlets.	469,000	S.F.	6.00	2,814,000.00
8	Replace PCB containing, oil-filled equipment (especially the unit substation).	1	L.S.	1,500,000.00	1,500,000.00
9	Provide additional physical security barriers to meet VA stand-off distance requirements.	1	L.S.	600,000.00	600,000.00
10	Code upgrades - 3,600 S.F. of sprayed fireproofing and 4,287 S.F. of fire sprinkler system at Building 15.	1	L.S.	35,000.00	35,000.00

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
VA Medical Center Omaha (Pages 2-3)					
11	Building 15 – Depending on the criticality of Building 15 operations:				
11-A	Replace the steam, condensate, chilled water and heating hot water systems in Building 15 and tunnel.	42,872	S.F.	22.00	943,180.00
11-B	Replace the majority of Building 15 air handling units with a new HVAC system complying with current VA design guide.	42,872	S.F.	28.00	1,200,420.00
	SUBTOTAL =				**$98,277,210.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$14,741,580.00
	SUBTOTAL =				**$113,018,790.00**
	Design Contingency -	10%			$11,301,880.00
	SUBTOTAL =				**$124,320,670.00**
	No Escalation - Present Day Costs -	0%			$0.00
	CONSTRUCTION TOTAL =				**$124,320,670.00**

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
VA Medical Center Omaha (Pages 2-3)					
New C.E.P. Utility Plant (See Pages 4-9 for breakdown).					
	Central Energy Plant - New Mechanical (Pages 5-7)	8,200	S.F.	$2,765.17	$22,674,400.00
	Central Energy Plant - New Electrical (Pages 8-9)	7,000	S.F.	$819.07	5,733,500.00
	SUBTOTAL =				**$28,407,900.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$12,783,560.00
	SUBTOTAL =				**$41,191,460.00**
	Design Contingency -	10%			$4,119,150.00
	SUBTOTAL =				**$45,310,610.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$45,310,610.00**
	COST PER SQUARE FOOT FOR	**8,200**	**S.F.**	**=**	**$5,525.68**

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
VA Medical Center Omaha (Pages 2-3)					
New C.E.P. Utility Plant (See Pages 4-9 for breakdown).					
Central Energy Plant - New Mechanical (Pages 5-7)					
1	New Building - General Construction - foundations, exterior walls / doors / roof, interior CMU walls, finishes, miscellaneous accessories and sitework.	8,200	S.F.	125.00	$1,025,000.00
2	Additive / phasing cost to build mechanical C.E.P. over existing C.E.P.	8,200	S.F.	100.00	820,000.00
3	New Building - Mechanical Construction - sprinkler, plumbing fixture, H.V.A.C. system for heating and exhaust.	8,200	S.F.	30.00	246,000.00
4	New Building - Electrical Distribution System - lights, outlets, fire alarm, security, public address and telephone / data.	8,200	S.F.	20.00	164,000.00
5	New Building Addition for Mechanical Rooms at each Floor - General Construction - foundations, exterior walls / doors / roof, interior CMU walls, finishes, miscellaneous accessories and sitework. 2,700 S.F. per floor x 11 floors =	29,700	S.F.	125.00	3,712,500.00
6	New Building Addition for Mechanical Rooms at each Floor - Mechanical Construction - sprinkler, plumbing fixture, H.V.A.C. system for heating and exhaust. 2,700 S.F. per floor x 11 floors =	29,700	S.F.	30.00	891,000.00
7	New Building Addition for Mechanical Rooms at each Floor - Electrical Distribution System - lights, outlets, fire alarm, security, public address and telephone / data. 2,700 S.F. per floor x 11 floors =	29,700	S.F.	20.00	594,000.00
8	500 BHP dual fuel steam boilers.	2	EA.	800,000.00	1,600,000.00
9	Relocate existing boiler.	1	EA.	55,000.00	55,000.00

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
VA Medical Center Omaha (Pages 2-3)					
New C.E.P. Utility Plant (See Pages 4-9 for breakdown).					
Central Energy Plant - New Mechanical (Pages 5-7)					
10	Dearator.	1	EA.	220,000.00	220,000.00
11	Feedwater pumps.	3	EA.	20,000.00	60,000.00
12	Condensate storage tank.	1	EA.	15,000.00	15,000.00
13	Condensate pumps.	2	EA.	30,000.00	60,000.00
14	Steam to hot water converters.	3	EA.	165,000.00	495,000.00
15	Hot water pumps with VFDs.	3	EA.	45,000.00	135,000.00
16	Chemical treatment.	1	L.S.	25,000.00	25,000.00
17	45,000 gallon fuel oil storage tank.	1	EA.	125,000.00	125,000.00
18	1,250 ton water cooled chillers.	1	EA.	770,000.00	770,000.00
19	650 ton water cooled chillers.	2	EA.	415,000.00	830,000.00
20	1,250 ton cooling towers.	2	EA.	240,000.00	480,000.00
21	Chilled water pumps with VFDs.	3	EA.	55,000.00	165,000.00
22	Condenser water pumps.	3	EA.	50,000.00	150,000.00
23	Condenser waste sump for cooling towers.	1	EA.	15,000.00	15,000.00
24	Controls at equipment.	1	L.S.	330,000.00	330,000.00
25	Reroute natural gas line.	150	L.F.	80.00	12,000.00
26	Fuel oil pumps and fuel oil filtration system.	3	EA.	7,000.00	21,000.00

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
VA Medical Center Omaha (Pages 2-3)					
New C.E.P. Utility Plant (See Pages 4-9 for breakdown).					
Central Energy Plant - New Mechanical (Pages 5-7)					
27	Chemical treatment.	1	L.S.	3,400.00	3,400.00
28	Main hot water and chilled water piping with C.E.P.	1,500	L.F.	350.00	525,000.00
29	25,000 CFM A.H.U.'s at mechanical rooms addition to existing hospital - 2 each x 11 floors =	22	EA.	305,000.00	6,710,000.00
30	2-1/2" steam line at each floor.	260	L.F.	50.00	13,000.00
31	12" chilled water supply and return piping up to new A.H.U.'s - 250 L.F. x 2 each =	500	L.F.	275.00	137,500.00
32	10" hot water supply and return piping up to new A.H.U.'s - 250 L.F. x 2 each =	500	L.F.	250.00	125,000.00
33	Additive cost for tie-in / phasing / after hour construction and demolition to tie-into existing boiler piping.	3	L.S.	275,000.00	825,000.00
34	Additive cost for temporary chillers, tie-in / phasing / after hour construction and demolition.	3	EA.	440,000.00	1,320,000.00
	SUBTOTAL =				**$22,674,400.00**

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
VA Medical Center Omaha (Pages 2-3)					
New C.E.P. Utility Plant (See Pages 4-9 for breakdown).					
Central Energy Plant - New Electrical (Pages 8-9)					
1	New Building - General Construction - foundations, exterior walls / doors / roof, interior CMU walls, finishes, miscellaneous accessories and sitework.	7,000	S.F.	125.00	$875,000.00
2	Additive / phasing cost to build electrical C.E.P. over existing C.E.P.	7,000	S.F.	100.00	700,000.00
3	New Building - Mechanical Construction - sprinkler, plumbing fixture, H.V.A.C. system for heating and exhaust.	7,000	S.F.	30.00	210,000.00
4	Electrical panels at each floor:				
	800 amp.	11	EA.	17,000.00	187,000.00
	400 amp.	11	EA.	10,000.00	110,000.00
	225 amp.	11	EA.	7,000.00	77,000.00
5	New Building - Electrical Distribution System - lights, outlets, fire alarm, security, public address and telephone / data.	7,000	S.F.	20.00	140,000.00
6	4,000 amp paralleling switchgear.	1	EA.	1,100,000.00	1,100,000.00
7	1,000 KW emergency generators for emergency paralleling switchgear.	3	EA.	370,000.00	1,110,000.00
8	Automatic transfer switches bypass isolation.	12	EA.	45,000.00	540,000.00
9	7,000 gallon underground fuel tanks for generators.	3	EA.	30,000.00	90,000.00
10	Electrical supply and connection to mechanical equipment.	53	EA.	1,500.00	79,500.00
11	Emergency power feeders within C.E.P. at into existing hospital - 200' x 3 each =	600	L.F.	400.00	240,000.00

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
VA Medical Center Omaha (Pages 2-3)					
New C.E.P. Utility Plant (See Pages 4-9 for breakdown).					
Central Energy Plant - New Electrical (Pages 8-9)					
12	Additive cost for tie-in / phasing / after hour construction and demolition to existing electrical.	1	L.S.	275,000.00	275,000.00
	SUBTOTAL =				**$5,733,500.00**

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
Creighton University Medical Center (Pages 10-11)					
1	Upgrade air handling units with redundant modular fan systems, new hot water and chilled water coils, electronic controls, and remove sound attenuators.	246,000	S.F.	33.00	$8,118,000.00
2	Install a return duct system for all plenum return in patient care areas.	246,000	S.F.	12.00	2,952,000.00
3	Replace exterior windows throughout.	46,484	S.F.	75.00	3,486,300.00
4	Replace two (2) 900 kW engine generators.	2	EA.	450,000.00	900,000.00
5	Replace emergency distribution system (switchboard, motor control systems, original Automatic Transfer Switches, panelboards, feeders and branch circuits). Location is also an issue.	246,000	S.F.	15.00	3,690,000.00
6	Replace nominal 15kV interior switchgear lineup.	1	L.S.	1,100,000.00	1,100,000.00
7	Replace normal distribution system (switchboards, motor control systems, panelboards, feeders and branch circuits.	246,000	S.F.	17.00	4,182,000.00
8	Provide additional physical security barriers to meet VA stand-off distance requirements.	1	L.S.	350,000.00	350,000.00
9	Facility doesn't have a sanitary storage tank.	120,000	Gal	5.00	600,000.00

Budget Estimate Rev 2 1/16/15	***BCC Building Cost Consultants, Inc.*** VA Medical Center Omaha and Creighton University Medical Center Top Ten Deficiencies List Omaha, Nebraska BCC Job No.: 14-12-0193	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
Creighton University Medical Center (Pages 10-11)					
10	The emergency room access ramp structure and heliport structure requires maintenance, repair and rehabilitation.	1	L.S.	450,000.00	450,000.00
	SUBTOTAL =				**$25,828,300.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$3,874,250.00
	SUBTOTAL =				**$29,702,550.00**
	Design Contingency -	10%			$2,970,260.00
	SUBTOTAL =				**$32,672,810.00**
	No Escalation - Present Day Costs -	0%			$0.00
	CONSTRUCTION TOTAL =				**$32,672,810.00**

P.O. Box 278, Plattsmouth, NE 68048 Business (402) 298-8260 Cell (402) 699-1832 Fax (402) 298-8290 bccdsieh@aol.com

Appendix VI

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
FINAL SUMMARY SHEET		**Cost Per Square Foot**			
	Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)	400,200	S.F.	$604.23	$241,814,630.00
	Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)	246,810	S.F.	$516.58	$127,496,240.00
	Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)	400,200	S.F.	$449.63	$179,943,620.00
NOTE:	The following mark-ups are included in the above costs:				
Option 1:					
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			
	Design Contingency -	10%			
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			
Options 2 and 3:					
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			
	Design Contingency -	10%			
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			

QUALIFICATIONS

1 No sales tax is included. Assumed facility is tax exempt.
2 No asbestos removal is included.
3 No costs are included for furniture, furnishings or movable equipment.
4 No costs are included for major fixed equipment.
5 Assumed project to be competitively bid.
6 Assumed construction to be during normal working hours.
7 The construction costs shall be used for budgeting and planning purposes only and shall not be used as an actual bid as given by a contractor to build the project.
8 The construction totals are rounded to the nearest $10.00.

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
SUMMARY SHEET		**Cost Per Square Foot**			
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
	Phase 1A - New Central Utility Plant (Page 6)	8,200	S.F.	$5,525.68	$45,310,610.00
	Phase 2A - New Surgery and SPD Addition (Page 12)	32,000	S.F.	$765.60	24,499,200.00
	Phase 2B - New Pre-OP, Post-OP, P.A.C.U. and Surgery Support Addition (Page 13)	33,000	S.F.	$685.85	22,633,050.00
	Phase 3 - Renovate for Temporary Ambulatory Care Space Off-Site (70,000 S.F.) (Page 14)	1	L.S.		21,771,750.00
	Phase 4 - Renovate the 4th Floor - Provide 22,000 S.F. of Ambulatory Care Space (Page 15)	22,000	S.F.	$438.63	9,649,750.00
	Phase 5 - Renovate 5W, 6W, 7W, 8W and 9W - Provide 80-100 New Inpatient Rooms and Support Space (Page 16)	56,500	S.F.	$358.88	20,276,440.00
	Phase 6 - Renovate 5E, 6E, 7E, 8E and 9E - Provide 110,000 S.F. of New Ambulatory Care Space (Page 17)	56,500	S.F.	$438.63	24,782,320.00
	Phase 7 - Renovate Floors 10, 11 and 12 - Provide 42,000 S.F. of New Admin and Mental Health Space (Page 18)	42,000	S.F.	$358.88	15,072,750.00
	Phase 8 - Renovate 1st Floor - Provide 53,000 S.F. of New Ambulatory Care and Support Space (Page 19)	53,000	S.F.	$342.93	18,175,030.00
	Phase 9 - Renovate Basement - Provide 38,000 S.F. of Admin and Support Space (Page 20)	38,000	S.F.	$263.18	10,000,650.00
	Phase 10 - Renovate Floors 2 and 3 - Renovate 59,000 S.F. of I.C.U., Diagnostic and Ambulatory Care Space (Page 21)	59,000	S.F.	$502.43	29,643,080.00
	OPTION 1 CONSTRUCTION TOTAL =				**$241,814,630.00**
	COST PER SQUARE FOOT FOR	**400,200**	**S.F.**	**=**	**$604.23**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
SUMMARY SHEET		**Cost Per Square Foot**			
Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)					
	Infrastructure Renovation (Page 22)	1	L.S.		$28,706,370.00
	Floor 1 - Lower Level - No Work (Page 23)	1	L.S.		0.00
	Floor 2 - Street Level - Widen Concourse and Update Finishes, Expand / Renovate Pharmacy. Renovate Pulmonary Rehab Space to Ambulatory Care Space (Page 24)	13,310	S.F.	$215.05	2,862,320.00
	Floor 3 - 30,000 SF of new Ambulatory Clinic space, 10,000 SF of new Pre-op/Post-op/PACU, 11,000 SF Renovation of ICU (Page 25)	51,000	S.F.	$392.15	19,999,650.00
	Floor 3M - Mechanical - No Work (Page 26)	1	L.S.		0.00
	Floor 4 - Renovate 27,500 SF of Ambulatory Care space, Renovate 21,000 SF to Inpatient Mental Health beds (Existing Coronary and Telemetry Step Down), Renovate 15,000 SF to Mental Health Clinic/Day Hospital (Existing Clinical Decision Unit and NICU), Renovate 19,500 SF to PRRTP beds (Existing Birthing Unit), Renovate 21,000 SF to Mental Health beds (Existing Med Surg) (Page 27)	104,000	S.F.	$379.50	39,468,000.00
	Floor 5 - Renovate Ambulatory Care Space and Med Surge Space (Page 28)	53,500	S.F.	$392.15	20,980,030.00
	Floor 6 - Renovate 25,000 SF to New Research Space (Existing 50% Research/50% Ambulatory Care Clinic) (Page 29)	25,000	S.F.	$442.75	11,068,750.00
	Exterior Windows Replacement at Floors 1-6 (46,494 S.F.) (Page 30)	1	L.S.		4,411,120.00
	OPTION 2 CONSTRUCTION TOTAL =				**$127,496,240.00**
	COST PER SQUARE FOOT FOR	**246,810**	**S.F.**	**=**	**$516.58**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
SUMMARY SHEET		**Cost Per Square Foot**			
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
	Interim Renovation of CUMC - Security upgrades to CUMC Floor 4 will be necessary to accommodate the Mental Health program. Other areas will be temporarily occupied as is for the duration of the VAMC renovation. (66,000 S.F.) (Page 31)	1	L.S.		$5,426,850.00
	New Central Utility Plant - Construct a new CUP on the south side of the hospital to include all new heating, cooling, electrical and emergency back-up systems for the hospital and vertical utility risers in an exterior shaft feeding all floors. (Page 32)	8,200	S.F.	$4,382.44	35,936,000.00
	New Surgery and SPD Addition (Page 38)	32,000	S.F.	$607.20	19,430,400.00
	New Pre-Op, Post-Op, P.A.C.U. and Surgery Support Addition (Page 39)	33,000	S.F.	$543.95	17,950,350.00
	Renovate the 4th Floor - Provide 22,000 S.F. of Ambulatory Care Space (Page 40)	22,000	S.F.	$347.88	7,653,250.00
	Renovate 5W, 6W, 7W, 8W and 9W - Provide 80-100 New Inpatient Rooms and Support Space (Page 41)	56,500	S.F.	$284.63	16,081,320.00
	Renovate 5E, 6E, 7E, 8E and 9E - Provide 110,000 S.F. of New Ambulatory Care Space (Page 42)	56,500	S.F.	$347.88	19,654,940.00
	Renovate Floors 10, 11 and 12 - Provide 42,000 S.F. of New Admin and Mental Health Space (Page 43)	42,000	S.F.	$284.63	11,954,250.00
	Renovate 1st Floor - Provide 53,000 S.F. of New Ambulatory Care and Support Space (Page 44)	53,000	S.F.	$271.98	14,414,680.00
	Renovate Basement - Provide 38,000 S.F. of Admin and Support Space (Page 45)	38,000	S.F.	$208.73	7,931,550.00

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
SUMMARY SHEET		**Cost Per Square Foot**			
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
	Renovate Floors 2 and 3 - Renovate 59,000 S.F. of I.C.U., Diagnostic and Ambulatory Care Space (Page 46)	59,000	S.F.	$398.48	23,510,030.00
	OPTION 3 CONSTRUCTION TOTAL =				**$179,943,620.00**
	COST PER SQUARE FOOT FOR	**400,200**	**S.F.**	**=**	**$449.63**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 1A - New Central Utility Plant (Page 6)					
	Central Energy Plant - New Mechanical (Pages 7-9)	8,200	S.F.	$2,765.17	$22,674,400.00
	Central Energy Plant - New Electrical (Pages 10-11)	7,000	S.F.	$819.07	5,733,500.00
	SUBTOTAL =				**$28,407,900.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$12,783,560.00
	SUBTOTAL =				**$41,191,460.00**
	Design Contingency -	10%			$4,119,150.00
	SUBTOTAL =				**$45,310,610.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$45,310,610.00**
	COST PER SQUARE FOOT FOR	**8,200**	**S.F.**	**=**	**$5,525.68**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 1A - New Central Utility Plant (Page 6)					
Central Energy Plant - New Mechanical (Pages 7-9)					
1	New Building - General Construction - foundations, exterior walls / doors / roof, interior CMU walls, finishes, miscellaneous accessories and sitework.	8,200	S.F.	125.00	$1,025,000.00
2	Additive / phasing cost to build mechanical C.E.P. over existing C.E.P.	8,200	S.F.	100.00	820,000.00
3	New Building - Mechanical Construction - sprinkler, plumbing fixture, H.V.A.C. system for heating and exhaust.	8,200	S.F.	30.00	246,000.00
4	New Building - Electrical Distribution System - lights, outlets, fire alarm, security, public address and telephone / data.	8,200	S.F.	20.00	164,000.00
5	New Building Addition for Mechanical Rooms at each Floor - General Construction - foundations, exterior walls / doors / roof, interior CMU walls, finishes, miscellaneous accessories and sitework. 2,700 S.F. per floor x 11 floors =	29,700	S.F.	125.00	3,712,500.00
6	New Building Addition for Mechanical Rooms at each Floor - Mechanical Construction - sprinkler, plumbing fixture, H.V.A.C. system for heating and exhaust. 2,700 S.F. per floor x 11 floors =	29,700	S.F.	30.00	891,000.00
7	New Building Addition for Mechanical Rooms at each Floor - Electrical Distribution System - lights, outlets, fire alarm, security, public address and telephone / data. 2,700 S.F. per floor x 11 floors =	29,700	S.F.	20.00	594,000.00
8	500 BHP dual fuel steam boilers.	2	EA.	800,000.00	1,600,000.00
9	Relocate existing boiler.	1	EA.	55,000.00	55,000.00
10	Dearator.	1	EA.	220,000.00	220,000.00

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 1A - New Central Utility Plant (Page 6)					
Central Energy Plant - New Mechanical (Pages 7-9)					
11	Feedwater pumps.	3	EA.	20,000.00	60,000.00
12	Condensate storage tank.	1	EA.	15,000.00	15,000.00
13	Condensate pumps.	2	EA.	30,000.00	60,000.00
14	Steam to hot water converters.	3	EA.	165,000.00	495,000.00
15	Hot water pumps with VFDs.	3	EA.	45,000.00	135,000.00
16	Chemical treatment.	1	L.S.	25,000.00	25,000.00
17	45,000 gallon fuel oil storage tank.	1	EA.	125,000.00	125,000.00
18	1,250 ton water cooled chillers.	1	EA.	770,000.00	770,000.00
19	650 ton water cooled chillers.	2	EA.	415,000.00	830,000.00
20	1,250 ton cooling towers.	2	EA.	240,000.00	480,000.00
21	Chilled water pumps with VFDs.	3	EA.	55,000.00	165,000.00
22	Condenser water pumps.	3	EA.	50,000.00	150,000.00
23	Condenser waste sump for cooling towers.	1	EA.	15,000.00	15,000.00
24	Controls at equipment.	1	L.S.	330,000.00	330,000.00
25	Reroute natural gas line.	150	L.F.	80.00	12,000.00
26	Fuel oil pumps and fuel oil filtration system.	3	EA.	7,000.00	21,000.00
27	Chemical treatment.	1	L.S.	3,400.00	3,400.00

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 1A - New Central Utility Plant (Page 6)					
Central Energy Plant - New Mechanical (Pages 7-9)					
28	Main hot water and chilled water piping with C.E.P.	1,500	L.F.	350.00	525,000.00
29	25,000 CFM A.H.U.'s at mechanical rooms addition to existing hospital - 2 each x 11 floors =	22	EA.	305,000.00	6,710,000.00
30	2-1/2" steam line at each floor.	260	L.F.	50.00	13,000.00
31	12" chilled water supply and return piping up to new A.H.U.'s - 250 L.F. x 2 each =	500	L.F.	275.00	137,500.00
32	10" hot water supply and return piping up to new A.H.U.'s - 250 L.F. x 2 each =	500	L.F.	250.00	125,000.00
33	Additive cost for tie-in / phasing / after hour construction and demolition to tie-into existing boiler piping.	3	L.S.	275,000.00	825,000.00
34	Additive cost for temporary chillers, tie-in / phasing / after hour construction and demolition.	3	EA.	440,000.00	1,320,000.00
	SUBTOTAL =				**$22,674,400.00**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 1A - New Central Utility Plant (Page 6)					
Central Energy Plant - New Electrical (Pages 10-11)					
1	New Building - General Construction - foundations, exterior walls / doors / roof, interior CMU walls, finishes, miscellaneous accessories and sitework.	7,000	S.F.	125.00	$875,000.00
2	Additive / phasing cost to build electrical C.E.P. over existing C.E.P.	7,000	S.F.	100.00	700,000.00
3	New Building - Mechanical Construction - sprinkler, plumbing fixture, H.V.A.C. system for heating and exhaust.	7,000	S.F.	30.00	210,000.00
4	Electrical panels at each floor:				
	800 amp.	11	EA.	17,000.00	187,000.00
	400 amp.	11	EA.	10,000.00	110,000.00
	225 amp.	11	EA.	7,000.00	77,000.00
5	New Building - Electrical Distribution System - lights, outlets, fire alarm, security, public address and telephone / data.	7,000	S.F.	20.00	140,000.00
6	4,000 amp paralleling switchgear.	1	EA.	1,100,000.00	1,100,000.00
7	1,000 KW emergency generators for emergency paralleling switchgear.	3	EA.	370,000.00	1,110,000.00
8	Automatic transfer switches bypass isolation.	12	EA.	45,000.00	540,000.00
9	7,000 gallon underground fuel tanks for generators.	3	EA.	30,000.00	90,000.00
10	Electrical supply and connection to mechanical equipment.	53	EA.	1,500.00	79,500.00
11	Emergency power feeders within C.E.P. at into existing hospital - 200' x 3 each =	600	L.F.	400.00	240,000.00

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 1A - New Central Utility Plant (Page 6)					
Central Energy Plant - New Electrical (Pages 10-11)					
12	Additive cost for tie-in / phasing / after hour construction and demolition to existing electrical.	1	L.S.	275,000.00	275,000.00
	SUBTOTAL =				**$5,733,500.00**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 2A - New Surgery and SPD Addition (Page 12)					
1	Phase 1 B -New Surgery Addition:				
	Sitework.	32,000	S.F.	50.00	$1,600,000.00
	General construction.	32,000	S.F.	210.00	6,720,000.00
	Plumbing construction.	32,000	S.F.	40.00	1,280,000.00
	H.V.A.C. construction.	32,000	S.F.	110.00	3,520,000.00
	Electrical construction.	32,000	S.F.	70.00	2,240,000.00
	SUBTOTAL =				**$15,360,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$6,912,000.00
	SUBTOTAL =				**$22,272,000.00**
	Design Contingency -	10%			$2,227,200.00
	SUBTOTAL =				**$24,499,200.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$24,499,200.00**
	COST PER SQUARE FOOT FOR	**32,000**	**S.F.**	**=**	**$765.60**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 2B - New Pre-OP, Post-OP, P.A.C.U. and Surgery Support Addition (Page 13)					
1	Phase 2B - New Pre-OP, Post-Op, P.A.C.U. and Surgery Support Addition:				
	Sitework.	33,000	S.F.	50.00	$1,650,000.00
	General construction.	33,000	S.F.	190.00	6,270,000.00
	Plumbing construction.	33,000	S.F.	30.00	990,000.00
	H.V.A.C. construction.	33,000	S.F.	100.00	3,300,000.00
	Electrical construction.	33,000	S.F.	60.00	1,980,000.00
	SUBTOTAL =				**$14,190,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$6,385,500.00
	SUBTOTAL =				**$20,575,500.00**
	Design Contingency -	10%			$2,057,550.00
	SUBTOTAL =				**$22,633,050.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$22,633,050.00**
	COST PER SQUARE FOOT FOR	**33,000**	**S.F.**	**=**	**$685.85**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 3 - Renovate for Temporary Ambulatory Care Space Off-Site (70,000 S.F.) (Page 14)					
1	Phase 3 - Renovate for Temporary Ambulatory Care Space Off-Site:				
	Sitework.	70,000	S.F.	15.00	$1,050,000.00
	General construction.	70,000	S.F.	75.00	5,250,000.00
	Plumbing construction.	70,000	S.F.	15.00	1,050,000.00
	H.V.A.C. construction.	70,000	S.F.	60.00	4,200,000.00
	Electrical construction.	70,000	S.F.	30.00	2,100,000.00
	SUBTOTAL =				**$13,650,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$6,142,500.00
	SUBTOTAL =				**$19,792,500.00**
	Design Contingency -	10%			$1,979,250.00
	SUBTOTAL =				**$21,771,750.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$21,771,750.00**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 4 - Renovate the 4th Floor - Provide 22,000 S.F. of Ambulatory Care Space (Page 15)					
1	Phase 4 - Renovate 4th Floor:				
	Interior demolition.	22,000	S.F.	25.00	$550,000.00
	General construction.	22,000	S.F.	110.00	2,420,000.00
	Plumbing construction.	22,000	S.F.	20.00	440,000.00
	H.V.A.C. construction.	22,000	S.F.	70.00	1,540,000.00
	Electrical construction.	22,000	S.F.	50.00	1,100,000.00
	SUBTOTAL =				**$6,050,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$2,722,500.00
	SUBTOTAL =				**$8,772,500.00**
	Design Contingency -	10%			$877,250.00
	SUBTOTAL =				**$9,649,750.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$9,649,750.00**
	COST PER SQUARE FOOT FOR	**22,000**	**S.F.**	**=**	**$438.63**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 5 - Renovate 5W, 6W, 7W, 8W and 9W - Provide 80-100 New Inpatient Rooms and Support Space (Page 16)					
1	Phase 5 - Renovate 5W, 6W, 7W, 8W and 9W:				
	Interior demolition.	56,500	S.F.	25.00	$1,412,500.00
	General construction.	56,500	S.F.	100.00	5,650,000.00
	Plumbing construction.	56,500	S.F.	10.00	565,000.00
	H.V.A.C. construction.	56,500	S.F.	60.00	3,390,000.00
	Electrical construction.	56,500	S.F.	30.00	1,695,000.00
	SUBTOTAL =				**$12,712,500.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$5,720,630.00
	SUBTOTAL =				**$18,433,130.00**
	Design Contingency -	10%			$1,843,310.00
	SUBTOTAL =				**$20,276,440.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$20,276,440.00**
	COST PER SQUARE FOOT FOR	**56,500**	**S.F.**	**=**	**$358.88**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 6 - Renovate 5E, 6E, 7E, 8E and 9E - Provide 110,000 S.F. of New Ambulatory Care Space (Page 17)					
1	Phase 6 - Renovate 5E, 6E, 7E, 8E and 9E:				
	Interior demolition.	56,500	S.F.	25.00	$1,412,500.00
	General construction.	56,500	S.F.	110.00	6,215,000.00
	Plumbing construction.	56,500	S.F.	20.00	1,130,000.00
	H.V.A.C. construction.	56,500	S.F.	70.00	3,955,000.00
	Electrical construction.	56,500	S.F.	50.00	2,825,000.00
	SUBTOTAL =				**$15,537,500.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$6,991,880.00
	SUBTOTAL =				**$22,529,380.00**
	Design Contingency -	10%			$2,252,940.00
	SUBTOTAL =				**$24,782,320.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$24,782,320.00**
	COST PER SQUARE FOOT FOR	**56,500**	**S.F.**	**=**	**$438.63**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 7 - Renovate Floors 10, 11 and 12 - Provide 42,000 S.F. of New Admin and Mental Health Space (Page 18)					
1	Phase 7 - Renovate Floors 10, 11 and 12:				
	Interior demolition.	42,000	S.F.	25.00	$1,050,000.00
	General construction.	42,000	S.F.	90.00	3,780,000.00
	Plumbing construction.	42,000	S.F.	10.00	420,000.00
	H.V.A.C. construction.	42,000	S.F.	60.00	2,520,000.00
	Electrical construction.	42,000	S.F.	40.00	1,680,000.00
	SUBTOTAL =				**$9,450,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$4,252,500.00
	SUBTOTAL =				**$13,702,500.00**
	Design Contingency -	10%			$1,370,250.00
	SUBTOTAL =				**$15,072,750.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$15,072,750.00**
	COST PER SQUARE FOOT FOR	**42,000**	**S.F.**	**=**	**$358.88**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 8 - Renovate 1st Floor - Provide 53,000 S.F. of New Ambulatory Care and Support Space (Page 19)					
1	Phase 8 - Renovate 1st Floor:				
	Interior demolition.	53,000	S.F.	25.00	$1,325,000.00
	General construction.	53,000	S.F.	80.00	4,240,000.00
	Plumbing construction.	53,000	S.F.	10.00	530,000.00
	H.V.A.C. construction.	53,000	S.F.	60.00	3,180,000.00
	Electrical construction.	53,000	S.F.	40.00	2,120,000.00
	SUBTOTAL =				**$11,395,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$5,127,750.00
	SUBTOTAL =				**$16,522,750.00**
	Design Contingency -	10%			$1,652,280.00
	SUBTOTAL =				**$18,175,030.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$18,175,030.00**
	COST PER SQUARE FOOT FOR	**53,000**	**S.F.**	**=**	**$342.93**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 9 - Renovate Basement - Provide 38,000 S.F. of Admin and Support Space (Page 20)					
1	Phase 9 - Renovate Basement:				
	Interior demolition.	38,000	S.F.	25.00	$950,000.00
	General construction.	38,000	S.F.	70.00	2,660,000.00
	Plumbing construction.	38,000	S.F.	5.00	190,000.00
	H.V.A.C. construction.	38,000	S.F.	40.00	1,520,000.00
	Electrical construction.	38,000	S.F.	25.00	950,000.00
	SUBTOTAL =				**$6,270,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$2,821,500.00
	SUBTOTAL =				**$9,091,500.00**
	Design Contingency -	10%			$909,150.00
	SUBTOTAL =				**$10,000,650.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$10,000,650.00**
	COST PER SQUARE FOOT FOR	**38,000**	**S.F.**	**=**	**$263.18**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 1 - Multiple-Phased Renovation of the Existing VAMC Facility While Occupied - 8 Years (Page 2)					
Phase 10 - Renovate Floors 2 and 3 - Renovate 59,000 S.F. of I.C.U., Diagnostic and Ambulatory Care Space (Page 21)					
1	Phase 10 - Renovate Floors 2 and 3:				
	Interior demolition.	59,000	S.F.	25.00	$1,475,000.00
	General construction.	59,000	S.F.	120.00	7,080,000.00
	Plumbing construction.	59,000	S.F.	30.00	1,770,000.00
	H.V.A.C. construction.	59,000	S.F.	80.00	4,720,000.00
	Electrical construction.	59,000	S.F.	60.00	3,540,000.00
	SUBTOTAL =				**$18,585,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	45%			$8,363,250.00
	SUBTOTAL =				**$26,948,250.00**
	Design Contingency -	10%			$2,694,830.00
	SUBTOTAL =				**$29,643,080.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$29,643,080.00**
	COST PER SQUARE FOOT FOR	**59,000**	**S.F.**	**=**	**$502.43**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)					
Infrastructure Renovation (Page 22)					
1	Air handler upgrades.	246,000	S.F.	33.00	$8,118,000.00
2	Emergency electrical distribution.	356,712	S.F.	15.00	5,350,680.00
3	Normal electrical distribution.	356,712	S.F.	17.00	6,064,100.00
4	2-900 KV generators.	2	EA.	450,000.00	900,000.00
5	15 KV switchgear.	1	L.S.	1,100,000.00	1,100,000.00
6	Physical security barriers.	1	L.S.	350,000.00	350,000.00
7	Sanitary storage tank.	1	L.S.	360,000.00	360,000.00
8	Repair Emergency Room access ramp and deck.	1	L.S.	450,000.00	450,000.00
	SUBTOTAL =				**$22,692,780.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$3,403,920.00
	SUBTOTAL =				**$26,096,700.00**
	Design Contingency -	10%			$2,609,670.00
	SUBTOTAL =				**$28,706,370.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$28,706,370.00**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)					
Floor 1 - Lower Level - No Work (Page 23)					
1	Floor 1 - Lower Level - No Work:				
	Interior demolition.	1	L.S.	0.00	$0.00
	General construction.	1	L.S.	0.00	0.00
	Plumbing construction.	1	L.S.	0.00	0.00
	H.V.A.C. construction.	1	L.S.	0.00	0.00
	Electrical construction.	1	L.S.	0.00	0.00
	General construction.	1	L.S.	0.00	0.00
	SUBTOTAL =				**$0.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$0.00
	SUBTOTAL =				**$0.00**
	Design Contingency -	10%			$0.00
	SUBTOTAL =				**$0.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$0.00**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)					
Floor 2 - Street Level - Widen Concourse and Update Finishes, Expand / Renovate Pharmacy. Renovate Pulmonary Rehab Space to Ambulatory Care Space (Page 24)					
1	Floor 2 - Street Level:				
	Interior demolition.	13,310	S.F.	10.00	$133,100.00
	General construction.	13,310	S.F.	80.00	1,064,800.00
	Plumbing construction.	13,310	S.F.	10.00	133,100.00
	H.V.A.C. construction.	13,310	S.F.	40.00	532,400.00
	Electrical construction.	13,310	S.F.	30.00	399,300.00
	SUBTOTAL =				**$2,262,700.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$339,410.00
	SUBTOTAL =				**$2,602,110.00**
	Design Contingency -	10%			$260,210.00
	SUBTOTAL =				**$2,862,320.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$2,862,320.00**
	COST PER SQUARE FOOT FOR	**13,310**	**S.F.**	**=**	**$215.05**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)					
Floor 3 - 30,000 SF of new Ambulatory Clinic space, 10,000 SF of new Pre-op/Post-op/PACU, 11,000 SF Renovation of ICU (Page 25)					
1	Floor 3:				
	Interior demolition.	51,000	S.F.	20.00	$1,020,000.00
	General construction.	51,000	S.F.	120.00	6,120,000.00
	Plumbing construction.	51,000	S.F.	30.00	1,530,000.00
	H.V.A.C. construction.	51,000	S.F.	80.00	4,080,000.00
	Electrical construction.	51,000	S.F.	60.00	3,060,000.00
	SUBTOTAL =				**$15,810,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$2,371,500.00
	SUBTOTAL =				**$18,181,500.00**
	Design Contingency -	10%			$1,818,150.00
	SUBTOTAL =				**$19,999,650.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$19,999,650.00**
	COST PER SQUARE FOOT FOR	**51,000**	**S.F.**	**=**	**$392.15**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)					
Floor 3M - Mechanical - No Work (Page 26)					
1	Floor 3M - Mechanical - No Work:				
	Interior demolition.	1	L.S.	0.00	$0.00
	General construction.	1	L.S.	0.00	0.00
	Plumbing construction.	1	L.S.	0.00	0.00
	H.V.A.C. construction.	1	L.S.	0.00	0.00
	Electrical construction.	1	L.S.	0.00	0.00
	SUBTOTAL =				**$0.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$0.00
	SUBTOTAL =				**$0.00**
	Design Contingency -	10%			$0.00
	SUBTOTAL =				**$0.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$0.00**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)					
Floor 4 - Renovate 27,500 SF of Ambulatory Care space, Renovate 21,000 SF to Inpatient Mental Health beds (Existing Coronary and Telemetry Step Down), Renovate 15,000 SF to Mental Health Clinic/Day Hospital (Existing Clinical Decision Unit and NICU), Renovate 19,500 SF to PRRTP beds (Existing Birthing Unit), Renovate 21,000 SF to Mental Health beds (Existing Med Surg) (Page 27)					
1	Phase 2 - Renovate 4th Floor:				
	Interior demolition.	104,000	S.F.	20.00	$2,080,000.00
	General construction.	104,000	S.F.	130.00	13,520,000.00
	Plumbing construction.	104,000	S.F.	30.00	3,120,000.00
	H.V.A.C. construction.	104,000	S.F.	70.00	7,280,000.00
	Electrical construction.	104,000	S.F.	50.00	5,200,000.00
	SUBTOTAL =				**$31,200,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$4,680,000.00
	SUBTOTAL =				**$35,880,000.00**
	Design Contingency -	10%			$3,588,000.00
	SUBTOTAL =				**$39,468,000.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$39,468,000.00**
	COST PER SQUARE FOOT FOR	**104,000**	**S.F.**	**=**	**$379.50**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)					
Floor 5 - Renovate Ambulatory Care Space and Med Surge Space (Page 28)					
1	Floor 5:				
	Interior demolition.	53,500	S.F.	20.00	$1,070,000.00
	General construction.	53,500	S.F.	120.00	6,420,000.00
	Plumbing construction.	53,500	S.F.	30.00	1,605,000.00
	H.V.A.C. construction.	53,500	S.F.	80.00	4,280,000.00
	Electrical construction.	53,500	S.F.	60.00	3,210,000.00
	SUBTOTAL =				**$16,585,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$2,487,750.00
	SUBTOTAL =				**$19,072,750.00**
	Design Contingency -	10%			$1,907,280.00
	SUBTOTAL =				**$20,980,030.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$20,980,030.00**
	COST PER SQUARE FOOT FOR	**53,500**	**S.F.**	**=**	**$392.15**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)					
Floor 6 - Renovate 25,000 SF to New Research Space (Existing 50% Research/50% Ambulatory Care Clinic) (Page 29)					
1	Floor 6:				
	Interior demolition.	25,000	S.F.	20.00	$500,000.00
	General construction.	25,000	S.F.	130.00	3,250,000.00
	Plumbing construction.	25,000	S.F.	40.00	1,000,000.00
	H.V.A.C. construction.	25,000	S.F.	90.00	2,250,000.00
	Electrical construction.	25,000	S.F.	70.00	1,750,000.00
	SUBTOTAL =				**$8,750,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$1,312,500.00
	SUBTOTAL =				**$10,062,500.00**
	Design Contingency -	10%			$1,006,250.00
	SUBTOTAL =				**$11,068,750.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$11,068,750.00**
	COST PER SQUARE FOOT FOR	**25,000**	**S.F.**	**=**	**$442.75**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 2 - Renovation of the Vacated CUMC Facility in a Single Phase Construction Project - 3 Years (Page 3)					
Exterior Windows Replacement at Floors 1-6 (46,494 S.F.) (Page 30)					
1	Exterior windows replacement at Floors 1-6 - 6,642 L.F. x 7 =	46,494	S.F.	75.00	$3,487,050.00
	SUBTOTAL =				**$3,487,050.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$523,060.00
	SUBTOTAL =				**$4,010,110.00**
	Design Contingency -	10%			$401,010.00
	SUBTOTAL =				**$4,411,120.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$4,411,120.00**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
Interim Renovation of CUMC - Security upgrades to CUMC Floor 4 will be necessary to accommodate the Mental Health program. Other areas will be temporarily occupied as is for the duration of the VAMC renovation. (66,000 S.F.) (Page 31)					
1	Interim Renovation of CUMC:				
	Interior demolition.	66,000	S.F.	5.00	$330,000.00
	General construction.	66,000	S.F.	25.00	1,650,000.00
	Plumbing construction.	66,000	S.F.	5.00	330,000.00
	H.V.A.C. construction.	66,000	S.F.	20.00	1,320,000.00
	Electrical construction.	66,000	S.F.	10.00	660,000.00
	SUBTOTAL =				**$4,290,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$643,500.00
	SUBTOTAL =				**$4,933,500.00**
	Design Contingency -	10%			$493,350.00
	SUBTOTAL =				**$5,426,850.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$5,426,850.00**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
New Central Utility Plant - Construct a new CUP on the south side of the hospital to include all new heating, cooling, electrical and emergency back-up systems for the hospital and vertical utility risers in an exterior shaft feeding all floors. (Page 32)					
	Central Energy Plant - New Mechanical (Pages 33-35)	8,200	S.F.	2,765.17	$22,674,400.00
	Central Energy Plant - New Electrical (Pages 36-37)	7,000	S.F.	819.07	5,733,500.00
	SUBTOTAL =				**$28,407,900.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$4,261,190.00
	SUBTOTAL =				**$32,669,090.00**
	Design Contingency -	10%			$3,266,910.00
	SUBTOTAL =				**$35,936,000.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$35,936,000.00**
	COST PER SQUARE FOOT FOR	**8,200**	**S.F.**	**=**	**$4,382.44**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
New Central Utility Plant - Construct a new CUP on the south side of the hospital to include all new heating, cooling, electrical and emergency back-up systems for the hospital and vertical utility risers in an exterior shaft feeding all floors. (Page 32)					
Central Energy Plant - New Mechanical (Pages 33-35)					
1	New Building - General Construction - foundations, exterior walls / doors / roof, interior CMU walls, finishes, miscellaneous accessories and sitework.	8,200	S.F.	125.00	$1,025,000.00
2	Additive / phasing cost to build mechanical C.E.P. over existing C.E.P.	8,200	S.F.	100.00	820,000.00
3	New Building - Mechanical Construction - sprinkler, plumbing fixture, H.V.A.C. system for heating and exhaust.	8,200	S.F.	30.00	246,000.00
4	New Building - Electrical Distribution System - lights, outlets, fire alarm, security, public address and telephone / data.	8,200	S.F.	20.00	164,000.00
5	New Building Addition for Mechanical Rooms at each Floor - General Construction - foundations, exterior walls / doors / roof, interior CMU walls, finishes, miscellaneous accessories and sitework. 2,700 S.F. per floor x 11 floors =	29,700	S.F.	125.00	3,712,500.00
6	New Building Addition for Mechanical Rooms at each Floor - Mechanical Construction - sprinkler, plumbing fixture, H.V.A.C. system for heating and exhaust. 2,700 S.F. per floor x 11 floors =	29,700	S.F.	30.00	891,000.00
7	New Building Addition for Mechanical Rooms at each Floor - Electrical Distribution System - lights, outlets, fire alarm, security, public address and telephone / data. 2,700 S.F. per floor x 11 floors =	29,700	S.F.	20.00	594,000.00
8	500 BHP dual fuel steam boilers.	2	EA.	800,000.00	1,600,000.00

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
New Central Utility Plant - Construct a new CUP on the south side of the hospital to include all new heating, cooling, electrical and emergency back-up systems for the hospital and vertical utility risers in an exterior shaft feeding all floors. (Page 32)					
Central Energy Plant - New Mechanical (Pages 33-35)					
9	Relocate existing boiler.	1	EA.	55,000.00	55,000.00
10	Dearator.	1	EA.	220,000.00	220,000.00
11	Feedwater pumps.	3	EA.	20,000.00	60,000.00
12	Condensate storage tank.	1	EA.	15,000.00	15,000.00
13	Condensate pumps.	2	EA.	30,000.00	60,000.00
14	Steam to hot water converters.	3	EA.	165,000.00	495,000.00
15	Hot water pumps with VFDs.	3	EA.	45,000.00	135,000.00
16	Chemical treatment.	1	L.S.	25,000.00	25,000.00
17	45,000 gallon fuel oil storage tank.	1	EA.	125,000.00	125,000.00
18	1,250 ton water cooled chillers.	1	EA.	770,000.00	770,000.00
19	650 ton water cooled chillers.	2	EA.	415,000.00	830,000.00
20	1,250 ton cooling towers.	2	EA.	240,000.00	480,000.00
21	Chilled water pumps with VFDs.	3	EA.	55,000.00	165,000.00
22	Condenser water pumps.	3	EA.	50,000.00	150,000.00
23	Condenser waste sump for cooling towers.	1	EA.	15,000.00	15,000.00

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
New Central Utility Plant - Construct a new CUP on the south side of the hospital to include all new heating, cooling, electrical and emergency back-up systems for the hospital and vertical utility risers in an exterior shaft feeding all floors. (Page 32)					
Central Energy Plant - New Mechanical (Pages 33-35)					
24	Controls at equipment.	1	L.S.	330,000.00	330,000.00
25	Reroute natural gas line.	150	L.F.	80.00	12,000.00
26	Fuel oil pumps and fuel oil filtration system.	3	EA.	7,000.00	21,000.00
27	Chemical treatment.	1	L.S.	3,400.00	3,400.00
28	Main hot water and chilled water piping with C.E.P.	1,500	L.F.	350.00	525,000.00
29	25,000 CFM A.H.U.'s at mechanical rooms addition to existing hospital - 2 each x 11 floors =	22	EA.	305,000.00	6,710,000.00
30	2-1/2" steam line at each floor.	260	L.F.	50.00	13,000.00
31	12" chilled water supply and return piping up to new A.H.U.'s - 250 L.F. x 2 each =	500	L.F.	275.00	137,500.00
32	10" hot water supply and return piping up to new A.H.U.'s - 250 L.F. x 2 each =	500	L.F.	250.00	125,000.00
33	Additive cost for tie-in / phasing / after hour construction and demolition to tie-into existing boiler piping.	3	L.S.	275,000.00	825,000.00
34	Additive cost for temporary chillers, tie-in / phasing / after hour construction and demolition.	3	EA.	440,000.00	1,320,000.00
	SUBTOTAL =				**$22,674,400.00**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
New Central Utility Plant - Construct a new CUP on the south side of the hospital to include all new heating, cooling, electrical and emergency back-up systems for the hospital and vertical utility risers in an exterior shaft feeding all floors. (Page 32)					
Central Energy Plant - New Electrical (Pages 36-37)					
1	New Building - General Construction - foundations, exterior walls / doors / roof, interior CMU walls, finishes, miscellaneous accessories and sitework.	7,000	S.F.	125.00	$875,000.00
2	Additive / phasing cost to build electrical C.E.P. over existing C.E.P.	7,000	S.F.	100.00	700,000.00
3	New Building - Mechanical Construction - sprinkler, plumbing fixture, H.V.A.C. system for heating and exhaust.	7,000	S.F.	30.00	210,000.00
4	Electrical panels at each floor:				
	800 amp.	11	EA.	17,000.00	187,000.00
	400 amp.	11	EA.	10,000.00	110,000.00
	225 amp.	11	EA.	7,000.00	77,000.00
5	New Building - Electrical Distribution System - lights, outlets, fire alarm, security, public address and telephone / data.	7,000	S.F.	20.00	140,000.00
6	4,000 amp paralleling switchgear.	1	EA.	1,100,000.00	1,100,000.00
7	1,000 KW emergency generators for emergency paralleling switchgear.	3	EA.	370,000.00	1,110,000.00
8	Automatic transfer switches bypass isolation.	12	EA.	45,000.00	540,000.00
9	7,000 gallon underground fuel tanks for generators.	3	EA.	30,000.00	90,000.00
10	Electrical supply and connection to mechanical equipment.	53	EA.	1,500.00	79,500.00

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
New Central Utility Plant - Construct a new CUP on the south side of the hospital to include all new heating, cooling, electrical and emergency back-up systems for the hospital and vertical utility risers in an exterior shaft feeding all floors. (Page 32)					
Central Energy Plant - New Electrical (Pages 36-37)					
11	Emergency power feeders within C.E.P. at into existing hospital - 200' x 3 each =	600	L.F.	400.00	240,000.00
12	Additive cost for tie-in / phasing / after hour construction and demolition to existing electrical.	1	L.S.	275,000.00	275,000.00
	SUBTOTAL =				**$5,733,500.00**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
New Surgery and SPD Addition (Page 38)					
1	New Surgery Addition:				
	Sitework.	32,000	S.F.	50.00	$1,600,000.00
	General construction.	32,000	S.F.	210.00	6,720,000.00
	Plumbing construction.	32,000	S.F.	40.00	1,280,000.00
	H.V.A.C. construction.	32,000	S.F.	110.00	3,520,000.00
	Electrical construction.	32,000	S.F.	70.00	2,240,000.00
	SUBTOTAL =				**$15,360,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$2,304,000.00
	SUBTOTAL =				**$17,664,000.00**
	Design Contingency -	10%			$1,766,400.00
	SUBTOTAL =				**$19,430,400.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$19,430,400.00**
	COST PER SQUARE FOOT FOR	**32,000**	**S.F.**	**=**	**$607.20**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
New Pre-Op, Post-Op, P.A.C.U. and Surgery Support Addition (Page 39)					
1	New Pre-OP, Post-Op, P.A.C.U. and Surgery Support Addition:				
	Sitework.	33,000	S.F.	50.00	$1,650,000.00
	General construction.	33,000	S.F.	190.00	6,270,000.00
	Plumbing construction.	33,000	S.F.	30.00	990,000.00
	H.V.A.C. construction.	33,000	S.F.	100.00	3,300,000.00
	Electrical construction.	33,000	S.F.	60.00	1,980,000.00
	SUBTOTAL =				**$14,190,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$2,128,500.00
	SUBTOTAL =				**$16,318,500.00**
	Design Contingency -	10%			$1,631,850.00
	SUBTOTAL =				**$17,950,350.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$17,950,350.00**
	COST PER SQUARE FOOT FOR	**33,000**	**S.F.**	**=**	**$543.95**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
Renovate the 4th Floor - Provide 22,000 S.F. of Ambulatory Care Space (Page 40)					
1	Phase 4 - Renovate 4th Floor:				
	Interior demolition.	22,000	S.F.	25.00	$550,000.00
	General construction.	22,000	S.F.	110.00	2,420,000.00
	Plumbing construction.	22,000	S.F.	20.00	440,000.00
	H.V.A.C. construction.	22,000	S.F.	70.00	1,540,000.00
	Electrical construction.	22,000	S.F.	50.00	1,100,000.00
	SUBTOTAL =				**$6,050,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$907,500.00
	SUBTOTAL =				**$6,957,500.00**
	Design Contingency -	10%			$695,750.00
	SUBTOTAL =				**$7,653,250.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$7,653,250.00**
	COST PER SQUARE FOOT FOR	**22,000**	**S.F.**	**=**	**$347.88**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
Renovate 5W, 6W, 7W, 8W and 9W - Provide 80-100 New Inpatient Rooms and Support Space (Page 41)					
1	Phase 5 - Renovate 5W, 6W, 7W, 8W and 9W:				
	Interior demolition.	56,500	S.F.	25.00	$1,412,500.00
	General construction.	56,500	S.F.	100.00	5,650,000.00
	Plumbing construction.	56,500	S.F.	10.00	565,000.00
	H.V.A.C. construction.	56,500	S.F.	60.00	3,390,000.00
	Electrical construction.	56,500	S.F.	30.00	1,695,000.00
	SUBTOTAL =				**$12,712,500.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$1,906,880.00
	SUBTOTAL =				**$14,619,380.00**
	Design Contingency -	10%			$1,461,940.00
	SUBTOTAL =				**$16,081,320.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$16,081,320.00**
	COST PER SQUARE FOOT FOR	**56,500**	**S.F.**	**=**	**$284.63**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
Renovate 5E, 6E, 7E, 8E and 9E - Provide 110,000 S.F. of New Ambulatory Care Space (Page 42)					
1	Phase 6 - Renovate 5E, 6E, 7E, 8E and 9E:				
	Interior demolition.	56,500	S.F.	25.00	$1,412,500.00
	General construction.	56,500	S.F.	110.00	6,215,000.00
	Plumbing construction.	56,500	S.F.	20.00	1,130,000.00
	H.V.A.C. construction.	56,500	S.F.	70.00	3,955,000.00
	Electrical construction.	56,500	S.F.	50.00	2,825,000.00
	SUBTOTAL =				**$15,537,500.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$2,330,630.00
	SUBTOTAL =				**$17,868,130.00**
	Design Contingency -	10%			$1,786,810.00
	SUBTOTAL =				**$19,654,940.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$19,654,940.00**
	COST PER SQUARE FOOT FOR	**56,500**	**S.F.**	**=**	**$347.88**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
Renovate Floors 10, 11 and 12 - Provide 42,000 S.F. of New Admin and Mental Health Space (Page 43)					
1	Phase 7 - Renovate Floors 10, 11 and 12:				
	Interior demolition.	42,000	S.F.	25.00	$1,050,000.00
	General construction.	42,000	S.F.	90.00	3,780,000.00
	Plumbing construction.	42,000	S.F.	10.00	420,000.00
	H.V.A.C. construction.	42,000	S.F.	60.00	2,520,000.00
	Electrical construction.	42,000	S.F.	40.00	1,680,000.00
	SUBTOTAL =				**$9,450,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$1,417,500.00
	SUBTOTAL =				**$10,867,500.00**
	Design Contingency -	10%			$1,086,750.00
	SUBTOTAL =				**$11,954,250.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$11,954,250.00**
	COST PER SQUARE FOOT FOR	**42,000**	**S.F.**	**=**	**$284.63**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
Renovate 1st Floor - Provide 53,000 S.F. of New Ambulatory Care and Support Space (Page 44)					
1	Phase 8 - Renovate 1st Floor:				
	Interior demolition.	53,000	S.F.	25.00	$1,325,000.00
	General construction.	53,000	S.F.	80.00	4,240,000.00
	Plumbing construction.	53,000	S.F.	10.00	530,000.00
	H.V.A.C. construction.	53,000	S.F.	60.00	3,180,000.00
	Electrical construction.	53,000	S.F.	40.00	2,120,000.00
	SUBTOTAL =				**$11,395,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$1,709,250.00
	SUBTOTAL =				**$13,104,250.00**
	Design Contingency -	10%			$1,310,430.00
	SUBTOTAL =				**$14,414,680.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$14,414,680.00**
	COST PER SQUARE FOOT FOR	**53,000**	**S.F.**	**=**	**$271.98**

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				

Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
Renovate Basement - Provide 38,000 S.F. of Admin and Support Space (Page 45)					
1	Phase 9 - Renovate Basement:				
	Interior demolition.	38,000	S.F.	25.00	$950,000.00
	General construction.	38,000	S.F.	70.00	2,660,000.00
	Plumbing construction.	38,000	S.F.	5.00	190,000.00
	H.V.A.C. construction.	38,000	S.F.	40.00	1,520,000.00
	Electrical construction.	38,000	S.F.	25.00	950,000.00
	SUBTOTAL =				**$6,270,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$940,500.00
	SUBTOTAL =				**$7,210,500.00**
	Design Contingency -	10%			$721,050.00
	SUBTOTAL =				**$7,931,550.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$7,931,550.00**
	COST PER SQUARE FOOT FOR	**38,000**	**S.F.**	**=**	**$208.73**

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Budget Estimate Rev 4 1/15/15	***BCC Building Cost Consultants, Inc.*** V.A. Omaha New and Renovation Study - 3 Options Omaha, Nebraska BCC Job No.: 14-12-0192	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Option 3 - Single-phased Renovation of the Existing VAMC Facility - 3 Years (Pages 4-5)					
Renovate Floors 2 and 3 - Renovate 59,000 S.F. of I.C.U., Diagnostic and Ambulatory Care Space (Page					
1	Phase 10 - Renovate Floors 2 and 3:				
	Interior demolition.	59,000	S.F.	25.00	$1,475,000.00
	General construction.	59,000	S.F.	120.00	7,080,000.00
	Plumbing construction.	59,000	S.F.	30.00	1,770,000.00
	H.V.A.C. construction.	59,000	S.F.	80.00	4,720,000.00
	Electrical construction.	59,000	S.F.	60.00	3,540,000.00
	SUBTOTAL =				**$18,585,000.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	15%			$2,787,750.00
	SUBTOTAL =				**$21,372,750.00**
	Design Contingency -	10%			$2,137,280.00
	SUBTOTAL =				**$23,510,030.00**
	Escalation - Cost Included are Present Day Cost (12.22.14) -	0%			$0.00
	CONSTRUCTION TOTAL =				**$23,510,030.00**
	COST PER SQUARE FOOT FOR	**59,000**	**S.F.**	**=**	**$398.48**