Appendix 1
Building Assessment Forms and Photos

Final Report
August 22, 2014
State Project # 2014-415
NAC # 111-14011

NAC | ARCHITECTURE

Washington State
Department of Social
& Health Services

Appendix 1

Infrastructure Assessment Forms and Photos

BUILDING ASSESSMENT			Medical Lake Infrastructure Master Plan WA State DES #2014-415		ADMINISTRATION	3A01
NAC #111-14011-A206	April 25, 2014		Project		Building Name	Building No.
GSF	**Stories**	**Built**	**Construction Type**	**Occupancy Group**	**Last Remodeled**	**Overall Condition**
19,530	3 + Bsmt	1933	1A	IBC= B, LSC= Business	N/A	Poor
Components	**Systems**	**Rating***	**Component Description**	**Component Location**	**Deficiency Description**	**Corrective Action**
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	concrete; unknown condition below basement slab on grade			
	1.2 Slab on Grade	3	exposed slab in basement		minor cracks (see photo **3A01-1.2A**)	
	1.3 Basement Walls	3	13"-15" thick concrete basement walls		plaster crack at toilet room (**3A01-1.3A**) small cracks at perimeter walls	
	1.4 Floor Construction	3	Elevated Concrete slabs and beams bear on non-reinforced brick exterior walls			
	1.5.a Roof Construction	3	tapered insul over concrete slab & beams	lower roofs		
	1.5.b Roof Construction	3	tapered insul over wood overbuild; 1x wood deck on 2x joists and 2x4 cripple walls on concrete slab & beams	upper roof	evidence of slab cracking at old roof leaks which have been fixed (**3A01-1.5A**)	
	1.6 Exterior Walls	4	unreinforced brick bearing walls, no insulation, plaster at interior face		see structural for add'l info; no insulation; masonry needs repointing at some locations (**3A01-1.6A & B**)	
	1.7 Exterior Windows	4	original double-hung wood sash, single glazing, screens		non-insulated glazing; paint peeling off, screens rusty (**3A01-1.7A-D**)	
	1.8a Exterior Doors	4	original wood frames & doors, painted	side doors	paint peeling (**3A01-1.8A**)	
	1.8b Exterior Doors	3	auto-sliding aluminum entry doors at vestibule in main entry and exit to dining	east & west entry doors	(added within last 20 years, see photo **3A01-1.8B**)	
	1.9a Roof Coverings	2	TPO roofing & new rigid insul added in last 10 years	roof	(**3A01-1.9A-B**)	
	1.9b Roof Coverings	4	cut stone parapet caps	roof parapets	mortar loose, water infiltration at some locations (**3A01-1.9C-D**)	
	1.10 Roof Openings	2	TPO flashing		(**3A01-1.10A**)	
	1.11 Interior Partitions	3	original walls of plaster on clay tile or fiber composite blocks			
	1.12 Interior Doors	3	mahogany doors & trim, dark stain		(**3A01-1.12A-B**)	
	1.13 Stair Constn/Finishes	3	painted concrete with steel nosings, mahogany handrails		handrails don't meet current codes (**3A01-1.13A**)	
	1.14a Wall Finishes	4	wood paneling wainscot at main floor	first floor	worn out (**3A01-1.14A**)	
	1.14b Wall Finishes	2	original mortar-set ceramic tile	toilet rooms	(**3A01-1.14C-E**) no grab bars or ADA, see item 8.4)	
	1.15a Floor Finishes	2	original terrazzo		(**3A01-1.15A-B**)	
	1.15b Floor Finishes	5	carpet over terrazzo	first floor	worn out (**3A01-1.15D, F, H**)	
	1.15b Floor Finishes	3	epoxy in toilet room	first floor	(**3A01-1.15C**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.16a Ceiling Finishes	3	plaster on concrete	typical	some cracking (**3A01-1.16A, C**)	
	1.16b Ceiling Finishes	4	12x12 acoustical tile glued to plaster	first floor	poor cond'n, lights failing (**3A01-1.16B**)	
	1.16c Ceiling Finishes	4	2'x4' lay-in ceiling panels	main level hall	discolored; lights failing (**3A01-1.16D**)	
	1.17 Elevators & Lifts	4	original equipment with upgrade		unreliable(?), non-ADA (**3A01-1.17A-B**)	
2.0 Structural	**2.1 Foundations**	4	Concrete foundations; probable unreinforced concrete half-basement walls based on Eastlake building by same designer, same era.		Unreinforced concrete foundations prohibited by current codes.	
Partial 1933 architectural docs. Only; no structural dwgs. Appears basically unmodified since construction	**2.2 Struct. Bearing Walls**	5	Unreinforced brick masonry at exterior. Numerous regularly spaced windows aligned at all levels.		Unreinforced masonry prohibited by current codes: seismic hazard- see Lateral System. Some mortar deterioration (photo **3A01-2.2A**).	
	2.3 Structural Frame	3	3-story concrete frame at interior w/ basement (upper two floors are smaller area). Reinforced concrete beams, columns & slabs, including roof except some steel beams at 3rd floor. Wood overbuild for slope at roof. No apparent signs of distress; low floor to floor heights; undocumented. Elevated connecting walkway to hosp. supported on concrete columns.		Lack of documents renders load capacity assessment infeasible. Based on age, details of reinforcement would not meet current code ductility requirements. Frame has performed adequately to date.	
	2.4 Lateral System	5	Unreinforced masonry bearing walls are only lateral system; unreinforced masonry parapets. Heavy concrete floor and roof diaphragms, while rigid, represent high lateral force potential.		Unreinforced masonry bearing walls and especially unreinforced masonry parapets present a seismic hazard. Anchorage of the exterior walls to the building frame, if any, is unknown and would be inadequate by current codes. The facility lacks a complete code-recognized lateral load resisting system. Elevated walkway especially vulnerable.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	3	Water Closets, Sinks, Urinals	Throughout	M5	
	4.2 Water Distribution	3	Water and Waste and Piping	Throughout	M4, M5	
	4.3 Rain Water Drainage	3	Roof Drains and Pipe	Throughout	M5	
5.0 HVAC	**5.1a HVAC Equipment**	2	Split System AC Unit	Outdoor		
	5.1b HVAC Equipment	2	Exhaust Fans	Outdoor		
	5.1c HVAC Equipment	3	Window AC Units	Exterior windows	M2, M5	
	5.1d HVAC Equipment	3	Steam Convectors and Radiators	Throughout	M1, M5	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.	2	Local control only at AC unit or radiator.	Throughout	M3	
6.0 Electrical	**6.1a Elec Service**	2	Feed from 1500kVA transformer located adjacent to the Eastlake Bldg chiller yard	Eastlake chiller yard	None	None
	6.1b Elec Distribution	2	1999 installation; 600A main distribution panel with demand metering, 120/208V	Basement electrical room	None	None
		4	Old fused switch disconnects connected to gutter	Basement electrical room	Old equipment is obsolete and in need of replacement (photos **3A01-6.1A, B**)	Provide new switchboard to replace old fused switches and gutter
		4	Old Cutler-Hammer panelboards	Basement, 1st Floor, 2nd Floor, 3rd Floor	Old equipment is obsolete and in need of replacement (photos 3A01-6.1C, D)	Replace old panelboards
	6.2a Lighting	3	Fluorescent troffers	Offices, corridors, activity areas	Some broken lenses (photos **3A01-6.2A, B**)	Replace lenses
		2	HPS pole mounted parking lot lighting	Parking lot	None	None
		2	Exit signs - LED	Corridors, stairs	Some exits lack illuminated exit signs (photo **3A01-6.2C**)	Provide additional illuminated exits signs where needed
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactor	Basement electrical room	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building wide	None	None
	6.3a Telecom	3	CenturyLink service; Category 5 data cable	Basement Communications Room	None	None
	6.3b Other Comm	2	Radio paging system	3rd Floor	None	None
	6.3c Fire Alarm	2	Simplex fire alarm system with 4001 panel	1st Floor Switchboard room	None	None
		4	Simplex graphic command center with voice evac center acts as 24/7 control point for ESH campus	Administration Switchboard	Campus fire alarm system has numerous trouble conditions that can not be resolved by the manufacturer, even with a continuing service contract; system disrepair may affect JCAHO rating	Provide fire alarm system by a different manufacturer, with better service contracts
	6.3d Security	4	Switchboard serves as 24/7 control point for Eastlake building security and fire alarm; no security in place at switchboard	Switchboard room, 1st floor	No evident security for a control point serving the entire campus (photos 3A01-6.3A, B)	Provide security assessment
		1	2013 Vicon CCTV IP based system	Selected Points	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3e Duress Alarm	5	Annunciation for personal duress alarms from Building 3A02	Administration Switchboard	•Staff duress alarm system inadequate; no man down feature; system does not have enough resolution to provide staff safety	•Provide wireless duress alarm system
	6.4 Emerg Power	4	Connected to Eastlake 600kW generator thru ATS; NEC 702 branch	Basement electrical room	One automatic transfer switch supplies all loads in Building 3A01, without segregation into Emergency and Standby branches (photo **3A01-6.4A**)	Segregate Emergency, Required Standby and Optional Standby loads, with separate automatic transfer switches
		2	Ferrups FE Series 5.0 kW uninterruptible power supply provides backup power for telephone switching equipment	Basement Telephone Equipment Room	None	None
		5	Exit and Egress Lighting is not battery backed, but connected to NEC 702 power	Building Interior	No code required emergency power for exit and egress lighting	Provide battery backed ballasts for the exit and egress lighting
7.0 Equipment	**7.1 Institutional Equip**	3	Note that head-end equipment for ESH's IT equipment and Security/camera system is in the Admin Bsmt (**3A01-7.1A**)	Basement	(**3A01-7.1A**)	
	7.2 Fixed Furnishings	3	Casework/Cabinets are 1933 vintage (**3A01-7.2A, B**)	thru-out	some items need to be replaced; some original cabinets are still usable. Note temporary rough-framed screen partitions at IT storage area in basement (**3A01-7.2C**)	
8.0 Code Compliance	**8.1 Life Safety Code**	3	Business Occupancy - no A/C, poor Ltg, etc		see Mech & Elec, comments	
	8.2 IBC	4	Exiting from upper floors		Only one stair, and the horizontal exit to Eastlake is not separated as required to qualify as a second exit. But the upper floor & basement may qualify for an historic exemption from the requirement to have separated exit routes. Also, many small non-conforming items like missing grab bars, non-conforming stair handrails (**3A01-8.2A, 3A01-1.13A**)	
	8.3 WSEC	5	Does not meet current energy codes		No exterior wall insulation, single glazing, outdated lighting (**3A01-8.3A**)	
	8.4 ADA	5	Toilet Rooms		Toilet rooms do not meet accessibility requirements, typ. (**3A01-8.4A**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Comments:

Mechanical:

M1: Convectors and radiators are manually controlled. No automatic control. Steam source is the Boiler Plant, Bldg #4.
M2: Window AC Units appear to be mostly older. Probably noisy, limited life.
M3: Local control allows for no setback at night or weekends; greater energy use.
M4: Domestic hot water is supplied from the Hospital Building, Bldg #2.
M5: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

3A01-1.1A.JPG

3A01-1.2A.JPG

3A01-1.3A.JPG

3A01-1.5A.JPG

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MEDICAL LAKE INFRASTRUCTURE
MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

ADMINISTRATION

3A**01**

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

3A01-1.6A.JPG

3A01-1.6B.JPG

3A01-1.7A.JPG

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3A01-6.3B.jpg

3A01-6.4A.jpg

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		EASTLAKE	3A02
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
220,828	3 + Basement	1933-34	1-A	IBC=I-2, LSC= E. Healthcare	1986 thru 1998	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	3	Concrete, excavated to bearing on rock (see photos **3A01-1.1A, B**)			
	1.2 Slab on Grade	3	concrete, unreinforced			
	1.3 Basement Walls	3	15" thick concrete, minimal reinforcing (photo **3A02-1.3B**)		Plaster finish at exterior has been painted, some areas exhibit cracking and peeling (see photo **3A02-1.3A**)	
	1.4 Floor Construction	2	4" reinf concrete spanning between concrete beams; Gyp-crete floor topping added during last remodel to level it.			
	1.5a. Roof Construction	4	Most segments have a sloped wood overbuild above 3" concrete slab. Deck is 1x6 T&G diagonal board sheathing on 2x8 joists on 2x4 cripple walls. Dry-pipe Fire sprinkler system was added during ward renovation projects. R-30 rigid insul mechanically attached to deck.	All except N2 segment and the mech penthouses which have added tapered insul to the concrete deck.	Wood overbuild on a Type 1 Construction is not desirable but since fire sprinkler system was added it has been allowed to remain (**3A02-1.5A**), Mech Penthouses have no wood overbuild: (**3A02-1.5B**)	
	1.5b. Roof Construction	4	N2 segment has no wood overbuild; R30 rigid insul adhesively applied directly to slab	N2 segment	inadequate slope at valleys; (**3A02-1.9B**)	
	1.6 Exterior Walls	3	Solid Brick, 13" thick, 3-wythe; steel stud interior furring and R11 batt insul with gyp board added during recent remodels		expansion joints need to be re-sealed, see (**3A02-1.6A**). Joints in terracotta accent pieces at high parapets, and some brick joints, need resealed, & repointed. (**3A02-1.6B, C**). North end brick below window sills needs cleaning (3**A02-1.6E**)	
	1.7 Exterior Windows	2	Thermally-broken aluminum frames, white Kynar factory-finish, with insulated glass & inner lites tempered, with integral blinds between the glass		(**3A02-1.7A, B**)	
	1.8 Exterior Doors	2	aluminum storefront, dark-bronze anodized finish,		(**3A02-1.8A, B, C**)	
	1.9a. Roof Coverings	3	south end and center section have modified bitumen built-up roofing & cap sheet; from Phase 4 work, done in 1999	south end	Will need new roofing within 10 years (3**A02-1.9A, F, G**) Coping has come loose on S3 segment (**3A02-1.9H**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.9b. Roof Coverings	3	North end has TPO single-ply roofing applied over rigid insul; done in 2009	north end	Poor slope in valleys at N1 and N3 sections, see (**3A02-1.9B, C, E**)	
	1.10 Roof Openings	2	openings are flashed correctly, both for TPO at north end and BUR at south end	all		
	1.11 Interior Partitions	2	This building was completed rebuilt during Ward Renovations, Phases 1-4, from 1988 to 2000. Interior partitions are steel studs, fire treated plywood, and gyp board cover, with some CMU walls at Seclusion Rooms.			
	1.12a. Interior Doors	4	North end doors (early phases) are plastic laminate over wood core	north end	Plastic laminate is chipping off some door edges (**3A02-1.12E**) "swing-free" powered door closers at north end have had arms removed but the boxes are still there since electrical connection has not been removed (**3A02-1.12B**)	
	1.12b. Interior Doors	3	South end doors are painted steel; new hardware has been added to FSU doors (**3A02-1.12A**). FSU entry doors are heavy gage steel sally port doors (**3A02-1.12C**).	south end	some door frames have been scratched. Chipped paint.	
	1.13 Stair Constn/Finishes	3	Original concrete steps with inset abrasive nosings, epoxy painted (3A02-1.13A)	all		
	1.14a. Wall Finishes	3	Typical wall finish is paint on gypsum board, with PVC crashrails, hand**rails and accent colors added in corridors (3A02-1.14A**.)		Paint chipped at rooms where tape removed (**3A02-1.14H, M**) Also touch-up in corridors (**3A02-1.14B**)	
	1.14b. Wall Finishes	3	FRP wainscott added at north ward corridors		(**3A02-1.14D, L**)	
	1.14c. Wall Finishes	2	CMU walls at tunnel to A/T Bldg and in seclusion rooms (**3A02-1.14E**)	south end		
	1.14d. Wall Finishes	3	skim-coat veneer plaster in corridor	basement	scrapes & chips from food carts need repainting (**3A02-1.14F**)	
	1.14e. Wall Finishes	4	Signage at north end is outdated	north end	signage is outdate, & missing inserts (**3A02-1.14G**)	
	1.14f. Wall Finishes	3	paint graphics at north end corridors	north end	outdated color scheme (**3A02-1.14C**)	
	1.14g. Wall Finishes	4	2 x 2 Ceramic wall tile at toilet rooms	north end	okay; north end toilet rooms have not been updated to anti-ligature accessories (**3A02-1.14I, J**)	
	1.14h. Wall Finishes	3	4x4 Ceramic wall tile at toilet rooms; accessories HAVE been upgraded to anti-ligature type.	south end	(**3A02-1.14K**)	
	1.14i. Wall Finishes	4	acoustical Wall Covering at phone counters	north end	torn, (**3A02-1.14O**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.14j. Wall Finishes	4	accent wall covering in north patient rooms	north end	ripped (**3A02-1.14N**)	
	1.15 Floor Finishes	--	Typical flooring installed in the Ward Renovations was carpet that is wearing out now; there are currently lots of different conditions, see following sub-categories			
	1.15a. Floor Finishes	4	Sheet Vinyl with coved base	3S2 South Patient Rms	Coved base coming loose from the wall at a couple of locations (**3A02-1.15A**)	
	1.15b. Floor Finishes	2	Epoxy flooring at Sun Porches = okay	south end	(**3A02-1.15B**)	
	1.15c. Floor Finishes	4	painted concrete where Carpet at Basement corridors has been removed	Bsmt Corridor, south end	no base in installed; (**3A02-1.15C**)	
	1.15d. Floor Finishes	3	Carpet at South Conf Rm	south end	(**3A02-1.15D**)	
	1.15e. Floor Finishes	3	Carpet at court room	3N1	(**3A02-1.15E**)	
	1.15f. Floor Finishes	4	exposed concrete at basement corridor painted	south end	chipped paint where old carpet was removed (**3A02-1.15F**)	
	1.15g. Floor Finishes	4	transition from VCT to carpet	center to north basement corridor	Carpet is worn and should be replaced with VCT (**3A02-1.15G**)	
	1.15h. Floor Finishes	3	Sheet vinyl with rubber base, in Patient Rooms of N1	N1	flooring in good condition, RB could be a problem (**3A02-1.15H**)	
	1.15j. Floor Finishes	5	carpet in Patient Rooms & Activity Rms	N1, north end	Any carpet remaining in Patient Rooms should be replaced; it's worn out and stained (**3A02-1.15J, 1.15P**)	
	1.15k. Floor Finishes	5	Carpet at ward corridors, south	at Nurses desk in south corridor at 1S1, 2S1	All roll-goods carpet remaining in corridors should be replaced; it's worn out and stained (**3A02-1.15K**)	
	1.15l. Floor Finishes	2	Ceramic Tile in Toilet Rooms	all	okay; (**3A02-1.15L**)	
	1.15m. Floor Finishes	2	VCT in north Day Rooms	north end	good condition; (**3A02-1.15M**)	
	1.15n. Floor Finishes	5	Carpet in ward corridors at north end	3N	Ripped carpet at 3N (**3A02-1.15N**)	
	1.15o. Floor Finishes	2	Carpet tile in 3S1 corridor	south, 3S1	newer carpet tile holding up well (**3A02-1.15O**)	
	1.16 Ceiling Finishes	--	Typical ceilings in patient areas are 12x12 tile glued to suspended gyp board; patient corridors have 12x12 tile glued to horizontal shaft wall tunnel "lid"; and the typical ceilings in office areas are 2x2 suspended acoustical panel ceilings; see sub-categories below for conditions			
	1.16a. Ceiling Finishes	3	12x12 Acoustical Tile glued onto suspended gypsum board		(**3A02-1.16A**)	
	1.16b. Ceiling Finishes	3	Typ ceiling finish in patient rooms at south wards; 12x12 tile on gyp bd	south end	(**3A02-1.16B**)	
	1.16c. Ceiling Finishes	3	FRP glued to fire-treated plywd at seclusion rooms, with SS trim over joints	south end	(**3A02-1.16C**)	
	1.16d. Ceiling Finishes	3	Security light fixtures at 12x12 ceilings	south end	(**3A02-1.16D**)	
	1.16e. Ceiling Finishes	3	Security screens installed over diffusers in gyp board ceilings at toilet rooms	south end	(**3A02-1.16E**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.16f. Ceiling Finishes	3	2x2 lay-in acoustic ceiling panels at staff break & non-patient areas	south end	stain from leak above (**3A02-1.16F**); damaged panels at NS (**3A02-1.16O**)	
	1.16g. Ceiling Finishes	3	2x2 acoustic panels in basement corridor	"A" north	(**3A02-1.16G**)	
	1.16h. Ceiling Finishes	3	2x2 acoustic panels in classroom and computer classroom of basement S2	south end	(**3A02-1.16H**)	
	1.16i. Ceiling Finishes	3	2x2 acoustic panels in "A" segment office area (Typ on Floors 1-3)	"A" north	(**3A02-1.16I**)	
	1.16j. Ceiling Finishes	4	2x4 ceiling panels at north end shared area	N1/N2	some panels dirty, showing age (**3A02-1.16J**)	
	1.16k. Ceiling Finishes	3	Typ 2x4 lay-in ceiling panels at north office areas & activity spaces	north end	some stains, dirt (**3A02-1.16K**)	
	1.16l. Ceiling Finishes	3	Typical access panels at 3N3 rooms to access fan coil units above ceilings, which are 12x12 tile glued to suspended gyp bd	3N3 (3rd floor of N3 segment)	access panels are dirty. Bigger issue is problem of having these panels in the rooms if this area is converted back to a patient ward (**3A02-1.16L**)	
	1.16m. Ceiling Finishes	4	2x4 patterned lay-in panels at north elevator lobbies, each floor	N2 segment	Phase 1 ceiling panels are dirty, some stains (**3A02-1.16M**)	
	1.17a. Elevators & Lifts	3	Hydraulic lift, (2) hospital cabs, linoleum flooring, egg-crate ceiling grille	north end, APU (Phase 1 area)	Ceiling grille is not secure; not desirable for mental health patient use (**3A02-1.17A, B, C**)	
	1.17b. Elevators & Lifts	3	traction elevator, carpet flooring (elevator machine was refurbished in Ph. 3)	Center Section, "A" (Phase 3 area)	Carpet is worn, needs replacement with VCT or sim. (**3A02-1.17D, E**)	
	1.17c. Elevators & Lifts	4	Hydraulic lift, (2) hospital cabs, carpet	South End, FSU (Phase 4 area)	Carpet is worn & wrinkled, TRIPPING HAZARD (**3A02-1.17F, G**)	
2.0 Structural	**2.1 Foundations**	4	Unreinforced concrete basement and crawl space walls per original documents with concrete columns on spread ftgs. at interior; later additions undocumented. Large rock formations in crawl space (photo 3A02-2.1A).		Unreinforced concrete foundations prohibited by current codes. Concrete in addition south of original has some quality issues.	
1933 documents for original center area only; balance mostly undocumented.	**2.2 Struct. Bearing Walls**	5	3-story unreinforced brick masonry with numerous window openings aligned full height..		The unreinforced masonry bearing walls would be prohibited by current codes. Some mortar and brick deterioration issues (photo **3A02-2.2A**).	
	2.3 Structural Frame	3	Reinforced concrete beams, columns & slabs. No apparent signs of distress; low floor to floor heights; additions undocumented; anecdotally additions are similar in construction to original. Many modifications over 80 years. Wood overbuild on concrete roof slab for slope in at least some portions (photo 3A02-2.3A).		Based on the facility's age and available documents, it is certain that the reinforcement would not meet current code detailing requirements for ductility. Majority of facility is undocumented. Unlikely positive anchorage of walls to concrete frame. No blocking between roof joists.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	5	Building relies on longitudinal unreinforced masonry bearing walls; concrete floor and roof diaphragms; designated lateral force resistance is essentially non-existent in short direction of long patient wings which apparently rely of the stiffness of concrete frames and architectural partitions.		Unreinforced masonry bearing walls are prohibited by current codes; masonry parapets present a particular seismic hazard. Anchorage of the exterior walls to the building frame is unlikely. The high-importance facility lacks a code-recognized lateral load resisting system. This deficit is particularly apparent in the transverse (short) direction where the very long narrow wings appears to have no structurally significant cross-walls. Feasibility of significant improvement is doubtful. Documented modifications for mech. & storage have not included lateral upgrades.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	2	Water Closets, Sinks, Urinals	Throughout		
	4.2a Water Distribution	2	Water and Waste and Piping	Throughout		
	4.2b Water Distribution	2	Domestic Water Heaters	Lower Lvl Mech Rm		
	4.2c Water Distribution	4	Domestic Water Pressure Booster Pumps	Lower Lvl Mech Rm	M1	
	4.2d Water Distribution	2	Landscape Water Press. Booster Pump	Lower Lvl Mech Rm	M3	
	4.2e Water Distribution	2	Domestic Water Backflow Preventers	Lower Lvl Mech Rm		
	4.3 Rain Water Drainage	2	Roof Drains and Pipe	Throughout		

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
5.0 HVAC	**5.1a HVAC Equipment**	2	Air Handling Units	Mech Rms at all lvls		
	5.1b HVAC Equipment	2	Heating & Chilled Water Pumps	Bsmnt Mech Rms		
	5.1c HVAC Equipment	2	Steam Condensate Pump	Bsmt Mech Rm - No.	M4	
	5.1d HVAC Equipment	2	Air Cooled Water Chillers	North Eqt. Yard		
	5.1e HVAC Equipment	2	Air Cooled Water Chillers	South Eqt. Yard		
	5.1f HVAC Equipment	2	Heating Water Heat Transfer Package	Bsmt Mech Rms		
	5.2 HVAC Distribution	2	Ductwork, Terminal Boxes	Throughout		
	5.3 Controls/Special Sys.	2	Pneumatic Controls	Center (Phase 3)	M2	
	5.3 Controls/Special Sys.	2	Direct Digital Controls - Johnson Controls	North & South (Phases 1,2 & 4)		
6.0 Electrical	**6.1a Elec Service**	2	2000 kVA pad-mounted Transformer '2-5' in the Chiller Yard supplies 1600 Amp underground service to 1600 Amp main switchboard at 277/480 Volts in the Chiller Yard; the switchboard in the Chiller Yard feeds the chillers and other loads in the Chiller Yard and also feeds the Administration Building; Transformer '2-5' also serves the chillers in the Kitchen/Dining Building	Chiller Yard S of Kitchen/Dining Building	None	None
		2	1500 kVA pad-mounted Transformer '2-6' in the Transformer Yard N of the South wing of the Eastlake Building supplies 1600 Amp underground service to 1600 Amp main switchboard at 277/480 Volts in the South Eastlake Basement Electrical Room	South Eastlake Basement Electrical Room	None	None
		2	1500 kVA pad-mounted Transformer '3-14' in the Transformer Yard W of the N half of the Eastlake Building supplies 3000 Amp underground service to 3000 Amp main switchboard at 277/480 Volts in the North Eastlake Basement Electrical Room	North Eastlake Basement Electrical Room	None	None
	6.1b Elec Distribution	2	Westinghouse/Cutler-Hammer Pow-R-Line-C 1600 Amp main switchboard for Forensic Services Unit	South Eastlake Basement Electrical Room	None	None
		2	Westinghouse/Cutler-Hammer Pow-R-Line-C 800 Amp Essential Power switchboard for Forensic Services Unit	South Eastlake Basement Electrical Room	None	None
		2	3000 Amp main switchboard with fused switches for Adult Patient Unit	North Eastlake Basement Electrical Room	None	None
		2	400 Amp Emergency Distribution switchboard for Adult Patient Unit	North Eastlake Basement Electrical Room	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		2	400 Amp Equipment Branch switchboard for Adult Patient Unit	North Eastlake Basement Electrical Room	None	None
	6.2a Lighting	2	Fluorescent security luminaires	Forensic Services Unit Patient Areas, Stairs, Sun Porches, Quiet Rooms	None	None
		2	Fluorescent troffers with thick lenses and tamper-proof latches	Forensic Services Unit Halls, Forensic Services Unit Staff Areas, Adult Patient Unit Staff Areas	None	None
		2	Fluorescent troffers with lenses secured by tamper-proof screws	Adult Patient Unit Halls, Nurse Charting Room	None	None
		2	Fluorescent suspended luminaire and Compact Fluorescent downlights	Forensic Services Unit Reception Room	None	None
		2	Fluorescent parabolic troffers	Basement South Conference Room, Basement Adult Education, 1st Floor Medical Records, 1st, 2nd and 3rd Floor Open Offices	None	None
		2	Fluorescent strip-light luminaires	Mechanical Rooms, Electrical Rooms	None	None
		4	Incandescent lensed shower luminaires	2nd and 3rd Floor Showers	Incandescent lamps require frequent relamping and are inefficient	Provide new compact fluorescent or LED shower luminaires to replace existing shower luminaires
		4	LED exit signs, some with protective shielding	Interior	Majority of exits signs have green letters; some red (photo **3A02-6.2A**)	Replace red-letter signs with green-letter signs
		2	High-Pressure Sodium wall-packs and canopy luminaires	Exterior	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactors	Basement Electrical Room	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Forensic Services Unit Staff Areas and Halls, Adult Patient Unit Rooms and Halls, Medical Records, Offices, Mechanical Rooms, Electrical Rooms	None	None
		2	Receptacles and switches have security faceplates	Forensic Services Unit Patient Areas	None	None
		2	Receptacles are tamper-resistant type in patent areas	Forensic Services Unit Patient Areas, Adult Patient Unit Patient Areas, Halls	None	None
		2	Steel Wiremold 4000 and Aluminum surface receptacle raceway with flexible wiring connections to modular furniture partitions	1st Floor Medical Records, 1st, 2nd and 3rd Floor Open Offices	None	None
		3	Exterior receptacles protected by flip-lid weatherproof covers	Building Exterior	Some exterior outlet covers are broken (photo **3A02-6.2B**)	Replace broken covers
		3	Wiring between floors is in conduit, some of which is flexible conduit	Penthouse	Some penetrations not firestopped (photos **3A02-6.2C, D**)	Replace flexible conduit through floor with suitable type and firestop floor penetrations
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hubs; connected via fiber-optic cable to the campus network; Category 5e and Category 6 data cable	Basement, 1st, 2nd and 3rd Floor Communications Rooms in 4 locations on each floor	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3b Other Comm	2	Harding Intercom systems; security grille loudspeakers in Halls and Rooms; integrated with Access Control system	Basement, 1st, 2nd and 3rd Floor Electrical Rooms in Forensic Services Unit	None	None
		4	Old Intercom systems for Adult Patient Unit; standard grille loudspeakers	Basement, 1st, 2nd and 3rd Floor Electrical Rooms in Adult Patient Unit	Separate intercome systems for each Ward; multiple side-by-side loudspeakers required in interconnecting halls to cover overlapping systems; ceiling tiles sagging due to weight of loudspeakers (photos **3A02-6.3A, B**)	Provide new integrated Intercom system to replace existing systems
		2	Rauland-Borg Telenurse Nurse Call system for Adult Patient Unit	2nd Floor in Adult Patient Unit	None	None
		2	Television antennas and dish antennas	Roof	None	None
	6.3c Fire Alarm	4	Networked addressable fire alarm system consisting of Simplex 4120 and Simplex 4100U fire alarm system control panels; horn/strobe signals; detectors in most areas; duct smoke detectors; fiber-optic connection to campus network	Basement, 1st, 2nd and 3rd Floor Communications Rooms in 3 locations on each floor	Fire alarm system has numerous trouble conditions that can not be resolved by the manufacturer, even with a continuing service contract; system disrepair may affect JCAHO rating	Provide fire alarm system by a different manufacturer, with better service contracts
	6.3d Security	1	2013 Programmable Logic Controller (PLC) based door control system; includes Vehicle Security Pedestal and Vehicle Detection for Sallyport	Basement, 1st, 2nd and 3rd Floor Security Electronics Rooms in Forensic Services Unit	None	None
		2	Simplex 3100 security system for Pharmacy	Basement Electrical Room near Pharmacy	None	None
		1	2013 Vicon CCTV IP based system	Basement, 1st, 2nd and 3rd Floor Security Electronics Rooms in Forensic Services Unit	None	None
		2	Metal detector	Lobby	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3e Duress Alarm	5	Forensic Services Unit (FSU) Personnel duress alarm sub-system with card-swipe duress call stations and hallway annunciators; 1985 Telect/Unitek duress alarm equipment failing	Basement, 1st, 2nd and 3rd Floor Security Electronics Rooms in Forensic Services Unit	Staff duress alarm system inadequate; no man down feature; system does not have enough resolution to provide staff safety (photos **3A02-6.3C, D, E**)	Provide wireless duress alarm system
		5	Adult Psychiatric Unit (APU) Personnel duress alarm system with pushbutton duress alarm stations and hallway annunciators; 1980 Telect/Unitek duress alarm equipment failing	Basement, 1st, 2nd and 3rd Floor Security Electronics Rooms in Adult Patient Unit	Staff duress alarm system inadequate; no man down feature; system does not have enough resolution to provide staff safety (photos 3A02-6.3D, F, G)	•Provide wireless duress alarm system
	6.4 Emerg Power	4	Aptech 600 kW diesel-fueled engine-generator set with weatherproof enclosure and separate fuel tank; 1000 Amp output circuit breaker; automatic transfer switches for Life Safety and Critical branches are incorporated into the South Eastlake Essential Distribution Switchboard located in the South Eastlake Basement Electrical Room; the same generator also feeds emergency power to the Administration and Kitchen/Dining Buildings	Chiller Yard S of Kitchen/Dining Building	No Equipment Power Branch at South Eastlake (photo 6.4A)	Add Equipment Power branch, possibly served from North Eastlake
		4	Aptech 500 kW diesel-fueled engine-generator set with weatherproof enclosure and separate fuel tank; 600 Amp output circuit breaker; automatic transfer switches for Life Safety and Equipment branches are incorporated into the North Eastlake Emergency Switchboards located in the North Eastlake Basement Electrical Room	Transformer Yard W of the N half of the Eastlake Building	No Critical Power Branch at North Eastlake	Add Critical Power branch, possibly served from South Eastlake
7.0 Equipment	**7.1a Institutional Equip**	3	Office Systems Furniture at Open Office Areas	"A" segment, all floors	(**3A02-A7.1A**)	
	7.1b Institutional Equip	3	Compact Storage shelving at Medical Records	"A" segment, 1st Flr south	(**3A02-A7.1B**)	
	7.2a Fixed Furnishings	3	Plastic Laminate cabinets at typical ward areas (Dayroom shown)	thru-out	(**3A02-A7.2A**)	
	7.2b Fixed Furnishings	5	P.Lam counters in corridors	wards	P.Lam chipped, damaged, typ. (**3A02-A7.2B**)	
	7.2c Fixed Furnishings	4	P.Lam wardrobes in APU patient rooms	north end	old non-antiligature style, should be changed to secure metal like FSU (**3A02-A7.2C**)	
	7.2d Fixed Furnishings	5	P. Lam counters at Nurses Station	north end	self-edges coming off (**3A02-A7.2D**)	
	7.2e Fixed Furnishings	3	tall shelving in Pharmacy	Bsmt N2	not seismically anchored (**3A02-A7.2E**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
8.0 Code Compliance	**8.1 Life Safety Code**	3	generally in compliance	all	door closers are not required on patient rooms per 19.3.6.3.9; closer arms in north wards have been removed but closures and power connections are still mounted to frames (**3A02-1.12B**) Also, wards are being upgraded to anti-ligature accessories but not all areas have been completed	
	8.2 IBC	3	minor items; ex. = enclosure for exit lights at N1 extends too far down from ceiling	N1	(**3A02-A1.12B**)	
	8.3 WSEC	4	Lighting controls	varies	does not meet current energy codes	
	8.4 ADA	4	some tripping hazards at carpet	varies	(**3A02-1.15N**)	

Comments:

Mechanical:

M1: Booster pumps in the North Mechanical Room are in need of replacement.
M2: Pneumatic Controls should be upgraded to Direct Digital Controls in the Phase 3 area. Current project is converting part of Phase 3 to DDC.
M3: Preferred location for pump would be outside the building in a vault.
M4: Condensate Receiver/Pump Unit is functional but overall condition indicates replacement is needed.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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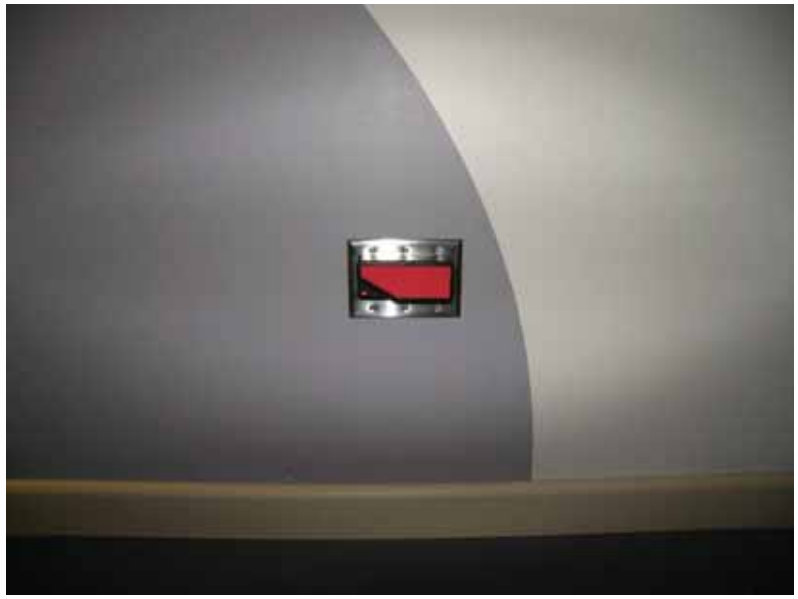

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Kitchen/Dining	3A03
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
75,504	2	1933	1-A	IBC = B, & I-3; LSC = Business	2000	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	3	Concrete, footings down to bedrock		None. Note that 2000 addition has isolated structure from original building.	
	1.2 Slab on Grade	3	concrete, unreinforced, vapor barrier located below slab at 2000 addition			
	1.3 Basement Walls	3	unreinforced concrete walls		some cracks visible (**3A03-1.3A**)	
	1.4 Floor Construction	3	concrete slab & beams		none (**3A03-1.4A**)	
	1.5 Roof Construction	3	original bldg = concrete slab & beams; 2000 addition has steel deck & framing with spray-on fire-proofing		none (**3A03-1.5A-B**)	
	1.6 Exterior Walls	3	unreinforced brick masonry at original bldg, with steel stud furring & batt insul added, plus gyp board interior finish; brick veneer over gyp sheathing on steel studs at 2000 add'n, with gyp board interior finish		none (**3A03-1.6A-E**)	
	1.7 Exterior Windows	2	Windows replaced in 2000 with thermally-broken alum frames & insul glass. Special condition next to Boiler Bldg where steel frames & wire glass added outside of Alum windows, for 1-HR fire rating		none. Typical condition = (**3A03-1.7A & C**), steel frames adjacent to Boiler Bldg windows = (**3A03-1.7B**)	
	1.8 Exterior Doors	2	painted steel doors & frames, except aluminum storefront at main Café entry		none, see (**3A03-1.8A-B**)	
	1.9a. Roof Coverings	3	TPO single-ply roofing on rigid insul with tapered insulation crickets	main building and mech penthouse	inadequate valley slope to drains at some locations (**3A03-1.9A-E**). Debris needs to be cleaned off (**3A03-1.9D**)	
	1.9b. Roof Coverings	3	Modified bitumin Built-Up roofing on tapered insul on wood deck	enclosed patient corridor to Eastlake	probably about 10-yr life left (**3A03-1.9F**)	
	1.9c. Roof Coverings	3	Metal roofing on exposed steel framing	covered walkway to Admin	no problems noted **(3A03-1..9G**)	
	1.10 Roof Openings	2	TPO flashing & Alum counter-flashing, typ		none. (**3A03-1.10A**)	
	1.11 Interior Partitions	3	metal studs, gyp board finish, Plastic wall protection wainscot at some loc's		none (**3A03-1.11A**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.12 Interior Doors	3	Steel doors & frames, typ., painted. Typ = (**3A03-1.12A**)		paint chipped off some doors where food carts go thru to elevator (**3A03-1.12B**)	
	1.13 Stair Constn/Finishes	3	Rubber treads over concrete-filled steel pan stair construction		none. (**3A03-1.13A**)	
	1.14a. Wall Finishes	2	Paint on gyp board, typ, with vinyl wallcovering wainscot and painted hardboard wainscot trim	public dining	none (**3A03-1.14A**)	
	1.14b. Wall Finishes	2	Full-height FRP over WR gyp board in Kitchen area		none (**3A03-1.14B**)	
	1.14c. Wall Finishes	2	ceramic wall tile in toilet rooms		none (**3A03-1.14C**)	
	1.14d. Wall Finishes	3	Paint on gyp board, typ, no wainscot at staff office areas		none (**3A03-1.14D**)	
	1.14e. Wall Finishes	3	Paint on gyp board, typ, with PWP (plastic wall protection) wainscot and Acrovyn crashrails	patient areas	none (**3A03-1.14E**)	
	1.14f. Wall Finishes	3	exposed brick & structure	mech rooms	none (**3A03-1.14F**)	
	1.15a. Floor Finishes	3	Altro sheet vinyl	Kitchen	some stains and rough areas under production line (3A03-1.15A-B)	
	1.15b. Floor Finishes	2	Vinyl plan and vinyl tile. 18x18	dining areas	None (**3A03-1.15C**)	
	1.15c. Floor Finishes	2	VCT in corridors	lower level	None (**3A03-1.15D**)	
	1.15d. Floor Finishes	2	Sealed concrete in mech rooms	mech rooms	None (**3A03-1.15E**)	
	1.15e. Floor Finishes	3	Carpet in conference rooms	lower level	None (**3A03-1.15F**)	
	1.16a. Ceiling Finishes	2	2x2 lay-in acoustical panels in corridors	thru-out	None (**3A03-1.16A**)	
	1.16. Ceiling Finishes	2	2x2 lay-in acoustical panels in dining areas, with dropped gyp board soffits	north & south dining wings	None (**3A03-1.16B**)	
	1.16c. Ceiling Finishes	2	exposed metal deck structure	mech rooms	None (**3A03-1.16C**)	
	1.16d. Ceiling Finishes	2	painted exposed concrete structure	storage rooms and tunnel to EL	None (**3A03-1.16D-E**)	
	1.17a.Elevators & Lifts	2	Two elevators were added in 2000; this first one is the supply elevator from lower level storage up to the south side of kitchen		None (**3A03-1.17A-B**)	
	1.17b. Elevators & Lifts	2	The north elevator takes food carts down to the basement tunnel for delivery to Eastlake, and also serves the mech penthouse		None (**3A03-1.17C**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	4	U-shaped plan. Interior and subgrade walls and columns from basement to first floor are cast-in-place concrete (apparently unreinforced at walls) on conventional spread footings. At the north, west, and south sides, unreinforced brick exterior walls begin at the top of a concrete knee wall that extends 3 to 4 feet above the floor line with numerous window wells on orig.		Unreinforced concrete foundations prohibited by current codes.	
Partial undated circa 1933 original documents available (Kitchen/Dining); 2001 addition.	**2.2 Struct. Bearing Walls**	5	Unreinforced brick masonry bearing walls; unreinforced brick masonry piers at steel roof beams; very large windows between piers.		The unreinforced masonry bearing walls and piers would be prohibited by current codes.	
	2.3 Structural Frame	3	Reinforced concrete beams, columns & slab at main floor. Roof framing is large steel beams, typically 13'-6" O.C., spanning the full width of the "U" wings (about 50 feet) and supporting a 5" concrete roof slab. The beams are encased in concrete and bear on unreinforced brick masonry piers between window openings. Mezzanine floor framing plan not available, but architectural section indicates steel beams and concrete slabs similar to the roof structure. 2001 addn. infilled "U" with steel frame supporting concrete floor slabs on metal deck and steel joist & deck roof (addition penthouse taller than original).		Based on the facility's age and available documents, it is certain that the 1933 reinforcement would not meet current code detailing requirements for ductility. Majority of facility is undocumented. Unlikely positive anchorage of walls to concrete frame. No blocking between roof joists. 2001 infill has independent gravity load system but lacks a complete lateral system (see 2.4). The penthouse addition would increase code-based drift loads on the surrounding original roof.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	5	Building relies on longitudinal unreinforced masonry bearing walls as shear walls with concrete floor and roof diaphragms. The 2001 slabs are doweled to the original beams, and there is only a single steel braced frame on the south side of the infill, so that the addition relies on the original unreinforced masonry building for lateral load resistance. It is possible that a new elevator adds some stiffness to the addition, but there are no specific drag strut connections indicated.		Unreinforced masonry bearing walls are prohibited by current codes; masonry parapets present a particular seismic hazard. Anchorage of the exterior walls to the building frame is unlikely. This unreinforced masonry building does not conform to the intent of current codes regarding lateral force resistance. The 2001 addition increased theoretical lateral forces to some of the original nonconforming elements. The structure has been modified since original construction, mostly for the installation of mechanical systems and the infill addition. These modifications did not include any lateral force upgrades.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	2	Water Closets, Sinks, Urinals	Throughout		
	4.2a Water Distribution	2	Water and Waste and Piping	Throughout		
	4.2b Water Distribution	4	Domestic Water Heater	Lower Lvl Mech Rm	M1	
	4.2c Water Distribution	2	Domestic Water Pressure Booster Pumps	Lower Lvl Mech Rm		
	4.3 Rain Water Drainage	2	Roof Drains and Pipe	Throughout		
5.0 HVAC	**5.1a HVAC Equipment**	2	Air Handling Units - 2001	Mech Rms at 2nd Flr		
	5.1b HVAC Equipment	2	Heating & Chilled Water Pumps - 2001	Bsmnt Mech Rms		
	5.1c HVAC Equipment	2	Steam Condensate Pump - 2001	North Sub-Mech Rm		
	5.1d HVAC Equipment	2	Air Cooled Water Chillers	South Eqt. Yard	M2	
	5.1e HVAC Equipment	2	Heating Water Heat Transfer Package	Bsmt Mech Rm		
	5.2 HVAC Distribution	2	Ductwork, Terminal Boxes	Throughout		
	5.3 Controls/Special Sys.	2	Direct Digital Controls - Johnson Controls	Throughout		
6.0 Electrical	**6.1a Elec Service**	2	2000 kVA pad-mounted Transformer '2-5' in the Chiller Yard supplies 1200 Amp underground service to 1200 Amp main switchboard at 277/480 Volts; service capacity is 997.6 kVA; metered demand is 134.9 kW; Transformer '2-5' also serves the chillers in the Chiller Yard and the Administration Building	Basement Electrical Room (Basement opens to grade on the North side)	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.1b Elec Distribution	2	2002 Cutler-Hammer Pow-R-Line-C main switchboard equipped with power meter and ground fault protection; distribution switchboard, dry-type transformer, and panelboards also manufactured by Cutler-Hammer in 2002	Basement, 1st Floor, 2nd Floor	None	None
	6.2a Lighting	2	Compact Fluorescent downlights	Entry, Staff Dining	None	None
		2	Fluorescent troffers with Compact Fluorescent downlights	Resident Dining	None	None
		2	Fluorescent troffers	Kitchen, Café	None	None
		2	Fluorescent industrial luminaires	Mechanical Rooms	None	None
		2	LED exit signs, some with protective shielding	Interior	None	None
		2	HID wall-packs	Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactor	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Admin/School	Receptacles in Kitchen are not GFCI type (photo **3A03-6.2A**)	Replace receptacles in Kitchen with GFCI type
	6.3a Telecom	1	Telecom floor-mounted rack, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	Basement Communications Room	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	2	Simplex 4120 addressable fire alarm system; horn/strobe signals; detectors in most areas; duct smoke detectors; fiber-optic connection to campus network	Basement Communications Room	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	2	Caterpillar 600 kW diesel-fueled engine-generator set with weatherproof enclosure and separate fuel tank; 1000 Amp output circuit breaker; Zenith automatic transfer switches for Emergency branch and Standby branch located in Basement Electrical Room; the same generator also feeds emergency power to the Administration and South Eastlake Buildings	Chiller Yard S of Kitchen/Dining Building	None	None
7.0 Equipment	**7.1a. Institutional Equip**	2	Main Kitchen equipment (replaced in 2000)		None noted; (**3A03-7.1A-B**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	7.1b. Institutional Equip	2	Walk-in coolers and freezers beside Kitchen	upper level	None noted; (**3A03-7.1C-F**)	
	7.1c. Institutional Equip	2	Walk-in freezer at Basement	lower level	None noted; (**3A03-7.1I-J**)	
	7.1d. Institutional Equip	2	Serving line, patient dining	south wing	None noted; (**3A03-7.1G**)	
	7.1e. Institutional Equip	2	Serving line, public dining	north wing	None noted; (**3A03-7.1L**)	
	7.1f. Institutional Equip	3	dock leveler	basement Rec'g	None noted; (**3A03-7.1K**)	
	7.1g. Institutional Equip	2	Campus Café kitchen equipment	north wing	None noted; (**3A03-7.1M**)	
	7.2a. Fixed Furnishings	2	half-wall partitions/dining screen walls	north wing	None (**3A03-7.2A**)	
	7.2b. Fixed Furnishings	3	counters in toilet rooms	thru-out	None (**3A03-7.2B**)	
	7.2c. Fixed Furnishings	3	cabinets in staff areas	thru-out	None (**3A03-7.2C**)	
8.0 Code Compliance	**8.1 Life Safety Code**	--			no deficiencies noted	
	8.2 IBC	--			no deficiencies noted	
	8.3 WSEC	--			no deficiencies noted	
	8.4 ADA	--			no deficiencies noted	

Comments:

Mechanical:

M1: Current project in design to provide better control of domestic hot water temperature.

M2: Two chillers are less than 5 years old. The third chiller was installed in 2001 and currently serves as standby.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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NAC NO # 111 - 14011

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KITCHEN/ DINNING

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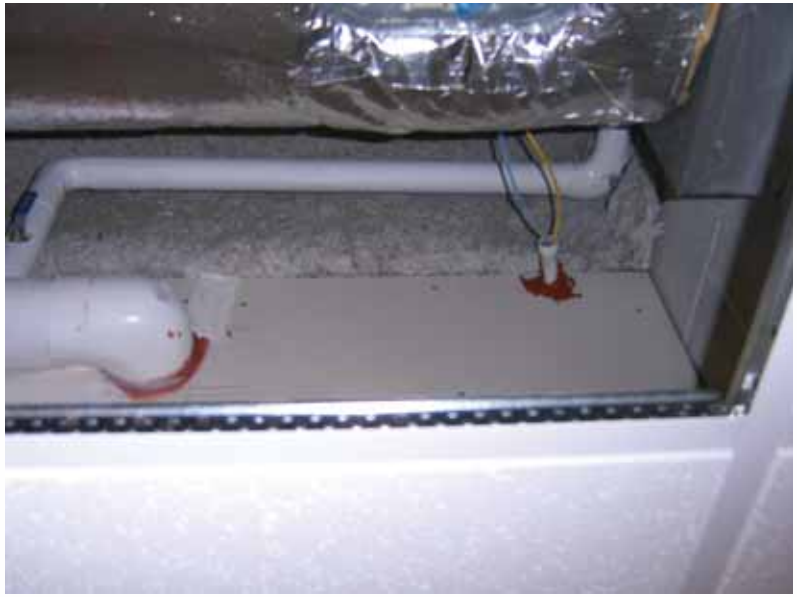

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Boiler Building	3A04
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
9,232	1	1920	1A & V-B	H3 & B	N/A	Failing

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	5	rough stone wall extends down to decomposed granite; no steel reinforcing. Concrete piers have been added beside coal bin wall but piers have settled and pulled away from brick wall		non-reinforced masonry; mortar loose; not laterally stable, see Struct 2.1. photos (**3A04-1.1A-C**)	
	1.2 Slab on Grade	3	concrete slab on grade, typical, except some tunnels under main boiler room		(**3A04-1.2A**)	
	1.3 Basement Walls	-	no basement			
	1.4 Floor Construction	-	no elevated floor			
	1.5a. Roof Construction	5	Main boiler room roof is concrete with minimal reinforcing	high-bay space	years of roof leakage has caused steel reinforcing in roof slab to rust and expand, breaking loose chunks of concrete slab (**3A04-1.5A-B**)	
	1.5b. Roof Construction	4	low addition to main building has wood framed roof with board sheathing	(old plumbing shop)	unconventional wood/steel composite roof beam, see Struct (**3A04-1.5D**)	
	1.5c. Roof Construction	4	addition for garage and generator has exposed wood joist and wood roof deck	generator add'n	garage not fire-protected (**3A04-1.5E**)	
	1.6a. Exterior Walls	5	Original building has stone wall base to about +10', with concrete cap and unreinforced 3-wythe brick wall above		non-reinforced masonry wall is not laterally stable, mortar is missing from joints (**3A04-1.6A-C**)	
	1.6b. Exterior Walls	4	Low-roof area (plumbing shop) has non-reinforced brick walls, plaster coating at some locations		Brick at parapet is coming loose, (**3A04-1.6D**) no insulation. Cracks in walls (**3A04-1.6E-F**)	
	1.6c. Exterior Walls	3	CMU walls at addition for garage & generator		CMU walls are probably reinforced, but they are not insulated. (**3A04-1.6G**)	
	1.7a. Exterior Windows	5	Original wood windows, single-glazed		peeling paint, non-insulated (**3A04-1.7A-B**)	
	1.7b. Exterior Windows	5	Original Steel-framed windows at high-bay boiler room space		broken panes, paint peeling, non-insulated (**3A04-1.7C**)	
	1.8a. Exterior Doors	5	typical man-doors are wood, painted		peeling paint, poor condition (**3A04-1.8A-B**)	
	1.8b. Exterior Doors	4	overhead doors at garage addition are wood, painted		peeling paint, non-insulated (**3A04-1.8C**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.9a. Roof Coverings	4	Main bldg had temporary built-up roofing added about 3 years ago; stop-gap measure to last 10 years		temporary roof, not long-term (**3A04-1.9A**)	
	1.9b. Roof Coverings	3	plumbing shop has built-up roofing		(**3A04-1.9B**)	
	1.9c. Roof Coverings	3	garage addition has built-up roofing		(**3A04-1.9C**)	
	1.10 Roof Openings	4	flashed with temporary roofing		(**3A04-1.10A**)	
	1.11 Interior Partitions	4	most interior walls are masonry, either brick or stone. Boiler room control booth is wood-stud-framed		masonry walls are unreinforced and have cracks (**3A04-1.11A-B**)	
	1.12 Interior Doors	3	wood doors, typ. Lead door at elec room		(**3A04-1.12A-B**)	
	1.13 Stair Constn/Finishes	4	mech access to roof & to platform are open steel stairs		ladder to roof does not meet OSHA standards (**3A04-1.5C; 3A04-1.13A**)	
	1.14 Wall Finishes	3	plaster finish on wall in main hall; exposed masonry, painted, at most walls		(**3A04-1.14A**)	
	1.15 Floor Finishes	3	exposed concrete slab, typical; painted at some areas		Boilers are now N-gas/Oil, not coal, so the coal bin room should probably be emptied (**3A01-1.15A-B**)	
	1.16 Ceiling Finishes	4	exposed concrete, painted, at high-bay roof; plaster (painted) at entry hall; exposed wood framing (painted) at plumbing shop; no finish at garage add'n		(**3A04-1.5B; 3A04-1.16A-B; & 3A04-1.5E**)	
	1.17 Elevators & Lifts	--	none			
2.0 Structural	**2.1 Foundations**	5	Rubble stone foundations at main bldg. Investigatory excavation at the northwest corner of the building in 2007 revealed stone walls in this location extending to about 9 feet below grade where they bear on “compacted weathered granite”. There is no footing. Floor slab of the main building is 8” to 24” below varying exterior grades.		Unreinforced stone, no footings, very poor condition. Not code conforming.	
Undocumented; original purportedly circa 1920; 2 or 3 apparent phases all prior to 1954.	**2.2 Struct. Bearing Walls**	5	Main: lower exterior walls are stone masonry with a 16" high concrete “collar” at top about 14 feet above the main floor. The wall above the concrete is brick, which extends above the roof to form a parapet. Remaining older section of the building is lower with unreinf. brick walls. Garage/Generator addition has 2 exterior CMU walls with its other two sides being the older building’s brick and stone walls		Unreinforced masonry prohibited by code. Initial workmanship in some areas appears poor, and walls have experienced considerable deterioration with unskilled patching attempts. Mortar is completely absent in many locations **3A04-2.2A**). Buttresses pulling away from walls (**3A04-2.2C**). Parapets is especially poor condition- see pre-reroof photo (**3A03-2.2B**).	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	5	High main open space has cast-in-place concrete roof slab supported on built-up riveted steel girders and perpendicular steel beams. The girders bear on masonry piers at the south exterior wall and on an interior concrete wall. Lower areas have wood roof framing .		The roofing, which has recently been repaired, was in a severely deteriorated condition for quite some time, allowing moisture deterioration concrete roof slab and corrosion of reinforcement and spalled concrete (photo **3A04-2.3A**). Not possible to assess corrosion of top flange rivets in the roof girders, which are embedded in the concrete slab. This could result in serious sudden reduction of girder capacity if the rivets fail. Reinforcement would not meet current code requirements for ductility even if not corroded	
	2.4 Lateral System	5	At high bay, concrete roof diaphragm likely not positively connected to unreinforced masonry and stone walls, which are the only available lateral force resisting elements. Wood diaphragms of the lower portion of the building do not appear to be connected to the perimeter walls except via the embedment of the wood roof joists in masonry.		The unreinforced masonry (URM) building is a construction type prohibited by current building codes. The unreinforced masonry parapets are especially hazardous in areas of seismic activity. The wood diaphragms of the lower portion of the building do not appear to be connected to the perimeter walls except via the embedment of the wood roof joists in masonry. There is virtually nothing about the existing facility which meets either the letter or the intent of the Code, particularly as it relates to resistance to seismic forces. Both the characteristics of the original construction and the deterioration due to decades of weather exposure and deferred maintenance are causes for concern, particularly in an essential facility.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	3	Water Closets, Sinks, Urinals	Main Level	M5	
	4.2a Water Distribution	3	Water and Waste and Piping	Throughout	M5	
	4.2b Water Distribution	3	Domestic Water Heater	Main Level	M5	
	4.3 Rain Water Drainage	5	Roof Drains and Pipe	Roof	M1	
5.0 HVAC	**5.1a HVAC Equipment**	2	Cleaver Brooks Boilers - 1997	Main Level	(**3A04-5.1A, B**)	
	5.1b HVAC Equipment	5	Original Boilers	Main Level	M2 (**3A04-5.1C**)	
	5.1c HVAC Equipment	4	Dearator Feed Water Tank	Main Level	M3	
	5.1d HVAC Equipment	4	Combustion air supply	Roof	M4	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	5.3 Controls/Special Sys.	2	Direct Digital Controls - Johnson Controls	Boilers		
6.0 Electrical	**6.1a Elec Service**	2	500 kVA pad-mount Transformer '3-13' SW of the Boiler Plant feeds a 400 Amp main fused switch at 277/480 Volts; capacity is 332.5 kVA	1st Floor Electrical Room	None	None
	6.1b Elec Distribution	2	The main switchboard is a 1997 Cutler-Hammer/ Westinghouse Type Pow-R-Line-C 600 Amp switchboard with fused switches; the 600 Amp main circuit breaker is not equipped with ground fault	1st Floor Electrical Room	None	None
		2	Subfed equipment includes a dry-type transformer and panelboards, all of which are manufacturered by Cutler-Hammer	1st Floor Electrical Room and Boiler Room	None	None
	6.2a Lighting	3	Lensed or louvered Fluorescent luminaires, supplemented in places with battery-backed lighitng units	Building Interior	None	None
		5	No illuminated exit signs	NA	Building lacks illuminated exit signs	Add exit signs with LED lamps and battery-backup
		2	HID arm-mounted luminaires and HID wall-packs	Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocells mounted on luminaires	Local	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	1	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Electrical Room	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	5	No fire alarm system	NA	Building lacks fire alarm system	Add fire alarm system and connect to campus network
	6.3d Security	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.4 Emerg Power	4	2005 Olympian D200P3 200 kW diesel-fueled engine-generator set located inside, with separate fuel tank outside; probably 300 Amp output circuit breaker; ASCO Series 7000 automatic transfer switch located in 1st Floor Electrical Room	1st Floor Electrical Room	One automatic transfer switch supplies all loads in Building 3A04, without segregation into Emergency and Standby branches (photo **3A04-6.4A**)	Segregate Emergency, Required Standby and Optional Standby loads, with separate automatic transfer switches
		2	Egress Lighting is battery backed	Building Interior	None	None
7.0 Equipment	**7.1a. Institutional Equip**	3	Newer boilers (see Mech)		(**3A04-7.1A**)	
7.0 Equipment	**7.1b. Institutional Equip**	5	Old boilers are still there (see Mech)		(**3A04-7.1B**)	
7.0 Equipment	**7.1c. Institutional Equip**	3	Newer emergency generator (see Elec)		(**3A04-7.1C**)	
	7.2a. Fixed Furnishings	4	Wood cabinets in plumbing break room		(**3A04-7.2A**)	
	7.2b. Fixed Furnishings	4	wood shelving built-in at old plumb'g shop		(**3A04-7.2B**)	
8.0 Code Compliance	**8.1 Life Safety Code**	5	building does not meet current codes			
	8.2 IBC	5	ditto			
	8.3 WSEC	5	ditto			
	8.4 ADA	5	ditto			

Comments:

Mechanical:

M1: Maintenance staff indicated roof has on-going leakage issues.
M2: Original Boilers have been taken out of service and disconnected from the steam system.
M3: Unit failed during cold weather early 2014. Temporary bypass was used to keep boilers operating but permanent fix or replacement is required.
M4: Combustion air supply at the roof was sealed during re-roof work. Presently, combustion air is provided by keeping the building windows open. Code violation.
M5: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

BIOLER BUILDING POWER HOUSE

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Electric Shop	3A05
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
3,570	1	1938	V-B	IBC = B; LSC = Industrial (GP)	N/A	Failing

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	5	rock wall foundation		loose mortar; no lateral resistance (**3A05-1.1A & 3A05-1.7A**)	
	1.2 Slab on Grade	3	concrete			
	1.3 Basement Walls		None			
	1.4 Floor Construction		see 1.2			
	1.5 Roof Construction	4	wood framing supported by steel beams, blown-in insul above ceiling		bears on non-reinforced masonry walls (**3A05-1.5A-B**)	
	1.6 Exterior Walls	4	non-reinforced brick, not insulated		needs repointing; no lateral resistance (**3A05-1.6A; also 3A05-1.14A**)	
	1.7 Exterior Windows	4	wood, single-glazed		paint peeling, screens rusty (**3A05-1.7A**)	
	1.8 Exterior Doors	4	wood door, wood-frame		peeling paint (**3A05-1.8A**)	
	1.9 Roof Coverings	4	built-up roofing on wood deck		parapet flashing coming off (**3A05-1.9A**)	
	1.10 Roof Openings	4	flashed with built-up roofing		(**3A05-1.9A**)	
	1.11 Interior Partitions	3	plaster on wood framing			
	1.12 Interior Doors	3	painted wood			
	1.13 Stair Constn/Finishes		none			
	1.14 Wall Finishes	3	paint		(**3A05-1.14A**)	
	1.15 Floor Finishes	4	Vinyl-Asbestos Tile on Concrete		(**3A05-1.15A**)	
	1.16 Ceiling Finishes	4	metal panels, painted		(**3A05-1.14A**)	
	1.17 Elevators & Lifts		none			
2.0 Structural	**2.1 Foundations**	5	Unreinforced stone masonry walls; footings unknown. Concrete slab on grade.		Unreinf. stone not permitted by code. Stonework and mortar are in very poor condition. Concrete footing, if any, would likely be unreinforced as well. .	
No documents; circa 1938	**2.2 Struct. Bearing Walls**	5	Exterior walls are unreinforced brick masonry with an unreinforced stone masonry base.		Unreinf. masonry and stone not permitted by code. Masonry and mortar are in very poor condition (photo **3A05-2.2A**) .	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	5	Rectangular single-story structure with 4 bays. Steel beam line near centerline bears on a pipe column between the western two bays and on brick masonry piers integral with masonry partitions between the others. The roof structure is 2x roof joists from the exterior brick walls to the center beam; wood sheathing. Joists not blocked at the beam bearing, and joist connections to the steel beam, if any, not visible. Joist ends embedded in masonry may be decayed.		While the building has adequately resisted gravity loads to date, connection details and unreinforced masonry piers are non-code conforming and suffer from condition issues, some on which (such as decaying joists ends embedded in masonry) may be concealed.	
	2.4 Lateral System	5	Building relies on unreinforced masonry walls (with numerous window and door openings) as shear walls and on wood roof as diaphragm. Anchorage of wood roof to walls in unknown and likely non-existent.		Unreinforced masonry prohibited by current codes. Unreinforced masonry parapets present a particular seismic hazard. Anchorage of the exterior walls to the wood roof framing, if any, is unknown and certainly inadequate. Facility lacks an adequate wood roof diaphragm and lacks an adequate code-recognized lateral load resisting system	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**		No plumbing fixtures in this building			
	4.3 Rain Water Drainage	4	Roof Drains and Pipe	Roof	M1	
5.0 HVAC	**5.1a HVAC Equipment**	2	Heating Water Boiler	Main Level		
	5.1b HVAC Equipment	2	Heating Water Pump	Main Level		
	5.1c HVAC Equipment	4	Unit Heaters	Main Level	M1	
	5.1d HVAC Equipment	4	Heating Convectors	Main Level	M1	
	5.3 Controls/Special Sys.	2	Direct Digital Controls - Johnson Controls	Boilers, Pumps		
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	**7.1 Institutional Equip**	--	none			
	7.2 Fixed Furnishings	4	painted wood cabinets		(**3A05-1.15A**)	
8.0 Code	**8.1 Life Safety Code**	5	building does not meet current codes			
	8.2 IBC	5	ditto			
	8.3 WSEC	5	ditto			
	8.4 ADA	5	ditto			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Comments:

Mechanical:

M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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ELECTRIC SHOP

3A**05**

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3A05-2.2A.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415			Paint Shop (Old Bakery)	3A06
NAC #111-14011-A206	April 25, 2014		Project		Building Name	Building No.
GSF	**Stories**	**Built**	**Construction Type**	**Occupancy Group**	**Last Remodeled**	**Overall Condition**
4,512	1	1938	2-A	IBC = H-3; LSC = Industrial	N/A	Poor
Components	**Systems**	**Rating***	**Component Description**	**Component Location**	**Deficiency Description**	**Corrective Action**
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	4	unreinforced Concrete (see #2.1)		unreinforced concrete is not seismically stable (see photos **3A06-1.1A-B**)	
	1.2 Slab on Grade	3	concrete floor slab with Terra Cotta tile			
	1.3 Basement Walls	-	None			
	1.4 Floor Construction	-	see #1.2. (No upper floors)			
	1.5 Roof Construction	4	concrete slab supported by steel beams covered with concrete, see #2.3		(**3A06-1.5**)	
	1.6 Exterior Walls	4	3-wythe, 13" thick brick walls, unreinforced		no insulation; also see #2.2 (**3A06-1.6A-B**).	
	1.7 Exterior Windows	5	wood windows, double-hung, single glazed		peeling paint, uninsulated glazing (**3A06-1.7A-B**)	
	1.8 Exterior Doors	4	wood doors with divided-lite relites, painted		paint in poor condition (**3A06-1.8A**)	
	1.9 Roof Coverings	5	built-up roofing on sloped wood overbuild, see #2.3		Roofing is worn out, and no base flashing at parapet walls (**3A06-1.9A**)	
	1.10 Roof Openings	-	N/A			
	1.11 Interior Partitions	3	plaster on wood lath on wood studs		(**3A06-1.15A**)	
	1.12 Interior Doors	3	wood, stained			
	1.13 Stair Constn/Finishes	-	N/A			
	1.14 Wall Finishes	2	glazed brick at perimeter still in good condition; painted brick at some walls		(**3A06-1.14A-B**)	
	1.15 Floor Finishes	2	quarry tile (thick-set mortar bed)		(**3A06-1.15A-B**)	
	1.16 Ceiling Finishes	3	painted exposed board-formed concrete		(**3A06-1.16A**)	
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	5	Unreinforced 13" to 19" concrete fdn. Walls are without continuous footings and bear typically only 12" to 15" below finish grade.		Unreinforced concrete is prohibited by code. Lack of footings implies very high bearing forces, and bottom of foundations does not meet current frost depth embedment requirements.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
Original documents available (undated): circa 1938; built as Bakery	**2.2 Struct. Bearing Walls**	5	Bearing walls are 13" unreinforced 3-wythe brick masonry. Multiple large windows result in narrow alternating 16" and 36" wide piers to support roof loads. There is also an interior bearing wall.		Unreinf. masonry not permitted by code. Masonry and mortar are in very poor condition (photo **3A06-2.2A**) and grade has been raised well above floor line around back of building (photo **3A06-2.2B**) contributing to deterioration	
	2.3 Structural Frame	5	Roof structure is steel beams at 13 feet o.c. encased in concrete and supporting a 5" concrete roof slab. The beams typically bear on the 36" wide piers between windows and on the interior bearing wall. The slab bears just above windows on the end walls. The concrete roof slab supports a 2x6 @ 16" o.c. wood overbuild on cripple walls. Framing runs in various directions. Wood joists appear to be embedded in the masonry based on documents.		Reinforcement of concrete would not meet current codes. Very heavy roof is supported by small unreinforced masonry piers. Slab spans are very long for 5" slabs, and there is no apparent positive concrete anchorage to the walls. Wood roof condition and details are unknown, but available drawings and age suggest board sheathing, joists "fire cut" into masonry, and no anchors of parapets to roof framing. Evidence of roof leakage appears on bottom of slab and indicates corrosion (photo **3A06-2.3A**).	
	2.4 Lateral System	5	Unreinforced brick shear walls at exterior and interior (with brick parapets); concrete roof diaphragm; Wood overbuild does not contribute significantly diaphragm or parapet bracing.		Unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely; wall deficiency is exacerbated by heavy roof constr. Masonry parapets are an additional hazard, and their unbraced height is substantial.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	4	Water Closets, Sinks	Main Level	M1	
	4.2a Water Distribution	4	Water and Waste and Piping	Main Level	M1	
	4.2b Water Distribution	4	Domestic Water Heater	Main Level	M1	
	4.3 Rain Water Drainage	4	Roof Drains and Pipe	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	4	Paint Booth & Exhaust Fan	Main Level	M1, M4 (**3A06-5.1B**)	
	5.1b HVAC Equipment	4	Kitchen Cooktop	Main Level	M3 (**3A06-5.1A**)	
	5.2 HVAC Distribution	4	Heating Convectors	Main Level	M1	
	5.3 Controls/Special Sys.	-	Manual Controls	Main Level	M2	
6.0 Electrical	**6.1a Elec Service**	2	150 kVA pad-mounted Transformer '3-2' N of the Paint Shop supplies a 300 Amp electrical service which enters underground to a 200 Amp panelboard	First Floor Room 06 (North side)	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.1b Elec Distribution	4	The 1996 main distribution panel is a 200 Amp main Cutler-Hammer PRL1 panelboard; there are no spare circuits	First Floor Room 06 (North side)	The existing panelboard has no spare circuits	Add spare circuit breakers in existing spaces
	6.2a Lighting	3	Interior lighting mainly consists of Fluorescent narrow luminaires with acrylic lenses; some Incandescent flood lights	Building interior	Incandescent lamps require frequent replacement and are less efficient than other types (photo **3A06-6.2A**)	Replace Incandescent luminaires with Fluorescent of LED luminaires
		4	Exterior lighting includes Metal Halide arm-mounted area luminaires, and a screw-in socket with a Compact Fluorescent lamp at the Entrance	Building exterior	The screw-in socket on the Entrance Canopy is not suitable for outdoor use in a damp location (photo **3A06-6.2B**)	Replace the luminaire on the Entrance Canopy
		5	No illuminated exit signs	NA	Building lacks illuminated exit signs	Add exit signs with LED lamps and battery-backup
	6.2b Branch Wiring	3	Arm-mounted area luminaires are equipped with photocells and there is a photocell for theluminaire on the West Canopy; otherwise exterior lighting is switched	Local	No automatic controls for exterior lighting at the South Entrance	Add automatic lighting controls for exterior lights
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building interior	None	None
		3	Box for exterior receptacle has flip-lid cover	Building exterior	Surface box for exterior receptacle is poorly secured and rotates (photo **3A06-6.2C**)	Replace exterior outlet box, receptacle and cover, and secure properly
	6.3a Telecom	4	Telecommunications connected via overhead cable to Building 5	East side of building	No telecom rack in building; overhead cabling is not protected	Provide telecom rack and fiber-optic cable connection to campus network
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	5	Fire alarm connections to fire sprinkler are circuited to fire alarm system in Building 5	NA	•Building lacks its own fire alarm system	Add fire alarm system and connect to campus network
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	No emergency power system	NA	Building lacks backup power for egress lighting	Add battery-backed emergency lighting units

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
7.0 Equipment	**7.1 Institutional Equip**	4	paint booth with exhaust system		fairly old, may not meet current OSHA requirements (**3A06-7.1A**; & **3A06-1.6B**)	
	7.2 Fixed Furnishings	-	N/A			
8.0 Code Compliance	**8.1 Life Safety Code**	5	does not meet current codes			
	8.2 IBC	5	ditto			
	8.3 WSEC	5	ditto			
	8.4 ADA	5	ditto			

Comments:

Mechanical:

M1: Unit is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.

M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M3: Range/cooktop does not have an exhaust hood. Most Code Authorities (AHJ) would require a capture hood with exhaust directly to the outdoors.

M4: Makeup air unit does not exist. Makeup air for paint hood is infiltration from outdoors.

***Rating System: 1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

3A06-1.1A.JPG

3A06-1.1B.jpg

3A06-1.5A.JPG

3A06-1.6A.JPG

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NAC NO # 111 - 14011

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PAINT SHOP (OLD BAKERY)

3A**06**

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3A06-1.6B.JPG

3A06-1.7A.jpg

3A06-1.7B.JPG

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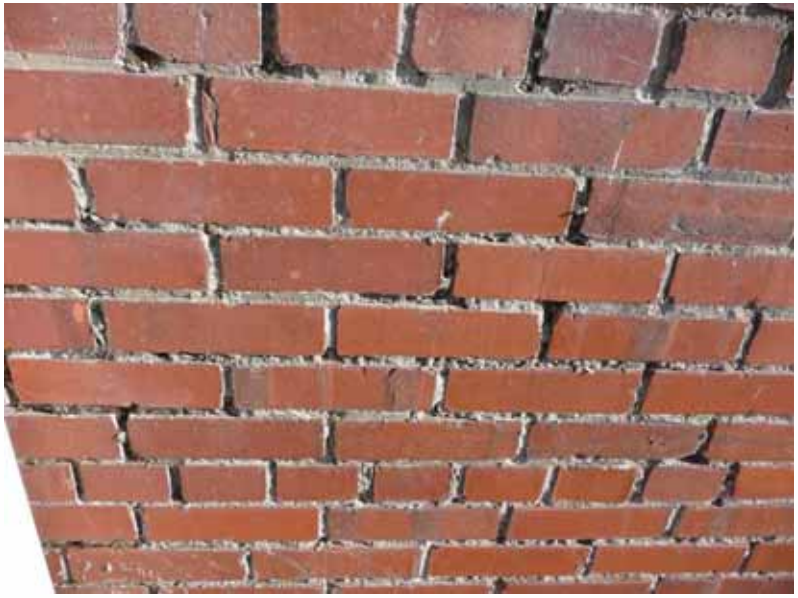

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3A06-6.2C.jpg

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3A**06**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Commissary (Old Laundry)	3A07
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
15,692	1	1936	2-B	IBC = S2; LSC = Storage	Addition in 1960, re-work in 1975	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete		see photo (**3A07-1.1A**)	
	1.2 Slab on Grade	3	part of the building area is slab-on-grade, most is an elevated slab over crawl space			
	1.3 Basement Walls	-	N/A			
	1.4 Floor Construction	3	elevated slab over crawl space; supports have been added in the 1960 addition (west side of building)		(**3A07-1.4A-C**)	
	1.5a. Roof Construction	3	low bay has concrete slab & beams		(**3A07-1.5A**)	
	1.5b. Roof Construction	3	west addition has precast concrete plank , precast beams and columns		(**3A07-1.5B**)	
	1.5c. Roof Construction	3	main area has concrete slab & beams supported by riveted steel girders		(**3A07-1.5C**)	
	1.6a. Exterior Walls	4	main building has unreinforced 3-wythe brick walls		poor lateral resistance (**3A07-1.6A-B**)	
	1.6b. Exterior Walls	4	West addition has brick veneer over CMU bearing walls		CMU exhibits numerous cracks (**3A07-1.6C-F**)	
	1.7 Exterior Windows	4	original double-hung Wood windows, single glazing, screens. One newer aluminum infill window (**3A07-1.7B**)		Paint peeled off; west windows have been boarded up (**3A07-1.7A-C**)	
	1.8 Exterior Doors	3	Main entry has double steel door. Also has wood sectional overhead door at loading dock, and steel sectional door at garage		(**3A07-1.8A-C**)	
	1.9a. Roof Coverings	5	roofing is needed at canopies over doors		no roofing now (**3A07-1.9A**)	
	1.9b. Roof Coverings	4	built-up roofing over insulation board		Inadequate slope to drain; evidence of ponding. (**3A07-1.9F, H**)	
	1.9c. Roof Coverings	4	concrete copings at west roof; glazed terra-cotta copings on main roof parapet walls		1) concrete should have metal coping added or thru-wall flashing under with new sealant at joints (**3A07-1.9G**)	
	1.10 Roof Openings	4	steel ventilators on main roof, and louvered relief on west roof		should be removed (left over from when this building was used as a laundry (**3A07-1.9C; 1.9E**)	
	1.11 Interior Partitions	3	wood-framing with plaster or gyp board		(**3A07-1.11A**)	
	1.12 Interior Doors	3	wood, painted or stained			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.13 Stair Constn/Finishes	-	N/A			
	1.14 Wall Finishes	3	exposed/painted brick/CMU		(**3A07-1.14A; -1.16A; -1.6E**)	
	1.15 Floor Finishes	3	exposed concrete, sealed		cracks, see #1.4 (**3A07-1.4A-B; & 7.2A**)	
	1.16 Ceiling Finishes	3	painted exposed structure		see item #1.2 (**3A07-1.5A-C**)	
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	4	Original: concrete foundation walls, largely unreinforced, at perimeter. Slab on grade in small lower north and south wings; 14'x15' floor bays of 7" conc. slab on steel beams and girders encased in concrete & supported by concrete piers and footings in crawl space at large high bay. No design loads stated. 1960 Addition: 10" precast floor channels with 2" topping on 13"x16" precast beams on piers & ftgs. in crawl space. Design load 75PSF; design soil brg. 5000 PSF. Column loads adjacent to original piers may result in extremely high net soil pressures. 1960 floor shoring (1974 upgrade): design reqd. jacking up deflected conc. channels, raised soil brg. to presumed 8000 PSF; added grid of footings and single angle supports and steel beams halving spans of precast beams and channels; added 1.5" additional concrete topping, and claimed 400 PSF LL capacity.		Reinforcement in all phases, where present, would not conform to current code detailing requirements. Floor slabs appear in very poor condition (photo **3A07-2.1A** at addn. and **3A07-2.1B** at orig.). Recent engineering analysis placed current limiting live load capacities at 140 PSF in 1960 addition and 100 PSF in original and addressed a specific fork lift travel path. Loads occurring in current use could be questionably high (photo **3A07-2.1E**). Single angle posts as compression members in floor shoring are a dubious element. Loading dock in poor condition (photo **3A07-2.1D**).	Immediate: Remove inappropriate 400 PSF load limit signs (photo **3A07-2.1C**); post limits as noted. Long term: replacement.
Undated original documents- built as "Bakery"- reportedly circa 1936; 1960 Addition; shoring of 1960 floor dated 1974; recent engineering floor capacity study letters.	**2.2 Struct. Bearing Walls**	5	Original: unreinforced multi-wythe brick masonry, 17" at high bay, 13" at lower bay with numerous windows. Brick piers between windows support roof girders on 48" long plates (**3A07-2.2A**). Unreinforced masonry parapets. 1960 addition: minimally reinforced CMU walls with brick veneer; windows relocated from orig. west wall to new wall (**3A07-2.2B**); CMU "pilaster block" at roof beams betwn. windows with 4- #7's and no ties; veneer detailed at piers was not installed (**3A07-2.2C**).		Original: Unreinforced masonry is prohibited by current codes and constitutes a seismic hazard. 1960 addition: Minimal reinforcement and lack of ties in addition would not meet code. Some veneer exhibits condition issues (**3A07-2.2D**).	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	4	Original: High roof is riveted steel plate girders supporting steel beams and 5" concrete slab with an additional concrete topping. Low roofs are steel beams encased in concrete supporting concrete slab. Framed floor area as noted above. 1960 Addition: Roof is precast conc. channels with no concrete topping spanning 15' between precast concrete roof beams, supported adjacent to original on precast concrete columns which bear on the ends of cantilevered floor beams.		Original: some condition issues due to roof leakage (photo **3A07-2.3A**). Details of reinforcement would not meet current codes. 1960 Addition: Details of reinforcement would not meet current codes; connections between precast elements are minimal. Floor issues as noted under 2.1	
	2.4 Lateral System	5	Original: concrete roof diaphragm is essentially not connected to the perimeter walls except by gravity. The unreinforced masonry walls have many tall openings at the high bay leaving very little in terms of shear wall capacity (**3A07-2.4A**). 1960 Addition: roof has no mechanical connections between precast channels to form a diaphragm, although dwgs. called for some intermittent grouted shear keys and grouted dowels over precast beams. The east side has no lateral force resisting elements and is minimally attached to the original building, essentially doubling lateral forces to the original unreinforced masonry window wall (**3A07-2.4B**). 1960 walls on the other 3 sides have similar windows to the original (**3A07-2.4C**) and minimal reinforcement, leaving very little in terms of shear wall elements to support loads from heavy roof.		Unreinforced masonry is not permitted by current codes. The heavy roofs combined with tall unreinforced or minimally reinforced masonry walls with numerous window openings result in a facility with no code-recognized lateral force resisting system, and one which represents a significant hazard in the case of a seismic event.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	4	Water Closets, Sinks	Main Level	M1	
	4.2a Water Distribution	4	Water and Waste and Piping	Main Level	M1	
	4.2b Water Distribution	4	Domestic Water Heater	Main Level	M1	
	4.3 Rain Water Drainage	4	Roof Drains and Pipe	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	4	Gas-fired Unit Heaters	Main Level	M1	
	5.1b HVAC Equipment	4	Wall-mounted Exhaust Fans	Main Level	M1	
	5.1c HVAC Equipment	4	Split System AC Unit	Main Level	M1	
	5.1d HVAC Equipment	2	Through wall Air Conditioner	Main Level		
	5.3 Controls/Special Sys.	-	Manual Controls	Main Level	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	4	150 kVA pad-mount Transformer '3-3' W of the Commissary supplies a 400 Amp underground service that feeds 5 fused switch disconnects in the Electrical Room at 120/208 Volts; the 5 disconnects feed Buildings 9 and 10 in addition to the Commissary; total capacity is 144.1 kVA; the 5th disconnect feeds an unused connection for a temporary refrigerator; per an Emon meter, the maximum demand may be 12 kW	1st Floor Electrical Room in NW corner	Not all disconnects are within 15 feet of service entrance wireway, and the crowded tangle of wires in the wireway presents a hazard when changes are needed (photos **3A07-6.1A, B, C, D, E**)	Replace disconnects and wireway with a main service switchboard
	6.1b Elec Distribution	4	Panel '1N' on the East side of the Commissary is a Square D NQOD panelboard; on the West side is an old Skyline ILAB panelboard; next to the Skyline panboard is a fused disconnect that feeds the elevator in Building 10	1st Floor Room 4 (West side) and 1st Floor Room 10 (East side)	The Skyline panelboard is obsolete equipment; spare parts are unavailable; Phase B feeder conductors are incorrectly taped orange (photos **3A07-6.1F, G**)	Provide a new panelboard to replace the Skyline panelboard on the West side; remove orange tape from Phase B conductors
	6.2a Lighting	3	Interior lighting mainly consists of Fluorescent strip lights with reflectors	Building interior	None	None
			Exterior lighting includes Metal Halide arm-mounted area luminaires and a Metal Halide wall-pack, an Circuline Fluorescent canopy luminaire and a Compact-Fluorescent canopy lluminaire	Building exterior	The lens is missing from the Compact-Fluorescent canopy luminaire on the Front Canopy; the entire luminaire is missing on the side canopy (photo **3A07-6.2A**)	Replace the luminaire on the Front Canopy
			No illuminated exit signs	NA	Building lacks illuminated exit signs	Add exit signs with LED lamps and battery-backup
	6.2b Branch Wiring	3	Arm-mounted area luminaires are equipped with photocells; otherwise exterior lighting is switched	Local	No automatic controls for exterior lighting other than arm-mounted area luminaires	Add automatic lighting controls for exterior lights
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building interior	None	None
		3	Box for exterior receptacle has flip-lid cover	Building exterior	None	None
	6.3a Telecom	1	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Room 10 (East side)	None	None
	6.3b Other Comm	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	5	No fire alarm system	NA	Building lacks fire alarm system	Add fire alarm system and connect to campus network
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	No emergency power system	NA	Building lacks backup power for egress lighting	Add battery-backed emergency lighting units
7.0 Equipment	**7.1 Institutional Equip**	3	metal shelving for inventory		(**3A07-7.1A**)	
	7.2 Fixed Furnishings	2	office systems furniture at office area		(**3A07-7.2A**)	
8.0 Code Compliance	**8.1 Life Safety Code**	-	in-depth analysis not made			
	8.2 IBC	4	limited review		Second Exit? (overhead door does not qualify)	
	8.3 WSEC	5	does not meet energy codes		envelope (roof & wall insulation lacking); non-insul glass at windows, no lighting controls, etc.	
	8.4 ADA	4	Accessibility		main entry is accessible, but various building component would not meet ADA req'mts	

Comments:

Mechanical:

M1: Unit is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.

M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

3A07-1.1A.JPG

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NAC NO # 111 - 14011

NAC ARCHITECTURE

COMMISSARY (OLD LAUNDRY)

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415	Motor Pool Office (Old Commissary)	3A09
NAC #111-14011-A206	April 25, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
14,242	1+Bsmt+Mezzanine	1933	V-B	IBC = S-2 ; LSC = Storage	none (mezzanine added at some point)	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete		see #2.1 (photo **3A09-1.1A**)	
	1.2 Slab on Grade	3	concrete slab on grade; also concrete ramp down to Bsmt		no handrails on ramp (**3A09-1.2A**)	
	1.3 Basement Walls	3	concrete		see #2.1 (photo **3A09-1.3A**)	
	1.4 Floor Construction	3	main level = slab on grade; mezzanine = plywood deck on 2x joist framing			
	1.5 Roof Construction	3	1x board sheathing on 2x roof framing		see #2.3 (photo **3A09-1.5A-B**)	
	1.6 Exterior Walls	4	3-wythe brick, no insulation or furring		see #2.2 (photo **3A09-1.6A**)	
	1.7 Exterior Windows	4	original double-hung wood windows, single-glazed, painted, with screens		paint peeling off (**3A09-1.7A**)	
	1.8 Exterior Doors	4	wood doors, painted, with screen doors		paint peeling off (**3A09-1.8A**)	
	1.9 Roof Coverings	4	built-up roofing, base flashing does not extend up back side of brick parapet; metal coping on parapet is rusting		roofing life-span about up, also needs flashings at parapet walls and replace or repair copings (**3A09-1.9A-D**)	
	1.10 Roof Openings	3	roof access hatch recently replaced			
	1.11 Interior Partitions	3	wood-framed walls with plaster or gyp board, and painted finish		(**3A09-1.11A**)	
	1.12 Interior Doors	3	wood doors & frames, painted or stained		(**3A09-1.11A**)	
	1.13 Stair Constn/Finishes	-	N/A			
	1.14 Wall Finishes	3	paint		(**3A09-1.11A**)	
	1.15 Floor Finishes	5	VAT on concrete/exposed concrete		Vinyl-Asbestos Tile still remains at office areas in front (**3A09-1.15A-B**)	
	1.16 Ceiling Finishes	3	painted plaster in office areas, exposed wood framing at main storage area			
	1.17 Elevators & Lifts	-	N/A			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	4	13" exterior concrete foundation walls with 36" wide continuous footings and one transverse interior concrete wall extend main floor to basement level (first floor is elevated above grade). Concrete walls appear to be unreinforced except for horizontal bars at tops and in footings. Interior concrete columns on reinforced spread footings. Interior concrete ramp runs along west side to basement; exterior wall drawings do not address earth retention. Exterior loading dock at west in poor condition		Unreinforced concrete prohibited by current codes. Except for entry stairs and loading dock, foundations appear in relatively good condition.	
Documents available (Built as Commissary); dated 1933	**2.2 Struct. Bearing Walls**	5	2-story unreinforced 13" brick 3-wythe bearing walls extend 2 stories above concrete foundations and include unreinforced masonry parapets; relatively limited window openings. CMU elevator shaft has been added from basement to main floor.		Unreinf. masonry not permitted by code.	
	2.3 Structural Frame	4	Concrete columns in basement support cast-in-place concrete beam-and-slab first floor construction. Above first floor, 10x10 wood columns support 9' wide wood framed perimeter mezzanine with diagonal wood sheathing and continue up to support wood framed roof with straight wood sheathing. Sometime after original construction, part of the mezzanine open area was filled in using 2x12 framing and plywood shtg. between original mezzanine edge beams, greatly increasing the load on these beams.		Wood joists @ roof and mezzanine are embedded in masonry exterior walls (photos **3A09-2.3A** and **3A09-2.3B**), which is prohibited by current codes and presents both a decay hazard and a fire-fighting hazard (also a lateral force hazard: see 2.4 below). Details of concrete reinforcement would not meet current codes. Undocumented mezzanine infill likely represents an overload on original wood beams and supporting columns. Wood construction appears to lack adequate connection hardware	
	2.4 Lateral System	5	Building relies on unreinforced brick shear walls at perimeter. Wood roof with straight sheathing is the only available horizontal element. The mezzanine, lacking any interior shear walls, represents an out-of-plane load to the essentially two-story unbraced unreinforced masonry		Wood roof with straight sheathing does not constitute a code recognized diaphragm and lacks positive attachment to the surrounding walls. Unreinforced masonry shear walls, especially parapets, are prohibited by code. Mezzanine represents an unsupported element from a lateral force standpoint	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
4.0 Plumbing	**4.1 Plumbing Fixtures**	4	Water Closet, Sink	Main Level	M1	
	4.2a Water Distribution	4	Water and Waste and Piping	Main Level	M1	
	4.2b Water Distribution	4	Domestic Water Heater	Main Level	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no drains.	--		
5.0 HVAC	**5.1a HVAC Equipment**	2	Gas-fired Unit Heater	Service Platform		
	5.1b HVAC Equipment	4	Cooktop range - electric	Main Level	M3 (**3A09-5.1A**)	
	5.2 HVAC Distribution	2	Ductwork, grilles	Service Platform		
	5.3 Controls/Special Sys.	--	Manual Controls	Main Level	M2	
6.0 Electrical	**6.1a Elec Service**	3	A 125 Amp electrical service enters underground, with its origin in Building 7 (at some point the 200 Amp feeder that leaves Building 7 reduces to 125 Amp conductors, possibly in an underground vault North of Building 10, where Building 8 was formerly loacated); a seond 60 Amp underground service from Building 7 supplies power to the elevator	Basement (NW corner)	The service has limited capacity for an office building of 14,242 SF, amounting to about 3.5 W/SF including the elevator service, whereas an office building would normally require over 10 W/SF; the basement location could be subject to flooding	Presently the building is little used; a new pad-mount transformer and new service would be needed if the building were to be fully occupied
	6.1b Elec Distribution	4	The 125 Amp main panelboard is a General Electric loadcenter with 5 spare circuits; the adjacent 60 Amp elevator disconnect is an old Trumbull Electric fused switch	Basement (NW corner)	The panelboard has only 5 spare circuits; the Trumbull Electric fused switch disconnect is obsolete equipment (photos **3A09-6.1A, B**)	Provide new electrical distribution equipment to replace the General Electric loadcenter and the Trumbull Electric disconnect
	6.2a Lighting	2	Interior lighting mainly consists of Fluorescent strip lights with reflectors; some Incandescent lighting still remains in little-used areas toward the back of the 1st Floor	Building interior	None	None
		4	Exterior lighting includes Metal Halide arm-mounted area luminaires, a Circuline Fluorescent canopy luminaire on the West Canopy, and Compact Fluorescent wall packs at the South Entrance	Building exterior	The lens is yellowed on the canopy luminaire	Replace the luminaire on the West Canopy
		5	No illuminated exit signs	NA	Building lacks illuminated exit signs	Add exit signs with LED lamps and battery-backup
	6.2b Branch Wiring	3	Arm-mounted area luminaires are equipped with photocells and there is a photocell for the luminaire on the West Canopy; otherwise exterior lighting is switched	Local	No automatic controls for exterior lighting at the South Entrance	Add automatic lighting controls for exterior lights
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		3	Receptacles and switches have standard faceplates	Building interior	Receptacles in Break Room are not equipped with ground fault circuit interruption (GFCI)	Replace receptacles in Break Room with GFCI type
	6.3a Telecom	1	Telecom rack cabinet, equipped with patch panels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	Basement Room (North end)	Cable is improperly supported in places (photo **3A09-6.3A**)	Provide proper pathway for cable
	6.3b Other Comm	2	Radio communications antenna	Roof	None	None
	6.3c Fire Alarm	5	No fire alarm system	NA	Building lacks fire alarm system	Add fire alarm system and connect to campus network
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	No emergency power system	NA	Building lacks backup power for egress lighting	Add battery-backed emergency lighting units
7.0 Equipment	**7.1 Institutional Equip**	-	N/A			
	7.2 Fixed Furnishings	4	original wood painted cabinets		old (**3A09-7.2A**)	
8.0 Code Compliance	**8.1 Life Safety Code**	5	does not meet current codes			
	8.2 IBC	5	ditto			
	8.3 WSEC	5	ditto			
	8.4 ADA	5	ditto			

Comments:

Mechanical:

M1: Unit is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.

M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M3: Range/cooktop does not have an exhaust hood. Most Code Authorities (AHJ) would require a capture hood with exhaust directly to the outdoors.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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MOTOR POOL OFFICE (OLD COMMISSARY)

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BUILDING ASSESSMENT			Medical Lake Infrastructure Master Plan WA State DES #2014-415		Old Fire House (motor pool)	3A10
NAC #111-14011-A206	April 25, 2014		Project		Building Name	Building No.
GSF	**Stories**	**Built**	**Construction Type**	**Occupancy Group**	**Last Remodeled**	**Overall Condition**
4,784	2	1911	V-B	IBC = S2; LSC = Storage	N/A	Failing
Components	**Systems**	**Rating***	**Component Description**	**Component Location**	**Deficiency Description**	**Corrective Action**
1.0 FICAP Information Div. 2-	**1.1 Foundation**	4	concrete; see #2.1			
	1.2 Slab on Grade	3	concrete		see photo (**3A10-1.2A**)	
	1.3 Basement Walls	--	N/A, no basement			
	1.4 Floor Construction	4	concrete with wood nailers, see #2.3		(**3A10-1.4A-B**)	
	1.5 Roof Construction	4	concrete; see #2.3		(**3A10-1.5A-B**)	
	1.6 Exterior Walls	4	3-wythe brick, not reinforced or insulated; plaster finish on inside at upper floor, exposed brick at ground floor		mortar falling out, brick needs repointing (**3A10-1.6A-C**)	
	1.7 Exterior Windows	5	double-hung wood, single-glazed, painted		paint peeled off (**3A10-1.7A-C**)	
	1.8 Exterior Doors	4	overhead wood sectional doors & wood entry door, painted		paint peeled off (**3A10-1.8A-B**)	
	1.9 Roof Coverings	5	built-up roofing, flashing to brick parapet wall, galvanized iron coping and fascia, painted		leaking around roof drain; roofing needs replacement, including base flashing to cover inside face of brick parapet and repaint or replace copings & fascia (**3A10-1.9A-F**)	
	1.10 Roof Openings	4	concrete curb roof hatch, wood frame with galv. Metal cover		ladder stops short. Needs reflashing (**3A10-1.10A-B**)	
	1.11 Interior Partitions	3	wood-framed, lath & plaster, painted		paint peeling (**3A10-1.11A**)	
	1.12 Interior Doors	5	4-panel wood doors, painted		(**3A10-7.2A**)	
	1.13 Stair Constn/Finishes	4	terrazo treads on wood framing		(**3A10-1.13A**)	
	1.14 Wall Finishes	5	painted plaster		paint peeling (**3A10-1.11A**)	
	1.15 Floor Finishes	5	hardwood on furring strips		water damaged (**3A10-1.15A-B**)	
	1.16 Ceiling Finishes	4	suspended plaster ceiling, painted		water damaged, paint peeling (**3A10-1.16A-C**)	
	1.17 Elevators & Lifts	--	N/A		--	
2.0 Structural	**2.1 Foundations**	4	Cast in place concrete foundations & footings (fdns. discontinuous at vehicle doors); 6" or 7" concrete slab on grade. Footings & foundations are unreinforced per documents. Unreinforced spread footings at interior concrete columns.		Unreinforced concrete prohibited by current codes; no visible signs of distress.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
Original documents available; circa 1911	**2.2 Struct. Bearing Walls**	5	Unreinforced brick masonry at exterior (two stories). 7" I-beams with plate @ bottom serve as headers for larger openings; double angles at smaller ones. Building has galvanized iron cornice all around supported by embedment of small angles in brick. All of these are vulnerable to corrosion due to lack of wall, roofing and coping maintenance.		Unreinf. mas. not permitted by code; extremely poor condition especially at parapets & chimney (photos **3A10-E2.2A, B & C**); some cracking and extensive mortar deterioration. Grade has been raised along west side of building to run significantly above floor line, which does not appear to be part of the original design (**3A10-2.2D**) and presents water penetration and soil load issues.	
	2.3 Structural Frame	5	Cast-in-place concrete interior beams and columns with two-way concrete slab panels; 6" slab thickness @ 2nd floor, 5" at roof. Bars predate contemporary deformed bars and are noted as "iron". Four 14" sq. interior concrete columns have 4 vert. bars & minimal ties. 2nd floor slab supports wood nailers, "cinder concrete fill" and wood finish floor with severe water damage.		Details of reinforcement and type (iron bars, apparently without deformations) do not meet current codes and lack ductility. High percentage of reinforcement in slabs (1/2" bars @ 6" o.c. each way) would likely fail in a brittle manner. Severely leaking roof may indicate corrosion.	
	2.4 Lateral System	5	Built in an era when lateral forces were not an issue, this facility relies on narrow unreinforced brick masonry piers between windows. Heavy concrete roof and 2nd floor diaphragms bear within exterior masonry walls with no connection other than gravity. Masonry section is reduced to 9" at unreinforced masonry parapets.		Unreinforced masonry is prohibited by code and is hazardous; structure lacks any roof or floor diaphragm anchorage to walls; deficiency exacerbated by heavy roof and floor construction, which would generate high seismic forces, and narrow pier proportions. Large openings @ bottom floor result in a "soft story" hazard (**3A10-2.4A**). Significant masonry deterioration is also a detriment.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**		No plumbing			
	4.3 Rain Water Drainage	5	Roof drains and pipe	Throughout	System is leaking	
5.0 HVAC	**5.1 HVAC Equipment**	2	Gas-fired Water Boiler - 1997	Main Level		
	5.2 HVAC Distribution	2	Heating Water Piping	Exposed to 3A-11	**3A10-5.2A**	
	5.3 Controls/Special Sys.	2	Direct Digital Control	Main Level		
6.0 Electrical	**6.1a Elec Service**	2	A 100 Amp electrical service enters underground, with its origin in Building 7 (from the disconnect by the panelboard in the West side of Building 7)	First Floor Garage (NW corner)	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.1b Elec Distribution	4	The 80 Amp main panelboard is a General Electric loadcenter; there are no spare circuits	First Floor Garage (NW corner)	The existing panelboard has no spare circuits (photos 3A10-6.1A, B)	Replace the panelboard with a new 42-pole panelboard
	6.2a Lighting	4	Fluorescent hazardous location luminaires with heavy duty glass lamp tubes	1st Floor Garage	Luminaires are lamped with T12 lamps, which are no longer standard (photo **3A10-6.2A**)	Replace Garage lighting with Fluorescent vapor-tight luminaires (no hazardous zone rating is required)
		4	Incandescent sockets and lensed Incandescent luminaires, mostly missing their lenses	2nd Floor	Incandescent lighting is out-moded and inefficient; lenses missing and in some cases burnt (photos **3A10-6.2B, C, D, E**)	Replace interior Incandescent luminaires with Fluorescent luminaires
		4	Incandescent RLM style luminaires	Building exterior	Incandescent lighting is out-moded and inefficient (photo **3A10-6.2F**)	Replace exterior Incandescent luminaires with LED or Metal Halide luminaires
		5	No illuminated exit signs	NA	Building lacks illuminated exit signs	Add exit signs with LED lamps and battery-backup
	6.2b Branch Wiring	3	Exterior lighting is controlled by switches	Local	No automatic controls for exterior lighting	Add automatic lighting controls for exterior lights
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting; some switches are old-style push-button type (photo **3A10-6.2G**)	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building interior	Some receptacles do not have ground pins (photos **3A10-6.2H, I**)	Replace receptacles without ground pins with new receptacles
		3	Some wiring is routed in surface raceway	Building interior	Evidence of shorting at raceway elbow (photo **3A10-6.2J**)	Replace affected raceway and wiring
		3	Conduit with "LB" condulet fitting	Building exterior (West side)	Condulet fitting and conduit are broken (photo **3A10-6.2K**)	Replace condulet fitting and broken conduit
	6.3a Telecom	4	Telecommunications connected via overhead cable to Building 9	East side of building	No telecom rack in building; overhead cabling is not protected	Provide telecom rack and fiber-optic cable connection to campus network
	6.3b Other Comm	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	5	No fire alarm system	NA	•Building lacks fire alarm system	Add fire alarm system and connect to campus network
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	No emergency power system	NA	Building lacks backup power for egress lighting	Add battery-backed emergency lighting units
7.0 Equipment	**7.1 Institutional Equip**	--	none			
	7.2 Fixed Furnishings	5	original wood cabinets in galley		old, worn, broken (**3A10-7.2A**)	
8.0 Code Compliance	**8.1 Life Safety Code**	5	does not meet current codes			
	8.2 IBC	5	ditto			
	8.3 WSEC	5	ditto			
	8.4 ADA	5	ditto			

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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FIREHOUSE

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FIREHOUSE

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MEDICAL LAKE INFRASTRUCTURE
MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

FIREHOUSE

3A**10**

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

3A10-6.1B.jpg

3A10-6.2A.jpg

3A10-6.2B.jpg

3A10-6.2C.jpg

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3A10-6.2D.jpg

3A10-6.2E.jpg

3A10-6.2F.jpg

3A10-6.2G.jpg

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3A10-6.2H.jpg

3A10-6.2I.jpg

3A10-6.2J.jpg

3A10-6.2K.jpg

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3A10-7.2A.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Welding-Carpentry-Auto	3A11
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
8,557	1	1933 (?)	2-B	IBC = S1; LSC = Industrial	Older "additions" at each end; 1940's?	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	-	NOTE: minimal assessment done was on this building since it is recommended for demolition		photos listed below are included for information on general conditions; deficiencies not necessarily noted	
	1.2 Slab on Grade	3			(**3A11-1.2A**)	
	1.3 Basement Walls	-			N/A	
	1.4 Floor Construction	-			see #1.2	
	1.5 Roof Construction	4			(**3A11-1.5A-C**)	
	1.6 Exterior Walls	4			(**3A11-1.6A-E**)	
	1.7 Exterior Windows	4			(**3A11-1.7A-B**)	
	1.8 Exterior Doors	4			(**3A11-1.8A-C**)	
	1.9 Roof Coverings	4			(**3A11-1.9A-C**)	
	1.10 Roof Openings	-				
	1.11 Interior Partitions	-				
	1.12 Interior Doors	-				
	1.13 Stair Constn/Finishes	-				
	1.14 Wall Finishes	-				
	1.15 Floor Finishes	-				
	1.16 Ceiling Finishes	-				
	1.17 Elevators & Lifts	-				
2.0 Structural	**2.1 Foundations**	4	Concrete fdn. walls & slab on grade; undocumented; likely unreinforced or minimally reinforced.		Grade has been raised to above window sills @ NW corner (photo **3A11-2.1A**). Unreinforced concrete prohibited by current codes.	
undocumented construction: circa 1933 with additions each end	**2.2 Struct. Bearing Walls**	5	Unreinforced brick masonry at exterior and between shop zones (3 wythe, about 13" thick exterior walls). Concrete headers at openings bearing on brick at jambs.		Unreinf. mas. not permitted by code; poor condition especially at parapets & chimney (photos **3A11-2.2A, B & C**); some cracking and extensive mortar deterioration.	
	2.3 Structural Frame	4	Steel beams and interior columns supporting one-way concrete roof slabs (slab appears fairly shallow at one visible opening).		No notable signs of distress, but concrete slabs of this age will not meet current codes, and roofing deterioration may be causing reinforcement corrosion.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	5	Unreinforced brick shear walls with brick parapets; concrete roof diaphragm; large overhead door opg, added after original constr.		Unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely; deficiency exacerbated by heavy roof constr.; unreinforced parapets.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	3	Water closet, sink	Main Level	M1	
	4.2 Water Distribution	3	Water and Waste pipe	Main Level	M1	
	4.3 Rain Water Drainage	-	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Gas-fired Makeup Air Unit - 1997	Outdoors	M2 (**3A11-5.1A**)	
	5.1b HVAC Equipment	3	Dust Collection System	Outdoors	M1	
	5.1c HVAC Equipment	3	Gas-fired Unit Heaters	Suspended	M1	
	5.1d HVAC Equipment	3	Through-wall air conditioning units	Windows	M1	
	5.2 HVAC Distribution	2	Ductwork, grilles	Throughout		
	5.3 Controls/Special Sys.	3	Local Control	Main Level	M3	
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mount Transformer '1-4' N of the Carpentry/ Welding/ Auto Shop feeds a 400 Amp fused switch for the Welding Shop, and two 200 Amp fused switches, one for the Carpentry Shop and the other for the Auto Shop at 120/208 Volts	Outside on North side of Carpentry/ Welding/ Auto Shop Building	The disconnects for the Carpentry Shop and the Welding Shop are mislabeled; the label for Auto Shop disconnect is missing (photo **3A11-6.1A**)	Replace identification namemplates on service disconnects
	6.1b Elec Distribution	4	In the Auto Shop is a 1996 Siemens S1 225 Amp panelboard in the Auto Shop with circuit breakers; in the weld Shop are two older 225 Amp Westinghouse panelboards with circuit breakers; in the Carpentry Shop is 225 Amp panelboard and a loadcenter, both with circuit breakers	Auto Shop, Welding Shop, and Carpentry Shop	The existing electrical distribution equipment in the Welding Shop and Carpentry Shop is short of spare circuits (photos **3A11-6.1B, C, D, E, F**)	Replace old panelboards with panelboards that have spare circuits; add a new subfed panelboard in the Auto Shop
	6.2a Lighting	2	Interior lighting mainly consists of Fluorescent strip lights with reflectors	Building interior	None	None
		4	Exterior lighting includes a Compact Fluorescent lamp in an RLM-type reflector luminaire, and an Incandescent jar-type luminaire	Building exterior	The RLM-reflector luminaire is not suitable for outdoor use in a damp location; the Incandescent jar-type light is neither efficient nor reliable in terms of lamp life (photos **3A11-6.2A, B**)	Replace exterior luminaires
			No illuminated exit signs; exits seem to be clearly identifiable	NA	None	None
	6.2b Branch Wiring	3	The RLM-type luminaire is equipped with a photocell; otherwise exterior lighting is switched	Local	No automatic controls for some exterior lighting	Add automatic lighting controls for exterior lights
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		3	Receptacles and switches have standard faceplates	Building interior	No faceplate on receptacle in one outlet box (photo **3A11-6.2C**)	provide missing faceplate
		3	Unused telecom outlet in middle of room	Room behind Carpentry Shop	Surface box in middle of room at the floor presents a trip hazard (photo **3A11-6.2D**)	Remove outlet in middle of room and patch floor
	6.3a Telecom	4	Telecom punchdown blocks; Category 5e data cable connected via Building 10 to Building 9	Room behind Carpentry Shop	No telecom rack in building; overhead cabling is not protected	Provide telecom rack and fiber-optic cable connection to campus network
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	5	No fire alarm system	NA	Building lacks fire alarm system	Add fire alarm system and connect to campus network
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	No emergency power system	NA	Building lacks backup power for egress lighting	Add battery-backed emergency lighting units
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments:

Mechanical:

M1: Unit is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.

M2: Unit is functioning but age is approaching Average Service Life. Increased maintenance would be expected.

M3: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

3A11-1.2A.jpg

3A11-1.5A.JPG

3A11-1.5B.JPG

3A11-1.5C.JPG

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MEDICAL LAKE INFRASTRUCTURE
MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

WELDING CARPENTRY AUTO SHOP

3A**11**

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3A11-1.6A.jpg

3A11-1.6B.jpg

3A11-1.6C.JPG

3A11-1.6D.JPG

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NAC ARCHITECTURE

WELDING CARPENTRY AUTO SHOP

3A11

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3A11-1.6E.JPG

3A11-1.7A.JPG

3A11-1.7B.JPG

3A11-1.8A.jpg

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WELDING CARPENTRY AUTO SHOP

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3A11-1.8B.JPG

3A11-1.8C.JPG

3A11-1.9A.JPG

3A11-1.9B.JPG

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WELDING CARPENTRY AUTO SHOP

3A**11**

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3A11-1.9C.JPG

3A11-2.1A.JPG

3A11-2.2A.JPG

3A11-2.2B.JPG

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WELDING CARPENTRY AUTO SHOP

3A**11**

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3A11-2.2C.JPG

3A11-5.1A.JPG

3A11-6.1A.jpg

3A11-6.1B.jpg

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WELDING CARPENTRY AUTO SHOP

3A**11**

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3A11-6.1C.jpg

3A11-6.1D.jpg

3A11-6.1E.jpg

3A11-6.1F.jpg

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WELDING CARPENTRY AUTO SHOP

3A**11**

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3A11-6.2A.jpg

3A11-6.2B.jpg

3A11-6.2C.jpg

3A11-6.2D.jpg

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WELDING CARPENTRY AUTO SHOP

3A**11**

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EH-11-S1.JPG

EH-11-S2A.JPG

EH-11-S2B.JPG

EH-11-S3.JPG

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WELDING CARPENTRY AUTO SHOP

3A**11**

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EH-11-S4.JPG

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NAC ARCHITECTURE

WELDING CARPENTRY AUTO SHOP

3A**11**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Grainery / Paint Storage	3A12
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.
GSF	**Stories**	**Built**	**Construction Type**	**Occupancy Group**	**Last Remodeled**	**Overall Condition**
4,680	1	1930	V-B	IBC = S-1; LSC = Storage	N/A	Failing

Components	**Systems**	**Rating***	**Component Description**	**Component Location**	**Deficiency Description**	**Corrective Action**
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	5	NOTE: minimal assessment done was on this building since it is recommended for demolition		photos listed below are included for information on general conditions; deficiencies not necessarily noted	
	1.2 Slab on Grade					
	1.3 Basement Walls					
	1.4 Floor Construction				see photo (**3A12-1.4A**)	
	1.5 Roof Construction					
	1.6 Exterior Walls				(**3A12-1.6A-C**)	
	1.7 Exterior Windows				(**3A12-1.7A**)	
	1.8 Exterior Doors				(**3A12-1.8A**)	
	1.9 Roof Coverings				(**3A12-1.9A-B**)	
	1.10 Roof Openings					
	1.11 Interior Partitions					
	1.12 Interior Doors					
	1.13 Stair Constn/Finishes					
	1.14 Wall Finishes					
	1.15 Floor Finishes					
	1.16 Ceiling Finishes					
	1.17 Elevators & Lifts					
2.0 Structural **No documents**	**2.1 Foundations**	5	Unreinforced concrete (presumptive)		Unreinforced concrete is prohibited by code.	
	2.2 Struct. Bearing Walls	5	Unreinforced brick.		Unreinf. masonry not permitted by code. Masonry and mortar are in extremely deteriorated condition (photos **3A12-2.2A & 3A12-2.2B**).	
	2.3 Structural Frame	5	Roof structure is wood in advanced state of failure. Apparent crawl space or partial basement; floor construction unknown (deemed unsafe to enter).		Failing; hazardous; unsalvageable.	
	2.4 Lateral System	5	Relies on unreinforced brick shear walls at exterior (with brick parapets); no roof diaphragm; failing structure.		Unreinforced masonry is prohibited by code; hazardous state of deterioration; no code recognized lateral force resisting system.	Demolish.
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**					
	4.2 Water Distribution					
	4.3 Rain Water Drainage					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
5.0 HVAC	5.1 HVAC Equipment					
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.					
6.0 Electrical	6.1 Elec Service & Distrib					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	7.1 Institutional Equip					
	7.2 Fixed Furnishings					
8.0 Code	8.1 Life Safety Code					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

*Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).

3A12-1.4A.jpg

3A12-1.6A.JPG

3A12-1.6B.JPG

3A12-1.6C.JPG

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3A12-1.7A.JPG

3A12-1.8A.JPG

3A12-1.9A.JPG

3A12-1.9B.JPG

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MEDICAL LAKE INFRASTRUCTURE
MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

GRAINERY

3A**12**

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3A12-2.2A.JPG

3A12-2.2B.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Electrical & Plaster (Quonset)	3A013
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
3,440	1	1959	II-B	IBC = S-2; LSC = Industrial	N/A	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	1	NOTE: minimal assessment done was on this building since it is recommended for demolition		photos listed below are included for information on general conditions; deficiencies not necessarily noted	
	1.2 Slab on Grade					
	1.3 Basement Walls					
	1.4 Floor Construction					
	1.5 Roof Construction				(**3A13-1.5A**)	
	1.6 Exterior Walls				(**3A13-1.6A**)	
	1.7 Exterior Windows					
	1.8 Exterior Doors					
	1.9 Roof Coverings					
	1.10 Roof Openings					
	1.11 Interior Partitions					
	1.12 Interior Doors					
	1.13 Stair Constn/Finishes					
	1.14 Wall Finishes				(**3A13-1.14A**)	
	1.15 Floor Finishes					
	1.16 Ceiling Finishes				(**3A13-1.16A**)	
	1.17 Elevators & Lifts					
2.0 Structural	**2.1 Foundations**	5	Undocumented concrete to base of arch (photo **3A13-2.1A**)			
No documents	**2.2 Struct. Bearing Walls**	5	Unknown ("Quonset" appearing structure on exterior; no access provided to interior). Painted plywood end closure walls with peeling paint. (photo **3A13-2.2A**).			
	2.3 Structural Frame	5	Unknown (traditional corrugated arch Quonset structure appearance on exterior; no access provided to interior).		Corrosion visible.	
	2.4 Lateral System	5	N/A		Structure has no apparent characteristics which would suggest code conformance.	Demolish.
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**					
	4.2 Water Distribution					
	4.3 Rain Water Drainage					
5.0 HVAC	**5.1 HVAC Equipment**					
	5.2 HVAC Distribution					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	5.3 Controls/Special Sys.					
6.0 Electrical	6.1 Elec Service & Distrib					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	7.1 Institutional Equip					
	7.2 Fixed Furnishings					
8.0 Code Compliance	8.1 Life Safety Code					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

*Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).

3A13-1.5A.jpg

3A13-1.6A.jpg

3A13-1.14A.jpg

3A13-1.16A.jpg

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NAC ARCHITECTURE

ELECTRICAL & PLASTER SHOP (QUONSET)

3A**13**

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3A13-2.1A.JPG

3A13-2.2A.JPG

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NAC ARCHITECTURE

ELECTRICAL & PLASTER SHOP (QUONSET)

3A**13**

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Linden Hall	3A14
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
33,496	3 + B	1905	V-B	IBC = B; LSC = Business	N/A	Failing

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	5	Rock wall		NOTE: THIS BLDG RECOMMENDED FOR DEMO. Fdn not reinforced, not laterally stable; loose mortar. See photos (**3A14-1.1A-C**)	
	1.2 Slab on Grade	4	concrete	basement	cracks. Basement is really a crawl space, inadequate height to be considered as a story, see (**3A14-1.3A**)	
	1.3 Basement Walls	5	Rock wall and brick walls		same as item #1.1; see (**3A14-1.3A-B**)	
	1.4 Floor Construction	4	Concrete slab spans to brick bearing walls at corridor		brick bearing walls supporting the floor are not laterally stable (**3A14-1.4A**)	
	1.5 Roof Construction	4	diagonal board sheathing on rough-cut 2X joist and ceiling framing spanning to corridor bearing walls		not fire-rated, not laterally braced (see struct) (**3A14-1.5A**)	
	1.6 Exterior Walls	5	3-wythe brick, non-reinforced		mortar coming loose; walls not laterally stable (**3A14-1.6A-C**)	
	1.7 Exterior Windows	5	single-glazed steel jalousie windows		lots of air infiltration (**3A14-1.7A-B**)	
	1.8 Exterior Doors	4	wood doors, painted		peeling paint	
	1.9 Roof Coverings	5	built-up roofing, flashed to brick parapet walls, galv. Iron coping & fascia		leaking roof, needs replaced (**3A14-1.9A-F**)	
	1.10 Roof Openings	5	old ventilator for attic space		flashings old, patched (**3A14-1.10A**)	
	1.11 Interior Partitions	4	brick bearing walls at corridor with plaster coating, divider walls of wood framing and lath on plaster		see (**3A14-1.14A**)	
	1.12 Interior Doors	4	wood doors, painted / stained		some water damage	
	1.13 Stair Constn/Finishes	4	Metal stairs, wire partition between		poor condition (**3A14-1.13A**)	
	1.14 Wall Finishes	5	painted plaster, glazed tile at toilet rooms		peeling paint (**3A14-1.14A-B**)	
	1.15 Floor Finishes	5	VAT in corridors, tile in toilet rooms		ACM; water damage **(3A14-1.14A, 1.15A**)	
	1.16 Ceiling Finishes	5	painted plaster on lath or concrete		water damage (**3A14-1.16A-B**)	
	1.17 Elevators & Lifts	-	None			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	5	Rubble stone masonry basement walls at exterior to window head level with brick above and numerous window openings. (Photo **3A14-2.1A**). Footings unknown. In the basement, interior foundations include stone walls, brick walls thickened at the base, and large brick piers with stone caps.		Unreinforced concrete is prohibited by code. Original mortar work appears poor in many places, and there is deterioration of both mortar and brick in the basement piers.	
Partial original documents available dated 1905: Owner lists indicate circa 1935, although appears likely remodel date; appearance similar to adjacent **1911 West**	**2.2 Struct. Bearing Walls**	5	3 story building with basement. 1st floor well above grade. Bearing walls are multi-wythe brick masonry at exterior and each side of corridors. No structural drawings indicating framing layout, member sizes, concrete reinforcement, material strengths or design loads are available.		Unreinf. masonry Is prohibited by code. Masonry and mortar are in poor condition (photo **3A14-2.2A**), and deterioration has accelerated due to lack of maintenance and roof leakage.	
	2.3 Structural Frame	5	The brick basement piers at the central area support concrete beams (or possibly steel beams encased in concrete) and a cast-in-place one-way concrete slab. The east and west ends of these beams are supported by bearing in brick walls. In other areas, the first floor appears to be one-way slabs supported on continuous masonry bearing walls without beams. Upper level structure is concealed but presumably floors are also concrete slabs on concrete or steel beams. Undated drawings for an unbuilt 1940's or 50's elevator indicate some wood framing at the original roof.		Reinforcement of concrete would not meet current codes. Building is in extremely poor condition with widespread water intrusion. The level of damage to actual structural elements is unknown. Roof is failing. Original workmanship marginal with exposed reinf. & rock pockets (photo **3A14-2.3A**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	5	Building relies on unreinforced brick shear walls with numerous openings at exterior and interior (with unreinforced brick parapets); concrete floor diaphragms and wood roof.		Unreinforced masonry is prohibited by code and hazardous; wall deficiency is exacerbated by heavy multi-story constr. and numerous window openings. Anchorage of the exterior walls to the building frame, if any, is unknown and certainly inadequate by current codes. The facility lacks a complete code-recognized lateral load resisting system. This deficit is particularly apparent in the transverse (short) direction of the building where there are few structurally significant cross-walls which would serve to resist lateral forces.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water closets, sinks	Throughout	M1	
	4.1b Plumbing Fixtures	4	Domestic Hot Water Heater	Basement	M1	
	4.2 Water Distribution	4	Water and Waste pipe	Throughout	M1	
	4.3 Rain Water Drainage	4	Roof drains and pipe	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	4	Gas-fired Water Boiler - 1997	Basement	M1	
	5.1b HVAC Equipment	4	Heating water pump and piping	Basement	M1	
	5.1c HVAC Equipment	4	Convectors	Throughout	M1	
	5.1d HVAC Equipment	4	Through-wall air conditioning units	Windows	M1	
	5.3 Controls/Special Sys.	4	Local Control	Main Level	M2	
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**	5	does not meet current codes			
	8.2 IBC	5	dito			
	8.3 WSEC	5	dito			
	8.4 ADA	5	dito			

Comments:

Mechanical:

M1: Mechanical equipment and plumbing fixtures appear to be in Fair condition but have been unused for many years. Varying degrees of service will be required to place back into use.

M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

*Rating System: 1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).

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MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

LINDEN HALL

3A14

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		West Lodge	3A15
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
37,276	3 + B	1912	II-B	IBC = B; LSC = Business	N/A	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	5	rock walls, brick piers		NOTE: THIS BLDG RECOMMENDED FOR DEMO. no lateral resistance (see photos **3A15-A1.1A-C**)	
	1.2 Slab on Grade	3	concrete	basement		
	1.3 Basement Walls	4	rock walls		not laterally braced (see photos **3A15-A1.1A-C**)	
	1.4 Floor Construction	4	concrete slab & beams supported by non-reinforced masonry bearing walls		see (**3A15-1.16A**)	
	1.5 Roof Construction	4	concrete, supported by non-reinforced masonry bearing walls; brick parapet walls		no lateral design (**3A15-1.5A**)	
	1.6 Exterior Walls	5	3-wythe brick bearing walls, non-reinforced		no lateral resistance; mortar loose, evidence of water damage (**3A15-1.6A-C**)	
	1.7 Exterior Windows	5	single-glazed steel jalousie windows		lots of air infiltration (**3A15-1.7A-B**)	
	1.8 Exterior Doors	4	wood doors, painted		peeling paint (**3A15-1.1A**)	
	1.9 Roof Coverings	5	built-up roofing, flashed to brick parapet walls, galv. Iron coping & fascia		leaking roof, parapet walls need flashing (**3A15-1.9A-G**)	
	1.10 Roof Openings	5	old ventilator for attic space		flashings old, patched (**3A15-1.9A**)	
	1.11 Interior Partitions	3	painted plaster			
	1.12 Interior Doors	4	wood doors, painted panel		old (**3A15-1.12A-B**)	
	1.13 Stair Constn/Finishes	4	Metal stairs, wire partition between		poor condition (**3A15-1.13A-B**)	
	1.14 Wall Finishes	5	painted plaster, glazed tile at toilet rooms		some plaster coming off (**3A15-1.14A-D**)	
	1.15 Floor Finishes	5	VAT in corridors, some areas removed to concrete. Thick-set Ceramic tile in toilet rooms, Quarry tile at basement lunch room		VAT =Asbestos-Containing-Material; some water damage (**3A15-1.15A-E**)	
	1.16 Ceiling Finishes	3	painted plaster on concrete		(**3A15-1.16A**)	
	1.17 Elevators & Lifts	-	None			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	5	Exterior foundation walls are stone (granite per drawings) masonry to the first floor. Originally, the western and center wings of the building were over crawl spaces, with the basement floor level occurring only at the east wing. However, at some point, the western portion was underpinned, and a floor slab added, leaving the original footings exposed above the floor line. Documentation of this structural modification is not available.		Unreinforced masonry is prohibited by code.	
Original documents are available, dated 1911.	**2.2 Struct. Bearing Walls**	5	Exterior walls above first floor are load bearing 17" thick brick with a large percentage of window openings. Windows are vertically aligned on each floor. Unreinforced brick walls surround each of two stair towers.		Unreinf. masonry Is prohibited by code. Masonry and mortar are in poor condition (photo **3A15-2.2A**), and deterioration has accelerated due to lack of maintenance and roof leakage. Severe roof leakage has damaged both finishes and masonry.	
	2.3 Structural Frame	5	The 1911 drawings indicate a 3-story interior steel frame building with basement. Steel beams vary in size, are encased in concrete, and support one way concrete slabs at all levels, with sloping slab at roof. Drawings do not indicate slab thicknesses, concrete reinforcement, material strengths or design loads, so building is not amenable to numerical analysis of load capacity or even of dead load. Beam orientation and slab spans vary. "H" shape steel columns are built-up from plates and angles. These columns start just below the first floor, bearing on brick piers in the former crawl space (**3A15-2.3A**), but extend to the basement floor at the east end.		Reinforcement of concrete would not meet current codes. Building is in poor condition with water intrusion and general lack of maintenance. The level of damage to actual structural elements is unknown.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	5	Building relies on unreinforced brick and stone shear walls at exterior and interior (with unreinforced brick parapets); concrete floor diaphragms and roof. Roof perimeter has extremely high unreinforced brick parapets. Mortar is severely deteriorated at the inside face of the parapets		Unreinforced masonry is prohibited by code and hazardous; wall deficiency is exacerbated by heavy multi-story constr. and numerous window openings. Anchorage of the exterior walls to the building frame, if any, is certainly inadequate by current codes. High brick parapets are especially hazardous, and mortar is severely deteriorated at the inside face of parapets. The facility lacks a complete code-recognized lateral load resisting system. This deficit is particularly apparent in the transverse (short) direction of the building where there are few structurally significant cross-walls which would serve to resist lateral forces.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water closets, sinks	Throughout	M1	
	4.1b Plumbing Fixtures	4	Domestic Hot Water Heater	Basement	M1	
	4.2 Water Distribution	4	Water and Waste pipe	Throughout	M1	
	4.3 Rain Water Drainage	4	Roof drains and pipe	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	4	Gas-fired Water Boiler - 1997	Basement	M1	
	5.1b HVAC Equipment	4	Heating water pump and piping	Basement	M1	
	5.1c HVAC Equipment	4	Convectors	Throughout	M1 (**3A15-5.1A**)	
	5.1d HVAC Equipment	4	Through-wall air conditioning units	Windows	M1 (**3A15-5.1B**)	
	5.3 Controls/Special Sys.	4	Local Control	Main Level	M2	
6.0 Electrical	**6.1a Elec Service**	2	300 kVA pad-mount Transformer '2-3' SE of West Lodge near Maple Street supplies a 400 Amp underground service to the Main Distribution Panel in Basement; Transformer '2-3' also supplies the 600 Amp service to Linden Hall	Basement	None	None
	6.1b Elec Distribution	3	Main Distribution Panel feeds panelboards on each floor; panelboards are of recent vintage	Basement Column, 1st Floor Day Room, 2nd and 3rd Floor Closets	Additional panelboards needed to return building to full operation	Add panelboards as needed
	6.2a Lighting	2	Fluorescent strip luminaires	Basement	None	None
		4	Fluorescent lensed and bladed luminaires	Upper Floors	Luminaires are damaged and not suitable for reuse	Replace interior lighting on upper floors

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	Compact fluorescent wall-packs	Exterior	Luminaires are old and deteriorated	Replace exterior lighting
	6.2b Branch Wiring	4	Lighting is controlled by switches	Interior and Exterior	No automatic controls for interior lighting	Add automatic lighting controls where appropriate if building is to be reoccupied
		4	Receptacles and switches have standard faceplates	Interior	Receptacles are sparse	Add receptacles if building is to be reoccupied
	6.3a Telecom	4	Copper cable terminates at telecom backboard on protector panel; data rack and fiber-optic cabling was removed and rerouted through splice box outside	Basement	Data cabling system lacking	Add data cabling system if building is to be reoccupied
	6.3b Other Comm		None	NA	None	None
	6.3c Fire Alarm	4	Antiquated fire alarm system with heat detectors, pull stations, and chime signal units	Corridor	The old fire alarm system is obsolete and in need of replacement; replacement parts are not available; not connected to campus network	Provide new addressable fire alarm system to replace the obsolete system; connect to campus fiber-optic network
	6.3d Security		None	NA	None	None
	6.4 Emerg Power		None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**	5	does not meet current codes			
	8.2 IBC	5	ditto			
	8.3 WSEC	5	ditto			
	8.4 ADA	5	ditto			

Comments:

Mechanical:

M1: Mechanical equipment and plumbing fixtures appear to be in Fair condition but have been unused for 3 to 4 years. Varying degrees of service will be required to place back into use.

M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

WEST LODGE

3A15

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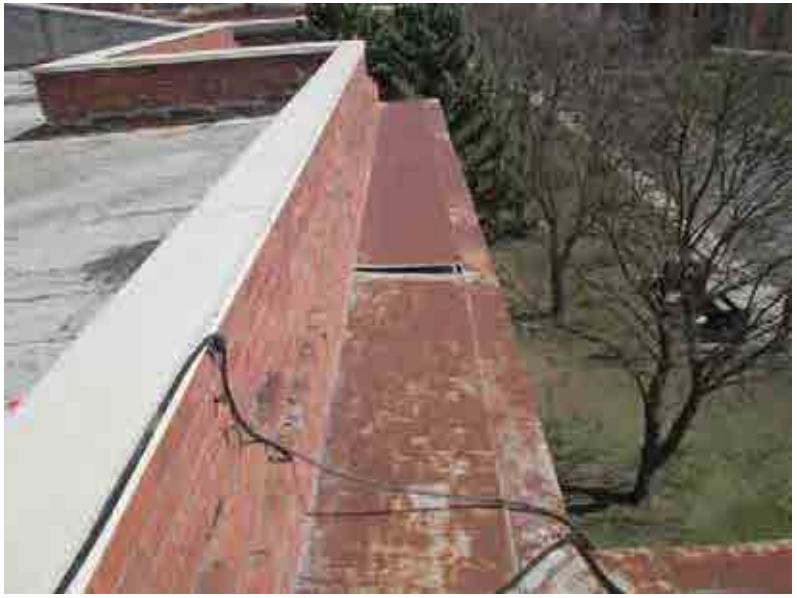

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MEDICAL LAKE, WA

STATE NO # 2014 - 415
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NAC ARCHITECTURE

WEST LODGE

3A15

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STATE NO # 2014 - 415
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NAC ARCHITECTURE

WEST LODGE

3A15

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3A15-1.16A.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		West Lodge	3A15
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
37,276	3 + B	1912	II-B	IBC = B; LSC = Business	N/A	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	5	rock walls, brick piers		NOTE: THIS BLDG RECOMMENDED FOR DEMO. no lateral resistance (see photos **3A15-A1.1A-C**)	
	1.2 Slab on Grade	3	concrete	basement		
	1.3 Basement Walls	4	rock walls		not laterally braced (see photos **3A15-A1.1A-C**)	
	1.4 Floor Construction	4	concrete slab & beams supported by non-reinforced masonry bearing walls		see (**3A15-1.16A**)	
	1.5 Roof Construction	4	concrete, supported by non-reinforced masonry bearing walls; brick parapet walls		no lateral design (**3A15-1.5A**)	
	1.6 Exterior Walls	5	3-wythe brick bearing walls, non-reinforced		no lateral resistance; mortar loose, evidence of water damage (**3A15-1.6A-C**)	
	1.7 Exterior Windows	5	single-glazed steel jalousie windows		lots of air infiltration (**3A15-1.7A-B**)	
	1.8 Exterior Doors	4	wood doors, painted		peeling paint (**3A15-1.1A**)	
	1.9 Roof Coverings	5	built-up roofing, flashed to brick parapet walls, galv. Iron coping & fascia		leaking roof, parapet walls need flashing (**3A15-1.9A-G**)	
	1.10 Roof Openings	5	old ventilator for attic space		flashings old, patched (**3A15-1.9A**)	
	1.11 Interior Partitions	3	painted plaster			
	1.12 Interior Doors	4	wood doors, painted panel		old (**3A15-1.12A-B**)	
	1.13 Stair Constn/Finishes	4	Metal stairs, wire partition between		poor condition (**3A15-1.13A-B**)	
	1.14 Wall Finishes	5	painted plaster, glazed tile at toilet rooms		some plaster coming off (**3A15-1.14A-D**)	
	1.15 Floor Finishes	5	VAT in corridors, some areas removed to concrete. Thick-set Ceramic tile in toilet rooms, Quarry tile at basement lunch room		VAT =Asbestos-Containing-Material; some water damage (**3A15-1.15A-E**)	
	1.16 Ceiling Finishes	3	painted plaster on concrete		(**3A15-1.16A**)	
	1.17 Elevators & Lifts	-	None			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	5	Exterior foundation walls are stone (granite per drawings) masonry to the first floor. Originally, the western and center wings of the building were over crawl spaces, with the basement floor level occurring only at the east wing. However, at some point, the western portion was underpinned, and a floor slab added, leaving the original footings exposed above the floor line. Documentation of this structural modification is not available.		Unreinforced masonry is prohibited by code.	
Original documents are available, dated 1911.	**2.2 Struct. Bearing Walls**	5	Exterior walls above first floor are load bearing 17" thick brick with a large percentage of window openings. Windows are vertically aligned on each floor. Unreinforced brick walls surround each of two stair towers.		Unreinf. masonry Is prohibited by code. Masonry and mortar are in poor condition (photo **3A15-2.2A**), and deterioration has accelerated due to lack of maintenance and roof leakage. Severe roof leakage has damaged both finishes and masonry.	
	2.3 Structural Frame	5	The 1911 drawings indicate a 3-story interior steel frame building with basement. Steel beams vary in size, are encased in concrete, and support one way concrete slabs at all levels, with sloping slab at roof. Drawings do not indicate slab thicknesses, concrete reinforcement, material strengths or design loads, so building is not amenable to numerical analysis of load capacity or even of dead load. Beam orientation and slab spans vary. "H" shape steel columns are built-up from plates and angles. These columns start just below the first floor, bearing on brick piers in the former crawl space (**3A15-2.3A**), but extend to the basement floor at the east end.		Reinforcement of concrete would not meet current codes. Building is in poor condition with water intrusion and general lack of maintenance. The level of damage to actual structural elements is unknown.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	5	Building relies on unreinforced brick and stone shear walls at exterior and interior (with unreinforced brick parapets); concrete floor diaphragms and roof. Roof perimeter has extremely high unreinforced brick parapets. Mortar is severely deteriorated at the inside face of the parapets		Unreinforced masonry is prohibited by code and hazardous; wall deficiency is exacerbated by heavy multi-story constr. and numerous window openings. Anchorage of the exterior walls to the building frame, if any, is certainly inadequate by current codes. High brick parapets are especially hazardous, and mortar is severely deteriorated at the inside face of parapets. The facility lacks a complete code-recognized lateral load resisting system. This deficit is particularly apparent in the transverse (short) direction of the building where there are few structurally significant cross-walls which would serve to resist lateral forces.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water closets, sinks	Throughout	M1	
	4.1b Plumbing Fixtures	4	Domestic Hot Water Heater	Basement	M1	
	4.2 Water Distribution	4	Water and Waste pipe	Throughout	M1	
	4.3 Rain Water Drainage	4	Roof drains and pipe	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	4	Gas-fired Water Boiler - 1997	Basement	M1	
	5.1b HVAC Equipment	4	Heating water pump and piping	Basement	M1	
	5.1c HVAC Equipment	4	Convectors	Throughout	M1 (**3A15-5.1A**)	
	5.1d HVAC Equipment	4	Through-wall air conditioning units	Windows	M1 (**3A15-5.1B**)	
	5.3 Controls/Special Sys.	4	Local Control	Main Level	M2	
6.0 Electrical	**6.1a Elec Service**	2	300 kVA pad-mount Transformer '2-3' SE of West Lodge near Maple Street supplies a 400 Amp underground service to the Main Distribution Panel in Basement; Transformer '2-3' also supplies the 600 Amp service to Linden Hall	Basement	None	None
	6.1b Elec Distribution	3	Main Distribution Panel feeds panelboards on each floor; panelboards are of recent vintage	Basement Column, 1st Floor Day Room, 2nd and 3rd Floor Closets	Additional panelboards needed to return building to full operation	Add panelboards as needed
	6.2a Lighting	2	Fluorescent strip luminaires	Basement	None	None
		4	Fluorescent lensed and bladed luminaires	Upper Floors	Luminaires are damaged and not suitable for reuse	Replace interior lighting on upper floors

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	Compact fluorescent wall-packs	Exterior	Luminaires are old and deteriorated	Replace exterior lighting
	6.2b Branch Wiring	4	Lighting is controlled by switches	Interior and Exterior	No automatic controls for interior lighting	Add automatic lighting controls where appropriate if building is to be reoccupied
		4	Receptacles and switches have standard faceplates	Interior	Receptacles are sparse	Add receptacles if building is to be reoccupied
	6.3a Telecom	4	Copper cable terminates at telecom backboard on protector panel; data rack and fiber-optic cabling was removed and rerouted through splice box outside	Basement	Data cabling system lacking	Add data cabling system if building is to be reoccupied
	6.3b Other Comm		None	NA	None	None
	6.3c Fire Alarm	4	Antiquated fire alarm system with heat detectors, pull stations, and chime signal units	Corridor	The old fire alarm system is obsolete and in need of replacement; replacement parts are not available; not connected to campus network	Provide new addressable fire alarm system to replace the obsolete system; connect to campus fiber-optic network
	6.3d Security		None	NA	None	None
	6.4 Emerg Power		None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**	5	does not meet current codes			
	8.2 IBC	5	ditto			
	8.3 WSEC	5	ditto			
	8.4 ADA	5	ditto			

Comments:

Mechanical:

M1: Mechanical equipment and plumbing fixtures appear to be in Fair condition but have been unused for 3 to 4 years. Varying degrees of service will be required to place back into use.

M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415			Roosevelt Hall	3A17
NAC #111-14011-A206	April 25, 2014		Project		Building Name	Building No.
GSF	**Stories**	**Built**	**Construction Type**	**Occupancy Group**	**Last Remodeled**	**Overall Condition**
16,524	3 + B	1935	V-B	IBC = R LSC = Residential	N/A	Failing
Components	**Systems**	**Rating***	**Component Description**	**Component Location**	**Deficiency Description**	**Corrective Action**
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	5	NOTE: minimal assessment done was on this building since it is recommended for demolition		photos listed below are included for information on general conditions; deficiencies not necessarily noted	
	1.2 Slab on Grade					
	1.3 Basement Walls					
	1.4 Floor Construction				(**3A17-1.3A**)	
	1.5 Roof Construction				(**3A17-1.5A**)	
	1.6 Exterior Walls				(**3A17-1.6A-C**)	
	1.7 Exterior Windows				(**3A17-1.7A**)	
	1.8 Exterior Doors				(**3A17-1.8A**)	
	1.9 Roof Coverings					
	1.10 Roof Openings					
	1.11 Interior Partitions					
	1.12 Interior Doors					
	1.13 Stair Constn/Finishes					
	1.14 Wall Finishes				(**3A17-1.14A-B**)	
	1.15 Floor Finishes				(**3A17-1.15A-B**)	
	1.16 Ceiling Finishes					
	1.17 Elevators & Lifts					
2.0 Structural	**2.1 Foundations**	5	Basement and crawl space exterior walls are stone rubble masonry (16" to 18" thick per drawings). These have a concrete "cap" around the top, but grade is low enough to expose the rock at the north end.		Unreinforced rubble masonry is prohibited by code. Piles of crumbled mortar line the base of the stone walls in the basement. Large open joints where mortar is missing are visible in the foundation along the north wall.	
Undated construction documents: circa 1935 per Owner.	**2.2 Struct. Bearing Walls**	5	3-story L-shaped residential building with partial basement; exterior bearing walls above the first floor are unreinforced brick masonry. Interior bearing walls are wood studs.		Unreinf. masonry not permitted by code. Masonry and mortar are in extremely deteriorated condition, especially at chimney (photo **3A17-2.2A**). Window sills and some other brick areas exhibit damaged or missing mortar.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	5	The 3rd floor is described as an "attic" and has sloped walls and dormers. Floor joists are 2x12's with diagonal wood sheathing and no blocking at bearing lines. Roof pitch is steep (about 12:12) with wood joists and 2x6 collar ties at mid height. Roof has wood stripping (in lieu of sheathing), which supported wood shakes or shingles. Building does not precisely match available original documents.		Failing; hazardous; unsalvageable. The shingles are deteriorated and many are missing, resulting in severe leaking and substantial holes in the roof, leaving structural members exposed to the elements (photo **3A17-2.3A**). Some floor areas buckled due to water exposure, This building exhibits multiple examples of structural problems and deterioration. Decay in wood members is likely.	
	2.4 Lateral System	5	Relies on unreinforced brick shear walls at exterior; no roof diaphragm; failing structure.		Unreinforced masonry is prohibited by code; hazardous state of deterioration; anchorage of the exterior walls to the wood framing is inadequate. Joist ends embedded in masonry may be decayed, particularly due to moisture problems in this building. The facility lacks a code-recognized lateral load resisting system	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**					
	4.2 Water Distribution					
	4.3 Rain Water Drainage					
5.0 HVAC	**5.1 HVAC Equipment**					
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.					
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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3A19-1.3A.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Activity/Therapy	3A20
NAC #111-14011-A20	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
53,462	2 + Bsmt	1962	1-B	IBC = B + A-2; LSC = Ambulatory Healthcare/ Business	N/A	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	4	See item #2.1		Foundation /Basement Wall: see photo (**3A20-1.1A**)	
	1.2 Slab on Grade	3	exposed slab in Mech room, tunnel, stairs; some cracks visible			
	1.3 Basement Walls	3	concrete walls, painted; also see #2.1			
	1.4 Floor Construction	4	concrete, see #2.3 for description		some cracks; settling at east stair; slab = (**3A20-1.4A**); Floor= **(3A20-1.4B**)	
	1.5 Roof Construction	4	Tapered rigid insulation over concrete, see #2.3 for description			
	1.6 Exterior Walls	4	concrete block infill between precast concrete structural frame		some cracking in CMU and spalling of block where water has infiltrated in the past (it is believed that the recent re-roof project has alleviated water infiltration) see (**3A20-1.6A-E**)	
	1.7 Exterior Windows	4	main floor has plate glass windows in aluminum storefront; upper levels have bands of aluminum windows, some with security screens added		frames do not appear to be thermally broken; windows appear to be single-glazed (**3A20-1.7A-C**)	
	1.8 Exterior Doors	3	Recently added main entry vestibule with outer doors of thermally-broken aluminum storefront and inner doors of single-glazed storefront. Side doors on exterior are painted steel doors; south doors are new steel doors.		painted doors at sides have weathered paint. (**3A20-1.8A-C**)	
	1.9 Roof Coverings	2	New TPO roofing was installed in 2010, and appears to be in good shape.		(**3A20-1.9A-D**)	
	1.10 Roof Openings	3	existing roof cowls were re-flashed in 2010		(**3A20-1.10A**)	
	1.11 Interior Partitions	3	generally CMU walls, some framed walls with gyp board or plaster		cracking in CMU walls evident at east stair (**3A20-1.11A**)	
	1.12 Interior Doors	3	most doors are painted steel, with occasional stained wood solid-core		toilet room doors too narrow to meet accessibility requirements. Also, basement door by stairwell is fire-rated but has non-rated relite above (**3A20-1.12A-C**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.13 Stair Constn/Finishes	3	exposed concrete stairs with abrasive nosings, painted concrete and CMU walls		Data/com panel and conduit in center stairwell; cracks in CMU walls at east stair (**3A20-1.13A; -1.11A**)	
	1.14 Wall Finishes	3	painted gyp board or plaster at secondary walls; painted CMU with thick-set ceramic tile at main halls		(**3A20-1.14A-C**)	
	1.15 Floor Finishes	4	exposed concrete at service areas on lower level; most areas have 9x9 VAT (Vinyl Asbestos Tile). Maple flooring in gym and bowling alley; carpet in conference rooms, ceramic mosaic tile typical in toilet rooms.		VAT will need to be abated if finishes are replaced. Carpet in conference rooms is worn and should be replaced (**3A20-1.15A-G**)	
	1.16 Ceiling Finishes	3	12x12 glue-on acoustical tile on suspended gyp board is typical at corridors; exposed precast structure at gym with 12x12 tile glued-on between tees; painted gyp board or plaster at toilet room ceilings		some 12x12 tile has come loose; some patching has been done with non-matching tile (**3A20-1.16A-G**)	
	1.17 Elevators & Lifts	3	3-stop hydraulic elevator, 3' door		does not meet current ADA standards for call signals (**3A20-1.17A-B**)	
2.0 Structural	**2.1 Foundations**	4	Undocumented structure; presumably reinforced concrete based on 1960 construction date; sloped site. Ground floor is slab on grade.		Reinforcement would not conform to current code detailing requirements. Some cracking and spalling.	
No structural documents; limited architectural sheets dated 1960.	**2.2 Struct. Bearing Walls**	5	Walls vary: reinforced concrete or concrete masonry. Masonry may be unreinforced or minimally reinforced based on age. The exterior walls are generally exposed concrete columns and walls, with continuous windows between columns (non-bearing walls).		Details of reinforcement, where present, would not meet current codes. Unreinforced masonry, if present, is prohibited by current codes. Many cracks; some water damage/ mortar failure. Significant water damage near SW corner. Numerous cracks of all sorts (horizontal, vertical and diagonal cracks from opening corners) in the exterior walls	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	5	3 level facility: Ground floor, which exits at grade on the south, resulting in a 3 story facade; Main floor, which exits at grade on the north; and a smaller 2nd floor surrounding a high Gymnasium on the Main floor. Main floor framing is cast-in-place concrete pan joists and beams. Above the main floor, visible framing is precast pre stressed concrete double tees supported on inverted "T" or "L" concrete beams and concrete columns. Concrete columns occur on grid lines with numerous concrete or CMU interior walls.		Significant water damage near SW corner: in this area, there are vertical cracks in the exterior exposed concrete columns (**3A20-2.3A**). Appears to be cracking and spalling due to corrosion of column reinforcement. At north entry, there is a significant irregularity in the slab, apparently due to settlement of a tunnel which extends north. One instance noted of diagonal cracking in a beam west of the Gym. Beams are generally wider than the columns due to ledgers for the tees. In some cases, they are eccentric to the columns where the tees bear from one side only.	
	2.4 Lateral System	5	Building relies on concrete and CMU shear walls and concrete horizontal diaphragms. Presence of connections and/or topping slabs at precast members is unknown. Connections throughout are undocumented.		The number, distribution and connections of potential concrete and/or CMU shear walls are unknown, but continuous windows in many places and the heavy nature of the concrete structure suggest significant deficits in the lateral load resisting system (**3A20-2.4A**). The concrete portions of the structure are reinforced; CMU may not be. Facility predates the implementation of rigorous analysis for lateral forces. The heavy structure implies large lateral forces, and this facility would not conform to current code requirements. Roof and floor diaphragms are likely minimally attached to the surrounding concrete and CMU walls that could serve as shear walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Water closets, sinks	Throughout	M1	
	4.1b Plumbing Fixtures	2	Domestic Hot Water Heater	Basement of 3A-19		
	4.2 Water Distribution	3	Water and Waste pipe	Throughout	M1	
	4.3 Rain Water Drainage	3	Roof drains and pipe	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	2	Gas-fired Water Boilers - 1997	Basement of 3A-19		

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	5.1b HVAC Equipment	2	Heating water pump and piping	Basement of 3A-19		
	5.1c HVAC Equipment	3	Air Handling Units & Exhaust Fans	Throughout	M1	
	5.1d HVAC Equipment	3	Through-wall Air Conditioners	Throughout	M1 (**3A20-5.1A**)	
	5.1e HVAC Equipment	3	Convectors, Radiators	Throughout	M1	
	5.1f HVAC Equipment	3	Dust Collector Exhaust Fan	Lower Level Wood Shop	M2 (**3A20-5.1B**)	
	5.1g HVAC Equipment	4	Kitchen Exhaust & Makeup Air Units	Main Level	M5	
	5.2 HVAC Distribution	3	Ductwork and grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Direct Digital Control	Throughout	M3, M4	
6.0 Electrical	**6.1a Elec Service**	2	500 kVA pad-mount Transformer '1-15' S of the Activity Therapy Building feeds a 1200 Amp main switchboard at 120/208 Volts; capacity is 432.3 kVA	Basement Electrical Room (Basement opens to grade on S side)	None	None
	6.1b Elec Distribution	4	The main switchboard is a 1991 Siemens/ITE Series 6 FCI 1200 Amp switchboard with fused switches; an 800 Amp fused switch in the main switchboard subfeeds an old Westinghouse 300 kVA power center from which the transformer has been disconnected	Basement Electrical Room (Basement opens to grade on S side)	The old Westinghouse equipment is obsolete; replacement parts are unavailable (photo **3A20-6.1A**)	Provide new electrical distribution equipment to replace the obsolete equipment
		4	Subfed panelboards are a mixture in terms of age and manufacturer	Basement, 1st Floor, 2nd Floor	The old Westinghouse equipment (such as Panel 'BR') is obsolete; replacement parts are unavailable (photos **3A20-6.1B, C, D**)	Provide new electrical distribution equipment to replace the obsolete equipment
	6.2a Lighting	3	Lensed or louvered Fluorescent luminaires, supplemented in places with battery-backed lighitng units	Building Interior	None	None
		2	Incandescent luminaires	Display Cases	None	None
		2	LED exit signs	Halls/Stairs	None	None
		2	Compact Fluor wall-pack luminaires, with Circuline Fluorescent at Front Entrance	Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactor	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting; one key switch is broken (photo **3A20-6.2A**)	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	1	Telecom floor-mounted rack, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	2nd Floor Closet	None	None
	6.3b Other Comm	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; duct smoke detectors; fiber-optic connection to campus network	Basement Electrical Room	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	2	Generac 15 or 20 kW diesel-fueled engine-generator set with weatherproof enclosure and sub-base fuel tank; probably 60 Amp output circuit breaker; Zenith automatic transfer switch located in Basement Electrical Room	At grade S of Activity Therapy Building	None	None
7.0 Equipment	**7.1 Institutional Equip**	3	woodworking equipment at wood shop	basement	appears okay; not tested (**3A20-7.1A**)	
	7.2 Fixed Furnishings	4	Plastic laminate casework at some locations such as pottery area & training kitchen in basement		worn surfaces (**3A20-7.2A-B**)	
8.0 Code Compliance	**8.1 Life Safety Code**	4	does not meet all current codes			
	8.2 IBC	4	does not meet all current codes			
	8.3 WSEC	5	does not comply with envelope requirements, lighting, mechanical			
	8.4 ADA	5	does not meet accessibility requirements for toilet rooms etc.			

Comments:

Mechanical:

M1: Equipment is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.
M2: Equipment is inadequately sized for usage.
M3: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M4: Temperature control system is a combination of pneumatic and Direct Digital (DDC) types. Conversion of pneumatic to DDC is recommended.
M5: Kitchen has been taken out of service. Associated HVAC equipment has been taken out of service.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Martin Hall	3A21
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
25,850	2 + Bsmt	1930's ?	1-B	IBC = I-3; LSC = Detention	1996 by County Consortium, for Juvenile Detention	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	concrete; also see item #2.1		see photo (**3A21-1.1A**)	
	1.2 Slab on Grade	2	the 1996 gym addition has concrete slab on grade; appears to be in good condition		(**3A21-1.2A**)	
	1.3 Basement Walls	3	concrete walls at original building are questionable (see #2.1) but basement walls of 1996 addition are in good shape		(**3A21-1.3A**)	
	1.4 Floor Construction	3	concrete; see #2.3		(**3A21-1.4A**)	
	1.5 Roof Construction	3	precast concrete double-tees at 1996 addition; concrete slab at original bldg.; see #2.3		(**3A21-1.5A-B**)	
	1.6 Exterior Walls	4	Original bldg. has 3-wythe solid brick walls, unreinforced (see #2.2) Interior has been furred-out and insulated at the time of the addition (**3A21-1.6D**) New addition is CMU		original brick walls are not adequately reinforced to withstand seismic loads. See (**3A21-1.6A-D**)	
	1.7 Exterior Windows	3	windows replaced with thermally-broken aluminum frames and insul glass in 1996; security screens added. Some openings framed-in at that time		lower panes of windows were painted for privacy; paint starting to peel off (**3A21-1.7A-D**).	
	1.8 Exterior Doors	2	steel, painted, with security locks			
	1.9 Roof Coverings	3	built-up roof installed in 1996; original terracotta copings on brick parapet walls were re-used		parapets need attention; some brick needs repointing, flashing needs to extend full-height up back side and either thru-wall or over the top of copings. (**3A21-1.9A-D**)	
	1.10 Roof Openings	2	cowls and hatches redone in 1996		(**3A21-1.10A-B**)	
	1.11 Interior Partitions	2	partitions added in 1996 are gyp board on steel studs or CMU, painted		(**3A21-1.11A**)	
	1.12 Interior Doors	2	all replaced in 1996; doors are typically solid-core Maple, light stain. Cell doors are part of the detention equipment (#7.1) and are heavy steel		(**3A21-1.12A-B**)	
	1.13 Stair Constn/Finishes	3	concrete with rubber treads; VCT over concrete at the landings; painted walls		(**3A21-1.13A**)	
	1.14 Wall Finishes	3	painted gyp board or plaster, typical, with exposed glazed brick at original walls and painted CMU at new bearing walls		(**3A21-1.14A-B**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.15a. Floor Finishes	3	quarry tile at original entry and day rooms	day rooms	(**3A21-1.15A-F**)	
	1.15b. Floor Finishes	2	VCT at halls and classrooms	classrooms	(**3A21-1.15B**)	
	1.15c. Floor Finishes	2	Ceramic tile at toilet rooms	toilet rooms	(**3A21-1.15C**)	
	1.15c. Floor Finishes	4	Carpet at offices and south hall	offices	(**3A21-1.15D**)	
	1.15d. Floor Finishes	2	painted steel at cells	cells	(**3A21-1.15E**)	
	1.16a. Ceiling Finishes	3	2x4 lay-in acoustical ceiling panels	corridors	(**3A21-1.16A**)	
	1.16b. Ceiling Finishes	3	2x4 lay-in acoustical ceiling panels	classrooms	(**3A21-1.16B**)	
	1.16c. Ceiling Finishes	2	perforated steel panels	cells	(**3A21-1.16C**)	
	1.16d. Ceiling Finishes	3	original concrete structure with 12x12 acoustical tile glued-on between beams; dropped gyp board soffits, painted	dayrooms	(**3A21-1.16D**)	
	1.17 Elevators & Lifts	2	hydraulic elevator, installed 1996		(**3A21-1.17A**)	
2.0 Structural	**2.1 Foundations**	4	Concrete fdn. walls & footings (footings exposed in crawl space). Based on apparent age, original is likely minimally reinforced. Newer construction would be expected to be similar to current code reqmts.		Probable minimal reinforcement would not meet current codes. No signs of significant distress.	
	2.2 Struct Bearings Walls	4	Original Building: Unreinforced brick masonry at exterior. Gym Addition: reinforced concrete masonry.		Unreinf. mas. not permitted by code; some condition issues (spalling-photos **3A21-2.2A & 3A21-2.2B**). Parapets in particular represent a seismic hazard. In limited exposed locations, concealed workmanship is not impressive (**3A21-2.2C**).	
	2.3 Structural Frame	3	Original Building appears to be cast in place interior columns, beams and one-way slabs. (Construction is undocumented and some nearby buildings incorporate steel beams encased in concrete, which is possible here.) Addition has precast concrete double tee roof.		No notable signs of distress, but concrete frames of this age will not meet current codes in terms of reinforcement detailing for ductility.	
	2.4 Lateral System	5	Original: Unreinforced brick shear walls with brick parapets; concrete roof and floor diaphragms. Heavy steel tube X-frames (photo **3A21-2.4A**) have been added in some windows at lower floor and appear to be an attempt at lateral force stiffening, but they only serve as window opening infill and do not replace unreinforced masonry. Addition: reinforced CMU shear walls.		Original building: Unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely; deficiency is exacerbated by heavy floor and roof construction. Addition has heavy roof but very few openings and likely reinforcement; not a cause for concern.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	3	Water Closets, Sinks, Urinals, Showers	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	4.2 Water Distribution	3	Water and Waste and Piping	Throughout	M2	
	4.3 Rain Water Drainage	3	Roof Drains and Pipe	Throughout	M2	
5.0 HVAC	**5.1a HVAC Equipment**	2	Air Handling Units - 1996	Outdoor	**3A21-5.1A**	
	5.1b HVAC Equipment	2	Exhaust Fans - 1996	Outdoor		
	5.1c HVAC Equipment	2	Heating Boiler - 2007	Basement	M1	
	5.1d HVAC Equipment	2	Heating Boiler - 1996	Basement		
	5.1e HVAC Equipment	2	Pumps	Basement		
	5.1f HVAC Equipment	2	Air Cooled Water Chiller	Outdoors		
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.	3	Invensys - maintained by Divco, Inc.	Basement	M3	
6.0 Electrical	**6.1a Elec Service**	3	500 kVA pad-mount Transformer '1-18' E of Martin Hall feeds 1200 Amp main switchboard at 120/208 Volts; switchboard is equipped with meter (maximum demand reads 411 kW)	Basement Electrical Room (Basement opens to grade on E side)	Service loaded to 95% of capacity; cannot expand load	Record meter readings and date, then reset meter; verify demand after 12 months
	6.1b Elec Distribution	2	1996 Siemens distribution equipment with circuit breaker panelboards; plenty of spare circuits	Electrical Rooms, Mechanical Rooms, Kitchen, Laundry	None	None
	6.2a Lighting	2	Fluorescent troffers	Admin/School	None	None
		2	Fluorescent security luminaires, supplemented with battery lights	Dayrooms/Stairs	None	None
		2	Fluorescent security luminaires, some with internal battery units	Lobby/Visiting	None	None
		2	Fluorescent security luminaires	Cells	None	None
		4	Metal halide lensed high-bay luminaires, supplemented with battery lights	Gym	Yellowed and broken lenses on high-bay luminaires; lamps require warm-up time (photos **3A21-6.2A, B**)	Replace high-bay luminaires with fluorescent or LED luminaires with high-impact lenses
		3	LED exit signs	Halls/Stairs	Majority of exits signs have green letters; some red	Replace red-letter signs with green-letter signs
		2	Metal halide wall-pack luminaires	Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactor	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Admin/School	None	None
		2	Receptacles and switches have security faceplates	Dayrooms	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3a Telecom	4	CenturyLink service with Digital Subscriber Line (DSL); Meridian 1 telephone switch; Category 5 data cable	Basement Communications Room (Basement opens to grade on E side)	No fiber-optic connection to campus network; slow internet affects school	Upgrade telecom system; provide fiber-optic cable connection to campus network
	6.3b Other Comm	2	Intercom/paging system; speakers in secure areas have security grilles	2nd Floor Security Electronics Room	None	None
		3	Television antenna and dish; RG6 coaxial cable	Roof	Cable in surface raceway on roof; no surge protector (photos **3A6.3A, B**)	Provide conduit for cable to antenna; add surge protectors
	6.3c Fire Alarm	3	EST3 fire alarm system; horn/strobe signals; detectors in most areas; duct smoke detectors	2nd Floor Security Electronics Room	No fiber-optic connection to campus network	Provide fiber-optic cable connection to campus network
	6.3d Security	4	Relay-based door control system with hardwired control panels	2nd Floor Security Electronics Room, 2nd Floor Control Room	Hardwired control panel switches are becoming obsolete (photos **3A6.3C, D, E**)	Replace hardwired control panels and relay logic system with HMI/GUI and PLC system
		4	Analog CCTV video surveillance system	2nd Floor Security Electronics Room	Analog CCTV equipment is becoming obsolete (photos **3A21-6.3F, G, H, I, J, K**)	Replace video surveillance system with IP-based system
		2	Duress alarm system	2nd Floor Security Electronics Room	None	None
		2	Metal detector	Lobby	None	None
	6.4 Emerg Power	4	Generac 100 kW diesel-fueled engine-generator set with weatherproof enclosure and sub-base fuel tank; 400 Amp output circuit breaker; calculated emergency power load is 85 kVA	At grade E of Martin Hall	One automatic transfer switch supplies all loads in Building 3A21, without segregation into Emergency and Standby branches (3**A21-6.4A**)	Segregate Emergency, Required Standby and Optional Standby loads, with separate automatic transfer switches
7.0 Equipment	**7.1a. Institutional Equip**	3	commercial kitchen equipment	kitchen	(**3A21-7.1A, -7.1E**)	
	7.1b. Institutional Equip		commercial dryers	laundry room	(**3A21-7.1B**)	
	7.1c. Institutional Equip	3	unitized jail cells	cells	(**3A21-7.1C-D**)	
	7.2 Fixed Furnishings	3	plastic laminate cabinets at break room, control room	thru-out	(**3A21-7.2A-B**)	
8.0 Code Compliance	**8.1 Life Safety Code**	3	renovated in 1996 to current codes at that time			
	8.2 IBC	3	ditto			
	8.3 WSEC	4	most likely does not meet current energy code requirements			
	8.4 ADA	3	renovated in 1996 to current codes at that time			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Comments: This building is leased by DSHS to a County Consortium for housing juvenile offenders.

Mechanical

M1: Boilers: One of the two heating water boilers failed at year 11 (2007) and was replaced. Newer boiler is used as the lead boiler and has sufficient capacity to heat the building. Older boiler is maintained as standby.

M2: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life.

M3: Building is not connected to the Campus Johnson Controls system.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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3A21-1.2A.JPG

3A21-1.3A.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Sewage Treatment Plant	3A-26
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
N/A	N/A	--	N/A	N/A	--	Fair

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	1.1 Foundation		Infastucture - not assesed by architect			
	1.2 Slab on Grade					
	1.3 Basement Walls					
	1.4 Floor Construction					
	1.5 Roof Construction					
	1.6 Exterior Walls					
	1.7 Exterior Windows					
	1.8 Exterior Doors					
	1.9 Roof Coverings					
	1.10 Roof Openings					
	1.11 Interior Partitions					
	1.12 Interior Doors					
	1.13 Stair Constn/Finishes					
	1.14 Wall Finishes					
	1.15 Floor Finishes					
	1.16 Ceiling Finishes					
	1.17 Elevators & Lifts					
2.0 Structural	2.1 Foundations					
	2.2 Struct Bearings Walls					
	2.3 Structural Frame					
	2.4 Lateral System					
3.0 Fire Protection	3.1 Fire Service					
	3.2 FP System					
4.0 Plumbing	4.1 Plumbing Fixtures	--	No Plumbing Equipment			
5.0 HVAC	5.1 HVAC Equipment	--	No HVAC Equipment			
	5.3 Controls/Special Sys.	2	Direct Digital Control		M1	
6.0 Electrical	6.1 Elec Service & Distrib					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	7.1 Institutional Equipmt					
	7.2 Fixed Furnishings					
8.0 Code Compliance	8.1 Life Safety Code					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action

Comments:

Mechacnical:

M1: The Johnson Controls system continues to "have eyes on" this equipment for alarms from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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3A-26-M02.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		WESTLAKE BUILDING	3A27
NAC #111-14011-A206	May 5, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
113,564	2	1980	IBC = IA LSC = I(332)	IBC = I-2 LSC = Health Care	On going limited remodels	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	Throughout building	None	None
	1.2 Slab on Grade	3	Concrete	Throughout building except over Lower Level	High moisture content at Lower Level	Seal concrete as new flooring is installed
	1.3 Basement Walls	2	Concrete (Daylight Basement configuration)	Lower Level	None	None
	1.4 Floor Construction	2	Concrete over metal deck on steel framing	Above Lower Level	None	None
	1.5 Roof Construction	2	Concrete and rigid insulation over metal deck	Throughout building	None	None
	1.6 Exterior Walls	2	Steel stud or concrete shear walls with brick veneer. Corrugated steel sun shades over steel framing above patient bedroom windows.	Perimeter of building	None	None
	1.7 Exterior Windows	4	Aluminum framed with insulated glazing	All areas	Some glazing units have lost their seal (See Photo **3A27-1.7**)	Replace
	1.8a Exterior Doors	3	Aluminum storefront	Public entrances	None	None
	1.8b Exterior Doors-Service and exit stairs	4	hollow metal doors in hollow metal frames	Services entrances & exit stairs	Need to be repainted	Repaint
	1.9 Roof Coverings	2	Single ply over rigid insulation - recently replaced under a warranty.	All areas	Overflow scuppers were not adjusted when the building was reroofed, and they serve as primary roof drainage	Modify scupper/roof interface or provide downspouts to grade
	1.10 Roof Openings	3	Mechanical & Electrical penetrations	All areas	None	None
	1.11 Interior Partitions	3	Gypsum board over steel studs	All areas	None	None
	1.12a Interior Doors	3	PLAM faced wood doors in hollow metal frames	Patient rooms and offices	The resent patient safety hardware changes made to patient rooms doors is likely the last time they came be modified	Replace doors
	1.12b Interior Doors	3	Hollow Metal in hollow metal frames	Smoke compartments & fire doors	Need to be repainted	Repaint
	1.13 Stair Constn/Finishes	3	Concrete over steel	Exit stairs & Center stair	See 8.1 below	
	1.14a Wall Finishes	3	Painted gypsum board, with FRP wainscot at many locations and most patient rooms	Throughout building	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.14b Wall Finishes - Corridor wall rails	4	Wall rail to aid patient mobility	All patient wards and most corridors	Existing railing present potential suicide risk	Replace with anti-ligature model
	1.15a Floor Finishes - Public areas and Office	5	Carpet, sheet rubber, brick pavers, and inlaid sheet vinyl (asbestos containing)	Throughout building	Finished flooring is failing (**3A27-1.15B, C, D, E, F, G**)	Replace flooring
	1.15b Floor Finishes - HMH Ward A	1	Homogeneous sheet vinyl, being installed 2014	Throughout Ward	None	None
	1.15c Floor Finishes - Ward B	1	Homogeneous sheet vinyl, being installed 2014	Throughout Ward	None	None
	1.15d Floor Finishes - Ward D	2	Homogeneous sheet vinyl, Installed 2012	Throughout Ward	None	None
	1.15e Floor Finishes - Ward E	4	Sheet rubber, with inlaid sheet vinyl (asbestos containing) in patient toilet rooms	Throughout Ward	Seams failing	Replace flooring
	1.15f Floor Finishes - Public and Staff Toilet Rooms	5	Sheet vinyl flooring - asbestos containing	Throughout building	Sheet vinyl is failing (**3A27-1.15A**)	Replace flooring
	1.16a Ceiling Finishes - Patient Rooms	2	Painted gypsum board, suspended	Patient Rooms	None	None
	1.16b Ceiling Finishes - Corridors and Offices	2	Suspended acoustical lay in ceilings	Corridors and Offices	None	None
	1.17 Elevators & Lifts	2	Conventional hydraulic hospital sized passenger elevators (2) connecting the Lower Level and the Main Level	Center Core	None - Machine room cooling, Fire Service Recall, and Shunt-trip intertie with sprinklers done as part of the Fire Alarm System Improvements in 2007	None
2.0 Structural	**2.1 Foundations**	2	Foundation system is conventional spread footings; footings are relatively large			
Documents available, dated 1980.	**2.2 Struct. Bearing Walls**	2	Concrete shear walls (see 2.4).		Minor localized brick and mortar failure noted in 2007 in an entry canopy due to moisture (**3A27-2.2A**).	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	2	Building footprint is quite complex, with numerous wall offsets, curves and recesses, a number of roof planes, and a 2-story open space near the center. Structure is steel frame. Roof is non-composite wide flange beams and girders with 15/16" Form deck and WWF-reinforced vermiculite concrete fill with embedded 2¾" insulation board. Floor framing is wide flange steel beams and girders supporting a 4.5" concrete cover on 2 steel formdeck with WWF. Floor structure is composite, with ¾" x 5" welds studs at beams and girders. Floor design load is stated as 100 PSF. Beams and girders (but not slab) are spray-fireproofed.			
	2.4 Lateral System	3	Apparent lateral force resisting system includes concrete shear walls and "V" braced steel frames, most with the diagonals attached to foundations midway between columns. Due to the complexity of the floor plan, there are many braced frames and shear walls.		Due to its age, building lateral system would not meet the letter of current codes but appears to exhibit the standard components of modern structures, including identifiable lateral force resisting elements.	
3.0 Fire Protection	**3.1 Fire Service**	2	Standard 8" fire service entry. 65 psi static pressure	Mechanical Room	No deficiencies	None required
	3.2 FP System	2	All sprinklers replaced in about 2011 with quick response concealed sprinklers	Throughout	None noted	None required
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Water closets, urinals, sinks	Throughout	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heaters	Main Level Mech Rm	M1	
	4.1c Plumbing Fixtures	3	Domestic water Softener	Main Level Mech Rm	M1	
	4.2 Water Distribution	3	Water and Waste pipe	Throughout	M1	
	4.3 Rain Water Drainage	3	Roof drains and pipe	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	3	Gas/Oil-fired Water Boilers - 1981 (x2)	Main Level Mech Rm	M2, M7 (**3A27-5.1A**)	
	5.1b HVAC Equipment	2	Heating water exchanger	Main Level Mech Rm	M5	
	5.1c HVAC Equipment	3	Heating water pump	Main Level Mech Rm	M8 (**3A27-5.1B**)	
	5.1d HVAC Equipment	4	Kitchen Makeup Air Handling Unit	Main Level Mech Rm	M6	
	5.1e HVAC Equipment	3	Dearator Unit - Boiler Feedwater Unit	Main Level Mech Rm	M1	
	5.1f HVAC Equipment	2	Chiller - air cooled - 2009	Equipment Yard		

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	5.1g HVAC Equipment	2	Chilled Water Pumps - 2009	Main Level Mech Rm		
	5.1h HVAC Equipment	3	Zoned Heating Water Pumps	Various Mech Rms	M1	
	5.1i HVAC Equipment	4	100% Outdoor Air - Air Handling Unit	Upper Mech Room	M9	
	5.1j HVAC Equipment	3	Medical Air Compressor & Vacuum Pump	Upper Mech Room	M10	
	5.1k HVAC Equipment	4	Steam powered duct humidifiers	Upper Mech Room	M11	
	5.1l HVAC Equipment	3	Return and Supply Fans	Upper Mech Room	M12	
	5.2 HVAC Distribution	3	Ductwork and grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Direct Digital Control	Throughout	M3, M4	
6.0 Electrical	**6.1a Elec Service**	2	Avista Utility pad-mounted transformer outside supplies 4000 Amp service to Building 3A27	Outside N of Building 3A27	None	None
	6.1b Elec Distribution	3	1980 Westinghouse 4000 Amp main switchboard contains ground fault protection on main and branch overcurrent protection devices	Main Electrical Room	No demand or energy metering; instantaneous voltage and current metering	Provide demand and energy metering interfaced with Johnson Controls Metasys system.
		2	1980 Westinghouse distribution equipment with distribution switchboards, distribution panels, and branch circuit panelboards.	Electrical rooms, electrical closets, mechanical penthouses, mechanical rooms, kitchens	None	None
	6.2a Lighting	2	Fluorescent troffers	Offices, corridors, activity areas	None	None
		3	Wall Mounted fluorescent troffers	Patient rooms	Luminaires are not 'Anti-Ligature'	Consider replacing luminaires in bedrooms
		2	HPS pole mounted parking lot lighting	Parking lot	None	None
		2	MH pole mounted exterior lighting	Evacuation area	None	None
		2	LED Heli-pad lighting	Heli-pad	None	None
		2	Exit signs - fluorescent	Corridors, stairs	None	None
	6.2b Branch Wiring	3	Exterior lighting controlled by photocell and contactor	Main electrical room, electrical closets	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting except in Area E, daylighing controls in Atrium	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building wide	None	None
	6.3a Telecom	2	Interconnect to ESH Admin building thru FO cabling and campus telephone switch; Category 5 data cabling throughout	Communication Room	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3b Other Comm	2	Intercom/paging system; existing speaker system with new headend paging amplifiers	Communication Room, Pod nursing stations	None	None
		5	Simplex Zettler touchscreen nurse call system	Communication Room, Pod nursing stations	System improperly installed by manufacturer, over 65 system failure work orders generated since 2008; system is not JCAHO nor Code compliant (photos **3A27-6.3A, B**)	Replace system
	6.3c Fire Alarm	2	Simplex fire alarm system with 4100U panels, voice evacuation; backup Simplex graphic command center with voice evac center acts as backup to Administration building	Generator Room H238, Westlake Switchboard, Electrical closets	None	None
	6.3d Security	2	Limited, localized door security	Exterior doors	None	None
	6.3e Duress Alarm	5	Basic duress call/alarm system tied into fire alarm	Pod nursing stations	No staff duress alarm system; no patient duress system.	Provide wireless duress alarm system
	6.4 Emerg Power	2	500kW Caterpillar generator; LS CR and EQ branch ATS, NEC702 ATS with load shed controls; space for second generator	Generator Room H238	None	None
7.0 Equipment	**7.1a Institutional Equip - Therapy tubs**	2	Arjo therapy tubs - Installed in 2011	Patient wards	None	None
	7.1b Institutional Equip	4	Food Service Equipment	Kitchen	Coolers, refrigerators, and freezers approaching the end of their life\	Replace
	7.1c Institutional Equip	2	Dishwasher - Installed in 2012	Kitchen	None	None
	7.2a Fixed Furnishings - Beds	4	Patient beds in some rooms are bolted to the floor	Selected locations	Traditional beds present potential suicide risk	Replace with anti-ligature model
	7.2b Fixed Furnishings - Wardrobes	4	Wardrobe closets in all patient rooms	All patient rooms	Wardrobes present potential suicide risk and hiding place for contraband	Replace with anti-ligature model
	7.2c Fixed furnishings - Nurses stations	4	Nurses Stations	All patient wards	Original casework is in poor condition, and they were not designed for the current computerized record keeping	Replace
8.0 Code Compliance	**8.1 Life Safety Code**	4	Center Stair	Core	Exit path and exit signage need to be studied - doors at both levels swing into the stair, with an exit device installed on the doors at the Main Level (**3A27-8.1A, B**)	Modify stair access
	8.2 IBC	4	Access to patient rooms and size of patient toilet rooms	All patient rooms	Lack of any wheelchair accessible patient room or patient toilet room meeting the requirements of the Americans with Disabilities Act (**3A27-8.2A, B, C, D**)	Remodel a limited number of patient rooms
	8.3 WSEC					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Comments:

Architectural:

The Westlake Building is the youngest building containing Patient Bedrooms on the Campus. It has suffered from lack of maintenance funding, and has not kept up with changing program needs. The former Patient Bedrooms in Ward F have been pressed into service as the Treatment Mall. There is not a single Patient Bedroom in the building that meets the requirements of ADA. The Fire Equipment Access Road at the lower level dead ends in a cul-de-sac, and needs to be extended around the remainder of the building. In general the building is in good condition, but it cannot be neglected. The building includes 36,573 sq ft on the First Floor (Lower Level - day lit basement), 72,221 sq ft on the Second Floor (Main Level) and 4,770 sq ft in the Mechanical Penthouses.

Mechanical:

M1: Equipment is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.
M2: Equipment is functioning but age is approaching Average Service Life. Increased maintenance would be expected.
M3: The Johnson Controls system has "eyes on" the building Air Handling Units only.
M4: Temperature control system is mostly pneumatic type.
M5: Heat exchanger tube bundle was replaced in the last few years.
M6: Unit heating coil has failed and needs to be replaced.
M7: Combustion air configuration does not meet code but has adequate opening area for proper boiler firing.
M8: Pump is main heating pump for the building but has no redundant or backup pump. Pump control includes a Variable Frequency Drive to better match pump capacity to heating load.
M9: Unit includes hydronic heat recovery loop that is not operating efficiently (per CSS staff).
M10: Mechanical equipment appears to be in Good condition but have been unused for a number of years. Varying degrees of service will be required to place back into use.
M11: Humidifiers have been taken out of service and are not required unless general anesthesia is being used for procedures. Anesthetizing locations require minimum 20% relative humidity.
M12: Units are original equipment (1981) but most have been retrofitted with new, high efficiency motors.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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3A27-1.15A.JPG

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MEDICAL LAKE INFRASTRUCTURE
MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

WESTLAKE

3A27

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MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

WESTLAKE

3A27

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Cottage 1	28
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
1,088	1	1932	V-B	IBC = R-3; LSC = Residential	New Roof & Floor in 2011	Fair*

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	3	New concrete foundation walls poured next to existing concrete during 2011 renovation, also see item #2.1		original foundations are left in place under existing stone walls, see photo (**3A28-1.1A**)	
	1.2 Slab on Grade	--	None; floor structure is wood-framed			
	1.3 Basement Walls	--	None			
	1.4 Floor Construction	2	New wood framing, see item #2.3		photo (**3A28-1.4A**)	
	1.5 Roof Construction	2	wood trusses with plywood sheathing		(**3A28-1.5A-B**)	
	1.6 Exterior Walls	3	cut stone; see item #2.2. In 2011, new wood framing added to support new roof structure		(**3A28-1.6A-B**)	
	1.7 Exterior Windows	2	replaced with Pella aluminum-clad wood windows with insulating glass in 2011		(**3A28-1.7A**)	
	1.8 Exterior Doors	2	replaced with Pella patio doors with insulating glass in 2011		(**3A28-1.8A**)	
	1.9 Roof Coverings	2	new premium grade asphalt comp shingles added to new roof in 2011		(**3A28-1.9A**)	
	1.10 Roof Openings	--	N/A			
	1.11 Interior Partitions	--	N/A			
	1.12 Interior Doors	--	N/A			
	1.13 Stair Constn/Finishes	--	N/A			
	1.14 Wall Finishes	2	plywood left exposed until electrical added		(**3A28-1.5B**)	
	1.15 Floor Finishes	2	plywood left exposed until bldg is finished			
	1.16 Ceiling Finishes	--	none at this time			
	1.17 Elevators & Lifts	--	N/A			
2.0 Structural	**2.1 Foundations**	3	Original undocumented stone and concrete foundations augmented by some new reinforced concrete foundations in renovation.		Original foundations would not meet current code requirements; forces are low.	

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
No documents for original; documents available for 20xx restoration; cornerstone date 1932	**2.2 Struct. Bearing Walls**	2	Original exterior walls are quarried stone masonry (probably granite) with single-piece stone lintels over the openings and four single-piece stone columns (now with internal steel pipe columns) extending from top of porch rail to roof. Original wall studs removed in renovation. New wood stud bearing walls installed inside original stone walls (stone now treated as heavy/thick veneer veneer) to support new roof as part of restoration project. Unreinforced masonry chimney and "veneer" remain.		Original stone and its anchorage to new wood structure would technically not conform to current code requirements. Conformance infeasible and waived for restoration.	
	2.3 Structural Frame	1	Sawn lumber floor joists over crawl space and press-plate wood roof trusses, both with APA sheathing installed as replacements for failed original floor and roof .			
	2.4 Lateral System	1	New APA wood-sheathed shear walls and roof and floor diaphragms installed with renovation.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	--	No Plumbing fixtures			
	4.3 Rain Water Drainage	--	Sloping Roof; no drainage piping			
5.0 HVAC	**5.1 HVAC Equipment**	5	Steam Radiators	Main Level	M1 (**3A28-5.1A**)	
	5.3 Controls/Special Sys.	--	No Controls			
4.0 Plumbing	**4.1 Plumbing Fixtures**	--	No Plumbing fixtures			
	4.3 Rain Water Drainage	--	Sloping Roof; no drainage piping			
5.0 HVAC	**5.1 HVAC Equipment**	5	Steam Radiators	Main Level	M1 (**3A28-5.1A**)	
	5.3 Controls/Special Sys.	--	No Controls			
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	**7.1 Institutional Equip**	--	N/A			
	7.2 Fixed Furnishings	--	N/A			
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments: * A1: Building is "shelled-out"; new roof structure, new doors and windows, but no interior systems or finishes.

Mechanical:
M1: Interior has been gutted and re-framed, with no current mechanical systems.

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action

*Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).

3A28-1.1A.JPG

3A28-1.4A.JPG

3A28-1.5A.JPG

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MEDICAL LAKE INFRASTRUCTURE
MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

COTTAGE #1

3A28

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3A28-1.9A.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Cottage 2	3A29
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
1,203	1 + Partial Bsmt	1933	V-B	IBC = R-3; LSC = Residential	N/A	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	4	concrete; see item #2.1			
	1.2 Slab on Grade	3	concrete slab at partial basement			
	1.3 Basement Walls	4	concrete with clay tile above concrete wall to seal off crawl space		rough; see photo (**3A29-1.3A**)	
	1.4 Floor Construction	3	hardwood flooring over diagonal board sheathing on wood joist			
	1.5 Roof Construction	3	wood-framed; see item #2.3			
	1.6 Exterior Walls	4	cedar shingle siding on diagonal board sheathing over 2x4 framing		siding needs repair and paint (**3A29-1.6A-C**)	
	1.7 Exterior Windows	4	double-hung wood windows with single glazing and screens		paint is peeling off (**3A29-1.7A**)	
	1.8 Exterior Doors	3	solid wood, stained, with screen doors		(shown in **3A29-1.6A**)	
	1.9 Roof Coverings	4	asphalt shingles, past useful life		worn, moss taking hold; needs replacement (**3A29-1.9A**)	
	1.10 Roof Openings	--	N/A		chimney brick needs repointing	
	1.11 Interior Partitions	3	plaster on lath on wood studs			
	1.12 Interior Doors	3	wood, painted			
	1.13 Stair Constn/Finishes	4	concrete steps to basement			
	1.14 Wall Finishes	3	paint, CT at bathroom		(**3A29-1.14A**)	
	1.15 Floor Finishes	4	hardwood floor typ; linoleum at Kitchen and bathroom		worn. (**3A29-1.15A-B**)	
	1.16 Ceiling Finishes	3	painted plaster on wood lath on wood framing			
	1.17 Elevators & Lifts	--	N/A			
2.0 Structural	**2.1 Foundations**	4	Shallow concrete perimeter foundation walls with no footings. According to documents, main floor was built over crawl space, but apparently one side of the crawl space was later excavated and underpinned to provide a partial basement. Low concrete foundation wall retains earth from basement floor to crawl space grade, probably part of basement construction.		Unreinforced concrete foundations prohibited by current codes; lightly loaded; no apparent causes for concern..	
	2.2 Struct Bearings Walls	3	Wood stud walls with exterior ship-lap siding.			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	3	Single-story, wood frame house with a pitched roof. Floor plan is very similar to cottage 3, but roof profile is different. First floor is wood frame. According to documents, this was built over a crawl space, but it appears that one side of the crawl space was excavated and underpinned at a later date to provide a partial basement. Original floor has center beam line with wood posts on high spread footings on top of the crawl space soil		Small house appears to be in fair condition but seriously lacking in maintenance. No significant causes for structural concern were noted in 2008. While this building would not meet current codes, it is small, lightweight in construction, and not unlike many other houses of similar vintage.	
	2.4 Lateral System	4	Building relies woof roof, wood-sheathed walls, interior partitions.		Lightweight building relies on conventional construction techniques rather than conformance with codes.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	2	Water closet, Sink, Shower/Tub	Main Level		
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement	M2 (**3A29-4.1A**)	
	4.2 Water Distribution	3	Water and Waste Piping	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping Roof; no drainage piping			
5.0 HVAC	**5.1a HVAC Equipment**	2	Electric Fin Tube and Wall Heaters	Main Level		
	5.1b HVAC Equipment	2	Electric Unit Heater	Basement		
	5.1c HVAC Equipment	4	Range/Cooktop	Main Level	M3 (**3A29-5.1A**)	
	5.3 Controls/Special Sys.	--	No Controls			
6.0 Electrical	**6.1a Elec Service**	2	100 kVA 1-phase pad-mounted Transformer '1-18' outside supplies individual feeds to each Cottage, including Building 3A29, but not Building 3A28	Outside in the island encircled by the loop road between the Cottages	None	None
	6.1b Elec Distribution	4	Old main panelboard	Building Interior	No arc-fault interrupters	Replace panelboard
	6.2a Lighting	4	Incandescent luminaires	Building Interior	Incandescent lamps require frequent replacement and are less efficient that other lamp types (photo **3A29-6.2A**)	Replace incandescent luminaires with Compact Fluorescent or LED luminiares
		4	Compact Fluorescent luminaires	Building Exterior	Exterior luminaires are missing lenses (photo **3A29-6.2B**)	Replace exterior luminaires with Compact Fluorescent or LED luminiares with lenses
	6.2b Branch Wiring	2	Exterior lighting controlled by switches	Local	None	None
		2	Interior lighting controlled by switches	Local	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		3	Receptacles and switches have standard faceplates	Building Interior	No ground-fault circuit interrupter on receptacles in Kitchen and Toilet Room	Replace receptacles in Kitchen and Toilet Room with receptacles equipped with ground-fault circuit interrupters
	6.3a Telecom	2	Copper cable underground, probably from Telephone Utility	Telephone Network Interface Device	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	NA	None	NA	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	NA	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equipmt**	--	N/A			
	7.2 Fixed Furnishings	4	old wood cabinets, painted		worn, outdated (**3A29-7.2A**)	
8.0 Code Compliance	**8.1 Life Safety Code**	5	does not meet current codes			
	8.2 IBC	5	does not meet current codes			
	8.3 WSEC	5	does not meet current codes			
	8.4 ADA	5	does not meet current codes			

Comments:

Mechanical:

M1: Pipes appear to be in Fair condition but age exceeds Average Service Life.

M2: Heater is functioning and appears to be in Fair condition but age greatly exceeds Average Service Life.

M3: Range/cooktop does not have an exhaust hood. Most Code Authorities (AHJ) would require a capture hood with exhaust directly to the outdoors.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

3A29-1.3A.jpg

3A29-1.4A.jpg

3A29-1.6A.JPG

3A29-1.6B.JPG

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NAC NO # 111 - 14011

NAC ARCHITECTURE

COTTAGE #2

3A29

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3A29-1.7A.JPG

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COTTAGE #2

3A29

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NAC ARCHITECTURE

COTTAGE #2

3A29

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3A29-6.2A.jpg

3A29-6.2B.jpg

3A29-7.2A.jpg

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Cottage 3	3A30
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
1,385 incl porch	1 + Partial Bsmt	1933	V-B	IBC = R-3; LSC = Residential	N/A	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	4	concrete; see item #2.1		crawlspace with no vapor barrier see photo (**3A30-1.1A**)	
	1.2 Slab on Grade	3	concrete slab at partial basement			
	1.3 Basement Walls	4	concrete with clay tile above concrete wall to seal off crawl space		rough; see photo (**3A30-1.3A**)	
	1.4 Floor Construction	3	hardwood flooring over diagonal board sheathing on wood joist		(**3A30-1.4A**)	
	1.5 Roof Construction	3	wood-framed; see item #2.3			
	1.6 Exterior Walls	4	painted cedar lap siding on diagonal board sheathing over 2x4 framing		siding needs paint (**3A30-1.6A-B**)	
	1.7 Exterior Windows	4	double-hung wood windows with single glazing		paint is peeling from windows (**3A30-1.7A**)	
	1.8 Exterior Doors	3	solid wood, stained, with screen doors		(shown in **3A30-1.6A**)	
	1.9 Roof Coverings	4	asphalt shingles, past useful life		moss growing on north side, roofing needs replacement (**3A30-1.9A**)	
	1.10 Roof Openings	--	N/A		chimney brick needs repointing (**3A30-1.10A**)	
	1.11 Interior Partitions	3	plaster on lath on wood studs			
	1.12 Interior Doors	3	wood, painted			
	1.13 Stair Constn/Finishes	4	concrete steps to basement		(**3A30-1.13A**)	
	1.14 Wall Finishes	3	paint, CT at bathroom			
	1.15 Floor Finishes	2	new laminate flooring installed over original hardwood flooring, linoleum at Kitchen and bathroom		(**3A30-1.15A**)	
	1.16 Ceiling Finishes	3	painted plaster on wood lath on wood framing			
	1.17 Elevators & Lifts	--	N/A			
2.0 Structural	**2.1 Foundations**	4	Shallow concrete perimeter foundation walls with no footings. According to documents, main floor was built over crawl space, but apparently one side of the crawl space was later excavated and underpinned to provide a partial basement. Low concrete foundation wall retains earth from basement floor to crawl space grade, probably part of basement construction.		Unreinforced concrete foundations prohibited by current codes; lightly loaded. One vertical foundation crack noted in the right sidewall.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
Minimal structural documents available: circa 1933	**2.2 Struct. Bearing Walls**	3	Wood stud walls with exterior ship-lap siding.			
	2.3 Structural Frame	3	Single-story, wood frame house with a pitched roof. Floor plan is very similar to cottage 2, but roof profile is different. First floor is wood frame. According to documents, this was built over a crawl space, but it appears that one side of the crawl space was excavated and underpinned at a later date to provide a partial basement. Original floor has center beam line with wood posts on high spread footings on top of the crawl space soil		Small house appears to be in fair condition but seriously lacking in maintenance (photo **3A30-2.3A**). No significant causes for structural concern were noted in 2008. While this building would not meet current codes, it is small, lightweight in construction, and not unlike many other houses of similar vintage.	
	2.4 Lateral System	4	Building relies woof roof, wood-sheathed walls, interior partitions.		Lightweight building relies on conventional construction techniques rather than conformance with codes.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	2	Water closet, Sink, Shower/Tub	Main Level		
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement	M2	
	4.2 Water Distribution	3	Water and Waste Piping	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping Roof; no drainage piping			
5.0 HVAC	**5.1a HVAC Equipment**	2	Electric Fin Tube and Wall Heaters	Main Level		
	5.1b HVAC Equipment	2	Electric Unit Heater	Basement		
	5.3 Controls/Special Sys.	--	No Controls			
6.0 Electrical	**6.1a Elec Service**	2	100 kVA 1-phase pad-mounted Transformer '1-18' outside supplies individual feeds to each Cottage, including Building 3A30, but not Building 3A28	Outside in the island encircled by the loop road between the Cottages	None	None
	6.1b Elec Distribution	4	Old main panelboard	Building Interior	No arc-fault interrupters	Replace panelboard
	6.2a Lighting	4	Incandescent luminaires	Building Interior	Incandescent lamps require frequent replacement and are less efficient that other lamp types (photo **3A30-6.2A**)	Replace incandescent luminaires with Compact Fluorescent or LED luminiares
		4	Compact Fluorescent luminaires	Building Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by switches	Local	None	None
		2	Interior lighting controlled by switches	Local	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		3	Receptacles and switches have standard faceplates	Building Interior	No ground-fault circuit interrupter on receptacles in Kitchen and Toilet Room	Replace receptacles in Kitchen and Toilet Room with receptacles equipped with ground-fault circuit interrupters
	6.3a Telecom	2	Copper cable underground, probably from Telephone Utility	Telephone Network Interface Device	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	NA	None	NA	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	NA	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**	--	N/A			
	7.2 Fixed Furnishings	4	old wood cabinets, painted		worn, outdated (**3A30-7.2A**)	
8.0 Code Compliance	**8.1 Life Safety Code**	5	does not meet current codes			
	8.2 IBC	5	does not meet current codes			
	8.3 WSEC	5	does not meet current codes			
	8.4 ADA	5	does not meet current codes			

Comments:

Mechanical:

M1: Pipes appear to be in Fair condition but age exceeds Average Service Life.

M2: Heater is functioning and appears to be in Fair condition but age exceeds Average Service Life.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

3A30-1.1A.jpg

3A30-1.3A.jpg

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MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

COTTAGE #3

3A30

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NAC ARCHITECTURE

COTTAGE #3

3A30

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3A30-6.2A.jpg

3A30-7.2A.jpg

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Cottage 4	3A31
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.
GSF	**Stories**	**Built**	**Construction Type**	**Occupancy Group**	**Last Remodeled**	**Overall Condition**
3,041	2	1934	V-B	IBC = R-3; LSC = Residential	N/A	

Components	**Systems**	**Rating***	**Component Description**	**Component Location**	**Deficiency Description**	**Corrective Action**
1.0 FICAP Information Div. 2-	**1.1 Foundation**	4	concrete; see item #2.1		some cracks are evident (photo **3A31-1.1A**)	
	1.2 Slab on Grade	3	concrete slab on grade at basement			
	1.3 Basement Walls	4	plaster on concrete		(**3A31-1.3A-B**)	
	1.4 Floor Construction	4	hardwood flooring over diagonal board sheathing on wood joist; ceiling is plaster on wood lath attached to bottom of joists		due to water damage, some hardwood flooring has buckled and plaster is falling off ceilings (may have been fixed since site visit made) see (**3A31-1.4A**)	
	1.5 Roof Construction	3	wood-framed; see item #2.3			
	1.6 Exterior Walls	4	painted cedar lap siding on diagonal board sheathing over 2x4 framing; brick chimney		siding needs paint, and brick needs repointing **(3A31-1.6A-E**)	
	1.7 Exterior Windows	4	double-hung and fixed "picture" wood windows with single glazing and hinged screens		paint is peeling from windows and windows do not have insulated glazing (**3A31-1.7A**)	
	1.8 Exterior Doors	4	wood doors, painted, with screen doors at front & back. Basement garage door is pair of hinged wood doors.		paint is peeling off screen doors (**3A31-1.1A; 1.8A**)	
	1.9 Roof Coverings	4	asphalt shingles, past useful life		debris needs to be cleaned from roof (**3A31-1.9A**)	
	1.10 Roof Openings	--	N/A			
	1.11 Interior Partitions	3	plaster on lath on wood studs			
	1.12 Interior Doors	3	wood, painted			
	1.13 Stair Constn/Finishes	4	framed wood stairs to basement; exterior stairs need replacing		exterior stairs are decaying (**3A31-1.13A**)	
	1.14 Wall Finishes	3	paint over plaster			
	1.15 Floor Finishes	5	hardwood flooring typical; Vinyl flooring in Kitchen and toilet rooms		hardwood floor has buckled in some locations due to water damage. (**3A31-1.15A-C**)	
	1.16 Ceiling Finishes	5	painted plaster on wood lath on wood framing		due to water damage, some plaster is falling off ceilings (may have been fixed since site visit made) see (**3A31-1.16A**)	
	1.17 Elevators & Lifts	--	N/A			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	4	Unreinforced concrete perimeter foundation walls. Basement level garage beneath the first floor at one side, where there is a "daylight basement" situation due to sloping grade. Basement stair configuration does not match the drawings.		Unreinforced concrete foundations prohibited by current codes; lightly loaded.	
Minimal structural documents available: circa 1933	**2.2 Struct. Bearing Walls**	3	Wood stud walls with exterior ship-lap siding.		Poor condition; siding, particularly at the rear, exhibited severe paint deterioration and some exposed wood as a result in 2007, subjecting it to significant weathering and potential moisture damage in the form of either decay or warping,	
	2.3 Structural Frame	4	Two-story, wood frame house with a partial basement and pitched roof. Second floor is much smaller than the first. Character is similar to single-story cottages 2 and 3. First floor is wood frame, buckled in living room due to water damage. Limited drawings indicate 2x roof rafters with steep slope, 2x6 ceiling joists, 2x4 wood stud walls. Sleeping porch construction and supports in poor condition; wood supports in contact with grade.		This small house appears to be in fair to poor condition, with moisture from broken pipes and deferred maintenance contributing to deterioration. The sleeping porch support structure appears hazardous (photo **3A31-2.3A**)and would require replacement. Extent of water damage was not determined.	
	2.4 Lateral System	4	Building relies woof roof, wood-sheathed walls, interior partitions.		Lightweight building relies on conventional construction techniques rather than conformance with codes.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	2	Water closet, Sink, Shower/Tub	Main Level		
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement	M2	
	4.2 Water Distribution	3	Water and Waste Piping	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping Roof; no drainage piping			
5.0 HVAC	**5.1a HVAC Equipment**	2	Electric Fin Tube and Wall Heaters	Main Level		
	5.1b HVAC Equipment	2	Electric Unit Heater	Basement		
	5.3 Controls/Special Sys.	--	No Controls			
6.0 Electrical	**6.1a Elec Service**	2	100 kVA 1-phase pad-mounted Transformer '1-18' outside supplies individual feeds to each Cottage, including Building 3A31, but not Building 3A28	Outside in the island encircled by the loop road between the Cottages	None	None
	6.1b Elec Distribution	4	Old main panelboard	Building Interior	No arc-fault interrupters	Replace panelboard

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.2a Lighting	4	Incandescent luminaires	Building Interior	Incandescent lamps require frequent replacement and are less efficient that other lamp types; some luminaires are missing (photo **3A31-6.2A**)	Replace incandescent luminaires and missing with Compact Fluorescent or LED luminiares
		4	Compact Fluorescent luminaires	Building Exterior	Exterior luminaires are missing lenses (photo 3A31-6.2B)	Replace exterior luminaires with Compact Fluorescent or LED luminiares with lenses
	6.2b Branch Wiring	2	Exterior lighting controlled by switches	Local	None	None
		2	Interior lighting controlled by switches	Local	None	None
		3	Receptacles and switches have standard faceplates	Building Interior	No ground-fault circuit interrupter on receptacles in Kitchen and Toilet Room	Replace receptacles in Kitchen and Toilet Room with receptacles equipped with ground-fault circuit interrupters
	6.3a Telecom	2	Copper cable underground, probably from Telephone Utility	Telephone Network Interface Device	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	NA	None	NA	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	NA	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**	--	N/A			
	7.2 Fixed Furnishings	4	old wood cabinets, painted		worn, outdated (**3A31-7.2A**)	
8.0 Code Compliance	**8.1 Life Safety Code**	5	does not meet current codes			
	8.2 IBC	5	does not meet current codes			
	8.3 WSEC	5	does not meet current codes			
	8.4 ADA	5	does not meet current codes			

Comments:

Mechanical:

M1: Pipes appear to be in Fair condition but age exceeds Average Service Life.

M2: Heater is functioning and appears to be in Fair condition but age exceeds Average Service Life.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

3A31-1.1A.JPG

3A31-1.3A.jpg

3A31-1.3B.JPG

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COTTAGE #4

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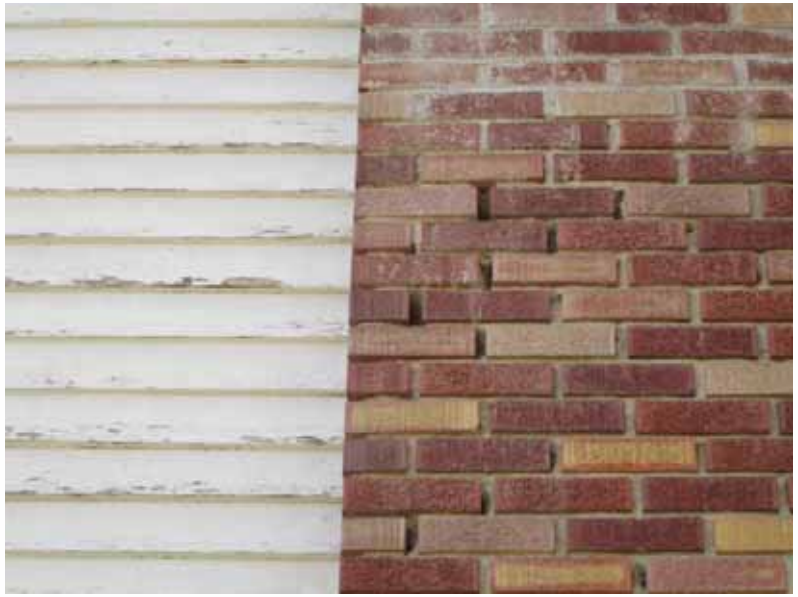

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Superintendent's House	3A32
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
4,146	2 + Bsmt	1933	V-B	IBC = R-3; LSC = Residential	N/A	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	concrete; see item #2.1			
	1.2 Slab on Grade	3	concrete slab on grade at basement			
	1.3 Basement Walls	4	plaster on concrete		there's some damage to garage door head (see photo **3A32-1.3C**)	
	1.4 Floor Construction	3	hardwood flooring over diagonal board sheathing on wood joist; basement ceiling is plaster on wood lath attached to bottom of joists			
	1.5 Roof Construction	3	wood-framed; see item #2.3		(**3A32-1.5A**)	
	1.6 Exterior Walls	3	brick veneer over wood studs, most likely with diagonal board sheathing and building paper behind brick. Some cement stucco used in gable areas with painted wood trim.		Wood trim needs paint, some brick needs repointing, esp. chimney (**3A32-1.6A-D**)	
	1.7 Exterior Windows	4	A mix of fixed, double-hung, and casement wood windows with single glazing and screens, painted		paint is peeling from screens. Windows do not have insulated glass (**3A32-1.7A-B**)	
	1.8 Exterior Doors	4	wood doors, stained or painted, with stained screen doors. Two overhead doors at basement garage. Also aluminum slider has been added at north side.		stain finish needs to be restored (**3A32-1.6A**)	
	1.9 Roof Coverings	4	cedar shakes on main roof; there is also a wood trellis over garage entry		shakes are missing, roofing needs replaced, trellis needs to be scraped and painted (**3A32-1.9A-B; -1.3A**)	
	1.10 Roof Openings	-	N/A			
	1.11 Interior Partitions	3	plaster on lath on wood studs			
	1.12 Interior Doors	3	wood, painted			
	1.13 Stair Constn/Finishes	4	framed wood stairs to basement; hardwood stair to upstairs		carpet on stairs needs replacing (**3A32-1.13A**)	
	1.14 Wall Finishes	3	paint over plaster			
	1.15 Floor Finishes	3	Oak flooring in Living Room, with quarry tile at some first floor areas, sheet vinyl in Kitchen, ceramic tile in upper level toilet rooms.		(**3A32-1.15A-C**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.16 Ceiling Finishes	3	painted plaster on wood lath on wood framing; with crown molding		water damage at one area with paint blister (**3A32-1.16A-B**)	
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	4	House has a finished basement divided into many rooms and a basement level garage with concrete walls and slab on grade. Foundations are concrete, apparently unreinforced.		Unreinforced concrete foundations prohibited by current codes; lightly loaded.	
Undated documents available: circa 1933	**2.2 Struct. Bearing Walls**	3	Wood stud walls.		Brick chimney appears to need work. Attachment of veneer is likely poor to non-existent but not readily remediated.	
	2.3 Structural Frame	3	The house is a two-story, wood frame building with brick veneer exterior, except for some wood and stucco "Tudor" siding at the gable ends. Steeply pitched roof with wood shakes. First floor framing is wood joists except some concrete slab over garage with quarry tiled exterior surface above. Much of framing in concealed. Wood roof framing has straight board sheathing (photo **3A32-2.3B**).		In the original "Reception Hall" on the lake side, there are two perceptible "dips" in the floor running almost full width of the room. There was no apparent displacement in the ceiling below, so that the cause of the irregularity was not determined. Flooring in this area exhibits some cracks or lines of irregularity corresponding to the floor problem. The exposed concrete beam above the garage door is spalled and reinforcement is exposed (**3A32-2.3A**). Floor problem in the entry should be investigated and remediated for continued use.	
	2.4 Lateral System	3	Building relies woof roof, wood-sheathed walls, interior partitions.		While this building would not meet current codes, it is relatively small and would not be a major cause for structural concern if maintenance issues are addressed.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	2	Water closet, Sink, Shower/Tub	Main Level		
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement	M2	
	4.2 Water Distribution	3	Water and Waste Piping	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping Roof; no drainage piping			
5.0 HVAC	**5.1a HVAC Equipment**	2	Gas-fired Steam Boiler - 2013	Basement		
	5.1b HVAC Equipment	3	Steam & Condensate Piping	Basement	M1	
	5.1c HVAC Equipment	3	Condensate Receiver/Pump Package	Basement	M3 (**3A32-5.1A, B**)	
	5.1d HVAC Equipment	3	Steam Convectors	Throughout	M4	
	5.3 Controls/Special Sys.	2	Direct Digital Controls	Basement		

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	2	100 kVA 1-phase pad-mounted Transformer '1-18' outside supplies individual feeds to each Cottage, including Building 3A32, but not Building 3A28	Outside in the island encircled by the loop road between the Cottages	None	None
	6.1b Elec Distribution	4	Old main panelboard	Building Interior	No arc-fault interrupters	Replace panelboard
	6.2a Lighting	4	Incandescent luminaires	Building Interior	Incandescent lamps require frequent replacement and are less efficient that other lamp types	Replace incandescent luminaires with Compact Fluorescent or LED luminiares
		4	Compact Fluorescent luminaires	Building Exterior	Some exterior luminaires are missing lenses (photos 3A31-6.2A, B)	Replace exterior luminaires with Compact Fluorescent or LED luminiares with lenses
	6.2b Branch Wiring	2	Exterior lighting controlled by switches	Local	None	None
		2	Interior lighting controlled by switches	Local	None	None
		3	Receptacles and switches have standard faceplates	Building Interior	No ground-fault circuit interrupter on receptacles in Kitchen and Toilet Room	Replace receptacles in Kitchen and Toilet Room with receptacles equipped with ground-fault circuit interrupters
	6.3a Telecom	2	Copper copper cable underground, probably from Telephone Utility	Telephone Network Interface Device	None	None
	6.3b Other Comm	2	Television dish antenna	Roof	None	None
	6.3c Fire Alarm	NA	None	NA	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	NA	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**	-	N/A			
	7.2 Fixed Furnishings	3	older wood cabinets, stained and varnished		worn (**3A32-7.2A**)	
8.0 Code Compliance	**8.1 Life Safety Code**	4	does not meet current codes			
	8.2 IBC	4	ditto			
	8.3 WSEC	5	ditto			
	8.4 ADA	5	ditto			

Comments:

Mechanical:

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
M1: Pipes appear to be in Fair condition but age exceeds Average Service Life. M2: Heater is functioning and appears to be in Fair condition but age exceeds Average Service Life. M3: Equipment appears to be in Fair condition but age exceeds Average Service Life. M4: Convectors are manually controlled; no thermostat.						

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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3A32-1.3C.jpg

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Emergency Vehicle Storage	3A36
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,486	1	1986	V-B	IBC = S-2; LSC = Storage	N/A	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete; see item #2.1			
	1.2 Slab on Grade	2	concrete		none; see photo (**3A36-1.2A**)	
	1.3 Basement Walls	-	None			
	1.4 Floor Construction	-	no elevated floors, just slab on grade			
	1.5 Roof Construction	2	wood trusses, plywood sheathing			
	1.6 Exterior Walls	3	Tilt-up concrete panels, see item #2.2; sealed, not painted		exposed glulams above sectional doors need to be treated or painted (**3A36-1.6A-B**)	
	1.7 Exterior Windows	-	None			
	1.8 Exterior Doors	3	Man-doors are painted steel; overhead sectional doors are painted steel with insulation on interior side		the plastic coating inside of the sectional doors has gotten brittle and is breaking off (**3A36-1.8B**)	
	1.9 Roof Coverings	3	asphalt comp shingles		Roofing is in okay condition, but almost 30-years old and should be scheduled for replacement. Metal gutter has rusted and needs to be replaced (**3A36-1.9A-B**)	
	1.10 Roof Openings	-	N/A			
	1.11 Interior Partitions	-	N/A			
	1.12 Interior Doors	-	N/A			
	1.13 Stair Constn/Finishes	-	N/A			
	1.14 Wall Finishes	3	exposed concrete, sealed, not painted		(**3A36-1.14A**)	
	1.15 Floor Finishes	3	exposed concrete, sealed		(**3A36-1.2A**)	
	1.16 Ceiling Finishes	3	plywood panels, stained		(**3A36-1.16A**)	
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural Construction documents dated 1986	**2.1 Foundations**	1	Reinforced concrete footings.			
	2.2 Struct. Bearing Walls	1	Tilt-up concrete reinforced concrete panels run from footings to bottom of glue-laminated wood beams (photo **3A36-2.2A**).			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	2	Roof is press-plate wood truss hipped roof structure with APA roof sheathing supported on glue-laminated wood beams which are exposed above concrete panels around building perimeter below the soffit. Overhang is vented; fascia is rusting. Roof structure is concealed by plywood ceiling (also see 2.4 below). At concrete panels between doors, diagonal braces run upward into ceiling where they are apparently connected to a single press-plate truss bottom chord.		Exposed glue-laminated wood beams have weathered. Capacity of single wood truss bottom chords to resist loads from diagonal panel braces is questionable, but details of installation are concealed by plywood ceiling (photo **3A36-2.3A**).	Glue-laminated wood beams should be maintained (painted or otherwise protected) to prevent further deterioration. Brace connections should be reviewed and upgraded as appropriate..
	2.4 Lateral System	3	Building relies on concrete panels as shear walls and wood roof horizontal diaphragm. Details do not indicate any code-required blocking between trusses, anchor hardware or diaphragm perimeter nailing at wall lines.		Elements of a generally code conforming lateral system are present, but connections appear lacking. Ceiling may contribute to lateral resistance but is not so detailed.	Review and improve truss blocking, anchorage and diaphragm perimeter nailing as appropriate.
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	-	No Plumbing			
	4.3 Rain Water Drainage	-	Sloping Roof; no drainage piping			
5.0 HVAC	**5.1 HVAC Equipment**	2	Electric Unit Heaters	Suspended		
	5.3 Controls/Special Sys.	2	Local control		M1	
6.0 Electrical	**6.1a Elec Service**	2	150 kVA pad-mount Transformer '1-8' E of the Vehicle Storage Building supplies a 300 Amp underground service that feeds a 300 Amp main panel, Panel 'VS' (or 'A'), at 120/208 Volts; capacity is 108 kVA (calculated demand is 71.9 kVA, excluding the Fuel Island and other recently added loads, and between 80 and 85 kVA when the recently added loads are included)	1st Floor, East end	None	None
	6.1b Elec Distribution	3	1986 Cutlet-Hammer main distribution panel, with adjacent subfed Murray Electic/Siemens loadcenter; the subfed loadcenter supplies electricl power to the nearby Fuel Island; 1 spare circuit	1st Floor, East end	The existing electrical distribution equipment has only 1 spare circuit (photos **3A36-6.1A, B, C**)	Replace the loadcenter with a new 42-pole subfed panelboard
	6.2a Lighting	2	Fluorescent vapor-tight luminaires	Building interior	None	None
		3	High Pressure Sodium downlights in roof soffit	Building exterior	The exterior luminaire at the SE corner is missing its lens (photo **3A36-6.2A**)	Provide a new lens to replace the missing lens

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		5	No illuminated exit signs	NA	Building lacks illuminated exit signs	Add exit signs with LED lamps and battery-backup
	6.2b Branch Wiring	2	Exterior lighting is controlled by a photo-cell	Exterior, SE entrance	None	None
		2	Interior lighting controlled by occupancy sensors	Local, by equipment bay	None	None
		2	Receptacles and switches have standard faceplates	Building interior, with receptacles about +36" above floor	None	None
	6.3a Telecom	5	No telecom system	NA	Building lacks telecom system	Provide telecom system; provide fiber-optic cable connection to campus network
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	5	No fire alarm system	NA	Building lacks fire alarm system	Add fire alarm system and connect to campus network
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**	--	None			
	7.2 Fixed Furnishings	--	None			
8.0 Code Compliance	**8.1 Life Safety Code**	3	appears to be in compliance			
	8.2 IBC	3	appears to be in compliance			
	8.3 WSEC	5	built in 1986 before WSEC applied			
	8.4 ADA	3	accessible			

Comments:

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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MEDICAL LAKE INFRASTRUCTURE
MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

EMERGENCY VEHICLE STORAGE

3A36

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EMERGENCY VEHICLE STORAGE

3A**36**

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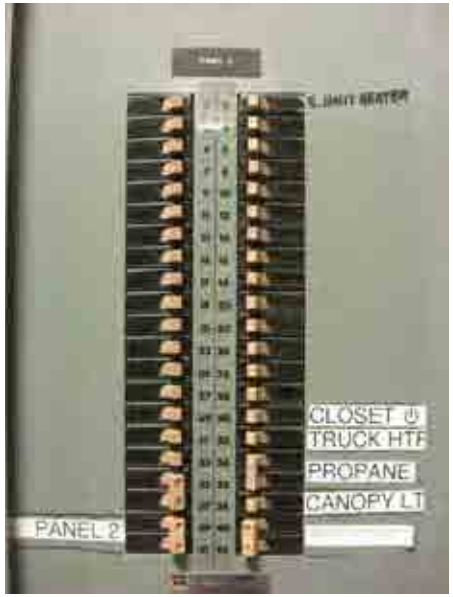
3A36-6.1A.jpg



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EMERGENCY VEHICLE STORAGE

3A36

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BUILDING ASSESSMENT			Medical Lake Infrastructure Master Plan WA State DES #2014-415		Metal Storage (Quonset)	3A38
NAC #111-14011-A206	April 25, 2014		Project		Building Name	Building No.
GSF	**Stories**	**Built**	**Construction Type**	**Occupancy Group**	**Last Remodeled**	**Overall Condition**
2,000	1	1963	II-B	IBC = S-2; LSC = Storage	N/A	Poor
Components	**Systems**	**Rating***	**Component Description**	**Component Location**	**Deficiency Description**	**Corrective Action**
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	-	NOTE: minimal assessment done was on this building since it is recommended for demolition		photos listed below are included for information on general conditions; deficiencies not necessarily noted	
	1.2 Slab on Grade					
	1.3 Basement Walls					
	1.4 Floor Construction					
	1.5 Roof Construction					
	1.6 Exterior Walls	4	galvanized corrugated steel siding		50 years old; rusted (**3A38-1.6A**)	
	1.7 Exterior Windows					
	1.8 Exterior Doors	3	overhead sectional steel door		(**3A38-1.8A**)	
	1.9 Roof Coverings					
	1.10 Roof Openings					
	1.11 Interior Partitions					
	1.12 Interior Doors					
	1.13 Stair Constn/Finishes					
	1.14 Wall Finishes					
	1.15 Floor Finishes					
	1.16 Ceiling Finishes					
	1.17 Elevators & Lifts					
2.0 Structural No documents	**2.1 Foundations**	5	Undocumented concrete to base of arch			
	2.2 Struct. Bearing Walls	5	Unknown ("Quonset" appearing structure on exterior; no access provided to interior). Photo **3A38-2.2A**.			
	2.3 Structural Frame	5	Unknown (traditional corrugated arch Quonset structure appearance on exterior; no access provided to interior).		Corrosion visible.	
	2.4 Lateral System	5	N/A		Structure has no apparent characteristics which would suggest code conformance.	Demolish.
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**					
	4.2 Water Distribution					
	4.3 Rain Water Drainage					
5.0 HVAC	**5.1 HVAC Equipment**					
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.					
6.0 Electrical	**6.1 Elec Service & Distrib**					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	7.1 Institutional Equip	-	N/A			
	7.2 Fixed Furnishings	-	N/A			
8.0 Code Compliance	8.1 Life Safety Code	5	does not meet current codes			
	8.2 IBC	5	does not meet current codes			
	8.3 WSEC	5	does not meet current codes			
	8.4 ADA	5	does not meet current codes			

Comments:

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

3A38-1.6A.JPG

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MEDICAL LAKE INFRASTRUCTURE
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MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

METAL STORAGE (QUONSET)

3A38

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Interlake School	3A39
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
118,000	2	1965	II-B	IBC = I-2; LSC = Healthcare	N/A	Failing*

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	5	NOTE: minimal assessment done was on this building since it is slated for demolition; building is currently unoccupied and part is being used for surplus storage; funding has been approved for asbestos abatement		photos listed below are included for information on general conditions; deficiencies not necessarily noted	
	1.2 Slab on Grade					
	1.3 Basement Walls					
	1.4 Floor Construction					
	1.5 Roof Construction					
	1.6 Exterior Walls				see photos (**3A39-1.6A-E**)	
	1.7 Exterior Windows				(**3A39-1.7A-B**)	
	1.8 Exterior Doors				(**3A39-1.8A**)	
	1.9 Roof Coverings				(**3A39-1.9A-B**)	
	1.10 Roof Openings					
	1.11 Interior Partitions					
	1.12 Interior Doors					
	1.13 Stair Constn/Finishes					
	1.14 Wall Finishes				(**3A39-1.14A**)	
	1.15 Floor Finishes					
	1.16 Ceiling Finishes					
	1.17 Elevators & Lifts					
2.0 Structural	**2.1 Foundations**					
	2.2 Struct Bearings Walls					
	2.3 Structural Frame					
	2.4 Lateral System					
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**					
	4.2 Water Distribution					
	4.3 Rain Water Drainage					
5.0 HVAC	**5.1 HVAC Equipment**					
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.					
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
7.0 Equipment	7.1 Institutional Equipmt					
	7.2 Fixed Furnishings					
8.0 Code Compliance	8.1 Life Safety Code					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments: * This building is slated for demolition; asbestos abatement is starting on June 10, 1014

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	THERAPY POOL	3A74
NAC #111-14011-A206	May 5, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
9,640	1	1986	IBC = IIA LSC = II(111)	IBC = B LSC = EXST Business	2013 (Partial)	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete spread footings	Throughout building		
	1.2 Slab on Grade	3	Concrete	Throughout building		
	1.3 Basement Walls		NA			
	1.4 Floor Construction	3	Concrete	Throughout building		
	1.5a Roof Construction - Pool and Locker Rooms	3	Precast concrete	All portions of the building except the Entry and Storeroom on west end		
	1.5b Roof Construction - Entry	3	Metal desk on steel framing	Entry and Storeroom on west end		
	1.6 Exterior Walls	4	Brick veneer over reinforced concrete masonry	Entire building	Some brick damage around parapet, some water damage below parapet (See Photos **3A74-1.6A, B, C, D**)	Repair brick
	1.7 Exterior Windows	4	Aluminum framed with insulated glazing	Pool deck to exterior	Glass stop coming loose (**3A74-1.7**)	Repair windows
	1.8a Exterior Doors - Entry	3	Aluminum storefront	Entry		
	1.8b Exterior Doors	4	Hollow metal in hollow metal frames	Service access, Exit from pool deck	Need repainting	Repaint doors
	1.9 Roof Coverings	5	Ballasted EPDM single ply membrane over tapered insulation	All portions of the building	Roof membrane has reached its life expectancy, and is failing at curbs and parapets (**3A74-1.9A, B, C**)	Replace roofing
	1.10 Roof Openings	4	HVAC penetrations	Roof	See 1.9, above	
	1.11 Interior Partitions	3	Concrete masonry, painted	Throughout building	Some vertical cracks at corners (**3A74-1.11**)	Install sealant
	1.12 Interior Doors	4	Hollow metal in stainless or hollow metal frames	Throughout building	Rust from high humidity prior to dehumidifier being replaced (**3A74-1.12**)	Repaint doors
	1.13 Stair Constn/Finishes		None			
	1.14 Wall Finishes	3	Painted CMU	Throughout building	Limited areas with water damage (**3A74-1.14**)	Repair wall and repaint

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.15 Floor Finishes - Pool Deck	3	Epoxy floor finish	Pool deck	None	
	1.15b Floor Finishes - Locker Rooms	3	Exposed Concrete	Locker rooms, mechanical rooms	None	
	1.15c Floor Finishes - Corridor	4	VCT (asbestos mastic)	Office, conference room, corridor, entry	Floor finish is failing in high traffic areas	Replace floor covering
	1.16a Ceiling Finishes	3	Suspended acoustical ceilings	Locker rooms, office, corridor, etc.	Ceiling tile stained from roof leaks, grid rusted by high humidity prior to dehumidifier being replaced (**3A74-1.16**)	Replace damaged ceilings
	1.16b Ceiling Finishes	2	Exposed concrete structure, painted	Pool deck	None	
	1.16c Ceiling Finishes	2	Exposed concrete structure	Mechanical rooms	None	
	1.17 Elevators & Lifts		None			
	1.18 Pool Finish	3	Ceramic tile pool lining (**3A74-1.18A**)	Pool tank	Control joint sealant has hardened (**3A74-1.18B**)	Remove sealant and replace with special purpose pool caulking intended for exposure to the pool chlorine.
2.0 Structural	**2.1 Foundations**	1	Reinforced concrete footings with CMU walls extending to footings; concrete slab on grade floor.			
Construction documents dated 1986	**2.2 Struct. Bearing Walls**	2	Reinforced concrete masonry bearing walls with exterior brick veneer. CMU and veneer extend to the footings and extend above the roof to form a parapet.			
	2.3 Structural Frame	2	Building is a single story structure, with two main bays: east bay houses a relatively shallow Gunite swimming pool (extending about 3.5 feet below the floor line, with a perimeter curb which retains the water level at about 1 foot above main floor). Bearing walls support precast pre stressed concrete double-tee roof with 2" concrete topping spanning east-west. Spans are about 50 feet each way from a central bearing wall, with an additional 10 foot span at the eastern accessory rooms		The lobby area has apparently had significant leakage problems. The precast concrete "hinge" connections in the east side bay appear to have large gaps, but this may be the original condition. The presence of much moisture can be a concern in terms of causing steel corrosion; condition should be monitored periodically, particularly if any spalling or staining begins to occur	
	2.4 Lateral System	2	Building relies on concrete roof diaphragm and masonry shear walls.		While likely not meeting the letter of current codes due to age, this building appears to have an adequate quantity of reinforced masonry shear walls and roof connections to resist lateral forces.	.
3.0 Fire Protection	**3.1 Fire Service**					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Water closets, sinks	Throughout	M1	
	4.1b Plumbing Fixtures	2	Domestic Hot Water Heater	Basement of 3A-19		
	4.2 Water Distribution	3	Water and Waste pipe	Throughout	M1	
	4.3 Rain Water Drainage	3	Roof drains and pipe	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	2	Gas-fired Water Boilers - 1997	Basement of 3A-19		
	5.1b HVAC Equipment	2	Heating water pump and piping	Basement of 3A-19		
	5.1c HVAC Equipment	3	Air Handling Units & Exhaust Fans	Throughout	M1	
	5.1d HVAC Equipment	3	Through-wall Air Conditioners	Throughout	M1 (**3A20-5.1A**)	
	5.1e HVAC Equipment	3	Convectors, Radiators	Throughout	M1	
	5.1f HVAC Equipment	3	Dust Collector Exhaust Fan	Lower Level Wood Shop	M2 (**3A20-5.1B**)	
	5.1g HVAC Equipment	4	Kitchen Exhaust & Makeup Air Units	Main Level	M5	
	5.2 HVAC Distribution	3	Ductwork and grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Direct Digital Control	Throughout	M3, M4	
6.0 Electrical	**6.1a Elec Service**	1	Feed from 225kVA transformer dedicated to the building	East side of the building	None	None
	6.1b Elec Distribution	1	2013 installation; 800A main distribution panel with demand metering, 120/208V	Mechanical/electric al room	None	None
	6.2a Lighting	2	Fluorescent troffers	Offices, corridors, locker areas	None	None
		2	Exit signs - LED	Corridors, stairs	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactor	Mechanical/electric al room	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building wide	None	None
	6.3a Telecom	2	Interconnect to ESH Admin building thru FO cabling and campus telephone switch; Category 5 data cabling throughout	Communications Room	None	None
		2	Telecom rack, equipped with patchpanels and hubs; connected via fiber-optic cable to the campus network; Category 5 cable	Communications Room	None	None
	6.3b Other Comm	NA	None	N/A	None	None
	6.3c Fire Alarm	2	Simplex fire alarm system with 4100U panel, voice evacuation	Mechanical/electric al room	None	None
	6.3d Security	NA	None	N/A	None	None
	6.4 Emerg Power	2	Battery-backed emergency lighting units in luminaires	Building Interior	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
8.0 Code Compliance	8.1 Life Safety Code					
	8.2 IBC					
	8.3 WSEC					

Comments:

Architectural:

The Therapy Pool was originally designed and built as an addition to the Interlake School, to provide warm water therapy on a year round basis for the building's developmentally disadvantaged population. The Clients at Interlake School were relocated to Lakeland Village in 1993, and the Interlake School Building has been vacant ever since. The Interlake School Building is now scheduled to be demolished. The Therapy Pool Building was separated from the Interlake School, and a new electrical service provided, in 2012. The pool has new dehumidification equipment, new pool filtration equipment, and is generally good condition. It needs a new boiler to heat the pool water, and new HVAC for the Locker Rooms and Office Area. Pool is currently dry (empty), and the building vacant, awaiting HVAC and boiler replacements. The ballasted single ply roof membrane is 28 years old, and also needs to be replaced.

Mechanical:

M1: Equipment is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.
M2: Equipment is inadequately sized for usage.
M3: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M4: Temperature control system is a combination of pneumatic and Direct Digital (DDC) types. Conversion of pneumatic to DDC is recommended.
M5: Kitchen has been taken out of service. Associated HVAC equipment has been taken out of service.

***Rating System: 1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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NAC ARCHITECTURE

THERAPY POOL

3A74

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THERAPY POOL

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415			Ag Buildings (Chicken Farm)	3A89
NAC #111-14011-A206	April 25, 2014		Project		Building Name	Building No.
GSF	**Stories**	**Built**	**Construction Type**	**Occupancy Group**	**Last Remodeled**	**Overall Condition**
total = 25,000 (4) buildings	1	1950	V-B	IBC = U (Utility) LSC = Storage	N/A	Failing
Components	**Systems**	**Rating***	**Component Description**	**Component Location**	**Deficiency Description**	**Corrective Action**
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	5	NOTE: minimal assessment done was on these 4 buildings since they are recommended for demolition		photos listed below are included for information on general conditions; deficiencies not necessarily noted	
	1.2 Slab on Grade				see photos (**3A89-1.2A-B**)	
	1.3 Basement Walls					
	1.4 Floor Construction					
	1.5 Roof Construction				(**3A89-1.5A**)	
	1.6 Exterior Walls				(**3A89-1.6A-B**)	
	1.7 Exterior Windows					
	1.8 Exterior Doors					
	1.9 Roof Coverings				(**3A89-1.9A-B**)	
	1.10 Roof Openings					
	1.11 Interior Partitions					
	1.12 Interior Doors					
	1.13 Stair Constn/Finishes					
	1.14 Wall Finishes					
	1.15 Floor Finishes					
	1.16 Ceiling Finishes					
	1.17 Elevators & Lifts					
2.0 Structural	**2.1 Foundations**					
	2.2 Struct Bearings Walls					
	2.3 Structural Frame					
	2.4 Lateral System					
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**					
	4.2 Water Distribution					
	4.3 Rain Water Drainage					
5.0 HVAC	**5.1 HVAC Equipment**					
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.					
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
8.0 Code Compliance	8.1 Life Safety Code					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

*Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).

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NAC ARCHITECTURE

AG BUILDING (CHICKEN FARM)

3A**89**

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NAC ARCHITECTURE

AG BUILDING (CHICKEN FARM)

3A**89**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Primate Center & Outbuildings	3A92-99
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
69,743	3 + Bsmt	1954	1-B	IBC = I-3; LSC = Detention	N/A	Failing

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	5	NOTE: minimal assessment done was on this building and the adjacent metal sheds since they are all recommended for demolition		photos listed below are included for information on general conditions; deficiencies not described; these buildings are unoccupied	
	1.2 Slab on Grade					
	1.3 Basement Walls					
	1.4 Floor Construction					
	1.5 Roof Construction					
	1.6 Exterior Walls				see photos (**3A99-1.6A-G**)	
	1.7 Exterior Windows				(**3A99-1.7A-B**)	
	1.8 Exterior Doors				(**3A99-1.8A**)	
	1.9 Roof Coverings					
	1.10 Roof Openings					
	1.11 Interior Partitions					
	1.12 Interior Doors					
	1.13 Stair Constn/Finishes					
	1.14 Wall Finishes					
	1.15 Floor Finishes					
	1.16 Ceiling Finishes					
	1.17 Elevators & Lifts					
2.0 Structural	**2.1 Foundations**					
	2.2 Struct Bearings Walls					
	2.3 Structural Frame					
	2.4 Lateral System					
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**					
	4.2 Water Distribution					
	4.3 Rain Water Drainage					
5.0 HVAC	**5.1 HVAC Equipment**					
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.					
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
8.0 Code Compliance	8.1 Life Safety Code					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments:

*Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).

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3A99

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Administration Building	4D01
NAC #111-14011-A206	April 1, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
25,818	4	?	IBC = IIA LSC = II(111)	IBC = B LSC = Business	?	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	throughout	Spalling adjacent to the front entry	Repair concrete
	1.2 Slab on Grade	3	Concrete	throughout	NA	NA
	1.3 Basement Walls	2	Concrete	throughout	NA	NA
	1.4 Floor Construction	2	Possibly concrete on steel frame	throughout	NA	NA
	1.4a Stage Floor	3	Wood framed	3rd floor	NA	NA
	1.5 Roof Construction	3	Wood on steel frame	throughout	NA	NA
	1.6 Exterior Walls	3	Masonry	Perimeter of building	NA	NA
	1.7 Exterior Windows	3	Wood, single pane, no storm windows	throughout	NA	NA
	1.8 Exterior Doors	3	Wood in wood frames	Perimeter of building	NA	NA
	1.9 Roof Coverings	3	Clay tile (See Photo **4D01-1.9A**)	entire building	Water damage on the 3rd floor (**4D01-1.9B, 1.9C**)	Repair roof and interior finishes
	1.11 Interior Partitions	3	Plaster on clay tile or wood framing	throughout	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames	throughout	NA	NA
	1.13a Stair Constn/Finishes - Interior	5	Open stair between floors 2, 3, and 4 (**4D01-1.13A**)	NA	NA	NA
	1.13b Stair Constn/Finishes - Exterior	4	Concrete stairs up to Main Level (**4D01-8.2A, B**)	North, East, and South	Stair at East (front) is in poor condition (**4D01-1.13B, 4D01-1.13C**)	Repair concrete
	1.14 Wall Finishes	3	Paint over wall covering;	throughout	Water damage on the 3rd floor	Repair roof and interior finishes
	1.15 Floor Finishes	3	Wood; Vinyl composition tile; Carpet	throughout	NA	NA
	1.16 Ceiling Finishes	3	Plaster, painted; 2' x 4' acoustical lay in some areas; suspended gypsum board with 12" x 12" acoustical tile in the Basement	throughout	Water damage on the 3rd floor	Repair roof and interior finishes
	1.17 Elevators & Lifts	5	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	4	Three-story building plus daylighted basement with concrete foundation walls, columns and basement slab on grade; undocumented; likely unreinforced or minimally reinforced.		Shrinkage cracks of the foundation walls. Spalled concrete at the uncovered main entry railing walls along the steps and at the concrete header located below the south side of the main entry porch. (**4D01-2.1A, 4D01-2.1B, 4D01-2.1C, 4D01-2.1D**) Unreinforced concrete prohibited by current codes	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
undocumented construction: circa 1914	**2.2 Struct. Bearing Walls**	4	Unreinforced brick masonry at exterior walls (3 wythes, about 13" thick exterior walls).		Unreinforced masonry not permitted by code; poor wall conditions especially at top story walls with moisture. (**4D01-2.2A, 4D01-2.2B**)	
	2.3 Structural Frame	3	Concrete roof and floor slabs, joists, beams, and columns. Wood roof framing above third floor auditorium space. A mixture of interior concrete and masonry bearing walls. Exposed steel exit stairs at east and west ends of building.		No notable signs of concrete distress, but slabs of this age will not meet current codes for reinforcement and anchorage. Many of the floor spaces are currently used for paper file storage. Owner should assess this current floor loading compared to the original floor design. (**4D01-2.3A**)	
	2.4 Lateral System	4	Unreinforced brick shear walls with brick parapets; concrete roof and floor diaphragms.		Unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely; deficiency exacerbated by heavy roof and floor construction.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		None	NA	NA	NA
4.0 Plumbing	**4.1 Plumbing Fixtures**	4	Sinks, water closets, urinals	Throughout	M1	
	4.2 Water Distribution	4	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	4	Roof Drains and Pipe	Roof	M1	
5.0 HVAC	**5.1a HVAC Equipment**	4	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	4	Steam Heating Radiators/Convectors	Throughout	M1 (**4D01-5.1A**)	
	5.1c HVAC Equipment	4	"Window shaker" air conditioning units	Throughout	M1	
	5.1d HVAC Equipment	4	Exhaust Fans	Roof	M1	
	5.3 Controls/Special Sys.	2	Direct Digital Controls - Johnson Controls	Boilers, Pumps	M2	
6.0 Electrical	**6.1a Elec Service**	2	Panel '0NDP' in the Basement of Building 4D01 and Panel '1S01' on the Main Floor of Building 4D01 are both fed from the main switchboard in Building 4D02; Panel 'LPA-0N01' in the Basement of Building 4D01 is fed from Panel 'EF1' in Building 4D02	Basement of Building 4D02	None	None
	6.1b Elec Distribution	4	Coast Electric 400 Amp Panel '0NDP' with main circuit breaker	Basement Hall	Coast Electric panelboard is obsolete (photos **4D01-6.1A, B**)	Provide new panelboard to replace obsolete panelboard
		2	Siemens Type S1 Panel 'LPA-0N01'	Basement Telephone Equipment Room	None	None
		2	Siemens Type S1 Panel 'UPS-0N02'	Basement Telephone Equipment Room	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	Square D QO loadcenter Panel '1N01'	1st Floor North Hall	Loadcenter lacks spare circuits and spaces; some circuit breakers have been doubled (photos **4D01-6.1C, D**)	Replace loadcenter with full-size panelboard
		4	Square D QO loadcenter Panel '2N01'	2nd Floor Rotunda	Loadcenter lacks spare circuits and spaces; some circuit breakers have been doubled (photos **4D01-6.1E, F**)	•Replace loadcenter with full-size panelboard
		2	General Electric Type TL30 loadcenter Panel '1S01'	1st Floor South Hall	None	None
		2	Square D QO loadcenter Panel '1S02'	1st Floor SE corner Office	None	None
		4	Wadsworth Electric screw-in fuse panel	Basement Hall	Screw-in fuse panels are obsolete; dead-front does not cover all live parts; panel mounting height is higher than allowed by code (photos **4D01-6.1G, H, I**)	The circuits should be reconnected to circuit breaker panelboards mounted at the normal height
	6.2a Lighting	2	Fluorescent and Circuline Fluorescent luminaires	Building Interior	Some luminaires are missing lenses; one lighting outlet appears to have shorted (photos **4D01-6.2A, B, C**)	Replace luminaires as necessary
		2	Compact Fluorescent and LED exit signs	Basement, 1st Floor, 2nd Floor	None	None
		4	Incandescent exit signs	3rd Floor	Incandescent lamps are inefficient and not reliable in terms of lamp life (photo **4D01-6.2D**)	•Provide LED exit signs to replace incandescent exit signs
		2	HID and Compact Fluorescent luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactor; not all exterior lighting shuts off automatically during daylight hours	Basement Electrical Room	Not all exterior lighting shuts off automatically during daylight hours (photos **4D01-6.2E, F**)	Connect all exterior lighting to automatic lighting controls
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	Old-style pushbutton light switches on 3rd Floor (photo **4D01-6.2G**)	Replace old-style light switches with standard wall switches
	6.3a Telecom	2	Switching equipment and telephone distribution for the Lakeland Village campus; data cabling is from 1st Floor Data Room in Building 4D02	Basement Telephone Equipment Room	None	None
		3	Some telecom wiring in surface raceway	2nd Floor	Raceway is not properly supported (photo **4D01-6.3A**)	Provide proper supports for raceway

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3b Other Comm	2	Radio paging system	3rd Floor NE Room on Old Stage	None	None
	6.3c Fire Alarm	2	Fire alarm devices connected to fire alarm system in building 4D02	1st Floor Data Closet in Building 4D02	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-13'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency loads include egress lighting and fire alarm; standby loads include telephone switching equipment receptacles, the telecom cabinet, air conditioning for the telephone equipment room, and the radio paging system	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
		2	Ferrups FE Series 5.0 kW uninterruptible power supply provides backup power for telephone switching equipment	Basement Telephone Equipment Room	None	None
7.0 Equipment	**7.1 Institutional Equipmt**		NA	NA	NA	NA
	7.2 Fixed Furnishings		NA	NA	NA	NA
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	5	Open stair between floors 2, 3, and 4; Emergency exit via windows to exterior "fire stairs" (**4D01-8.2C**)		Two protected exit paths required from upper floors	Construct two enclosed stairs to upper floors
	8.3 WSEC					

Comments:

Architectural:

Use: Administrative office space. There is on grade access to the lowest level, and to the First Floor (Main Level) from the HAB Center through the PAT Center. There is no direct ADA accessible entry to the Main Level of the Building (**4D01-8.2A, B**). Building is probably of historical significance, and the cupola on the roof would be considered a local landmark. There is no elevator access between floors, so the upper two floors are used for record storage only. The stairs between the First Floor (Main Level) and the two floors above is open (**4D01-1.13A**). The only other exiting from the upper two floors is out windows to open "fire escape" type exterior stairs (**4D01-8.2C**). The floor loading for the upper floors is unknown even though they have been used for record storage. The building houses the campus switch board, the campus telephone switch and data equipment hub, and the central Fire Alarm system monitoring. The gross area of the building by floor is: Basement - 6,288 sq ft, Main Level - 6,725 sq ft, Second Level - 6,517 sq ft, and Third Level - 6,288 sq ft.

Mechanical:

M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.

M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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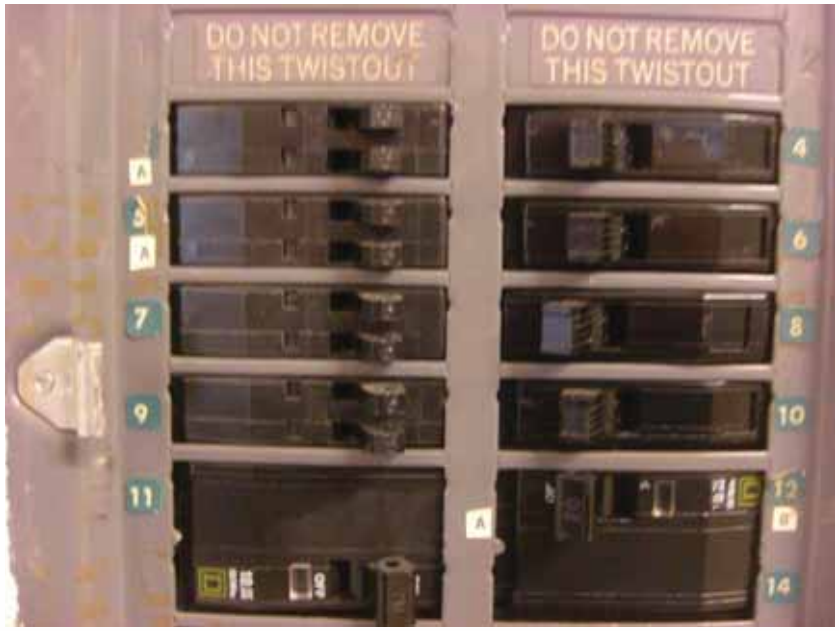

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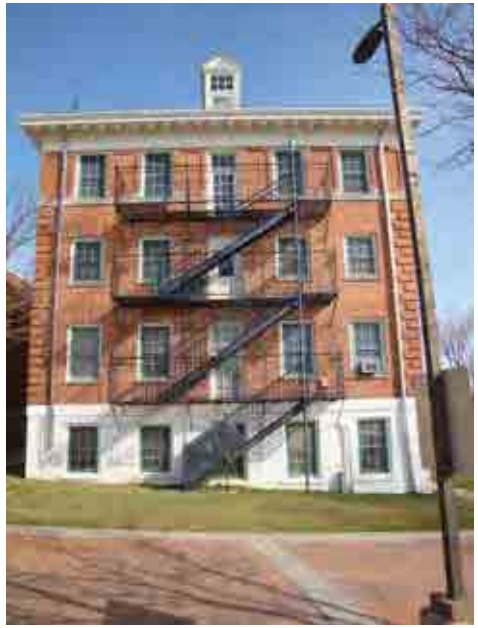

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	PAT Center	4D02
NAC #111-14011-A206	April 1, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
15,400	1 (Limited 2nd flr)	?	IBC = IIA LSC = II(111)	IBC = B LSC = Business	1985	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	throughout	NA	NA
	1.2 Slab on Grade	-	Concrete	throughout	NA	NA
	1.3 Basement Walls	2	Concrete	throughout	NA	NA
	1.4 Floor Construction	2	Concrete	thought-out	NA	NA
	1.5 Roof Construction	3	Concrete	throughout	NA	NA
	1.6 Exterior Walls	3	Masonry	Perimeter of building	NA	NA
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	NA	NA
	1.8 Exterior Doors	3	Hollow metal in hollow metal frames	Ends of corridors	NA	NA
	1.9 Roof Coverings	3	Duro-Last PVC system over rigid insulation	entire building	NA	NA
	1.10 Roof Openings	3	Skylights	In corridor and office areas	NA	NA
	1.11 Interior Partitions	3	Steel studs with gypsum board	throughout	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	3	Concrete	Stair up to mechanical room	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering;	throughout	NA	NA
	1.15 Floor Finishes	2	Vinyl composition tile; Carpet	throughout	NA	NA
	1.16 Ceiling Finishes	2	2' x 4' acoustical lay in ceilings; suspended gypsum board at skylight wells	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	One-story and two-story structures plus basement story with concrete foundation walls, columns and basement slab on grade.		Undocumented original building construction.	
	2.2 Struct. Bearing Walls	3	Unreinforced brick masonry at exterior walls (3 wythes, about 13" thick exterior walls).		Unreinforced masonry not permitted by code; poor wall conditions especially at metal corbels near wall parapets. (**4D02-2.2A, 4D02-2.2B**)	
	2.3 Structural Frame	3	Concrete roof and floor slabs, joists, beams, and columns.		No notable signs of concrete distress, but slabs of this age will not meet current codes for reinforcement and anchorage.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	3	Unreinforced brick shear walls with brick parapets; concrete roof and floor diaphragms.		Unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely; deficiency exacerbated by heavy roof and floor construction.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NA	NA	NA	NA
4.0 Plumbing	**4.1 Plumbing Fixtures**	3	Sinks, water closets, urinals	Throughout	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	3	Roof Drains and Pipe	Roof	M1	
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Steam Heating Radiators/Convectors	Throughout	M1 (**4D02-5.1A**)	
	5.1c HVAC Equipment	3	Air Handling Units	Upper Level Mechanical Rm	M1, M3	
	5.1d HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Package	Basement Mech Room	M1	
	5.1f HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1g HVAC Equipment	3	Condensate Pumps	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	2	Direct Digital Controls - Johnson Controls	Throughout	M2	
6.0 Electrical	**6.1a Elec Service**	2	500 kVA pad-mounted Transformer '4-12' outside supplies 1200 Amp underground service to Building 4D02 at 120/208 Volts; transformer also has a 2P-20A secondary circuit breaker supplying site lighting	Outside between Buildings 4D02 and 4D03	None	None
		4	75 kVA pad-mounted Transformer '5-13' outside supplies 150 Amp underground emergency power service to Building 4D02 at 120/208 Volts; Transformer '5-13' also serves Building 4D03; in Building 4D02 the emergency power loads include egress lighting, and telephone switching equipment (with UPS backup)	Outside between Buildings 4D02 and 4D03	The incoming emergency power service does not segregate the emergency branch from the standby branch as required by code	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	2	Westinghouse 1200 Amp main switchboard with 3 main fused switches, and fused switch feeder devices; the main switchboard also feeds panelboards in Building 4D01	Basement Electrical Room	None	None
		2	Westinghouse B10B panelboards	Basement, 1st Floor, 2nd floor	None	None
		2	Westinghouse 5-Star motor control centers	Basement, 2nd Floor	None	None
		2	ITE EQ loadcenter Panel '2W01'	2nd Floor Hall W of Building 4D01	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	Westinghouse B10B Panel 'EF1', with 150 Amp main circuit breaker; Panel 'EF1' also feeds panels in the Telephone Room of Building 4D01	Basement	Emergency power not segregated by branch (photos **4D02-6.1A, B**)	Replace the emergency power Panel 'EF1' with two panelboards, and segregate loads by branch
	6.2a Lighting	2	Fluorescent and Compact Fluorescent luminaires	Building Interior	None	None
		2	Compact Fluorescent exit signs	Building Interior	None	None
		2	HID luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactor; not all exterior lighting shuts off automatically during daylight hours	Basement Electrical Room	Not all exterior lighting shuts off automatically during daylight hours	Connect all exterior lighting to automatic lighting controls
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	3	Telecom floor-mounted racks, equipped with patchpanels and hubs; connected via fiber-optic cable to the campus network; Category 5e and Category 6 data cable; campus data hub for fiber-optic cable is in Building 4D02	1st Floor Data Room	Data Room is crowded (photo **4D02-6.3A**)	Extend Data Room to include more space
	6.3b Other Comm	1	Rauland Responder 5 Event Central Reporting Network for South Campus nurse call systems	1st Floor Data Room	None	None
		4	Code Alert wireless call system for Buildings 4D07, 4D08, 4D16, 4D17, 4D39, 4D40 and 4D43	1st Floor Data Room	Old wireless call system is out-dated and has proven unreliable (photo **4D02-6.3B**)	Replace call systems with modern systems offering better reliability and connect to Rauland Responder 5 Central Reporting Network
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Data Room	None	None
	6.3d Security	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-13'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency loads include lighting and fire alarm; standby loads include system receptacles , the telecom cabinet, and automatic doors	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equip**		NA	NA	NA	NA
	7.2 Fixed Furnishings	2	Plastic laminate covered casework	throughout	NA	NA
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire Doors; Fire shutters protecting the exposure to the main corridor in the HAB Center;	Separating 20 minute rated corridor	Fire shutters to HAB Center not connected to the fire alarm system - left in the closed position; No rated separation at door to attic mechanical room	Replace with current generation motor operated shutters with battery back-up; Upgrade separation to mechanical room
	8.3 WSEC					

Comments:

Architectural:
Use: PAT is short for Program Area Teams. This building fills the space between and connects to the Administration Building on the east, and the HAB Center on the west.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Air Handling Units are original equipment but damper and valve actuators have been retrofitted to DDC and fan motors have been replaced with high efficiency type.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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P.A.T. CENTER

4D**02**

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4D02-6.1A.jpg

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MEDICAL LAKE INFRASTRUCTURE
MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

P.A.T. CENTER

4D02

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	School (Activity)	4D03
NAC #111-14011-A206	April 1, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
24,680	1	?	IBC = IIA LSC = II(111)	IBC = B LSC = Business	?	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	throughout	NA	NA
	1.2 Slab on Grade	0	Concrete	throughout	NA	NA
	1.3 Basement Walls	2	Concrete	throughout	NA	NA
	1.4 Floor Construction	2	Concrete	thought-out	NA	NA
	1.5 Roof Construction	3	Precast concrete	Classrooms	Minor cracking (See Photo **4D03-1.5**)	Repair
	1.5a Roof Construction	3	Wood framed	Gymnasium	NA	NA
	1.6 Exterior Walls	5	Masonry	Perimeter of building	Terra cotta at parapet is failing (**4D03-1.6A, 1.6B**)	Rebuild parapets
	1.7a Exterior Windows	3	Aluminum, insulated	throughout	NA	NA
	1.7b Exterior Windows - Arcade	4	Hollow metal, insulated	Arcade to Food Service Building	Hollow metal is rusting, glazing units have lost their seal (**4D03-1.7A, B**)	Replace
	1.8 Exterior Doors	3	Hollow metal in wood frames	Ends or corridors	NA	NA
	1.9 Roof Coverings	3	Single ply elastomeric	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	Plaster, CMU, and exposed brick	throughout	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames	throughout	NA	NA
	1.13a Stair Constn/Finishes	3	Concrete	Main entry (**4D03-1.8A, 1.8B**), and transition to Food Service Building	NA	NA
	1.13b Ramp to Food Service	2	Concrete with slip resistant resilient floor covering (**4D03-1.13A, B, C**)	Arcade to Food Service Building	NA	NA
	1.14 Wall Finishes	3	Paint	throughout	NA	NA
	1.15 Floor Finishes	2	Vinyl composition tile; slip resistant sheet vinyl on ramps	throughout	Slip resistant sheet vinyl wearing through	Replace sheet vinyl flooring on ramps
	1.15a Floor Finishes	3	Wood	Gymnasium	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board with 9" x 9" acoustical tile	throughout	Acoustical tile damage at Gym (**4D03-1.16**)	Repair
	1.16a Ceiling Finishes	2	Exposed precast concrete, painted	classrooms		
	1.16b Ceiling Finishes	2	2x4 acoustical lay in ceilings	hallways		
	1.17 Elevators & Lifts	0	NA	NA	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	3	Original building and building addition with concrete foundation walls, undocumented; likely unreinforced or minimally reinforced, and concrete slab on grade.		Shrinkage cracks of the foundation walls. (**4D03-2.1A**) Unreinforced concrete prohibited by current codes.	
	2.2 Struct. Bearing Walls	3	Original building has unreinforced brick masonry at exterior walls. The building addition has CMU walls at the exterior and interior bearing walls.		Unreinforced masonry not permitted by code; poor wall conditions at the infilled window sills and at top of south wall near east end. (**4D03-2.2A, 4D03-2.2B, 4D03-2.2C**)	
	2.3 Structural Frame	3	The roof of the original building consists of straight wood decking over sawn lumber joists supported by roof trusses. The roof of the building addition consists of precast concrete roof panels.			
	2.4 Lateral System	3	The original building lateral system consists of straight sheathing roof diaphragm with unreinforced brick shear walls. The building addition lateral system consists of precast concrete panel diaphragm with CMU shear walls.		Unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System				NA	NA
4.0 Plumbing	**4.1 Plumbing Fixtures**	3	Sinks, water closets, urinals	Throughout	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	3	Roof Drains and Pipe	Roof	M1	
5.0 HVAC	**5.1a HVAC Equipment**	4	Steam Piping	Throughout	M4 (**4D03-5.1A, B**)	
	5.1b HVAC Equipment	3	Heating Water Convertor Package	Basement Mech Room	M1	
	5.1c HVAC Equipment	3	Air Handling Unit	Upper Level Mechanical Rm	M1, M3	
	5.1d HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1e HVAC Equipment	3	Heating & Chilled Water Pumps	Basement Mech Room	M1 (**4D03-5.1C**)	
	5.1f HVAC Equipment	3	Condensate Pumps	Basement Mech Room	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls		M2	
6.0 Electrical	**6.1a Elec Service**	2	225 kVA pad-mounted Transformer '4-8' outside supplies 600 Amp underground service to Building 4D03 at 120/208 Volts	Outside W of Building 4D03	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	75 kVA pad-mounted Transformer '5-13' outside supplies 100 Amp underground emergency power servcie to Building 4D03 at 120/208 Volts; Transformer '5-13' also serves Building 4D02, and thereby Building 4D01 too; in Building 4D03 the emergnecy power loads include egress lighting, building automation system, and mechanical loads (Building 4D03 is desingated as an Emergency Shelter)	Outside between Buildings 4D02 and 4D03	The incoming emergency power service does not segregate the emergency branch from the standby branch as required for Emergency Shelters	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	2	1986 Square D Power-Style QMB 600 Amp main switchboard with fused switches	1st Floor Electrical Room at NW corner of Stage	None	None
		2	1986 Square D NLAB Panels 'MS' and 'OS'	1st Floor Electrical Room at NW corner of Stage	None	None
		2	General Electric Powermark TM3 loadcenter Panel 'OSP'	1st Floor Electrical Room at NW corner of Stage	None	None
		2	General Electric NLAB Panels 'C' and 'D'	1st Floor Corridors	None	None
		4	Old General Electric loadcenter Panel 'A'	1st Floor Office at S end of building	Obsolete equipment (photo **4D03-6.1A**)	Replace the loadcenter with new panelboard
		4	1986 Square D NLAB Panel 'ES'	1st Floor Electrical Room at NW corner of Stage	Emergency power not segregated by branch (photos **4D03-6.1B, C**)	Replace the emergency power Panel 'ES' with two panelboards, and segregate loads by branch
	6.2a Lighting	2	Fluorescent luminaires	Building Interior	None	None
		2	LED exit signs	Building Interior	None	None
		2	Jar-type luminaires, relamped with Compact Fluorescent lamps	Building Exterior	None	None
	6.2b Branch Wiring	3	Exterior lighting controlled by switch	Local	No automatic controls for exterior lighting	Add automatic lighting controls for exterior lights
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Mchanical Room N of Stage	None	None
	6.3b Other Comm	2	TV dish antenna	Roof	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Office at S end of building	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-13'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency loads include lighting and fire alarm; standby loads include system receptacles , the telecom cabinet, and automatic doors	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equip**		NA	NA	NA	NA
	7.2 Fixed Furnishings	3	Cabinets	throughout	NA	NA
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	4	Area of Refuge	West end of south corridor	Missing - required at west end of south corridor	Construct
	8.3 WSEC					

Comments:

Architectural:
Use: Recreation Center and Therapy. While the building originally was used as a School operated by the Medical Lake School District, it now serves as is the center of most recreational activities. The Gymnasium is the only large assembly space on the Campus. There is no ADA access into the Main Entry (East side of the building). No area of refuge at west end of south corridor - exceeds 20' dead end at stair. Ramped access to Food Service Building was built at the maximum 1 in 12 slope.

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Air Handling Units are original equipment but damper and valve actuators have been retrofitted to DDC and fan motors have been replaced with high efficiency type.
M4: Equipment is functioning but is in Poor condition.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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SCHOOL

4D**03**

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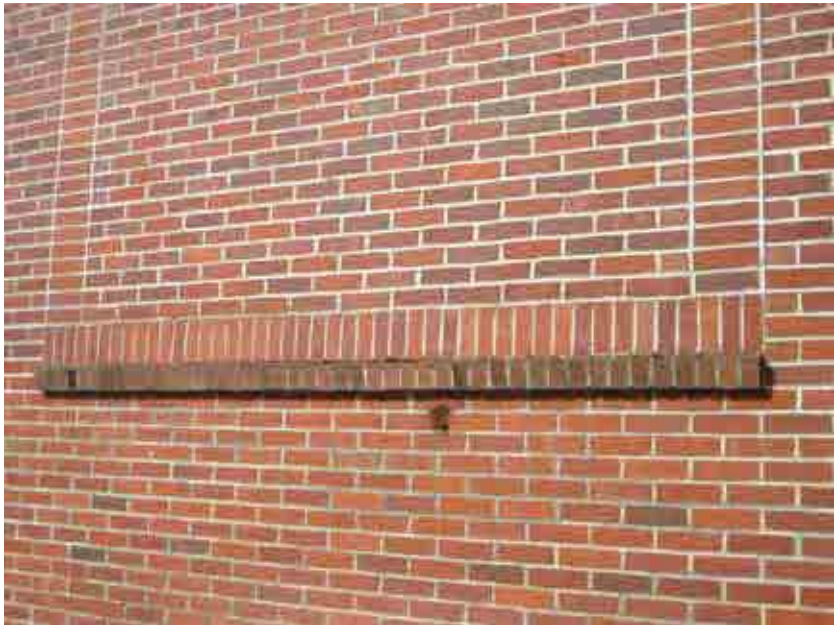

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		HAB Center	4D05
NAC #111-14011-A206	April 1, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
53,800	1	1985	IBC = IIA LSC = II(111)	IBC = B LSC = Business	NA	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	throughout	NA	NA
	1.2 Slab on Grade	0	Concrete	throughout	NA	NA
	1.3 Basement Walls	2	Concrete	throughout	NA	NA
	1.4 Floor Construction	2	Concrete	throughout	NA	NA
	1.5 Roof Construction	3	Steel framed with metal decking	throughout	NA	NA
	1.6 Exterior Walls	3	Steel studs with sheathing and brick veneer	Perimeter of building	Some roof drainage flowing down wall (See Photo **4D05-1.6**)	Modify roof flashings and re-point brick
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	NA	NA
	1.8 Exterior Doors	3	Hollow metal in hollow metal frames	Ends or corridors	NA	NA
	1.9 Roof Coverings	2	TPO system retrofitted over standing seam metal roofing in 2007 and 2010 (**4D05-1.9**)	entire building	NA	NA
	1.10 Roof Openings	0	HVAC louvers	In side walls above roof level	NA	NA
	1.10a Skylights	3	Skylights in main corridor	Center of building	Some leaks causing damage to interior finishes	Repair or replace skylight assembly
	1.11 Interior Partitions	3	Steel studs with gypsum board	throughout	NA	NA
	1.12 Interior Doors	3	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	3	Vinyl composition tile; slip resistant sheet vinyl on ramps	throughout	Slip resistant sheet vinyl wearing through	Replace sheet vinyl flooring on ramps
	1.16a Ceiling Finishes	2	2' x 4' acoustical lay in ceilings	throughout	NA	NA
	1.16b Ceiling Finishes	3	Suspended gypsum board, painted	In main corridor (mall area)	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	One-story and two-story structures plus basement story with reinforced concrete foundation walls, columns and basement slab on grade.			
	2.2 Struct Bearings Walls	3	Non-bearing structural steel studs at exterior walls.		End of masonry wing wall at the north elevation has cracked and failed at the roof beam bearing, and should be repaired. (**4D05-2.2A**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	2	Steel roof deck on steel bar joists, steel joist girders, and steel columns between the main floor and roof levels. Reinforced concrete main floor slab supported by reinforced concrete basement walls and reinforced CMU basement walls.			
	2.4 Lateral System	2	Steel roof deck diaphragm; steel braced frames between the main floor and roof diaphragms; reinforced concrete and CMU shear walls below the main floor level.			
3.0 Fire Protection	**3.1 Fire Service**	3	Standard fire service entry. 60 psi static pressure	Basement Mech Room	No Backflow preventer. Grandfathered by AHJ.	Provide BFP upon any remodel work
	3.2 FP System	2	1987 standard response heads	Basement Mech Room	Update to quick response sprinklers desirable but not required at this time	None required
4.0 Plumbing	**4.1a Plumbing Fixtures**	2	Sinks, water closets, urinals	Throughout		
	4.1b Plumbing Fixtures	2	Domestic Hot Water Heater	Basement Mech Room		
	4.2 Water Distribution	2	Domestic hot, cold water, drainage, vent	Throughout		
	4.3 Rain Water Drainage	2	Roof Drains and Pipe	Roof		
5.0 HVAC	**5.1a HVAC Equipment**	2	Steam Piping	Throughout		
	5.1b HVAC Equipment	2	Heating Water Convertor Package	Basement Mech Room		
	5.1c HVAC Equipment	2	Air Handling Units	Mechanical Rm		
	5.1d HVAC Equipment	2	Exhaust Fans	Mechanical Rm		
	5.1e HVAC Equipment	2	Heating & Chilled Water Pumps	Basement Mech Room		
	5.1f HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	2	Ductwork, grilles	Throughout		
	5.3 Controls/Special Sys.	2	Direct Digital Control	Throughout		
6.0 Electrical	**6.1a Elec Service**	2	500 kVA pad-mounted Transformer '2-09' outside supplies 1600 Amp underground service to Building 4D05 at 120/208 Volts	Outside W of Building 4D05 South Wing	None	None
		4	112.5 kVA pad-mounted Transformer '3-05' outside supplies 200 Amp underground emergency power servcie to Building 4D05 at 120/208 Volts; a second spare 200 Amp circuit breaker in the transformer secondary compartment is spare	Outside W of Building 4D05 South Wing	The incoming emergency power service does not segregate the emergency branch from the standby branch as required by code	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	2	Square D Power-Style QMB 1600 Amp main switchboard with fused switches	Basement Electrical Room	None	None
		2	Square D NLAB and NQOD panelboards	Basement, 1st Floor, 2nd Floor	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		2	Square D Model 5 motor control centers	Basement Mechanical Room, 2nd Floor Mechanical Room	None	None
		4	Square D Power-Style QMB 200 Amp emergency power switchboard with fused switches	Basement Electrical Room	Emergency power not segregated by branch (photo **4D05-6.1A**)	Replace the emergency power switchboard with two panelboards, and segregate loads by branch
	6.2a Lighting	2	Fluorescent and Compact Fluorescent luminaires	Building Interior	None	None
		3	Incandescent track lighting	1st Floor Lobby with recesssed seating	Incandescent lamps are neither efficient nor reliable in terms of lamp life (photo **4D05-6.2A**)	Replace track lights with dimmable LED type
		2	LED exit signs	Building Interior	None	None
		2	High Pressure Sodium, Compact Fluorescent and LED luminaires	Building Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by time switch and contactor	1st Floor Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	1	Telecom floor-mounted rack, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	Basement Communications Room	None	None
	6.3b Other Comm	3	Rauland Tlecenter IV intercom system, currently used only for all-page and occassionally for music	1st Floor Office 103 near N end of building	Interior of equipment is caked with dust (photo **4D05-6.3A**)	Vacuum dust from equipment interior
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Office at S end of building	None	None
	6.3d Security	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '3-05'; the transformer is connected to 13.2 kV Feeder #3, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency loads include egress lighting, fire alarm system, and fire sprinkler alarm bell; standby loads include telecom system, refrigerators, freezers, sump pumps, condensate pumps	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equipmt**		NA	NA	NA	NA
	7.2 Fixed Furnishings	3	Plastic laminate covered casework	throughout	NA	NA
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire Doors;	Separating 20 minute rated corridor	Modifications made to doors probably voids rating	Replace selected doors
	8.3 WSEC					

Comments:

Architectural:
Use: HAB is short for Habilitation Center. This is the largest building on Campus and serves as the center of most activities. It is directly connected to the PAT Center, Food Service Building, School, and to Rosewood to provide an enclosed "Main Street".

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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HABILITATION CENTER

4D**05**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Rainbow Way 5890-5891	4D06
NAC #111-14011-A206	April 21, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,370	1	1978	IBC = VB LSC = V(000)	IBC = E LSC = Day-Care	Never	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2 Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.3 Basement Walls	4	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	Waterproofing on perimeter walls has failed, perimeter walls leak	Dig out perimeter walls and re-waterproof CMU
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	0	Blown-in insulation with batt insulation covering sprinkler piping	Attic	Insulation is disturbed during maintenance access	Greater care during maintenance activities
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing where damaged
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; sliding glass door to covered patio	Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	3	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	3	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	5	Vinyl composition tile and sheet vinyl with top set base; coved base at toilet rooms	throughout	Finished flooring is failing through the building. Sheet vinyl flooring and flooring mastics are know to be asbestos containing.	Replace floor covering

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area; past remodel for enclosed office and mechanical room.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood trim are weathered and deteriorating; needs maintenance before moisture in the wall becomes a problem. Exterior wood fins at windows already removed.	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1, M3	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	2	225 kVA pad-mounted Transformer '4-05' outside supplies a 400 Amp normal power service to Building 4D06, and also serves Buildings 4D07 and 4D08 at 120/208 Volts; the capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; the normal power demand load is about 12.1 kVA, or 18.8 kVA with adjustments; if the emergency/ standby power loads were included, the demand would increase to 25.5 kVA	Outside between Buildings 4D09 and 4D10	None	None
		4	75 kVA pad-mounted Transformer '5-11' outside supplies a 50 Amp emergency power service to Building 4D06, and also serves Buildings 4D07, 4D08, 4D09, 4D10 and 4D11 at 120/208 Volts; capacity is 12.5 kVA if the transformer capacity is shared equally by the 6 buildings; as currently loaded, the emergency/ standby load is 6.7 kVA	Outside between Buildings 4D08 and 4D09	No capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	3	Westinghouse B10B main Panel '6NA' with 400 Amp main circuit breaker; Westinghouse B10B subfed panelboards	1st Floor Hall; Basement Mechanical Room	No normal power feed to automatic transfer switches	Add circuit breakers to Panel '6NA' to feed the normal power side of local automatic transfer switches
		4	Old Bryant emergency power loadcenter with 30 Amp main circuit breaker	1st Floor Hall	Obsolete equipment; emergency power not segregated by branch	Replace the emergency power loadcenter with two panelboards, and segregate loads by branch
	6.2a Lighting	2	Interior lighting mainly consists of Fluorescent luminaires, Circuline Fluorescent luminaires, and Compact Fluorescent Luminaires	Building interior	None	None
		2	Exterior lighting consists of Compact Fluorecent canopy luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Basement Electrical Room	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Actio
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriat
		3	Receptacles and switches have standard faceplates	Building Interior	No ground-fault circuit interrupter on receptacles at sinks	Replace receptacles at sin with receptacles equipped with ground-fault circu interrupters
	6.3a Telecom	3	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Interior	None	None
	6.3b Other Comm	2	TV antenna and dish	Roof	None	None
		5	No call system, since building is used for Daycare	NA	None	None
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network; the fire alarm control panel in Building 4D10 also handles the Chapel (Building 4D33)	1st Floor Hall	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-11'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency loads include lighting and fire alarm; standby loads include system receptacles , the telecom cabinet, and automatic doors	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency powe distribution to include local automatic transfe switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	5	Exposed expanded polystyrene insulation	crawlspace	Fire hazard	Dig out foundatio and place foundation insulation outside crawlspace
	8.3 WSEC					

Comments:

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Architectural:
Use: Eastlake Child Care Center - Privately leased from Lakeland Village; Licensed for up to 70 Children, including 5 Children ages 6 weeks to 1 year old, and 12 children ages 1 year to 2 1/2 years old. The Cottage could be converted back to use as Assisted Living/ICF Facility use after limited additions to separate utility and laundry functions and other upgrades.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Two steam heating coils and two chilled water coils allow zoning of the building into two separate temperature control areas.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

RAINBOW WAY 5890-5891

4D**06**

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RAINBOW WAY 5890-5891

4D06

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Cascade Way 5886-5887	4D07
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,716	1	1978	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	2009	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2a Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.2b Slab on Grade	3	Sheet vinyl or concrete	Area of 2009 additions	NA	NA
	1.3 Basement Walls	3	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	NA	NA
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	NA	NA
	1.6 Exterior Walls	2	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	NA	NA
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	NA	NA
	1.8 Exterior Doors	2	Wood or hollow metal in hollow metal frames	Living and Dinning Rooms	NA	NA
	1.9 Roof Coverings	2	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	2	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	2	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	2	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with top set base; coved base at toilet rooms and kitchen	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area; past remodel for enclosed office and mechanical room.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood trim are weathered and deteriorating; needs maintenance before moisture in the wall becomes a problem. Exterior wood fins at windows already removed. (**4D07-2.2A, 4D07-2.2B**)	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1, M3	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '4-05' outside supplies a 400 Amp normal power service to Building 4D07, and also serves Buildings 4D06 and 4D08 at 120/208 Volts; the capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; based on the meter reading for Cottage Building 4D08 (occupied), the normal power demand load if Building 4D07 was occupied would be about 30.2 kVA, or 47.1 kVA with adjustments; if the emergency/ standby power loads were included, the demand would increase to 57.4 kVA	Outside E of Building 4D07	Transformer '4-05' is tilted significantly due to settlement under pad (photo **4D07-6.1A**)	Replace concrete pad under equipment and reinstall Transformer '4-05'
		4	75 kVA pad-mounted Transformer '5-11' outside supplies a 30 Amp emergency power service to Building 4D07, and also serves Buildings 4D06, 4D08, 4D09, 4D10 and 4D11 at 120/208 Volts; capacity is 10.8 kVA; if loaded similarly to Panel '3XA' in Building 4D17 or Panel '5XA' in Building 4D08 (both remodeled in 2008), the emergency/standby power load would be 10.3 kVA	Outside between Buildings 4D08 and 4D09	The incoming emergency power service at 30 Amp is very tightly loaded; no capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	3	Westinghouse B10B main Panel '4NA' with 400 Amp main circuit breaker; Westinghouse B10B subfed panelboard in Basement; Panel '4NA' has about 10 spare circuits and 4 additional spaces; arc-fault circuit interrupters on bedroom circuits	1st Floor Hall; Basement Mechanical Room	No normal power feed to automatic transfer switches; handle linkage created by wiring circuit breaker handles together	Add circuit breakers to Panel '4NA' or '4NB' to feed the normal power side of local automatic transfer switches; replace circuit breakers with handle linkage with multi-pole circuit breakers

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	General Electric emergency power loadcenter with 30 Amp main circuit breaker	1st Floor Hall	Emergency power not segregated by branch (photos 4D07-6.1B, C, D)	Replace the emergency power loadcenter with two panelboards, and segregate loads by branch
	6.2a Lighting	2	Interior lighting mainly consists of Fluorescent luminaires, Circuline Fluorescent luminaires, and Compact Fluorescent Luminaires	Building interior	None	None
		2	Exterior lighting consists of Compact Fluorescent canopy luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Hall	None	None
	6.3b Other Comm	2	TV antenna	Roof	None	None
		4	Code Alert wireless call system	Halls, Bedrooms	Call system is out-dated and has proven unreliable; CPU has been removed (photos **4D07-6.3A, B, C, D**)	Replace call system with a modern system offering better reliability
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Hall	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-11'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency loads include lighting and fire alarm; standby loads include bed receptacles, the meds refrigerator, the telecom cabinet, ceiling heaters and damper motors	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire doors separating the two halves of the cottage	wall separating the two halves of the cottage	NA	NA
	8.3 WSEC					

Comments:

Architectural:
Use: Assisted Living/ICF (formerly Boarding Home); Currently Vacant. Maximum occupancy: 15. The Cottage meets current State Regulations.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Two steam heating coils and two chilled water coils allow zoning of the building into two separate temperature control areas.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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NAC ARCHITECTURE

CASCADE WAY
5886-5887

4D**07**

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CASCADE WAY
5886-5887

4D**07**

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CASCADE WAY 5886-5887

4D07

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CASCADE WAY 5886-5887

4D07

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Wildrose Way 5888-5889	4D08
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,716	1	1978	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	2009	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2a Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.2b Slab on Grade	3	Sheet vinyl or concrete	Area of 2009 additions	NA	NA
	1.3 Basement Walls	3	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	NA	NA
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	NA	NA
	1.6 Exterior Walls	2	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	NA	NA
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	NA	NA
	1.8 Exterior Doors	2	Wood or hollow metal in hollow metal frames	Living and Dinning Rooms	NA	NA
	1.9 Roof Coverings	2	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	2	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	2	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	2	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with top set base; coved base at toilet rooms and kitchen	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area; past remodel for enclosed office and mechanical room.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood trim are weathered and deteriorating; needs maintenance before moisture in the wall becomes a problem. Exterior wood fins at windows already removed.	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1, M3	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '4-05' outside supplies a 400 Amp normal power service to Building 4D08, and also serves Buildings 4D06 and 4D07 at 120/208 Volts; the capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; based on the meter reading , the normal power demand load is about 30.2 kVA, or 47.1 kVA with adjustments; if the emergency/ standby power loads were included, the demand would increase to 57.4 kVA	Outside E of Building 4D07	Transformer '4-05' is tilted significantly due to settlement under pad (photo 4D07-6.1A)	Replace concrete pad under equipment and reinstall Transformer '4-05'
		4	75 kVA pad-mounted Transformer '5-11' outside supplies a 30 Amp emergency power service to Building 4D08, and also serves Buildings 4D06, 4D07, 4D09, 4D10 and 4D11 at 120/208 Volts; capacity is 10.8 kVA; as currently loaded, the emergency/standby power load is about 10.2 kVA	Outside between Buildings 4D08 and 4D09	The incoming emergency power service at 30 Amp is very tightly loaded; no capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution		Similar to Building 4D07			
	6.2a Lighting		Similar to Building 4D07			
	6.2b Branch Wiring		Similar to Building 4D07			
	6.3a Telecom		Similar to Building 4D07			
	6.3b Other Comm		Similar to Building 4D07			
	6.3c Fire Alarm		Similar to Building 4D07			
	6.3d Security		Similar to Building 4D07			
	6.4 Emerg Power		Similar to Building 4D07			
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire doors separating the two halves of the cottage	wall separating the two halves of the cottage	NA	NA
	8.3 WSEC					

Comments:

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Architectural:
Use: Assisted Living/ICF (formerly Boarding Home). Maximum occupancy: 15. The Cottage meets current State Regulations.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Two steam heating coils and two chilled water coils allow zoning of the building into two separate temperature control areas.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

4D08-A.JPG

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MEDICAL LAKE INFRASTRUCTURE
MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

WILDROSE WAY
5888-5889

4D08

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Apple Court 5892-5893	4D09
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,341	1	1978	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	2001	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2 Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.3 Basement Walls	3	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	NA	NA
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	NA	NA
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing where damaged
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames	Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	3	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	3	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	3	Homogeneous sheet vinyl with coved base	throughout	limited gaps in the floor seaming	repair floor seams
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area; past remodel for enclosed office and mechanical room.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood trim are weathered and deteriorating; needs maintenance before moisture in the wall becomes a problem. Exterior wood fins at windows already removed.	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1, M3	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	2	225 kVA pad-mounted Transformer '4-06' outside supplies a 400 Amp normal power service to Building 4D09, and also serves Buildings 4D10 and 4D11 at 120/208 Volts, as well as a 100 Amp service to Building 4D33; the capacity is 69.2 kVA if the 225 kVA transformer is shared proportionally by each of the 4 buildings; the service is metered; the normal power demand is about 20.2 kVA, or 31.5 kVA with adjustments; if the emergency/ standby power loads were included, the demand would increase to 37.6 kVA	Outside between Buildings 4D09 and 4D10	None	None
		4	75 kVA pad-mounted Transformer '5-11' outside supplies a 50 Amp emergency power service to Building 4D09, and also serves Buildings 4D06, 4D07, 4D08, 4D10 and 4D11 at 120/208 Volts; capacity is 12.5 kVA if the transformer capacity is shared equally by the 6 buildings; as currently loaded the emergency/ standby load is 6.1 kVA	Outside between Buildings 4D08 and 4D09	No capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution		Similar to Building 4D10			
	6.2a Lighting		Similar to Building 4D10			
	6.2b Branch Wiring		Similar to Building 4D10			
	6.3a Telecom		Similar to Building 4D10			
	6.3b Other Comm		Similar to Building 4D10			
	6.3c Fire Alarm		Similar to Building 4D10			
	6.3d Security		Similar to Building 4D10			
	6.4 Emerg Power		Similar to Building 4D10			
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire doors separating the two halves of the cottage	wall separating the two halves of the cottage	Not maintained as self closing	repair
	8.3 WSEC					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Comments:

Architectural:
Use: Assisted Living/ICF (formerly Boarding Home). Maximum occupancy: 15. The Cottage needs to have soiled and clean utility functions separated from laundry functions, ADA improvements to toilet rooms and kitchens, and the installation of a Call System in order to comply with current State Regulations.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Two steam heating coils and two chilled water coils allow zoning of the building into two separate temperature control areas.

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4D09-A.JPG

4D09-B.JPG

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MEDICAL LAKE INFRASTRUCTURE
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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

APPLE COURT
5892-5893

4D**09**

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Bigfoot Way 5894-5895	4D10
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,341	1	1978	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	1999	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2 Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.3 Basement Walls	3	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	NA	NA
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	NA	NA
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing where damaged
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames	Living and Dinning Rooms	Weatherstripping is worn, need repainting (Photo **4D10-1.8**)	Adjust or replace weatherstripping, repaint
	1.9 Roof Coverings	3	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	3	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	3	Homogeneous sheet vinyl with coved base	throughout	limited gaps in the floor seaming	repair floor seams
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood fins at window jambs and trim are weathered and deteriorating; needs maintenance or removal of fins before moisture in the wall becomes a problem. (**4D10-2.2A, 4D10-2.2B**)	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1, M3	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	2	225 kVA pad-mounted Transformer '4-06' outside supplies a 400 Amp normal power service to Building 4D10, and also serves Buildings 4D09 and 4D11 at 120/208 Volts, as well as a 100 Amp service to Building 4D33; the capacity is 69.2 kVA if the 225 kVA transformer is shared proportionally by each of the 4 buildings; the service is metered; the normal power demand load is about 27.2 kVA, or 42.4 kVA with adjustments; if the emergency/ standby power loads were included, the demand would increase to 49.1 kVA	Outside between Buildings 4D09 and 4D10	None	None
		4	75 kVA pad-mounted Transformer '5-11' outside supplies a 50 Amp emergency power service to Buildings 4D10 and 4D11, and also serves Buildings 4D06, 4D07, 4D08 and 4D09 at 120/208 Volts; capacity is 10.8 kVA because of a 30 Amp main circuit breaker on the load end, and is only 9.0 kVA if the 50 Amp service is shared equally by Buildings 4D10 and 4D11; as currently loaded, the emergency/ standby load is 6.7 kVA	Outside between Buildings 4D08 and 4D09	The incoming emergency power service at 30 Amp is very tightly loaded; no capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	3	Westinghouse B10B main Panel '4NA' with 400 Amp main circuit breaker; Westinghouse B10B subfed panelboard in Basement; Panels '4NA' and '4NB' have about 20 spare circuits and 4 additional spaces	1st Floor Hall; Basement Mechanical Room	No normal power feed to automatic transfer switches; no arc-fault interrupter circuit breakers; handle linkage created by wiring circuit breaker handles together	Add circuit breakers to Panel '4NA' or '4NB' to feed the normal power side of local automatic transfer switches; replace circuit breakers for bedroom circuits with circuit breakers having arc-fault circuit interrupters; replace circuit breakers with handle linkage with multi-pole circuit breakers

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	Old Bryant emergency power loadcenter with 30 Amp main circuit breaker	1st Floor Hall	Obsolete equipment; emergency power not segregated by branch	Replace the emergency power loadcenter with two panelboards, and segregate loads by branch
	6.2a Lighting	2	Interior lighting mainly consists of Fluorescent luminaires, Circuline Fluorescent luminaires, and Compact Fluorescent Luminaires	Building interior	None	None
		2	Exterior lighting consists of Compact Fluorescent canopy luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	No ground-fault circuit interrupter on receptacles at sink in Grooming Rooms	Replace receptacles in Grooming Rooms with receptacles equipped with ground-fault circuit interrupters
	6.3a Telecom	3	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Laundry Room 127	The cabinet in which the telecom equipment is mounted is deteriorating due to moisture damage	Replace the telecom rack cabinet
	6.3b Other Comm	2	TV antenna and dish	Roof	None	None
		5	No call system	NA	Building lacks a call system as required for Assisted Living Assisted Living Facilities (Boarding Homes)	If building is to function as a Assisted Living Facility (Boarding Home), add a call system complying with current codes
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network; the fire alarm control panel in Building 4D10 also handles the Chapel (Building 4D33)	1st Floor Hall	None	None
	6.3d Security	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-11'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency loads include lighting and fire alarm; standby loads include system receptacles , the telecom cabinet, and automatic doors	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire doors separating the two halves of the cottage	wall separating the two halves of the cottage	Not maintained as self closing	repair
	8.3 WSEC					

Comments:

Architectural:
Use: Assisted Living/ICF (formerly Boarding Home). Maximum occupancy: 15. The Cottage needs to have soiled and clean utility functions separated from laundry functions, ADA improvements to toilet rooms and kitchens, and the installation of a Call System in order to comply with current State Regulations.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Two steam heating coils and two chilled water coils allow zoning of the building into two separate temperature control areas.

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MEDICAL LAKE INFRASTRUCTURE
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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

BIGFOOT WAY 5894-5895

4D10

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4D10-1.8.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Bigfoot Way 5896-5897	4D11
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,370	1	1978	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	1997	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2 Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.3 Basement Walls	3	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	NA	NA
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	NA	NA
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing where damaged
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames	Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	3	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	3	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	3	Homogeneous sheet vinyl with coved base	throughout	limited gaps in the floor seaming	repair floor seams
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.		(**4D11-2.1A, 4D11-2.1B**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood fins at window jambs and trim are weathered and deteriorating; needs maintenance or removal of wood fins before moisture in the wall becomes a problem. (**4D11-2.2A, 4D11-2.2B**)	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**	2	2" Supply routed through crawl space	Basement mech room.	None noted	None required
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
		2	Residential (QR) sprinklers. Installed in 2007. CPVC piping	Basement mech room.	Occassional freeze-ups due to insulation blowing off of piping in attic. Repairs made when needed	No feasible correction for freezing problem. Repairs made as needed.
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1, M3	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	2	225 kVA pad-mounted Transformer '4-06' outside supplies a 400 Amp normal power service to Building 4D11, and also serves Buildings 4D09 and 4D10 at 120/208 Volts, as well as a 100 amp service to Building 4D33; the capacity is 69.2 kVA if the 225 kVA transformer is shared proportionally by each of the 4 buildings; the service is metered; based on the meter reading for Cottage Buildings 4D12 (occupied), the normal power demand load if Building 4D11 were occupeid would be about 20.0 kVA, or 31.1 kVA with adjustments; if the emergency/ standby power loads were included, the demand would increase to 41.4 kVA	Outside between Buildings 4D09 and 4D10	None	None
		4	75 kVA pad-mounted Transformer '5-11' outside supplies a 50 Amp emergency power service to Buildings 4D10 and 4D11, and also serves Buildings 4D06, 4D07, 4D08 and 4D09 at 120/208 Volts; capacity is 10.8 kVA because of a 30 Amp main circuit breaker on the load end, and is only 9.0 kVA if the 50 Amp service is shared equally by Buildings 4D10 and 4D11; as currently loaded the emergency/ standby load is 4.5 kVA	Outside between Buildings 4D08 and 4D09	The incoming emergency power service at 30 Amp is very tightly loaded; no capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.1b Elec Distribution	3	Westinghouse B10B main Panel 'A7' with 400 Amp main circuit breaker; Westinghouse B10B subfed panelboard in Basement; Panel 'A7' has about 15 spare circuits and an ample quantity of spaces	1st Floor Hall; Basement Mechanical Room	No normal power feed to automatic transfer switches; no arc-fault interrupter circuit breakers; handle linkage created by wiring circuit breaker handles together; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	Add circuit breakers to Panel 'A7' to feed the normal power side of local automatic transfer switches; replace circuit breakers for bedroom circuits with circuit breakers having arc-fault circuit interrupters; replace circuit breakers with handle linkage with multi-pole circuit breakers
		4	Old Bryant emergency power loadcenter with 30 Amp main circuit breaker	1st Floor Hall	Obsolete equipment; emergency power not segregated by branch	Replace the emergency power loadcenter with two panelboards, and segregate loads by branch
	6.2a Lighting	2	Interior lighting mainly consists of Fluorescent luminaires, Circuline Fluorescent luminaires, and Compact Fluorescent Luminaires	Building interior	None	None
		2	Exterior lighting consists of Compact Fluorecent canopy luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	•No automatic controls for interior lighting	•Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	•No ground-fault circuit interrupter on receptacles at sink in Grooming Rooms	•Replace receptacles in Grooming Rooms with receptacles equipped with ground-fault circuit interrupters
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Hall	None	None
	6.3b Other Comm	2	TV antenna and dish	Roof	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		5	No call system	NA	Building lacks a call system as required for Assisted Living Assisted Living Facilities (Boarding Homes)	If building is to function as a Assisted Living Facility (Boarding Home), add a call system complying with current codes
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Hall	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-11'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency power loads include lighting and fire alarm; standby power loads include systems receptacles and the telecom cabinet	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire doors separating the two halves of the cottage	wall separating the two halves of the cottage	Not maintained as self closing	repair
	8.3 WSEC					

Comments:

Architectural:
Use: Assisted Living/ICF (formerly Boarding Home); Currently Vacant. Maximum occupancy: 15. The Cottage needs to have soiled and clean utility functions separated from laundry functions, ADA improvements to toilet rooms and kitchens, and the installation of a Call System in order to comply with current State Regulations.

Mechancial:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Two steam heating coils and two chilled water coils allow zoning of the building into two separate temperature control areas.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

BIGFOOT WAY 5896-5897

4D11

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BUILDING ASSESSMENT

Medical Lake Infrastructure Master Plan
#2014-415

Cascade Way 5874-5875 **4D12**

NAC #111-14011-A206 | April 21, 2014 | Project | Building Name | Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,370	1	1981	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	2001	Good

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2 Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.3 Basement Walls	3	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	NA	NA
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	NA	NA
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained; Damaged stucco near front door (See Photo **4D12-1.6**)	Needs repairs, cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing where damaged
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames	Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	3	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	3	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	3	Homogeneous sheet vinyl with top set base; coved base at toilet rooms	throughout	limited gaps in the floor seaming	repair floor seams
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.		Had previous flooding in the mechanical basement room due to improper drainage from snow melt runoff. (**4D12-2.1A**)	
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood trim are weathered and deteriorating; needs maintenance before moisture in the wall becomes a problem. Wood fins at window jambs already removed. (**4D12-2.2A, 4D12-2.2B**)	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**	2	2" Supply routed through crawl space	Basement mech room.	None noted	None required
	3.2 FP System	2	Residential (QR) sprinklers. Installed in 2007. CPVC piping	Basement mech room.	Occassional freeze-ups due to insulation blowing off of piping in attic. Repairs made when needed	No feasible correction for freezing problem. Repairs made as needed.
		2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	-	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1, M3	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '4-03' outside supplies a 400 Amp normal pwer service to Building 4D12, and also serves Buildings 4D13 and 4D14 at 120/208 Volts; the capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; the normal power demand load is about 20.0 kVA, or 31.1 kVA with adjustments; if the emergency/ standby power loads were included, the demand would increase to 41.4 kVA	Outside W of Building 4D13	Transformer '4-03' is tilted significantly due to settlement under pad (photos **4D12-6.1A, B**)	Replace concrete pad under equipment and reinstall Transformer '4-03'
		4	75 kVA pad-mounted Transformer '5-09' outside supplies a 50 Amp emergency power service to Building 4D12, and also serves Buildings 4D13, 4D14, 4D15, 4D16 and 4D17 at 120/208 Volts; capacity is 10.8 kVA because of a 30 Amp main circuit breaker on the load end; if loaded similarly to Panel '3XA' in Building 4D17 or Panel '5XA' in Building 4D08 (both remodeled in 2008), the emergency/standby power load would be 10.3 kVA	Outside between Buildings 4D14 and 4D15	The incoming emergency power service at 30 Amp is very tightly loaded; no capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
	6.1b Elec Distribution	4	Westinghouse B10B main Panel 'AA' with 400 Amp main circuit breaker; Westinghouse MAC-F motor control center in Basement; Panels 'AA' and 'AB' may have spare circuits and unused spaces (panels locked)	1st Floor Laundry Room, Basement Mechanical Room	No normal power feed to automatic transfer switches; no arc-fault interrupter circuit breakers; there may be handle linkage created by wiring circuit breaker handles together (panels locked); motor control center is obsolete style	Add circuit breakers to Panel 'AA' or Panel 'AB' to feed the normal power side of local automatic transfer switches; replace circuit breakers for bedroom circuits with circuit breakers having arc-fault circuit interrupters; replace circuit breakers with handle linkage with
		4	Old Bryant emergency power loadcenter, probably with 30 Amp main circuit breaker (panel locked)	1st Floor Hall	Obsolete equipment; emergency power not segregated by branch	Replace the emergency power loadcenter with two panelboards, and segregate loads by branch
	6.2a Lighting	2	Interior lighting mainly consists of Fluorescent luminaires, Circuline Fluorescent luminaires, and Compact Fluorescent Luminaires	Building interior	None	None
		2	Exterior lighting consists of Compact Fluorecent canopy luminaires; with some Incandescent downlights	Building exterior	Incadescent lamps require frequent replacement and are less effcient that other lamp types	•Relace incandescent downlights with Compact Fluorescent or LED luminiares
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	No ground-fault circuit interrupter on receptacles at sink in Grooming Rooms	Replace receptacles in Grooming Rooms with receptacles equipped with ground-fault circuit interrupters

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Laundry Room	None	None
	6.3b Other Comm	2	TV antenna and dish	Roof	None	None
		5	No call system	NA	Building lacks a call system as required for Assisted Living Assisted Living Facilities (Boarding Homes)	If building is to function as a Assisted Living Facility (Boarding Home), add a call system complying with current codes
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Hall	None	None
	6.3d Security	3	Wireless client security system consisting of a Honeywell wireless system used in conjuction with a Radio Shack Safe House Alarm Center panel to monitor doors, windows, and active clients (may be unique to Building 4D12)	1st Floor Hall	The client security system is not supervised and does not facilitate producing reports (**4D12-6.3A, B**)	If call system is added to Building 4D12, consider integrating the client security system with the call system
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-09'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency power loads probably include lighting and fire alarm; standby power loads probably include systems receptacles and the telecom cabinet (panel locked)	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equipmt**					

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire doors separating the two halves of the cottage	wall separating the two halves of the cottage	Not maintained as self closing	repair
	8.3 WSEC					

Comments:

Architectural:
Use: Assisted Living/ICF (formerly Boarding Home). Maximum occupancy: 15. The Cottage needs to have soiled and clean utility functions separated from laundry functions, ADA improvements to toilet rooms and kitchens, and the installation of a Call System in order to comply with current State Regulations. The basement Mechanical Room has flooded several times in the last 15 years due to stormwater issues during fast thaws during the winter (4D12-6).

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Two steam heating coils and two chilled water coils allow zoning of the building into two separate temperature control areas.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

CASCADE WAY
5874-5875

4D**12**

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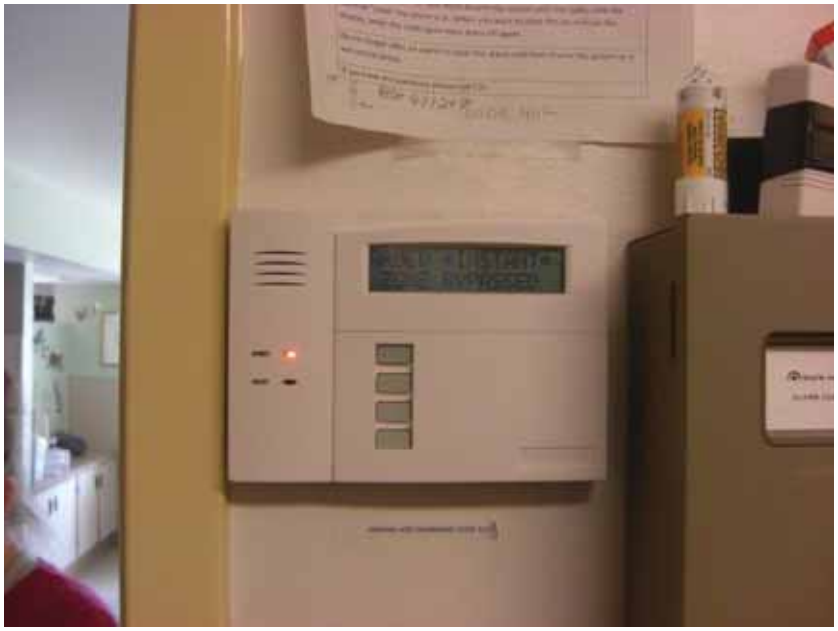

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CASCADE WAY 5874-5875

4D12

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Willow Court 5876-5877	4D13
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,341	1	1978	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	2001	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2 Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.3 Basement Walls	3	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	NA	NA
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	NA	NA
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained (See Photo **4D13-1.6**)	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing where damaged
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames	Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	entire building	Shingles are badly weathered (**4D13-1.9**)	Replace asphalt shingles
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	3	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	3	Homogeneous sheet vinyl with top set base; coved base at toilet rooms	throughout	limited gaps in the floor seaming	repair floor seams
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood trim are weathered and deteriorating; needs maintenance before moisture in the wall becomes a problem. Wood fins at window jambs already removed.	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1, M3	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	**3**	225 kVA pad-mounted Transformer '4-03' outside supplies a 400 Amp normal power service to Building 4D13, and also serves Buildings 4D12 and 4D14 at 120/208 Volts; the capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; the normal power demand load is about 23.9 kVA, or 37.3 kVA with adjustments; the demand load would increase to about 43.4 kVA if the emergency/ standby power loads were included	Outside W of Building 4D13	Transformer '4-03' is tilted significantly due to settlement under pad (photos **4D12-6.1A, 6.2A**)	Replace concrete pad under equipment and reinstall Transformer '4-03'
		4	75 kVA pad-mounted Transformer '5-09' outside supplies a 50 Amp emergency power service to Building 4D13, and also serves Buildings 4D12, 4D14, 4D15, 4D16 and 4D17 at 120/208 Volts; capacity is 12.5 kVA if the 75 kVA transformer is shared equally by the 6 buildings; as currently loaded, the emergency/standby power load is about 6.1 kVA	Outside between Buildings 4D14 and 4D15	No capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution		Similar to Building 4D10			
	6.2a Lighting		Similar to Building 4D10			
	6.2b Branch Wiring		Similar to Building 4D10			
	6.3a Telecom		Similar to Building 4D10			
	6.3b Other Comm		Similar to Building 4D10			
	6.3c Fire Alarm		Similar to Building 4D10			
	6.3d Security		Similar to Building 4D10			
	6.4 Emerg Power		Similar to Building 4D10			
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire doors separating the two halves of the cottage	wall separating the two halves of the cottage	Not maintained as self closing	repair
	8.3 WSEC					

Comments:

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Architecture:
Use: Assisted Living/ICF (formerly Boarding Home). Maximum occupancy: 15. The Cottage needs to have soiled and clean utility functions separated from laundry functions, ADA improvements to toilet rooms and kitchens, and the installation of a Call System in order to comply with current State Regulations.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Two steam heating coils and two chilled water coils allow zoning of the building into two separate temperature control areas.

***Rating System: 1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

WILLOW COURT
5876-5877

4D**13**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Willow Court 5878-5879	4D14
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,341	1	1978	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	Never	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2 Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.3 Basement Walls	4	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	Waterproofing on perimeter walls has failed, perimeter walls leak	Dig out perimeter walls and re-waterproof CMU
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	Insulation is disturbed during maintenance access	Greater care during maintenance activities
	1.6 Exterior Walls	4	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained (See Photo **4D14-1.6A**), Water from roof flowing down wall (**4D14-1.6B**)	Needs cleaning and painting, Add gutters at roof.
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing where damaged
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; sliding glass door to covered patio	Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	entire building	Shingles are badly weathered (**4D14 - 1.9 A, B**)	Replace asphalt shingles
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	3	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.15 Floor Finishes	5	Vinyl composition tile and sheet vinyl with top set base; coved base at toilet rooms	throughout	Finished flooring is failing through the building (**4D14-1.15**). Sheet vinyl flooring and flooring mastics are know to be asbestos containing.	Replace floor covering
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	3	Reinforced CMU foundation walls with vented crawl space.		Previous water in the crawl space causing soil erosion around wood posts and concrete footings; troughs need to be filled with soil. (**4D14-2.1A, 4D14-2.1B**)	
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood trim are weathered and deteriorating; needs maintenance before moisture in the wall becomes a problem. Wood fins at window jambs already removed. (**4D14-2.2A, 4D14-2.2B**)	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1, M3	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '4-03' outside supplies a 400 Amp normal power service to Building 4D14, and also serves Buildings 4D12 and 4D13 at 120/208 Volts; the capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; based on the meter reading for Cottage Buildings 4D12 and 4D13, the normal power demand load is about 11.5 kVA, or 21.8 kVA with adjustements; if the emergency/ standby power loads were included, the demand load would increase to about 27.9 kVA	Outside W of Building 4D13	Transformer '4-03' is tilted significantly due to settlement under pad (photos **4D12-6.1A, 6.2A**)	Replace concrete pad under equipment and reinstall Transformer '4-03'
		4	75 kVA pad-mounted Transformer '5-09' outside supplies a 50 Amp emergency power service to Building 4D14, and also serves Buildings 4D12, 4D13, 4D15, 4D16 and 4D17 at 120/208 Volts; capacity is 12.5 kVA if the 75 kVA transformer is shared equally by the 6 buildings; if loaded similarly to the Emergency Panel in Building 4D13, the emergency/standby power load would be about 6.1 kVA	Outside between Buildings 4D14 and 4D15	No capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	3	Westinghouse B10B main Panel '2NA' with 400 Amp main circuit breaker; Westinghouse B10B subfed panelboard in Basement; Panels '2NA' and '2NB' have about 15 spare circuits and an ample quantity of spaces	1st Floor Hall; Basement Mechanical Room	Emergency power not segregated by branch; no arc-fault interrupter circuit breakers (photo **4D14-6.1A**)	Add circuit breakers to Panel '2NA' or Panel '2NB' to feed the normal power side of local automatic transfer switches; replace circuit breakers for bedroom circuits with circuit breakers having arc-fault circuit interrupters

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.2a Lighting	4	Old Bryant emergency power loadcenter with 50 Amp main circuit breaker	1st Floor Hall	Obsolete equipment; emergency power not segregated by branch (photo **4D14-6.1B**)	Replace the emergency power loadcenter with two panelboards, and segregate loads by branch
	6.2a Lighting	3	Interior lighting mainly consists of Fluorescent luminaires, Circuline Fluorescent luminaires, and Compact Fluorescent Luminaires	Building interior	A few downlights are dangling by the flexible conduit that connects the lamp assembly to the ballast (photo **4D14-6.2A**)	Reinstall dangling downlights or replace with properly mounted new downlights
		2	Exterior lighting consists of HID or Compact Fluorecent canopy luminaires and wall-pack luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Hall	None	None
	6.3b Other Comm	2	TV antenna and dish	Roof	None	None
		5	No call system	NA	Building lacks a call system as required for Assisted Living Assisted Living Facilities (Boarding Homes)	If building is to function as a Assisted Living Facility (Boarding Home), add a call system complying with current codes
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Hall	None	None
	6.3d Security	4	Exterior doors are connected to fire alarm system for monitoring	Exterior doors	Opening exterior doors causes a supervisory alarm which initiates a beeping tone	Disconnect door contacts from fire alarm; if doors must be monitored provide wireless monitoring, possibly through the Building's call system

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-09'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency power loads include lighting and fire alarm; standby power loads include systems receptacles, the telecom cabinet, and possibly some mechanical equipment	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework (photo **4D14-7.2**)	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	5	Exposed expanded polystyrene insulation	crawlspace	Fire hazard	Dig out foundation and place foundation insulation outside crawlspace
	8.3 WSEC					

Comments:

Architectural:
Use: Assisted Living/ICF (formerly Boarding Home); Currently Vacant. Maximum occupancy: 15. The Cottage needs to have soiled and clean utility functions separated from laundry functions, ADA improvements to toilet rooms and kitchens, and the installation of a Call System in order to comply with current State Regulations.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Two steam heating coils and two chilled water coils allow zoning of the building into two separate temperature control areas.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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WILLOW COURT
5878-5879

4D**14**

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4D14-1.9A.JPG

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4D**14**

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4D**14**

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4D**14**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Sunrise Court 5880-5881	4D15
NAC #111-14011-A206	April 21, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,430	1	1978	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	Never	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2 Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.3 Basement Walls	4	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	Waterproofing on perimeter walls has failed, perimeter walls leak	Dig out perimeter walls and re-waterproof CMU
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	A mold bloom in the attic insulation	remove insulation, decontaminate, and install new insulation
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing where damaged
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; sliding glass door to covered patio	Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	3	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	3	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	5	Vinyl composition tile and sheet vinyl with top set base; coved base at toilet rooms	throughout	Finished flooring is failing through the building. Sheet vinyl flooring and flooring mastics are know to be asbestos containing.	Replace floor covering

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space; water main through crawl space.		Water main potential hazard. (**4D15-2.1A**)	
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood trim weathered and start of deteriorating wood; needs maintenance before moisture in the wall becomes a problem. (**4D15-2.2A, 4D15-2.2B**)	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1, M3	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '4-02' outside supplies a 400 Amp normal power service to Building 4D15, and also serves Buildings 4D16 and 4D17 at 120/208 Volts, as well as Building 4D18 (unoccupied Miller-Bruyan Hall); the capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings (besides Miller-Bryan Hall); the service is metered; based on the meter reading for Cottage Building 4D10, the normal power demand load if Building 4D15 were occupied would be about 27.2 kVA, or 42.4 kVA with adjustments; if the emergency/ standby power loads were included, the demand would increase to 48.5 kVA	Outside between Buildings 4D16 and 4D17	Transformer '4-02' is tilted significantly due to settlement under pad (photo **4D15-6.1A**)	Replace concrete pad under equipment and reinstall Transformer '4-02'
		4	75 kVA pad-mounted Transformer '5-09' outside supplies a 50 Amp emergency power service to Building 4D15, and also serves Buildings 4D12, 4D13, 4D14, 4D16 and 4D17 at 120/208 Volts; capacity is 12.5 kVA if 75 kVA transformer is shared equally by the 6 buildings; if loaded similarly to the Emergency Panel in Building 4D13, the emergency/standby power load would be 6.1 kVA	Outside between Buildings 4D14 and 4D15	No capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	3	Westinghouse B10B main Panel '1NC' with 400 Amp main circuit breaker; Westinghouse B10B subfed panelboard in Basement; Panel '1NC' has about 15 spare circuits and an ample quantity of spaces (Photos **4D15-6.1B, C, D**)	1st Floor Hall; Basement Mechanical Room	No normal power feed to automatic transfer switches; no arc-fault interrupter circuit breakers	Add circuit breakers to Panel '1NC' to feed the normal power side of local automatic transfer switches; replace circuit breakers for bedroom circuits with circuit breakers having arc-fault circuit interrupters

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	Old Bryant emergency power loadcenter with 50 Amp main circuit breaker	1st Floor Hall	Obsolete equipment; emergency power not segregated by branch (photos 4D15-6.1B, C, D)	Replace the emergency power loadcenter with two panelboards, and segregate loads by branch
	6.2a Lighting	2	Interior lighting mainly consists of Fluorescent luminaires, Circuline Fluorescent luminaires, and Compact Fluorescent Luminaires	Building interior	None	None
		2	Exterior lighting consists of HID or Compact Fluorecent canopy luminaires and wall-pack luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Hall	None	None
	6.3b Other Comm	2	TV antenna and dish	Roof	None	None
		5	No call system	NA	Building lacks a call system as required for Assisted Living Assisted Living Facilities (Boarding Homes)	If building is to function as a Assisted Living Facility (Boarding Home), add a call system complying with current codes
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Hall	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-11'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency power loads include lighting and fire alarm; standby power loads include systems receptacles and the telecom cabinet	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework (See Photo **4D15-7.2A, B**)	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	5	Exposed expanded polystyrene insulation	crawlspace	Fire hazard	Dig out foundation and place foundation insulation outside crawlspace
	8.3 WSEC					

Comments:

Architectural:

Use: Assisted Living/ICF (formerly Boarding Home); Currently Vacant and being used for storage. Maximum occupancy: 15. The "Great Room" concept of the original building floor plan was not conducive to its use as a Cottage for the Developmentally Disadvantaged. The Cottage needs to have soiled and clean utility functions separated from laundry functions, ADA improvements to toilet rooms and kitchens, and the installation of a Call System in order to comply with current State Regulations. An active Campus water main is routed through the building crawlspace and a break, if it should ever occur, will threaten the entire structure.

Mechanical:

M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Two steam heating coils and two chilled water coils allow zoning of the building into two separate temperature control areas.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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4D15

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SUNRISE COURT 5880-5881

4D15

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Sunrise Court 5882-5883	4D16
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,716	1	1978	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	2009	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2a Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.2b Slab on Grade	3	Sheet vinyl or concrete	Area of 2009 additions	NA	NA
	1.3 Basement Walls	3	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	NA	NA
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	NA	NA
	1.6 Exterior Walls	2	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior (Photo **4D16-1.6)**	Perimeter of building	NA	NA
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	NA	NA
	1.8 Exterior Doors	2	Wood or hollow metal in hollow metal frames	Living and Dinning Rooms	NA	NA
	1.9 Roof Coverings	2	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	2	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	2	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	2	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with top set base; coved base at toilet rooms and kitchen	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area; past remodel for enclosed office and mechanical room.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood trim are weathered and deteriorating; needs maintenance before moisture in the wall becomes a problem. Exterior wood fins at windows already removed.	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '4-02' outside supplies a 400 Amp normal power service to Building 4D16, and also serves Buildings 4D15 and 4D17 at 120/208 Volts; the capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; based on the meter reading for Cottage Building 4D08 (occupied), the normal power demand load if Building 4D16 was occupied would be about 30.2 kVA, or 47.1 kVA with adjustments; if the emergency/ standby power loads were included, the demand would increase to 57.4 kVA	Outside N of Building 4D16	Transformer '4-02' is tilted significantly due to settlement under pad (see Phot**o 4D15-6.1A**)	None
		4	75 kVA pad-mounted Transformer '5-09' outside supplies a 30 Amp emergency power service to Building 4D16, and also serves Buildings 4D12, 4D13, 4D14, 4D15 and 4D17 at 120/208 Volts; capacity is 10.8 kVA; if loaded similarly to Panel '3XA' in Building 4D17 or Panel '5XA' in Building 4D08 (both remodeled in 2008), the emergency/standby power load would be 10.3 kVA	Outside between Buildings 4D14 and 4D15	The incoming emergency power service at 30 Amp is very tightly loaded; no capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution		Similar to Building 4D07			
	6.2a Lighting		Similar to Building 4D07			
	6.2b Branch Wiring		Similar to Building 4D07			
	6.3a Telecom		Similar to Building 4D07			
	6.3b Other Comm		Similar to Building 4D07			
	6.3c Fire Alarm		Similar to Building 4D07			
	6.3d Security		Similar to Building 4D07			
	6.4 Emerg Power		Similar to Building 4D07			
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire doors separating the two halves of the cottage	wall separating the two halves of the cottage	NA	NA
	8.3 WSEC					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Comments:

Architectural:
Use: Assisted Living/ICF (formerly Boarding Home). Maximum occupancy: 15. The Cottage meets current State Regulations.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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SUNRISE COURT 5882-5883

4D16

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Sunrise Court 5884-5885	4D17
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,716	1	1978	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board & Care	2009	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and mechanical room walls; pad footings under floor framing	NA	NA
	1.2a Slab on Grade	3	Mechanical room floor	Basement	NA	NA
	1.2b Slab on Grade	3	Sheet vinyl or concrete	Area of 2009 additions	NA	NA
	1.3 Basement Walls	3	Reinforced CMU	Perimeter of Mechanical Room and crawlspace	NA	NA
	1.4 Floor Construction	3	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	NA	NA
	1.5a Attic	5	Blown-in insulation with batt insulation covering sprinkler piping	Attic	NA	NA
	1.6 Exterior Walls	2	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	NA	NA
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	NA	NA
	1.8 Exterior Doors	2	Wood or hollow metal in hollow metal frames	Living and Dinning Rooms	NA	NA
	1.9 Roof Coverings	3	Asphalt shingles	entire building	Some shingles recently damaged (See Photo **4D17-1.9A, B**)	Repair shingles
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	2	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	2	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	2	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with top set base; coved base at toilet rooms and kitchen	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls. Rectangular steel tube beams at the roof corners support, provide unenclosed and covered area; past remodel for enclosed office and mechanical room.		Evidence of past roof leaks, staining and rust on the face of the steel beams. Exterior wood trim are weathered and deteriorating; needs maintenance before moisture in the wall becomes a problem. Exterior wood fins at windows already removed.	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.		Original floor construction used unseasoned lumber that resulted in wood shrinkage and floor squeaks.	
	2.4 Lateral System	3	Rated wood sheathing at roof and floor diaphragms; gypsum wall board at stud walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13R w/ quick response heads installed in 2007	throughout main level	Loose attic insulation gets disturbed when maintenance activities are performed	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Basement Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	3	Chilled Water Pumps	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Pump	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '4-02' outside supplies a 400 Amp normal power service to Building 4D17, and also serves Buildings 4D15 and 4D16 at 120/208 Volts; the capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; the normal power demand load is about 19.7 kVA, or 30.7 kVA with adjustments; if the emergency/ standby power loads were included, the demand would increase to 40.9 kVA	Outside N of Building 4D16	Transformer '4-02' is tilted significantly due to settlement under pad (photo **4D15-6.1A)**	None
		4	75 kVA pad-mounted Transformer '5-09' outside supplies a 30 Amp emergency power service to Building 4D17, and also serves Buildings 4D12, 4D13, 4D14, 4D15 and 4D16 at 120/208 Volts; capacity is 10.8 kVA; as currently loaded, the emergency/standby power load is about 10.2 kVA	Outside between Buildings 4D14 and 4D15	The incoming emergency power service at 30 Amp is very tightly loaded; no capacity for significant heating loads on standby power; the incoming emergency power service does not segregate the emergency branch from the standby branch as required for Assisted Living Facilities (Boarding Homes)	To accommodate any building remodel, the incoming emergency power service should be increased; provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution		Similar to Building 4D07			
	6.2a Lighting		Similar to Building 4D07			
	6.2b Branch Wiring		Similar to Building 4D07			
	6.3a Telecom		Similar to Building 4D07			
	6.3b Other Comm		Similar to Building 4D07			
	6.3c Fire Alarm		Similar to Building 4D07			
	6.3d Security		Similar to Building 4D07			
	6.4 Emerg Power		Similar to Building 4D07			
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire doors separating the two halves of the cottage	wall separating the two halves of the cottage	NA	NA
	8.3 WSEC					

Comments:

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Architectural:
Use: Assisted Living/ICF (formerly Boarding Home). Maximum occupancy: 15. The Cottage meets current State Regulations.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life. One of two pump motor was recently replaced.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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4D**17**

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BUILDING ASSESSMENT

Medical Lake Infrastructure Master Plan
#2014-415

NAC #111-14011-A206	March 17, 2014	Project	**Miller & Bryan Hall** Building Name	**4D18** Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
38,650	4	?	IBC = V LSC = V	IBC = NA LSC = NA	Not remodeled	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	3	Concrete			
	1.2 Slab on Grade	3	Concrete			
	1.3 Basement Walls	3	Concrete			
	1.4 Floor Construction	3	Concrete			
	1.5 Roof Construction	4	Wood framed		Evidence of previous fire in attic (See Photo **4D18-1.5**); Bat infestation	
	1.6 Exterior Walls	4	Brick masonry			
	1.7 Exterior Windows	4	Steel windows with single glazing (**4D18-1.7**)			
	1.8 Exterior Doors	4	Hollow metal door in wood frame			
	1.9 Roof Coverings	4	Clay tile (Photo **4D18-1.9**)			
	1.10 Roof Openings	3	Cupola (Photo **4D18-1.9**)			
	1.11 Interior Partitions	4	Plaster over brick masonry			
	1.12 Interior Doors	0				
	1.13a Stair Constn/Finishes - Interior	0	NA		Open stair well (**4D18-1.13A**)	
	1.13a Stair Constn/Finishes - Exterior			Emergency stairs from floors above grade (**4D18-1.13B, C, D, E**), and Basement (**4D18-1.13G**)		
	1.13a Stair Constn/Finishes - Main Entry		(**4D18-1.13F**)			
	1.14 Wall Finishes	4	Painted plaster			
	1.15 Floor Finishes	4				
	1.16 Ceiling Finishes	4	Painted plaster			
	1.17 Elevators & Lifts	0	NA			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	4	Undocumented construction; two and one-half story building above exterior grade and one-half story below exterior grade with concrete foundation walls, columns and basement slab on grade; likely unreinforced or minimally reinforced. Exit stairs wood is unprotected and deteriorated.		Shrinkage cracks in the foundation walls. (**4D18-2.1A**) Unreinforced concrete prohibited by current codes.	
undocumented construction: circa 1914	**2.2 Struct. Bearing Walls**	5	Unreinforced brick masonry at exterior walls; undocumented construction, (3 wythes, about 13" thick exterior walls).		Unreinforced masonry not permitted by code; poor wall conditions especially deteriorated mortar joints (**4D18-2.2A**)	
	2.3 Structural Frame	4	Undocumented construction, assumed concrete floor slabs, joists, beams, and columns. Heavy timber roof framing supporting tile roofing with attic space; interior concrete and masonry bearing walls. Exposed wood exit stairs at east and west ends of building.		There was a limited fire in the attic that minimally reduced the cross sections of the heavy timber roof framing. The wood exit stairs at the east and west ends of the building are exposed to the weather and have deteriorated with unprotected wood surfaces; current capacity unknown (**4D18-2.3A, 4D18-2.3B, 4D18-2.3C**)	
	2.4 Lateral System	5	Unreinforced brick shear walls with brick parapets; concrete floor diaphragms; diagonal wood sheathing roof diaphragm.		Unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely; deficiency exacerbated by heavy roof and floor construction.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	5	Sinks, water closets	Throughout	M1	
	4.2 Water Distribution	5	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	5	Roof Drains and Piping	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	5	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	5	Steam Radiators	Throughout	M1	
	5.1c HVAC Equipment	5	Tunnel Ventilation Fan	Basement Mech Room	M1	
	5.3 Controls/Special Sys.	5	Manual Control		M1	
6.0 Electrical	**6.1a Elec Service**	4	200 Amp fused switch mounted to side of 225 kVA pad-mounted Transformer '4-02' outside supplies a 200 Amp normal power service to Building 4D15, and also serves Buildings 4D14 and 4D16 at 120/208 Volts	Outside between Buildings 4D16 and 4D17	Capacity of Transformer '4-02' for other buildings would be reduced if Miller-Bryan Building was drawing significant power; capacity of service is far too small for a building of this size if the building were in use (photos **4D18-6.1A, B**)	Another source of power would be needed if building were to be used

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.1b Elec Distribution	5	200 Amp ain distribution panel or disconnects in Basement (locked); very old circuit breaker loadcenters on floors	Basement, 1st Floor, 2nd Floor	Equipment is old and obsolete; loadcenters are of a style that is too small for wiring (photos **4D18-6.1C, D, E, F, G, H**)	Electrical distribution system would need to be replaced if building were to be used
	6.2a Lighting	5	T12 Fluorescent lensed and louvered luminaires	Building Interior	Old luminaires; not all are operating; T12 lamps are no longer standard (photos **4D18-6.2A, B**)	Lighting would need to be replaced if building were to be used
		5	Incandescent globe and Incandescent sockets	Various Rooms	Old luminaires; not all are operating; many have missing lenses; Incadescent lamps require frequent replacement and are inefficient (photos **4D18-6.2C, D, E, F**)	Lighting would need to be replaced if building were to be used
		5	Compact Fluorescent and Incandescent Exit Signs	Halls	Old luminaires; not all are operating; Compact Fluorescent and Incandescent lamping is no longer standard for exit signs (photos **4D18-6.2G, H**)	Exit signs would need to be replaced if building were to be used
	6.2b Branch Wiring	5	Exterior lighting controlled by switches	Basement Electrical Room	No automatic controls for exterior lighting	Automatic exterior lighting controls would need to be added if building were to be used
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Automatic lighting controls would need to be added if building were to be remodeled extensively so it could be used
		4	Receptacles and switches have standard faceplates	Building Interior	Receptacles are sparse; no ground-fault circuit interrupters on receptacles at sinks (photo **4D18-6.2I**)	Receptacles and switches would need to be replaced and rewired if building were to be used
		4	Much of the building wiring is in surface raceway or conduit that is surface-mounted	Building Interior	Surface raceway and surface-mounted conduit detract from building appearance (photos **4D18-6.2J, K, L**)	If building is to be reused, extensive rewiring will be needed
	6.3a Telecom	5	None	NA	Building lacks telecom system	Telecom system would need to be replaced if building were to be used
	6.3b Other Comm	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	2	Simplex 4100U addressable fire alarm system	1st Floor on wall between windows	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	4	Battery-backed emergency lighting units	Halls	Not all halls are covered	Additional battery-backed lighting units would be needed if building were to be used
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					

Comments:

Architectural

This building was last used for dormatory stiyle housing of DD Client about 30 years ago. The building has only been used for miscellaneous storage, and an occasionaly movie set, since then. The building is deteriorating and is in poor condition. While the building may be of some historical interest, it does not comply with current Code requirements, for accessibility, or protected egress from all levels. Recommend Demolition.

Mechanical:

M1: Equipment has been taken out of service.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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4D**18**

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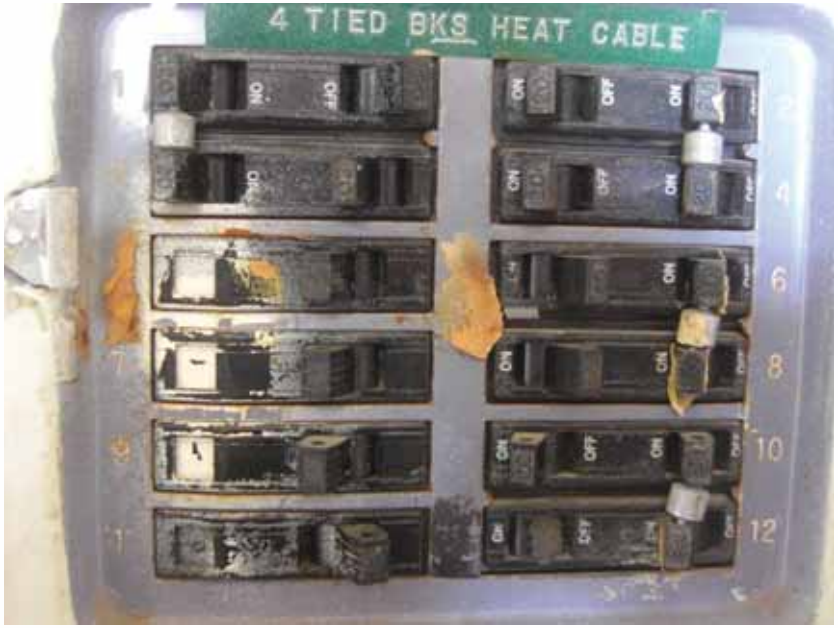

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Carpenter & Paint Shop	4D23
NAC #111-14011-A206	March 17, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
	1 + Partial Basement	?	IBC = IIB LSC = II(000)	IBC = F-1 LSC = Industrial	?	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete			
	1.2 Slab on Grade	3	Concrete			
	1.3 Basement Walls	3	Concrete			
	1.4 Floor Construction	3	Concrete			
	1.5 Roof Construction	3	Wood framed trusses with preformed metal roofing			
	1.6 Exterior Walls	3	Concrete and concrete masonry			
	1.7 Exterior Windows	3	Steel window with single glazing			
	1.8 Exterior Doors	3	Hollow metal door in wood frame			
	1.9 Roof Coverings	3	Preformed metal roofing			
	1.10 Roof Openings					
	1.11 Interior Partitions	0				
	1.12 Interior Doors	0				
	1.13 Stair Constn/Finishes	0	NA			
	1.14 Wall Finishes	3	Painted CMU or concrete			
	1.15 Floor Finishes	3	Exposed concrete			
	1.16 Ceiling Finishes	3	Wood panels, painted			
	1.17 Elevators & Lifts	0	NA			
2.0 Structural	**2.1 Foundations**	5	Concrete foundation walls, undocumented construction; likely unreinforced or lightly reinforced.		Some shrinkage cracks in the foundation walls. The concrete slab and walls at the area south of the building at the east end have significant deterioration and are hazardous. (Photos **4D23-B2.1A, 4D23-2.1B, 4D23-2.1C**)	
	2.2 Struct. Bearing Walls	4	Exterior perimeter walls of carpenter shop and east end wall of paint shop are CMU walls, undocumented construction; likely unreinforced due to age and condition. East and west exterior walls of paint shop and all exterior walls of the north lower level mechanical room are concrete walls, undocumented construction; likely lightly reinforced due to the condition and cracks.		Unreinforced masonry and concrete walls are not permitted by code; poor CMU masonry mortar joints, various cracks in the CMU and concrete walls. (Photos **4D23-2.2A, 4D23-2.2B**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	5	Wood sheathing over sawn lumber roof joists, supported by heavy timber trusses. Concrete slab on grade for majority of the shop floors. Concrete floor slab and beams at the shop floor above the north lower level mechanical room.		The wood roof framing in the carpenter's storeroom area is discolored from possible roof leaks; signs of moisture stains near the top of the CMU walls from previous roof leaks. At the bottom chord of a few heavy timber trusses, the ends of the diagonal web members have been cut flush with the bottom of the truss, exposing the steel shear plates of the bolted joint connection. This condition has significantly reduced the load carrying capacity of the each roof truss. Consequences could include sudden failure of the truss. (Photos **4D23-2.3A** through **4D23-2.3G**)	
	2.4 Lateral System	5	Unreinforced CMU shear walls; lightly reinforced concrete shear walls; wood sheathing roof diaphragms.		Unreinforced masonry and concrete walls are prohibited by code; significant roof diaphragm anchorage to walls is unlikely.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	--	No Plumbing fixtures			
	4.3 Rain Water Drainage	--	Sloping roof; no roof rains			
5.0 HVAC	**5.1a HVAC Equipment**	2	Steam Unit Heaters	Main Level		
	5.1b HVAC Equipment	2	Condensate Receiver/Pump Unit	Main Level		
	5.3 Controls/Special Sys.	2	Local Manual Controls	Main Level		
6.0 Electrical	**6.1a Elec Service**	2	75 kVA pad-mounted Transformer '2-20' outside supplies 400 Amp underground service to pole, and overhead from the pole to a weatherhead mast on Building 4D23 at 120/208 Volts	Outside NW of Building 4D23	None	None
	6.1b Elec Distribution	3	General Electric TMB 400 Amp panelboard with 400 Amp main circuit breaker; circuit 42 supplies Building 4D24 lights and receptacles	Carpentry Shop North wall	No spare circuit breakers	Add a second panelboard instead of the adjacent loadcenter to allow more spare circuits
		2	Square D Type QO 30 Amp loadcenter	Carpentry Shop North wall	None	None
		4	Federal Pacific Stab-Lok 125 Amp loadcenter; circuit 9 supplies lights and receptacle at campus main medium-voltage substation	Paint Shop	Federal Pacific loadcenter is obsolete equipment (photos **4D23-6.1A, B**)	Replace loadcenter with a full-size panelboard

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.2a Lighting	2	Fluorescent, Circuline Fluorescent and Compact Fluorescent luminaires	Building Interior	None	None
		2	Fluorescent and Compact Fluorescent luminaires	Building Exterior	None	None
		5	No illuminated exit signs	NA	Building lacks illuminated exit signs (photo **4D23-6.2A**)	Add exit signs with LED lamps and battery-backup
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Local	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	Some switches have improper faceplate; no ground-fault circuit interruper on receptacle near sink (photos 4D23-6.2B, C)	Replace receptacle near sink with ground-fault circuit interrupter receptacle
	6.3a Telecom	4	Two 4 pair copper cables undergound, probably from Building 4D01	Punch-down Block on wall	No data cabling; no fiber-optic network connection; no protector panel (photo **4D23-6.3A**)	Add a protector panel; consider adding a fiber-optic line to the Carpenter Shop
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	4	Antiquated Simplex fire alarm system with heat detectors, pull stations, and bell/light signal units	Building Interior	The old Simplex fire alarm system is obsolete and in need of replacement; replacement parts are not avaialble; burn hole in battery cabinet; not connected to campus network (photos **4D23-6.3B, C, D, E**)	Provide new addressible fire alarm system to replace the obsolete system; connect to campus fiber-optic network
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	No emergency power system	NA	Building lacks backup power for egress lighting	Add battery-backed emergency lighting units
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Comments:

Architectural:
Due to unsafe roof structure, recommend demolition.

Mechanical:
M1: Unit is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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_4D23-C.JPG

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CARPENTRY & PAINTING SHOP

4D**23**

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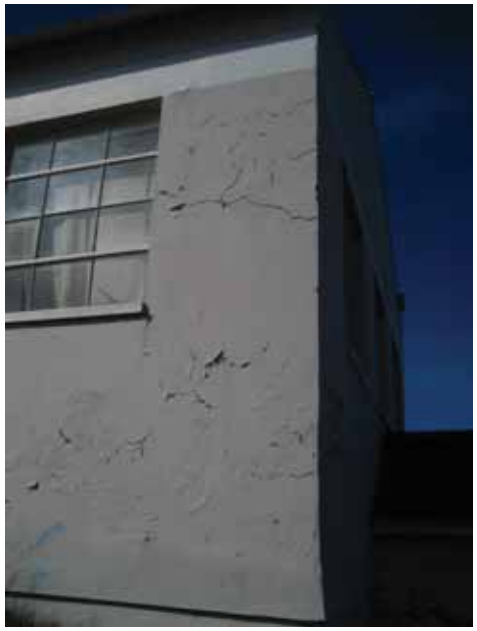
4D23-2.1A.JPG



4D23-2.1B.JPG

4D23-2.1C.JPG

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4D23-6.2A.jpg

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4D23-6.3D.jpg

4D23-6.3E.jpg

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Carpenters Storage	4D24
NAC #111-14011-A206	March 17, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
422	1	?	IBC = VB LSC = V	IBC = S-1 LSC = Storage	?	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete			
	1.2 Slab on Grade	0	NA			
	1.3 Basement Walls	0	NA			
	1.4 Floor Construction	0	NA			
	1.5 Roof Construction	3	Wood framed			
	1.6 Exterior Walls	3	Wood framed with wood or corrugated metal siding			
	1.7 Exterior Windows	3	NA			
	1.8 Exterior Doors	3	Wood			
	1.9 Roof Coverings	3	Asphalt shingles (photo **4D24-1.9**)			
	1.10 Roof Openings					
	1.11 Interior Partitions	0				
	1.12 Interior Doors	0				
	1.13 Stair Constn/Finishes	0	NA			
	1.14 Wall Finishes	0	NA			
	1.15 Floor Finishes	0	NA			
	1.16 Ceiling Finishes					
	1.17 Elevators & Lifts	0	NA			
2.0 Structural	**2.1 Foundations**	5	Concrete foundation walls, undocumented construction; likely unreinforced or lightly reinforced.			
	2.2 Struct. Bearing Walls	5	Exterior sawn lumber wood studs, undocumented construction.		Condition of wood is beyond maintenance and repair; discoloration due to past moisture damage; capacity unknown. (**4D24-2.2A**)	
	2.3 Structural Frame	5	Wood sheathing over sawn lumber roof joists.		Condition of wood is beyond maintenance and repair; discoloration due to past moisture damage; capacity unknown. (**4D24-2.3A**)	
	2.4 Lateral System	5	None observed.		Wood sheathing diaphragms; wood or metal siding have very little shear wall capacity.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	--	No Plumbing fixtures			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	4.3 Rain Water Drainage	--	Sloping roof; no roof rains			
5.0 HVAC	5.1 HVAC Equipment	--	No HVAC Equipment			
6.0 Electrical	6.1 Elec Service & Distrib					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	7.1 Institutional Equipmt					
	7.2 Fixed Furnishings					
8.0 Code Compliance	8.1 Life Safety Code					
	8.2 IBC					
	8.3 WSEC					

Comments:

Architectural:
24'-7" x 30'-6" shed. Recommend Demolition.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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4D24-1.9.JPG

4D24-2.2A.JPG

4D24-2.3A.JPG

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CARPENTRY STORAGE

4D**24**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Welding Shop / Repair Garage	4D25 & 4D26
NAC #111-14011-A206	March 17, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
4,576	1 + Mezzanine	?	IBC = II-B LSC = II (000)	IBC = S-1 LSC = ?	?	Good

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete			
	1.2 Slab on Grade	3	Concrete			
	1.3 Basement Walls	3	Concrete			
	1.4 Floor Construction	3	Concrete			
	1.5 Roof Construction	3	Pre-engineered metal building			
	1.6 Exterior Walls	3	Pre-engineered metal building			
	1.7 Exterior Windows	3	Aluminum with insulated glazing			
	1.8a Exterior Doors - Man doors	3	Hollow metal in hollow metal frames			
	1.8 Exterior Doors - Vehicle Doors	3	Overhead sectional doors			
	1.9 Roof Coverings	3	Preformed metal roofing (See Photo **4D26-1.9**)			
	1.10 Roof Openings		NA			
	1.11 Interior Partitions	3	Concrete masonry, wire mesh			
	1.12 Interior Doors					
	1.13 Stair Constn/Finishes	3	Steel			
	1.14 Wall Finishes	3	Exposed structure			
	1.15 Floor Finishes	3	Exposed concrete			
	1.16 Ceiling Finishes	3	Exposed structure			
	1.17 Elevators & Lifts	3	Vehicle lifts			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with concrete slab on grade.			
	2.2 Struct. Bearing Walls	2	Metal building horizontal girts at exterior walls; interior CMU bearing walls for support of wood framing of partial upper floor.		Crack in interior CMU wall between Repair Garage Shop and Weld Shop. (**4D26-2.2A**)	
	2.3 Structural Frame	2	Metal building roof purlins and metal roofing. Plywood sheathing over sawn lumber joists at upper mezzanine floor supported by interior reinforced CMU walls and glue laminated beams with steel pipe columns.			

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
	2.4 Lateral System	2	Metal building rigid steel frames; horizontal steel tie rods in the plane below the roof purlins. Rated wood sheathing at the upper floor diaphragm; interior reinforced CMU shear walls below the upper floor.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	-	4D25 - No Plumbing fixtures			
		-	4D26 - No Plumbing fixtures			
	4.3 Rain Water Drainage	-	4D25 -Sloping roof; no roof rains			
		-	4D26 - Sloping roof; no roof rains			
5.0 HVAC	**5.1a HVAC Equipment**	3	4D25 -Air Handling Unit	Suspended		
		3	4D26 - Air Handling Unit	Elevated Platform		
	5.1b HVAC Equipment	3	4D26 - Vehicle Exhaust System	Suspended		
	5.1c HVAC Equipment	3	4D26 - Steam Piping	Throughout		
	5.1d HVAC Equipment	3	4D26 - Condensate Receiver/Pump	Main Level		
	5.2 HVAC Distribution	3	4D25 -Ductwork, grilles	Suspended		
		3	4D26 - Ductwork, grilles	Suspended		
	5.3 Controls/Special Sys.	3	4D25 -Pneumatic Controls			
		3	4D26 - Pneumatic Controls	Throughout		
6.0 Electrical	**6.1a Elec Service**	2	150 kVA pad-mounted Transformer '2-04' outside supplies 600 Amp underground service to Building 4D26 at 120/208 Volts	Outside S of Building 4D26	None	None
	6.1b Elec Distribution	3	Westinghouse B10B 600 Amp main panelboard, 2-section Panel '1NE'	Repair Garage Supply Office	No more than 3 spare circuit breakers; panel index needs to be updated	Add another sub-fed panelboard in Repair Garage to provide some spare circuit breakers; update circuit index
		3	General Electric TM42 loadcenter	Welding Shop (Building 4D25)	No spare circuit breakers; panel index is not up-to-date	Add spare circuit breakers in existing loadcenter; update circuit index
	6.2a Lighting	2	Fluorescent luminaires	Building Interior	None	None
		2	High Pressure Sodium and Fluorescent luminaires	Building Exterior	None	None
		5	No illuminated exit signs	NA	Building lacks illuminated exit signs (photo **4D26-6.2A**)	Add exit signs with LED lamps and battery-backup

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Local	Some exterior luminaires are not controlled by the photocell (photo **4D26-6.2B**)	Connect exterior luminaires not controlled by photocell so that they are automatically controlled
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	4	Copper cable undergound, probably from Building 4D01; three 4-pair Category 5e cables, probably from Building 4D31	Protector Panel on wall	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	4	Antiquated Simplex fire alarm system with heat detectors, pull stations, and bell/light signal units	Building Interior	The old Simplex fire alarm system is obsolete and in need of replacement; replacement parts are not avaialble; not connected to campus network (photos **4D26-6.3A, B**)	Provide new addressible fire alarm system to replace the obsolete system; connect to campus fiber-optic network
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	No emergency power system	NA	Building lacks backup power for egress lighting	Add battery-backed emergency lighting units
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	5	Fire doors	Separation between welding and vehicle repair	Doors have been removed (photo **4D26-8.2**)	Reinstall missing doors
	8.3 WSEC					

Comments:

Architectural:
50'-3" x 91'-1", with 19"-11" x 36'-8" open Vehicle Wash Bay at East end of Building. While the structure has been given two separate building inventory numbers, it is a single pre-engineered metal building structure. Interior bay height is insufficient to allow vans and other taller vehicles to be raised on the vehicle lifts. The separation between the welding shop and the repair bays has not been maintained, and is no longer required by the Building Code, however fire sprinklers are now required by the Fire Code where "Hot Work" (welding) is done.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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NAC ARCHITECTURE

WELDING SHOP & REPAIR GARAGE

4D25
4D26

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WELDING SHOP & REPAIR GARAGE

4D25
4D26

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WELDING SHOP & REPAIR GARAGE

4D25
4D26

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Receiving Warehouse/Support Service Plant	4D27 & 4D31
NAC #111-14011-A206	April 21, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
19,136	1 + Mezzanine	1954	IBC = IIB LSC = II(000)	IBC = B LSC = Business	NA	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of building	NA	NA
	1.2 Slab on Grade	0	Concrete	NA	NA	NA
	1.3 Basement Walls	0	NA	NA	NA	NA
	1.4 Floor Construction	3	Concrete slab on grade	floor	NA	NA
	1.5 Roof Construction	3	Wood over wood truss joists	roof	NA	NA
	1.6 Exterior Walls	3	Concrete masonry	Perimeter of building	NA	NA
	1.7 Exterior Windows	3	Aluminum	throughout	NA	NA
	1.8 Exterior Doors	3	Hollow metal in hollow metal frames		NA	NA
	1.9 Roof Coverings	2	Metal roofing	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	Concrete masonry	throughout	NA	NA
	1.12 Interior Doors	3	Hollow metal in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Exposed concrete masonry, painted	throughout	NA	NA
	1.15 Floor Finishes	3	Exposed concrete	throughout	NA	NA
	1.16 Ceiling Finishes	3	Exposed structure except in offices and toilet rooms	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA		NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with concrete slab on grade.			
	2.2 Struct. Bearing Walls	3	Exterior reinforced CMU walls.		Many hairline cracks in the face of the masonry walls, some occurring through both faces of the units. (**4D27-2.2A, 4D27-2.2B, 4D31-2.2A, 4D31-2.2B, 4D31-2.2C**)	
	2.3 Structural Frame	2	Plywood sheathing over roof joists with wood chords and metal webs. Partial mezzanine floor with plywood sheathing over floor joists with wood chords and metal webs supported by CMU walls or steel beams and columns.			
	2.4 Lateral System	2	Roof and mezzanine floor plywood diaphragms; exterior CMU shear walls.			
3.0 Fire Protection	**3.1 Fire Service**	3	Standard 6" fire service entry. 60 psi static pressure	Warehouse area	No Backflow preventer. Grandfathered by AHJ.	Provide backflow preventer upon any remodel
	3.2 FP System	2	Standard response heads throughout	Warehouse area	None noted	None required

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets, urinals	Throughout	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Main Level	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping Roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Steam Horizontal Fan Coil Units	Suspended	M1	
	5.1c HVAC Equipment	3	Steam/DX Horizontal Fan Coil Unit	Suspended	M1, M4	
	5.1d HVAC Equipment	3	Condensate Receiver/Pump Unit	Mechanical Room	M1	
	5.1e HVAC Equipment	3	Exhaust Fan and Snorkel Set	Welding Bench	M1	
	5.1f HVAC Equipment	3	Condensing Unit	Outdoors	M1	
	5.1g HVAC Equipment	3	Through-Wall Air Conditioner	Wall	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1, M3	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	
6.0 Electrical	**6.1a Elec Service**	3	4D27- 225 kVA pad-mounted Transformer '2-02' outside supplies 600 Amp underground service to Building 4D27 at 120/208 Volts	4D27- Outside S of Building	4D27- Transformer '2-02' is tilted significantly due to settlement under pad (photos 4D27-6.1A, B)	4D27- Replace concrete pad under equipment and reinstall Transformer '2-02'
		NA	4D29 -None	4D29 -NA	4D29 -None	4D29 -None
		3	4D30 - 500 kVA pad-mounted Transformer '2-05' outside supplies 1200 Amp underground service to Building 4D30 at 120/208 Volts	4D30 - Outside E of Building 4D30	4D30 - None	4D30 - None
	6.1b Elec Distribution	2	4D27- Westinghouse Pow-R-Line 600 Amp main switchboard	4D27- 1st Floor Electrical Room in SW corner of Building 4D27	4D27- None	4D27- None
		2	4D27- Westinghouse B10B Panels 'S1', 'S2', 'S3' and 'S4'	4D27- 1st Floor Building 4D1		
		2	4D27- Westinghouse B10B Panels 'S5' and 'S6'	4D27- 1st Floor Building 4D27		
		2	4D29- Circuit originates in Panel 'LA' in Building 4D30; probably continues to Building 4D28	Building 4D30 Main Electrical Room	No main overcurrent protection in Building	Add enclosed circuit breaker main
		2	4D30 - Westinghouse B10B 1200 Amp main distribution panelboard	4D30 - 1st Floor Electrical Room in NE corner	4D30 - None	4D30 - None
		2	4D30 - Westinghouse B10B Panel 'E'	4D30 - 1st Floor Electrical Room in NE corner	4D30 - None	4D30 - None
		2	4D30 - Cutler-Hammer Pow-R-Line-C Panel 'DC'	4D30 - 1st Floor Electrical Room in NE corner	4D30 - None	4D30 - None
		1	4D30 - Eaton/Cutler-Hammer Panels 'DA', 'LA', 'M", and 'PA'; circuit 25 in Panel 'LA' supplies lights in Building 4D29	4D30 - 1st Floor Electrical Room in NE corner	4D30 - None	4D30 - None
		2	4D30 - Siemens S1 Panel 'PD'	4D30 - 2nd Floor Office	4D30 - None	4D30 - None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	4D30 - Pelham Electric Manufacturing Panels 'C', 'DB', 'PB', 'PC' and 'LC'	4D30 - 1st Floor Electrical Room in center of Building 4D30, Laundry Folding Room, Linen Storage Room	4D30 - The old Pelham equipment is obsolete and in need of replacement (photos 4D30-6.1A, B, C, D, E)	4D30 - Provide new panelboards to replace obsolete equipment
		4	4D30 - Coast Electric Manufacturing Panel 'ELSH'	4D30 - 1st Floor Storage Room at S end of Building 4D30	4D30 - The old Coast Electric loadcenter is obsolete and in need of replacement (photos 4D30-6.1F, G)	4D30 - Provide new panelboard to replace obsolete loadcenter
	6.2a Lighting	2	4D27- Fluorescent and Compact Fluorescent luminaires	4D27- Building 4D31 Interior and small rooms in Building 4D27	4D27- None	4D27- None
		2	4D27- High Pressure Sodium lumiaires	4D27- Warehouse Room in Building 4D27	4D27- None	4D27- None
		2	4D27- Compact Fluorescent exits sign with battery-backup in Office area; exits elsewhere seem to be clearly identifiable	4D27- Office Area at S end of Building 4D31	4D27- None	4D27- None
		2	4D27- High Pressure Sodium lumiaires	4D27- Building Exterior	4D27- None	4D27- None
		4	4D29 - Compact Fluorescent lamps in screw-in lampholders	4D29 - Building Interior	4D29 - None	4D29 - None
		2	4D30 - Fluorescent luminaires	4D30 - Building Interior	4D30 - None	4D30 - None
		2	4D30 - Circuline Fluorescent luminaires	4D30 - Corridor	4D30 - None	4D30 - None
		5	4D30 - No illuminated exit signs	4D30 - NA	4D30 - Building lacks illuminated exit signs (photo 4D30-6.2A)	4D30 - Add exit signs with LED lamps and battery-backup
		2	4D30 - Fluorescent and Compact Fluorescent luminaires	4D30 - Building Exterior	4D30 - None	4D30 - None
	6.2b Branch Wiring	3	4D27- Exterior lighting controlled by time switch	4D27- 1st Floor Electrical Room in SW corner of Building 4D27	4D27- None	4D27- None
		4	4D27- interior lighting controlled by switches	4D27- Local	4D27- No automatic controls for interior lighting	4D27- Add automatic lighting controls where appropriate
		3	4D27- Receptacles and switches have standard faceplates	4D27- Building Interior	4D27- None	4D27- None
		4	4D29 - Interior lighting controlled by switches	4D29 - Local	4D29 - No automatic controls for interior lighting	4D29 - Add automatic lighting controls where appropriate

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		2	4D29 -Switches have standard faceplates	4D29 -Building Interior	4D29 -Switch faceplate does not cover outlet box (photo 4D29-6.2A)	4D29 -Replace switch faceplate
		2	4D30 - Exterior lighting controlled by photocell and contactor	4D30 - 1st Floor Electrical Room in NE corner	•4D30 - exterior canopy lighting on E side	4D30 - Connect canopy lighting to automatic exterior lighting controls
		4	4D30 - Interior lighting controlled by switches	4D30 - Local	4D30 - No automatic controls for interior lighting	•4D30 - where appropriate
		2	4D30 - Receptacles and switches have standard faceplates	4D30 - Building Interior	4D30 - None	4D30 - None
		4	4D30 - Exterior receptacles have flip-lid covers	4D30 - Building Exterior	4D30 - Exterior receptacle on E side of building has broken cover (photo 4D30-6.2B)	4D30 - Replace cover with weather-proof while in use type cover
	6.3a Telecom	2	4D27- Telecom floor-mounted rack, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	4D27- 1st Floor Communications Room in Building 4D31	4D27- None	4D27- None
		2	4D27- Termination of fiber-optic link from Lakeland Village to Eastern State Hospital	4D27- 1st Floor Communications Room in Building 4D31	4D27- None	4D27- None
		NA	4D29 - None	4D29 - NA	4D29 - None	4D29 - None
	6.3a Telecom	2	4D30 - Telecom floor-mounted rack, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	4D30 - 1st Floor Electrical Room in center of Building 4D30	4D30 - None	4D30 - None
	6.3b Other Comm	NA	4D27- None	4D27- NA	4D27- None	4D27- None
		NA	4D29 - None	4D29 - NA	4D29 - None	4D29 - None
		2	Sound system	Laundry Folding Room, Laundry Washer/Dryer Room.	None	None
	6.3c Fire Alarm	2	4D27- Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	4D27- 1st Floor Office at S end of building	4D27- None	4D27- None
		NA	4D29 - None	4D29 - NA	4D29 - None	4D29 - None
		4	4D30 - Antiquated Simplex fire alarm system with heat detectors, pull stations, and bell/light signal units	4D30 - Corridor	4D30 - The old Simplex fire alarm system is obsolete and in need of replacement; replacement parts are not available; not connected to campus network (4D30-6.3A, B, C)	4D30 - Provide new addressible fire alarm system to replace the obsolete system; connect to campus fiber-optic network
	6.3d Security	NA	4D27- None	4D27- NA	4D27- None	4D27- None
		NA	4D29 - None	4D29 - NA	4D29 - None	4D29 - None
		NA	4D30 - None	4D30 - NA	4D30 - None	4D30 - None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.4 Emerg Power	3	4D27- Battery-backed emergency lighting units	4D27- Building Interior	4D27- Battery-backed lighting units do not cover all egress paths	4D27- Add battery-backed emergency lighting units
		NA	4D29 - None	4D29 - NA	4D29 - None	4D29 - None
		3	4D30 - Battery-backed emergency lighting units	4D30 - Building Interior	4D30 - Battery-backed lighting units do not cover all egress paths	•4D30 - emergency lighting units
		2	4D30 - Battery-backed Fire alarm control panel and Carbon Monoxide alarm are powered from emergency power in Building 4D37 (Chiller Plant)	4D30 - Battery-backed Building Interior	4D30 - None	4D30 - None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings	0	NA	NA	NA	NA
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	0	NA	NA	NA	NA
	8.3 WSEC					

Comments:

Architectural:
Use: Warehouse and Support Services Shops (HVAC, Maintenance). Although this building was given two building inventory numbers, the building is a single structure. Access to warehouse loading dock is congested. Warehouse has recently been re-assigned to OSSD.

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant
M3: Range/cooktop does not have an exhaust hood. Most Code Authorities (AHJ) would require a capture hood with exhaust directly to the outdoors
M4: Fan coil for Motor Pool offices contains a steam heating coil and direct expansion cooling coil. Condensing unit outdoors

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

RECIEV. WAREHOUSE & SUPPORT SERVICE PLANT MGT

4D27
4D30

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4D27-2.2A.JPG

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4D27
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RECIEV. WAREHOUSE & SUPPORT SERVICE PLANT MGT

4D27
4D30

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Hazardous Waste	4D28
NAC #111-14011-A206	March 17, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
432	1	?	IBC = VB LSC = V	IBC = H(?) LSC = Storage	?	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete			
	1.2 Slab on Grade	3	Concrete			
	1.3 Basement Walls	3	Concrete			
	1.4 Floor Construction	3	Slab on grade			
	1.5 Roof Construction	3	Wood framed with preformed metal roofing			
	1.6 Exterior Walls	3	Concrete masonry above grade			
	1.7 Exterior Windows	3	Steel window with single glazing			
	1.8 Exterior Doors	3	Hollow metal door in wood frame			
	1.9 Roof Coverings	3	Preformed metal roofing (Photo **4D28-1.9**)			
	1.10 Roof Openings					
	1.11 Interior Partitions	0				
	1.12 Interior Doors	0				
	1.13 Stair Constn/Finishes	0	NA			
	1.14 Wall Finishes	3	Painted CMU or concrete			
	1.15 Floor Finishes	3	Exposed concrete			
	1.16 Ceiling Finishes					
	1.17 Elevators & Lifts	0	NA			
2.0 Structural	**2.1 Foundations**	4	Concrete foundation walls retaining earth along the east, north and west walls, undocumented construction; likely reinforced to resist lateral soil loads.			
	2.2 Struct. Bearing Walls	5	Exterior CMU walls, undocumented construction; likely unreinforced due to age and condition.		Unreinforced masonry not permitted by code; poor CMU conditions especially the masonry mortar joints and at the top of wall cap allowing moisture within the wall, the various shrinkage cracks and stair-stepped cracks. (**4D28-2.2A**)	
	2.3 Structural Frame	5	Straight layup of wood sheathing over sawn lumber roof joists, possibly supported by built-up sawn lumber beams at the center.		Inside of building was inaccessible, roof framing assumed similar to Building 4D29.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	5	Unreinforced CMU shear walls; straight sheathing roof diaphragms.		Unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	--	No Plumbing fixtures			
	4.3 Rain Water Drainage	--	Sloping roof; no roof rains			
5.0 HVAC	**5.1 HVAC Equipment**	3	Exhaust Fan	Roof		
	5.3 Controls/Special Sys.	3	Manual Controls			
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	**7.1 Institutional Equipmt**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					

Comments:

Architectural:
30'-2" x 14'-0" building is set into the hillside. The roof level is near grade at the back of the building (See Photo 4D28-1.9), posing as a potential hazard to Lakeland Village Clients. The building is located directly in line with the main water runnoff path from the hillside west of Lakeland Village. The area floods whenever the capacity of the drainage system is exceeded (about once every 5 years). recommend demolition.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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NAC ARCHITECTURE

FLAMMABLE LIQUID STORAGE

4D**28**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Storage Garage	4D29
NAC #111-14011-A206	March 17, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
3,287	1	?	IBC = V-B LSC = V	IBC = S-1 LSC = Storage	?	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete			
	1.2 Slab on Grade	3	NA			
	1.3 Basement Walls	3	Concrete			
	1.4 Floor Construction	3	Asphalt			
	1.5 Roof Construction	3	Wood framed with preformed metal roofing			
	1.6 Exterior Walls	3	Concrete masonry above grade (Photo **4D29-1.6A, 4D29-1.6B, 4D29-1.6C**)			
	1.7 Exterior Windows	0	NA			
	1.8 Exterior Doors	3	Overhead garage doors, wood man doors (Photo **4D29-1.8**)			
	1.9 Roof Coverings	3	Preformed metal roofing (Photo **4D29-1.9**)			
	1.10 Roof Openings					
	1.11 Interior Partitions	3	Wood framed with wood covering			
	1.12 Interior Doors	0				
	1.13 Stair Constn/Finishes	0	NA			
	1.14 Wall Finishes	3	Painted CMU or concrete			
	1.15 Floor Finishes	3	Asphalt			
	1.16 Ceiling Finishes	3	Exposed structure			
	1.17 Elevators & Lifts	0	NA			
2.0 Structural	**2.1 Foundations**	4	Concrete foundation walls retaining earth along the north and west walls, undocumented; likely reinforced to resist lateral soil loads.		Some shrinkage cracks in the foundation walls. (4D29-2.1A)	
	2.2 Struct. Bearing Walls	5	Exterior CMU walls, undocumented construction; likely unreinforced due to age and condition.		Unreinforced masonry not permitted by code; poor CMU conditions especially the masonry mortar joints and at the top of wall cap allowing moisture within the wall, the various shrinkage cracks and stair-stepped cracks. (**4D29-2.2A, 4D29-2.2B, 4D29-2.2C**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	5	Straight layup of wood sheathing over sawn lumber roof joists, supported by a center built-up sawn lumber beams with random splice locations, and spaced wood posts between vehicle storage. The south exterior CMU wall has vehicle access openings with a continuous concrete header beam.		The wood framing is discolored from long term roof leaks. The random splices of the built-up center beam line is suspect in supporting the require roof snow loads. No positive connection between the beams and posts. (**4D29-2.3A, 4D29-2.3B**)	
	2.4 Lateral System	5	Unreinforced CMU shear walls; straight sheathing roof diaphragms.		Unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely; deficient diaphragm connection to the end walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**	--	No Plumbing fixtures			
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1 HVAC Equipment**	--	No HVAC Equipment			
6.0 Electrical	**6.1a Elec Service**	NA	None	NA	None	None
	6.1b Elec Distribution	2	Circuit originates in Panel 'LA' in Building 4D30; probably continues to Building 4D28	Building 4D30 Main Electrical Room	No main overcurrent protection in Building	Add enclosed circuit breaker main
	6.2a Lighting	4	Compact Fluorescent lamps in screw-in lampholders	Building Interior	None	None
	6.2b Branch Wiring	4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Switches have standard faceplates	Building Interior	Switch faceplate does not cover outlet box (photo **4D29-6.2A**)	Replace switch faceplate
	6.3a Telecom	NA	None	NA	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	NA	None	NA	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	NA	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					

Architectural:
25'-5" x 129'-4" building is set into the hillside. The roof level is near grade at the back of the building. It consists of 12 bays - 8 currently being used for vehicle storage, 3 for Grounds Storage, and 1 for pesticide storage. Recommend Demolition.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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STORAGE GARAGE

4D**29**

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STORAGE GARAGE

4D29

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4D29-6.2A.jpg

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Laundry	4D30
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
25,525	1 + Mezzanine	1954	IBC = IIB LSC = II(000)	IBC = F LSC = Industrial	NA	poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of building	NA	NA
	1.2 Slab on Grade	0	Concrete	NA	NA	NA
	1.3 Basement Walls	0	Reinforced concrete	Perimeter of building	NA	NA
	1.4 Floor Construction	3	Spanning concrete system over crawl space	floor	NA	NA
	1.5 Roof Construction	3	Wood over wood trusses	roof	NA	NA
	1.6 Exterior Walls	4	Concrete masonry	Perimeter of building	Needs repainting	Paint
	1.7 Exterior Windows	3	Aluminum	throughout	NA	NA
	1.8 Exterior Doors	3	Hollow metal in hollow metal frames		NA	NA
	1.9 Roof Coverings	2	Elastomeric single ply	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	Concrete masonry	throughout	NA	NA
	1.12 Interior Doors	3	Hollow metal in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	3	Wood	to Mezzanine office	NA	NA
	1.14 Wall Finishes	3	Exposed concrete masonry, painted	throughout	NA	NA
	1.15 Floor Finishes	3	Exposed concrete in laundry areas, vinyl composition tile in sewing areas	throughout	NA	NA
	1.16 Ceiling Finishes	3	Plaster, painted	throughout	NA	NA
	1.17 Elevators & Lifts	3	NA		NA	NA
2.0 Structural	**2.1 Foundations**	4	Reinforced concrete foundation walls; laundry area reinforced concrete main floor slabs, beams, and columns above crawl spaces; sewing area reinforced concrete slab on grade.		Shrinkage cracks in the foundation walls. (Photo **4D30-2.1A**) Mechanical floor framing in the northeast area is currently being removed and replaced.	
	2.2 Struct. Bearing Walls	4	Along the building perimeter and below the high roof area, there are reinforced concrete beams and concrete columns with infilled unreinforced CMU walls. The parapet walls are reinforced CMU.		Locations of spalled concrete at exterior beams; infilled CMU separating from the concrete columns and beams; parapet masonry mortar joints in poor condition (Photos **4D30-2.2A** through **4D30-2.2E**) Unreinforced masonry not permitted by code	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	4	Diagonal wood sheathing over sawn lumber joists supported by bowstring trusses at the high roof area; diagonal wood sheathing over sawn lumber joists supported by steel beams at the low roof areas; reinforced concrete roof slabs on steel columns at the loading dock area; framed main floor concrete slabs and beams over crawl space.		Bowstring trusses not observed, but construction of this age has not fared well during full design snow load due to sudden collapse. Remedial steel beams and columns have been added over the years.	
	2.4 Lateral System	4	Concrete moment frames with infilled unreinforced masonry shear walls; wood roof diaphragm; concrete floor slab diaphragm.		Concrete moment frames are not adequately reinforced for ductility; unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely; deficiency exacerbated by heavy roof and wall construction.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	0	NA	NA	NA	NA
4.0 Plumbing	**4.1 Plumbing Fixtures**	3	Sinks, water closets, urinals	Throughout	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping Roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	4	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	4	Steam Unit Heaters	Suspended	M1	
	5.1c HVAC Equipment	4	Exhaust Fans	Upper Level Mechanical Rm	M1	
	5.1d HVAC Equipment	4	Exhaust Fans	Exterior Walls	M1	
	5.2 HVAC Distribution	4	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	4	Pneumatic & Direct Digital Controls	Throughout	M2, M3	
6.0 Electrical	**6.1a Elec Service**	3	500 kVA pad-mounted Transformer '2-05' outside supplies 1200 Amp underground service to Building 4D30 at 120/208 Volts	Outside E of Building 4D30	None	None
	6.1b Elec Distribution	2	Westinghouse B10B 1200 Amp main distribution panelboard	1st Floor Electrical Room in NE corner	None	None
		2	Westinghouse B10B Panel 'E'	1st Floor Electrical Room in NE corner	None	None
		2	Cutler-Hammer Pow-R-Line-C Panel 'DC'	1st Floor Electrical Room in NE corner	None	None
		1	Eaton/Cutler-Hammer Panels 'DA', 'LA', 'M", and 'PA'; circuit 25 in Panel 'LA' supplies lights in Building 4D29	1st Floor Electrical Room in NE corner	None	None
		2	Siemens S1 Panel 'PD'	2nd Floor Office	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	Pelham Electric Manufacturing Panels 'C', 'DB', 'PB', 'PC' and 'LC'	1st Floor Electrical Room in center of Building 4D30, Laundry Folding Room, Linen Storage Room	The old Pelham equipment is obsolete and in need of replacement (Photos **4D30-6.1A, B, C, D, E**)	Provide new panelboards to replace obsolete equipment
		4	Coast Electric Manufacturing Panel 'ELSH'	1st Floor Storage Room at S end of Building 4D30	The old Coast Electric loadcenter is obsolete and in need of replacement (Photos **4D30-6.1F, G**)	Provide new panelboard to replace obsolete loadcenter
	6.2a Lighting	2	Fluorescent luminaires	Building Interior	None	None
		2	Circuline Fluorescent luminaires	Corridor	None	None
		5	No illuminated exit signs	NA	Building lacks illuminated exit signs (Photo **4D30-6.2A**)	Add exit signs with LED lamps and battery-backup
		2	Fluorescent and Compact Fluorescent luminaires	Building Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactor	1st Floor Electrical Room in NE corner	No automatic controls for exterior canopy lighting on E side	Connect canopy lighting to automatic exterior lighting controls
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
		4	Exterior receptacles have flip-lid covers	Building Exterior	Exterior receptacle on E side of building has broken cover (photo **4D30-6.2B**)	Replace cover with weather-proof while in use type cover
	6.3a Telecom	2	Telecom floor-mounted rack, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Electrical Room in center of Building 4D30	None	None
	6.3b Other Comm	2	Sound system	Laundry Folding Room, Laundry Washer/Dryer Room,	None	None
	6.3c Fire Alarm	4	Antiquated Simplex fire alarm system with heat detectors, pull stations, and bell/light signal units	Corridor	The old Simplex fire alarm system is obsolete and in need of replacement; replacement parts are not avaialble; not connected to campus network (Photo **4D30-6.3A, B, C**)	Provide new addressible fire alarm system to replace the obsolete system; connect to campus fiber-optic network
	6.3d Security	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.4 Emerg Power	3	Battery-backed emergency lighting units	Building Interior	Battery-backed lighting units do not cover all egress paths	Add battery-backed emergency lighting units
		2	Fire alarm control panel and Carbon Monoxide alarm are powered from emergency power in Building 4D37 (Chiller Plant)	Building Interior	None	None
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings	0	NA	NA	NA	NA
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	0	NA	NA	NA	NA
	8.3 WSEC					

Comments:

Architectural:
Use: Commercial type laundry. The laundry handles the needs of both Lakeland Village and Eastern State Hospital, and does a mix of both linens and personal clothing. The concrete floor of the original Mechanical Room is in a failure mode. A new Mechanical Room is currently (5/2014) being constructed to that the failing concrete floor system can be rebuilt. Recommend replacing this facility with a new building.

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age greatly exceeds Average Service Life.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Steam control valves in the Laundry area are pneumatic. The office area air handling unit has DDC control for the steam valve at the heating coil.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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LAUNDRY BUILDING 4D30

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LAUNDRY BUILDING 4D30

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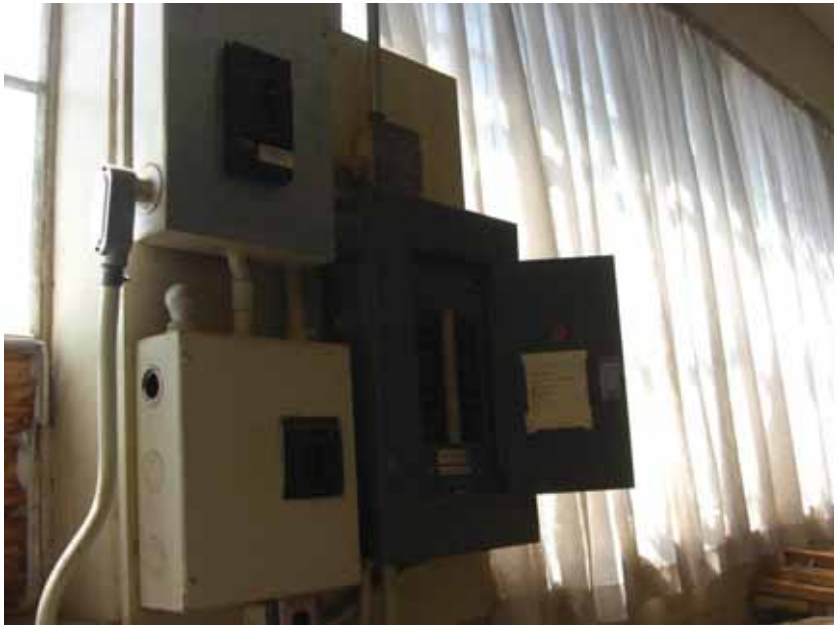

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Food Service	4D32
NAC #111-14011-A20	April 1, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
14,910	1	1980	IBC = IIA LSC = II(111)	IBC = B LSC = Business	NA	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	throughout	NA	NA
	1.2 Slab on Grade	0	Concrete	basement level	NA	NA
	1.3 Basement Walls	2	Concrete masonry	throughout	NA	NA
	1.4 Floor Construction	2	Precast planks	thoughtout	NA	NA
	1.5 Roof Construction	3	Wood framed	throughout	NA	NA
	1.6 Exterior Walls	5	Masonry	Perimeter of building	Terra cotta at parapet is failing	Rebuild parapets
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	NA	NA
	1.8 Exterior Doors	3	Hollow metal in wood frames (Photo **4D32-1.8**)	Ends or corridors	NA	NA
	1.9 Roof Coverings	4	Single ply elastomeric (Photo **4D32-1.9A, 4D32-1.9B, 4D32-1.9C**)	mechanical equipment well	poorly fitted with numerous penetrations	Re-roofing scheduled for 2014
	1.9a Roof Coverings	5	Asphalt shingles	sloped and vertical roof surfaces	Very poor condition	Re-roofing scheduled for 2014
	1.9b Roof Coverings	3	Standing seam metal	East sloping roof	NA	Re-roofing scheduled for 2014
	1.10 Roof Openings	4	Vents, exhaust fans, mech & electrical penetrations	Roof	Poor condition	Re-roofing scheduled for 2014
	1.11 Interior Partitions	3	Concrete masonry	basement level	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames (Photo **4D32-1.12**)	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	Concrete (Photo **4D32-1.13**)	Main entry, and transition to Food Service Building	NA	NA
	1.14 Wall Finishes	3	Paint	throughout	NA	NA
	1.14 Wall Finishes		Ceramic Tile	Kitchen	NA	NA
	1.14 Wall Finishes		FRP	Kitchen	NA	NA
	1.14 Wall Finishes		Galv sheet metal	Kitchen	NA	NA
	1.15 Floor Finishes	2	Vinyl composition tile; slip resistant sheet vinyl on ramps	throughout	Slip resistant sheet vinyl wearing through	Replace sheet vinyl flooring on ramps
	1.15a Floor Finishes		Quarry tile	Kitchen	NA	NA
	1.16 Ceiling Finishes	2	2x4 acoustical lay in ceilings	throughout	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.17 Elevators & Lifts	5	Service elevator (Photo **4D32-1.17**)	From storage in basement	No longer reliable; equipment not in separate room; no cooling provided	Renovate or replace
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls and partial basement mechanical floor concrete slab on grade.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood stud bearing walls with plywood sheathing at the exterior above grade. The basement has CMU walls at the exterior and interior bearing walls.			
	2.3 Structural Frame	3	The roof framing consists of plywood sheathing over sawn lumber joists supported by glue laminated beams at the ceiling level. The main floor framing consists of precast pre-stressed concrete floor panels with concrete topping		The exterior stair has deteriorated wood and will be replaced this year. (Photo **4D32-2.3A**)	
	2.4 Lateral System	2	Plywood sheathing at the roof diaphragm; rated wood sheathing at exterior shear walls above the main floor; precast concrete panels at the main floor diaphragm; exterior and interior basement CMU shear walls.			
3.0 Fire Protection	**3.1 Fire Service**	1	Standard 6" fire service entry. 60 psi static pressure	Basement Storage Room	No deficiencies	None required
	3.2 FP System	2	Standard response heads throughout	Basement Storage Room	None noted	None required
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets, urinals	Throughout	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Main Level	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	3	Roof Drains and Piping	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Makeup Air Unit/Kitchen Exhaust	Roof and Attic	M1, M3	
	5.1c HVAC Equipment	3	Condensate Receiver/Pump Unit	Mechanical Room	M1	
	5.1d HVAC Equipment	3	Air Handling Unit	Attic	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M2	
6.0 Electrical	**6.1a Elec Service**	2	750 kVA pad-mounted Transformer '4-10' outside supplies 2000 Amp underground service to Building 4D32 at 120/208 Volts	Outside N of Building 4D32	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	75 kVA pad-mounted Transformer '5-04' outside supplies 200 Amp underground emergency power servcie to Building 4D32 at 120/208 Volts	Outside N of Building 4D32	The incoming emergency power service does not segregate the emergency branch from the standby branch as required by code	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	2	1978 Westinghouse 2000 Amp main switchboard with fused switches	Basement Electrical Room	Rust and water damage to bottom of equipment (photos **4D32-6.1A, B, C**)	Replace switchboard with new equipment with no devices in bottom 24"
		2	Westinghouse Pow-R-Line 600 Amp Switchboard 'MCCK' with fused switches	Basement Electrical Room	None	None
		2	Westinghouse panelboards	Basement, 1st Floor, 2nd Floor	None	None
		2	Square D NQOD Panel 'NCL'	Basement Electrical Room	None	None
		2	General Electric A-Series Panels 'M1', 'M2', 'M3' and 'M4'	Basement Mechanical Room, 2nd Floor	None	None
		2	Square D loadcenter Panel 'GS'	Wrangler Inn Kitchen mounted under gridddle stand	None	None
		2	Siemens loadcenter Panel 'WI'	Wrangler Inn Kitchen recessed in wall	None	None
		2	1978 Westing house 200 Amp emergency power switchboard with fused switches	Basement Electrical Room	Rust and water damage to bottom of equipment; emergency power not segregated by branch (photos **4D32-6.1D, E**)	Replace switchboard with new equipment with no devices in bottom 24" and separate vertical sections, and segregate loads by branch
	6.2a Lighting	2	Fluorescent and Compact Fluorescent luminaires	Building Interior	None	None
		2	Compact Fluorescent exit signs	Building Interior	None	None
		2	Mercury Vapor and Compact Fluorescent luminaires	Building Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by time switch and contactor	1st Floor Electrical Room	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telephone distribution terminal board in Basement Electrical Room; data cabling is from Basement Communications Room in Building 4D05	Basement Electrical Room	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Office at S end of building	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '5-04'; the transformer is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency loads include egress lighting, fire alarm, sprinkler alarm bell, hood controls and fire protection; & standby loads	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equip**	3	Kitchen equipment	Kitchen	NA	NA
	7.1a Institutional Equip	4	Loading dock equip	Loading dock	Dock bumpers worn	Replace
	7.2 Fixed Furnishings		Cabinets	throughout	NA	NA
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					

Comments:

Architectural:
Use: Food Service - Central food prep kitchen that provides food for all of the Cottages. Includes limited cafeteria. There is 10,670 sq ft of floor area on the main level (excluding the ramped access to the School), and 4,240 sq ft of mechanical, electrical, and dry storage in the basement.

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.
M3: Hydronic Heat Recovery system between the outdoor air and exhaust air streams.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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4D32

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Chapel	4D33
NAC #111-14011-A206	March 17, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
1,326	1	?	IBC = V-B LSC = V(000)	IBC = A LSC = Assembly	?	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete			
	1.2 Slab on Grade	0	NA			
	1.3 Basement Walls	0	NA			
	1.4 Floor Construction	3	Wood framed over crawl space			
	1.5 Roof Construction	3	Wood framed			
	1.6 Exterior Walls	3	Wood framed with wood siding	Perimeter	Paint pealing at siding and trim (See Photo **4D33-1.6A**); Dirt backfilled against the wood siding at front (**4D33-1.6B**)	Repair and repaint
	1.7 Exterior Windows	3	Wood with single glazing			
	1.8 Exterior Doors	3	Wood doors in wood frames			
	1.9 Roof Coverings	3	Single ply elastomeric (Photo **4D33-1.9**)			
	1.10 Roof Openings					
	1.11 Interior Partitions	3	Wood framed			
	1.12 Interior Doors	3	Wood in wood frames			
	1.13 Stair Constn/Finishes	0	NA			
	1.14 Wall Finishes	3	Painted gypsum board			
	1.15 Floor Finishes	3	VCT			
	1.16 Ceiling Finishes	3	Acoustical tile			
	1.17 Elevators & Lifts	0	NA			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	3	Exterior walls sawn lumber wood studs and sheathing; interior sawn lumber studs.		At the east end of the south exterior wall, the exterior grade is against the wood siding which will deteriorate the wood over time. Exterior wood trim is weathered and should be maintained before moisture enters the wall. (Photos **4D33-2.2A, 4D33-2.2B**)	
	2.3 Structural Frame	2	Plywood sheathing over sawn lumber main floor joists with interior lines of built-up sawn lumber beams on wood posts in the crawl space. Plywood sheathing over sawn lumber roof joists.			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	3	Roof and floor plywood diaphragms; exterior wood sheathing shear walls.		The south exterior wall has numerous window and door openings which the remaining wall lengths may not be sufficient to resist lateral loads. (Photo **4D33-2.4A**)	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sink	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Main Level	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	3	Sloping Roof; no Roof Drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Vertical Fan Coils - Electric	Main Level	M1	
	5.1b HVAC Equipment	3	Suspended Unit Heaters - Electric	Main Level	M1	
	5.3 Controls/Special Sys.	3	Local Manual Control	Main Level	M1	
6.0 Electrical	**6.1a Elec Service**	2	225 kVA Transformer '4-06' outside supplies 100 Amp service underground to Builidng 4D33 at 120/208 Volts, and also supplies Buildings 4D09, 4D10 and 4D11	Outside between Buildings 4D09 and 4D10	None	None
	6.1b Elec Distribution	2	100 Amp Square D QO loadcenter	Interior Closet	None	None
	6.2a Lighting	2	Fluorescent wrap-around luminaires	Main Worship Room, Office	None	None
		3	Bullet-shaped Lights with LED lamps	Front of Main Worship Room	None	None
		2	No illuminated exit signs; exits seem to be clearly identifiable	NA	None	None
		4	Open Incandescent luminaires	Exterior	Incandescent lamps require frequent replacement and are less efficient than other types; open luminaires are not suitable for damp locations (photos **4D33-6.2A, B**)	Replace Incandescent luminaires with HID or LED luminaires
	6.2b Branch Wiring	3	Exterior lighting controlled by switch	Local	No automatic controls for exterior lighting	Add automatic exterior lighting controls
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	4	12-pair copper and 4 pair copper cables undergound from Building 4D01	Protector Panel in Closet	No data cabling; no fiber-optic network connection	Consider adding a fiber-optic line to the Chapel
	6.3b Other Comm	2	Sound system	Main Worship Room	None	None
	6.3c Fire Alarm	2	Fire alarm devices connected to fire alarm system in building 4D10	Fire alarm pullbox in Closet	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	NA	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1a Life Safety Code**	4	Exit Devices	exterior doors	there are none	Install exit devices - see comments below
	8.1b Life Safety Code	4	Egress lighting	exterior doors	there are none	Install egress lighting - see comments below
	8.1c Life Safety Code	4	Exit signs	exterior doors	there are none	Install exit signs - see comments below
	8.2 IBC					
	8.3 WSEC					

Comments:

Architectural:
It is not known how many people use this building at the same time. Exit signs, and egress lighting should be added if the room ever has more than 50 people in it at a time. At 100 people, the exit devices become required. To separation of the two exit doors should also be further reviewed.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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CHAPEL

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CHAPEL

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Senior Citizen Center	4D34
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
654	1	?	IBC = VB LSC = V(000)	IBC = B LSC = Business	1986	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of building	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	0	Reinforced concrete	Perimeter of building	NA	NA
	1.4 Floor Construction	3	plywood over 2 x 6 at 16" oc	floor	NA	NA
	1.5 Roof Construction	3	Pre-cut cedar home system	roof	NA	NA
	1.6 Exterior Walls	4	Pre-cut cedar home	Perimeter of building	Needs repainting	Paint
	1.7 Exterior Windows	3	Wood	throughout	NA	NA
	1.8 Exterior Doors	3	Wood in wood frame		NA	NA
	1.9 Roof Coverings	2	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	Pre-cut cedar home	throughout	NA	NA
	1.12 Interior Doors	3	Wood in wood frame	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Exposed pre-cut cedar logs, stained	throughout	NA	NA
	1.15 Floor Finishes	3		throughout	NA	NA
	1.16 Ceiling Finishes	3	Exposed pre-cut cedar logs, stained	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	4	Premanufactured wood logs interlocking at exterior and interior walls.		The south exterior wall and trim needs maintenance. The wood logs have started deteriorating and will continue if not maintained. (**4D34-2.2A, 4D34-2.2B, 4D34-2.2C**)	
	2.3 Structural Frame	3	Premanufactured wood logs interlocking as roof decking and supported by sawn lumber joists. Sawn lumber main floor joists and interior sawn lumber beam with plywood sheathing.		The flooring at the open porch has weathered sheathing and needs maintenance or replacement. (**4D34-2.3A, 4D34-2.3B**)	
	2.4 Lateral System	2	Interlocking logs at roof diaphragm; interlocking logs at exterior and interior shear walls.		The small building plan size along with the interior partition walls are probably sufficient to resist lateral loads.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	0	NA	NA	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sink, water closet	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Main Level	M1	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	3	Sloping Roof; no Roof Drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Vertical Fan Coils - Electric	Main Level	M1	
	5.1b HVAC Equipment	3	Through-wall Air Conditioner	Wall - Main Level	M1	
	5.3 Controls/Special Sys.	3	Local Manual Control	Main Level	M1	
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '3-12' outside supplies 200 Amp underground service to Building 4D34 at 120/208 Volts, single-phase; Transformer '3-12' also supplies power to Building 4D49 Mason	Outside N of Building 4D49 North end	There is no normal power available at Building 4D34 (photo **4D34-6.1A**)	The primary feeder to Transformer '3-12' should be reconnected to normal power at Junction '4-13'
	6.1b Elec Distribution	2	Square D NQOB 200 Amp single-phase main panel with 200 Amp main circuit breaker	Inside Building 4D34 in NW corner	None	None
	6.2a Lighting	2	Fluorescent luminaires	Building Interior	None	None
		4	Incandescent luminaires	Building Interior	Incandescent lamps require frequent replacement and are less efficient than other types (photo **4D34-6.2A**)	Replace Incandescent lamps with Compact Fluorescent lamps
		2	No illuminated exit signs; exits seem to be clearly identifiable	NA	None	None
		4	Incandescent luminaires	Building exterior	Incandescent lamps require frequent replacement and are less efficient than other types	Replace Incandescent luminiares with Compact Fluorescent or LED luminaires
	6.2b Branch Wiring	3	Exterior lighting controlled by switch	Local	No automatic controls for exterior lighting	Add automatic exterior lighting controls
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	4	12-pair copper copper cable undergound from Building 4D01	Protector Panel on East wall	No data cabling; no fiber-optic network connection	Consider adding a fiber-optic line to the Senior Center
	6.3b Other Comm	2	Television dish antenna	Roof	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	2	Fire alarm devices connected to fire alarm system in building 4D50	Fire alarm pullbox in Closet	Demolition of Building 4D50 is being considered, and that is the location of the fire alarm control panel that covers Building 4D34, which is also called Shawnacees (photos **4D34-6.3A, B**)	If Building 4D50 is demolished but not Building 4D34, fire alarm circuits from Building 4D34 would need to be connected elsewhere
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	The entire Building 4D34 electrical load is fed from pad-mounted Transformer 3-12'; Transformer '3-12' is connected to 13.2 kV Feeder #3, which derives from the campus 560 kW engine-generator at the Chiller Plant	Outside at grade	There is no normal power available at Building 4D49; none of the loads require emergency power	The primary feeder should be reconnected to normal power at Junction '4-13'; see Builidng 4D49
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings	0	NA	NA	NA	NA
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	NA	NA	NA	NA
	8.3 WSEC					

Comments:

Architectural:
Use: Used as a "Get Away" space by some Clients. Building is a pre-cut residential "log cabin" that was relocated to its current location in about 1986. (Recommend demolition)

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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MASTER PLAN
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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

SENIOR CITIZEN CENTER

4D**34**

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SENIOR CITIZEN CENTER

4D34

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Chiller Plant	4D37
NAC #111-14011-A206	March 17, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
?	1	?	IBC = II-B LSC = II	IBC = F LSC = Industrial	?	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete			
	1.2 Slab on Grade	3	Concrete			
	1.3 Basement Walls	3	Concrete			
	1.4 Floor Construction	3	Slab on grade			
	1.5 Roof Construction	3	Concrete			
	1.6 Exterior Walls	3	Concrete masonry and brick			
	1.7 Exterior Windows	3	Steel window with single glazing			
	1.8 Exterior Doors	3	Hollow metal door in wood frame			
	1.9 Roof Coverings	3	Single ply elastomeric roofing			
	1.10 Roof Openings					
	1.11 Interior Partitions	0	Masonry			
	1.12 Interior Doors	0				
	1.13 Stair Constn/Finishes	0	NA			
	1.14 Wall Finishes	3	Painted masonry or concrete			
	1.15 Floor Finishes	3	Exposed concrete			
	1.16 Ceiling Finishes					
	1.17 Elevators & Lifts	0	NA			
2.0 Structural	**2.1 Foundations**	2	The original structure at the south half of the building is undocumented, but was upgraded sometime with new exterior CMU walls, presumed reinforced to resist shear loads. The north addition included reinforced foundation walls and reinforced CMU walls above the floor, plus concrete slab on grade.			
	2.2 Struct. Bearing Walls	2	Reinforced CMU bearing walls occur around the entire perimeter of the building. The existing unreinforced brick masonry walls remain in place.			
	2.3 Structural Frame	2	Original building has concrete roof slabs, joists, beams, and columns. The building addition has steel decking over steel joists and beams.		An old sign of distress was observed at the failed brick wall bearing below the end of the concrete roof beam, which has been fixed with an added steel column near the end of the beam.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	2	Concrete roof slab diaphragms at the original building; steel roof decking diaphragms at the building addition; CMU shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sink, water closet	Main Level	M1	
	4.1b Plumbing Fixtures	2	Campus Domestic Hot Water Heaters	Main Level	M4	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	3	Sloping Roof; no Roof Drains			
5.0 HVAC	**5.1a HVAC Equipment**	--	Chillers	Main Level	M2	
	5.1b HVAC Equipment	3	Through-wall Air Conditioner	Wall - Main Level	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Control	Main Level	M3	
6.0 Electrical	**6.1a Elec Service**	2	2000 kVA pad-mounted Transformer '2-07' outside supplies 2000 Amp underground service to Building 4D37 at 277/480 Volts	Outside NW of Building 4D37	None	None
		4	300 kVA pad-mounted Transformer '3-03' outside supplies 600 Amp underground emergency power servcie to Building 4D37 at 120/208 Volts	Outside NW of Building 4D37	The incoming emergency power service does not segregate the emergency branch from the standby branch as required by code	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	1	2014 Eaton/Cutler-Hammer 2000 Amp main switchboard with main circuit breaker equipped with ground fault protection; switchboard includes meter	1st Floor Electrical Room	None	None
		4	1980 Westinghouse DT3 225 kVA dry-type Transformer 'TSBL'	1st Floor Electrical Room	Transformer 'TSBL' requires both front and rear access, leaving inadequate clearance behind it (photo **4D37-6.1A**)	Replace Transformer 'TSBL' with a dry-type transformer that requires front access only; change location of feeder conduit stub-ups as necessary
		2	1980 Westinghouse Pow-R-Line 600 Amp Distribution Switchboard 'SBL' with fused switches	1st Floor Electrical Room	None	None
		2	Westinghouse 5 Star Motor Control Center 'MCCB'	1st Floor Chiller Room	None	None
		2	Westinghouse NEHB Panel 'BH'	1st Floor Chiller Room	None	None
		2	Westinghouse B10B Panel 'BL'	1st Floor Electrical Room	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		2	Westinghouse B10B Panels 'BE1' and 'BE2'	1st Floor Generator Room	None	None
		4	Old General Electric Type 008 400 Amp Panel 'TCS'	1st Floor Tunnel Connection and Storage Room	The old General Electric panelboard is obsolete and in need of replacement; dead-front panels are missing (photos **4D37-6.1B, C**)	Provide new panelboard to replace obsolete equipment
		4	Old Trumbull Electric Trumbullite Panel 'SP'	1st Floor Tunnel Connection and Storage Room	The old Trumbull Electric panelboard is obsolete and in need of replacement (photos **4D37-6.1D,** E)	Provide new panelboard to replace obsolete equipment
		2	General Electric Type TL12 Panel 'CR'	1st Floor Tunnel Connection and Storage Room	None	None
		2	1980 Westinghouse Pow-R-Line 600 Amp emergency power Switchboard 'EDS' with fused switches	1st Floor Generator Room	Emergency power not segregated by branch (photo **4D37-6.1F**)	Replace switchboard with new equipment with separate vertical sections, and segregate loads by branch
		3	1980 Westinghouse DT1001 750 kVA dry-type Transformer 'TG1', to step-up generator output from 480 Volts to 13.2 kV	1st Floor Generator Room	Front side of the Transformer 'TG1' faces North opposite the side of medium-voltage circuit breaker switchgear '3-1', leaving inadequate clearance (photo **4D37-6.1G**)	Reposition Transformer 'TG1' so that the front of the unit faces east; change location of feeder conduit stub-ups as necessary
		2	1980 ILI Corporation 1200 Amp paired medium voltage circuit breaker switchgear '3-1', to serve as automatic transfer switch for 13.2 kV Feeder #3	1st Floor Generator Room	Transfer equipment located at the head-end of the 13.2 kV distribution system does not segregate the electrical backup power system into the proper branches (photo **4D37-6.1H**)	Provide new new automatic trasnfer switches, segregated by branch, at the outlying buildings in order to segregate load by branch
		2	1985 ILI Corporation 1200 Amp paired medium voltage circuit breaker switchgear '5-1', to serve as automatic transfer switch for 13.2 kV Feeder #5	1st Floor Generator Room	Transfer equipment located at the head-end of the 13.2 kV distribution system does not segregate the electrical backup power system into the proper branches (photo 4D37-6.1H)	Provide new new automatic trasnfer switches, segregated by branch, at the outlying buildings in order to segregate load by branch
	6.2a Lighting	2	Fluorescent luminaires	Building Interior	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		2	LED Exit signs	Building Interior	None	None
		2	High Pressure Sodium luminaires	Building Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Local	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Tunnel Connection and Storage Room	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	4	Antiquated Simplex fire alarm system with heat detectors, pull stations, and bell/light signal units	Building Interior	The old Simplex fire alarm system is obsolete and in need of replacement; replacement parts are not avaialble; not connected to campus network (photos **4D37-6.3A, B**)	Provide new addressible fire alarm system to replace the obsolete system; connect to campus fiber-optic network
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	3	1980 ILI Corporation Model 560D345 560 kW / 700 kVA engine-generator with 277/480 Volt output, and 600 Amp output circuit breaker for campus emergency power distribuiton system	1st Floor Generator Room	Generator connected load exceeds generator capacity (photos **4D37-6.4A, B, C, D**)	Remove excess load from campus emergency power system; see suggested action under Buildings 4D38, 4D49 and 4D57
		4	500 gallon above-grade fuel tank located outside	Outside N of Building 4D37	With generator running at full-load, fuel supply would last about 15 hours (photo **4D37-6.4E**)	Replace fuel tank with tank sized for 133% of 96 hours fuel supply

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		5	Emergency power derives from pad-mounted Transformer '3-03'; the transformer is connected to 13.2 kV Feeder #3, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency loads include generator fuel pump, egress lighting, and fire alarm system in Building 4D37, as well as the fire alarm system and Carbon Monoxide alarm in Building 4D30 (Laundry); standby loads include receptacles, telecom system, ceiling fan, exhaust fan, unit heaters, sump pumps, condensate pumps, hot water circulation pumps, treatment pumps, air compressors, compressor air cooler, and water cooler	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
		2	Battery-backed emergency lighting units provide additional backup lighting in selected rooms	Building Interior	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					

Comments:

Architectural:
Chiller plant provides chilled water for air conditioning to most of the buildings on campus. The building also houses the emergency generator that supplies standby backup power to the entire campus in the event of a power interruption. The building is constructed of two parts - the south half was the original Campus Steam Plant. A new Energy Plant was built in about 1985, and the boilers were removed at that time. The north half houses the chiller and engine generator, and was built in about 1980.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life.
M2: Project currently underway to provide new chiller and pumping system.
M3: Chiller replacement project will provide Direct Digital Control system as part of the campus Johnson Controls system.
M4: Water heaters are between 5 and 10 years old.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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MEDICAL LAKE INFRASTRUCTURE
MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

CHILLER PLANT

4D**37**

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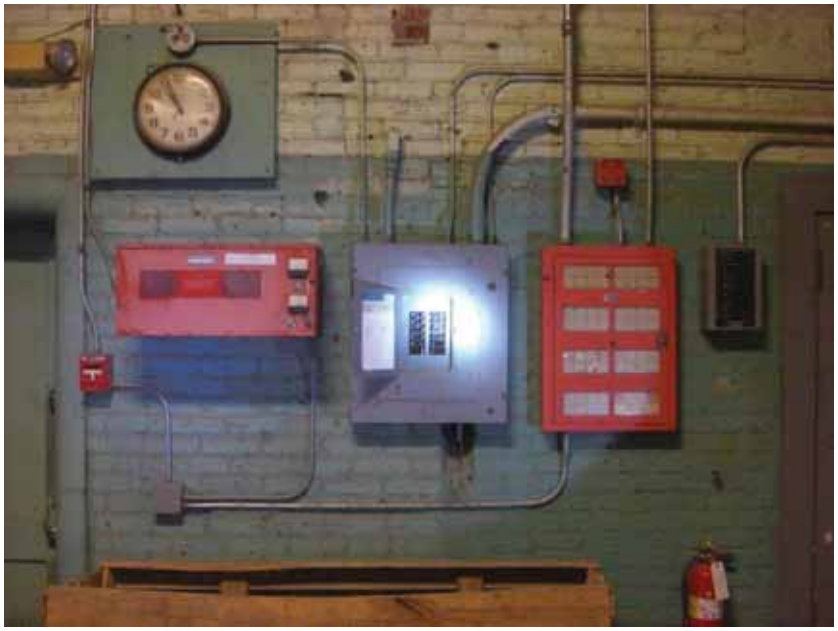

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CHILLER PLANT

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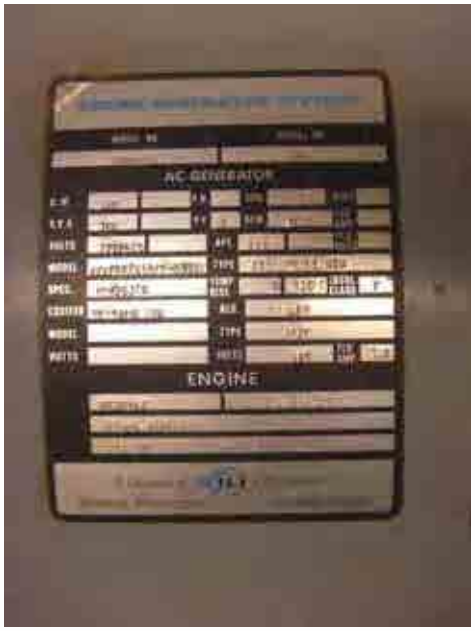

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Energy Plant	4D38
NAC #111-14011-A206	March 17, 2014	Project		Building Name	Building No.
GSF	**Stories**	**Built**	**Construction Type**	**Occupancy Group**	**Last Remodeled**	**Overall Condition**
?	1 + Mezzanine	?	IBC = II-B LSC = II(110)	IBC = ___ LSC = ___	NA	Good
Components	**Systems**	**Rating***	**Component Description**	**Component Location**	**Deficiency Description**	**Corrective Action**
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Concrete			
	1.2 Slab on Grade	3	Concrete			
	1.3 Basement Walls	0	NA			
	1.4 Floor Construction	3	Slab on grade			
	1.5 Roof Construction	3	Steel framed with preformed metal roofing			
	1.6 Exterior Walls	3	Concrete masonry			
	1.7 Exterior Windows	3	Glass block			
	1.8 Exterior Doors	3	Hollow metal doors in hollow metal frames			
	1.9 Roof Coverings	3	Preformed metal roofing			
	1.10 Roof Openings					
	1.11 Interior Partitions	0	CMU			
	1.12 Interior Doors	0	Hollow metal doors in hollow metal frames			
	1.13 Stair Constn/Finishes	0	Steel	To mezzanine		
	1.14 Wall Finishes	3	Painted CMU			
	1.15 Floor Finishes	3	Exposed concrete			
	1.16 Ceiling Finishes		Exposed structure			
	1.17 Elevators & Lifts	0	NA			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with concrete slab on grade.			
	2.2 Struct. Bearing Walls	2	Reinforced CMU bearing walls occur around the entire perimeter of the building and below a partial mezzanine plan.			
	2.3 Structural Frame	2	Steel roof decking over steel bar joists supported on CMU bearing walls. Concrete slab on steel floor decking and steel joists at the partial mezzanine floor.			
	2.4 Lateral System	2	Steel roof deck diaphragm; mezzanine concrete slab with steel floor deck diaphragm; CMU shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	2	Sink, water closet	Main Level		
	4.3 Rain Water Drainage	--	Sloping Roof; no Roof Drains			
5.0 HVAC	**5.1a HVAC Equipment**	2	Dual Fuel High Pressure Steam Boilers (x3)	Main Level	M1	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	5.1b HVAC Equipment	2	Condensate Receiver/Dearator Unit	Main Level	M2, M3	
	5.1c HVAC Equipment	2	Steam Unit Heaters	Suspended at Main Level		
	5.3 Controls/Special Sys.	2	Direct Digital Control	Main Level		
6.0 Electrical	**6.1a Elec Service**	3	300 kVA pad-mounted Transformer '5-07' outside, fed from Switch '5-06', supplies 400 Amp underground service to Building 4D38 at 277/480 Volts	Outside S of Building 4D38	There is no normal power available at Building 4D49 (photos **4D38-6.1A, B**)	The primary feeder for Transformer '5-7' should be reconnected to normal power at the source end
		5	No separate electrical service dedicated to emergency power loads	NA	Emergency power is not connected through local automatic transfer switches	See recommendation below for a dedicated engine-generator at Building 4D38 instead of a second pad-mounted trasnformer
	6.1b Elec Distribution	2	Square D 400 Amp Panel 'DP' with 400 Amp main circuit breaker	1st Floor Boiler Room	Emergency power not segregated by branch (photo **4D38-6.1C**)	Provide new emergency / standby equipment with separate vertical sections, and segregate loads by branch
		2	Square D 75 kVA dry-type transformer	1st Floor Boiler Room	None	None
		2	Square D NLAB 225 A Panel 'PP' with 200 Amp main circuit breaker	1st Floor Boiler Room	None	None
	6.2a Lighting	2	Fluorescent luminaires	Building Interior	None	None
		2	LED Exit signs	Building Interior	None	None
		2	High Pressure Sodium luminaires	Building Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Local	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor	None	None
	6.3b Other Comm	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Hall	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	The entire Building 4D38 electrical load is fed from pad-mounted Transformer '5-07'; Transformer '5-07' is connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; the emergency loads include lighting and fire alarm system; most of the mechanical heating loads are required standby; the remaining loads should be considered optional standby	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	A local engine-generator should be provided for emergency power and standby power, thus removing a significant load from the central campus engine-generator in the Chiller Plant; local automatic transfer switches should separate loads by branch
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					

Comments:

Architectural:
Central steam plant that heats the entire campus. This is one of the newer buildings on Campus, built after the Cottages and HAB Center were built.

Mechanical:
M1: Boiler Flue Gas Exhaust Stacks include heat recovery to preheat boiler makeup water.
M2: The installation of a vacuum condensate pump in the plant would allow greater recovery of steam condensate from the campus and reduce the need for fresh water makeup.
M3: A change to the control for fresh water makeup to the Condensate Receiver/Dearator Unit would allow the fluid level in the tank to drop to a lower level and reduce fresh water makeup

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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ENERGY PLANT

4D38

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Pinewood 72-73	4D39
NAC #111-14011-A206	April 1, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,200	1	1981	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board/Care	2007	Good

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and under bearing walls; pad footings under corridor walls	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	Reinforced CMU	Perimeter of crawl space	NA	NA
	1.4 Floor Construction	2	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	Batt insulation falling out of place	Replace and secure insulation
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained (See Photo **4D39-1.6**)	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; 4' wide doors at required exits	Ends of corridors, Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	entire building	Shingles are badly weathered (**4D39-1.9**)	Replace asphalt shingles
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.11a Partitions at core	3	Reinforced CMU	around core - supporting mechanical room in Attic	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames; 4' wide doors to bedrooms	throughout	Store room door closer not functioning	Adjust or replace door closer
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in most Client areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with welded seams and top set base; coved base at toilet rooms and kitchen areas	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls. Interior CMU walls supporting the upper mechanical mezzanine floor.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Concrete slab at the mezzanine floor. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.			
	2.4 Lateral System	3	Rated wood sheathing at the roof and floor diaphragms; gypsum wall board at stud walls; interior CMU shear walls below the mezzanine floor.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**	1	4" service, backflow preventer recently installed	Inside back door to building	None noted	None required
	3.2 FP System	1	Sprinklers replaced in about 2007 with new concealed-type quick response sprinklers	Inside back door to building	None noted	None required
			NFPA 13 w/ quick response heads in bedrooms - updated in 2007	throughout main level and attic	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1, M2	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Attic Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Attic Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '2-11' outside supplies a 300 Amp normal power service to Building 4D39, and also serves Buildings 4D40 and 4D41 at 120/208 Volts; capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; the normal power demand load is about 22.3 kVA, or 34.8 kVA with adjustments; if the emergency / standby power loads were included, the demand load would increase to 53.3 kVA	Outside W of Building 4D39	Transformer '2-11' is tilted significantly due to settlement under pad	Replace concrete pad under equipment and reinstall Transformer '2-11'
		4	225 kVA pad-mounted Transformer '3-07' outside supplies a 100 Amp emergency power service to Building 4D39, and also serves Buildings 4D40, 4D41, 4D42, 4D43 and 4D44 at 120/208 Volts; capacity is 37.5 kVA if the 225 kVA transformer is shared equally by each of the 6 buildings; on Panel 'RE1' the emergency / standby power load is 18.5 kVA, taking into account the present mechanical system loads	Outside W of Building 4D42	The incoming emergency power service does not segregate the emergency branch from the standby power branch as required for Assisted Living Facilities (Boarding Homes)	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches, as well as for life safety and critical branches
	6.1b Elec Distribution		Similar to Building 4D43			
	6.2a Lighting		Similar to Building 4D43			
	6.2b Branch Wiring		Similar to Building 4D43			
	6.3a Telecom		Similar to Building 4D43			
	6.3b Other Comm		Similar to Building 4D43			
	6.3c Fire Alarm		Similar to Building 4D43			
	6.3d Security		Similar to Building 4D43			
	6.4 Emerg Power		Similar to Building 4D43			
7.0 Equipment	**7.1 Institutional Equip**		Hydrotherapy tub (Invacare)	Bathing Room 130	NA	NA
	7.2 Fixed Furnishings		Plastic laminate covered casework is of varying ages.	throughout	Original casework is in poor condition	Update casework in Kitchen and Staff Reporting areas
8.0 Code Compliance	**8.1 Life Safety Code**					

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
	8.2 IBC		Fire Doors	Dividing building into two compartments	NA	NA
	8.3 WSEC					

Comments:

Architectural:
Use: Assisted Living/ICF; Maximum capacity = 14. Cottage could be converted to Nursing Facility use after a limited interior remodel

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: A steam bundle inserted into a storage tank provides most of the domestic hot water. A small electric heater provides off-hour domestic hot water when flow in the system is small.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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MEDICAL LAKE INFRASTRUCTURE
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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

PINEWOOD 72-73

4D**39**

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4D39-1.6.JPG

4D39-1.9.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Evergreen 70-71	4D40
NAC #111-14011-A206	April 1, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,200	1	1981	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board/Care	2005	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and under bearing walls; pad footings under corridor walls	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	Reinforced CMU	Perimeter of crawl space	NA	NA
	1.4 Floor Construction	2	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	Batt insulation falling out of place; Soffits need painting (See Photo **4D40-1.5**)	Replace and secure insulation; Repaint soffits.
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; 4' wide doors at required exits	Ends of corridors, Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	entire building	Shingles are badly weathered (Photos **4D40-1.9A, B**)	Replace asphalt shingle
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.11a Partitions at core	3	Reinforced CMU	around core - supporting mechanical room in Attic	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames; 4' wide doors to bedrooms	throughout	Store room door closer not functioning	Adjust or replace door closer
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in most Client areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with welded seams and top set base; coved base at toilet rooms and kitchen areas	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls. Interior CMU walls supporting the upper mechanical mezzanine floor.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Concrete slab at the mezzanine floor. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.			
	2.4 Lateral System	3	Rated wood sheathing at the roof and floor diaphragms; gypsum wall board at stud walls; interior CMU shear walls below the mezzanine floor.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NFPA 13 w/ quick response heads in bedrooms - updated in 2007	throughout main level and attic	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1, M2	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Attic Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Attic Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '2-11' outside supplies a 300 Amp normal power service to Building 4D39, and also serves Buildings 4D40 and 4D41 at 120/208 Volts; capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; the normal power demand load is about 19.0 kVA, or 29.6 kVA with adjustments (South Campus Assisted Living Cottage 4D39 demand is slightly higher at 22.3 kVA); if the emergency / standby power loads were included, the demand load would increase to 45.1 kVA (for Building 4D39 it would increase to 53.3 kVA)	Outside W of Building 4D39	Transformer '2-11' is tilted significantly due to settlement under pad (photo **4D41-6.1A**)	Replace concrete pad under equipment and reinstall Transformer '2-11'
		4	225 kVA pad-mounted Transformer '3-07' outside supplies a 100 Amp emergency power service to Building 4D40, and also serves Buildings 4D39, 4D41, 4D42, 4D43 and 4D44 at 120/208 Volts; capacity is 37.5 kVA if the 225 kVA transformer is shared equally by each of the 6 buildings; on Panel 'RE2' the emergency / standby power load is 15.5 kVA, taking into account the present mechanical system loads	Outside W of Building 4D42	The incoming emergency power service does not segregate the emergency branch from the standby power branch as required for Assisted Living Facilities (Boarding Homes)	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches, as well as for life safety and critical branches
	6.1b Elec Distribution		Similar to Building 4D43			
	6.2a Lighting		Similar to Building 4D43			
	6.2b Branch Wiring		Similar to Building 4D43			
	6.3a Telecom		Similar to Building 4D43			
	6.3b Other Comm		Similar to Building 4D43			
	6.3c Fire Alarm		Similar to Building 4D43			
	6.3d Security		Similar to Building 4D43			
	6.4 Emerg Power		Similar to Building 4D43			
7.0 Equipment	**7.1 Institutional Equip**		Hydrotherapy tub (Invacare)	Bathing Room 130	NA	NA
	7.2 Fixed Furnishings		Plastic laminate covered casework is of varying ages.	throughout	Original casework is in poor condition	Update casework in Kitchen and Staff Reporting areas
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC		Fire Doors	Dividing building into smoke compartments	NA	NA
	8.3 WSEC					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Comments:

Architecture:
Use: Assisted Living/ICF; Maximum capacity = 14. Cottage could be converted to Nursing Facility use after a limited interior remodel

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: A steam bundle inserted into a storage tank provides most of the domestic hot water. A small electric heater provides off-hour domestic hot water when flow in the system is small.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

EVERGREEN 70-71

4D**40**

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4D40-1.5.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Hawthorn 68-69	4D41
NAC #111-14011-A206	April 1, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,200	1	1981	IBC = VB LSC = V(000)	IBC = I-2 LSC = Exist Health Care	2007	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and under bearing walls; pad footings under corridor walls	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	Reinforced CMU	Perimeter of crawl space	NA	NA
	1.4 Floor Construction	2	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	Batt insulation falling out of place	Replace and secure insulation
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained (See Photo **4D41-1.6**)	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; 4' wide doors at required exits	Ends of corridors, Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	3	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.11a Partitions at core	3	Reinforced CMU	around core - supporting mechanical room in Attic	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames; 4' wide doors to bedrooms	throughout	Store room door closer not functioning	Adjust or replace door closer
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in most Client areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with welded seams and top set base; coved base at toilet and kitchen areas	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls. Interior CMU walls supporting the upper mechanical mezzanine floor.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Concrete slab at the mezzanine floor. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.			
	2.4 Lateral System	3	Rated wood sheathing at the roof and floor diaphragms; gypsum wall board at stud walls; interior CMU shear walls below the mezzanine floor.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NFPA 13 w/ quick response heads in bedrooms - updated in 2007	throughout main level and attic	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1, M2	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Attic Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Attic Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '2-11' outside supplies a 300 Amp normal power service to Building 4D41, and also serves Buildings 4D39 and 4D40 at 120/208 Volts; capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; based on the meter reading, the normal power demand load is about 19.8 kVA, or 30.9 kVA with adjustments (other South Campus Nursing Facility Cottages are higher, like Building 4D46, with a demand load of about 27.9 kVA, or 43.5 kVA with adjustments); if the life safety/ critical power loads were included for Building 4D41, the demand load would increase to 49.1 kVA (for Building 4D46 it would increase to 59.9 kVA)	Outside W of Building 4D39	Transformer '2-11' is tilted significantly due to settlement under pad (photo **4D41-6.1A**)	Replace concrete pad under equipment and reinstall Transformer '2-11'
		4	225 kVA pad-mounted Transformer '3-07' outside supplies a 100 Amp emergency power service to Building 4D41, and also serves Buildings 4D39, 4D40, 4D42, 4D43 and 4D44 at 120/208 Volts; capacity is 37.5 kVA if the 225 kVA transformer is shared equally by each of the 6 buildings; on Panel 'RE3' the life safety/ critial power load is 18.3 kVA, taking into account the present mechanical system loads	Outside W of Building 4D42	The incoming emergency power service does not segregate life safety branch from the critical branch as required for Nursing Facilities	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for life safety and critical branches, as well as for emergency and standby branches
6.1b	**6.1b Elec Distribution**	3	Westinghouse B10B main Panel 'RB3' with 400 Amp main circuit breaker; Panel 'RB3' and 'RA3' have about 12 spare circuits; arc-fault circuit interrupters on bedroom circuits	1st Floor Hall	No normal power feed to automatic transfer switches	•Add circuit breakers to Panel 'RA3' or 'RB3' to feed the normal power side of local automatic transfer switches; replace circuit breakers with handle linkage with multi-pole circuit breakers

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	Westinghouse B10B emergency power Panel 'RE3' with 60 Amp main circuit breaker; sub-fed Westinghouse MAC-F motor control center in Attic Mechanical Room (replaced with General Electric panelboard in some cottage, like Building 4D39 Pinewood)	1st Floor Hall, Attic Mechanical Room	Emergency power not segregated by branch	•Replace the emergency power loadcenter with two panelboards, and segregate loads by branch
	6.2a Lighting	2	Interior lighting mainly consists of Fluorescent luminaires, Circuline Fluorescent luminaires, and Compact Fluorescent Luminaires	Building interior	None	None
		2	Exterior lighting consists of Compact Fluorecent canopy luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Utility Room	None	None
	6.3b Other Comm	2	TV dish antenna	Roof	None	None
		1	Rauland Responder 5 nurse call system; connected to Event Central Reporting Network (Buildings 4D39, 4D40 and 4D43 still have old wireless call systems)	Halls, Dayrooms, Interview Rooms, Bathrooms, Bedrooms	None	None
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Hall	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '3-7'; the transformer is connected to 13.2 kV Feeder #3, which derives from the campus 560 kW engine-generator at the Chiller Plant; life safety branch loads include lighting and fire alarm; critical branch loads include bed receptacles, the meds refrigerator, the telecom cabinet, nurse call system, mechanical loads and damper motors	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equip**		Hydrotherapy tub (Invacare)	Bathing Room 130	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	7.2 Fixed Furnishings	4	Plastic laminate covered casework is of varying ages.	throughout	Original casework is in poor condition	Update casework in Kitchen and Staff Reporting areas
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	4	Fire Doors	Dividing building into two compartments; separating storerooms, utility rooms and laundry areas	Store room door closer not functioning	Adjust or replace door closer
	8.3 WSEC					

Comments:

Architecture:
Use: Nursing Facility; Maximum capacity = 13 (DOH/CRS Approval during the 2007 renovation project was for 12 Clients maximum)

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: A steam bundle inserted into a storage tank provides most of the domestic hot water. A small electric heater provides off-hour domestic hot water when flow in the system is small.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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STATE NO # 2014 - 415
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NAC ARCHITECTURE

HAWTHORN 68-69

4D**41**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Harvest 38-39	4D42
NAC #111-14011-A206	April 1, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,200	1	1981	IBC = VB LSC = V(000)	IBC = I-2 LSC = Exist Health Care	2005	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and under bearing walls; pad footings under corridor walls	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	Reinforced CMU	Perimeter of crawl space	NA	NA
	1.4 Floor Construction	2	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	Batt insulation falling out of place	Replace and secure insulation
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; 4' wide doors at required exits	Ends of corridors, Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	entire building	Shingles are badly weathered (See Photo **4D42-1.9**)	Replace asphalt shingle
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.11a Partitions at core	3	Reinforced CMU	around core - supporting mechanical room in Attic	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames; 4' wide doors to bedrooms	throughout	Store room door closer not functioning	Adjust or replace door closer
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in most Client areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with welded seams and top set base; coved base at toilet and kitchen areas	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls. Interior CMU walls supporting the upper mechanical mezzanine floor.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Concrete slab at the mezzanine floor. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.			
	2.4 Lateral System	3	Rated wood sheathing at the roof and floor diaphragms; gypsum wall board at stud walls; interior CMU shear walls below the mezzanine floor.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NFPA 13 w/ quick response heads in bedrooms - updated in 2007	throughout main level and attic	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1, M2	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Attic Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Attic Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '2-13' outside supplies a 300 Amp normal power service to Building 4D42, and also serves Buildings 4D43 and 4D44 at 120/208 Volts; capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; based on the meter reading, the normal power demand load is about 22.2 kVA, or 34.6 kVA with adjustments (other South Campus Nursing Facility Cottages are higher, like Building 4D46, with a demand load of about 27.9 kVA, or 43.5 kVA with adjustments); if the life safety/ critical power loads were included for Building 4D42, the demand load would increase to 51.9 kVA (for Building 4D46 it would increase to 59.9 kVA)	Outside S of Building 4D43	Transformer '2-13' is tilted significantly due to settlement under pad (photos **4D43-6.1A, B**)	Replace concrete pad under equipment and reinstall Transformer '2-13'
		4	225 kVA pad-mounted Transformer '3-07' outside supplies a 100 Amp emergency power service to Building 4D42, and also serves Buildings 4D39, 4D40, 4D41, 4D43 and 4D44 at 120/208 Volts; capacity is 37.5 kVA if the 225 kVA transformer is shared equally by each of the 6 buildings; on Panel 'RE4' the life safety / critical power load is 17.3 kVA, taking into account the present mechanical system loads	Outside N of Building 4D42	The incoming emergency power service does not segregate life safety branch from the critical branch as required for Nursing Facilities	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for life safety and critical branches, as well as for emergency and standby branches
	6.1b Elec Distribution		Similar to Building 4D41			
	6.2a Lighting		Similar to Building 4D41			
	6.2b Branch Wiring		Similar to Building 4D41			
	6.3a Telecom		Similar to Building 4D41			
	6.3b Other Comm		Similar to Building 4D41			
	6.3c Fire Alarm		Similar to Building 4D41			
	6.3d Security		Similar to Building 4D41			
	6.4 Emerg Power		Similar to Building 4D41			
7.0 Equipment	**7.1 Institutional Equip**		Hydrotherapy tub (Invacare)	Bathing Room 103	NA	NA
	7.2 Fixed Furnishings		Plastic laminate covered casework is of varying ages.	throughout	Original casework is in poor condition	Update casework in Kitchen and Staff Reporting areas
8.0 Code Compliance	**8.1 Life Safety Code**					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	8.2 IBC		Fire Doors	Dividing building into two compartments; separating storerooms, utility, and laundry	NA	NA
	8.3 WSEC					

Comments:

Architectural:
Use: Nursing Facility; Maximum capacity = 14

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: A steam bundle inserted into a storage tank provides most of the domestic hot water. A small electric heater provides off-hour domestic hot water when flow in the system is small.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

_4D42-A.JPG

_4D42-B.JPG

_4D42-C.JPG

_4D42-D.JPG

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HARVEST 38-39

4D42

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4D42-1.9.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Hillside 64-65	4D43
NAC #111-14011-A206	April 1, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,200	1	1981	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board/Care	2005	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and under bearing walls; pad footings under corridor walls	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	Reinforced CMU	Perimeter of crawl space	NA	NA
	1.4 Floor Construction	2	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	Batt insulation falling out of place	Replace and secure insulation
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained; Synthetic stucco coating failing (See Photo **4D43-1.6**)	Needs repairs, cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; 4' wide doors at required exits	Ends of corridors, Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	3	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.11a Partitions at core	3	Reinforced CMU	around core - supporting mechanical room in Attic	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames; 4' wide doors to bedrooms	throughout	Store room door closer not functioning	Adjust or replace door closer
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in most Client areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with welded seams and top set base; coved base at toilet rooms and kitchen areas	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls. Interior CMU walls supporting the upper mechanical mezzanine floor.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Concrete slab at the mezzanine floor. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.			
	2.4 Lateral System	3	Rated wood sheathing at the roof and floor diaphragms; gypsum wall board at stud walls; interior CMU shear walls below the mezzanine floor.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NFPA 13 w/ quick response heads in bedrooms - updated in 2007	throughout main level and attic	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1, M2	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Attic Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Attic Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '2-13' outside supplies a 300 Amp normal power service to Building 4D43, and also serves Buildings 4D42 and 4D44 at 120/208 Volts; capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; the normal power demand load is about 21.4 kVA, or 33.3 kVA with adjustments (South Campus Assisted Living Cottage 4D39 demand is slightly higher at 22.3 kVA); if the emergency / standby power loads were included, the demand load would increase to 49.8 kVA (for Building 4D39 it would increase to 53.3 kVA)	Outside S of Building 4D43	Transformer '2-13' is tilted significantly due to settlement under pad (photos **4D43-6.1A, B**)	Replace concrete pad under equipment and reinstall Transformer '2-13'
		4	225 kVA pad-mounted Transformer '3-07' outside supplies a 100 Amp emergency power service to Building 4D43, and also serves Buildings 4D39, 4D40, 4D41, 4D42 and 4D44 at 120/208 Volts; capacity is 37.5 kVA if the 225 kVA transformer is shared equally by each of the 6 buildings; on Panel 'RE5' the emergency / standby power load is 16.5 kVA, taking into account the present mechanical system loads	Outside W of Building 4D42	The incoming emergency power service does not segregate the emergency branch from the standby power branch as required for Assisted Living Facilities (Boarding Homes)	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches, as well as for life safety and critical branches
	6.1b Elec Distribution	3	Westinghouse B10B main Panel 'RB3' with 400 Amp main circuit breaker; Panel 'RB5' and 'RA5' have about 6 spare circuits; arc-fault circuit interrupters on bedroom circuits	1st Floor Hall	No normal power feed to automatic transfer switches	Add circuit breakers to Panel 'RA5' or 'RB5' to feed the normal power side of local automatic transfer switches; replace circuit breakers with handle linkage with multi-pole circuit breakers
		4	Westinghouse B10B emergency power Panel 'RE5' with 60 Amp main circuit breaker; sub-fed Westinghouse MAC-F motor control center in Attic Mechanical Room (replaced with General Electric panelboard in some cottage, like Building 4D39 Pinewood)	1st Floor Hall, Attic Mechanical Room	•Emergency power not segregated by branch	•Replace the emergency power loadcenter with two panelboards, and segregate loads by branch

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.2a Lighting	2	Interior lighting mainly consists of Fluorescent luminaires, Circuline Fluorescent luminaires, and Compact Fluorescent Luminaires	Building interior	None	None
		2	Exterior lighting consists of Compact Fluorecent canopy luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Basement Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Utility Room	None	None
	6.3b Other Comm	2	TV dish antenna	Roof	None	None
	6.3c Fire Alarm	4	Code Alert wireless call system	Halls, Bedrooms	•Call system is out-dated and has proven unreliable; CPU has been removed	Replace call system with a modern system offering better reliability
	6.3d Security	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Hall	None	None
	6.4 Emerg Power	NA	None	NA	None	None
	Emerg Power	5	Emergency power derives from pad-mounted Transformer '3-7'; the transformer is connected to 13.2 kV Feeder #3, which derives from the campus 560 kW engine-generator at the Chiller Plant; life safety branch loads include lighting and fire alarm; critical branch loads include bed receptacles, the meds refrigerator, the telecom cabinet, nurse call system, mechanical loads and damper motors	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	•Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
7.0 Equipment	**7.1 Institutional Equip**	2	Hydrotherapy tub (Invacare)	Bathing Room 130	NA	NA
	7.2 Fixed Furnishings	4	Plastic laminate covered casework is of varying ages.	throughout	Original casework is in poor condition	Update casework in Kitchen and Staff Reporting areas
8.0 Code Compliance	**8.1 Life Safety Code**					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	8.2 IBC	3	Fire Doors	Dividing building into smoke compartments	NA	NA
	8.3 WSEC					

Comments:

Architectural:
Use: Assisted Living/ICF; Maximum capacity = 14. Cottage could be converted to Nursing Facility use after a limited interior remodel

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: A steam bundle inserted into a storage tank provides most of the domestic hot water. A small electric heater provides off-hour domestic hot water when flow in the system is small.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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NAC NO # 111 - 14011

NAC ARCHITECTURE

HILLSIDE 64-65

4D**43**

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4D43-6.1A.jpg

4D43-6.1B.jpg

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HILLSIDE
64-65

4D**43**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Laurel 40-41	4D44
NAC #111-14011-A206	April 1, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,200	1	1981	IBC = VB LSC = V(000)	IBC = I-2 LSC = Exst Health Care	1997	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and under bearing walls; pad footings under corridor walls	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	Reinforced CMU	Perimeter of crawl space	NA	NA
	1.4 Floor Construction	2	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	Batt insulation falling out of place	Replace and secure insulation
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained; Water flowing down wall (See Photo **4D44-1.6**)	Needs cleaning and painting; Install gutters
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; 4' wide doors at required exits	Ends or corridors, Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	entire building	Shingles are badly weathered (**4D44-1.9**)	Replace asphalt shingle
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.11a Partitions at core	3	Reinforced CMU	around core - supporting mechanical room in Attic	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames; 4' wide doors to bedrooms	throughout	Store room door closer not functioning	Adjust or replace door closer
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in most Client areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with welded seams and coved base	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls. Interior CMU walls supporting the upper mechanical mezzanine floor.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Concrete slab at the mezzanine floor. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.			
	2.4 Lateral System	3	Rated wood sheathing at the roof and floor diaphragms; gypsum wall board at stud walls; interior CMU shear walls below the mezzanine floor.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NFPA 13 w/ quick response heads in bedrooms - updated in 2007	throughout main level and attic	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1, M2	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Attic Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Attic Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '2-13' outside supplies a 300 Amp normal power service to Building 4D44, and also serves Buildings 4D42 and 4D43 at 120/208 Volts; capacity is 75.0 kVA if the 225 kVA transformer is shared equally by each of the 3 buildings; the service is metered; based on the meter reading, the normal power demand load is about 20.4 kVA, or 31.8 kVA with adjustments (other South Campus Nursing Facility Cottages are higher, like Building 4D46, with a demand load of about 27.9 kVA, or 43.5 kVA with adjustments); if the life safety/ critical power loads were included for Building 4D44, the demand load would increase to 48.6 kVA (for Building 4D46 it would increase to 59.9 kVA)	Outside S of Building 4D43	Transformer '2-13' is tilted significantly due to settlement under pad	Replace concrete pad under equipment and reinstall Transformer '2-13'
		4	225 kVA pad-mounted Transformer '3-07' outside supplies a 100 Amp emergency power service to Building 4D44, and also serves Buildings 4D39, 4D40, 4D41, 4D42 and 4D43 at 120/208 Volts; capacity is 37.5 kVA if the 225 kVA transformer is shared equally by each of the 6 buildings; on Panel 'RE6' the life safety / critical power load is 16.8 kVA, taking into account the present mechanical system loads	Outside N of Building 4D42	The incoming emergency power service does not segregate life safety branch from the critical branch as required for Nursing Facilities	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for life safety and critical branches, as well as for emergency and standby branches
	6.1b Elec Distribution		Similar to Building 4D41			
	6.2a Lighting		Similar to Building 4D41			
	6.2b Branch Wiring		Similar to Building 4D41			
	6.3a Telecom		Similar to Building 4D41			
	6.3b Other Comm		Similar to Building 4D41			
	6.3c Fire Alarm		Similar to Building 4D41			
	6.3d Security		Similar to Building 4D41			
	6.4 Emerg Power		Similar to Building 4D41			
7.0 Equipment	**7.1 Institutional Equip**	3	Hydrotherapy tub (Invacare)	Bathing Room 131	NA	NA
	7.2 Fixed Furnishings	4	Plastic laminate covered casework is of varying ages.	throughout	Original casework is in poor condition	Update casework in Kitchen and Staff Reporting areas
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire Doors	Dividing building into smoke compartments	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	8.3 WSEC					

Comments:

Architectural:
Use: Nursing Facility; Maximum capacity = 14. There was no DOH/CRS done prior to the last renovation. Building no longer meets current Nursing Facility requirements for the separation of laundry and utility functions.

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: A steam bundle inserted into a storage tank provides most of the domestic hot water. A small electric heater provides off-hour domestic hot water when flow in the system is small.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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LAUREL 40-41

4D**44**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Ponderosa 60-61	4D45
NAC #111-14011-A206	April 1, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,200	1	1981	IBC = VB LSC = V(000)	IBC = I-2 LSC = Exist Health Care	1999	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and under bearing walls; pad footings under corridor walls	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	Reinforced CMU	Perimeter of crawl space	NA	NA
	1.4 Floor Construction	2	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	Batt insulation falling out of place	Replace and secure insulation
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained	Needs cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; 4' wide doors at required exits	Ends of corridors, Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	3	Asphalt shingles (Photo **4D45-1.9**)	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.11a Partitions at core	3	Reinforced CMU	around core - supporting mechanical room in Attic	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames; 4' wide doors to bedrooms	throughout	Store room door closer not functioning	Adjust or replace door closer
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in most Client areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with welded seams and coved base	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls. Interior CMU walls supporting the upper mechanical mezzanine floor.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Concrete slab at the mezzanine floor. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.			
	2.4 Lateral System	3	Rated wood sheathing at the roof and floor diaphragms; gypsum wall board at stud walls; interior CMU shear walls below the mezzanine floor.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	2	NFPA 13 w/ quick response heads in bedrooms - updated in 2007	throughout main level and attic	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1, M2	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Attic Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Attic Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	150 kVA pad-mounted Transformer '2-15' outside supplies a 300 Amp normal power service to Building 4D45, and also serves Buildings 4D85 and the Greenhouse at 120/208 Volts; capacity is 75.0 kVA if the 150 kVA transformer is shared equally by Building 4D45 (half) and the other 2 buildings (half); the service is metered; based on the meter reading, the normal power demand load is about 16.2 kVA, or 25.0 kVA with adjustments (other South Campus Nursing Facility Cottages are higher, like Building 4D46, with a demand load of about 27.9 kVA, or 43.5 kVA with adjustments); if the life safety/ critical power loads were included for Building 4D45, the demand load would increase to 40.6 kVA (for Building 4D46 it would increase to 59.9 kVA)	Outside E of Building 4D45	None	None
		4	225 kVA pad-mounted Transformer '3-09' outside supplies a 100 Amp emergency power service to Building 4D45, and also serves Buildings 4D46, 4D47 and 4D50 at 120/208 Volts; capacity is 37.5 kVA if the 225 kVA transformer is shared equally by Building 4D50 (half) and the other 3 buildings (half); on Panel 'RE7' the life safety / critical power load is 15.6 kVA, taking into account the present mechanical system loads	Outside E of Building 4D45	The incoming emergency power service does not segregate life safety branch from the critical branch as required for Nursing Facilities	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for life safety and critical branches, as well as for emergency and standby branches
	6.1b Elec Distribution		Similar to Building 4D41			
	6.2a Lighting		Similar to Building 4D41			
	6.2b Branch Wiring		Similar to Building 4D41			
	6.3a Telecom		Similar to Building 4D41			
	6.3b Other Comm		Similar to Building 4D41			
	6.3c Fire Alarm		Similar to Building 4D41			
	6.3d Security		Similar to Building 4D41			
	6.4 Emerg Power		Similar to Building 4D41			
7.0 Equipment	**7.1 Institutional Equip**	3	Hydrotherapy tub (Invacare)	Bathing Room 131	NA	NA
	7.2 Fixed Furnishings	4	Plastic laminate covered casework is of varying ages.	throughout	Original casework is in poor condition	Update casework in Kitchen and Staff Reporting areas

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire Doors	Dividing building into smoke compartments	NA	NA
	8.3 WSEC					

Comments:

Architectural

Use: Nursing Facility; Maximum capacity = 13. There was no DOH/CRS done prior to the last renovation. Building no longer meets current Nursing Facility requirements for the separation of laundry and utility functions.

Mechanical:

M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.

M2: A steam bundle inserted into a storage tank provides most of the domestic hot water. A small electric heater provides off-hour domestic hot water when flow in the system is small.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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NAC ARCHITECTURE

PONDEROSA 60-61

4D**45**

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PONDEROSA 60-61

4D**45**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Shamrock 56-57	4D46
NAC #111-14011-A206	April 1, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,200	1	1981	IBC = VB LSC = V(000)	IBC = I-2 LSC = Exist Health Care	2001	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and under bearing walls; pad footings under corridor walls	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	Reinforced CMU	Perimeter of crawl space	NA	NA
	1.4 Floor Construction	2	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	Batt insulation falling out of place	Replace and secure insulation
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained; Stucco repairs needed (See Photo **4D46-1.6**)	Needs stucco repairs, cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; 4' wide doors at required exits	Ends of corridors, Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	3	Asphalt shingles	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.11a Partitions at core	3	Reinforced CMU	around core - supporting mechanical room in Attic	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames; 4' wide doors to bedrooms	throughout	Store room door closer not functioning	Adjust or replace door closer
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in most Client areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with welded seams and coved base	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls. Interior CMU walls supporting the upper mechanical mezzanine floor.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Concrete slab at the mezzanine floor. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.			
	2.4 Lateral System	3	Rated wood sheathing at the roof and floor diaphragms; gypsum wall board at stud walls; interior CMU shear walls below the mezzanine floor.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NFPA 13 w/ quick response heads in bedrooms - updated in 2007	throughout main level and attic	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1, M2	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Attic Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Attic Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	150 kVA pad-mounted Transformer '2-18' outside supplies a 300 Amp normal power service to Building 4D46, and also serves Building 4D47 at 120/208 Volts; capacity is 75.0 kVA if the 150 kVA transformer is shared equally by the 2 buildings; the service is metered; based on the meter reading, the normal power demand load is about 27.9 kVA, or 43.5 kVA with adjustments; if the life safety/ critical power loads were included for Building 4D46, the demand load would increase to 59.9 kVA	Outside N of Building 4D47	Transformer '2-18' is tilted significantly due to settlement under pad	Replace concrete pad under equipment and reinstall Transformer '2-18'
		4	225 kVA pad-mounted Transformer '3-09' outside supplies a 100 Amp emergency power service to Building 4D46, and also serves Buildings 4D45, 4D47 and 4D50 at 120/208 Volts; capacity is 37.5 kVA if the 225 kVA transformer is shared equally by Building 4D50 (half) and the other 3 buildings (half); on Panel 'RE8' the life safety / critical power load is 16.4 kVA, taking into account the present mechanical system loads	Outside E of Building 4D45	The incoming emergency power service does not segregate life safety branch from the critical branch as required for Nursing Facilities	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for life safety and critical branches, as well as for emergency and standby branches
	6.1b Elec Distribution		Similar to Building 4D41			
	6.2a Lighting		Similar to Building 4D41			
	6.2b Branch Wiring		Similar to Building 4D41			
	6.3a Telecom		Similar to Building 4D41			
	6.3b Other Comm		Similar to Building 4D41			
	6.3c Fire Alarm		Similar to Building 4D41			
	6.3d Security		Similar to Building 4D41			
	6.4 Emerg Power		Similar to Building 4D41			
7.0 Equipment	**7.1 Institutional Equip**	3	Hydrotherapy tub (Invacare)	Bathing Room 103	NA	NA
	7.2 Fixed Furnishings	4	Plastic laminate covered casework is of varying ages.	throughout	Original casework is in poor condition	Update casework in Kitchen and Staff Reporting areas
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire Doors	Dividing building into smoke compartments	NA	NA
	8.3 WSEC					

Comments:

Architectural:

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
Use: Nursing Facility; Maximum capacity = 13. There was no DOH/CRS done prior to the last renovation. Building no longer meets current Nursing Facility requirements for the separation of laundry and utility functions. **Mechanical:** M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life. M2: A steam bundle inserted into a storage tank provides most of the domestic hot water. A small electric heater provides off-hour domestic hot water when flow in the system is small.						

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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SHAMROCK 56-57

4D**46**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Tamarack 54-55	4D47
NAC #111-14011-A206	April 1, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,200	1	1981	IBC = VB LSC = V(000)	IBC = I-2 LSC = Exist Health Care	2005	Good

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of crawl space and under bearing walls; pad footings under corridor walls	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	Reinforced CMU	Perimeter of crawl space	NA	NA
	1.4 Floor Construction	2	2x10 wood joists at 16" OC with plywood sub floor and underlayment	Over crawl space	NA	NA
	1.5 Roof Construction	3	2x4 pressed plate trusses with plywood sheathing, with batt between trusses below sheathing (warm attic)	Attic	Batt insulation falling out of place	Replace and secure insulation
	1.6 Exterior Walls	4	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained; Stucco repairs needed (See Photo **4D47-1.6**)	Needs stucco repairs, cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	some insulated units have lost their seal	Replace insulated glazing
	1.8 Exterior Doors	3	Wood or hollow metal in hollow metal frames; 4' wide doors at required exits	Ends of corridors, Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	entire building	Shingles are badly weathered (**4D47-1.9**)	Replace asphalt shingle
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.11a Partitions at core	3	Reinforced CMU	around core - supporting mechanical room in Attic	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames; 4' wide doors to bedrooms	throughout	Store room door closer not functioning	Adjust or replace door closer
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in most Client areas	throughout	NA	NA
	1.15 Floor Finishes	2	Homogeneous sheet vinyl with welded seams and top set base; coved base at toilet and kitchen areas	throughout	NA	NA
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced CMU foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls. Interior CMU walls supporting the upper mechanical mezzanine floor.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Concrete slab at the mezzanine floor. Sawn lumber wood floor joists with plywood sheathing supported by built-up sawn lumber wood beams and wood posts in the crawl space.			
	2.4 Lateral System	3	Rated wood sheathing at the roof and floor diaphragms; gypsum wall board at stud walls; interior CMU shear walls below the mezzanine floor.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NFPA 13 w/ quick response heads in bedrooms - updated in 2007	throughout main level and attic	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1, M2	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Unit	Attic Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Attic Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
6.0 Electrical	**6.1a Elec Service**	3	150 kVA pad-mounted Transformer '2-18' outside supplies a 300 Amp normal power service to Building 4D47, and also serves Building 4D46 at 120/208 Volts; capacity is 75.0 kVA if the 150 kVA transformer is shared equally by the 2 buildings; the service is metered; based on the meter reading, the normal power demand load is about 23.0 kVA, or 35.8 kVA with adjustments (other South Campus Nursing Facility Cottages are higher, like Building 4D46, with a demand load of about 27.9 kVA, or 43.5 kVA with adjustments); if the life safety/ critical power loads were included for Building 4D47, the demand load would increase to 55.3 kVA (for Building 4D46 it would increase to 59.9 kVA)	Outside N of Building 4D47	Transformer '2-18' is tilted significantly due to settlement under pad (**photo 4D47-6.1A**)	Replace concrete pad under equipment and reinstall Transformer '2-18'
		4	225 kVA pad-mounted Transformer '3-09' outside supplies a 100 Amp emergency power service to Building 4D47, and also serves Buildings 4D46, 4D47 and 4D50 at 120/208 Volts; capacity is 37.5 kVA if the 225 kVA transformer is shared equally by Building 4D50 (half) and the other 3 buildings (half); on Panel 'RE9' the life safety / critical power load is 19.5 kVA, taking into account the present mechanical system loads	Outside E of Building 4D45	The incoming emergency power service does not segregate life safety branch from the critical branch as required for Nursing Facilities	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for life safety and critical branches, as well as for emergency and standby branches
	6.1b Elec Distribution		Similar to Building 4D41			
	6.2a Lighting		Similar to Building 4D41			
	6.2b Branch Wiring		Similar to Building 4D41			
	6.3a Telecom		Similar to Building 4D41			
	6.3b Other Comm		Similar to Building 4D41			
	6.3c Fire Alarm		Similar to Building 4D41			
	6.3d Security		Similar to Building 4D41			
	6.4 Emerg Power		Similar to Building 4D41			
7.0 Equipment	**7.1 Institutional Equip**	3	Hydrotherapy tub (Invacare)	Bathing Room 103	NA	NA
	7.2 Fixed Furnishings	4	Plastic laminate covered casework is of varying ages.	throughout	Original casework is in poor condition	Update casework in Kitchen and Staff Reporting areas
8.0 Code Compliance	**8.1 Life Safety Code**					

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
	8.2 IBC	3	Fire Doors	Dividing building into two compartments; separating storerooms, utility, and laundry	NA	NA
	8.3 WSEC					

Comments:

Architectural:
Use: Nursing Facility; Maximum capacity = 13

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: A steam bundle inserted into a storage tank provides most of the domestic hot water. A small electric heater provides off-hour domestic hot water when flow in the system is small.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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TAMARACK 54-55

4D47

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4D47-6.1A.jpg

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Rosewood	4D48
NAC #111-14011-A206	April 1, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
15,300	1	1985	IBC = IIA LSC = II(111)	IBC = I-2 LSC = Exist Health	NA	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	throughout	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	Concrete	throughout	NA	NA
	1.4 Floor Construction	2	Concrete	Over crawl space and basement	NA	NA
	1.5 Roof Construction	3	Steel framed with metal decking; sprayed fireproofing	throughout	NA	NA
	1.6 Exterior Walls	3	Steel studs with sheathing and brick veneer	Perimeter of building	Some cracking of brick veneer (See Photo **4D48-1.6**)	Repair masonry
	1.7 Exterior Windows	3	Aluminum, insulated	throughout	NA	NA
	1.8 Exterior Doors	3	Hollow metal in hollow metal frames; 4' wide doors at required exits	Ends of corridors	NA	NA
	1.9 Roof Coverings	3	Standing seam metal over rigid insulation	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	Steel studs with gypsum board	throughout	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames; 4' wide doors to bedrooms	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in most Client areas	throughout	NA	NA
	1.15 Floor Finishes	2	Vinyl composition tile	throughout	NA	NA
	1.16 Ceiling Finishes	2	12" x 12" acoustical lay in ceiling in corridor; painted gypsum board in bedrooms	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with main floor reinforced concrete slabs, beams, and columns over crawl spaces and mechanical rooms.			
	2.2 Struct. Bearing Walls	2	Non-bearing structural steel studs at exterior walls.			
	2.3 Structural Frame	2	Steel roof decking over steel joists supported by steel beams and columns.			
	2.4 Lateral System	2	Steel roof decking diaphragm; concrete floor slab diaphragm; steel braced frames lateral resisting elements.			
3.0 Fire Protection	**3.1 Fire Service**					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	3.2 FP System		NFPA 13 w/ quick response heads in bedrooms	throughout main level and basement	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater - Inst. Steam	Basement Mech Room	M1	
	4.1c Plumbing Fixtures	3	Domestic Hot Water Heater - Electric	Basement Mech Room	M1	
	4.1d Plumbing Fixtures	3	Floor Mounted Sump Pumps	Basement Mech Room	M1	
	4.1e Plumbing Fixtures	2	Dental Use Air Compressor	Basement Mech Room		
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Air Handling Units - 1979	Basement Mech Room	M1, M2	
	5.1c HVAC Equipment	3	Exhaust Fans	Upper Level Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, terminal reheat boxes, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Direct Digital Control	Throughout	M1	
6.0 Electrical	**6.1a Elec Service**	2	500 kVA pad-mounted Transformer '2-19' outside supplies 1200 Amp underground service to Building 4D48 at 120/208 Volts	Outside W of Building 4D05 South Wing	None	None
	6.1b Elec Distribution	2	Westinghouse Pow-R-Line-C 1200 Amp main switchboard with fused switches	Basement Electrical Room	None	None
		2	Westinghouse B10B panelboards	Basement, 1st Floor	None	None
		2	Westinghouse 5 Star motor control centers	Basement Mechanical Room	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	Westinghouse Pow-R-Line-C 400 Amp Essential Electrical System switchboard with fused switches	Basement Electrical Room	Essential Electrical System Critial and Equipment branches combined, as permitted for Limited Health Care Facilities (photo **4D48-6.1A**)	If mechanical system upgrades or Hospital use is planned for Building 4D48, upgrade the Essential Electrical System by adding separate distribution equipment for the Equipment branch, and migrate all Equipment branch loads to the new distribution equipment
	6.2a Lighting	2	Fluorescent luminaires	Building Interior	None	None
		3	Incandescent track lighting	A Few Rooms	Incandescent lamps are neither efficient nor reliable in terms of lamp life	Replace track lights with dimmable LED type
		2	Compact Fluoescent Exit signs	Building Interior	None	None
		2	High Pressure Sodium luminaires	Building Exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by time switch	1st Floor Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	1	Telecom floor-mounted rack, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	Basement Communications Room	None	None
	6.3b Other Comm	2	Television antenna	Roof	None	None
		1	Rauland Responder 5 nurse call system; connected to Event Central Reporting Network	Treatment Rooms, Exam Rooms, Utility Rooms, Bathrooms, Bedrooms	None	None
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	1st Floor Corridor near Nurse Station	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3d Security	NA	Pharmacy intrusion alarm	Storage Room H90	Abandoned	None
	6.4 Emerg Power	3	Onan 100 kW diesel-fueled engine-generator set with separate outdoor fuel tank; 400 Amp output circuit breaker; automatic transfer switches for Life Safety and Critical/ Equipment branches are located in the Basement Electrical Room	Basement Electrical Room	Essential Electrical System capacity is limited, and restricts adding mechanical loads; Critical and Equipment branches are not segregated, but are not required to be as long as Building 4D48 functions as a Limited Health Care Facility (photo **4D48-6.4A**)	If mechanical system upgrades or Hospital use is planned for Building 4D48, upgrade the Essential Electrical System by adding a second engine-generator outside, with a separate automatic transfer switch for the Equipment branch
		4	500 gallon above-grade fuel tank located outside	Outside S of Building 4D48	With generator running at full-load, fuel supply would last about 70 hours (photo **4D48-6.4B**)	Replace fuel tank with tank sized for 133% of 96 hours fuel supply
7.0 Equipment	**7.1 Institutional Equip**	3	Hydrotherapy tub (Invacare)	Bathing Room	NA	NA
	7.1a Medical Gases	2	Oxygen and Suction			
	7.2 Fixed Furnishings	3	Plastic laminate covered casework	throughout	NA	NA
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire Doors; Fire shutters to HAB Center main corridor;	Dividing building into smoke compartments	Fire shutters to HAB Center not connected to the fire alarm system - left in the closed position	Replace with current generation motor operated shutters with battery back-up
	8.3 WSEC					

Architectural:
Use: Mixed use - the east end functions as a Nursing Facility with a maximum capacity = 13; the west end houses the Pharmacy, Dental Clinic, Treatment Rooms and staff offices. The building was constructed to meet the then current Hospital regulations, and is used to house the Lakeland Village Clients that require the highest level of care. A "temporary" Oxygen Storage shed has been constructed - permanent oxygen storage facility meeting the current regulations should be built (4D48-10, 4D48-11). Helipad in parking lot north of the building does not meet current helipad guidelines, and has cars parking on it much of the time (4D48-12). There is approximately 15,300 square feet of area on the main level, with approximately 6,800 sq feet of mechanical, electrical and storage space in the basement.

Mechanical:
M1: Equipment is functioning and appears to be in Good condition but age exceeds Average Service Life.
M2: Air Handling Unit for the Dental Clinic area has an electronic final air filter.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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NAC ARCHITECTURE

ROSEWOOD 62-63

4D**48**

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4D48

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Mason Memorial	4D49
NAC #111-14011-A206	April 21, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
14,003	2	?	IBC = IIB LSC = II(000)	IBC = B LSC = Business	1986	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of building	NA	NA
	1.2 Slab on Grade	0	Concrete	NA	NA	NA
	1.3 Basement Walls	0	Reinforced concrete	Perimeter of building	NA	NA
	1.4 Floor Construction	3	Concrete	floor	NA	NA
	1.5 Roof Construction	3	Steel deck over steel framing	roof	NA	NA
	1.6 Exterior Walls	4		Perimeter of building	Needs repainting	Paint
	1.7 Exterior Windows	3	Aluminum	throughout	NA	NA
	1.8 Exterior Doors	3	Aluminum		NA	NA
	1.9 Roof Coverings	2	Built-up roofing	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	Metal stud framed	throughout	NA	NA
	1.12 Interior Doors	3	Wood in wood frame	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	Concrete	NA	NA	NA
	1.14 Wall Finishes	3	Gypsum board, painted	throughout	NA	NA
	1.15 Floor Finishes	3	Vinyl composition tile (9" x 9")	throughout	NA	NA
	1.16 Ceiling Finishes	3	Acoustical tile (12" x 12" glued on)	throughout	NA	NA
	1.17 Elevators & Lifts	5	Passenger elevator	opposite the interior stair	no longer reliable	renovate
2.0 Structural	**2.1 Foundations**	2	Concrete basement walls along the building perimeter and along the west side of the corridor. The basement floor is a concrete slab on grade.			
	2.2 Struct. Bearing Walls	2	Exterior CMU walls and interior CMU or concrete wall along the west side of the corridor are bearing walls.			
	2.3 Structural Frame	2	Steel roof decking over steel joists. Main floor consists of concrete slabs and concrete joists.			
	2.4 Lateral System	2	Steel roof deck diaphragm; concrete slab at the main floor diaphragm; exterior CMU shear walls; interior corridor CMU or concrete shear walls.		Undocumented original building construction.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	0	NA	NA	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Throughout	M1	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater - Electric	Lower Level Mechanical Room	M1	
	4.1c Plumbing Fixtures	5	Domestic Hot Water Heater - Steam	Lower Level Mechanical Room	M3 (Photo **4D49-4.1B**)	
	4.1d Plumbing Fixtures	3	Sump Pumps	Lower Level Mechanical Room	M1 (Photo **4D49-4.1A**)	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1	
	5.1b HVAC Equipment	3	Convectors	Throughout	M1, M2 (Photo **4D49-5.1C**)	
	5.1c HVAC Equipment	3	Exhaust Fans	Roof	M1	
	5.1d HVAC Equipment	2	Water Cooled Chiller	Lower Level Mechanical Room		
	5.1e HVAC Equipment	3	Chilled Water Pumps	Lower Level Mechanical Room	M1	
	5.1f HVAC Equipment	3	Condensate Receiver/Pump Unit	Lower Level Mechanical Room	M1	
	5.1g HVAC Equipment	3	Heating Water Convertor Unit	Lower Level Mechanical Room	M1 (Photo **4D49-5.1A**)	
	5.3 Controls/Special Sys.	3	Pneumatic controls	Throughout	M1 (Photo **4D49-5.1B**)	
6.0 Electrical	**6.1a Elec Service**	3	225 kVA pad-mounted Transformer '3-12' outside supplies 600 Amp underground service to Building 4D49 at 120/208 Volts; Transformer '3-12' also supplies power to Building 4D34 Senior Citizens Center	Outside N of Building 4D49 North end	There is no normal power available at Building 4D49; Transformer '3-12' is tilted significantly due to settlement under pad (photos **4D49-6.1A, B**)	The primary feeder to Transformer '3-12' should be reconnected to normal power at Junction '4-13'; replace concrete pad under equipment and reinstall Transformer '3-12'
		5	No separate electrical service dedicated to emergency power loads	NA	Emergency power is not connected through local automatic transfer switches	A small pad-mounted transformer should be provided at Building 4D49 and be connected to Junction '3-11'to feed the emergency power loads
	6.1b Elec Distribution	4	1961 Westinghouse Power Load Center 600 Amp switchboard with 600 Amp main circuit breaker	Basement Mechanical/ Electrical Room	The old Westinghouse equipment is obsolete and in need of replacement (photos **4D49-6.1C, D**)	Provide new main switchboard to replace obsolete equipment

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	1961 Westinghouse Power NLA panelboards	Basement, 1st Floor	•The old Westinghouse equipment is obsolete and in need of replacement (photos **4D49-6.1E, F, G, H, I, J, K, L, M, N**)	•Provide new panelboards to replace obsolete equipment
	6.2a Lighting	2	Fluorescent and Compact Fluorescent luminaires	Building Interior	None	None
		2	Compact Fluorescent and LED exit signs	Building Interior	None	None
		4	High Intensity Discharge luminaires	Building exterior	•No exterior lighting at S end of Building 4D49	•Provide new exterior luminiares at S end of Building 4D49
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactor	Basement Mechanical/ Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telecom patchpanels and hub mounted to plywood backboard; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Closet in center of Corridor	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network	Basement Mechanical/ Electrical Room	None	None
	6.3d Security	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.4 Emerg Power	5	The entire Building 4D49 electrical load is fed from pad-mounted Transformer 3-12'; Transformer '3-12' is connected to 13.2 kV Feeder #3, which derives from the campus 560 kW engine-generator at the Chiller Plant; the emergency loads include egress lighting and fire alarm system; standby loads include telecommunications equipment	Outside at grade	There is no normal power available at Building 4D49; emergency power not segregated by branch; no local automatic transfer switches; loads other than those requiring emergency or standby power (like water heaters, circulation pumps, exhaust fans, and receptacles for drug cabinets and toasters) should be removed from emergency power and reconnected to normal power (Building 4D49 is no longer used for medical purposes)	The primary feeder should be reconnected to normal power at Junction '4-13'; a smaller pad-mounted trasnformer should be connected to Junction '3-11' instead to feed the emergency power loads, and a separate automatic transfer switch shoul be provided for each branch; removing most of the Building 4D49 load from emergency power will help reduce load on the campus central engine-generator
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings	0	NA	NA	NA	NA
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2a IBC	4	Exit ramp from second floor	South end of building	slope exceeds ADA	Provide new ramp
	8.2b IBC	4	Guard rail at stairs	Interior stair between floors	height and spacing between railings	Modify or replace railings
	8.3 WSEC					

Architectural:
Use: Business Office and Storage. Building was formerly the Medical Clinic prior to 1987. The upper (main level) is on grade at the north end. The lower level is on grade at the south end. The upper level is 6,689 sf, the lower level is 7,014 sf.

Mechanical:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: Convectors are used to do both heating and cooling. Heating water circulates during cold weather, chilled water during hot weather.
M3: Unit has failed and been taken out of service.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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NAC ARCHITECTURE

MASON MEMORIAL

4D**49**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Douglas Hall	4D50
NAC #111-14011-A206	April 1, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
12,500	1	?	IBC = VB LSC = V(000)	IBC = R-2 LSC = Board/Care		Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	perimeter	NA	NA
	1.2 Slab on Grade	3	Concrete	throughout	NA	NA
	1.3 Basement Walls	2	Concrete	at limited mechanical room	NA	NA
	1.4 Floor Construction	2	slab on grade; concrete slab over mechanical room	throughout	NA	NA
	1.5 Roof Construction	3	wood framed	Attic	NA	NA
	1.6 Exterior Walls	3	2x4 with insulating sheathing, batt insulation, gypsum board interior, and stucco or brick veneer exterior	Perimeter of building	Stucco and wood trim weathered and stained (See Photos **4D50-1.6A, B, C, D**)	Needs repairs, cleaning and painting
	1.7 Exterior Windows	3	Aluminum, insulated; and hollow metal with double glazing	throughout	some insulated units have lost their seal	Replace insulated glazing
	1.8 Exterior Doors	3	Hollow metal in hollow metal frames	Ends of corridors, Living and Dinning Rooms	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	entire building	Shingles are badly weathered and breaking off (Photo **4D50-1.9**)	Replace asphalt shingle
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with gypsum board	throughout	NA	NA
	1.12 Interior Doors	4	wood in hollow metal frames	throughout	NA	NA
	1.13 Stair Constn/Finishes	3	Exterior concrete stairs Mechanical Room	Basement	NA	NA
	1.14 Wall Finishes	3	Paint over wall covering; FRP wainscot in some areas	throughout	NA	NA
	1.15 Floor Finishes	5	mix of VCT and sheet vinyl	throughout	poor condition; asbestos backing is suspected at sheet vinyl	replace resilient flooring
	1.16 Ceiling Finishes	2	Gypsum board, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	3	Concrete foundation walls with concrete slab on grade. Partial mechanical basement room with covered outside stair.		Undocumented original building construction. Remodel construction documents, dated 7/15/81.	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.2 Struct. Bearing Walls	4	Sawn lumber wood studs at exterior and interior bearing walls.		Wood trim at eaves are weathered and need maintenance before moisture enters into the walls. At each side of the two south building entries, the exterior stucco finish has deteriorated at the bottom of the walls and has exposed the exterior sheathing and wall studs which have deteriorated. The exposed condition needs to be sealed from the weather to stop the infiltration of precipitation. (Photos **4D50-2.2A, 4D50-2.2B, 4D50-2.2C**)	
	2.3 Structural Frame	4	Rated roof sheathing over sawn lumber wood framing for sloped roof and flat ceiling.		Undocumented roof framing and connections. Exterior trim has deteriorated wood. (Photos **4D50-2.3A, 4D50-2.3B, 4D50-2.3C**)	
	2.4 Lateral System	4	Rated wood sheathing at the roof diaphragm; rated wood sheathing at exterior shear walls.		Undocumented shear wall system to resist lateral loads at exterior and interior stud walls.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	3	NFPA 13 w/ quick response heads in bedrooms - updated in 2007	throughout main level and attic	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Sinks, water closets	Main Level	M1	
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater	Basement Mech Room	M1, M2	
	4.2 Water Distribution	3	Domestic hot, cold water, drainage, vent	Throughout	M1	
	4.3 Rain Water Drainage	--	Sloping roof; no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Steam Piping	Throughout	M1 (Photo **4D50-5.1A**)	
	5.1b HVAC Equipment	3	Air Handling Unit	Main Level Mech Room	M1	
	5.1c HVAC Equipment	3	Exhaust Fans	Attic Mech Room	M1	
	5.1d HVAC Equipment	3	Chilled Water Pump	Basement Mech Room	M1	
	5.1e HVAC Equipment	3	Condensate Receiver/Pump Unit	Basement Mech Room	M1 (Photo **4D50-5.1B**)	
	5.1e HVAC Equipment	3	Heating Water Convertor Unit	Basement Mech Room	M1	
	5.2 HVAC Distribution	3	Ductwork, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Pneumatic Controls	Throughout	M1 (Photo **4D50-5.1C**)	
6.0 Electrical	**6.1a Elec Service**	3	150 kVA pad-mounted Transformer '2-16' outside supplies 500 Amp underground service to Building 4D50 at 120/208 Volts	Outside between Buildings 4D45 and 4D50	Transformer '2-16' is tilted significantly due to settlement under pad (Photos **4D50-6.1A, B**)	Replace concrete pad under equipment and reinstall Transformer '2-16'

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	225 kVA pad-mounted Transformer '3-09' outside supplies 150 Amp underground emergency power servcie to Building 4D50 at 120/208 Volts; Transformer '3-09' also supplies emergency power to Buildings 4D45, 4D46 and 4D47, and to a panelboard in the Steam Tunnel that powers Tunnel lighting	Outside between Buildings 4D45 and 4D50	The incoming emergency power service does not segregate the emergency branch from the standby branch as required by code	Provide NEMA 3R distribution equipment at the pad-mounted transformer with separate sections for emergency and standby branches
	6.1b Elec Distribution	2	Westinghouse Pow-R-Line 600 Amp main switchboard with fused switches for feeders	Basement Electrical Room	None	None
		2	Westinghouse B10B panelboards	Basement Electrical Room, 1st Floor East Corridor	None	None
		4	Westinghouse 200 Amp fused switch with 150 Amp fuses for Emergency / Standby power service	Basement Electrical Room	Emergency power not segregated by branch (Photo **4D50-6.1C**)	Replace the emergency power disconnect and associated panelboard with three panelboards, and segregate loads by branch
	6.2a Lighting	2	Fluorescent and Circuline Fluorescent lighting	Building Interior	Lenses on some luminaires are missing or broken (Photos **4D50-6.2A, B**)	Replace missing or broken lenses or replace affected luminaires
		2	LED exit signs	Building Interior	None	None
		4	High Intensity Discharge luminaires	Building exterior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactor	Basement Mechanical/ Electrical Room	None	None
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	2	Telecom rack cabinet, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Exit Passage near center of Building	None	None
	6.3b Other Comm	2	TV antenna	Roof	None	None
		2	Paging system loudspeakers	Corridors	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	2	Simplex 4100U addressible fire alarm system; horn/strobe signals; detectors in most areas; fiber-optic connection to campus network; Senior Center fire alarm devices are connected to fire alarm system in Building 4D50	1st Floor West Corridor	None	None
	6.3d Security	2	Code Alert dooor monitoring system connected to Radio Shack Safe House alarm system	Doors in North half of Building	None	None
	6.4 Emerg Power	5	Emergency power derives from pad-mounted Transformer '3-09'; the transformer is connected to 13.2 kV Feeder #3, which derives from the campus 560 kW engine-generator at the Chiller Plant; emergency loads include lighting and fire alarm; standby loads include refrigerators, freezers, the telecom cabinet, building automation controls, irrigation controls, fans, sump pump, condensate pumps, irrigation pump and automatic doors	Outside at grade	Emergency power not segregated by branch; no local automatic transfer switches	Upgrade emergency power distribution to include local automatic transfer switches segregated by branch and controlled by priority
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems	3	Fire Alarm System updated in 2003			
7.0 Equipment	**7.1 Institutional Equipmt**	3	Hydrotherapy tub (Invacare)	Bathing Room	NA	NA
	7.2 Fixed Furnishings	4	Plastic laminate covered casework	throughout	Original casework is in poor condition	Update casework in all areas
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	3	Fire Doors	Dividing building into smoke compartments	NA	NA
	8.3 WSEC					

Architecture:
Use: Vacant; Building was the only on campus that was defined as a "Large Facility" under the Life Safety Code Board and Care classification. Building no longer meets current Assisted Living/IMR requirements as it has no Call System. There is 12,500 square feet of area (including covered breezeways connecting mechanical rooms) on the main level, and an additional 700 square feet of area in mechanical and electrical rooms in the Basement.

Mechancial:
M1: Equipment is functioning and appears to be in Fair condition but age exceeds Average Service Life.
M2: A steam bundle inserted into a storage tank provides most of the domestic hot water. A small electric heater provides off-hour domestic hot water when flow in the system is small.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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DOUGLASS HALL

4D**50**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Hudson	4D55
NAC #111-14011-A206	April 1, 2014		Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
11,923	2	1954	IBC = VB LSC = V(000)	IBC = R-2 LSC = Apartment Bldg	Never	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	perimeter	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	NA	NA	NA	NA
	1.4 Floor Construction	2	Wood framed over crawl space	throughout	NA	NA
	1.5 Roof Construction	3	Wood framed	Attic	NA	NA
	1.6 Exterior Walls	4	Wood framed	Perimeter of building	Paint pealing on cement asbestos shingles (See Photo **4D55-1.6**)	Clean and repaint
	1.7 Exterior Windows	3	Aluminum casement, single pane	throughout	Need to be resealed and lubricated	Reseal and lubricate
	1.8 Exterior Doors	3	Wood in wood frames	Unit entry	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	Over second story portions	Shingles are badly weathered and breaking off	Replace asphalt shingle
	1.9a Roof Coverings	4	Built-up roofing over flat roof sections	Over unit entry and garages	Needs to be re-roofed	Reroof
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with plaster	throughout	NA	NA
	1.12 Interior Doors	3	Wood in wood frames	throughout	NA	NA
	1.13 Stair Constn/Finishes - Interior	2	Wood	between levels within each unit	NA	NA
	1.13b Stair Constn/Finishes - Exterior	4	Concrete	Apartment entries, and walk to the LV Campus	Irregular riser height, missing handrails (Photos **4D55-1.13A, B**)	Repair
	1.14 Wall Finishes	3	Plaster, painted	throughout	NA	NA
	1.15 Floor Finishes	3	Mix of wood, VCT and ceramic tile	throughout	NA	NA
	1.16 Ceiling Finishes	3	Plaster, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Concrete foundation walls with minimal reinforcement; concrete slab on grade at garages; crawl space below living spaces.			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.2 Struct. Bearing Walls	4	Sawn lumber wood studs at exterior and interior bearing walls; plywood sheathing at exterior walls.		Wood trim at eaves are weathered and need maintenance before moisture enters into the walls. Some of the siding has fallen off. The exposed condition needs to be sealed from the weather to stop the infiltration of precipitation. (Photos **4D55-2.2A, 4D55-2.2B, 4D55-2.2C**)	
	2.3 Structural Frame	2	Diagonal roof sheathing over sawn lumber wood joists and hips for sloped roofs and flat ceilings above the living areas. Diagonal roof sheathing over sawn lumber wood joists above garages. Floor sheathing and sawn lumber joists at floors with glue laminated beams and wood posts in the crawl space.			
	2.4 Lateral System	2	Wood sheathing at the roof and floor diaphragms; plywood sheathing at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NA	NA	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Water closet, Sink, Shower/Tub	Main Level		
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater - 1997	Basement		
	4.2 Water Distribution	4	Water and Waste Piping	Throughout		
	4.3 Rain Water Drainage	--	Sloping Roof; no drainage piping			
5.0 HVAC	**5.1a HVAC Equipment**	2	Gas-fired Water Boilers - 1997 (x2)	Basement	M1	
	5.1b HVAC Equipment	4	Heating Water Piping	Basement		
	5.1c HVAC Equipment	2	Heating Water Pumps	Basement		
	5.1d HVAC Equipment	4	Hot Water Convectors	Throughout	M2	
	5.3 Controls/Special Sys.	2	Direct Digital Controls	Throughout		
6.0 Electrical	**6.1a Elec Service**	4	200 Amp undergound service to Building 4D55 at 120/208 Volts from Building 4D57	N End of Building 4D57	Service capacity is small for 4 studio apartments	Increase service capacity
	6.1b Elec Distribution	4	1952 Trumbull Electric Type ABH 200 Amp distribution panelboard with circuit breakers to feed the loadcenters in the individual Apartments	1st Floor Garage in middle of building	Trumbull distribution panelboard is obsolete equipment	Replace distribution panelboard with new distribution panelboard
		4	1952 Trumbull Electric 50 Amp loadcenters, one loadcenter per each apartment	Apartment Kithens	Trumbull loadceneters are obsolete equipment; no arc-fault circuit interrupters; circuit breakers in Kitchen loadcenters are caked with dried up grease (photo **4D55-6.1A**)	Replace loadcenters with new loadcenters; include arc-fault circuit interrupters for circuits in bedrooms

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.2a Lighting	4	Incandescent drum-style luminaires	Apartment Interior	Incadescent lamps require frequent replacement and are less effcient that other lamp types (photos **4D55-6.2A, B**)	Replace incandescent luminaires with Fluorescent, Compact Fluorescent or LED luminiares
		2	Fluorescent, Compact Fluorescent and LED luminaires	Mechanical/Electrical Rooms, Garages	None	None
		4	Incandescent exteriror luminaires	Building Exterior	Incadescent lamps require frequent replacement and are less effcient that other lamp types (photo **4D55-6.2C**)	Relace incandescent luminaires with Compact Fluorescent or LED luminiares
	6.2b Branch Wiring	3	Exterior lighting controlled by swithches	Basement Electrical Room	No automatic controls for exterior lighting	Add automatic exterior lighting controls
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		3	Receptacles and switches have standard faceplates	Building Interior	No ground-fault circuit interrupter on receptacles at sinks, in Kitchens, or in Garages (photos **4D55-6.2D, E**)	Replace receptacles at sinks, in Kitchens, and in Garages with receptacles equipped with ground-fault circuit interrupters
	6.3a Telecom	3	Telecom floor-mounted rack, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Laundry Room	Telephone outlets in Apartments are not data capable (photo **4D55-6.3A**)	Add wireless access points for each Apartment Building
	6.3b Other Comm	2	Dish antennas for TV, individual dish per each apartment	Roof	None	None
	6.3c Fire Alarm	2	Simplex fire alarm system	Probably in 1st Floor Garage or Storage Room (not found)	None	None
	6.3d Security	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.4 Emerg Power	5	The entire Lower Campus electrical load, other than the Sewage Lift Station, is fed from pad-mounted Transformer '5-16'; both Transformer '5-16' and Trasnformer '5-17' (for the Lift Station) are connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; other than the heating equipment in the Mechanical Room at the south end of Whitman Hall, none of the Apartment loads actually need standby power, and connecting the heating loads to standby power would be optional; the Sewage Lift Station has its own engine-generator	Outside at grade	There is no normal power available on the Lower Campus; emergency power not segregated by branch; no local automatic transfer switches	The primary feeder should be reconnected to normal power at the source end; a local engine-generator should be provided for the loads that actually need standby power, with a local automatic transfer switch
7.0 Equipment	**7.1 Institutional Equipmt**		NA	NA	NA	NA
	7.2 Fixed Furnishings	4	Kitchen cabinets	throughout	Original casework is in poor condition	Update casework in kitchens
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC		NA	NA	NA	NA
	8.3 WSEC					

Comments:

Architecture:
Use: Student Housing - College students receive housing in exchange for service in the Lakeland Village Cottages. Interiors have been well maintained. Building exteriors are in need of renovation. All apartments are occupied. This building offers two story units with enclosed parking. There are 8 units in this building.

Mechanical:
M1: In 1997, the housing area was taken off the central steam plant system. Stand-alone boilers were installed to serve lower campus housing.
M2: Convectors are manually controlled; no thermostat.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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HUDSEN

4D**55**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Lewis House	4D56
NAC #111-14011-A206	April 1, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
14,093	2	1954	IBC = VB LSC = V(000)	IBC = R-2 LSC = Apartment Bldg	Never	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	perimeter	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	NA	NA	NA	NA
	1.4 Floor Construction	2	Wood framed over crawl space	throughout	NA	NA
	1.5 Roof Construction	3	Wood framed	Attic	NA	NA
	1.6 Exterior Walls	4	Wood framed	Perimeter of building	Paint pealing on cement asbestos shingles (See Photo **4D56-1.6**), Missing shingles buildings 4D56-4, 6.	Clean and repaint
	1.7 Exterior Windows	3	Aluminum casement, single pane	throughout	Need to be resealed and lubricated	Reseal and lubricate
	1.8 Exterior Doors	3	Wood in wood frames	Unit entry	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	Over second story portions	Shingles are badly weathered and breaking off (Photo **4D56-1.9**)	Replace asphalt shingle
	1.9a Roof Coverings	4	Built-up roofing over flat roof sections	Over unit entry and garages	Needs to be re-roofed	Reroof
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with plaster	throughout	NA	NA
	1.12 Interior Doors	3	Wood in wood frames	throughout	NA	NA
	1.13a Stair Constn/Finishe	4	Wood	between levels at front of units	Railings are non-compliant	Replace railings
	1.13b Stair Constn/Finishe	3	Steel stairs	Back of second floor units	NA	NA
	1.14 Wall Finishes	3	Plaster, painted	throughout	NA	NA
	1.15 Floor Finishes	3	Mix of wood, VCT and ceramic tile	throughout	NA	NA
	1.16 Ceiling Finishes	3	Plaster, painted	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**	2	Concrete foundation walls with minimal reinforcement; reinforced concrete basement walls at lower mechanical rooms; concrete slab on grade at garages; crawl space below living spaces.			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.2 Struct. Bearing Walls	4	Sawn lumber wood studs at exterior and interior bearing walls; plywood sheathing at exterior walls.		Wood trim at eaves are weathered and need maintenance before moisture enters into the walls. Some of the siding has fallen off. The exposed condition needs to be sealed from the weather to stop the infiltration of precipitation. (**4D56-2.2A, 4D56-2.2B**)	
	2.3 Structural Frame	2	Diagonal roof sheathing over site constructed sawn lumber wood trusses for sloped roofs and flat ceilings above the living areas. Diagonal roof sheathing over sawn lumber wood joists and built-up sawn lumber beams with pipe columns above garages. Wood sheathing over sawn lumber floor joists and ceiling joists at the upper floor; wood sheathing over sawn lumber floor joists at the main floor over the crawl space			
	2.4 Lateral System	2	Wood sheathing at the roof and floor diaphragms; plywood sheathing at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NA	NA	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Water closet, Sink, Shower/Tub	Main Level		
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater - 1997	Basement		
	4.2 Water Distribution	4	Water and Waste Piping	Throughout		
	4.3 Rain Water Drainage	--	Sloping Roof; no drainage piping			
5.0 HVAC	**5.1a HVAC Equipment**	2	Gas-fired Water Boilers - 1997 (x2)	Basement	M1	
	5.1b HVAC Equipment	4	Heating Water Piping	Basement		
	5.1c HVAC Equipment	2	Heating Water Pumps	Basement		
	5.1d HVAC Equipment	4	Hot Water Convectors	Throughout	M2	
	5.3 Controls/Special Sys.	2	Direct Digital Controls	Throughout		
6.0 Electrical	**6.1a Elec Service**	4	250 Amp undergound service to Building 4D56 at 120/208 Volts from Building 4D57	N End of Building 4D57	Service capacity is small for 12 apartments	Increase service capacity
	6.1b Elec Distribution	4	1952 Trumbull Electric Type ABH 250 Amp distribution panelboard with circuit breakers to feed the loadcenters in the individual Apartments	1st Floor Garage in middle of building	Trumbull distribution panelboard is obsolete equipment	Replace distribution panelboard with new distribution panelboard
		4	1952 Trumbull Electric 50 Amp loadcenters, one loadcenter per each apartment	Apartment Pantries	Trumbull loadceneters are obsolete equipment; no arc-fault circuit interrupters	Replace loadcenters with new loadcenters; include arc-fault circuit interrupters for circuits in bedrooms

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.2a Lighting		Similar to Building 4D57			
	6.2b Branch Wiring		Similar to Building 4D57			
	6.3a Telecom		Similar to Building 4D57			
	6.3b Other Comm		Similar to Building 4D57			
	6.3c Fire Alarm		Similar to Building 4D57			
	6.3d Security		Similar to Building 4D57			
	6.4 Emerg Power		Similar to Building 4D57			
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC	5	Railings at exterior exit balcony	Both level	Railings are non-compliant	Replace
	8.3 WSEC					

Comments:

Architecture:
Use: Student Housing - College students receive housing in exchange for service in the Lakeland Village Cottages. Interiors have been well maintained. Building exteriors are in need of renovation. All apartments are occupied. This building offers two levels of one story units, accessed from an exterior porch. There are 12 units in this building.

Mechanical:
M1: In 1997, the housing area was taken off the central steam plant system. Stand-alone boilers were installed to serve lower campus housing.
M2: Convectors are manually controlled; no thermostat.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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LEWIS HOUSE

4D56

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LEWIS HOUSE

4D**56**

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LEWIS HOUSE

4D**56**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415		Whitman	4D57
NAC #111-14011-A206	April 1, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
14,206	2	1954	IBC = VB LSC = V(000)	IBC = R-2 LSC = Apartment Bldg	Never	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete	perimeter	NA	NA
	1.2 Slab on Grade	0	NA	NA	NA	NA
	1.3 Basement Walls	2	NA	NA	NA	NA
	1.4 Floor Construction	2	Wood framed over crawl space	throughout	NA	NA
	1.5 Roof Construction	3	Wood framed	Attic	NA	NA
	1.6 Exterior Walls	4	Wood framed	Perimeter of building	Paint pealing on cement asbestos shingles (See Photo **4D57-1.6A**); Broken and missing siding (Photos **4D57-1.6B, C, D**)	Repair, clean and repaint
	1.7 Exterior Windows	3	Aluminum casement, single pane	throughout	Need to be resealed and lubricated	Reseal and lubricate
	1.8 Exterior Doors	3	Wood in wood frames	Unit entry	Weatherstripping is worn	Adjust or replace weatherstripping
	1.9 Roof Coverings	4	Asphalt shingles	Over second story portions	Shingles are badly weathered and breaking off	Replace asphalt shingle
	1.9a Roof Coverings	4	Built-up roofing over flat roof sections	Over unit entry and garages	Needs to be re-roofed	Reroof
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	3	2x4 with plaster	throughout	NA	NA
	1.12 Interior Doors	3	Wood in wood frames	throughout	NA	NA
	1.13a Stair Constn/Finishes	4	Wood	between levels at front of units	Railings are non-compliant (Photos **4D57-1.13A, B, C**)	Replace railings
	1.13b Stair Constn/Finishes	3	Steel stairs	Back of second floor units	NA	NA
	1.13c Stair Constn/Finishes	4	Concrete steps	Front of building	Irregular riser height (Photos **4D57-1.13D, E**)	Replace
	1.14 Wall Finishes	3	Plaster, painted	throughout	NA	NA
	1.15 Floor Finishes	3	Mix of wood, VCT and ceramic tile	throughout	NA	NA
	1.16 Ceiling Finishes	3	Plaster, painted	throughout	NA	NA
	1.16 Ceiling Finishes	4	Exterior soffit	Over exterior balcony	Paint is pealing (Photos **4D57-1.16**)	Repaint
	1.17 Elevators & Lifts	0	NA	NA	NA	NA

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
2.0 Structural	**2.1 Foundations**	2	Concrete foundation walls with minimal reinforcement; reinforced concrete basement walls at lower mechanical rooms; concrete slab on grade at garages; crawl space below living spaces.			
	2.2 Struct. Bearing Walls	4	Sawn lumber wood studs at exterior and interior bearing walls; plywood sheathing at exterior walls.		Wood trim at eaves are weathered and need maintenance before moisture enters into the walls. Some of the siding has fallen off. The exposed condition needs to be sealed from the weather to stop the infiltration of precipitation. (Photos **4D57-2.2A, 4D57-2.2B, 4D57-2.2C**)	
	2.3 Structural Frame	2	Diagonal roof sheathing over site constructed sawn lumber wood trusses for sloped roofs and flat ceilings above the living areas. Diagonal roof sheathing over sawn lumber wood joists and built-up sawn lumber beams with pipe columns above garages. Wood sheathing over sawn lumber floor joists and ceiling joists at the upper floor; wood sheathing over sawn lumber floor joists at the main floor over the crawl space			
	2.4 Lateral System	2	Wood sheathing at the roof and floor diaphragms; plywood sheathing at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System		NA	NA	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Water closet, Sink, Shower/Tub	Main Level		
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater - 1997	Basement		
	4.2 Water Distribution	4	Water and Waste Piping	Throughout		
	4.3 Rain Water Drainage	--	Sloping Roof; no drainage piping			
5.0 HVAC	**5.1a HVAC Equipment**	2	Gas-fired Water Boilers - 1997 (x2)	Basement	M1	
	5.1b HVAC Equipment	4	Heating Water Piping	Basement		
	5.1c HVAC Equipment	2	Heating Water Pumps	Basement		
	5.1d HVAC Equipment	4	Hot Water Convectors	Throughout	M2	
	5.3 Controls/Special Sys.	2	Direct Digital Controls	Throughout		
6.0 Electrical	**6.1a Elec Service**	2	500 kVA pad-mounted Transformer '5-16' outside supplies a 1200 Amp undergound service to Building 4D57 at 120/208 Volts; service covers Buildings 4D55, 4D56, 4D57, 4D62 and 4D63; service is metered	Outside N of Building 4D57	Transformer '5-16' is tilted significantly due to settlement under pad (photo **4D57-6.1A**)	Replace concrete pad under equipment and reinstall Transformer '5-16'

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.1b Elec Distribution	3	Siemens 1200 Amp fused switch disconnect feeds main switchboard for Apartment Buildings 4D55, 4D56 and 4D57; two General Electric 200 Amp fused switches for Residences 4D62 and 4D63	1st Floor Electrical Room at N end of Building 4D57	None	None
		4	1952 Trumbull Electric 1350 Amp switchboard with 6 fused switches, 3 to feed the 3 Apartment Buildings, and 3 spare	1st Floor Electrical Room at N end of Building 4D57	Trumbull switchboard is obsolete equipment (photo **4D57-6.1B**)	Replace switchboard with new switchboard
		4	1952 Trumbull Electric Type ABH 250 Amp distribution panelboard with circuit breakers to feed the loadcenters in the individual Apartments	1st Floor Garage in middle of building	Trumbull distribution panelboard is obsolete equipment; distribution panel is small for 12 apartments	Replace distribution panelboard with new distribution panelboard; increase capacity
		4	1952 Trumbull Electric 50 Amp loadcenters, one loadcenter per each apartment	Apartment Pantries	Trumbull loadceneters are obsolete equipment; no arc-fault circuit interrupters	Replace loadcenters with new loadcenters; include arc-fault circuit interrupters for circuits in bedrooms
		2	General Electric and Square D panelboards	Mechanical Room at S end of Whitman Hall	None	None
	6.2a Lighting	4	Incandescent drum-style lensed luminaires	Apartment Interior	Incadescent lamps require frequent replacement and are less effcient that other lamp types	Replace incandescent luminaires with Fluorescent, Compact Fluorescent or LED luminiares
		2	Fluorescent, Compact Fluorescent and LED luminaires	Mechanical/Electrical Rooms, Garages	None	None
		4	Incandescent exterior luminaires	Building Exterior	Incadescent lamps require frequent replacement and are less effcient that other lamp types	Relace incandescent luminaires with Compact Fluorescent or LED luminiares
	6.2b Branch Wiring	3	Exterior lighting controlled by swithches	Basement Electrical Room	No automatic controls for exterior lighting	Add automatic exterior lighting controls
		4	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		3	Receptacles and switches have standard faceplates	Building Interior	No ground-fault circuit interrupter on receptacles at sinks, in Kitchens or in Garages	Replace receptacles at sinks, in Kitchens and in Garages with receptacles equipped with ground-fault circuit interrupters
	6.3a Telecom	3	Telecom floor-mounted rack, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 5e data cable	1st Floor Laundry Room	Telephone outlets in Apartments are not data capable	Add wireless access points for each Apartment Building
	6.3b Other Comm	2	Dish antennas for TV, individual dish per each apartment	Roof	None	None
	6.3c Fire Alarm	2	Simplex fire alarm system	Probably in 1st Floor Garage or Storage Room (not found)	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	5	The entire Lower Campus electrical load, other than the Sewage Lift Station, is fed from pad-mounted Transformer '5-16'; both Transformer '5-16' and Trasnformer '5-17' (for the Lift Station) are connected to 13.2 kV Feeder #5, which derives from the campus 560 kW engine-generator at the Chiller Plant; other than the heating equipment in the Mechanical Room at the south end of Whitman Hall, none of the Apartment loads actually need standby power, and connecting the heating loads to standby power would be optional; the Sewage Lift Station has its own engine-generator	Outside at grade	There is no normal power available on the Lower Campus; emergency power not segregated by branch; no local automatic transfer switches	The primary feeder should be reconnected to normal power at the source end; a local engine-generator should be provided for the loads that actually need standby power, with a local automatic transfer switch
7.0 Equipment	**7.1 Institutional Equipmt**		NA	NA	NA	NA
	7.2 Fixed Furnishings	4	Kitchen cabinets	throughout	Original casework is in poor condition	Update casework in kitchens
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2a IBC	5	Fire separation between Boiler room and adjacent apartment	South end of building	One-hour construction required because of size of boilers (Photos **4D57-8.2C, D**)	Verify or construct fire separation
	8.2b IBC	5	Railings at exterior exit balcony	Both level	Railings are non-compliant (Photos **4D57-8.2A, B**)	Replace
	8.3 WSEC					

Comments:

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

Architecture:
Use: Student Housing - College students receive housing in exchange for service in the Lakeland Village Cottages. Interiors have been well maintained. Building exteriors are in need of renovation. All apartments are occupied. This building offers two levels of one story units, accessed from an exterior porch. There are 12 units in this building.

Mechanical:
M1: In 1997, the housing area was taken off the central steam plant system. Stand-alone boilers were installed to serve lower campus housing.
M2: Convectors are manually controlled; no thermostat.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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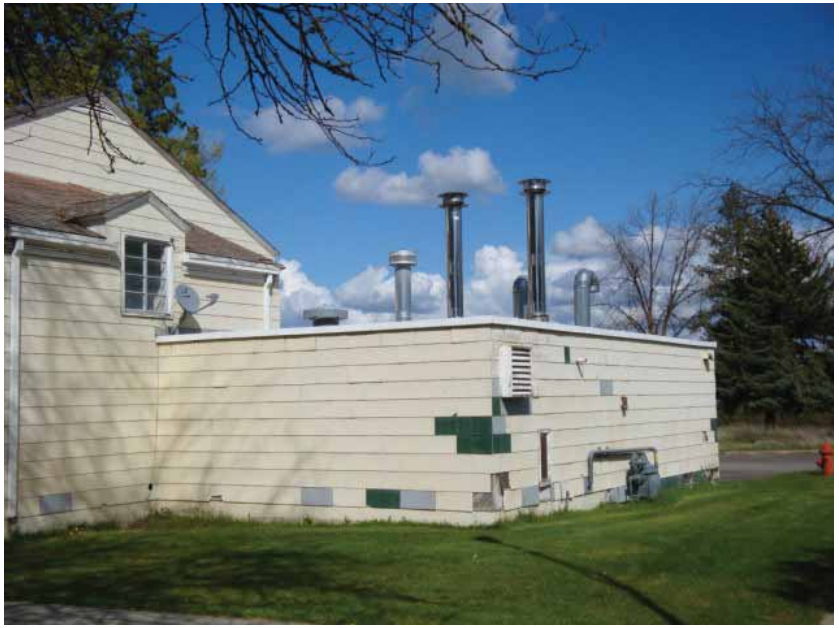

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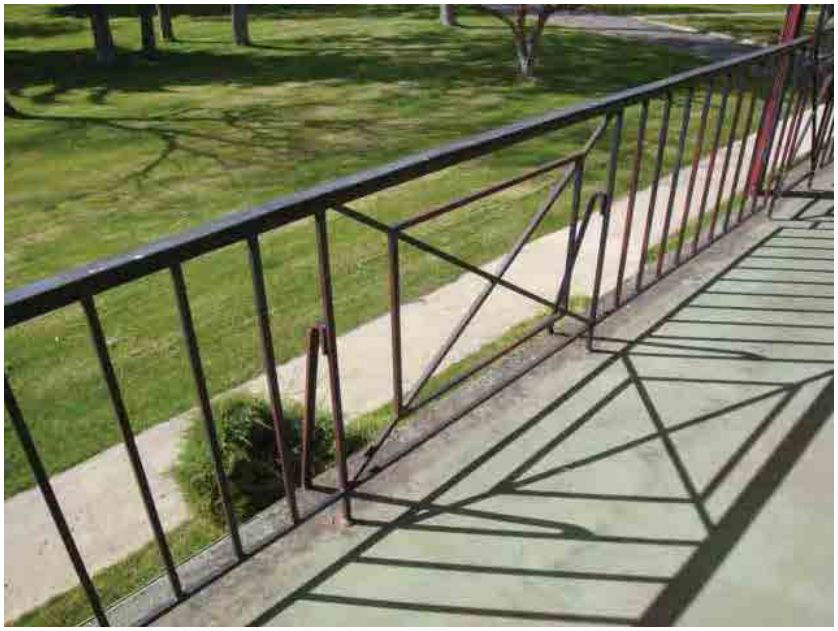

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan #2014-415	Storage Building	4D85
NAC #111-14011-A206	April 21, 2014	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
3,277	1	2007	IBC = IIB LSC = II(000)	IBC = S-1 LSC = Storage	NA	Good

Components	Systems	Rating*	Component Description	Component Locati	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete spread footings and pad footings	Perimeter of building	NA	NA
	1.2 Slab on Grade	2	Concrete	floor	NA	NA
	1.3 Basement Walls	0	NA	NA	NA	NA
	1.4 Floor Construction	2	Slab on Grade	floor	NA	NA
	1.5 Roof Construction	2	Pre-engineered metal building system, insulated	roof	NA	NA
	1.6 Exterior Walls	2	Pre-engineered metal building system, insulated, with metal wainscot panels	Perimeter of building	NA	NA
	1.7 Exterior Windows	2	Aluminum, insulated	throughout	NA	NA
	1.8 Exterior Doors	2	Hollow metal in hollow metal frames; Overhead coiling doors at vehicle entries		NA	NA
	1.9 Roof Coverings	2	Preformed metal roofing	entire building	NA	NA
	1.10 Roof Openings	0	NA	NA	NA	NA
	1.11 Interior Partitions	2	Chain-link fencing	throughout	NA	NA
	1.12 Interior Doors	2	Chain-link fence type gates	throughout	NA	NA
	1.13 Stair Constn/Finishes	0	NA	NA	NA	NA
	1.14 Wall Finishes	2	Pre-finished metal wainscot; galvanized fencing	throughout	NA	NA
	1.15 Floor Finishes	2	Exposed concrete	throughout	NA	NA
	1.16 Ceiling Finishes	2	Exposed vapor barrier on batt insulation	throughout	NA	NA
	1.17 Elevators & Lifts	0	NA	NA	NA	NA
2.0 Structural	**2.1 Foundations**					
	2.2 Struct Bearings Walls					
	2.3 Structural Frame					
	2.4 Lateral System					
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System	0	NA	NA	NA	NA
4.0 Plumbing	**4.1a Plumbing Fixtures**	-	No fixtures			
	4.2 Water Distribution	-	No plumbing piping			
	4.3 Rain Water Drainage	-	Sloped roof: no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	2	Exhaust Fan	Wall		
	5.1b HVAC Equipment					
	5.1c HVAC Equipment					
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.	2	Manual control of ventilation fan			
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					

Components	Systems	Rating*	Component Description	Component Locatio	Deficiency Description	Corrective Action
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	7.1 Institutional Equipmt					
	7.2 Fixed Furnishings	0	NA	NA	NA	NA
8.0 Code Compliance	8.1 Life Safety Code					
	8.2 IBC	2	NA	NA	NA	NA
	8.3 WSEC					

Comments:

Architectural:
Use: Storage used by the South Campus Cottages.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

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STORAGE BUILDING 4D85

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Residence Unit - D	01
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
42,992	3	1932	1-A	IBC=I-3, LSC= Institutional	(minor remodels have been done at some point)	Failing

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-14	**1.1 Foundation**	3	Conc. foundation walls		Minor cracks (see photo **PL01-1.1A**) Minor water infiltration in crawl space.	
	1.2 Slab on Grade	-	N/A			
	1.3a Basement Walls	3	Exterior foundation walls (See section 1.1).			
	1.3b	2	Interior partitions: wood studs with painted plywood both sides **(PL01-1.3A**).			
	1.4 Floor Construction	2	Concrete (Conc.) slab			
	1.5 Roof Construction	2	Conc. roof deck and tapered insulation above, with brick parapet (**PL01-1.5A**).		Standing water at roof drains has saturated and compromised insulation below (**PL01-1.5B**).	
	1.6a Exterior Walls	3	1932 building: Brick and terracotta banding. Terracotta cap. (**PL01-1.6A and PL01-1.6E**) Minor Mortar damage at parapet line (**PL01-1.6D**)		Water infiltration at some windows has caused oxidation and mortar damage (**PL01-1.6B & PL01-1.6C**).	
	1.6b	3	Small addition: Concrete block (**PL01-1.6F**).			
	1.7a Exterior Windows	4	Typical window: Double hung wooden single pane, non-insulated glass.		Peeling paint (**PL01_1.7A**). Some locations have water infiltration issues (**PL01_1.7B**)	
	1.7b	2	Steel frame windows: insulated glass windows some locations. (**PL01-1.7C**).			
	1.8 Exterior Doors	2	Steel doors and frames with functioning existing hardware.(**PL01-1.8A, PL01-1.8B**)			
	1.9 Roof Coverings	5	Built-up roofing membrane with reflective coating.		Pealing and cracked in some locations and causing water infiltration (**PL01_1.9A, PL01_1.9B**). Old patches are cracked (**PL01_1.9C**)	
	1.10 Roof Openings	5	VTR lead flashing adequately sealed (**PL01_1.10A**) and roof drains.		Standing water at roof drains (**PL01-1.10B**).	
	1.11 Interior Partitions **1.11a**	3	Structural walls: Conc. block exposed (and/or) furred out with gypsum wall board (Gyp Bd), or lath and Plaster (**PL_01_1.11A**).		Need paint some locations	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.11b	3	Partition walls: WD Studs, Gyp Bd (and/or) lath and plaster. **(PL01_1.11B**)		Need paint some locations	
	1.11c	3	Exposed Brick and Terracotta banding (exterior of 1932 bldg.) at new addition (**PL01_1.11C**)			
	1.12 Interior Doors	3	Hollow metal doors and frames		Need painting	
	Stair Constn/Finishes 1.13a	2	Main Interior stairs – Concrete stairs with Terrazzo (**PL01-1.13A, PL01-1.13B, PL01-1.13C**)		Main Interior stairs: Plaster at walls cracking needs repair and paint (**PL01-1.13D**).	
	1.13b	2	Metal Fire stairs structurally sound (**PL01_1.13E**)		Metal Fire stairs: Need painting (**PL01-1.13E**)	
	1.14a Wall Finishes	3	Gyp. Bd. or Lath and Plaster: Painted		Needs cleaning and painting (**PL01-1.14A**) some locations.	
	1.14b	3	Concrete Block: Painted			
	1.14c	3	Concrete Block: Painted Toilet rooms/ Janitorial: Ceramic tile and paint		Some tile Damaged (**PL01-1.14B**)	
	1.15a Floor Finishes	4	Vinyl composite tile (VCT): with rubber base (RB)		VCT and SV with RB: Damaged, mismatched, discolored and dirty (**PL01-1.15A, PL01-1.15B**) missing transition strip at some doorways (**PL01-1.15C**)	
	1.15b	3	Sheet vinyl: (SV) with RB		(see note 1.15a)	
	1.15c	4	Ceramic Floor Tile		Ceramic Floor tile: ranged poor to good condition (**PL01-1.15E, PL01-1.15F and PL01-1.15G**)	
	1.15d	1	Terracotta tile at sun porch (**PL01-1.15D**)			
	1.16a Ceiling Finishes	4	Plaster or Gyp Bd ceilings and Soffits		Ceilings range from good condition (**PL01-1.16A**), to poor (**PL01-1.16C**)	
	1.16b	4	Suspended acoustical:12X12 tile or 2'X4' panels		Ceilings range from good condition (**PL01-1.16D**) to poor (**PL01-1.16B**)	
	1.17 Elevators & Lifts	5			Multi-story building with no elevator (See section 8.4)	
2.0 Structural	**2.1 Foundations**	3	Concrete foundation walls & basement slab on grade; undocumented; likely unreinforced or minimally reinforced. South addition with loading dock has concrete foundation walls, likely reinforced.		Shrinkage cracks of the foundation wall. Spalled concrete at the top of the south foundation wall near the mechanical room. (**PL01-2.1A**) Unreinforced concrete prohibited by current codes	
undocumented construction: circa 1933 with south addition	**2.2 Struct. Bearing Walls**	5	Unreinforced brick masonry at exterior and some masonry at interior (3 wythe, about 13" thick exterior walls). Some concrete headers at openings bearing on brick at jambs.		Unreinforced masonry not permitted by code; poor wall conditions especially at parapets (**PL01-2.2A, PL01-2.2B**); some cracking and extensive mortar deterioration	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	3	Concrete roof and floor beams, joists, slabs. Sloped wood framing above concrete roof slab. A mixture of interior concrete and masonry bearing walls. Exposed steel exit stairs at east and west ends of building.		No notable signs of concrete distress, but slabs of this age will not meet current codes for reinforcement and anchorage. Roofing deterioration may be causing reinforcement corrosion. Exposed steel stairs shows signs of rust due to moisture and weather. (**PL01-2.3A, PL01-2.3B**)	
	2.4 Lateral System	5	Unreinforced brick shear walls with brick parapets; concrete roof and floor diaphragms.		Unreinforced masonry is prohibited by code and hazardous; significant roof diaphragm anchorage to walls is unlikely; deficiency exacerbated by heavy roof and floor construction.	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water Closets, Sinks, Urinals, Showers	Throughout	M1 (**PL01-4.1A, C**)	
	4.1b Plumbing Fixtures	4	Domestic Hot Water Heaters	Basement	M1	
	4.2 Water Distribution	4	Water and Waste and Piping	Throughout	M1	
	4.3 Rain Water Drainage	4	Roof Drains and Pipe	Throughout	M1 (**PL01-4.1B**)	
5.0 HVAC	**5.1a HVAC Equipment**	4	Air Handling Units - 1994	Outdoor	M1 (**PL01-5.1A**)	
	5.1b HVAC Equipment	4	Exhaust Fans - 1994	Outdoor	M1	
	5.1c HVAC Equipment	4	Heating Boiler - 2006	Basement	M1, M3 (**PL01-5.1B**)	
	5.1d HVAC Equipment	4	Air Cooled Water Chiller - 1994	Roof	M1 (**PL01-5.1C**)	
	5.1e HVAC Equipment	4	Pumps - 1994	Basement	M1	
	5.2 HVAC Distribution	4	Ductwork, Terminal reheat boxes	Throughout	M1, M2	
	5.3 Controls/Special Sys.	3	Direct Digital Control	Throughout	M4	
6.0 Electrical	**6.1a Elec Service**	2	Avista Utilities 13.2 kV Junction Enclosure 'J2' supplies the 225 kVA pad-mounted transformer for Building 1 Residence Unit	S of building exterior	None	None
		4	Avista Utilities owned 225 kVA pad-mounted transformer supplies an outdoor 800 Amp enclosed Main Circuit Breaker at 480/277 Volts, which in turn supplies the Main Switchboard via an outdoor Automatic Transfer Switch	S of building exterior	Electrical system is not configured to provide separation of NEC 700 - emergency loads, NEC 701 - legally required standby loads, and NEC 702 - optional standby loads	Reconfigure power system to separate the types of loads, provide automatic transfer switches as needed
	6.1b Elec Distribution	2	The main switchboard is a Siemens ITE Style, 800 Amp main switchboard with an 800 Amp main switch installed in 1991	Basement electrical room	None	None
		2	Panels are Siemens equipment installed in 1991	Basement electrical room	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		2	Panels are Square D equipment installed prior to 1991 but not original to the building	Basement electrical room, 1st and 2nd floor main corridors, 1st floor dayroom, 1st and 2nd floor laundries,	None	None
	6.2a Lighting	2	HID arm-mounted luminaires	Building exterior	None	None
		3	Fluorescent security luminaires	1st and 2nd floor Toilet Rooms, High security room	Lens discoloration typical of security luminaires (photos **PL01-6.2A, B**)	Replace security luminaire lenses or luminaires
		2	Fluorescent wraps	1st and 2nd floor Bunk rooms and day rooms	None	None
		3	Fluorescent troffers	1st and 2nd floor Break rooms, Corridors, and general areas	Luminaire housing rusty for 2nd floor luminaires (photo **PL01-6.2C**)	Replace rusty luminaires
		2	LED exit signs - red	Building Interior	None	None
		2	Twin-head emergency luminaires	Building interior egress paths	None	None
		3	Incandescent caged 'jellyjar' luminaire	Main entry interior	•Incandescent lamps require frequent relamping and are inefficient; incandescent lamps are becoming unavailable (photo **PL01-6.2D**)	Provide new compact fluorescent or LED luminaire to replace existing
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell and contactors	Basement Mechanical Room	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building interior general spaces	None	None
		2	Receptacles are GFCI type	Restrooms, Laundry rooms, Break rooms	None	None
	6.3a Telecom	5	Fiber-optic cable connection to the campus network is prepared; Category 5e and Category 6 data cable; Absent headend or rack	2nd floor mechanical chase	Building telecom systems have been removed; Campus network fiber-optic cable is not connected to building telecom systems (photo **PL01-6.3A**)	Add headend and rack; Connect to building telecom systems
	6.3b Other Comm	5	Disconnected Dukane intercom speakers mounted in ceiling tile; Headend disconnected	Bunk rooms, control center	Building intercom system headend has been disconnected (photo **PL01-6.3B**)	Reconnect building intercom systems

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		5	Offender phone system	Each end of 1st and 2nd floor corridors	Phones have been removed (photos **PL01-6.3C, D**)	Replace Offender phone system with current equipment or system
		3	Cable TV system	1st and 2nd floor Day Rooms and Break Rooms	TV cables improperly secured and dangling; surface-mount raceway unsecured from wall (photos **PL01-6.3E, F**)	Secure TV cable or place in raceway; properly mount existing surface-mount raceway
	6.3c Fire Alarm	4	Notifier system 5000 Fire Alarm Control Panel; connected via fiber-optic loop to annunciator in Building 6	1st and 2nd floor Control Rooms	Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access; Fire Alarm Control Panel is constantly in trouble condition (photo **PL01-6.3G**)	Annunciate Fire Alarm System in new location – Annunciate Pine Lodge fire alarms in Pine Lodge Administration Building 'A' or Eastern State Hospital Administration Building 3A01; trouble-shoot and repair fire alarm system in order to eliminate trouble condition
		3	Fire alarm horn/strobe signals; smoke detectors in most areas; duct smoke detectors	1st floor entryway corridor	Smoke detector is damaged (photo **PL01-6.3H**)	Replace damaged fire alarm device
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	2	Battery-backed egress lighting units	Egress Pathways	None	None
		4	Aptech 354 kW diesel-fueled engine-generator set with weatherproof enclosure and separate fuel tank; 800 Amp output circuit breaker; entire building service connects via automatic transfer switch	W exterior of building	Electrical system is not configured to provide separation of NEC 700 - emergency loads, NEC 701 - legally required standby loads, and NEC 702 - optional standby loads	Reconfigure power system to separate the types of loads, provide automatic transfer switches as needed
7.0 Equipment	**7.1 Institutional Equip**	3	Residential style washer and dryers (**PL01-7.1B**).			
	7.2 Fixed Furnishings	4	casework		Very little casework in poor to fair condition (**PL01-7.2A and PL01-7.2B**)	
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	8.4 ADA	5	Exterior ramp to first floor		Upper floors are not ADA accessible. (See section 1.17)	

Comments:

Mechanical:

M1: Mechanical equipment and plumbing fixtures appear to be in Good condition but have been unused for 3 to 4 years. Varying degrees of service will be required to place back into use.
M2: Sleeping areas in proximity to gas fired boilers require Carbon Monoxide sensors/alarms. Not present currently.
M3: Gas fired equipment requires a safety shutdown at the exit from the boiler room. Not present currently.
M4: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL01-1.1A.JPG

PL01-1.3A.JPG

PL01-1.5A.JPG

PL01-1.5B.JPG

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RESIDENCE UNIT-D PL**01**

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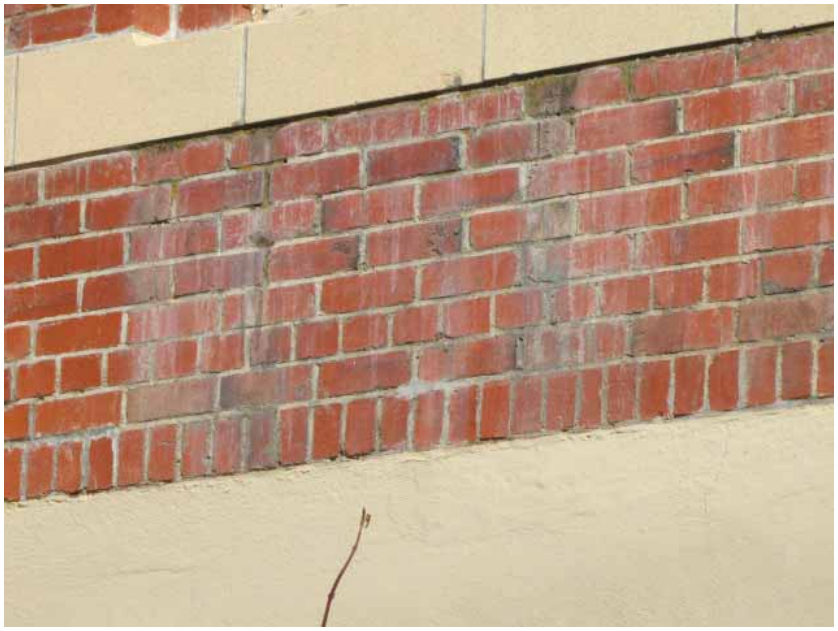

PL01-1.6C.JPG

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NAC NO # 111 - 14011

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RESIDENCE UNIT-D PL**01**

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PL01-1.9B.JPG

PL01-1.9C.JPG

PL01-1.10A.JPG

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PL01-1.11A.JPG

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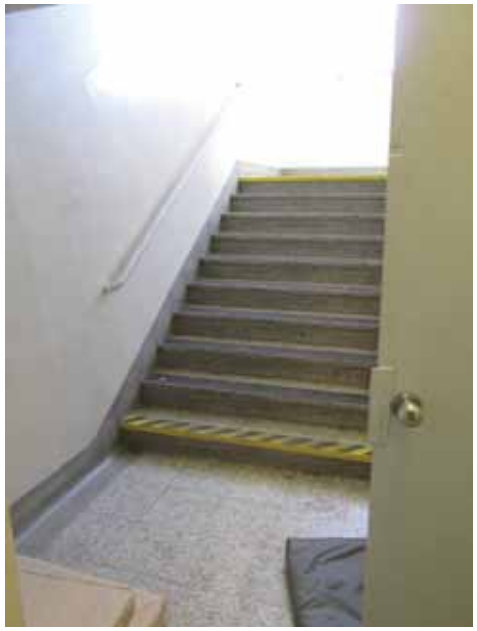

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PL01-1.13B.JPG

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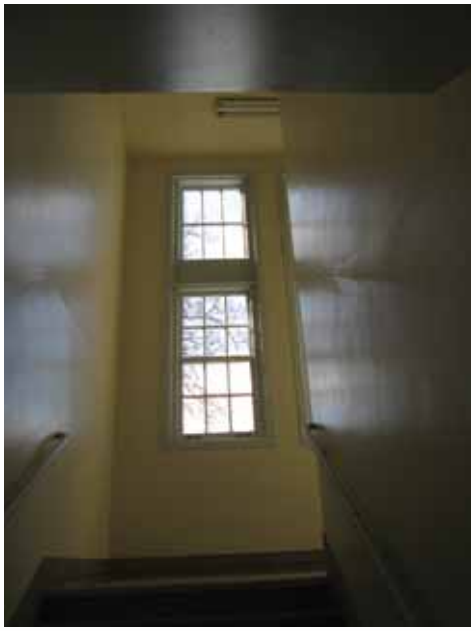

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PL01-1.14A.JPG

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PL01-1.15C.JPG

PL01-1.15D.JPG

PL01-1.15E.JPG

PL01-1.15F.JPG

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PL01-1.15G.JPG

PL01-1.16A.jpg

PL01-1.16B.JPG

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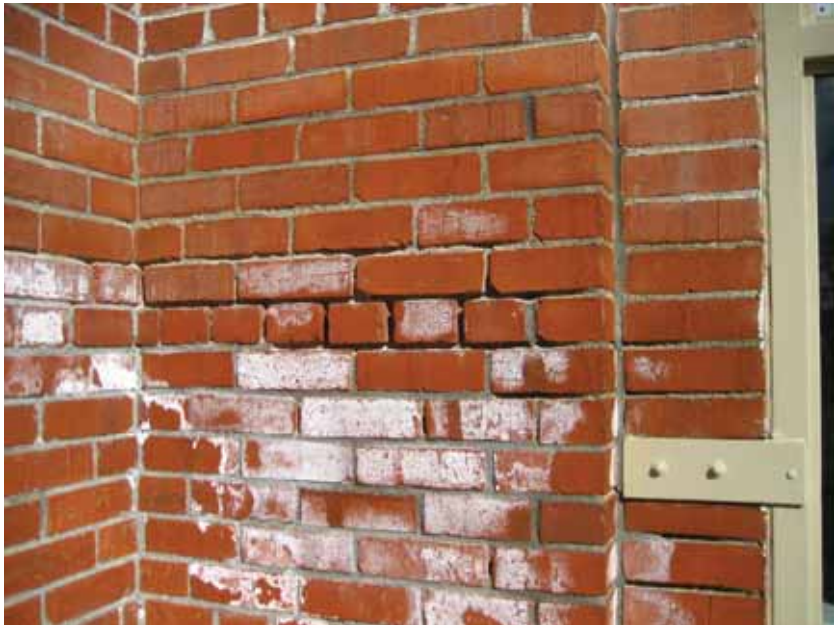

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PL01-4.1A.JPG

PL01-4.1B.JPG

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PL01-5.1A.JPG

PL01-5.1B.JPG

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RESIDENCE UNIT-D PL**01**

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PL02-1.2A.JPG

PL02-1.5A.JPG

PL02-1.6A.JPG

PL02-1.8A.JPG

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SERVICE CENTER-E PL02

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Service Center - E	02
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
21,974	2	1993	II-B	IBC = B LSC = Business	gym flooring replaced in 2000	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	1	Concrete (Conc.) foundation wall			
	1.2 Slab on Grade	1	Conc. slab on grade			
	1.3 Basement Walls	-	N/A			
	1.4 Floor Construction	1	Conc. Slab (**PL02-1.2A**) and framed second level.			
	1.5 Roof Construction	1	(Metal building) Steel (Stl) purlins on Stl girders, and a sandwiched vapor barrier, (**PL02-1.5A**) reflective insulation and radiant barrier blanket. (**PL02-1.5B**)			
	1.6 Exterior Walls	1	(Metal building) steel stud infill exterior insulation and Mtl. siding (**PL02-1.6A**)			
	1.7 Exterior Windows	2	Stl frame with insulated glass			
	1.8a Exterior Doors	2	Typical man doors: Stl doors and frames.			
	1.8b	2	Overhead doors: Gymnasium area (**PL02-1.8A**)			
	1.9 Roof Coverings	1	Standing seam Mtl roofing over felt paper			
	1.10 Roof Openings	2	VTR Flashed			
	1.11a Interior Partitions	2	Steel studs with Gypsum wall board both sides (Gyp. Bd).			
	1.11b	2	Chain link gated enclosures(**PL02-1.11A**)			
	1.12 Interior Doors	2	Hollow Mtl doors and frames (**PL02-1.12A, PL02-1.12B**)			
	1.13 Stair Constn/Finishes	2	Mtl Stairs and treads with poured conc. Landing (**PL02-1.14A and PL02-1.14B**)			
	1.14a Wall Finishes	2	Painted Gyp Bd			
	1.14b	2	Fiber-Reinforced Plastic panels (FRP): Toilet/ Janitorial), (**PL02-1.14B**),			
	1.14c	2	Ceramic wall tile (**PL02-1.14A**).			
	1.14d	2	12X12 Foam sound insulation at sound booth over painted Gyp. Bd. wall (**PL02-1.14C**).			
	1.15a Floor Finishes	3	Ceramic floor tile: Toilet rooms/ Janitorial (**PL02-1.15B**).		Ceramic floor tile- Toilet rooms/ Janitorial - minor staining (PL02-1.15B).	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.15b	3	Carpet: (**PL02-1.15D**)		Carpet fraying at transition strip (PL02-1.15C)	
	1.15c	1	Polished Conc. Floor: (**PL02-1.15E**)			
	1.15d	1	Epoxy flooring: Gymnasium floor : (**PL02-1.15F**)			
	1.15e	2	Vinyl composite tile (VCT): (**PL02-1.15G**)			
	1.16a Ceiling Finishes	2	Sound baffle fabric: Gymnasium (**PL02-1.16A**)			
	1.16 Ceiling Finishes	3	Acoustical suspended 2X4 panels ceilings: (**PL02_1.16E**)		Acoustical suspended 2X4 panels: damaged some locations (**PL02-1.16B and PL02-1.16C**)	
	1.16 Ceiling Finishes	3	Suspended, painted, Gyp Bd ceilings: (**PL02-1.16D**).			
	1.17 Elevators & Lifts	2	Wheelchair platform lift (**PL02-1.17A**)			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with concrete slab on grade.			
	2.2 Struct. Bearing Walls	2	Metal building horizontal girts at exterior walls. Sawn lumber wood studs at interior bearing walls for support of wood framing of partial upper floor.			
	2.3 Structural Frame	2	Metal building roof purlins and metal roofing. Plywood sheathing over sawn lumber floor joists at upper mechanical platform. Plywood sheathing over floor trusses consisting of wood chords and metal webs at upper floor.			
	2.4 Lateral System	2	Metal building rigid steel frames; rated wood sheathing at the upper floor diaphragm; wood sheathing at interior shear walls below the upper floor.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water Closets, Sinks, Urinals, Showers	Throughout	M1 (**PL02-4.1B-D**)	
	4.1b Plumbing Fixtures	4	Domestic Hot Water Heater	First Floor Mech Rm	M1 (**PL02-4.1A**)	
	4.2 Water Distribution	4	Water and Waste and Piping	Throughout	M1	
	4.3 Rain Water Drainage	4	Roof Drains and Pipe	Throughout	M1	
5.0 HVAC	**5.1a HVAC Equipment**	4	Air Handling Unit - 1993	Attic	M1	
	5.1b HVAC Equipment	4	Gas fired Unit Heater - 1993	Gymnasium ceiling	M1 **(PL02-5.1A-C**)	
	5.1b HVAC Equipment	4	Exhaust Fans - 1993	Roof	M1	
	5.1c HVAC Equipment	4	Condensing Units - 1993	Outdoors	M1	
	5.2 HVAC Distribution	4	Ductwork, Terminal reheat boxes, grilles	Throughout	M1	
	5.3 Controls/Special Sys.	3	Direct Digital Control	Throughout	M2	
6.0 Electrical	**6.1a Elec Service**	2	Avista utility owned 225 kVA pad-mounted xfmr	E of Building 3	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.1b Elec Distribution	2	Multi-tap enclosure feeds (3) General Electric 200 Amp panelboards installed in 1993	1st Floor Electrical Room, 2nd Floor	None	None
	6.2a Lighting	2	Lensed luminaires, supplemented in places with battery-backed lighting units.	Building Interior General spaces	None	None
		2	Metal Halide HID luminaires supplemented with HID wallpacks	Gymnasium	None	None
		2	LED exit signs	Building Interior	None	None
		2	HID Wall-mount and Pole-mount Area Luminaires	Building Exterior	None	None
	6.2b Branch Wiring	3	Exterior lighting controlled by photocell, timeclock and contactor	1st Floor Electrical Room	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior General spaces	None	None
		2	Receptacles are GFCI type	Kitchen	None	None
	6.3a Telecom	1	Telecom floor-mounted rack, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	1st Floor Communications Room	None	None
	6.3b Other Comm	2	Intercom/paging system	2nd Floor Security Electronics Room	None	None
	6.3c Fire Alarm	4	Notifier AFP-200 fire alarm system - system 5000; horn/strobe signals; detectors in most areas; duct smoke detectors; connected via fiber-optic loop to annunciator in Building 6	1st Floor Communications Room	Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access	Annunciate Fire Alarm System in new location – Annunciate Pine Lodge fire alarms in Pine Lodge Administration Building 'A' or Eastern State Hospital Administration Building 3A01

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3d Security	5	Analog CCTV video surveillance system; CCTV cameras in security enclosures; CCTV cameras in weatherproof enclosures	2nd Floor Security Electronics Room; Building Interior Activity/Craft Rooms; Building exterior for Exercise Yard video surveillance	Video recording system has been disconnected; Analog CCTV equipment is becoming obsolete; Some cameras have been removed with the junction box left uncovered (photos PL02-6.3A, B, C, D)	Replace video surveillance system with IP-based system and add cameras for coverage as required if video surveillance is desired; Remove remainder of analog system if video surveillance is not desired
	6.4 Emerg Power	2	Battery-backed egress lighting units	Egress Pathways	None	None
7.0 Equipment	**7.1a Institutional Equip**	2	(2) Brinks exhaust cabinets from the art rooms (**PL02_7.1A**).			
	7.1b	2	Refrigerator, microwave and stove, (**PL02_7.1B**).			
	7.1c	2	Intercom sound system (**PL02_7.1C**)			
	7.2a Fixed Furnishings	2	Media cabinets (**PL02_7.2A**)			
	7.2b	2	Storage shelving (**PL02_7.2B**),			
	7.2c	2	Work bench tables (**PL02_7.2C**)			
	7.2d	3	Casework (**PL02_7.2D**)		Some missing handles (**PL02_7.2H**)	
	7.2e	4			Cubbies and counters in art rooms are worn (**PL02_7.2E**).	
8.0 Code Compliance	**8.1 Life Safety Code**	-				
	8.2 IBC	-				
	8.3 WSEC	-				
	8.4 ADA	1	fully accessible (see section1.17)			

Comments:

Mechanical:

M1: Mechanical equipment and plumbing fixtures appear to be in Good condition but have been unused for 3 to 4 years. Varying degrees of service will be required to place back into use.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL02-1.2A.JPG

PL02-1.5A.JPG

PL02-1.6A.JPG

PL02-1.8A.JPG

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PL02-1.11A.JPG

PL02-1.12A.JPG

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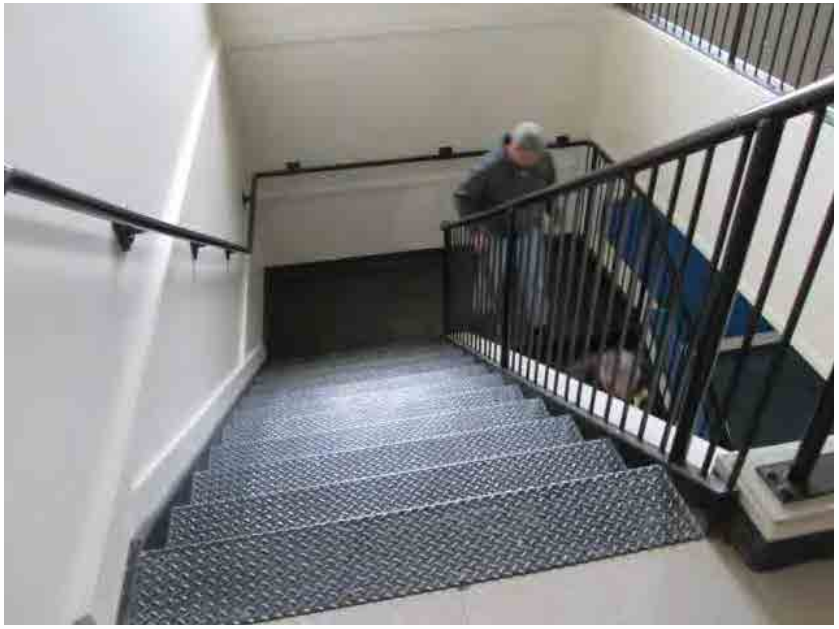

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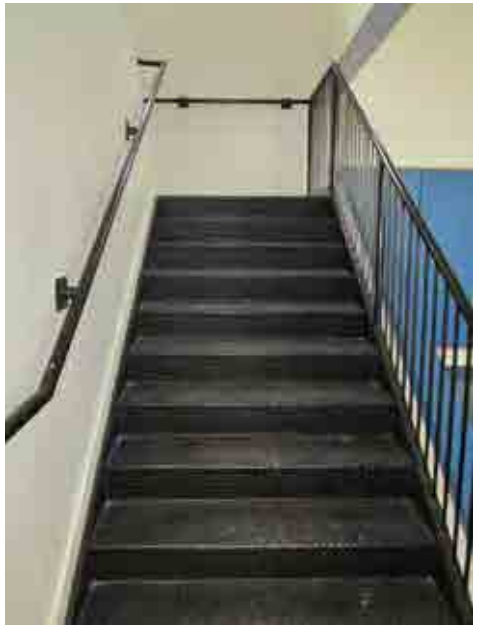

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PL02-1.14C.JPG

PL02-1.15A.JPG

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PL02-1.16A.JPG

PL02-1.16B.JPG

PL02-1.17A.JPG

PL02-4.1A.JPG

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PL02-4.1B.JPG

PL02-4.1C.JPG

PL02-4.1D.JPG

PL02-5.1A.JPG

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PL02-5.1B.JPG

PL02-5.1C.JPG

PL02-7.1A.JPG

PL02-7.1B.JPG

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PL02-7.1C.JPG

PL02-7.2A.JPG

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PL02-7.2E.JPG

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BUILDINGASSESSMENT			Medical Lake Infrastructure Master Plan WA State DES #2014-415		Property Laundry - F	03
NAC #111-14011-A206	April 25, 2014		Project		Building Name	Building No.
GSF	**Stories**	**Built**	**Construction Type**	**Occupancy Group**	**Last Remodeled**	**Overall Condition**
3,200	1	1989	IBC = V-B	IBC = B, LSC = Business	1998	Fair
Components	**Systems**	**Rating***	**Component Description**	**Component Location**	**Deficiency Description**	**Corrective Action**
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete			
	1.2 Slab on Grade	2	Exposed in some locations (**PL03-1.2A**)			
	1.3 Basement Walls	-	N/A			
	1.4 Floor Construction	-	1 story building (see 1.2)			
	1.5 Roof Construction	2				
	1.6 Exterior Walls	2	PL03-1.6A			
	1.7 Exterior Windows	2	Steel frames with insulated glass (**PL03-1.7A**)			
	1.8 Exterior Doors	2	Man doors; steel doors and frames and Overhead doors (**PL03-1.8A**)			
	1.9 Roof Coverings	2	**PL03_1.9A**			
	1.10 Roof Openings	2	**PL03-1.10A**			
	1.11 Interior Partitions	2	Stud with gypsum wall board (Gyp. Bd.) and locked storage caging (**PL03-1.11A**).			
	1.12 Interior Doors	2	Hollow metal doors and frames in like new condition.			
	1.13 Stair Constn/Finishes	-	N/A			
	1.14 Wall Finishes	2	Interior walls are freshly painted (**PL03-1.14A**)			
	1.15a Floor Finishes	2	Vinyl Composite Tile (VCT), **(PL03-1.15A**)			
	1.15b	2	Exposed Concrete slab (see 1.2).			
	1.16 Ceiling Finishes	2	Suspended ceiling grid with Acoustical tile (ACT), (**PL03-1.16A, PL03-1.16B**)			
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	2	Original two buildings with building addition filled in between have reinforced concrete foundation walls with concrete slab on grade.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls.			
	2.3 Structural Frame	3	Metal plate wood roof trusses with rated roof sheathing.		At the west entries, the wood posts supporting the roof canopies are weathered and cracked. Paint or replacement are needed. (**PL03-2.3A**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	2	Rated wood sheathing at the roof diaphragm; wood sheathing at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Water Closets, Sinks, Urinals, Showers	Throughout		
	4.1b Plumbing Fixtures	3	Domestic Hot Water Heater - Laundry	First Floor Mech Rm	(**PL03-4.1B,C**)	
	4.1c Plumbing Fixtures	3	Domestic Hot Water Heater - Sinks	First Floor Mech Rm	(**PL03-4.1A**)	
	4.2 Water Distribution	3	Water and Waste and Piping	Throughout		
	4.3 Rain Water Drainage	3	Roof Drains and Pipe	Throughout		
5.0 HVAC	**5.1a HVAC Equipment**	3	Gas-fired Furnaces	Suspended	(**PL03-5.1A-C**)	
	5.1b HVAC Equipment	3	Exhaust Fans	Roof		
	5.2 HVAC Distribution	3	Ductwork, Terminal reheat boxes, grilles	Throughout		
	5.3 Controls/Special Sys.	3	Direct Digital Control	Throughout	M1	
6.0 Electrical	**6.1a Elec Service**	2	Avista Utilities 13.2 kV Junction Enclosure 'J4' supplies the 225 kVA pad-mounted transformer for Building 3 Property Building	SE of the Property Bldg	None	None
		2	Avista utility owned 225 kVA pad-mounted Transformer supplies an 800 Amp fused switch at 120/208 Volts	E of the Property Bldg	None	None
	6.1b Elec Distribution	2	The main switchboard is a GE A-line Style 2, MLO, 1200 Amp main bus switchboard using the 6-disconnect rule.	E of the Property Bldg	None	None
	6.2a Lighting	2	Fluorescent troffers with lenses	Building interior	None	None
		2	HID wall-packs	Building exterior	None	None
	6.2b Branch Wiring	3	Exterior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic controls where appropriate
		3	Receptacles and switches have standard faceplates	Sewing/Repair, Badging, Mailroom Property Storage, Telecomm, Storage	Laundry room receptacle near deep sink and Storage room converted to kitchenette both lack GFCI protection at receptacle (photos **PL03-6.2A, B**)	Replace standard faceplate receptacle with GFCI protected receptacle in Kitchenette
		2	Receptacles have GFCI protection	Laundry, Toilets	None	None
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hubs; connected via fiber-optic cable to the campus network; Category 5e and Category 6 data cable	Telecom Room NE corner of building	None	None
	6.3b Other Comm	5	Disconnected Rauland Speakers mounted in ceiling tile; no headend	Offices	Speaker system not functional	Provide headend for speaker system if speaker system is desired

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	4	Networked zoned fire alarm system consisting of Notifier SFP-400B and AFP-200 fire alarm system control panels; horn/strobe signals; detectors in most areas; duct smoke detectors; manual pull-stations; connected via fiber-optic loop to annunciator in Building 6	AFP-400B in NE of building near roll-up doors; AFP-200 in NE telecom room	Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access	Annunciate Fire Alarm System in new location – Annunciate Pine Lodge fire alarms in Pine Lodge Administration Building 'A' or Eastern State Hospital Administration Building 3A01
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	1	Battery-backed egress lighting units	Egress Pathways	None	None
		2	APC Back-UPS E 550	NE telecom room	None	None
7.0 Equipment	**7.1 Institutional Equip**	2	Industrial sized Laundry equipment (**PL03-7.1A, PL03-7.1B, PL03-7.1AC, PL03-7.1D, PL03-7.1E**)			
	7.2 Fixed Furnishings	3	Built in casework designed for Laundry function re-purposed by the current residents (**PL03-7.2A, PL03-7.2AB, PL03-7.2C, PL03-7.2D, PL03-7.2E**)		Minor laminate chipping (**PL03-7.2E**)	
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments:

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL03-1.2A.JPG

PL03-1.6A.JPG

PL03-1.7A.JPG

PL03-1.8A.JPG

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MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

PROPERTY/ LAUNDRY-F

PL**03**

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

PL03-1.2A.JPG

PL03-1.6A.JPG

PL03-1.7A.JPG

PL03-1.8A.JPG

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PROPERTY/ LAUNDRY-F

PL**03**

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PL03-1.9A.JPG

PL03-1.10A.JPG

PL03-1.11A.JPG

PL03-1.14A.JPG

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PL**03**

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PL03-1.15A.JPG

PL03-1.16A.JPG

PL03-1.16B.JPG

PL03-2.3A.JPG

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PROPERTY/ LAUNDRY-F

PL**03**

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PL03-4.1A.JPG

PL03-4.1B.JPG

PL03-4.1C.JPG

PL03-5.1A.JPG

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PL**03**

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PL03-5.1B.JPG

PL03-5.1C.JPG

PL03-7.1A.JPG

PL03-7.1B.JPG

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PL03-7.1C.JPG

PL03-7.1D.JPG

PL03-7.1E.JPG

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PROPERTY/ LAUNDRY-F

PL**03**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Kitchen Dining - C	05
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
8,979	1	1989	IBC = V-B	IBC = B, LSC = Business	N/A	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2				
	1.2 Slab on Grade	2	Concrete (Conc.) slab (see picture **PL05-1.02A**)			
	1.3 Basement Walls	-	N/A			
	1.4 Floor Construction	2	Conc. slab (See section 1.2)			
	1.5 Roof Construction	2	wood framing			
	1.6 Exterior Walls	4	Cedar lap siding on Plywood sheathing, on wooden framing, BATT insulation and gypsum wall board (Gyp Bd.)		North, East and West facades have newer paint and some new siding (**PL05-1.06A, PL05-1.06B**) but still some pealing (**PL05-1.06C**) South facades has old peeling paint (**PL05-1.6D**)	
	1.7 Exterior Windows	4	Aluminum frames with insulated glass and wooden exterior trim.		Wooden trim needs to be painted (**PL05-1.07A**) Damage to the glass in one window (**PL05-1.07B**)	
	1.8 Exterior Doors	2	Steel doors with steel frames freshly painted (**PL05-1.08A**)			
	1.9 Roof Coverings	4	Shingle roof with EPDM at mechanical platform enclosed with parapet walls.		Peeling paint at parapet walls and standing water (**PL05-1.09A**) damage at fascia (**PL05-1.09B**)	
	1.10 Roof Openings	3	Adequately sealed (**PL05-1.10**)			
	1.11 Interior Partitions	5	Wood stud walls with Gyp Bd. Both sides		Some partitions are partially demolished (**PL05-1.11A**) and very dirty (**PL05-1.11B**)	
	1.12 Interior Doors	2	Hollow metal frames and doors (**PL05-1.12A, PL05-1.12B**)			
	1.13 Stair Constn/Finishes	-	N/A			
	1.14a Wall Finishes	2	Ceramic wall tile wainscot and painted Gyp above at toilet room (**PL05-1.14A**).			
	1.14b	3	Fiber reinforced Plastic wall panels (FRP) in dining area (**PL05-1.14B**).			
	1.14c	5			Painted Gyp Bd. In kitchen and dishwashing areas is dirty damaged from partial demolition work (**PL05-1.14C, PL05-1.14D**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.15a Floor Finishes	2	Ceramic floor tile in toilet rooms just needs cleaning (**PL05-1.15C**).			
	1.15b	2	Conc. slab is exposed in some location (see section 1.2)			
	1.15c	5			Vinyl composite tile (VCT) damaged and stained (**PL05-1.15A, PL05-1.15E**).	
	1.15c	5			Rubber floor tile in kitchen area stained dirty and damaged from partial demolition work (**PL05-1.15B, PL05-1.15D, PL05-1.15F**)	
	1.16a Ceiling Finishes	2	12X12 Acoustical Tile Ceiling glued to underside of hard lid in dining area (**PL05-1.16A, PL05-1.16C**)			
	1.16b	2	Suspended or framed Gyp Bd Ceilings (**PL05-1.16D**)			
	1.16c	5			Suspended acoustical tile ceiling (ACT) in former kitchen area partially demolished (**PL05-1.16B**)	
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with concrete slab on grade.			
	2.1A Foundation Site Walls	5	Reinforced concrete site retaining walls.		Reinforced concrete site wall near loading dock is damaged, possibly from vehicle impact, and should be removed or replaced. (**PL05-2.1AA, PL05-2.1AB**)	
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls.		Exterior wood siding and trim are weathered exposing the wood and are in need of maintenance before moisture penetrates the wall. (**PL05-2.2A, PL05-2.2B**)	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing.			
	2.4 Lateral System	2	Rated wood sheathing at the roof diaphragm; rated wood sheathing at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water Closets, Sinks, Urinals, Showers	Throughout	M2	
	4.1b Plumbing Fixtures	4	Domestic Hot Water Heater	First Floor Mech Rm	M2 (**PL05-4.1A**)	
	4.2 Water Distribution	4	Water and Waste and Piping	Throughout	M2	
	4.3 Rain Water Drainage	4	Roof Drains and Pipe	Throughout	M2 (**PL05-4.1B**)	
5.0 HVAC	**5.1a HVAC Equipment**	4	Gas-fired Make-up air Unit - 1996	Roof	M2 (**PL05-5.1A**)	
	5.1b HVAC Equipment	4	Packaged Gas-Electric HVAC Units- 1996	Roof	M2 (**PL05-5.1B**)	
	5.1c HVAC Equipment	4	Exhaust Fans - 1996	Roof	M2	
	5.2 HVAC Distribution	4	Ductwork and grilles	Throughout	M2 (**PL05-5.1C**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	5.3 Controls/Special Sys.	3	Direct Digital Control	Throughout	M1	
6.0 Electrical	**6.1a Elec Service**	2	Avista Utilities 13.2 kV Junction Enclosure 'J1' supplies the 225 kVA pad-mounted transformer for Building 5 Kitchen/Dining	SE of Kitchen/Dining Building	None	None
		2	Avista Utilities owned 225 kVA pad-mounted Transformer supplies the 1200 Amp Main Switchboard at 120/208 Volts	SE of Kitchen/Dining Building	None	None
	6.1b Elec Distribution	2	The main switchboard is a Square D I-line, MLO, 1200 Amp main switchboard installed in 1996; uses the 6-disconnect rule; panels also manufactured by Square D in 1996	SE Electrical room	None	None
	6.2a Lighting	2	Linear fluorescent lensed, surface and recessed mount	Building Interior	None	None
		3	Incandescent vaportight	Cold storage	Incandescent lamps require frequent relamping and are inefficient	Replace Incandescent luminaires with LED or Compact Fluorescent luminaires
		2	HID wall-pack	Building exterior	None	None
		2	LED exit lights with integral twin-head egress luminaires	Path of egress	None	None
	6.2b Branch Wiring	3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	•Add automatic controls where appropriate
		3	Receptacles and switches have standard faceplates	General areas, kitchen	Kitchenette lacks GFCI protection at receptacles	•Replace standard faceplate receptacles with GFCI protected receptacles in Kitchen
		2	Receptacles have GFCI protection	Toilet rooms	None	None
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hubs; connected via fiber-optic cable to the campus network; Category 5e and Category 6 data cable	Telecom cabinet in Electrical Room SE corner of building	None	None
	6.3b Other Comm	1	TV and outlet	Dining Room	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	4	Networked zoned fire alarm system consisting of Simplex 4100 and Notifier AFP-200 fire alarm system control panels; horn/strobe signals; detectors in most areas; duct smoke detectors; manual pull-stations; connected via fiber-optic loop to annunciator in Building 6	SE Electrical room	Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access	Annunciate Fire Alarm System in new location – Annunciate Pine Lodge fire alarms in Pine Lodge Administration Building 'A' or Eastern State Hospital Administration Building 3A01
	6.3d Security	1	Video surveillance Cameras and DVR have been removed	Telecom cabinet in Electrical Room SE corner of building	None	None
	6.4 Emerg Power	2	Battery-backed egress lighting units integral to exit signs	Egress Pathways	None	None
7.0 Equipment	**7.1 Institutional Equip**	2	Walk in coolers (**PL05_7.1A**)			
	7.2 Fixed Furnishings	-	Casework already demolished or removed			
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments:

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M2: Mechanical equipment and plumbing fixtures appear to be in Fair condition but have been unused for 3 to 4 years. Varying degrees of service will be required to place back into use.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL05-1.02A.JPG

PL05-1.06A.JPG

PL05-1.06B.JPG

PL05-1.06C.JPG

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NAC ARCHITECTURE

KITCHEN/ DINING-C

PL**05**

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PL05-1.06D.JPG

PL05-1.07A.JPG

PL05-1.07B.JPG

PL05-1.08A.JPG

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STATE NO # 2014 - 415
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NAC ARCHITECTURE

KITCHEN/ DINING-C

PL**05**

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

PL05-1.09A.JPG

PL05-1.09B.JPG

PL05-1.10.JPG

PL05-1.11A.JPG

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MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

KITCHEN/ DINING-C

PL**05**

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

PL05-1.11B.JPG

PL05-1.12A.JPG

PL05-1.12B.JPG

PL05-1.14A.JPG

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MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

KITCHEN/ DINING-C

PL**05**

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

PL05-1.14B.JPG

PL05-1.14C.JPG

PL05-1.14D.JPG

PL05-1.15A.JPG

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STATE NO # 2014 - 415
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NAC ARCHITECTURE

KITCHEN/ DINING-C

PL**05**

1203 W RIVERSIDE AVE | SPOKANE WA 99201-1107 | P. 509.838.8240 | F. 509.838.8281

PL05-1.15B.JPG

PL05-1.15C.JPG

PL05-1.15D.JPG

PL05-1.15E.JPG

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MEDICAL LAKE, WA

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NAC NO # 111 - 14011

NAC ARCHITECTURE

KITCHEN/ DINING-C

PL**05**

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PL05-1.15F.JPG

PL05-1.16A.JPG

PL05-1.16B.JPG

PL05-1.16C.JPG

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NAC ARCHITECTURE

KITCHEN/ DINING-C

PL**05**

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PL05-1.16D.JPG

PL05-2.1AA.JPG

PL05-2.1AB.JPG

PL05-2.2A.JPG

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KITCHEN/ DINING-C

PL**05**

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PL05-2.2B.JPG

PL05-4.1A.JPG

PL05-4.1B.JPG

PL05-5.1A.JPG

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KITCHEN/ DINING-C

PL**05**

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PL05-5.1B.JPG

PL05-5.1C.JPG

PL05-7.01A.JPG

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KITCHEN/ DINING-C

PL**05**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Secured Housing Unit - B	06
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
1,800	1	1994	IBC = V-B	IBC = I-3, LSC = Institutional	Undetermined	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete (Conc.) foundation wall		See deficiency notes 1.6	
	1.2 Slab on Grade	3	Conc. slab on grad (**PL06-1.2A**)		See deficiency notes 1.6	
	1.3 Basement Walls	-	N/A			
	1.4 Floor Construction	2	Slab on grade (see Section 1.2)			
	1.5 Roof Construction	2	Wood framing			
	1.6 Exterior Walls	5	Hardboard lap siding, Plywood sheathing, on wooden framing, BATT insulation and gypsum wall board (Gyp Bd.) interior face (**PL06-1.6C**)		Significant corrosion of Hardboard at foundation (**PL06-1.6A & PL06-1.6B**)	
	1.7 Exterior Windows	3	Aluminum frames with insulated glass and wooden exterior trim (**PL06-1.7A, PL06-1.7B**)			
	1.8 Exterior Doors	3	Steel doors with steel frames (**PL05-1.08A**)		Chipping paint **(PL06-1.8B**)	
	1.9 Roof Coverings	4	Shingle roof (**PL06-1.9A**)		Interior water damage indicates roofing work is required.	
	1.10 Roof Openings	4	Appear adequately sealed			
	1.11a Interior Partitions	2	Wood stud walls with Gyp Bd. Both sides **(PL06-1.11A**)			
	1.11b	2	Stainless steel at cells see section 7.1.			
	1.12a Interior Doors	2	Hollow metal frames and doors (**PL06-1.12A**)			
	1.12b	2	Cell doors see section 7.1. (**PL06-1.12B**) (see section 7.1a)			
	1.13 Stair Constn/Finishes	2	Exterior stair to mechanical tunnel (**PL06-1.13A**)			
	1.14a Wall Finishes	3	Stainless steel walls at cells (see section 7.1a)			
	1.14b	2	Wall tile at toilet room and shower (**PL06-1.14A**)			
	1.14c	4			FRP Wainscot with Paint above (**PL06-1.14B.JPG**)	
	1.15 Floor Finishes	2	Exposed concrete slab some areas (see section 1.2.)			
	1.15b	3			Rubber flooring worn and needs cleaning (**PL06-1.15A**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.15c	3			VCT worn stained and dirty (**PL06-1.15B**)	
	1.16 Ceiling Finishes	3	Stainless steel cell ceilings (see section 1.2.)			
	1.16b	4			Water damaged Suspended Acoustical Tile Ceiling (**PL06-1.16**)	
	1.17 Elevators & Lifts					
2.0 Structural	**2.1 Foundations**	2	Exterior perimeter reinforced concrete foundation walls with concrete slab on grade. Interior reinforced concrete foundation walls with crawl space below pre manufactured modular detention cells.			
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls.		Bottom course of south exterior elevation wood siding has deteriorated and is in need of replacement before moisture penetrates the wall. (**PL06-2.2A, PL06-2.2B**)	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing.			
	2.4 Lateral System	2	Rated wood sheathing at the roof diaphragm; rated wood sheathing at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water Closets, Sinks	Throughout	M2	
	4.1b Plumbing Fixtures	4	Domestic Hot Water Heater	First Floor Mech Rm	M2	
	4.2 Water Distribution	4	Water and Waste and Piping	Throughout	M2	
	4.3 Rain Water Drainage		Sloped roof with gutters			
5.0 HVAC	**5.1a HVAC Equipment**	4	Gas-fired Furnaces - 1994	First Floor Mech Rm	M2 (**PL06-5.1A, B**)	
	5.1b HVAC Equipment	4	Condensing Units- 1994	Grade	M2 (**PL06-5.1C**)	
	5.1c HVAC Equipment	4	Exhaust Fan - 1994	Roof	M2	
	5.2 HVAC Distribution	4	Ductwork and grilles	Throughout	M2	
	5.3 Controls/Special Sys.	3	Direct Digital Control	Throughout	M1	
6.0 Electrical	**6.1a Elec Service**	2	Avista Utilities 13.2 kV Junction Enclosure 'J1' supplies the 25 kVA pad-mounted transformer for Building 6 Secure Housing Unit	SE of Kitchen/Dining Building	None	None
		2	Avista Utilities owned 25 kVA pad-mounted Transformer feeds a 250 Amp Main Circuit Breaker panelboard at 120/208 Volts single-phase	W of building exterior	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.1b Elec Distribution	2	The main panelboard is a Siemens Type S1, 225 Amp Main Circuit Breaker, 250 Amp single-phase panelboard; Other panel is Siemens Type S1, 60 Amp MCB, 250 Amp single-phase panelboard	SW Mech/Elect room	None	None
	6.2a Lighting	2	Fluorescent lensed luminaires	Vestibule, Viewing, Lavatory, Sgt Office, Hearing & Receiving room	None	None
		2	Fluorescent lensed correctional grade luminaires	Cells, Exercise room	None	None
		2	Compact Fluorescent downlights	Exterior building soffit	None	None
		3	Incandescent downlights	Control Room over counter	Incandescent lamps require frequent relqamping and are inefficient	Replace Incandescent luminaires with LED or Compact Fluorescent luminaires
	6.2b Branch Wiring	3	Exterior lighting controlled by photocell and contactors	1st Floor Mechanical/Electrical room	None	None
		3	Interior lighting controlled by switches; dimmer switch in Control Room	Local	No automatic controls for interior lighting	Add automatic lighting controls where appropriate
		2	Receptacles and switches have standard faceplates	Building interior general spaces	None	None
		2	Receptacles have GFCI protection	Toilet Room	None	None
	6.3a Telecom	1	Telecom wall-mounted swing rack, equipped with patchpanels and hubs; connected via fiber-optic cable to the campus network; Category 5e and Category 6 data cable	1st Floor Mechanical/Electrical room	None	None
	6.3b Other Comm	2	Intercom speakers in ceiling	Throughout building interior	None	None
		2	Rauland MCI 350 and Rauland SW25	Control Room	None	None
	6.3c Fire Alarm	4	Notifier SFP-400 Fire Alarm Control Panel covers Building 6 - Secure Housing Unit 'B'; horn/strobe signals; detectors in most areas; duct smoke detectors; manual pull-stations	Control Room	Smoke detectors are an old style for which matching replacements are difficult to acquire	Replace fire alarm system smoke detectors with modern style smoke detectors

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		5	Notifier Annunciator panel for Building 1 - Residence Hall 'D', Building 2 - Service Center 'E', Building 3 - Property Building 'F', Building 5 - Kitchen 'C', Building 6 - Secured Housing Unit 'B', , Building 13 - Ross Hall 'T', and Buildings 14-17 - Living Unit 'L'; through the Fire Alarm Control Panel in Buildings 14-17, additional buildings connect to the annunciator indirectly, including Buildings 7, 8 and 9 - Chapel 'H', Walker Hall 'J', and Education Building 'K', as well as Building 10 - Admin Building 'A', Building 11 - Medical Building 'M', and Building 12 - Warehouse/Shop 'N"	Control Room	Notifier annunciator panel for Pine Lodge campus is unmonitored, due to Building 6 being a secured building that is unoccupied; remote buildings send signals to the Annunciator throughFire Alarm Control Panel in Building 14-17 - Living Unit 'L', but Building 14-17 is scheduled for demolition; Fire Alarm Annunciator is in continual state of trouble due to trouble alarms from Building 1 (photos **PL06-6.3A, B**)	Remove and relocate main annunciator panel to a monitored location; reconnect remote buildings directly to Fire Alarm Control Panel in each building via alarm reporting network
	6.3d Security	4	Built-up security system using relays in a control console; Door lock system is off	Control Room	System is antiquated, repair parts may be unavailable	Replace security electronics with modern system meeting current standards
	6.4 Emerg Power	2	Battery-backed luminaires	Exercise Room, Toilet Room, Hall, Control Room	None	None
		2	Onan 5 kW natural gas-fueled engine-generator set; 60 Amp output circuit breaker; automatic transfer switch for Emergency system loads in Panel 'E	1st Floor Mechanical/Electric al room	No on-site fuel storage; equipment is antiquated, repair parts may be unavailable (photos **PL06-6.4A, B, C**)	Replace engine-generator and automatic transfer switch
7.0 Equipment	**7.1a Institutional equip.**	3	(6) Stainless steel Prefabricated cell units (PL06_7.1A), equipped with institutional anti-ligature accessories (**PL06_7.1B, PL06-7.1C & PL06-7.1D, PL06-7.1E**) and cell master control panel **(PL06-7.1F)**			
	7.1b	3	Intercom panel (PL06-7.1G)			
	7.2 Fixed Furnishings	4	Plastic laminate case**work (**PL06-7.2A, PL06-7.2B, PL06-7.2C)		Plastic Laminate chipped (**PL06-7.2D**)	
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments:

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M2: Mechanical equipment and plumbing fixtures appear to be in Fair condition but have been unused for 3 to 4 years. Varying degrees of service will be required to place back into use.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL06-1.2A.JPG

PL06-1.6A.JPG

PL06-1.6B.JPG

PL06-1.6C.JPG

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MASTER PLAN
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STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

SECURED HOUSING UNIT-B

PL06

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PL06-1.9A.JPG

PL06-1.11A.JPG

PL06-1.12A.JPG

PL06-1.12B.JPG

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SECURED HOUSING UNIT-B

PL06

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PL06-1.8A.JPG

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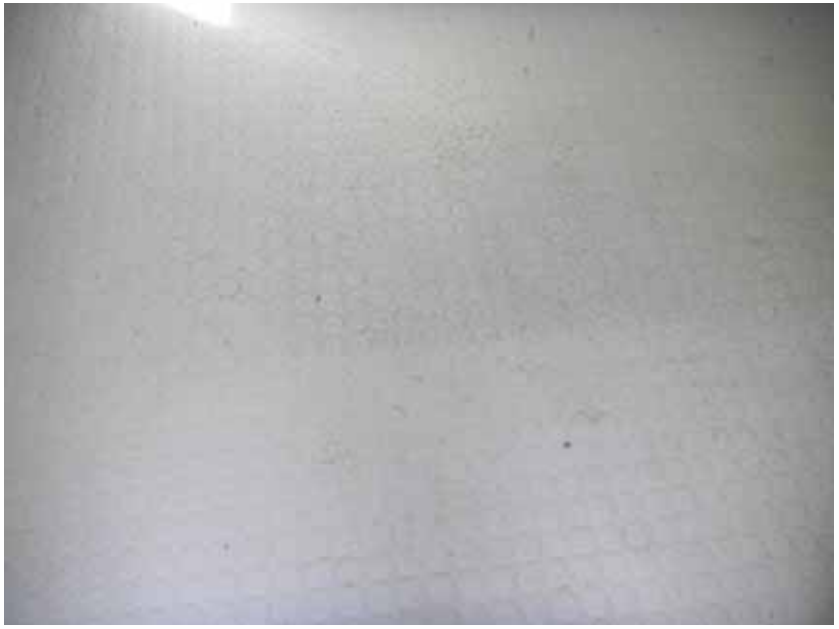
PL06-1.13A.JPG

PL06-1.14A.JPG

PL06-1.14B.JPG



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SECURED HOUSING UNIT-B

PL06

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PL06

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PL06-7.1A.JPG

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PL06-7.1G.JPG

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SECURED HOUSING UNIT-B

PL06

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PL06-7.2C.JPG

PL06-7.2D.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Chapel - H	07
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
1,728	1	1990	IBC = V-B	IBC = B, LSC = Business	unknown	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete foundation wall		See deficiency notes 1.6	
	1.2 Slab on Grade	2	Conc. slab on grad		See deficiency notes 1.6	
	1.3 Basement Walls	-	N/A			
	1.4 Floor Construction	2	Slab on grade (see Section 1.2)			
	1.5 Roof Construction	2	Wood Framing			
	1.6 Exterior Walls	3	T1-11 treated wood siding on wooden framing with BATT insulation and gypsum wall board (Gyp Bd.) interior face)(**PL07-1.6B**).		Wooden base trim is below grade in some location (**PL07-1.6A, PL07-1.6B**)	
	1.7 Exterior Windows	3	Aluminum frames with insulated glass and wooden exterior trim. (**PL07-1.7A**)			
	1.8 Exterior Doors	3	Steel doors with steel frames		In need weather stripping and painting (**PL07-1.8A, PL07-1.8**B)	
	1.9 Roof Coverings	2	Shingle roof (**PL07-1.9A**)			
	1.10 Roof Openings	2	Adequately sealed (**PL07-1.10A**)			
	1.11 Interior Partitions	2	Wood stud walls with Gyp Bd. Both sides			
	1.12 Interior Doors	2	Hollow Metal Doors and Frames			
	1.13 Stair Constn/Finishes	-	N/A			
	1.14 Wall Finishes	2	Wood paneling and painted textured gyp bd. (PL07-1.14A)			
	1.15a Floor Finishes	3	Carpet with wood base (**PL07-1.15B**)		Needs cleaning (**PL07-1.15C**)	
	1.5b	4			Sheet vinyl (stained) with rubber base at bathrooms (**PL07-1.15A**)	
	1.16 Ceiling Finishes	2	Hard lid with textured surface (**PL07-1.16A**)			
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with concrete slab on grade.			
	2.2 Struct. Bearing Walls	3	Sawn lumber wood posts at 12 feet o.c. with sawn lumber horizontal girts between posts at exterior walls.		Exterior grade along west elevation is above wood trim board at bottom of wall. (**PL07-2.2A**)	
	2.3 Structural Frame	2	Metal plate wood roof scissors trusses with rated roof sheathing.			
	2.4 Lateral System	2	Rated wood sheathing at the roof diaphragm; rated wood siding at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water Closets, Sinks	Throughout	M2 (**PL07-4.1A, B**)	
	4.1b Plumbing Fixtures	4	Domestic Hot Water Heater	First Floor Mech Rm	M2 (**PL07-4.1C**)	
	4.2 Water Distribution	4	Water and Waste and Piping	Throughout	M2	
	4.3 Rain Water Drainage					
5.0 HVAC	**5.1a HVAC Equipment**	4	Gas-fired Radiant Heaters - 1990	First Floor Mech Rm	M2 (**PL07-5.1A, B**)	
	5.1b HVAC Equipment	4	Through-Wall Air Conditioning Units	Throughout	M2 (**PL07-5.1C**)	
	5.1c HVAC Equipment	4	Exhaust Fan - 1990	Ceiling	M2	
	5.3 Controls/Special Sys.	3	Direct Digital Control		M1	
6.0 Electrical	**6.1a Elec Service**	2	208 Volt single phase 100 Amp service fed from Building 8 Walker Hall	Building 8 Walker Hall	None	None
	6.1b Elec Distribution	2	100A Square D load center	NE Assembly room	None	None
	6.2a Lighting	2	HID wall pack luminaires	Building exterior	None	None
		2	Incandescent caged 'jellyjar' luminaire with twist-type CFL lamp	Building exterior near entry	None	None
		3	Fluorescent wraps; Incandescent track lights, Incandescent 'globe' luminaires	Assembly Area	Incandescent lamps require frequent relamping and are inefficient; incandescent lamps are becoming unavailable (photos **PL07-6.2A, B**)	Provide new compact fluorescent or LED luminaire to replace existing
		2	Fluorescent wraps	Offices	None	None
		3	Incandescent over-mirror lights	Toilet Rooms	Incandescent lamps require frequent relamping and are inefficient; incandescent lamps are becoming unavailable; lenses missing (photo **PL07-6.2**C)	Provide new compact fluorescent or LED luminaire to replace existing
		2	LED exit signs - red	Building Interior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Building Exterior	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior General spaces	None	None
		2	Receptacles are Ground-Fault Circuit Interrupter type	Restrooms	None	None
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	Telecom Closet NW corner of Assembly area	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	2	Fire alarm system consisting of stand-alone single-station smoke detectors	Assembly Area, Offices, Toilet Rooms	Single-station type detectors do not alert anyone outside of building (photos **PL07-6.3A, B**)	Consider providing a fire alarm system for the Chapel
	6.3d Security	NA	None	NA	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.4 Emerg Power	NA	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equipmt**	-	N/A			
	7.2a Fixed Furnishings	2	Semi-fixed office furnishings (**PL07-7.2B**)			
	7.2b	3			Bathroom vanity counters has minor scuffs (**PL07-7.2A**)	
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments:

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M2: Mechanical equipment and plumbing fixtures appear to be in Fair condition but have been unused for 3 to 4 years. Varying degrees of service will be required to place back into use.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

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PL07-1.6B.JPG

PL07-1.6C.JPG

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NAC ARCHITECTURE

CHAPEL-H

PL**07**

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PL07-1.16A.JPG

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NAC ARCHITECTURE

CHAPEL-H

PL**07**

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PL07-7.2A.JPG

PL07-7.2B.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Walker Hall - J	08
NAC #111-14011-A20	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,100	1	1981	IBC = V-B	IBC = B, LSC = Business	unknown if any remodel has occurred	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete (Conc.) (**PL08-1.1A**)			
	1.2 Slab on Grade	2	Conc. slab			
	1.3 Basement Walls	-	N/A			
	1.4 Floor Construction	3	Conc. slab (See section 1.2)			
	1.5 Roof Construction	3	Wood framing			
	1.6 Exterior Walls	4	T1-11 treated wood siding (small area of brick veneer) on wooden framing with BATT insulation and gypsum wall board (Gyp Bd.) interior face **(PL08-1.16A**).		Peeling paint at exterior walls (**PL08-1.6B, PL08-1.6C**).	
	1.7 Exterior Windows	3	Aluminum frames with insulated glass and wooden exterior trim (**PL08-1.7A, PL08-1.7B**).		Peeling paint at window trim and sills (**PL08-1.7C**)	
	1.8 Exterior Doors	3	Steel doors with steel frames freshly painted (**PL05-1.08A**).		Exterior paint is faded	
	1.9 Roof Coverings	3	Shingle roof (**PL08-1.9A**)		(See Comment #2)	
	1.10 Roof Openings	3	Adequately sealed (**PL05-1.10B**)		Portions of gutter are missing (**PL08-1.10A**).	
	1.11a Interior Partitions	2	Wood stud walls with Gyp Bd. Both sides (**PL08-1.11A**)			
	1.11b	2	CMU (**PL08-1.11B**).			
	1.12 Interior Doors	4	Stained wooden doors with wooden frames (**PL08-1.12A**) Hollow metal doors and Frames (**PL08-1.12C**)		Some door frames are damaged (**PL08-1.12B**)	
	1.13 Stair Constn/Finishes	-	N/A			
	1.14a Interior Partitions	3			Painted Gyp Bd damaged some locations (**PL08-1.14B**)	
	1.14b	2	Ceramic wall tile at toilet rooms (**PL08-1.14A**) Painted CMU (**PL08-1.14C**)			
	1.14c	2	CMU **(PL08-1.14C**)			
	1.11a Floor Finishes	4			VCT cracked and mismatched (**PL08-1.15D, PL08-1.15F**). All floors are vey dirty (**PL08-1.15G**)	
	1.15b	4			Carpet worn and stained (**PL08-1.15**B)	
	1.15c	4	Sheet Vinyl Flooring with coved base (**PL08-1.15E**)		Exposed slab needs repainting (**PL08-1.15C**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.15d	2	Ceramic floor tile at toilet rooms (**PL08-1.15A**)			
	1.15e	3			Exposed slab needs repainting (**PL08-1.15C**)	
	1.16 Ceiling Finishes	3	Framed Gyp. Bd ceilings and soffits (**PL08-1.16A, PL08-1.16B, PL08-1.16D**)		The lack of expansion joints has caused some minor cracking (**PL08-1.16C**) (See Comment #2)	
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**					
	2.2 Struct Bearings Walls					
	2.3 Structural Frame					
	2.4 Lateral System					
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water Closets, Sinks, Urinals	Throughout	M2 (**PL08-4.1A, B, C**)	
	4.2 Water Distribution	4	Water and Waste and Piping	Throughout	M2	
	4.3 Rain Water Drainage	--	Sloped roof to gutters	--	--	
5.0 HVAC	**5.1a HVAC Equipment**	4	Gas-fired Furnace - 1993	First Floor Mech Rm	M2 (**PL08-5.1A,B**)	
	5.1b HVAC Equipment	4	Gas-fired Unit Heaters - 1993	Throughout	M2 (**PL08-5.1C,D**)	
	5.1c HVAC Equipment	4	Electric Wall Heaters, Baseboard	Walls	M2	
	5.1d HVAC Equipment	4	Exhaust Fan	Ceiling	M2	
	5.1d HVAC Equipment	4	Condensing Unit	Outdoor at grade	M2 (**PL08-5.1E**)	
	5.3 Controls/Special Sys.	3	Direct Digital Control		M1	
6.0 Electrical	**6.1a Elec Service**	3	Avista Utilities 13.2 kV Junction Enclosure 'J3' supplies the 112.5 kVA pad-mounted transformer for Building 8 Walker Hall	W Building exterior	Junction Enclosure 'J3' is rusted to the point that there are holes in the enclosure (photos **PL08-6.1A, B, C**)	Request Avista Utilities to replace Junction Enclosure 'J3'
		2	Avista Utilities owned 112.5 kVA pad-mounted transformer supplies 400 Amp fused disconnect at 120/208 Volts	W Building exterior	None	None
		2	200 Amp Square D 208 Volt panelboard feeds Building 7 Chapel from 60 Amp 2-pole circuit breaker	Muster Room	None	None
	6.1b Elec Distribution	2	208 Volt 3-phase 400 Amp Square D panelboard serves 200 Amp Square D panelboard	Office S of W main entrance	None	None
		3	200 Amp Square D panelboard serves 150 Amp 2-pole GE panelboard in W building addition	Muster Room	150 Amp panelboard has main circuit breaker at 150 Amps but is fed from 125 Amp circuit breaker in upstream panelboard	Replace 150 Amp main circuit breaker in GE panelboard with 125 Amp main circuit breaker
	6.2a Lighting	2	Fluorescent Circuline luminaires	Building Exterior soff	None	None
		2	Fluorescent lensed troffer, wire-guard strip-light, Compact Fluorescent downlights	Building Interior General spaces	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		3	Incandescent downlight luminaires	Fireplace room	Incandescent lamps require frequent relamping and are inefficient; incandescent lamps are becoming unavailable (photo **PL08-6.2A**)	Provide new compact fluorescent or LED luminaires to replace existing
		2	LED exit signs - red	Building Interior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Building Exterior	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	•Add automatic controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior General spaces	None	None
		2	Receptacles are Ground-Fault Circuit Interrupter type	Break Room, Restrooms	None	None
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	Telecom Room	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	4	Fire alarm system connected directly to the Fire Alarm Control Panel in Buildings 14-17; horn/strobe signals; smoke detectors in most areas; duct smoke detectors; annunciated to Campus Fire Alarm Annunciator in Building 6 through Fire Alarm Control Panel in Buildings 14-17 Living Unit 'L'	Building interior	There is no local fire alarm control panel or annunciator panel; Fire alarm devices/appliances directly report to a building that is scheduled for demolition and where salvage operations have begun; Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access; Smoke detectors are old and replacement parts are difficult to acquire (photo **PL08-6.3A**)	Replace fire alarm system with system that has control panel in building near main entrance
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	2	Battery-backed egress lighting units	Egress Pathways	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings		(PL08-7.2A)			
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments:

Architecture:

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action

1. Floor coverings in this building vary greatly in treatment and condition, for any constancy of appearance much of the flooring would have to be replaced.

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M2: Mechanical equipment and plumbing fixtures appear to be generally in Fair condition but have been unused for 3 to 4 years. Varying degrees of service will be required to place back i

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL08-1.1A.JPG

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PL08-5.1E.JPG

PL08-7.2A.JPG

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BUILDING ASSESSMENT	Medical Lake Infrastructure Master Plan WA State DES #2014-415	Education - K	09
NAC #111-14011-A206	Project	Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
8,640	1	1989	IBC = V-B	IBC = B, LSC = Business	unknown; appears to be original	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete (Conc.) (**PL09-1.1A**)			
	1.2 Slab on Grade	2	Crawl space with dirt floor			
	1.3 Basement Walls	-	See section 1.2			
	1.4 Floor Construction	2	Conc. Slab			
	1.5 Roof Construction	2	Wood framing			
	1.6 Exterior Walls	4	T1-11 treated wood siding on wooden framing with BATT insulation and gypsum wall board (Gyp Bd.) interior face		Significant water damage to exterior T1-11 siding on a portion od the south façade (**PL09-1.6A, PL09-1.6A, PL09-1.6A**) See comment #1	
	1.7 Exterior Windows	2	Aluminum frames with insulated glass and wooden exterior trim. (PL09-1.7B) Painted wood sill Jamb and head (PL09-1.7A).			
	1.8 Exterior Doors	1	Insulated steel doors with steel frames freshly painted (**PL09-1.8A, PL09-1.8B**)			
	1.9 Roof Coverings	2	Shingle roof		See comment A1	
	1.10 Roof Openings	2	Adequately sealed		See comment A1	
	1.11 Interior Partitions	2	Wood stud walls with Gyp Bd. Both sides			
	1.12 Interior Doors	1	Stained wood doors with hollow metal frames (**PL09-1.12A**)			
	1.13 Stair Construction/Fir	2	No interior stairs. exterior conc. stairs with metal railings (**PL09-1.13A**)			
	1.14a Wall Finishes	2	FRP with paint above in toilet rooms (**PL09-1.14B**)			
	1.14b	2	Painted Gyp. Bd. walls			
	1.14c	3	One room has a painted mural (**PL09-1.14A**)			
	1.15a Floor Finishes	5			Old stained and worn carpet on the East half of the building (**PL09-1.15A**)	
	1.15b	2	New carpet with rubber base on the west half of the building (**PL09-1.15C**)			
	1.15c	3	Sheet Vinyl with coved base in toilet rooms (**PL09-1.15B**)		Staining and pitting at removed sink cabinets (**PL09-1.15G**)	
	1.15d	2	Formica with rubber base in hallways rooms (**PL09-1.15D**)			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.15e	2	Rubber flooring at utility rooms (**PL09-1.15F**)		Very dirty (**PL09-1.15E**)	
	1.16 Ceiling Finishes	2	Suspended acoustical tile ceilings (**PL09-1.16A**)		A few tiles missing **(PL09-1.16B**) One room has water damaged ceiling tiles (**PL09-1.16C**)	
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls.		Localized moisture damage of exterior siding (sheathing damage unknown) at south wall, east portion of wall. In need of replacement. (**PL09-2.2A, PL09-2.2B**)	
	2.3 Structural Frame	2	Modular building. Sawn lumber wood roof joists with rated wood sheathing. Sawn lumber wood floor joists with rated sheathing supported by interior sawn lumber wood beams and wood posts in the crawl space.			
	2.4 Lateral System	2	Rated wood sheathing at the roof and floor diaphragms; wood sheathing at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water Closets, Sinks	Throughout	M2 **(PL09-4.1A, B, C**)	
	4.1b Plumbing Fixtures	4	Water Heater	First Floor Mech Rm	M2 (**PL09-4.1D**)	
	4.2 Water Distribution	4	Water and Waste and Piping	Throughout	M2	
	4.3 Rain Water Drainage	--	Sloped roof to gutters	--	--	
5.0 HVAC	**5.1a HVAC Equipment**	4	Gas-fired Furnaces - 2003	Attic	M2 (**PL09-5.1A,B**)	
	5.1b HVAC Equipment	4	Exhaust Fan	Ceiling	M2	
	5.1c HVAC Equipment	4	Condensing Units - 2003	Outdoor at grade	M2 (**PL09-5.1C**)	
	5.2 HVAC Distribution	4	Ductwork, grilles	Throughout	M2	
	5.3 Controls/Special Sys.	3	Direct Digital Control		M1	
6.0 Electrical	**6.1a Elec Service**	2	1600 Amp main switchboard in Building 12 Warehouse supplies 175 Amp underground service to dry-type transformer for Building 9 Education 'K' at 480 Volts	Building 12 Electrical Equipment Room 28	None	None
		4	112.5 kVA dry-type transformer outside supplies 400 Amp underground service to 400 Amp main panelboard at 120/208 Volts	S exterior of building	Dry-type transformers in exterior use locations have reduced life-span; transformer exhibits signs of deterioration (photo **PL09-6.1A**)	Replace dry-type transformer with a new transformer located in an interior electrical room

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.1b Elec Distribution	2	208 Volt 3-phase 400 Amp Square D panelboard serves 200 Amp Square D panelboards	Room 24 Classroom	None	None
	6.2a Lighting	2	HID wall-pack luminaires	Building Exterior	None	None
		2	Fluorescent lensed troffer	Building Interior General spaces	None	None
		2	LED exit signs - red	Building Interior	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Building Exterior	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior General spaces	None	None
		2	Receptacles are Ground-Fault Circuit Interrupter type	Break Room, Restrooms	Restroom has one of two above-counter receptacles with apparent Ground-Fault Circuit Interrupter protection (photo **PL09-6.2A**)	Provide receptacle with Ground-Fault Circuit Interrupter protection or label existing device to identify Ground-Fault Circuit Interrupter protection by upstream device
		3	Extension cord fed through hole in wall	Room 4A Telecom Room; Room 4 Classroom	Use not permitted for flexible cords and cables per NEC (photo **PL09-6.2B**)	•Remove extension cord; Provide convenience receptacle
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	Room 4A Telecom	None	None
	6.3b Other Comm	5	Speaker, VHS, and TV	Most Classrooms	Head end in Room 17 Mechanical is removed except IFS Video and Audio Transmitter	Provide head end equipment.
		3	Cable TV system	Room 5 Classroom	TV cables improperly secured and dangling (photos **PL09-6.3A, B, C**)	Secure TV cable or place in raceway

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3c Fire Alarm	4	Fire alarm system connected directly to the Fire Alarm Control Panel in Buildings 14-17; horn/strobe signals; smoke detectors in most areas; duct smoke detectors; annunciated to Campus Fire Alarm Annunciator in Building 6 through Fire Alarm Control Panel in Buildings 14-17 Living Unit 'L'	Building interior	There is no local fire alarm control panel or annunciator panel; Fire alarm devices/appliances directly report to a building that is scheduled for demolition and where salvage operations have begun; Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access; Smoke detectors are old and replacement parts are difficult to acquire (photo **PL09-6.3D**)	Replace fire alarm system with system that has control panel in building near main entrance
	6.3d Security	5	Analog CCTV video surveillance system; CCTV cameras in security enclosures	Room 19 Corridor, Room 8 Classroom	Video recording system has been disconnected; Analog CCTV equipment is becoming obsolete (photo **PL09-6.3E**)	•Replace video surveillance system with IP-based system and add cameras for coverage as required if video surveillance is desired; Remove remainder of analog system if video surveillance is not desired
	6.4 Emerg Power	2	Battery-backed egress lighting units	Egress Pathways	None	None
7.0 Equipment	**7.1 Institutional Equip**	3	Misc. casework(**PL09-7.1B**), plastic laminate bathroom vanity counters (**PL09-7.1A**)			
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA	1	Building is fully accessible by exterior conc. Ramp (**PL09-8.4A**).			

Comments:

Architectural:

A1- Portion of the South façade shows evidence of water damage. A portion of the ceiling in the room just inside is also water damaged. But the paint and flooring look newer and undamaged pointing to the damage being old and since been repaired.

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
Mechanical: M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant. M2: Mechanical equipment and plumbing fixtures appear to be generally in Good condition but have been unused for 3 to 4 years. Varying degrees of service will be required to place back into use.						
***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**						

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PL09-1.6B.JPG

PL09-1.6C.JPG

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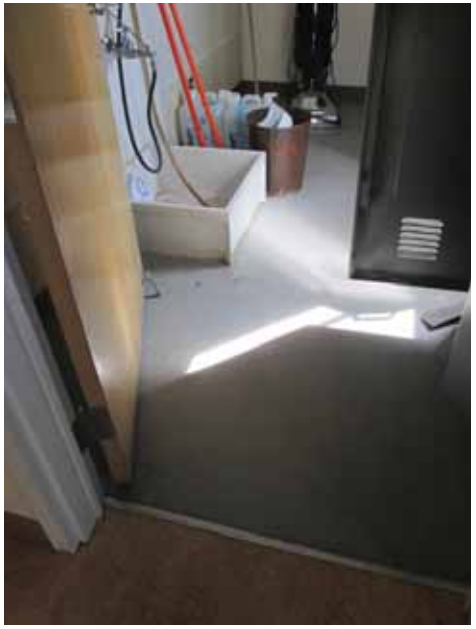

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BUILDING ASSESSMENT

Medical Lake Infrastructure Master Plan
WA State DES #2014-415

NAC #111-14011-A206	April 25, 2014	Project	Building Name	Building No.
			Administration - A	**10**

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,040	1	1989	IBC = V-B	IBC = B, LSC = Business	minor remodels have occurred at vaious times	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Conc. Foundation			
	1.2 Slab on Grade	2	N/A			
	1.3 Basement Walls	2	Crawl space with dirt floor (see Section 1.1)			
	1.4 Floor Construction	2	Conc. Slab			
	1.5 Roof Construction	2	Pre-fabricated wooden truss, plywood sheathing **(PL10-1.5A**) BATT insulation at ceiling (**PL10-1.5B**).			
	1.6 Exterior Walls	2	T1-11 treated wood siding on wooden framing with BATT insulation and Gyp. Bd., interior face (**PL10-1.16B**).		Some minor paint chipping (**PL10-1.6A**)	
	1.7 Exterior Windows	2	Aluminum windows with insulated glass and wooden trim.(PL10-1.7A). Interior wooden sill head and jambs (PL10-1.7B).			
	1.8 Exterior Doors	3	Steel door with steel frame.		Paint is worn (**PL10-1.8A**)	
	1.9 Roof Coverings	2	Newer shingle roof (**PL10-1.9A**)			
	1.10 Roof Openings		Adequately sealed (**PL10-1.10A**)			
	1.11 Interior Partitions	2	Painted and textured, Gyp bd on wooden studs (**PL10-1.11A, PL10-1.11B**)			
	1.12 Interior Doors	2	Stained wood doors with hollow metal frames (**PL10-1.12A, PL10-1.12B**)			
	1.13 Stair Construction/ Finishes	2	No interior stairs Exterior Conc. Entry stairs **(PL10-1.13A**) Wooden deck at entry with stairs and a ramp (see section 8.4)			
	1.14 Wall Finishes	3	Painted and texturized Gyp. Bd.		Holes and exposed drywall anchors at removed casework or shelving (**PL10-1.14A**)	
	1.15a Floor Finishes	3	Carpet with Rubber Base (RB) (**PL10-1.15B**)		Some transition strips at doors are missing (**PL10-1.15A**)	
	1.15b	3	Sheet Vinyl (SV) flooring with RB (**PL10-1.15**C)		Some warping at SV has caused minor cracking (**PL10-1.15D**)	
	1.15c	2	Rubberized flooring (**PL10-1.15E**)			
	1.16 Ceiling Finishes	2	Suspended acoustical tile ceilings (**PL10-1.16A**)			
	1.17 Elevators & Lifts					

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mponents	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Upper mechanical mezzanine floor joists with plywood sheathing. Main floor sawn lumber floor joists with plywood sheathing.			
	2.4 Lateral System	2	Rated wood sheathing at the roof and floor diaphragms; rated wood sheathing at exterior shear walls.			
Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
Plumbing	**4.1a Plumbing Fixtures**	2	Water Closets, Sinks	Throughout	(**PL10-4.1A, B, C, D**)	
	4.1b Plumbing Fixtures	2	Water Heater	First Floor Mech Rm		
	4.2 Water Distribution	2	Water and Waste and Piping	Throughout		
	4.3 Rain Water Drainage		Sloped roof to gutters			
HVAC	**5.1a HVAC Equipment**	2	Gas-fired Furnaces - 2003	Attic	(**PL10-5.1A,B**)	
	5.1b HVAC Equipment	2	Exhaust Fan - 2003	Roof		
	5.1c HVAC Equipment	2	Condensing Units - 2003	Outdoor at grade	(**PL10-5.1C,D,E**)	
	5.2 HVAC Distribution	2	Ductwork, grilles	Throughout	M2	
	5.3 Controls/Special Sys.	2	Direct Digital Control		M1	
Electrical	**6.1a Elec Service**	2	1600 Amp main switchboard in Building 12 Warehouse supplies 175 Amp underground service to dry-type transformer for Building 10 Administration 'A' at 480 Volts	Building 12 Electrical Equipment Room 28	None	None
		3	112.5 kVA dry-type transformer outside supplies 400 Amp underground service to 400 Amp main panelboard at 120/208 Volts	E exterior of building	Dry-type transformers in exterior use locations have reduced life-span; transformer exhibits signs of deterioration (photo PL10-6.1A)	Replace dry-type transformer with a new transformer located in an interior electrical room
	6.1b Elec Distribution	3	Main panelboard is a 400 Amp Cutler-Hammer PowerLine 120/208 Volt panel feeding GE, Siemens, and Cutler-Hammer panels	Break Room, IT Room	Space blocks are missing from the Cutler-Hammer UPS panel (**PL10-6.1B**)	Install space blocks in empty locations in the Cutler-Hammer UPS panel
	6.2a Lighting	2	Fluorescent Circuline luminaires	Building exterior soffit	None	None
		2	HID wall-pack luminaires	Building exterior wall	None	None
		2	Fluorescent troffer, strip-light	Building Interior	None	None
	6.2b Branch Wiring	3	Exterior lighting controlled by photocell	Building Exterior	Some light fixtures are on during daylight hours indicating photocell failure	Replace failing photocells

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	•Add automatic controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior General spaces	None	None
		2	Receptacles are Ground-Fault Circuit Interrupter type	Break Room, Restrooms	None	None
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	1st Floor Communications Room	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	4	Fire alarm system connected directly to the Fire Alarm Control Panel in Buildings 14-17; horn/strobe signals; heat and smoke detectors in most areas; annunciated to Campus Fire Alarm Annunciator in Building 6 through Fire Alarm Control Panel in Buildings 14-17 Living Unit 'L'	Building interior	There is no local fire alarm control panel or annunciator panel; Fire alarm devices/appliances directly report to a building that is scheduled for demolition and where salvage operations have begun; Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access; Smoke detectors are old and replacement parts are difficult to acquire (photo PL09-6.3D)	Replace fire alarm system with system that has control panel in building near main entrance
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	2	Battery-backed egress lighting units	Egress Pathways	None	None
7.0 Equipment	**7.1 Institutional Equip**	3	Misc. casework (**PL10-7.1C, PL10-7.1D, PL10-7.1E**)		Scuffed wood finish at counter edge (**PL10-7.1A**) Missing door (**PL10-7.1B**)	
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA	1	Building is fully accessible (**PL10-8.4A**)			

Comments:

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M2: Range/cooktop does not have an exhaust hood. Most Code Authorities (AHJ) would require a capture hood with exhaust directly to the outdoors.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL10-1.5A.JPG

PL10-1.5B.JPG

PL10-1.6A.JPG

PL10-1.6B.JPG

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MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
NAC NO # 111 - 14011

NAC ARCHITECTURE

ADMINISTRATION-A PL**10**

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PL10-1.8A.JPG

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PL10-1.10A.JPG

PL10-1.11A.JPG

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PL10-1.16A.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Medical Building - M	11
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
5,470	1	2004	IBC = V-B	IBC = B, LSC = Business	has not been remodeled	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Conc.			
	1.2 Slab on Grade	2	Crawl space			
	1.3 Basement Walls	-	NA			
	1.4 Floor Construction	2	Wood framing with TJI Joists and glulam beams.			
	1.5 Roof Construction	1	Wood framing with plywood sheeting and batt insulation (**PL11-1.5A**)			
	1.6 Exterior Walls	2	Painted cement fiber board on steel stud framing, batt insul with gyp board interior, aboveconcrete wall with EIFS finish coat applied. (**PL11-1.6A, PL11-1.6B, PL11-1.6C, PL11-1.6E**)		Some minor paint damage at metal siding (**PL11-1.6D**)	
	1.7 Exterior Windows	3	Aluminum windows with insulated glass (**PL11-1.7B**) and laminate interior window sills (**PL11-1.7A**)		(1) window has broken glass (**PL11-1.7B**)	
	1.8 Exterior Doors	3	Exterior steel doors and frames (**PL11-1.8**B)		Exterior face faded and need painting (**PL11-1.8A**)	
	1.9 Roof Coverings		Asphalt shingle roof		Minor gapping at soffit vent (**PL11-1.9A**)	
	1.10 Roof Openings	2	Adequately sealed (**PL11-1.10A**)			
	1.11 Interior Partitions	3	Metal Studs Gyp. Bd. Both sides, acoustical insulation some locations (**PL11-1.11A**)			
	1.12 Interior Doors	1	Hollow metal doors with hollow metal frames (**PL11-1.12A**)			
	1.13 Stair Constn/Finishes	-	N/A			
	1.14a Wall Finishes	2	Painted walls		Pealing or damaged paint some locations (**PL11-1.14A**)	
	1.14b	2	Ceramic wall tile at toilet rooms (**Pl11-1.14D**)			
	1.14c	3	Vinyl wall covering painted wood wainscot trim and Painted Gyp Bd below.		Minor paint damage (**PL11-1.14C**)	
	1.15a Floor Finishes	1	Carpet (tile) in hallways (**PL11-1.15A**)			
	1.15b Floor Finishes	1	Carpet (broadloom) in offices (**PL11-1.15D**)			
	1.15c	1	Ceramic floor tile at the toilet rooms (**PL11-1.15**B)			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.15d	2	Vinyl composite tile (**PL11-1.15C, PL11-1.15E**)		Minor damage to VCT at removed Dental equipment (**PL11-1.15**F) See Section 7.1d.	
	1.16 Ceiling Finishes	1	Suspended 2x2 Acoustical Tile Ceilings (**PL11-1.16A**)			
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with vented crawl space.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls.			
	2.3 Structural Frame	2	Metal plate wood roof trusses and roof I-joists with rated roof sheathing. Upper mechanical mezzanine floor I-joists with plywood sheathing. Main floor I-joists with plywood sheathing.			
	2.4 Lateral System	2	Rated wood sheathing at the roof and floor diaphragms; rated wood sheathing at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	4	Water Closets, Sinks	Throughout	M2	
	4.1b Plumbing Fixtures	4	Water Heater - 2004	First Floor Mech Rm	M2 (**PL11-4.1A**)	
	4.2 Water Distribution	4	Water and Waste and Piping	Throughout	M2	
	4.3 Rain Water Drainage	--	Sloped roof to gutters			
5.0 HVAC	**5.1a HVAC Equipment**	4	Gas-fired Furnaces - 2004	Attic	M2 **(PL11-5.1A,B,C**)	
	5.1b HVAC Equipment	4	Exhaust Fan - 2004	Roof	M2	
	5.1c HVAC Equipment	4	Condensing Units - 2004	Outdoor at grade	M2 **(PL11-5.1D,E**)	
	5.2 HVAC Distribution	4	Ductwork, grilles	Throughout	M2	
	5.3 Controls/Special Sys.	3	Direct Digital Control		M1	
6.0 Electrical	**6.1a Elec Service**	2	1600 Amp main switchboard in Building 12 Warehouse supplies 400 Amp underground service to 400 Amp enclosed circuit breaker and then 300 kVA dry-type transformer at 480 Volts	Building 12 Electrical Equipment Room 28	None	None
		1	300 kVA dry-type transformer supplies 800 Amp service to main distribution panelboard at 120/208 Volts	Mech/Elect Room 129	None	None
	6.1b Elec Distribution	1	Main panelboard is a 400 Amp GE A-Series 120/208 Volt panel feeding Cutler-Hammer panels; distribution system was installed in 2001	Mech/Elect Room 129	None	None
	6.2a Lighting	1	HID wall pack luminaires	Building exterior	None	None
		1	Fluorescent troffers	Corridors	None	None
		1	Fluorescent architectural direct-indirect linear pendant luminaires	Medical Conference Room 125	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		1	Fluorescent strip luminaires with wire guard	Mech/Elect Room 129, Attic, Telecom Room 130	None	None
		1	Fluorescent troffers	General spaces, Offices	None	None
		1	Fluorescent lensed-parabolic troffers; Exam light	Dental OP Room #1 and #2	None	None
		1	LED exit signs - red	Building Interior	None	None
	6.2b Branch Wiring	1	Exterior lighting controlled by photocell	Building Exterior	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic controls where appropriate
		1	Receptacles and switches have standard faceplates	Building Interior General spaces	None	None
		1	Receptacles are Ground-Fault Circuit Interrupter type	Break Room, Restrooms	None	None
		5	Dental patient chairs have been removed	Dental Outpatient Room #1 and #2	Dental Room no longer used for Dental Patients; stub-ups present trip hazard (photo **PL11-6.2A**)	Remove above-floor stub-up connections
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	Telecom Room 130	None	None
	6.3b Other Comm	1	Rauland intercom system, ceiling-mount speakers	Corridors, General spaces	None	None
	6.3c Fire Alarm	4	Fire alarm system connected directly to the Fire Alarm Control Panel in Buildings 14-17; horn/strobe signals; heat and smoke detectors in most areas; Simplex 4000 Notification Appliance Externder Panel; annunciated to Campus Fire Alarm Annunciator in Building 6 through Fire Alarm Control Panel in Buildings 14-17 Living Unit 'L'	Mech/Elect Room 129	There is no local fire alarm control panel or annunciator panel; Fire alarm devices/appliances directly report to a building that is scheduled for demolition and where salvage operations have begun; Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access; Smoke detectors are old and replacement parts are difficult to acquire	Replace fire alarm system with system that has its own control panel in building near main entranc
	6.3d Security	1	Locknetics door control system consisting of turnkey control switch and door magnetic holder	Door separating Corridors H102 & H105, Door separating Corridors H103 & H106	None	None
	6.4 Emerg Power	1	Battery-backed egress lighting units	Egress Pathways	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
7.0 Equipment	**7.1a Institutional Equip**	2	Dental: Periapical (bite wing) x-ray arm (**PL11-7.1A**)			
	7.1b	2	Dental: Cabinet mounted exam light and arm (**PL11-7.1**B)			
	7.1c	2	Dental: (2) Delivery systems (**PL11-7.1C**)			
	7.1d	0			(2) Exam chairs have been removed (See section 1.15c)	
	7.1e	2	ADA accessible drinking fountains (**PL11-7.1D**)			
	7.1e	2	Emergency Eye wash station (**PL11-7.1D**)			
	7.2a Fixed Furnishings	2	Dental: center island open bay operatory (**PL11-7.2A**)			
	7.2b	2	Exam room casework (**PL11-7.2E**)			
	7.2c	2	Pharmacy Casework (**PL11-7.2C**)			
	7.2d	2	Lab Casework (**PL11-7.2D**)			
	7.2e	2	Miscellaneous Casework (**PL11-7.2B, PL11-7.2**F)			
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA	5	Fully accessible 1 story building			

Comments:

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M2: Mechanical equipment and plumbing fixtures appear to be in Good condition but have been unused for 3 to 4 years. Varying degrees of service will be required to place back into use.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL11-1.4A.JPG

PL11-1.5A.JPG

PL11-1.5B.JPG

PL11-1.6A.JPG

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PL11-1.7A.JPG

PL11-1.7B.JPG

PL11-1.8A.JPG

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MEDICAL BUILDING-M

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PL11-1.16A.JPG

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PL11-7.1A.JPG

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PL11-7.2A.JPG

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MEDICAL BUILDING-M

PL11

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Warehouse Shops - N	12
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
8,400	1	1989	IBC = V-B	IBC = B, LSC = Business	unknown	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Conc. (**PL12-1.1A**)			
	1.2 Slab on Grade	2				
	1.3 Basement Walls	-	N/A			
	1.4 Floor Construction	2	Conc. Slab on Grade (See Section 1.4)			
	1.5 Roof Construction	2	Wooden Trusses with plywood sheeting, blow cellulose insulation above ceiling (**PL12-1.5A**)			
	1.6 Exterior Walls	3	T1-11 treated wood siding on wooden framing with BATT insulation and gypsum wall board (Gyp Bd.) interior face (**PL12-1.6A, PL12-1.6B**)			
	1.7 Exterior Windows	2	Aluminum frames with insulated glass and wooden exterior trim. (**PL12-1.7A, PL12-1.7B**)			
	1.8a Exterior Doors	2	Man doors: Insulated Steel doors with grouted steel frames (**PL12-1.8A, Pl12-1.7C**.)			
	1.8b	1	Overhead doors (**PL12-1.8B**.)			
	1.9a Roof Coverings	4	Asphalt Shingles at building (**PL12-1.9A**)		Some shingles have buckled (**PL12-1.9C**); we recommend roofing replacement	
	1.9b	2	Metal Standing seam roofing at overhang (PL12-1.9A)			
	1.10 Roof Openings	2	Appear adequately sealed (**PL12-1.10A**)			
	1.11 Interior Partitions		Gyp Bd on wood studs **(PL12-1.11A**)			
	1.12 Interior Doors	2	Hollow metal doors and frames (**PL12-1.12A**)			
	1.13 Stair Constn/Finishes	-	N/A			
	1.14a Wall Finishes		Painted Gyp. Bd.(**PL12-1.14A**)			
	1.15a Floor Finishes	1	Sealed concrete exposed slab(**PL12-1.15A**)			
	1.15b	2	Ceramic floor tile in toilet rooms (**PL12-1.5B**)			
	1.15c	2	Carpet (broadloom) (**PL12-1.5D**)			
	1.15d	3	VCT (**PL12-1.5C**)		VCT mismatched some locations **(PL12-1.5E**)	
	1.15e	3	Epoxy (**PL12-1.5F**)			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.16 Ceiling Finishes	1	Painted Gyp. Bd ceiling attached to underside of structure (**PL12-1.16A, PL12-1.16B**).			
	1.17 Elevators & Lifts					
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with concrete slab on grade.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior and interior bearing walls.			
	2.3 Structural Frame	3	Metal plate wood roof girder trusses at 8 feet o.c. with sawn lumber purlins between trusses, covered with rated roof sheathing.		Sawn lumber roof beams at south canopy have long horizontal crack at each end span that may need replacement. (**PL12-2.3A, PL12-2.3B**)	
	2.4 Lateral System	2	Rated wood sheathing at the roof diaphragm; rated wood siding at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	2	Water Closets, Urinals, Sinks	Throughout	(**PL12-4.1A,B**)	
	4.1b Plumbing Fixtures	2	Water Heater	First Floor Mech Rm		
	4.2 Water Distribution	2	Water and Waste and Piping	Throughout		
	4.3 Rain Water Drainage		Sloped roof to gutters			
5.0 HVAC	**5.1a HVAC Equipment**	5	Gas-fired Furnaces	First Floor Mech Rm	M3 (**PL12-5.1A,B,C,D**)	
	5.1b HVAC Equipment	2	Exhaust Fan	Roof		
	5.1c HVAC Equipment	2	Gas-fired Unit Heaters	Suspended Indoors		
	5.2 HVAC Distribution	2	Ductwork, grilles	Throughout	M2 (**PL12-5.1E**)	
	5.3 Controls/Special Sys.	2	Direct Digital Control		M1	
6.0 Electrical	**6.1a Elec Service**	2	Avista utility owned 500 kVA pad-mounted transformer supplies 1600 Amp underground service to 1600 Amp GE main switchboard in Building 12 Warehouse at 277/480 Volts	W of Building 12 Warehouse	None	None
	6.1b Elec Distribution	2	1600 Amp main switchboard in Building 12 Warehouse supplies other buildings, including Buildings 9, 10, 11, 14-17, and 18	Building 12 Electrical Equipment Room 28	None	None
		2	1600 Amp main switchboard supplies 400 Amp service to GE 225 kVA dry-type transformer at 277/480 Volts; Transformer feeds 600 Amp GE distribution panel at 120/208 Volts	Building 12 Electrical Equipment Room 28	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		2	600 Amp, 120/208V, GE main distribution panelboard feeds 200A, GE panelboards	Building 12 Electrical Equipment Room 28	None	None
		2	200 Amp, 120/208V, GE panelboard 'P2' feeds GE load center for Building 19 Vocational 'P' with a 60 Amp, 2-pole circuit breaker labeled 'Worm Farm'	Building 12 Electrical Equipment Room 28	None	None
	6.2a Lighting	3	HID wall-pack luminaires	Building exterior	Lenses are discolored and cracking (photos **PL12-6.2A, B**)	Replace damaged lenses or replace exterior luminaires
		2	Fluorescent surface-mount troffers	Corridors, and general areas	None	None
		2	Fluorescent strip luminaires	Mech/Elect Rooms, Room 13 Wood Shop	None	None
		2	Fluorescent wrap luminaires	Room 2 Toilet, Room 15 Shower	None	None
		3	Incandescent caged 'jellyjar' luminaire	Room 27 Grounds	Incandescent lamps require frequent relamping and are inefficient; incandescent lamps are becoming unavailable (photo **PL12-6.2C**)	Provide new CFL or LED luminaire to replace existing
		2	LED exit signs - red	Building Interior	None	None
		2	Twin-head emergency luminaires	Building interior egress paths	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Building Exterior	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior General spaces	None	None
		3	Receptacles have standard faceplates	Room 8 Kitchen/Storage under counter near sink	No ground fault circuit interruption for receptacle located near water source	Replace standard faceplate receptacle with Ground-Fault Circuit Interrupter type receptacle
		2	Receptacles are Ground-Fault Circuit Interrupter type	Room 8 Kitchen/Storage, Room 2 Toilet, Room 15 Shower	None	None
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	Telecom Room	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3b Other Comm	2	Rauland intercom/paging s ceiling-mount speakers	Corridors, General spaces	None	None
	6.3c Fire Alarm	3	Fire alarm system connected directly to the Fire Alarm Control Panel in Buildings 14-17; horn/strobe signals; smoke detectors in most areas; duct smoke detectors; annunciated to Campus Fire Alarm Annunciator in Building 6 through Fire Alarm Control Panel in Buildings 14-17 Living Unit 'L'	Building interior	There is no local fire alarm control panel or annunciator panel; Fire alarm devices/appliances directly report to a building that is scheduled for demolition and where salvage operations have begun; Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access; Smoke detectors are old and replacement parts are difficult to acquire (photo **PL12-6.3A**)	Replace fire alarm system with system that has control panel in building near main entrance
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	2	Battery-backed egress lighting units	Egress Pathways	None	None
7.0 Equipment	**7.1 Institutional Equip**	2	Misc. Built-in metal storage cabinets and casework (**PL12-7.1APL12-A7.1B, PL12-A7.1C**)			
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA		Fully Accessible - 1 story building			

Comments:

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M2: Range/cooktop does not have an exhaust hood. Most Code Authorities (AHJ) would require a capture hood with exhaust directly to the outdoors.

M3: Replacement of the furnaces and flues is scheduled.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL12-1.1A.JPG

PL12-1.5A.JPG

PL12-1.5B.JPG

PL12-1.5C.JPG

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PL12-1.5D.JPG

PL12-1.5E.JPG

PL12-1.5F.JPG

PL12-1.6A.JPG

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NAC ARCHITECTURE

WAREHOUSE/ SHOP-N

PL12

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PL12-1.6B.JPG

PL12-1.7A.JPG

PL12-1.7B.JPG

PL12-1.7C.JPG

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PL**12**

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PL12-1.8B.JPG

PL12-1.9A.JPG

PL12-1.9B.JPG

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PL12-1.10A.JPG

PL12-1.11A.JPG

PL12-1.12A.JPG

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PL12-1.14A.JPG

PL12-1.15A.JPG

PL12-1.16A.JPG

PL12-1.16B.JPG

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PL12-2.3A.JPG

PL12-2.3B.JPG

PL12-4.1A.JPG

PL12-4.1B.JPG

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PL**12**

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PL12-5.1A.JPG

PL12-5.1B.JPG

PL12-5.1C.JPG

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PL**12**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Ross Hall - T	13
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
3,000	2	1989	IBC = V-B	IBC = B, LSC = Business	Roof replaced about 10 years ago	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	1	Conc.(PL13-1.1A)			
	1.2 Slab on Grade	2	At lower level			
	1.3 Basement Walls	1	conc. Foundations walls (See section 1.1)			
	1.4 Floor Construction	2	Wood framing at main level slab on grad lower level (see section 1.2)			
	1.5 Roof Construction	2	Wood framing			
	1.6 Exterior Walls	2	T1-11 treated wood siding on wooden framing with BATT insulation and gypsum wall board (Gyp Bd.) interior face (**PL13-1.6A**)			
	1.7 Exterior Windows	2	Aluminum frames with insulated glass and wooden exterior trim. (**PL09-1.7A** and **PL13-1.7B**) Painted wood sill Jamb and head.			
	1.8 Exterior Doors	1	Insulated Steel Doors and frames (**PL13-1.8A, PL13-1.8B**)			
	1.9 Roof Coverings	2	Asphalt shingles			
	1.10 Roof Openings	2	Adequately sealed (**PL13-1.10A**)			
	1.11 Interior Partitions	2	Wood stud framing with Gyp Bd both sides.			
	1.12 Interior Doors	2	Stained wood doors with hollow metal frames.			
	Stair Constn/Finishes 1.13a	2	Wood Framed stairs with carpet and toe guards (**PL13-1.13A, PL13-1.13B**).			
	1.13b	1	Exterior Concrete stair (**PL13-1.13C**) and Ramp (see section 8.4)			
	1.14a Wall Finishes	1	Painted Gyp. Bd. Walls			
	1.14b	2	Ceramic 3x3 Wall tile and painted wall above some toilets			
	1.14c	2	FRP with Paint above (**PL13-1.14C**)			
	1.15a Floor Finishes	2	Carpet with rubber base (**PL13-1.15A**)			
	1.15b	2	Rubber flooring with rubber base (**PL13-1.15B**)			
	1.15c	2	Sheet vinyl with rubber base (**PL13-1.15C**)			
	1.15d	2	Ceramic 2x2 Floor tile some toilets (**PL13-1.15D**)			
	1.16a Ceiling Finishes	1	Painted Gyp. Bd. Ceilings (**PL13-1.16**A)			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	1.16b	1	Suspended Acoustical 2x4 tile ceilings (**PL13-1.16B**)		Some minor water damage (**PL13-1.16C**)	
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete basement walls with basement concrete slab on grade.			
	2.1A Exterior Floor Deck	5	Uncovered exterior floor deck consisting of sawn lumber wood planking on joists supported by beams and posts.		The wood has deteriorated due to lack of maintenance. It should be removed or replaced. (**PL13-2.1AA, PL13-2.1A**B)	
	2.2 Struct. Bearing Walls	3	Sawn lumber wood studs at exterior and interior bearing walls.		The south exterior wood siding and trim are weathered and are in need of maintenance before moisture penetrates the wall. (**PL13-2.2A**)	
	2.3 Structural Frame	2	Metal plate wood roof trusses with rated roof sheathing. Sawn lumber wood main floor joists with plywood sheathing.			
	2.4 Lateral System	2	Rated wood sheathing at the roof and main floor diaphragms; rated wood sheathing at exterior shear walls.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	2	Water Closets, Sinks	Throughout	(**PL13-4.1A,B**)	
	4.1b Plumbing Fixtures	2	Water Heater	Mech Rm		
	4.2 Water Distribution	2	Water and Waste and Piping	Throughout		
	4.3 Rain Water Drainage	--	Sloped roof to gutters			
5.0 HVAC	**5.1a HVAC Equipment**	3	Gas-fired Furnace	Lower Level Mech Rm	M2 (**PL13-5.1A,B**)	
	5.1b HVAC Equipment	3	Exhaust Fan	Ceiling	M2	
	5.1c HVAC Equipment	3	Condensing Unit	Outdoors at Grade	M2	
	5.2 HVAC Distribution	2	Ductwork, grilles	Throughout		
	5.3 Controls/Special Sys.	2	Direct Digital Control		M1	
6.0 Electrical	**6.1a Elec Service**	2	Utility owned 25 kVA pole-mounted single-phase pot transformer supplies 400 Amp underground service to two 200 Amp, 2-pole disconnect switches at 120/240 Volts	N exterior of building	None	None
	6.1b Elec Distribution	3	First Floor Main Panelboards is 200 Amp Square D single-phase loadcenter	First Floor Classroom	None	None
		3	Basement Main Panelboards is 200 Amp GE single-phase loadcenter	Basement Electrical Closet	Dead-front space blocks are missing from the GE load center (photo PL13-6.1A)	Install space blocks in empty locations in the GE load center
	6.2a Lighting	2	HID wall-mount luminaires	Building exterior	None	None
		3	Compact fluorescent twist-type lamp in aimable incandescent lampholders	Building exterior soffit	Some lamps are failed or missing (photo **PL13-6.2A**)	•Replace failed or missing lamps
		2	Fluorescent troffers	Building Interior General spaces	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		2	Fluorescent wraparound luminaires	Restrooms, Telecom room	None	None
		3	Plastic, unlit exit sign adhered to wall above exit door	Building Interior	No powered exit signs	Add powered exit signs where appropriate
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Building Exterior	None	None
		3	Interior lighting controlled by switches	Local, except Basement Classroom	No automatic controls for interior lighting	Add automatic controls where appropriate
		2	Interior lighting controlled by occupancy sensor	Basement Classroom (now Plan Room)	None	None
		2	Receptacles and switches have standard faceplates	Building Interior General spaces	None	None
		2	Receptacles are Ground-Fault Circuit Interrupter type	Restrooms, Building Exterior	None	None
		2	Box for exterior GFCI type receptacle has flip-lid cover	Building Exterior	None	None
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	1st Floor Communications Room	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	4	Fire alarm devices report to Allied security panel rather than Notifier AFP-200 fire alarm control panel; devices include heat and smoke detectors; notification appliances are horn/strobesdetectors	Builing interior	Fire alarm devices report to the building security system which does not communicate with the Notifier fire alarm control panel due to an inability to reprogram the security portion of the system; Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access	Replace the fire alarm devices with new devices and connect them directly to the Fire Alarm Control Panel; Provide fire alarm control annunciator in building near main entrance; Annunciate Fire Alarm System in new location
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	NA	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	8.4 ADA	1	Building is fully accessible. Concrete Ramp to main level (**PL13-8.4A**). On grade entry to lower level. (**PL13-8.4B**)			

Comments:

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M2: Unit is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL13-1.1A.JPG

PL13-1.6A.JPG

PL13-1.7A.JPG

PL13-1.7B.JPG

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PL13-1.8A.JPG

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PL13-1.10A.JPG

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PL13-1.15D.JPG

PL13-1.16A.JPG

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PL13-2.1AA.JPG

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PL13-8.4B.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Living Units_L	14-17
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
23,632	1	1989	IBC = V-B	IBC = I-3, LSC = Residential	unknown	Failing

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**				See note #1 typical	
	1.2 Slab on Grade					
	1.3 Basement Walls					
	1.4 Floor Construction					
	1.5 Roof Construction					
	1.6 Exterior Walls		(**PL14-17-1.6A**)			
	1.7 Exterior Windows		(**PL14-17-1.7A**)			
	1.8 Exterior Doors					
	1.9 Roof Coverings					
	1.10 Roof Openings					
	1.11 Interior Partitions		(**PL14-17-1.11A, PL14-17-1.11B**)			
	1.12 Interior Doors					
	1.13 Stair Constn/Finishes					
	1.14 Wall Finishes					
	1.15 Floor Finishes		(**PL14-17-1.15A**)			
	1.16 Ceiling Finishes		(**PL14-17-1.16A, PL14-17-1.16B**)			
	1.17 Elevators & Lifts					
2.0 Structural	**2.1 Foundations**					
	2.2 Struct Bearings Walls					
	2.3 Structural Frame					
	2.4 Lateral System					
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1 Plumbing Fixtures**					
	4.2 Water Distribution					
	4.3 Rain Water Drainage					
5.0 HVAC	**5.1 HVAC Equipment**					
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.					
6.0 Electrical	**6.1a Elec Service**	2	1600 Amp main switchboard in Building 12 Warehouse supplies 300 Amp underground service to dry-type transformer for Buildings 14-16 Living Unit 'L' Dorms 'A', 'B' and 'C' and 90 Amp underground service to dry-type transformer for Building 17 Living Unit 'L' Dorm 'D', both at 480 Volts	Building 12 Electrical Equipment Room 28	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		4	300 kVA dry-type transformer supplies 800 Amp service to main distribution panelboard for Buildings 14-16 Living Unit 'L' Dorms 'A', 'B' and 'C' at 120/208 Volts	W Building exterior	Dry-type transformers in exterior use locations have reduced life-span; transformer exhibits signs of deterioration	If building is ever to be reused, replace dry-type transformer with a new transformer located in an interior electrical room
		4	75 kVA dry-type transformer supplies 200 Amp service to main panelboard for Building 17 Living Unit 'L' Dorm 'D' at 120/208 Volts	N Building exterior	Dry-type transformers in exterior use locations have reduced life-span; transformer exhibits signs of deterioration (photo **PL14-17-6.1A**)	If building is ever to be reused, replace dry-type transformer with a new transformer located in an interior electrical room
	6.1b Elec Distribution	2	800 Amp, 120/208V, GE main distribution panelboard feeds 200A, GE panelboards for Dorms 2A, 2B, and 2C	Dorm 2A, 2B, and 2C commom area Storage Room 16	None	None
		2	150 Amp, 120/208V GE main panelboard	Dorm 2D Lounge Room 5	None	None
	6.2a Lighting	2	HID wall-pack luminaires	Building exterior	None	None
		2	Fluorescent security luminaires	Toilet Rooms, High security rooms	None	None
		2	Fluorescent wraps	Mech/Elect Rooms	None	None
		2	Fluorescent troffers	Corridors, and general areas	None	None
		2	LED exit signs - red	Building Interior	None	None
		2	Twin-head emergency luminaires	Building interior egress paths	None	None
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Building Exterior	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	•If building is ever to be reused, add automatic controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior General spaces	None	None
		2	Receptacles are GFCI type	Break Room, Restrooms	None	None
	6.3a Telecom	5	Telecom equipment is disconnected, and other devices have been removed for salvage	Duty Station Room 25, Building Exterior	Equipment has been salvaged	If building is ever to be reused, salvaged equipment will need to be replaced

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	6.3b Other Comm	5	Rauland intercom system, ceiling-mount speakers	Corridors, General spaces	Equipment has been salvaged	If building is ever to be reused, salvaged equipment will need to be replaced
	6.3c Fire Alarm	4	Simplex 4000 fire alarm system control panel, which also controls fire alarm devices in Buildings 8, 9, 10, 11 and 12; horn/strobe signals; detectors in most areas; duct smoke detectors; connected via fiber-optic loop to annunciator in Building 6	Duty Station Room 25	Other buildings have fire alarm devices and appliances wired through to the fire alarm control panel in Building 14; signals must pass through the control panel in this building to the Pine Lodge main fire alarm annunciator panel in building 6; the devices and appliances in the outlying buildings will lose support and annunciation once Building 14-17 is demolished; Fire alarm system is not monitored with the Pine Lodge campus main fire alarm annunciator panel being in a secured location in unoccupied Building 6 - where limited personnel have access (photos **PL14-17-6.3A, B, C**)	Reconfigure Fire Alarm System – provide separate fire alarm control panels in each outlying building, so fire alarm panel can be eliminated in Building 14-17 - Living Unit 'L', without affecting the fire alarm systems in other buildings
	6.3d Security	5	Security headend, cameras and other devices have been removed for salvage	Building exterior, Building Interior General spaces	•Equipment has been salvaged (photo **PL14-17-6.3D**)	•If building is ever to be reused, salvaged equipment will need to be replaced
	6.4 Emerg Power	3	Battery-backed egress lighting units	Egress Pathways	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments:

Architectural:

1. Building is slated for demolition so was not assessed. (See Photos)

***Rating System: 1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to Good condition), 5 = Failing (requires replacement or extraordinary attention to restore to Good condition).**

PL14-17-1.6A.JPG

PL14-17-1.7A.JPG

PL14-17-1.11A.JPG

PL14-17-1.11B.JPG

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LIVING UNIT-L

PL**14-17**

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PL**14-17**

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Storage - S	18
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
3,200	1	2001	IBC = V-B	IBC = S-2, LSC = Storage	has not been remodeled	Good

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	1	Conc. Foundation (**PL18-1.1A**)			
	1.2 Slab on Grade	1	Concrete slab on grade main level			
	1.3 Basement Walls	-	N/A			
	1.4a Floor Construction	1	Slab on Main level grade (see section 1.2)			
	1.4b	1	Mezzanine level wooden joist and conc slab. (**PL18-1.4A**)			
	1.5 Roof Construction	2	(Metal building) Steel (Stl) purlins on Stl girders, and a sandwiched vapor barrier, reflective insulation and radiant barrier blanket (**PL18-1.5A & PL18-1.5B**).			
	1.6 Exterior Walls	2	(Metal building) steel stud infill exterior insulation and Mtl. siding (**PL18-1.6A, PL18-1.6B, PL18-1.6C & PL18-1.6D**)			
	1.7 Exterior Windows		Stl frame with insulated glass (**PL18-1.7A**)			
	1.8a Exterior Doors	1	Man doors: Insulated steel doors and frames (**PL18-1.8A**)			
	1.8b	1	Overhead Doors (**PL18-1.8B**)			
	1.9 Roof Coverings	2	Asphalt shingles			
	1.10 Roof Openings	2	Appear adequately sealed			
	1.11 Interior Partitions	2	Wood Stud Framing with Gyp. Bd.. Both sides			
	1.12 Interior Doors	2	Stained wood doors with hollow metal frames (**PL18-1.12A**)			
	1.13 Stair Constn/Finishes	1	Prefabricated metal stair (**PL18-1.13A**)			
	1.14 Wall Finishes	2	Painted Gyp. Bd.			
	1.15a Floor Finishes	1	Sealed concrete floor (selection 1.2)			
	1.15b	2	4X4 ceramic floor tile with tile base in toilet rooms (**PL18-1.15B**).			
	1.15c	3	VCT (**PL18-1.15C**)		Stained and dirty (**PL18-1.15D**)	
	1.16 Ceiling Finishes	1	Painted Gyp Bd. Ceiling (**PL18-1.16A**)			
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls with concrete slab on grade.			
	2.2 Struct. Bearing Walls	2	Metal building horizontal girts at exterior walls. Sawn lumber wood studs at interior bearing walls for support of wood framing of partial upper floor.			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.3 Structural Frame	2	Metal building roof purlins and metal roofing. Plywood sheathing over floor I-joists and glue laminated beams at upper mezzanine floor.			
	2.4 Lateral System	2	Metal building rigid steel frames in transverse direction. Steel tie rods in side walls longitudinal direction and ends wall transverse direction. Horizontal steel tie rods in the plane below the roof purlins. Rated wood sheathing at the upper floor diaphragm; gyp board sheathing at interior shear walls below the upper floor.			
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	3	Water Closets, Sinks	Throughout		
	4.1b Plumbing Fixtures	3	Water Heater	Mech Rm		
	4.2 Water Distribution	3	Water and Waste and Piping	Throughout		
	4.3 Rain Water Drainage	--	Sloped roof: no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Gas-fired Unit Heaters	Suspended	M2 (**PL18-5.1A,B**)	
	5.1b HVAC Equipment	3	Exhaust Fans	Wall	M2	
	5.1c HVAC Equipment				M2	
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.	2	Direct Digital Control		M1	
6.0 Electrical	**6.1a Elec Service**	2	1600 Amp main switchboard in Building 12 Warehouse supplies 250 Amp underground service to dry-type transformer for Building 18 Storage 'S' at 480 Volts	Building 12 Electrical Equipment Room 28	None	None
		3	150 kVA dry-type transformer outside supplies 400 Amp underground service to 400 Amp main panelboard at 120/208 Volts	E exterior of building	Dry-type transformers in exterior use locations have reduced life-span (photo **PL18-6.1A**)	Replace dry-type transformer with a new transformer located in an interior electrical room
	6.1b Elec Distribution	2	400 Amp, 120/208V Siemens main panelboard	SE corner Room 101A Vehicle Maintenance - Lounge	None	None
	6.2a Lighting	2	HID wall pack luminaires	Building exterior	None	None
		2	HID pendant luminaires	Room 101 Vehicle Maintenance	None	None
		2	Fluorescent wraps	Room 101 Vehicle Maintenance, Room 101A Lounge, Room 102 Office, Room 201 Storage Loft	None	None

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
		2	Compact Fluorescent luminaire	Room 103 Toilet	None	None
		3	Plastic, unlit exit sign adhered to exit door	Building Interior	No powered exit signs (photo **PL18-6.2A**)	Add powered exit signs where appropriate
	6.2b Branch Wiring	2	Exterior lighting controlled by photocell	Building Exterior	None	None
		3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior General spaces	None	None
		3	Receptacles have standard faceplates	Room 101B First Aid Station near Room 102 Office	No ground fault circuit interruption for receptacles located near water source (**PL18-6.2B, C**)	Replace standard receptacles with Ground-Fault Circuit Interrupter type receptacles where there is a water source nearby
		2	Receptacles in Toilet Room are Ground-Fault Circuit Interrupter protected	Room 103 Toilet	None	None
		3	Branch wiring exceeds recommended conduit fill	Room 101 Vehicle Maintenance - lighting and mechanical equipment circuits	Conduit fill not to exceed 40% per NEC	Rewire those circuits not in accordance with code
		3	Junction boxes without covers and twist-type splice connections dangling in air	Room 101 Vehicle Maintenance - overhead mechanical equipment	Conductors shall be protected against physical damage per NEC (photo **PL18-6.2D**)	Rewire those circuits not in accordance with code
	6.3a Telecom	1	Telecom floor-mounted racks, equipped with patchpanels and hub; connected via fiber-optic cable to the campus network; Category 6 data cable	SW corner Room 101 Vehicle Maintenance	None	None
	6.3b Other Comm	2	None	NA	None	None
	6.3c Fire Alarm	2	Simplex water flow switches connected to outside bell	SW corner Room 101 Vehicle Maintenance	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	NA	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	8.4 ADA	3	Lower level accessible but mezzanine is not			

Comments:

Mechanical:

M1: The Johnson Controls system continues to "have eyes on" this building from the 1) HVAC Shop, 2) North Boiler Plant and 3) Lakeland Village Boiler Plant.

M2: Unit is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL18-1.1A.JPG

PL18-1.2A.JPG

PL18-1.4A.JPG

PL18-1.5A.JPG

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STORAGE-S

PL**18**

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STORAGE-S

PL**18**

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PL18-1.6D.JPG

PL18-1.7A.JPG

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PL18-1.12A.JPG

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PL**18**

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PL18-1.15B.JPG

PL18-1.15C.JPG

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PL18-5.1A.JPG

PL18-5.1B.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Greenhouse	19
NAC #111-14011-A20	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
1,800	1	2009	IBC = V-B	IBC = Utility	N/A	Fair

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	3	Conc block (**PL19-1.1A**.)			
	1.2 Slab on Grade	-	N/A			
	1.3 Basement Walls	-	N/A			
	1.4 Floor Construction	-	N/A (See section 1.15)			
	1.5 Roof Construction	1	(Greenhouse) Plastic or glass with Alum. framing (**PL19-1.5A**)			
	1.6 Exterior Walls	1	(Greenhouse) Plastic or glass with Alum. framing (**PL19-1.6A**)			
	1.7 Exterior Windows	-	(Greenhouse) see section 1.6			
	1.8 Exterior Doors	3	(Greenhouse) Alum. door and frame (**PL19-1.8A**)			
	1.9 Roof Coverings	-	(See section 1.5)			
	1.10 Roof Openings	-	N/A			
	1.11 Interior Partitions	-	N/A			
	1.12 Interior Doors	-	N/A			
	1.13 Stair Constn/Finishes	-	N/A			
	1.14 Wall Finishes	-	N/A			
	1.15 Floor Finishes		Dirt floor with concrete walkways (**PL19-1.15A**)			
	1.16 Ceiling Finishes	-	N/A (See section1.5)			
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	2	Reinforced concrete foundation walls extending approximately 3 feet above the gravel floor.			
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior bearing walls.			
	2.3 Structural Frame	2	Metal plate wood roof trusses with intermittent wood furring and metal roofing.			
	2.4 Lateral System	2	Rated wood siding at exterior shear walls.		Deficient roof diaphragm or horizontal bracing. The small building plan size may be sufficient to resist lateral loads. (**PL19-2.4A**)	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	--	No fixtures			
	4.2 Water Distribution	--	No plumbing piping			

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	4.3 Rain Water Drainage	--	Sloped roof: no roof drains			
5.0 HVAC	**5.1a HVAC Equipment**	3	Exhaust Fan	Wall	M1	
	5.1b HVAC Equipment					
	5.1c HVAC Equipment					
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.	3	Manual control of ventilation fan			
6.0 Electrical	**6.1a Elec Service**	2	200 Amp, 120/208V, GE panelboard 'P2' in Building 12 feeds GE load center for Building 19 Vocational 'P' with a 60 Amp, 2-pole circuit breaker labeled 'Worm Farm'	Building 12 Electrical Equipment Room 28	None	None
	6.1b Elec Distribution	2	125 Amp, 120/208V, Single Phase, GE load center with 40 Amp, 2 pole main circuit breaker feeds (3)20 Amp, 1 pole circuits; lighting, tractor shed, and fan & receptacles	Building 12 Electrical Equipment Room 28	None	None
	6.2a Lighting	2	Fluorescent strip luminaires	Building Interior	None	None
	6.2b Branch Wiring	3	Interior lighting controlled by switches	Local	No automatic controls for interior lighting	Add automatic controls where appropriate
		2	Receptacles and switches have standard faceplates	Building Interior	None	None
	6.3a Telecom	NA	None	NA	None	None
	6.3b Other Comm	NA	None	NA	None	None
	6.3c Fire Alarm	NA	None	NA	None	None
	6.3d Security	NA	None	NA	None	None
	6.4 Emerg Power	NA	None	NA	None	None
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings	1	Plant tables (PL19-7.2A)			
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA	1	Fully accessible			

Comments:

Mechanical:
M1: Unit is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL19-1.1A.JPG

PL19-1.5A.JPG

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BUILDING ASSESSMENT		Medical Lake Infrastructure Master Plan WA State DES #2014-415		Vocational - P	20
NAC #111-14011-A206	April 25, 2014	Project		Building Name	Building No.

GSF	Stories	Built	Construction Type	Occupancy Group	Last Remodeled	Overall Condition
1,590	1	1990	IBC = V-B	IBC = S-2, LSC = Storage	N/A	Poor

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
1.0 FICAP Information Div. 2-	**1.1 Foundation**	2	Concrete (**PL20-1.1A**)			
	1.2 Slab on Grade	-	N/A (See Section 1.15)			
	1.3 Basement Walls	-	N/A			
	1.4 Floor Construction	-	N/A (See Section 1.15)			
	1.5 Roof Construction	2	Wooden truss framing (**PL20-1.5A**)			
	1.6 Exterior Walls		T1-11 treated wood siding on wooden framing with (**PL20-1.16A**).			
	1.7 Exterior Windows	-	N/A			
	1.8 Exterior Doors	2	Steel door and frame (**Pl20-1.8A**)			
	1.9 Roof Coverings	2	Metal standing seam roofing (**PL20-1.9A**)			
	1.10 Roof Openings	2	Appear adequately sealed			
	1.11 Interior Partitions	-	N/A			
	1.12 Interior Doors	-	N/A			
	1.13 Stair Constn/Finishes	-	N/A			
	1.14 Wall Finishes	-	N/A			
	1.15 Floor Finishes	5	dirt floor (**PL20-1.15A**)			
	1.16 Ceiling Finishes	-	Exposed structure (see section 1.5)			
	1.17 Elevators & Lifts	-	N/A			
2.0 Structural	**2.1 Foundations**	3	Undocumented construction. Reinforcement unknown in CMU foundation walls.		Some units of the CMU foundation wall have failed and are in need of replacement. (**PL20-2.1A, PL20-2.1B**)	
	2.2 Struct. Bearing Walls	2	Sawn lumber wood studs at exterior bearing walls.			
	2.3 Structural Frame	3	Greenhouse translucent panels at the roof and walls, supported by sawn lumber wood roof rafters with collar ties and sawn lumber wood studs on CMU foundation walls. Earth berms, approximately 18" above the floor, occur along the sides of the building.		(**PL20-2.3A**)	

Components	Systems	Rating*	Component Description	Component Location	Deficiency Description	Corrective Action
	2.4 Lateral System	3	Remedial interior metal bracing has been added.		It appears that interior metal bracing has been installed to resist horizontal forces in the building's transverse direction. Bracing in the building's longitudinal direction was not observed and should be added if not existent. (**PL20-2.4A, PL20-2.4B**)	
3.0 Fire Protection	**3.1 Fire Service**					
	3.2 FP System					
4.0 Plumbing	**4.1a Plumbing Fixtures**	--	No fixtures	--		
	4.1b Plumbing Fixtures	3	Domestic Water Heater	Indoor	M1	
	4.2 Water Distribution	3	Hot and cold water	Indoor	M1	
	4.3 Rain Water Drainage	--	Sloped roof: no roof drains	--	--	
5.0 HVAC	**5.1a HVAC Equipment**	3	Exhaust Fans	Wall	M1 (**PL20-5.1A**)	
	5.1b HVAC Equipment	3	Gas-fired Unit Heaters	Suspended	M1 (**PL20-5.1B**)	
	5.1c HVAC Equipment	3	Ventilation Fan	Suspended	M1 (**PL20-5.1C**)	
	5.2 HVAC Distribution					
	5.3 Controls/Special Sys.	3	Manual control of ventilation fan			
6.0 Electrical	**6.1 Elec Service & Distrib**					
	6.2 Lighting/Branch Wir'g					
	6.3 Comm & Security					
	6.4 Emergency Systems					
7.0 Equipment	**7.1 Institutional Equip**					
	7.2 Fixed Furnishings					
8.0 Code Compliance	**8.1 Life Safety Code**					
	8.2 IBC					
	8.3 WSEC					
	8.4 ADA					

Comments:

Mechanical:
M1: Unit is functioning but age exceeds Average Service Life. Increased maintenance or failure would be expected.

***Rating System:1 = New condition, 2 = Good condition, 3 = Fair condition (needs minor attention to restore to Good condition), 4 = Poor (needs major attention to restore to**

PL20-1.1A.JPG

PL20-1.5A.JPG

PL20-1.6A.JPG

PL20-1.8A.JPG

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MASTER PLAN
MEDICAL LAKE, WA

STATE NO # 2014 - 415
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GREENHOUSE

PL**20**

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PL20-1.9A.JPG

PL20-1.14A.JPG

PL20-1.15A.JPG

PL20-2.1A.JPG

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PL20-2.3A.JPG

PL20-2.4A.JPG

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PL20-5.1A.JPG

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5.2 Infrastructure

Infrastructure Assessment Plans

PROJECT: DSHS Medical Lake Infrastructure Master Planning
NO.: State #2014-415 / NAC|Architecture #111-14011-A206
DATE: June 16, 2014

Reduced-scale site plans, printed to 11″ x 17″ format, have been created to show the Civil, Mechanical, and Electrical infrastructure project needs on the Medical Lake campus. These plans are bound together as a separate Appendix.

Recommended Project List 6/12/2014

DSHS Medical Lake Infrastructure Master Plan, #2014-415

Item #	Bldg No.	Description	Urgency	Constr'n Cost
CIVIL - Site Projects				
R-1	ESH	Grind and Overlay Asphalt Pavement	short-term	768,386
	PL	Grind and Overlay Asphalt Pavement	short-term	115,456
	LV	Grind and Overlay Asphalt Pavement	short-term	272,074
R-3	ESH	Repair Gravel Road	short-term	15,384
R-7	ESH	Repair Concrete Sidewalk	short-term	134
	PL	Repair Concrete Sidewalk	short-term	168
	LV	Repair Concrete Sidewalk	short-term	2,898
R-2	ESH	Replace Asphalt Road	immediate	72,720
	PL	Replace Asphalt Road	immediate	44,310
	LV	Replace Asphalt Road	immediate	169,890
R-4	PL	Replace Gravel Road	immediate	4,777
R-5	ESH	Replace Dirt Road with Gravel Road	immediate	3,762
R-6	ESH	Replace Concrete Road or Driveway	immediate	32,807
	PL	Replace Concrete Road or Driveway	immediate	20,564
	LV	Replace Concrete Road or Driveway	immediate	15,317
R-8	ESH	Replace Concrete Sidewalk	immediate	27,055
	LV	Replace Concrete Sidewalk	immediate	81,165
S-1	ESH	Replace Old 2" Steel Pressure Pipe	short-term	10,000
S-3	ESH	6" Sewer Pipe and Services for Bldgs. 28, 30 & 31	short-term	15,000
S-5	LV	Replace 6" Sewer Line Around LV Auto Shop	short-term	4,500
S-8	ESH	Sandblast & Repaint exposed steel tanks at Lift Station	short-term	5,000
S-9	ESH	repair asphalt comp shingle roofing at gazebo roof at lift station	short-term	500
S-11	ESH	Bury 200 LF of 4" PVC pressure return line from secondary basins	short-term	500
S-13	ESH	Clean, leak test, and video inspection of 8,000 LF of force main between LV pump station and ESH	short-term	40,000
S-2	ESH	Replace Bldg 32's 4" Sewer Pipe	immediate	5,000
S-4	LV	Replace 6" Sewer Line and Services for Bldgs. 4D62 and 4D63	immediate	15,000
S-6	LV	Replace 6" Sewer Line from Bldg. 4D42 to Downstream Manhole	immediate	10,000
S-7	LV	Replace Failing Sections of 6" Sewer from MH btwn Bldgs. 4D45 and 4D50 to Downstream MH	immediate	10,000
S-10	ESH	Repair 60 LF of chain link fence around wastewater facility	immediate	2,000
S-12	ESH	Replace 8" MJ gate valve & box in force main south of Fancher Rd	immediate	2,500
W-1	ESH	Replace Pump House at Well #1	short-term	741,000
W-6	ESH	Concrete Liner in 555,000 Gal. Reservoir	short-term	258,000
W-9	LV	Replace Hot Water Make-Up Heaters	short-term	6,000
W-10	LV	Replace Hot Water System Expansion Couplings	short-term	8,000
W-11	LV	Install Pressure Reducing Valve at LV	short-term	12,000
W-12	LV	Add 8" Loop at LV Cottages	short-term	28,000
W-13	LV	Replace Section of 12" Main at LV	short-term	4,000
W-14	LV	Replace 6" Water Line Under LV Auto Shop	short-term	5,000
W-2	ESH	Abandon Exist. Booster Pump Station	immediate	167,000
W-4	ESH	Replace Pump House No. 2 Bldg	immediate	712,000
W-5	ESH	Replace Domestic Water Well No. 2	immediate	161,000
W-7	ESH	Replace Lead Joint Pipe to ESH Boiler	immediate	8,000
W-8	ESH	Provide Domestic Water Meters at All Bldgs.	immediate	10,000
	PL	Provide Domestic Water Meters at All Bldgs.	immediate	11,000
	LV	Provide Domestic Water Meters at All Bldgs.	immediate	79,000

Item #	Bldg No.	Description	Urgency	Constr'n Cost
IR-2	ESH	Replace ESH Irrigation Booster Pump Motor	short-term	11,000
IR-4	ESH	Replace 1,350 LF of 8" Irrigation Main	short-term	40,500
IR-1	LV	Install Liner in 150,000 Gallon LV Concrete Irrigation Reservoir	immediate	143,000
IR-3	ESH	Replace 1,175 LF of 8" Irrigation Main	immediate	35,000
IR-5	ESH	Replace 2,130 LF of 8" Irrigation Main	immediate	63,900
	PL	Replace 670 LF of 8" Irrigation Main	immediate	20,100
IR-6	LV	Replace 6,114 LF of 10" Irrigation Main from LV to Clear Lake	immediate	213,000
		SUBTOTAL, CIVIL		**$4,503,367**
ARCHITECTURAL / General Building Projects				
a) Building Demo (item "b" includes demo of buildings being replaced)				
ESH	3A05	Electric Shop	short-term	42,840
	3A06	Paint Shop (Old Bakery)	short-term	54,144
	3A09	Motor Pool North	short-term	170,904
	3A10	Old Fire House	short-term	57,408
	3A11	Welding/ Carpentry/ Auto shop	short-term	102,684
	3A12	Paint Storage (Old Grainery)	short-term	56,160
	3A13	Electrical & Plaster Shop (Quonset)	short-term	41,280
	3A14	Linden Hall	short-term	401,952
	3A15	West Lodge	short-term	447,312
	3A17	Roosevelt Hall	short-term	198,288
	3A29	Cottage #2	mid-term	14,436
	3A30	Cottage #3	mid-term	16,620
	3A31	Cottage #4	mid-term	36,492
	3A38	Metal Storage (Quonset)	short-term	24,000
	3A39	Interlake School (Asbestos abatement under separate contract)	immediate	1,180,000
	3A89	AG Buildings (Chicken Farm)	short-term	300,000
	3A92	P-3 Lab	short-term	72,000
	3A99	Primate Center ($5/SF premium, conc)	short-term	1,185,631
	3A74	Therapy Pool	short-term	121,000
	3A07	Commissary	short-term	157,000
Pine L.	PL06	Secured Housing Unit - B	short-term	21,600
	PL01	Housing Unit 1 - D ($5/SF premium)	short-term	730,864
	PL07	Chapel - H	short-term	20,736
	PL14-17	Living Unit - L	immediate	283,584
	PL20	Vocational /Storage - P	short-term	19,080
LV	4D18	Miller/Bryan ($5/SF premium for conc)	short-term	414,800
	4D23-24	Carpenter Shops	short-term	70,428
	4D28-29	Storage/Garage	mid-term	45,084
	4D49	Mason Memorial ($5/SF premium)	mid-term	244,086
	4D50	Douglas	mid-term	122,000
		SUBTOTAL		**$6,652,413**
b) Building Replacements (costs include demolition of existing buildings)				
	3A04 & 4D30	ESH Central Plant combined with LV Laundry Bldg in 2 phases; locate next to existing ESH Boiler Bldg to be demo'd; Phase 1 Central Plant (incl. Deareator & moving boilers) = $3,175,000 MACC	immediate	9,645,000
		SUBTOTAL		**$9,645,000**

Item #	Bldg No.	Description	Urgency	Constr'n Cost
c) Program Recommendations				
P-01	3A01 & 3A20	Locate new Activity/Visitors Entry building where existing ESH Admin is located. (cost includes demo of existing Activity/Therapy and ESH Admin buildings)	short-term	8,200,000
P-02	4D55, 4D56, 4D57	LV CIRV Student Housing: Renovate existing apartment bldgs: Hudson, Lewis, & Whitman	short-term	890,000
P-03	4d01	Demolish LV Admin Building and Replace with new smaller Visitor's Entry constructed at front of PAT building	short-term	1,490,000
P-04	3A19	ESH Auditorium: Demo if can't find a sponsor	mid-term	166,000
P-05	3A02	Eastlake: Decompress 40-bed FSU unit at 2S1 into "A" segment and construct satellite Nurses Stations; and move 2A Social Work offices into 3N3 north eand of Eastlake	short-term	1,029,000
P-06	3A02	Eastlake: Decompress 30-bed FSU unit at 3S1 into swing ward at north end of existing ward; construct satellite nurses stations at each end and add staffing as needed	short-term	275,000
P-07	campus	consolidate ESH CSS shops to Pine Lodge *(bldg demo cost not incl. here; see page 2 for individual bldg demo costs)*	short-term	700,000
P-08	ESH	Expand yard for FSU, with covered shelter, plus add shelter at APU north yard area	short-term	310,000
P-09	LV	Decompress LV cottages into vacant units; misc. projects associated with repair of cottages 4D07, 4D10-11, & 4D13-14; NOT 4D15 which needs major work or demo	short-term	480,000
P-10	LV	Mid-term: Upgrade FSU Nursing Unit with Triangular Addition	**mid-term**	12,700,000
P-11	LV	Long-term: consolidate LV Skilled Nursing in new Bldg	**long-term**	14,000,000
P-12	ESH	Long-term: Consolidate APU & FSU at Westlake in new Bldg	**long-term**	95,000,000
		SUBTOTAL		**$135,240,000**
d) Misc. Improvement Projects - ESH				
ESH-A01	3A02	Eastlake: Replace Remaining Original Carpet with Sheet Vinyl	short-term	1,170,000
ESH-A02	3A02	Eastlake: Re-Roof Sections without TPO & Fix Slope at Valleys	short-term	420,000
ESH-A03	3A02	Eastlake: Replace north end P.Lam doors & Hardware	short-term	770,000
ESH-A04	3A02	Eastlake: Replace Failed Signage System	short-term	320,000
ESH-A05	3A02	Eastlake: Repair Wall Finishes at Identified Locations	short-term	50,000
ESH-A06	3A02	Eastlake: Replace Damaged Casework at Nurses Stations, etc.	short-term	35,000
ESH-A07a	3A02, 27	Anti-ligature upgrades at wards: 3rd & 4th priorities, Outlets & Wardrobes	short-term	425,000
ESH-A07b	3A02, 27	Anti-ligature upgrades at wards: 5th priority, overhead lights & built-in furnishings	short-term	526,000
ESH-A07c	3A02, 27	Anti-ligature upgrades at wards: 7th priority, corridor handrails	short-term	282,000
ESH-A08	3A02	Eastlake: Replace APU P.Lam Wardrobes with steel like FSU	short-term	90,000
ESH-A09	3A27	Westlake: Extend Fire Access Road around NW side	mid-term	350,000
ESH-A10	3A27	Westlake: Provide Roof Canopy at Ambulance Entrance	mid-term	150,000
ESH-A11	3A27	Westlake: Replace worn-out Flooring at Public Areas	short-term	261,000
ESH-A12	3A27	Westlake: Replace doors at Center Stair to meet code access req.	short-term	5,000
ESH-A13	3A27	Westlake: Create ADA Compliant Patient Rooms, 2 per ward = 8	short-term	266,000
ESH-A14	3A32	Superintendent's House: Exterior painting (trim, windows)	short-term	10,000
ESH-A15	3A32	Superintendent's House: replace shake roofing	short-term	35,000
ESH-A16	3A36	Emergency Vehicle Storage: Replace rusted metal gutters; paint soffit and exposed glu-lam beams; remove peeling plastic from inside face of OH doors	short-term	14,000
ESH-A17	3A27	Westlake: add header boxes & downspouts at scuppers (29)	immediate	58,000
		SUBTOTAL		**$5,237,000**

Item #	Bldg No.	Description	Urgency	Constr'n Cost
e) Misc. Improvement Projects - Pine Lodge				
PL-A1	PL-08	Walker Hall: Re-Paint Exterior Siding & replace floor coverings; prepare for move-in of LV Admin staff	short-term	50,000
PL-A2	PL-09	Education Bldg: repaint exterior siding, replace east-side floor coverings, replace lay-in ceilings; prepare for CSS shop offices moving from ESH	short-term	100,000
PL-A3	PL-11	Medical Bldg: Misc. wall repair & painting	short-term	5,000
PL-A4	PL-12	Warehouse/Shops: replace asphalt comp shingle roofing	short-term	35,000
		SUBTOTAL		**$190,000**
f) Misc. Improvement Projects - Lakeland Village				
LV-A01	4D02	PAT Center: replace fire shutters next to HAB corridor	mid-term	50,000
LV-A02	4D03	School (Activity): Rebuild masonry parapets, replace rusted steel windows at Arcade, replace slip-resistant sheet vinyl at ramps, construct area of refuge at south corridor	short-term	106,000
LV-A03	4D05	HAB Center: replace slip-resistant sheet vinyl on ramps; modify roof flashings & repoint brick, replace leaking skylights	short-term	58,500
LV-A04	4D06	Rainbow Way: re-waterproof foundation walls, & re-insulate; replace damaged glass windows, replace flooring, install gutters and downspouts, replace casework	short-term	200,000
LV-A05	4D08	Wildrose Way: replace casework	short-term	60,000
LV-A06	4D09	Apple Court: clean and paint exterior, replace damaged insul glass, repair floor seams, update casework	short-term	85,000
LV-A07	4D12	Cascade Way: clean & paint exterior, replace insul glass where damaged, repair floor seams, update casework	short-term	85,000
LV-A08	4D15	Sunrise Court 5880: waterproof & insulate CMU foundation walls, remove mold from attic & reinsulate, clean & paint exterior, replace insul glass where damaged, replace flooring thru-out, update casework	short-term	215,000
LV-A09	4D16-17	Sunrise Court (2) 5882-84: update casework	short-term	120,000
LV-A10	4D17	Sunrise Court 5884: replace damaged shingles	short-term	2,500
LV-A11	4D25-26	Welding/Garage: install missing fire doors btwn the 2 halves	mid-term	3,000
LV-A12	4D32	Food Service: replace slip-resistant sheet vinyl on ramps	short-term	5,000
LV-A13	4D32	Food Service: renovate or replace service elevator	immediate	225,000
LV-A14	4D33	Chapel: repair and repaint wood siding; install exit door devices, egress lighting and exit signs	short-term	21,000
LV-A15	4D39	Pinewood: clean brick, repaint stucco exterior; replace insul glass where damaged, replace roofing, replace nurse call system, upgrade casework	short-term	148,000
LV-A16	4D40	Evergreen: (same 5 items as Pinewood)	short-term	150,000
LV-A17	4D41	Hawthorn: needs 3 items: clean & paint, glazing, & casework	short-term	60,000
LV-A18	4D42	Harvest: needs 4 items: paint ext, glazing, roofing, & casework	short-term	94,000
LV-A19	4D43	Hillside: needs 4: paint ext., glazing, call system, & casework	short-term	108,000
LV-A20	4D44	Laurel: replace asphalt shingle roofing, add gutters & DS, paint ext., replace glazing, & casework	short-term	120,000
LV-A21	4D45	Ponderosa: needs 3: paint ext, windows, & casework	short-term	80,000
LV-A22	4D46	Shamrock: needs 3: repair & paint stucco; glazing, Casework	short-term	80,000
LV-A23	4D47	Tamarack: needs 4: stucco repair/paint; glazing, roofing, casework	short-term	114,000
LV-A24	4D48	Rosewood: repair cracks in ext. masonry, replace fire shutters next to HAB corridor	short-term	35,000
		SUBTOTAL		**$2,225,000**
g) Code Related Issues - Lakeland Village (after E-Power is Corrected)				
LV-C1	(4) AL	Install call system in (4) Boarding Home Cottages & upgrade existing call system in remaining (7) cottages (see Elec LV-E2)	short-term	0
LV-C2	(6) AL	Separate Clean/Soiled/Laundry functions in (6) Boarding Home Cottages and (5) Nursing cottages (@ $384,000 per)	short-term	4,225,000
		SUBTOTAL		**$4,225,000**

Item #	Bldg No.	Description	Urgency	Constr'n Cost
MECHANICAL				
ESH-01	3A27	Upgrade Westlake to full Direct Digital Control (DDC)	short-term	1,300,000
ESH-02	3A04	Provide flue gas heat recovery at boiler stacks *($250,000 cancel)*	short-term	0
ESH-03	3A04	Replace Dearator/Makeup water *($175,000 combine w/ new bldg)*	short-term	0
ESH-04	3A27	Convert Westlake AHU from 100% Ouside Air to Recirculating	short-term	95,000
ESH-05	3A27	Repair Heat Recovery System at the 100% Outside Air AHU	mid-term	25,000
ESH-06	3A27	Westlake: Convert Steam Heating System to Hot Water	mid-term	1,250,000
ESH-07	3A27	Westlake: Replace Steam Boilers ($450,000 if ESH-06 not taken)	mid-term	0
ESH-08	3A27	Westlake: Convert Constant Volume Air Systems to VAV	mid-term	950,000
ESH-09	3A04	Relocate Boilers to new Bldg *($989,000 combine w/ new bldg)*	short-term	0
LV-01	campus	Upgrade the remaining housing cottages to full DDC system.	mid-term	250,000
LV-02	campus	Replace pipe expansion joints in steam and condensate piping	immediate	20,000
LV-03	campus	Replace steam & condensate piping, & pressure-reducing stations	mid-term	710,000
LV-04	campus	Replace existing chilled water piping	mid-term	370,000
LV-05	campus	Replace heating water piping at the lower campus	mid-term	150,000
LV-06	campus	Replace domestic hot & cold water piping at the lower campus	mid-term	60,000
LV-07	4D38	Replace natural gas burners at steam boilers in Steam Plant	mid-term	100,000
LV-08	4D48	Convert Rosewood Constant Volume Air to Variable Air Volume	mid-term	200,000
LV-09	4D03	Convert Old School Constant Volume Air to Variable Air Volume	mid-term	350,000
LV-10	4D03	Convert Old School to Direct Digital Controls (DDC)	mid-term	130,000
LV-11	4D38	Provide Vacuum Condensate Return Pump at the Steam Plant	mid-term	35,000
LV-12	campus	Convert Cottages to Stand-alone Units for Heating & Cooling, Option 4 of 8, "Optional Standby to N. Cottages", with N-gas furnaces & outside condensing units, cost includes $1M for elec connections, $270K for N-gas plumbing & WH, $650K for steam piping at core, $1,515K for units, & $10K for GC	immediate	3,445,000
		SUBTOTAL		**$9,440,000**
ELECTRICAL				
ES-E1	campus	ESH Personal Duress Alarm System	short-term	3,412,000
ES-E2	3A02	Eastlake Essential Electrical System Reconfiguration	immediate	1,000,000
ES-E3	3A27	Westlake Nurse Call Replacement	immediate	750,000
LV-E1a	campus	LV Essential Electrical System Upgrade, prep for Option 4 of 8, "Optional Standby to N. Cottages", steps 1-4, reconfigure dist.	immediate	10,000,000
LV-E1b	campus	LV Essential Electrical System Upgrade, step 5, generator & controls	immediate	4,000,000
LV-E1c	campus	LV EE System Upgrade, step 6, connect Mech units *($1 M cost incl. as part of Mech project, see LV-12)*	immediate	0
LV-E2	campus	LV Staff Call Systems for Assisted Living Facilities	immediate	1,300,000
LV-E3	4D32	Food Service Switchboard Replacement	immediate	200,000
LV-E4	4D37	Chiller Plant Fire Alarm Replacement	immediate	30,000
LV-E5	4D48	Rosewood Essential Electrical System Upgrade *(cancel)*	short-term	0
LV-E6	campus	LV Transformers Tilt Adjustment	short-term	200,000
PL-E1	campus	Pine Lodge Fire Alarm Reconfiguration	immediate	125,000
PL-E2	campus	Pine Lodge Fire Alarm Annunciator Relocation	immediate	100,000
PL-E3	campus	Pine Lodge Transformer Replacement & Relocation	short-term	300,000
		SUBTOTAL		**$21,417,000**
		TOTAL (all bold subtotals)		**$198,774,780**

EUI - Westlake

PROJECT: DSHS Medical Lake Infrastructure Master Planning
NO.: State #2014-415 / NAC|Architecture #111-14011-A206
DATE: June 10, 2014

The Energy Utilization Index (EUI) represents the total energy used by a facility, a building or some part of a building in a one year period. The EUI is represented in thousands of British Thermal Units per square foot of building per year or kBTU/SF/yr. The EUI for the Westlake Hospital building was calculated from electric and natural gas usage figures for the period of July 2012 through June 2013. Electricity is typically measure in kilowatt hours (kW-hrs) and natural gas in therms. kW-hrs are converted to kBTU by multiplying the kW-hrs by 3.413. Therms are converted to kBTU by multiplying therms by 100. The sum of the electricity kBTU's and natural gas kBTU's for one year is divided by the square foot area of the building in question. See the attachments.

For the Westlake Hospital building, the electricity kBTU = 7,735,817 kBTU and the natural gas = 13,826,200 kBTU. The sum for one year = 21,562,017 kBTU. Building area = 107,328 SF. EUI = 21,562,017/107,328 = 200.9 kBTU/SF/yr *(see attached spreadsheet).*

National talent, local focus

The calculation of EUI for other buildings, groups of buildings or parts of buildings is possible if the proper information is available. This would include at least one year with 12 consecutive months of meter readings for electricity usage in kilowatt-hours (kW-hrs) and natural gas usage, if applicable, in therms, along with the square foot area of the building for which the meter readings apply. For instance, an EUI could be calculated for the Eastlake group of buildings served by the North Boiler Plant if the electricity usage for the Administration Building, Eastern State Hospital Building and the Kitchen-Dining Building could be measured. Natural gas usage at the North Boiler Plant is already being recorded. Obtaining EUI for an individual building such as ESH would be difficult as there is no dedicated measurement of the natural gas usage needed for this building.

Encl: Westlake EUI spreadsheet

P:\111-14011\300\A306\EUI-Westlake.docx

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NAC Inc | 1203 West Riverside Avenue | Spokane, Washington 99201-1107 | T: 509.838.8240 | F: 509.838.8261

MEDICAL LAKE MASTER PLAN MW#2014.225.01

ENERGY UTILIZATION INDEX kBTU/SF/yr

gas usage in therms: 1 therm = 100,000 BTU
electric usage in kW-hrs: 1 kW-hr = 3413 BTU = 3.413 kBTU

WESTLAKE HOSPITAL

MONTH	Electric in kW-hrs meter # 49883	meter # 56648			
JULY '12	5,944	228,270			
AUGUST '12	6,050	206,160			
SEPT '12	6,970	194,400			
OCT '12	7,691	182,640			
NOV '12	361	182,640			
DEC '12	0	186,000			
JAN '13	0	177,120			
FEB '13	0	162,240			
MAR '13	6	156,000			
APRIL '13	925	164,400			
MAY '13	4,309	204,240			
JUNE '13	4,208	186,000			
TOTAL	36,464	2,230,110	=	2,266,574	kW-hrs
			X	3.413	kBTU/kW-hr
				7,735,817	kBTU/yr

MONTH	natural gas usage - therms/month meter # 6785343325	meter # 58465			
JULY '12	3126				
AUGUST '12	2858				
SEPT '12	2647				
OCT '12	14845				
NOV '12	17224				
DEC '12		19596			
JAN '13		17956			
FEB '13		17311			
MAR '13		12583			
APRIL '13		10960			
MAY '13		11425			
JUNE '13		7731			
TOTAL	40,700	97,562	=	138,262	therms
			X	100	kBTU/therm
				13,826,200	kBTU/yr

TOTAL kBTU/yr = 21,562,017 kBTU/yr SUM OF ELECTRIC AND GAS USAGE CONVERTED TO BTU.
TOTAL SQUARE FOOTAGE = 107,328 SF
EUI = 200.90 kBTU/SF/yr

NAC | ARCHITECTURE

ESH – TAB Report

PROJECT: DSHS Medical Lake Infrastructure Master Planning
NO.: State #2014-415 / NAC|Architecture #111-14011-A206
DATE: June 10, 2014

The Testing and Balancing (TAB) report for the HVAC system in critical areas at Eastern State Hospital has not been completed as of the date of this report.

A limited number of spaces within Eastern State Hospital will be tested by a certified Test & Balance Company to verify pressure relationships and air change rates as required by the currently enforced version of the 2010 FGI Guidelines For Design and Construction of Health Care Facilities. Spaces to be tested would include a sampling of the Clean Utility, Soiled Utility, Toilet Rooms and Janitor Closet spaces as well as rooms designated as Pharmacy, Physical Therapy, Minor Surgery, Isolation and Laboratory. This testing is planned to occur in the next month and the results will be included in the Final Report.

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