



World-Class Facilities

MHS MILITARY HEALTH SYSTEM | U.S. Department of Defense

Life Cycle View of World-Class Domains by Objectives and Strategies

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Statement of Purpose

This report provides a comprehensive view of the content contained in the MHS World-Class Checklist. Like the Checklist, the report is organized by Facility Life Cycle then by World-Class Domain. The Objectives and Strategies are grouped within each of the six domains.

How to Use this Report: Locate the Life Cycle of interest within the report. Review the Domains, Objectives and Strategies with that Life Cycle. Note that a strategy may support the achievement of more than one objective.

Understanding the Report

The diagram below illustrates the content organization of this report.

User's Guide:	
The descriptions below highlight important information about the sections of this document.	
Life Cycle Title:	STRATEGIC PORTFOLIO PLANNING
Domain Title	6.0 COMMUNITY AND SOCIAL RESPONSIBILITY
Domain Definition	<i>A world-class medical facility demonstrates a population health focus by routinely being involved in activities aimed at improving the community and constituency that it serves and demonstrates environmental responsibility and sustainability in the facility design, construction and operation.</i>
Objective Number & Title	OBJ 40: Employ Integrated Design Principles (HPSB1)
Strategy Number & Title	1050 Integrate the use of OMB's A-11, Section 7, Exhibit 300: Capital Asset Plan and Business Case Summary



STRATEGIC PORTFOLIO PLANNING

6.0 COMMUNITY AND SOCIAL RESPONSIBILITY

A world-class medical facility demonstrates a population health focus by routinely being involved in activities aimed at improving the community and constituency that it serves and demonstrates environmental responsibility and sustainability in the facility design, construction and operation.

OBJ 40: Employ Integrated Design Principles (HPSB1)

1050 Integrate the use of OMB's A-11, Section 7, Exhibit 300: Capital Asset Plan and Business Case Summary



REQUIREMENTS PLANNING

1.0 BASIC INFRASTRUCTURE

A world-class medical facility attains and maintains all accreditations and certifications that satisfy licensure and other statutory and regulatory requirements relating to the provision of the services offered at the facility and provides comprehensive and definitive acute healthcare services in an integrated and coordinated manner that meets patient needs from birth (including the pre-term neonate) through the end of life.

OBJ 2: Maximize patient control over their environment

168 Provide single patient rooms

OBJ 3: Provide appropriate levels of patient privacy

168 Provide single patient rooms

OBJ 4: Maximize patient/family satisfaction and well-being

24 Provide natural light in as many occupiable spaces as possible

18 Provide acuity-convertible rooms

58 Collocate related services into Care Centers (i.e., musculoskeletal, cancer, etc.)

168 Provide single patient rooms

20 Provide acuity-adaptable rooms

283 Provide places where patients can engage socially with family and other caregivers, such as the Planetree feature of a family kitchen on inpatient units where family members can prepare food for patients and families to eat together

152 Provide healing gardens

160 Provide secure access to nature (i.e., central green zones)

OBJ 5: Optimize the patient room environment and functionality for providing patient/family-centered

33 Provide larger patient zone to support in-room procedures

OBJ 7: Maximize opportunities for social support

283 Provide places where patients can engage socially with family and other caregivers, such as the Planetree feature of a family kitchen on inpatient units where family members can prepare food for patients and families to eat together

206 Provide multiple spiritual spaces and haven areas for patient/family/staff

168 Provide single patient rooms



REQUIREMENTS PLANNING

1.0 BASIC INFRASTRUCTURE

OBJ 9: Optimize communication among patients, caregivers, family

- 58 Collocate related services into Care Centers (i.e., musculoskeletal, cancer, etc.)
- 60 Decentralize staff support spaces (i.e., charting, supplies, medications) proximate to patient rooms

OBJ 10: Provide a range of opportunities for respite, positive distraction and stress reduction

- 206 Provide multiple spiritual spaces and haven areas for patient/family/staff
- 152 Provide healing gardens
- 160 Provide secure access to nature (i.e., central green zones)
- 79 Provide adequate space in public areas and waiting rooms to avoid crowding

OBJ 11: Maximize connections to nature

- 152 Provide healing gardens
- 160 Provide secure access to nature (i.e., central green zones)

OBJ 12: Optimize exposure to natural light

- 24 Provide natural light in as many occupiable spaces as possible

OBJ 16: Minimize patient movement

- 33 Provide larger patient zone to support in-room procedures
- 58 Collocate related services into Care Centers (i.e., musculoskeletal, cancer, etc.)
- 20 Provide acuity-adaptable rooms
- 18 Provide acuity-convertible rooms

OBJ 17: Maximize opportunities for accessing nutritional food choices

- 283 Provide places where patients can engage socially with family and other caregivers, such as the Planetree feature of a family kitchen on inpatient units where family members can prepare food for patients and families to eat together

OBJ 18: Minimize environmental stressors

- 168 Provide single patient rooms

OBJ 20: Eliminate healthcare-acquired infections



REQUIREMENTS PLANNING

1.0 BASIC INFRASTRUCTURE

OBJ 20: Eliminate healthcare-acquired infections

20 Provide acuity-adaptable rooms

168 Provide single patient rooms

18 Provide acuity-convertible rooms

OBJ 21: Eliminate medication errors

168 Provide single patient rooms

OBJ 22: Eliminate preventable patient falls and resulting injuries

168 Provide single patient rooms

60 Decentralize staff support spaces (i.e., charting, supplies, medications) proximate to patient rooms

20 Provide acuity-adaptable rooms

18 Provide acuity-convertible rooms

OBJ 24: Optimize situational awareness of patients by staff throughout the care environment

60 Decentralize staff support spaces (i.e., charting, supplies, medications) proximate to patient rooms

OBJ 25: Eliminate/prevent patient harm

96 Provide adequate space for private work to minimize distractions and interruptions

33 Provide larger patient zone to support in-room procedures

18 Provide acuity-convertible rooms

20 Provide acuity-adaptable rooms

OBJ 30: Minimize patient and staff stress

79 Provide adequate space in public areas and waiting rooms to avoid crowding

152 Provide healing gardens

160 Provide secure access to nature (i.e., central green zones)

OBJ 31: Optimize situational awareness between staff throughout the care environment

60 Decentralize staff support spaces (i.e., charting, supplies, medications) proximate to patient rooms



REQUIREMENTS PLANNING

1.0 BASIC INFRASTRUCTURE

OBJ 32: Eliminate staff injuries

33 Provide larger patient zone to support in-room procedures

OBJ 33: Optimize staff satisfaction to encourage retention of staff

248 Provide private staff areas for staff communication other than the staff break room

24 Provide natural light in as many occupiable spaces as possible

278 Provide onsite staff exercise facilities

OBJ 35: Plan for, implement, and provide access to state of the art healthcare information technology t

1015 Provide adequate communication infrastructure to support pervasive use of healthcare information technology(wired and wifi)

OBJ 36: Optimize staff efficiency and performance

60 Decentralize staff support spaces (i.e., charting, supplies, medications) proximate to patient rooms

96 Provide adequate space for private work to minimize distractions and interruptions

33 Provide larger patient zone to support in-room procedures

58 Collocate related services into Care Centers (i.e., musculoskeletal, cancer, etc.)

181 Provide flexible work spaces that accommodate a multitude of staff tasks and multidisciplinary use

1015 Provide adequate communication infrastructure to support pervasive use of healthcare information technology(wired and wifi)

OBJ 37: Maximize operational effectiveness and flexibility

90 Perform interior transportation study for entire facility

OBJ 39: Reduce environmental impact of materials

1021 Incorporate adequate space, equipment, and transport accommodations for recycling in the building design.

OBJ 44: Maximize environmental responsibility and sustainability

2010 Give preference to site that will have least environmental impact

1021 Incorporate adequate space, equipment, and transport accommodations for recycling in the building design.



REQUIREMENTS PLANNING

1.0 BASIC INFRASTRUCTURE

OBJ 50: Ensure operational continuity and meet surge requirements

- 195 Design to accommodate gurney movement, staging, and cleaning during surge
- 196 Create flexible public spaces to support multiple missions (i.e., MASCAL, health fairs)
- 344 Design building and develop related emergency preparedness plan. Ensure building design supports plan. Regularly test plan.
- 198 Provide large scale decontamination capabilities as appropriate for mission
- 345 Design for surge capacity to accommodate the need to treat and manage unexpected large numbers of additional patients based on mission
- 190 Provide storage for surge preparedness (gurneys, haz-mat suits, etc.)
- 194 Provide designated surge areas for waiting, screening, exam and treatment

OBJ 51: Anticipate and accommodate future and current technologies

- 1015 Provide adequate communication infrastructure to support pervasive use of healthcare information technology(wired and wifi)

OBJ 52: Optimize space utilization and flexibility over time

- 181 Provide flexible work spaces that accommodate a multitude of staff tasks and multidisciplinary use
- 196 Create flexible public spaces to support multiple missions (i.e., MASCAL, health fairs)
- 231 Provide walk-through interstitial space between occupied floors for mechanical, electrical, and plumbing distribution
- 239 Design to accommodate future expansion
- 20 Provide acuity-adaptable rooms
- 18 Provide acuity-convertible rooms



REQUIREMENTS PLANNING

2.0 LEADERSHIP AND CULTURE

A world-class medical facility provides executive leadership that is visionary, mission-focused, experienced, stable over time, and empowered with organizational and fiscal authority. It organizes its governance structure and processes to ensure that the governing body is composed of knowledgeable and dedicated individuals who reflect and represent the interests of the organization and its stakeholders. It effectively communicates with its medical staff and employee representatives; and assures that patient and patient family's views and perspectives about facility operations are known to facility management and the governing board. It ensures that the governing board is actively involved in overseeing the operation of the institution, and especially in overseeing the quality and safety of care provided. It manifests an organizational culture that continually strives for excellence.

OBJ 13: Ensure patient access to care

413 Provide comprehensive services appropriate to the community served

OBJ 33: Optimize staff satisfaction to encourage retention of staff

386 Offer services such as child and elder care programs, telecommuting, flexible work schedules, and employee wellness and fitness programs

OBJ 47: Maximize opportunities for identifying, researching and sharing best practices

2003 Ensure participation in the MHS collaboration community

OBJ 49: Optimize organization goals, mission, and performance for excellence

371 Establish multidisciplinary Centers of Excellence

368 Attain or be in process of attaining the highest level of certification or designation for specialty services having generally recognized tiered levels of service

OBJ 54: Optimize leadership culture

2003 Ensure participation in the MHS collaboration community

OBJ 55: Research, evaluate, and incorporate best practices in design process

2004 Involve the clinicians, patients, and families in the facility development process



REQUIREMENTS PLANNING

3.0 PROCESS OF CARE STANDARDS

A world-class medical facility organizes its services so that they are integrated and seamless between and among services in the facility and with home and community-based services. It consistently applies contemporary evidence-based knowledge and principles and utilizes state-of-the-art technology.

OBJ 48: Maximize evidence based practices, design and processes in care delivery

425 Implement the most recent set of "Safe Practices" endorsed by the National Quality Forum

5.0 KNOWLEDGE MANAGEMENT

A world-class medical facility is regularly engaged in a full spectrum of scholarly activities, including the provision of graduate medical education and other health professional training. It also conducts and publishes research findings and uses simulation laboratories for areas such as surgery, cardiac catheterization, endoscopy and emergency care to expand future care delivery capabilities and practice.

OBJ 48: Maximize evidence based practices, design and processes in care delivery

2005 Research, evaluate, and incorporate best practices in patient care delivery models

OBJ 53: Maximize opportunities for innovation within the organizational culture

361 Provide simulation laboratories for surgery, cardiac catheterization, endoscopy and emergency care or others as appropriate to mission of the facility

OBJ 55: Research, evaluate, and incorporate best practices in design process

2007 Use empirical research and other measures of best practice to guide the design and operation of the facility

2006 Actively conduct empirical research during the project to inform your project and to add to the body of evidence



REQUIREMENTS PLANNING

6.0 COMMUNITY AND SOCIAL RESPONSIBILITY

A world-class medical facility demonstrates a population health focus by routinely being involved in activities aimed at improving the community and constituency that it serves and demonstrates environmental responsibility and sustainability in the facility design, construction and operation.

OBJ 40: Employ Integrated Design Principles (HPSB1)

- 1051** Establish and ensure incorporation of performance goals for siting, energy, water, materials, indoor environmental quality, and comprehensive design goals throughout the lifecycle of the building

OBJ 44: Maximize environmental responsibility and sustainability

- 1044** Implement renewable energy generation projects on agency property for agency use, when lifecycle cost effective, per Executive Order 13423 (http://www.whitehouse.gov/omb/assets/procurement_green/eo13423_instructions.pdf)
- 318** Demonstrate inclusion of Green Guide for Healthcare recommendations
- 317** Achieve Leadership in Energy and Environmental Design (LEED) certification



DESIGN / CONSTRUCTION EXECUTION

1.0 BASIC INFRASTRUCTURE

A world-class medical facility attains and maintains all accreditations and certifications that satisfy licensure and other statutory and regulatory requirements relating to the provision of the services offered at the facility and provides comprehensive and definitive acute healthcare services in an integrated and coordinated manner that meets patient needs from birth (including the pre-term neonate) through the end of life.

OBJ 1: Ensure patient/family involved in all care decisions

72 Provide self-service kiosks

OBJ 2: Maximize patient control over their environment

74 Provide a variety of comfortable and moveable furniture arranged in small, flexible groupings to accommodate the widest range of persons and families

172 Provide storage area for patient belongings

55 Provide patient bedside access to internet, education systems, television, blinds, lighting and temperature controls, menus, etc.

72 Provide self-service kiosks

171 Provide the patient/family with the capability to personalize room

OBJ 3: Provide appropriate levels of patient privacy

77 Provide distinct spatial boundaries for waiting areas

179 Provide the ability to conduct bedside data entry

135 Use high performance sound-absorbing ceiling tiles

131 Provide full height walls with high acoustic ratings in spaces where patients would be asked to disclose confidential information

72 Provide self-service kiosks

133 Provide acoustical separation of staff work areas from patient rooms.

16 Provide a visual and sound barrier between care space and family space in the patient room

OBJ 4: Maximize patient/family satisfaction and well-being

72 Provide self-service kiosks

171 Provide the patient/family with the capability to personalize room



DESIGN / CONSTRUCTION EXECUTION

1.0 BASIC INFRASTRUCTURE

OBJ 4: Maximize patient/family satisfaction and well-being

- 74 Provide a variety of comfortable and moveable furniture arranged in small, flexible groupings to accommodate the widest range of persons and families
- 55 Provide patient bedside access to internet, education systems, television, blinds, lighting and temperature controls, menus, etc.
- 38 Provide lighting that supports natural circadian rhythm
- 112 Strive for a comfortable and welcoming, non-institutional, visual aesthetic
- 16 Provide a visual and sound barrier between care space and family space in the patient room
- 154 Create a therapeutic interior to create a healing environment.
- 153 Provide access to nature

OBJ 5: Optimize the patient room environment and functionality for providing patient/family-centered

- 38 Provide lighting that supports natural circadian rhythm
- 2001 Design patient room and select equipment that will support family involvement in care delivery
- 171 Provide the patient/family with the capability to personalize room
- 74 Provide a variety of comfortable and moveable furniture arranged in small, flexible groupings to accommodate the widest range of persons and families
- 55 Provide patient bedside access to internet, education systems, television, blinds, lighting and temperature controls, menus, etc.
- 16 Provide a visual and sound barrier between care space and family space in the patient room

OBJ 6: Promote culturally appropriate care environments

- 110 Use familiar and culturally relevant materials wherever consistent with sanitation and other functional needs

OBJ 7: Maximize opportunities for social support

- 55 Provide patient bedside access to internet, education systems, television, blinds, lighting and temperature controls, menus, etc.
- 74 Provide a variety of comfortable and moveable furniture arranged in small, flexible groupings to accommodate the widest range of persons and families



DESIGN / CONSTRUCTION EXECUTION

1.0 BASIC INFRASTRUCTURE

OBJ 8: Optimize accessibility

- 357 Provide a physical barrier-free environment that exceeds minimum American with Disabilities Act (ADA) requirements

OBJ 9: Optimize communication among patients, caregivers, family

- 179 Provide the ability to conduct bedside data entry
- 55 Provide patient bedside access to internet, education systems, television, blinds, lighting and temperature controls, menus, etc.

OBJ 10: Provide a range of opportunities for respite, positive distraction and stress reduction

- 81 Provide positive distractions in waiting areas and public spaces
- 153 Provide access to nature

OBJ 11: Maximize connections to nature

- 22 Maximize glazable dimension on outside inpatient room wall.
- 153 Provide access to nature

OBJ 12: Optimize exposure to natural light

- 38 Provide lighting that supports natural circadian rhythm
- 1008 Provide automatic dimming controls or accessible manual lighting controls, and appropriate glare control
- 22 Maximize glazable dimension on outside inpatient room wall.

OBJ 14: Optimize patient care coordination

- 1014 Provide access to healthcare information technology in all staff/provider work areas
- 56 Provide interoperability among all technology platforms.

OBJ 15: Optimize appropriate lighting for all activities and tasks

- 42 Provide adequate lighting levels in staff work areas
- 1007 Achieve a minimum daylight factor of 2 percent (excluding all direct sunlight penetration) in 75 percent of all space occupied for critical visual tasks



DESIGN / CONSTRUCTION EXECUTION

1.0 BASIC INFRASTRUCTURE

OBJ 15: Optimize appropriate lighting for all activities and tasks

- 1008 Provide automatic dimming controls or accessible manual lighting controls, and appropriate glare control

OBJ 16: Minimize patient movement

- 354 Design the patient room environment and functionality to minimize the need for patient movement
- 55 Provide patient bedside access to internet, education systems, television, blinds, lighting and temperature controls, menus, etc.

OBJ 17: Maximize opportunities for accessing nutritional food choices

- 233 Locate nourishment centers convenient to patients and families

OBJ 18: Minimize environmental stressors

- 126 Reduce or eliminate sources of noise: public address systems, nurse call and alarm systems
- 135 Use high performance sound-absorbing ceiling tiles
- 16 Provide a visual and sound barrier between care space and family space in the patient room

OBJ 19: Optimize the acoustical environment

- 131 Provide full height walls with high acoustic ratings in spaces where patients would be asked to disclose confidential information
- 126 Reduce or eliminate sources of noise: public address systems, nurse call and alarm systems
- 133 Provide acoustical separation of staff work areas from patient rooms.
- 135 Use high performance sound-absorbing ceiling tiles
- 122 Use low-impact, low-resonance floor materials where appropriate
- 16 Provide a visual and sound barrier between care space and family space in the patient room

OBJ 20: Eliminate healthcare-acquired infections

- 106 Install windows that open
- 50 Use UVGI on drip pans and cooling coils in ventilation systems



DESIGN / CONSTRUCTION EXECUTION

1.0 BASIC INFRASTRUCTURE

OBJ 20: Eliminate healthcare-acquired infections

- 1006 Establish and implement a moisture control strategy for controlling moisture flows and condensation to prevent building damage, minimize mold contamination, and reduce health risks related to moisture
- 83 Keep outflow of trash, recyclables, and soiled materials separate from movement of food and clean supplies
- 246 Support hand washing with conveniently placed sinks, hand washing liquid dispensers and alcohol rubs
- 188 Careful selection of materials with clean-ability a key consideration
- 102 Maximize HEPA (99.97%) filtration for appropriate hospital areas
- 268 Select features such as doorframes, casework, and finish transitions to avoid dirt-catching and hard-to-clean crevices and joints
- 272 Avoid decorative water fountains in high-risk patient areas

OBJ 21: Eliminate medication errors

- 42 Provide adequate lighting levels in staff work areas
- 56 Provide interoperability among all technology platforms.

OBJ 22: Eliminate preventable patient falls and resulting injuries

- 264 Include permanent walk-off grilles or mats at all entrances to eliminate tracked in dirt
- 162 Provide outboard and midboard bathrooms to allow more visual access to patient from hallways
- 169 Provide assistive devices (e.g., headwall rails, larger bathroom doors, bathroom location)
- 1000 Use landscaping or railings to keep people on the pavement near the building entrances
- 5 Install ceiling or wall-mounted lifts in all inpatient rooms
- 122 Use low-impact, low-resonance floor materials where appropriate

OBJ 24: Optimize situational awareness of patients by staff throughout the care environment

- 341 Design the patient room environment and functionality to allow direct visual monitoring by caregivers
- 162 Provide outboard and midboard bathrooms to allow more visual access to patient from hallways



DESIGN / CONSTRUCTION EXECUTION

1.0 BASIC INFRASTRUCTURE

OBJ 25: Eliminate/prevent patient harm

- 2 Provide same-handed patient rooms

OBJ 26: Optimize separation of patient / public and other traffic flow

- 83 Keep outflow of trash, recyclables, and soiled materials separate from movement of food and clean supplies
- 85 Separate patients and visitors from industrial/logistical areas or floors

OBJ 29: Optimize quality of care to achieve industry standards at highest level

- 343 Apply contemporary evidence-based knowledge, principles of design and construction and utilize state-of-the-art technology to create a healing environment and continuous healing relationships.

OBJ 30: Minimize patient and staff stress

- 139 Provide clear visual cues to orient patients and families that will guide them to their destination and return

OBJ 31: Optimize situational awareness between staff throughout the care environment

- 165 Provide visual connections to facilitate information seeking and interaction among staff

OBJ 32: Eliminate staff injuries

- 274 Ergonomically evaluate work areas
- 5 Install ceiling or wall-mounted lifts in all inpatient rooms
- 122 Use low-impact, low-resonance floor materials where appropriate
- 165 Provide visual connections to facilitate information seeking and interaction among staff

OBJ 33: Optimize staff satisfaction to encourage retention of staff

- 42 Provide adequate lighting levels in staff work areas

OBJ 34: Provide clear and intuitive interior and exterior wayfinding

- 72 Provide self-service kiosks
- 139 Provide clear visual cues to orient patients and families that will guide them to their destination and return



DESIGN / CONSTRUCTION EXECUTION

1.0 BASIC INFRASTRUCTURE

OBJ 34: Provide clear and intuitive interior and exterior wayfinding

2011 Provide a wayfinding plan

145 Provide simple and direct routes to each patient care / treatment area without penetrating other functional areas

OBJ 35: Plan for, implement, and provide access to state of the art healthcare information technology t

179 Provide the ability to conduct bedside data entry

1014 Provide access to healthcare information technology in all staff/provider work areas

55 Provide patient bedside access to internet, education systems, television, blinds, lighting and temperature controls, menus, etc.

56 Provide interoperability among all technology platforms.

OBJ 36: Optimize staff efficiency and performance

179 Provide the ability to conduct bedside data entry

2 Provide same-handed patient rooms

1014 Provide access to healthcare information technology in all staff/provider work areas

1007 Achieve a minimum daylight factor of 2 percent (excluding all direct sunlight penetration) in 75 percent of all space occupied for critical visual tasks

42 Provide adequate lighting levels in staff work areas

274 Ergonomically evaluate work areas

235 Standardize nursing floor layouts

56 Provide interoperability among all technology platforms.

OBJ 37: Maximize operational effectiveness and flexibility

66 Minimize distance of necessary travel between frequently used spaces

OBJ 38: Optimize indoor environmental quality

1006 Establish and implement a moisture control strategy for controlling moisture flows and condensation to prevent building damage, minimize mold contamination, and reduce health risks related to moisture



DESIGN / CONSTRUCTION EXECUTION

1.0 BASIC INFRASTRUCTURE

OBJ 38: Optimize indoor environmental quality

- 1009 Specify materials and products with low pollutant emissions, including composite wood products, adhesives, sealants, interior paints and finishes, carpet systems, and furnishings
- 1005 Meet ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy, including continuous humidity control within established ranges per climate zone, and ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality
- 1000 Use landscaping or railings to keep people on the pavement near the building entrances
- 210 Avoid harmful chemicals in building materials and supplies
- 1010 Follow the recommended approach of the Sheet Metal and Air Conditioning Contractor's National Association Indoor Air Quality Guidelines for Occupied Buildings under Construction, 2007
- 1011 After construction and prior to occupancy, conduct a minimum 72-hour flush-out with maximum outdoor air consistent with achieving relative humidity no greater than 60 percent
- 213 Avoid use of furniture and furnishings that contain harmful chemicals (i.e., PBDE, PFA, urea-formaldehyde, phthalate and plasticizers)
- 264 Include permanent walk-off grilles or mats at all entrances to eliminate tracked in dirt
- 229 Protect occupied spaces by using effective control measures during construction
- 50 Use UVGI on drip pans and cooling coils in ventilation systems

OBJ 39: Reduce environmental impact of materials

- 210 Avoid harmful chemicals in building materials and supplies
- 229 Protect occupied spaces by using effective control measures during construction
- 106 Install windows that open
- 213 Avoid use of furniture and furnishings that contain harmful chemicals (i.e., PBDE, PFA, urea-formaldehyde, phthalate and plasticizers)

OBJ 40: Employ Integrated Design Principles (HPSB1)

- 64 Group or combine functional areas with similar utility system requirements

OBJ 42: Optimize energy performance

- 64 Group or combine functional areas with similar utility system requirements



DESIGN / CONSTRUCTION EXECUTION

1.0 BASIC INFRASTRUCTURE

OBJ 42: Optimize energy performance

- 1008 Provide automatic dimming controls or accessible manual lighting controls, and appropriate glare control
- 153 Provide access to nature
- 227 Utilize controls and feedback systems for building systems to inform the facility manager and MHS leadership

OBJ 44: Maximize environmental responsibility and sustainability

- 185 Use appropriate, durable finishes for each functional space
- 227 Utilize controls and feedback systems for building systems to inform the facility manager and MHS leadership

OBJ 45: Optimize total cost of ownership including both capital and operational expenditures

- 64 Group or combine functional areas with similar utility system requirements
- 227 Utilize controls and feedback systems for building systems to inform the facility manager and MHS leadership
- 185 Use appropriate, durable finishes for each functional space

OBJ 48: Maximize evidence based practices, design and processes in care delivery

- 351 Utilize technology to functionally integrate component parts and processes into a coordinated system

OBJ 50: Ensure operational continuity and meet surge requirements

- 256 Standardize treatment and exam room designs

OBJ 51: Anticipate and accommodate future and current technologies

- 347 Attain at least stage 6 of the Healthcare Information and Management Systems Society (HIMSS) Electronic Medical Record Adoption Model
- 1014 Provide access to healthcare information technology in all staff/provider work areas
- 349 Facilitate real time location tracking of patients and staff
- 56 Provide interoperability among all technology platforms.



DESIGN / CONSTRUCTION EXECUTION

1.0 BASIC INFRASTRUCTURE

OBJ 52: Optimize space utilization and flexibility over time

256 Standardize treatment and exam room designs

3.0 PROCESS OF CARE STANDARDS

A world-class medical facility organizes its services so that they are integrated and seamless between and among services in the facility and with home and community-based services. It consistently applies contemporary evidence-based knowledge and principles and utilizes state-of-the-art technology.

OBJ 22: Eliminate preventable patient falls and resulting injuries

6 Institute an integrated facility-wide Lift Program

OBJ 32: Eliminate staff injuries

6 Institute an integrated facility-wide Lift Program



DESIGN / CONSTRUCTION EXECUTION

6.0 COMMUNITY AND SOCIAL RESPONSIBILITY

A world-class medical facility demonstrates a population health focus by routinely being involved in activities aimed at improving the community and constituency that it serves and demonstrates environmental responsibility and sustainability in the facility design, construction and operation.

OBJ 38: Optimize indoor environmental quality

1013 Implement a policy and post signage indicating that smoking is prohibited within the building and within 25 feet of all building entrances, operable windows, and building ventilation intakes during building occupancy

OBJ 39: Reduce environmental impact of materials

1022 During a project's design stage, identify local recycling and salvage operations that could process site-related construction and demolition materials

1024 Eliminate the use of ozone depleting compounds during and after construction where alternative environmentally preferable products are available, consistent with either the Montreal Protocol and Title VI of the Clean Air Act Amendments of 1990, or equivalent overall air quality benefits that take into account lifecycle impacts

1016 Specify products meeting or exceeding EPA's recycled content recommendations, per Section 6002 of the Resource Conservation and Recovery Act (RCRA), for EPA-designated products. For other products, specify materials with recycled content when practicable.

1017 Specify purchase of EPA-designated products that meet performance requirements and are available at a reasonable cost shall be included in all solicitations relevant to construction, operation, maintenance of or use in the building

1018 Specify in solicitations, products with the highest content level per USDA's bio-based content recommendations, Per Section 9002 of the Farm Security and Rural Investment Act (FSRIA). For other products, specify bio-based products made from rapidly renewable resources and certified sustainable wood products

1019 Specify in solicitations bio-based products made from rapidly renewable resources and certified sustainable wood products that meet performance requirements and are available at a reasonable cost

1020 Use products that have a lesser or reduced effect on human health and the environment over their lifecycle when compared with competing products or services that serve the same purpose

1023 During construction, recycle or salvage at least 50 percent of the non-hazardous construction, demolition and land clearing materials, excluding soil, where markets or onsite recycling opportunities exist.



DESIGN / CONSTRUCTION EXECUTION

6.0 COMMUNITY AND SOCIAL RESPONSIBILITY

OBJ 40: Employ Integrated Design Principles (HPSB1)

1049 Initiate and utilize an integrated project team in all stages of a project's lifecycle, including deconstruction

OBJ 41: Protect and conserve water

1034 Use water efficient landscape and irrigation strategies, such as water reuse, recycling, and the use of harvested rainwater, to reduce outdoor potable water consumption by a minimum of 50 percent over that consumed by conventional means (plant species and plant densities)

1033 Employ strategies that in aggregate use a minimum of 20 percent less potable water than the indoor water use baseline calculated for the building, after meeting the EPA 1992, Uniform Plumbing Codes 2006, and the International Plumbing Codes 2006 fixture performance requirements. (The installation of water meters is encouraged to allow for the management of water use during occupancy. The use of harvested rainwater, treated wastewater, and air conditioner condensate should also be considered and used where feasible for non-potable use and potable use where allowed.)

1037 Deploy lifecycle cost effective water conservation measures when potable water is used to improve a building's energy efficiency, per the Energy Policy Act of 2005 Section 109.

1038 Specify EPA's WaterSense-labeled products or other water conserving products, where available

1035 Employ design and construction strategies that reduce storm water runoff and discharges of polluted water offsite

1039 Choose irrigation contractors who are certified through a WaterSense labeled program

OBJ 42: Optimize energy performance

1042 Use ENERGY STAR® and FEMP-designated Energy Efficient Products, where available

1046 Include meters for natural gas and steam, where natural gas and steam are used, Per EISA Section 434 (http://www1.eere.energy.gov/femp/news/news_detail.html?news_id=11683).

1043 Meet at least 30% of the hot water demand through the installation of solar hot water heaters, when lifecycle cost effective, per the Energy Independence and Security Act (EISA) Section 523. (<http://www1.eere.energy.gov/femp/regulations/eisa.html>)

1041 Reduce the energy use by 30 percent compared to the baseline building performance rating per the American National Standards Institute (ANSI)/American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE)/Illuminating Engineering Society of North America (IESNA) Standard 90.1-2007, Energy Standard for Buildings Except Low-Rise Residential



DESIGN / CONSTRUCTION EXECUTION

6.0 COMMUNITY AND SOCIAL RESPONSIBILITY

OBJ 42: Optimize energy performance

- 1040** Establish a whole building performance target that takes into account the intended use, occupancy, operations, plug loads, other energy demands, and design to earn the ENERGY STAR® targets for new construction where applicable
- 1045** Install building level electricity meters to track and continuously optimize performance, per the Energy Policy Act of 2005, Section 103 (http://www.epa.gov/oust/fedlaws/publ_109-058.pdf).

OBJ 44: Maximize environmental responsibility and sustainability

- 1024** Eliminate the use of ozone depleting compounds during and after construction where alternative environmentally preferable products are available, consistent with either the Montreal Protocol and Title VI of the Clean Air Act Amendments of 1990, or equivalent overall air quality benefits that take into account lifecycle impacts
- 1018** Specify in solicitations, products with the highest content level per USDA's bio-based content recommendations, Per Section 9002 of the Farm Security and Rural Investment Act (FSRIA). For other products, specify bio-based products made from rapidly renewable resources and certified sustainable wood products
- 1017** Specify purchase of EPA-designated products that meet performance requirements and are available at a reasonable cost shall be included in all solicitations relevant to construction, operation, maintenance of or use in the building
- 2008** Use of durable and environmentally appropriate materials
- 1022** During a project's design stage, identify local recycling and salvage operations that could process site-related construction and demolition materials
- 1020** Use products that have a lesser or reduced effect on human health and the environment over their lifecycle when compared with competing products or services that serve the same purpose
- 1023** During construction, recycle or salvage at least 50 percent of the non-hazardous construction, demolition and land clearing materials, excluding soil, where markets or onsite recycling opportunities exist.
- 1019** Specify in solicitations bio-based products made from rapidly renewable resources and certified sustainable wood products that meet performance requirements and are available at a reasonable cost



FACILITY ACTIVATION & OPERATIONS

1.0 BASIC INFRASTRUCTURE

A world-class medical facility attains and maintains all accreditations and certifications that satisfy licensure and other statutory and regulatory requirements relating to the provision of the services offered at the facility and provides comprehensive and definitive acute healthcare services in an integrated and coordinated manner that meets patient needs from birth (including the pre-term neonate) through the end of life.

OBJ 20: Eliminate healthcare-acquired infections

- 218 Use proper water treatment
- 270 Drinking fountain water temperature should be kept cold and fountains should be regularly cleaned and maintained.
- 48 Maintain and operate ventilation systems

OBJ 25: Eliminate/prevent patient harm

- 1012 After occupancy, continue flush-out as necessary to minimize exposure to contaminants from new building materials

OBJ 38: Optimize indoor environmental quality

- 1012 After occupancy, continue flush-out as necessary to minimize exposure to contaminants from new building materials
- 48 Maintain and operate ventilation systems

OBJ 39: Reduce environmental impact of materials

- 46 Install low-mercury fluorescent lamps

OBJ 42: Optimize energy performance

- 48 Maintain and operate ventilation systems
- 35 Assess the relative advantages and disadvantages of group re-lamping programs.

OBJ 44: Maximize environmental responsibility and sustainability

- 46 Install low-mercury fluorescent lamps

OBJ 50: Ensure operational continuity and meet surge requirements

- 193 Have a surge plan in place (Receiving, Caring, Releasing, Information, etc.)



FACILITY ACTIVATION & OPERATIONS

2.0 LEADERSHIP AND CULTURE

A world-class medical facility provides executive leadership that is visionary, mission-focused, experienced, stable over time, and empowered with organizational and fiscal authority. It organizes its governance structure and processes to ensure that the governing body is composed of knowledgeable and dedicated individuals who reflect and represent the interests of the organization and its stakeholders. It effectively communicates with its medical staff and employee representatives; and assures that patient and patient family's views and perspectives about facility operations are known to facility management and the governing board. It ensures that the governing board is actively involved in overseeing the operation of the institution, and especially in overseeing the quality and safety of care provided. It manifests an organizational culture that continually strives for excellence.

OBJ 6: Promote culturally appropriate care environments

- 392** Manifest an organizational culture that recognizes the importance of culture, education, spiritual beliefs, life experience and health literacy on a person's response to injury illness, their understanding and acceptance of diagnostic interventions and treatment, and in the healing process

OBJ 13: Ensure patient access to care

- 415** Maintain policies and procedures for referrals and transfer for highly specialized services (burns, spinal cord rehab, etc.)

OBJ 14: Optimize patient care coordination

- 396** Manifest an organizational culture that understands that its responsibility does not stop at the hospital walls and recognize the need to support patient-focused care coordination
- 397** Support systematic examination of antecedents of hospitalization to reduce the need for such care

OBJ 25: Eliminate/prevent patient harm

- 374** Demonstrate proactive and relentless vigilance in avoiding preventable patient harm

OBJ 27: Ensure that caregivers and other staff continuously meet standards of conduct, competency, et

- 296** Implement policies for and standards of performance, conduct, and ethical behavior for all personnel

OBJ 28: Maximize operational quality control/quality management

- 359** Ensure professional accreditation, certification and regulatory requirements are met and maintained



FACILITY ACTIVATION & OPERATIONS

2.0 LEADERSHIP AND CULTURE

OBJ 28: Maximize operational quality control/quality management

- 402 Organize governance structure and processes to ensure that the governing body is actively involved in overseeing the operation of the institution, and especially in overseeing the quality and safety of care provided

OBJ 29: Optimize quality of care to achieve industry standards at highest level

- 399 Ensure governing body is composed of representative leadership that reflect the interests of the organization and its stakeholders

OBJ 32: Eliminate staff injuries

- 384 Create a work environment to ensure reporting and addressing lateral violence

OBJ 33: Optimize staff satisfaction to encourage retention of staff

- 384 Create a work environment to ensure reporting and addressing lateral violence
- 385 Create a work environment that supports professional development

OBJ 37: Maximize operational effectiveness and flexibility

- 375 Demonstrate proactive and relentless vigilance in improving process effectiveness and efficiency

OBJ 46: Maximize opportunities to learn/improve from delivery of care performance

- 389 Apply clearly defined policies and procedures for analysis of medical errors and preventable adverse events that is proactive and non-punitive
- 390 Establish a formal process of learning from the occurrence of adverse events that is proactive and non-punitive
- 388 Develop a formal adverse event and near-miss reporting system that is proactive and non-punitive

OBJ 48: Maximize evidence based practices, design and processes in care delivery

- 394 Nurture all efforts to advance the frontiers of knowledge and to pioneer improved processes of care.

OBJ 49: Optimize organization goals, mission, and performance for excellence

- 367 Strive for excellence as demonstrated by the organization's mission, vision, core values, bylaws and strategic objectives



FACILITY ACTIVATION & OPERATIONS

2.0 LEADERSHIP AND CULTURE

OBJ 49: Optimize organization goals, mission, and performance for excellence

- 369 Achieve "magnet status" by the American Nurses Credentialing Center (ANCC)
- 402 Organize governance structure and processes to ensure that the governing body is actively involved in overseeing the operation of the institution, and especially in overseeing the quality and safety of care provided
- 372 Demonstrate reputation and professional accomplishments of its staff
- 370 Demonstrate receipt of awards for excellence in organizational performance
- 380 Utilize one or more formal teamwork training methodologies for staff

OBJ 53: Maximize opportunities for innovation within the organizational culture

- 377 Actively encourage and reward innovation

OBJ 54: Optimize leadership culture

- 421 Demonstrate critical competencies identified by the National Center for Healthcare Leadership and the American College of Healthcare Executives
- 379 Formally establish collaborative relationships with other institutions and professional organizations
- 401 Assure that patient and patient family's views and perspectives about facility operations are known to facility management and the governing board
- 423 Provides executive leadership that is visionary and mission-focused
- 419 Provides executive leadership that is stable over time
- 417 Empower executive leadership with organizational and fiscal authority
- 381 Use recognition and awards for exceptional team performance and success
- 383 Foster an environment of civility and respect for patients and employees
- 400 Organizes its governance structure and processes to facilitate effective communication with its medical staff and employee representatives



FACILITY ACTIVATION & OPERATIONS

3.0 PROCESS OF CARE STANDARDS

A world-class medical facility organizes its services so that they are integrated and seamless between and among services in the facility and with home and community-based services. It consistently applies contemporary evidence-based knowledge and principles and utilizes state-of-the-art technology.

OBJ 1: Ensure patient/family involved in all care decisions

- 331** Ensure patients are provided with complete information about their care that is appropriate to their level of healthcare literacy so that they can make informed decisions and fully participate in all decisions about their care.

- 330** Routinely involve patients, patient families and clinical staff in reviewing and determining the processes of care

OBJ 14: Optimize patient care coordination

- 404** Organize services so that they are integrated and seamless between and among services in the facility and with home and community-based services

OBJ 18: Minimize environmental stressors

- 125** Reduce or eliminate sources of noise: other patients, equipment 'clatter', loud conversations at nurse stations

OBJ 19: Optimize the acoustical environment

- 125** Reduce or eliminate sources of noise: other patients, equipment 'clatter', loud conversations at nurse stations

OBJ 23: Ensure patient/family informed of adverse events and appropriate actions taken

- 333** Respond openly, promptly and honestly when patients are injured by informing the patient and/or the patient's designated representative, as appropriate, of what has happened and what will be done to remediate any injury and mitigate further injury

- 334** Investigate the cause(s) of an adverse event and report the findings to the patient and/or the patient's designated representative, as appropriate

- 337** Compensate the patient for costs associated with injury related to unanticipated adverse events or anticipated complications.

- 336** Apologize to the patient and his/her family and/or the patient's designated representative, as appropriate, when the institution or caregivers are responsible for the event



FACILITY ACTIVATION & OPERATIONS

3.0 PROCESS OF CARE STANDARDS

OBJ 23: Ensure patient/family informed of adverse events and appropriate actions taken

- 335 Provide emotional support for the patient, patient's designated representative, as well as the caregiver(s) involved in an adverse event.

OBJ 25: Eliminate/prevent patient harm

- 429 Establish protocols for evidence-based care for myocardial infarction, medication reconciliation and the ventilator bundle

OBJ 29: Optimize quality of care to achieve industry standards at highest level

- 338 Demonstrates transparency of processes -- Make publicly available performance data and de-identified results of root cause analyses

OBJ 31: Optimize situational awareness between staff throughout the care environment

- 125 Reduce or eliminate sources of noise: other patients, equipment 'clatter', loud conversations at nurse stations

OBJ 46: Maximize opportunities to learn/improve from delivery of care performance

- 430 Utilize autopsy routinely for quality assurance and education

OBJ 48: Maximize evidence based practices, design and processes in care delivery

- 306 Utilize evidence-based knowledge, principles, and state-of-the-art technology in documentation and record keeping
- 310 Utilize evidence-based knowledge, principles, and state-of-the-art technology in material management
- 304 Utilize evidence-based knowledge, principles, and state-of-the-art technology in diagnosis
- 311 Utilize evidence-based knowledge, principles, and state-of-the-art technology in business processes
- 305 Utilize evidence-based knowledge, principles, and state-of-the-art technology in treatment
- 308 Utilize evidence-based knowledge, principles, and state-of-the-art technology in communication and care coordination
- 309 Utilize evidence-based knowledge, principles, and state-of-the-art technology in knowledge management



FACILITY ACTIVATION & OPERATIONS

3.0 PROCESS OF CARE STANDARDS

OBJ 48: Maximize evidence based practices, design and processes in care delivery

- 307** Utilize evidence-based knowledge, principles, and state-of-the-art technology in medication management

- 426** Minimize the likelihood of the occurrence of the "never events" identified by the National Quality Forum

- 427** Implement the 6 aims and 10 "design rules" for Healthcare in the 21st Century espoused by the Institute of Medicine

- 428** Comply with the most recent National Patient Safety Goals and related specific expectations set by The Joint Commission.

- 431** Utilize formal quality and process improvement methodologies as an integral element of all care processes.

- 430** Utilize autopsy routinely for quality assurance and education

- 429** Establish protocols for evidence-based care for myocardial infarction, medication reconciliation and the ventilator bundle



FACILITY ACTIVATION & OPERATIONS

4.0 PERFORMANCE OUTCOMES

A world-class medical facility complies with all relevant federal government performance reporting requirements, demonstrates superior performance (e.g., greater than the 90th percentile) against standard industry metrics and demonstrates stewardship of resources.

OBJ 27: Ensure that caregivers and other staff continuously meet standards of conduct, competency, et

- 298 Provide feedback of monitoring results to the employee
- 297 Monitor the performance of all employees on a regular basis
- 299 Investigate all complaints or concerns voiced about the competence or safety of a caregiver's performance
- 300 Ensure that all caregivers and other staff are properly trained, equipped, fit and otherwise fully prepared to perform their assigned jobs

OBJ 28: Maximize operational quality control/quality management

- 302 Complies with all relevant federal government performance reporting requirements

OBJ 29: Optimize quality of care to achieve industry standards at highest level

- 323 Demonstrate superior performance for clinical care against standardized industry metrics at greater than 90th percentile
- 324 Demonstrate superior performance for patient satisfaction against standardized industry metrics at greater than 90th percentile

OBJ 32: Eliminate staff injuries

- 327 Demonstrate superior performance for work-related injuries and illnesses against standardized industry metrics at greater than 90th percentile
- 328 Demonstrates superior performance (e.g. greater than the 90th percentile) against standardized industry metrics, including but not limited to those for stewardship of resources as reflected by expense control, operating efficiency and adequacy of revenue or appropriation to support sustained high level performance, among other considerations

OBJ 33: Optimize staff satisfaction to encourage retention of staff

- 326 Demonstrate superior performance for employee sick leave, absenteeism and retention against standardized industry metrics at greater than 90th percentile.
- 325 Demonstrate superior performance for employee satisfaction against standardized industry metrics at greater than 90th percentile



FACILITY ACTIVATION & OPERATIONS

4.0 PERFORMANCE OUTCOMES

OBJ 49: Optimize organization goals, mission, and performance for excellence

- 326 Demonstrate superior performance for employee sick leave, absenteeism and retention against standardized industry metrics at greater than 90th percentile.
- 325 Demonstrate superior performance for employee satisfaction against standardized industry metrics at greater than 90th percentile

5.0 KNOWLEDGE MANAGEMENT

A world-class medical facility is regularly engaged in a full spectrum of scholarly activities, including the provision of graduate medical education and other health professional training. It also conducts and publishes research findings and uses simulation laboratories for areas such as surgery, cardiac catheterization, endoscopy and emergency care to expand future care delivery capabilities and practice.

OBJ 47: Maximize opportunities for identifying, researching and sharing best practices

- 363 Provide graduate medical education or other health professional training as appropriate to the type of facility
- 365 Utilize a dedicated process to monitor, translate and apply research findings into clinical care, including a process for evaluating the results of new processes or pilot programs
- 364 Conduct research, speak at scientific meetings and publish peer-reviewed professional journals



FACILITY ACTIVATION & OPERATIONS

6.0 COMMUNITY AND SOCIAL RESPONSIBILITY

A world-class medical facility demonstrates a population health focus by routinely being involved in activities aimed at improving the community and constituency that it serves and demonstrates environmental responsibility and sustainability in the facility design, construction and operation.

OBJ 39: Reduce environmental impact of materials

2002 Reduce waste and maximize recycling

319 Dispose of potentially reusable medical devices with a Food and Drug Administration (FDA) cleared medical device reprocessor

321 Continually strive to reduce waste and inefficiencies

OBJ 40: Employ Integrated Design Principles (HPSB1)

1052 Employ commissioning practices tailored to the size and complexity of the building and its system components. Include an experienced commissioning provider and commissioning requirements in construction documents, a commissioning plan, verification of the installation and performance of systems to be commissioned, and a commissioning report

OBJ 41: Protect and conserve water

1036 Maintain or restore the predevelopment hydrology of the site with regard to temperature, rate, volume, and duration of flow using site planning, design, construction, and maintenance strategies, per EISA Section 438

OBJ 42: Optimize energy performance

1047 Compare actual performance data from the first year of operation with the energy design target

1048 Verify that the building performance meets or exceeds the design target, or that actual energy use is within 10% of the design energy budget for all other building types. (For other building and space types, use an equivalent benchmarking tool such as the Labs21 benchmarking tool for laboratory buildings.)

OBJ 43: Optimize community responsibility and health

313 Host or support community health maintenance and disease early detection programs

315 Work with other organizations on community improvement projects

314 Participate in local and regional disaster readiness programs