

APPENDIX 4H
LIFE CYCLE REPORT

Life Cycle Report - Provisional	
Description	Replacement Description / Narrative (if not 100% or 0%)
SUBSTRUCTURE	
FOUNDATIONS	
Standard Foundations	
Special Foundations	
Slab on Grade	
Sub drainage Systems	
SUBTOTAL - FOUNDATIONS	
BASEMENT CONSTRUCTION	
Basement Excavation	
Basement Walls	
Basement Slab on Grade	
Basement Waterproofing; fluid applied waterproofing	Patching/Crack repair only
SUBTOTAL - BASEMENT CONSTRUCTION	
SUPERSTRUCTURE	
SUPERSTRUCTURE	
Floor Construction	
Roof Construction	Finish/Partial Repair only
Stair Construction	
SUBTOTAL - SUPERSTRUCTURE	
EXTERIOR ENCLOSURE	
Stone Veneer System	
Exterior Wall Facings	
Exterior Insulation and Finish System	Joints only
Thermal Insulation and Joints	Touch up/Clean/Refresh only
Back-up Construction	Caulking only; No LC for expansion covers
Exterior Louvers, Grilles and Screens	Nothing Lifecycle Included
Exterior Curtain Wall and Entrances	Joints only
Exterior Windows	Touch up/Clean/Refresh only
Exterior Automatic Entrances	Sealants/Joints/Strips only
Exterior Steel Doors and frames	Joints only
Exterior Steel Doors and frames	Gear/Hardware only; minimal door replacement
Exterior Overhead and Coiling Doors	Hardware only
Exterior Overhead and Coiling Doors	Gear/Hardware only; minimal door replacement
SUBTOTAL - EXTERIOR ENCLOSURE	
ROOFING	
Vegetated Protected Membrane Roofing	
Thermoplastic Polyolefin Membrane Roofing	Membrane only, not substrate
Canopies	Flashings/Joints only
Traffic Coatings	
Flashing and Sheet Metal	To MEP rooms
Flashing and Sheet Metal	Joints/minimal repair only
SUBTOTAL - ROOFING	
INTERIORS	
INTERIOR CONSTRUCTION	
Unit Masonry Partitions	
Steel Stud Partitions	
Firestopping	
Interior Glass and Glazing	Strips/Joints only;
Interior Steel Doors and Frames	
Interior Wood Doors	Painting
Interior Aluminum Sliding Doors	Hardware/Partial door replacement;
Coiling Doors	Auto Operators/Mechanism only
Operable Partitions	
Metal Fabrications	Hardware/Partial door replacement
Compartments and Cubicles	Misc Replacement only
Expansion Joint Assemblies	Included below
Expansion Joint Assemblies	Finishes/Accessories
Expansion Joint Assemblies	Corner Guards generally
Expansion Joint Assemblies	Wall Protection Partial replacement
Expansion Joint Assemblies	Partial hardware replacement;
Expansion Joint Assemblies	Joints only
SUBTOTAL - INTERIOR CONSTRUCTION	

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Description	Replacement Description / Narrative (if not 100% or 0%)
STAIRS	
Stair Construction	Railings, Paint only
Stair Finishes	
SUBTOTAL - STAIRS	
INTERIOR FINISHES	
Gypsum and Cementitious Board	
Tile Wall Finishes	Joints/minimal repair only
Tile Floor Finishes	Partial replacement/joints
Resilient Flooring	Joints/Reset/Heavy Traffic Areas only
Fluid Applied Flooring	Repair only
Access Flooring	
Ornamental Metal Fabrications	Allowance only
Acoustical Ceiling Treatment	
	Partial tile/grid replacement only
Painting	
	Sealants
	Wall Painting
	Epoxy Painting
	Floor Painting
	Ceiling Painting
SUBTOTAL - INTERIOR FINISHES	
FITTINGS	
Door Hardware	Included elsewhere
SUBTOTAL - FITTINGS	
SERVICES	
CONVEYING	
Elevators	
	Ropes
	Electrics
	Machines
	Enclosures/Finishes/Doors
Pneumatic Tube System	Compressor
	Instruments/Control Panels
SUBTOTAL - CONVEYING	
PLUMBING	
Mechanical General Provisions	
Basic Mechanical Materials and Methods	
Motors, starters, Control Centers & Wiring	Included in Electrical
Variable Speed Drives	Included in Electrical
Seismic Restraint System	N/A
Sound and Vibration Control	Included
Insulation	
Plumbing Fixtures	Partial replace only
Plumbing Specialties	Partial replace only
Plumbing Drainage and Piping Systems	Seals/Traps/hangers only
Domestic Water Booster Pumps	
Suction Pumps	Included
Distribution Pumps	Included
Booster Pump sets	Included
Backflow Preventers	Included
PRV Station	Included
Water Softener System	Included
Domestic Steam Water Heaters	Equipment only, piping/connections to remain
Expansion Tank	Included
Storm and Sewerage Pumps	Included
Sump Pump	Included
Elevators Sump Pumps	Included
Laboratory Drainage Systems	Traps/Seals/partial pipe only
Medical Gas Piping	Control valves/actuators
SUBTOTAL - PLUMBING	
HVAC	
Fuel Oil Piping System	
Diesel Generator Fuel Oil and Exhaust Systems	Accessories to stacks only;
Centrifugal Chillers	
	Key parts only
Computer Room Air Conditioning Units	Valves/Connections to remain
Hydronic Piping Systems	Partial replace allowance only
Steam Condensate Piping Systems	Partial replace allowance only
	CP-1 etc.
Air Sep & Expansion Tanks	
Control Panel/Treatment	Included elsewhere
Blow Down Separator	Included elsewhere

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Steam Specialties	Included elsewhere
HVAC Pumps	Includes Pump Connections;
Well Water Pumps	
Condenser Water Pumps	
Chilled Water Pumps	
Heating Hot Water Pumps	Included elsewhere
VFD	Included elsewhere
HVAC Water Treatment Systems	Heater/Hx only
High Efficiency Condensing Boilers	
B-1 etc	
Heat Exchangers	Component replacement only
Phenolic Foam Pre-Insulated Ductwork	
Sheet Metal	Patch/Repair only
Air Terminals	Partial replacement only
Hydronic Terminal Units	
Fan Coil units	
FC-1 etc.	
Packaged Air Handling Units	
AHU-1 etc.	Coil/Fans/Refurbish only
	Replacement except housing/frame etc
Supply Air Fans	Included elsewhere
Return Air Fans	Included
Misc Air Fans	Partial replacement
Stair Pressurization Fans	Included
Electronic Controls and Monitoring	Software/Component replacement only
Refrigeration	
Testing and Balancing	Certificates/Test updates only
Fire Control Centre Interfacing	
Mechanical Systems Commissioning	Partial re-commissioning allowance
SUBTOTAL - HVAC	
FIRE PROTECTION	
Sprinkler and Standpipe Systems	Partial head/pump replacement
Sprinkler System Pumps	Included
Fire Extinguishers	
Self Contained Fire Suppression Systems	
SUBTOTAL - FIRE PROTECTION	
ELECTRICAL	
Basic Electrical Requirements	
Electrical Field Quality Control	
High Voltage Service and Distribution	
Switchgear - Incoming Main Service	
5-15kV Switchgear	Key component replacement only
Auto Transfer Switch - 400a	Key component replacement only
Low Voltage Service and Distribution	Miscellaneous
Transformers	
MCC	
Branch Panels	Key component replacement only
UPS System	Key component replacement only
UPS System	Batteries
Power Generation	
G1 etc	Key component replacement only
Metering and Monitoring System	Included
Lighting Fixtures	Lamp/Ballast/partial fixture replacement
Lighting Fixtures (Atrium, Elevator Lobby, and Public Areas)	Included
Lighting Fixtures (Corridors, etc)	Included
Lighting Control System	Included
Patient Service Units	Allow for sundry MEP component replacement only
CCTV	Software upgrades and component/device replacement
	Cameras replacement/repair
Sound Masking System	System allowance only
Patient/Team Call System	Software upgrades and component/device replacement
Clock System	Allowance only
Fire Alarm System	
Devices	Devices; 10 year per NFPA
Lightning Protection System	
Structured Cabling	
Network Equipment	Software upgrades and component/device replacement
Telephone Equipment	Software upgrades and component/device replacement
	Handsets repair/replacement

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Wireless Staff Communication System	Software upgrades and component/device replacement
Wireless Network Infrastructure (WiFi)	Software upgrades and component/device replacement
Public Address System	Software upgrades and component/device replacement
Clinical Camera System	Software upgrades and component/device replacement
Video Conferencing	Cameras replacement/repair
	Software upgrades and component replacement
Patient Entertainment System	Projector
Patient / Staff Education System	N/A; cabling included above.
Patient Monitoring and Telemetry System	N/A; Network Switch and Cabling Included above.
Central Dictation	N/A; Network Switch and Cabling Included above.
Central Dictation	N/A; Phone and Cabling Included above.
Intercommunication System	Component replacement
Real Time Location Devices	Software upgrades and component/device replacement
Access Control Systems	Software upgrades and component/device replacement
Panic Duress Systems	Component/device replacement
Intrusion Detection System	Component/device replacement
UHF Radio	Component/device replacement
SUBTOTAL - ELECTRICAL	
EQUIPMENT AND FURNISHINGS	
EQUIPMENT	
Parking Control Equipment	By Authority
Chutes and Collectors	Partial replacement only
Window Washing Equipment	
Crane Rail	Allowance only
In Contract Medical Equipment	Various event cycles
Housekeeping Equipment	Various event cycles
SUBTOTAL - EQUIPMENT	
FURNISHINGS	
Finish Carpentry and Casework	Finishes only
Shades	
Toilet, Bath and Cleaning Accessories	Hardware
Interior/Exterior Signage	Refinish/repair only
Lockers	Hardware only
SUBTOTAL - FURNISHINGS	
SPECIAL CONSTRUCTION AND DEMOLITION	
SPECIAL CONSTRUCTION	
Radiation Protection	Doors (repair only)
SUBTOTAL - SPECIAL CONSTRUCTION	
BUILDING SITEWORK	
SITE PREPARATION	
Site Preparation	
Demolition and Removal	
SUBTOTAL - SITE PREPARATION	
SITE IMPROVEMENT	
Paving Base Course	
Asphaltic Concrete Paving	Patch/Repair only
Portland Cement Concrete Pavement	Patch/Repair only
Cast In Place curb and Sidewalks	Patch/Repair only
Painted Traffic Lines and Markings	
Roadway Signs	
Planting of Trees, Shrubs and Groundcovers	Partial replacement only
Automatic Irrigation System	Controls/Devices
Landscape Metal Fabrications	
Roadway Signs	Included
Site Furnishings	Allowance
SUBTOTAL - SITE IMPROVEMENT	
SITE CIVIL/MECHANICAL UTILITIES	
Primary Sewage Treatment Equipment	Component replacement only
Sewer Structures	Allowance
Water Distribution Systems	Devices/Valves
Storm Sewer Systems	
Sanitary Sewer Systems	
SUBTOTAL - SITE CIVIL/MECHANICAL UTILITIES	
SITE ELECTRICAL UTILITIES	
Site Electrical Distribution	Included
Site Lighting	Partial replacement
SUBTOTAL - SITE ELECTRICAL UTILITIES	
GENERAL	

Life Cycle Report - Provisional	
Description	Replacement Description / Narrative (if not 100% or 0%)
Other Facility and Lands Procedure	Handback Requirements
SUBTOTAL - GENERAL	
TOTAL	