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project description:

Tenant Finish for a new outpatient urgent care facility for CareNow in the Market Street Center shell building.

submittal dates:

Permit submittal: 08.19.2022
Permit approval: TBD

const. schedule

construction start: Fall 2022
occupancy: Winter 2022
estimated duration: 4 months

schedule indications are estimated and shall be the responsibility of the contractor.

code review:

governing municipality: Lee's Summit, Missouri

governing code: 2018 IBC, 2018 IMC, 2018 IPC, 2017 NEC, 2018 IFC, 2018 IFGC, 2018 IECC, 2009 ICC/ANSI A117.1

zoning: PI - Planned Industrial

construction: V-B

existing building stories: one

existing building height: 22'-6"

fire suppression: yes

fire extinguisher: provide for 75' max travel distance to extinguisher through building per IBC 2018, section 906.3 (NFPA 10)

Fire Alarm: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic fire sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler waterflow.

occupancy group: B (office)

area of work: 2,895 sq. ft.
occupant load: 2,895 sq. ft. / 150 = 19 occupants

restroom calcs:
water closets 19 occ. @ 1/25 for 50 = 1 required, 3 provided
lavatories 19 occ. @ 1/40 for 80 = 1 required, 3 provided

building use: Clinic, outpatient (building will NOT be used as an ambulatory care facility)

sheet index:

client:

HCA | CareNow Urgent Care
2000 Health Park Drive
Brentwood, Tennessee 37027

project manager:

Kara Botz, IIDA
Davidson Architecture & Engineering
4301 Indian Creek Parkway
Overland Park, Kansas 66207
p: 913.451.9390

MEP engineer:

Richard Curry, LC, LEED AP BD+C
BC Engineers
5720 Reeder Street
Shawnee, Kansas 66203
p: 913.262.1772

general contractor:

TBD

davidson
architecture&engineering

STATE OF MISSOURI
CHRISTOPHER LEE HAFNER
A-2007020152
ARCHITECT
08.19.2022

a tenant finish for CareNow Urgent Care

3509 SW Market Street
Lee's Summit, Missouri 64082

A0
cover sheet

general notes:

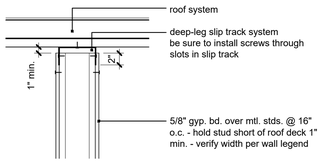
- All construction shall conform to the standards and specifications of Lee's Summit, Missouri.
- Double keyed locks are not permitted on any required or marked exit.
- Provide 3A-40BC fire extinguishers (min. 5 lb.) - location & quantity per Fire Marshal.
- Exit / emergency lighting are subject to an on site inspection.
- Furnish and install approved address numbers on front and rear of building (5" white vinyl numbers to contrast).
- HVAC system to have approved interconnected, smoke detector activated, automatic shutoffs with the detectors located in the return duct.
- HVAC rooftop units shall have an accessible G.F.C.I. outlet per code.
- Building construction must fully comply with all requirements of ADA accessibility guidelines.
- Provide 3-1/2" batt insulation in wall construction between conditioned & unconditioned spaces. Insulation to have a minimum R-13 value.
- Exit doors shall be openable from the inside without the use of a key or any special knowledge or effort.
- Provide electrical outlets at 15" a.f.f. to the lowest outlet per ADA.
- Furr around pipes / columns as shown on plans and construction documents.
- Furnish and install supply and return per MEP drawings.
- Egress illumination will be provided at an intensity of not less than 1 foot candle at floor level & at the exterior of the building.
- Provide 1/4" tempered glass in all interior windows & sidelights (typical unless noted otherwise).
- Provide 44" min. clear in all exit passageways.
- Any new exterior utility service equipment shall be painted to match the building standard colors.
- Furnish and install horns & strobes as required.
- All electrical outlets within 6'-0" of any sink or water source to be GFCI protected.
- Furniture to be provided by the tenant throughout.
- Furnish and install adequate power for owner/tenant supplied equipment. Verify requirement with Owner / Tenant.
- Construction materials exposed within plenums shall be noncombustible or shall have a flame spread rating of not more than 25 and a smoke developed rating of not more than 50.
- All low voltage wire and cable, optical fiber, pneumatic tubing, and all ducts and duct coverings, linings and connectors installed within plenum areas must be rated for plenum use.
- The general contractor shall contact all utility companies prior to start of construction and verify the location and depth of any utilities that may be encountered during construction.
- The contractor shall field verify existing surface and subsurface ground conditions prior to start of construction.
- Any penetrations in exterior walls shall be caulked and sealed "air-tight". Caulk color to match adjacent paint color.
- Any penetrations in interior walls must maintain the required fire rating per 2018 IFC.
- All roof penetrations shall be made by Landlord's roofing Contractor. Please notify the Landlord and Tenant Coordination prior to commencement.
- Do not attach window shades or other items to the storefront system. Window film and signage must be pre-approved by the Landlord.

construction notes: (##)

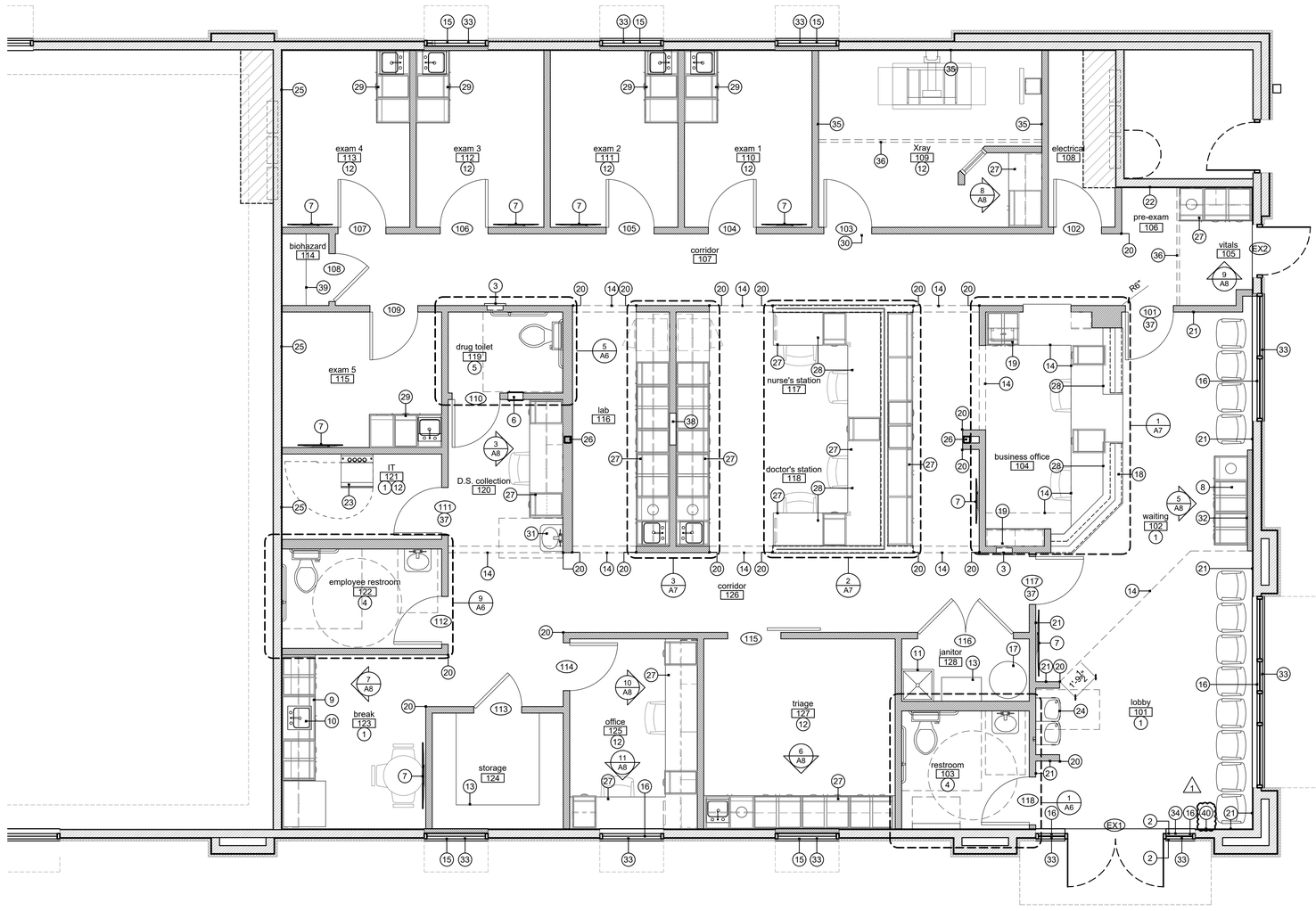
1. Furniture and equipment shown for reference only, will be provided by Tenant throughout.
2. Furnish and install accessible push button entry control mounted on storefront frame per ADA at door (EX1), provide power as required.
3. Furnish and install 3A-5BC rated fire extinguisher (min. 5 lbs.) in semi-recessed stainless steel cabinet - mount no higher than 5' to top of extinguisher - Monroe Extinguisher Company - model #1037V10 - Cosmopolitan F.E. cabinet. Verify final location with Fire Marshal and confirm with Architect.
4. Furnish and install restroom with 5' turning radius per ADA, wall mount sink at 2'-10" a.f.f. per ADA, 36" & 42" horizontal grab bars at 33-36" a.f.f. - 6" & 12" from corner respectively and 18" vertical grab bar per detail. Include 24" x 48" mirror and paper towel dispenser with trash receptacle. Double roll toilet paper dispenser and wall mounted soap dispenser. Provide treated wood blocking in wall for all wall mounted items.
5. Furnish and install drug restroom with 5' turning radius per ADA, 36" & 42" horizontal grab bars at 33-36" a.f.f. - 6" & 12" from corner respectively and 18" vertical grab bar per detail. Include locking tank toilet and double roll toilet paper dispenser. Provide treated wood blocking in wall for all wall mounted items.
6. Furnish and install stainless steel recessed specimen pass-thru cabinet (Bobrick B-505 s.s. satin finish).
7. Furnish and install recessed power and cable/data connections with blocking as required for tenant provided wall mount television and bracket. Center of television to be mounted at 6'-0" a.f.f. Verify final placement with tenant.
8. Furnish and install lower plastic laminate casework @ 2'-10" a.f.f. with 8" dia. grommet and adequate electrical / data. Verify grommet placement with Tenant prior to install. Provide water line and power for coffee maker inside cabinet per MEP drawings.
9. Furnish and install lower and upper plastic laminate casework @ 2'-10" a.f.f. with plastic laminate countertop. Provide adequate electrical and plumbing for microwave and refrigerator with ice maker.
10. Furnish and install drop-in stainless steel sink with garbage disposal and gooseneck faucet with wristblade handles per plumbing and ADA.
11. Furnish and install janitor mop basin, hose extension and mop rack. Install FRP on adjacent walls to 4'-0" high and extend minimum 24" past edge of basin.
12. Furnish and install insulation over ceiling in rooms 109, 110, 111, 112, 113, 115, 121,125 and 127.
13. Furnish and install 18" deep plastic laminate shelving on KV standards to 8'-0" a.f.f. (minimum 5 shelves).
14. Line of soffit / ceiling transition above.
15. Furnish and install charcoal vinyl film on inside face of exterior window prior to new wall construction.
16. Furnish and install roller shades at exterior windows. GC to coordinate shade installation requirements prior to soffit and casework installation.
17. Proposed water heater location per plumbing drawings.
18. Furnish and install reception desk with solid surface transaction top per detail and ADA.
19. Furnish and install adequate power and data for Tenant printer / copier equipment.
20. Furnish and install corner guards to 4'-0" a.f.f. at outside wall corners in all public areas susceptible to damage.
21. Furnish and install chair rail at 36" a.f.f. in lobby and waiting room only. Do not install chair rail on wall behind drinking fountains.
22. Furnish and install adequate power for Tenant provided scale equipment.
23. Tenant provided IT cabinet. Provide adequate power as required per electrical drawings.
24. Furnish and install hi / low drinking fountains at 34" a.f.f. to spout with forward controls per ADA.
25. Existing demising wall to remain.
26. Existing column to remain. Furr around column per detail.
27. Furnish and install plastic laminate casework with plastic laminate countertop per detail and ADA.
28. Furnish and install adequate power and data for tenant provided computer equipment. Verify final placement with tenant.
29. Furnish and install lower plastic laminate casework @ 3'-0" a.f.f. with plastic laminate countertop and backsplash with stainless steel drop-in sink. Faucet shall include integral eye wash. Provide adequate power and data. See detail on A8.
30. Furnish and install X-ray in use fixture above door per electrical drawings.
31. Furnish and install wall mount sink @ 2'-10" a.f.f.. Faucet shall include integral eye wash per plumbing drawings.
32. Furnish and install blocking in wall for tenant provided and installed signage.
33. Existing storefront to remain. GC shall protect during construction.
34. Provide outlet above ceiling for open sign per electrical drawings.
35. Furnish and install blocking in walls to meet X-ray equipment supplier requirements.
36. Furnish and install curtain track along ceiling. Provide 2x6 blocking above ceiling along curtain track path. Suspend and brace blocking from structure above. Curtain will be provided by tenant.
37. Furnish and install wireless keypad at doors 101, 111, and 117.
38. Furnish and install 2'-0" w X 1'-4" h pass-thru opening in wall per casework elevations.
39. Furnish and install (2) 18" deep plastic laminate shelving on KV standards at 5'-0" and 8'-0" a.f.f..
40. Furnish and install occupancy load signage.

symbol legend

- ## — door tag
- # — construction note
- P# — partition type
- room name ### — room tag
- # — window tag
- # / A#.# — elevation
- # / A#.# — wall section
- # / A#.# — enlarged detail



2 slip track detail
scale: 1"=1'-0"



1 floor plan
scale: 1/4" = 1'-0"

north

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A tenant finish for
CareNow Urgent Care
3509 SW Market Street
Lee's Summit, MO 64082

date
08.19.2022
drawn by
DAE
checked by
DAE
revisions
09.01.2022 — 1

sheet number
A1
drawing type
permit
project number
22102

partition legend:

P1 3-5/8" metal studs at 16" o.c. with 5/8" gypsum board on both sides to bottom of deck with deep-leg slip track connection & 3-1/2" unfaced sound attenuation batt insulation full height. Stud gauge per supplier. Utilize Dens-Armour Plus at all wet walls.

P2 6" metal studs at 16" o.c. with 5/8" Dens-Armour Plus on both sides to bottom of deck with deep-leg slip track connection & 5-1/2" unface sound attenuation batt insulation full height. Stud gauge per supplier. Utilize Dens-Armour Plus at all wet walls.

P3 3-5/8" metal studs at 16" o.c. with 5/8" gypsum board on both sides to 6" above ceiling and 3-1/2" unfaced sounds attenuation batt insulation full height. Stud gauge per supplier. Utilize Dens-Armour Plus at all wet walls.

P4 Lead Lined Wall - 3-5/8" metal studs at 16" o.c. with 5/8" Ray-Bar's lead backed drywall on X-ray room side to 7'-0" a.f.f. with 5/8" gypsum board above and 5/8" gypsum board on opposite side to bottom of deck with deep-leg slip track connection & 3-1/2" unfaced sound attenuation batt insulation full height. Install vertical lead batten strips minimum 1-1/2" wide and same height and thickness as gypsum board lead lining to inside face of stud supports and blocking where all vertical joints inside and outside corners occur. Provide lead discs or additional batten strips at intermediate studs for shielding screw penetrations. Stud gauge per supplier. Verify lead lining requirements with shielding report.

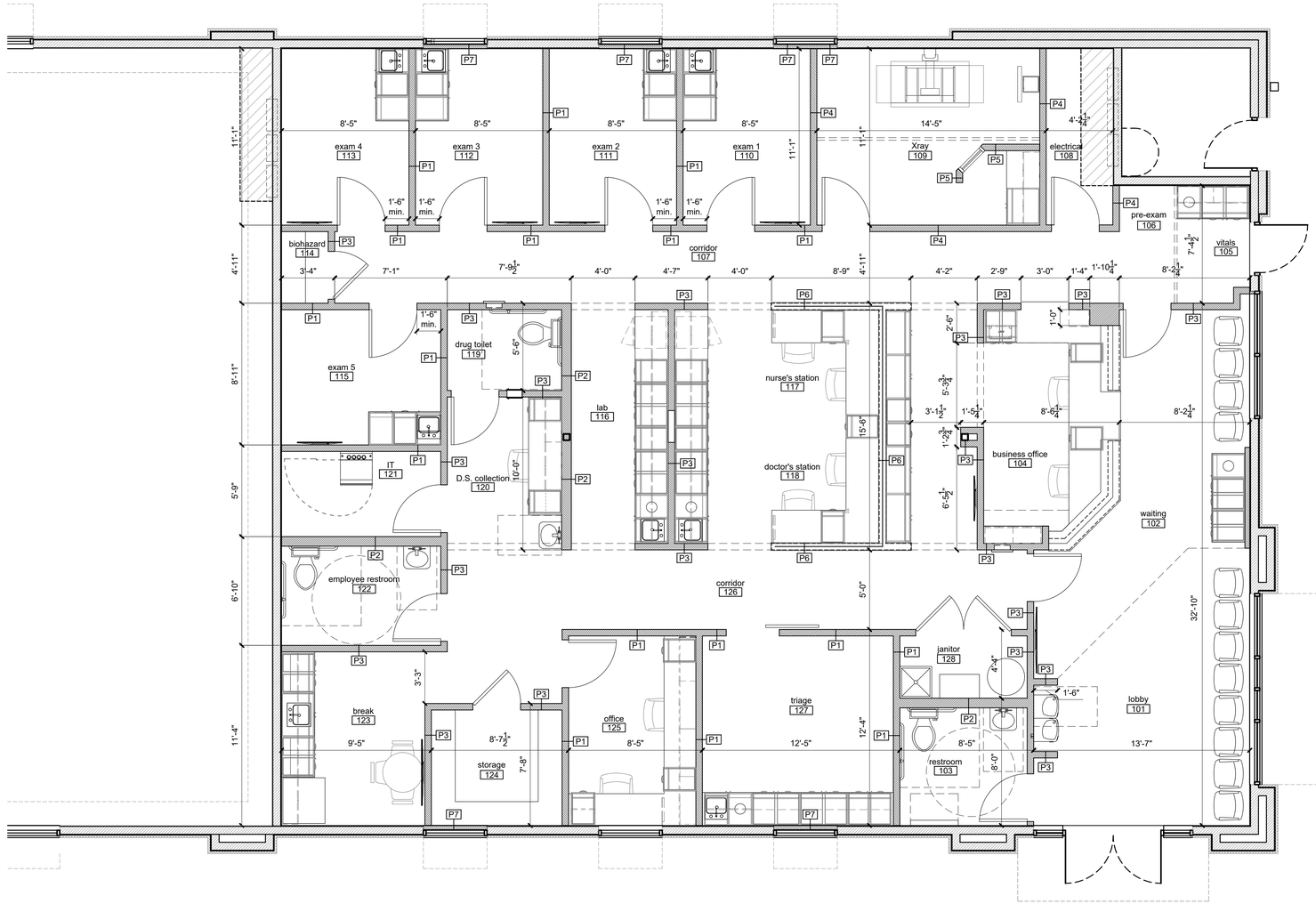
P5 Lead Lined Wall: 3-5/8" metal studs at 16" o.c. with 5/8" Ray-Bar's lead backed drywall on both sides to 7'-0" a.f.f. with 5/8" gypsum board above to 6" above ceiling and 5/8" gypsum board on opposite side to bottom of deck with deep-leg slip track connection & 3-1/2" unfaced sound attenuation batt insulation full height. Install vertical lead batten strips minimum 1-1/2" wide and same height and thickness as gypsum board lead lining to inside face of stud supports and blocking where all vertical joints inside and outside corners occur. Provide lead discs or additional batten strips at intermediate studs for shielding screw penetrations. Stud gauge per supplier. Verify lead lining requirements with shielding report.

P6 Half height wall - 3-5/8" metal studs at 16" o.c. with 5/8" gypsum board on both sides. Wall shall be 40-1/2" a.f.f. with plastic laminate top above for a total system height of 42" a.f.f. with plastic laminate top. For a total system height of 42" a.f.f.. Install frosted and tempered glass panels on top of laminate in dry-glaze U-channel per details.

P7 3-5/8" metal studs at 16" o.c. infill with 5/8" gypsum board on finish side and 3-1/2" unfaced sound attenuation batt insulation. Stud gauge per supplier. Utilize Den's Armour Plus at all wet walls.

* Expansion Joint Note: Expansion joints shall be installed at a max. of 30'-0". Joints shall also be located to coordinate with anticipated building movement, structural elements, and substrate transitions.

* Wet Wall Note: Utilize DensArmor Plus in all plumbing wet walls, walls receiving ceramic tile, and all walls adjacent to plumbing walls or where anticipated to be in contact with moisture.



1 dimension and partiton plan
scale: 1/4" = 1'-0"

north

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reflected ceiling legend:

2x4 lay-in LED light fixture with direct/indirect lens

2x2 lay-in LED light fixture with direct/indirect lens

recessed LED can light

1x4 linear LED box fixture (restroom)

under cabinet LED fixture

exhaust fan

HVAC exhaust or return grille

HVAC air supply diffuser

act-1: Armstrong, Cortega minatone #704, style: tegular edge, size 2'-0" x 2'-0", with Prelude ML 15/16" exposed tee grid system, white

act-2: Armstrong, Cortega minaboard #769, size 2'-0" x 4'-0", with Prelude ML 15/16" exposed tee grid system, white

gyp. bd.: gypsum board ceiling

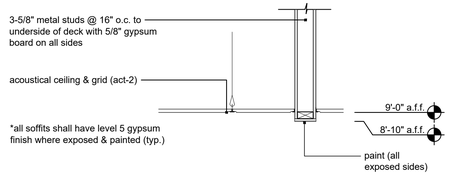
reflected ceiling notes:

1. Acoustical ceiling tile and grid per room finish legend and reflected ceiling notes.
2. Furnish and install gypsum board ceiling. Refer to electrical drawings for lighting specifications.
3. Open to structure above.
4. Furnish and install curtain track along ceiling. Provide 2x6 blocking above ceiling along curtain track path. Suspend and brace blocking from structure above. Curtain will be provided by tenant.
5. Ceiling grid starting point at corner.

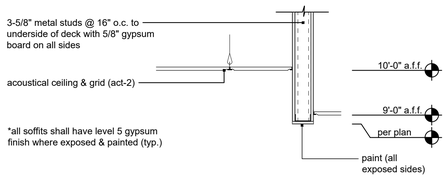
*Note: Provide level 5 finish on all soffits and gypsum board ceilings.

reflected ceiling general notes:

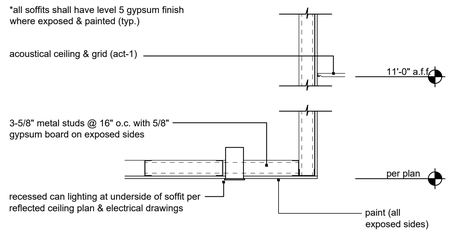
- Refer to general notes and specifications for more information.
- Refer to engineering drawings for HVAC and electrical fixtures, specifications and details.
- Refer to engineering drawings for emergency fixture locations and specifications.
- Refer to engineering drawings for light fixture specification.
- Ceiling height varies per room finish schedule and reflected ceiling plan.
- All soffits and headers to be painted per finish schedule and reflected ceiling plan.GC shall coordinate sizing and location of ducts and supply & return grills with mechanical plans and report any discrepancies to the architect.
- Provide Unistrut suspension system, as required for all suspended elements including, but not limited to, light fixtures and signage; double nut all top and bottom Unitstrut anchorages.
- Stud wall to terminate 6" min. above ceiling unless noted otherwise.
- GC to install sound batt insulation above entire ceiling at all rooms.
- Fire suppression contractor shall submit drawings of any fire suppression system modifications to The City of Prairie Village building department for review / approval prior to commencing with any sprinkler scope work.



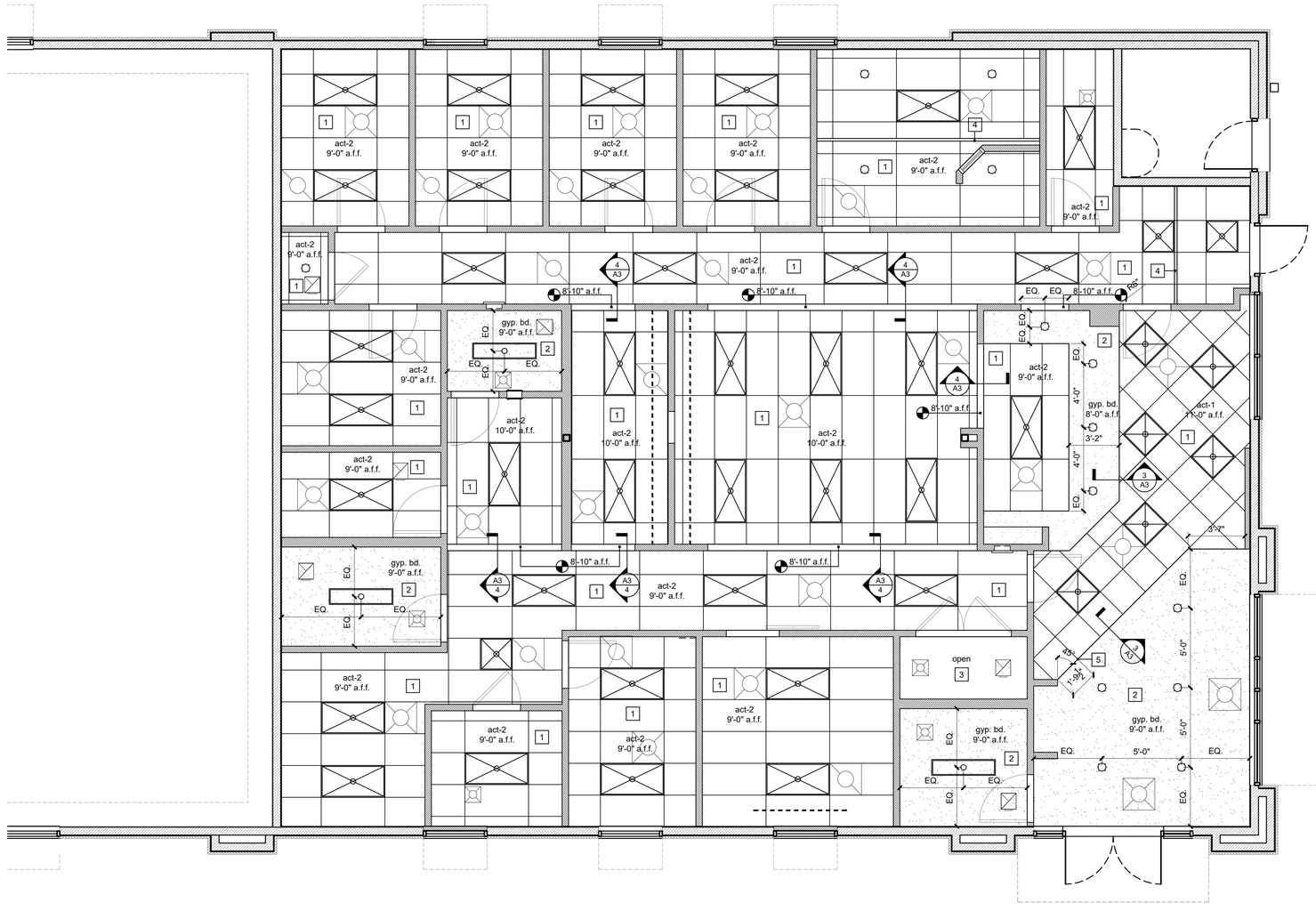
4 soffit detail
scale: 3/4" = 1'-0"



3 soffit detail
scale: 3/4" = 1'-0"



2 soffit detail
scale: 3/4" = 1'-0"



1 reflected ceiling plan
scale: 1/4" = 1'-0"

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door schedule

doors							frames						
door #	type	mat.	finish	size			type	material	finish	details	fire rating	hardware group	remarks
				width	height	thick				head / jamb			
101	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	6	
102	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	4	
103	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	alum.	anod.	j-1	0	5	lead lined door, verify lining requirements with shielding report
104	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	2	install coat hook on exam room side of door
105	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	2	install coat hook on exam room side of door
106	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	2	install coat hook on exam room side of door
107	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	2	install coat hook on exam room side of door
108	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	4	
109	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	galv.	paint(p-4)	j-1	0	2	install coat hook on exam room side of door
110	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	3	install coat hook on restroom side of door
111	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	4	
112	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	galv.	paint(p-4)	j-1	0	3	install coat hook on restroom side of door
113	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	galv.	paint(p-4)	j-1	0	4	
114	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	7	
115	a	wood	pl-3	3'-6"	7'-0"	1 3/4"	-	hol. mt.	paint(p-4)	j-2	0	8	sliding door with track
116	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	4	
117	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	6	
118	a	wood	pl-3	3'-0"	7'-0"	1 3/4"	1	hol. mt.	paint(p-4)	j-1	0	3	install coat hook on restroom side of door
ex 1	etr	alum.	anod.	pr. 3'-0"	7'-0"	1 3/4"	etr	alum.	anod.	etr	etr	1	install ADA push button
ex 2	etr	hol mt.	pt-4	3'-0"	7'-0"	1 3/4"	etr	hol mt.	etr	etr	etr	etr	

*** GC shall provide alternate price to install aluminum door frames for all interior frames.

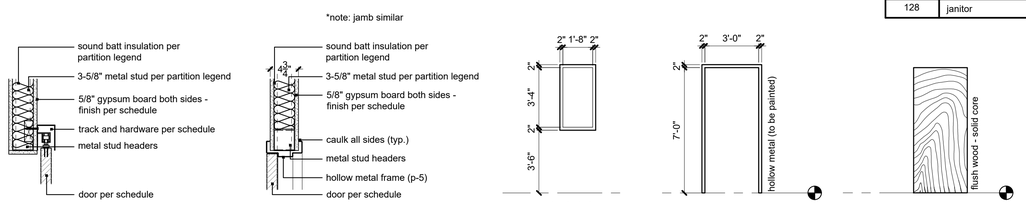
finish hardware schedule

set no.	item	description	finish	remarks
1	1 power operator - pull side mounting	Norton 5500 series - model # 5511	689	-existing hardware to remain. Modify as required to accomodate ADA push button for south side active leaf. * Confirm all hardware with Landlord prior to installation.
	1 power operator - push side mounting	Norton 5500 series - model #5531	689	
	2 auto operator actuators, jamb mount	8310-3822T - LCN	689	
2	1-1/2 pair hinges	5bb1 4.5 x 4.5 nrp - IVES	652	-mount coat hook per ADA standards (only on exam rooms)
	1 passage set	ND10S spa - SCHLAGE	626	
	1 overhead stop	104s series - stop only model - GLYNN JOHNSON	US32D	
	1 perimeter seal	5050cl - NGP	clear	
	1 purse / coat hook	B - 6727 Bobrick	s.s.	
3	1-1/2 hinges (2 pair at door 117)	5bb1 4.5 x 4.5 nrp - IVES	652	-mount coat hook per ADA standards
	1 privacy lock	ND40S spa - SCHLAGE	626	
	1 surface closer	4011 or 4111 - LCN w/ mtg brkt/plate and type as required	689	
	1 wall stop	ws407ccv - IVES	630	
	3 silencers	sr64-1 - IVES	gray	
	1 purse / coat hook	B - 6727 Bobrick	s.s.	
4	1-1/2 pair hinges	5bb1 4.5 x 4.5 nrp - IVES	652	-install wireless lock on door 111 only - Schlage FE575
	1 storeroom lock	ND80PD spa - SCHLAGE	626	
	1 wall stop	ws407ccv - IVES	630	
	3 silencers	sr64-1 - IVES	gray	
5	1 pivot set	5bb1 4.5 x 4.5 nrp - IVES	652	
	1 pivot	ML19 - RX	626	
	1 passage set	ND10S spa - SCHLAGE	689	
	1 overhead stop	104s series - stop only model - GLYNN JOHNSON	US32D	
	1 perimeter seal	5050ci - NGP	clear	
6	1-1/2 pair hinges	5bb1 4.5 x 4.5 nrp - IVES	652	
	1 wireless keypad lock	FE575-SCHLAGE	626	
	1 surface closer	4011 or 4111 - LCN w/ mtg brkt/plate and type as required	689	
	1 wall stop	16a - NGP	aluminum	
	3 silencers	5050ci - NGP	aluminum	
7	1-1/2 pair hinges	5bb1 4.5 x 4.5 nrp - IVES	652	
	1 office / entrance lock	ND50PD spa - SCHLAGE	626	
	1 wall stop	ws407ccv - IVES	630	
	3 silencers	sr64-1 - IVES	gray	
8	1 track	Examslide - AD Systems or approved equal	652	
	1 flush pull	950 - IVE	626	

door & hardware notes:

- Door frames shall be 16 ga. with mitered and welded corners.
- Doors with closers shall have ball bearing hinges.
- Thresholds shall coordinate with adjacent floor finish at either side.
- Hardware shall be heavy-duty, commercial grade, level 1 with lever handle.
- Hardware shall be manufactured by Schlage or approved equal.
- Finish hardware shall meet article III of the ADA.
- All interior storefront systems shall be clear anodized aluminum finish.
- All hardware sets shall be fitted with Schlage "C" keyway compatible cylinders - 6 pin - "0" bit. and shall have interchangeable cores.
- All hollow metal door frames shall be caulked around entire perimeter and at the inside corners.

*note: jamb similar



4 jamb types — scale: 1" = 1'-0"

3 storefront type — scale: 1/4" = 1'-0"

2 frame types — scale: 1/4" = 1'-0"

1 door types — scale: 1/4" = 1'-0"

finish legend

cpt-1	walk off mat, 4'-0" x 6'-0", grate matt aluminum hinge, Mill finish with brown polybrush inserts with recessed frames by Mats, Inc.
lvt-1	luxury vinyl tile, Shaw Contract, collection: terrain II 20, color: timber 00572, size: 6"x48" tile, ashlar installation (contact Ashley Hart, ashley.hart@shawcontract.com or 615.878.2293 for pricing and ordering)
b-1	4" rubber cove base, Johnsonite, 4" traditional duracove base, color: gray 48 [use 120' rolls] (contact Abbey Helland @ abbey.helland@tarkett.com or 816.678.8605 for pricing and ordering)
pt-1	wall paint, Sherwin Williams, ProMar 200 Zero VOC Interior Latex Paint, color: SW 7015 Repose Gray: eggshell (1 coat primer, 2 coats paint - to cover) - level 4 finish
pt-2	wall paint, Sherwin Williams, ProMar 200 Zero VOC Interior Latex Paint, color: SW 9134 Delft: eggshell (1 coat primer, 2 coats paint - to cover) - level 4 finish
pt-3	restroom wall paint, Sherwin Williams, Pro Industrial Low VOC High Performance Epoxy, color: SW 7015 Repose Gray, finish: eggshell (1 coat primer, 2 coats paint - to cover) - level 4 finish
pt-4	trim paint, Sherwin Williams, ProMar 200 Alkyd Paint, color: SW9163 Tin Lizzie, finish: enamel (1 coat primer, 2 coats paint) - for all hollow metal doors and all frames - level 4 finish
pt-5	ceiling / soffit paint, Sherwin Williams, Low VOC Waterborne Acrylic Dryfall, color: SW 7015 Repose Gray, finish: flat (paint to cover) - level 5 finish
pt-6	IT paint, PPG, SPEEDHIDE Interior Fire Retardant Latex, color: SW 7015 Repose Gray, finish: eggshell (1 coat primer, 2 coats paint - to cover) - level 4 finish
pt-7	restroom wall paint, PPG, Pitt-Glaze Pre-Catalyzed WB Epoxy, color: match SW9134 Delft, finish: eggshell (1 coat primer, 2 coats paint - to cover) - level 4 finish
ss-1	solid surface, Formica, color: 758 Bianco Mineral
pl-1	plastic laminate, Wilsonart, color: Italian Silver Ash 8217K-16, finish: matte, location: lower and upper cabinets
pl-2	plastic laminate, Wilsonart, color: White Carrara 492438, location: countertops
pl-3	plastic laminate, Wilsonart, color: White Cypress 7976K, location: doors
wc-1	wall covering, Lotus Silk, L2-LO-21, color: hummingbird (waiting room walls)
t-1	floor tile, Shaw Floor, collection: Industrial, color: grigio, CT-90D-500, size: 12"x24" tile, install running bond parallel with long orientation of room
cwt-1	wall tile - Shaw Floor, collection: Odyssey color: white, CT-77D-100, size: 6"x24", install: ashlar horizontal
sch-1	tile trim, Schluter Systems, style: jolly, color: clear anodized aluminum [install along exposed top edges and outside corners (cwt-1)]
g-1	grout, Mapei, sanded with spray on grout sealer, color: TBD
pull-1	staple pull, 4" brushed stainless steel [typical all casework drawers and doors]
act-1	acoustical ceiling tile, Armstrong, Cortega minatone #704, style: tegular edge, size 2'-0" x 2'-0", with Prelude ML 15/16" exposed tee grid system, white
act-2	acoustical ceiling tile, Armstrong, Cortega minaboard #769, size 2'-0" x 4'-0", with Prelude ML 15/16" exposed tee grid system, white
gyp. bd.	gypsum board ceiling, paint (p-5)
wg-1	wall guard (chair rail), custom stain to match pl-1, size: 3" high
wg-2	wall guard (corners), Inpro, color: taupe 0113, size: 48" high [applied to top of rubber base]
gl-1	decorative glass panel, tempered glass with frosted vinyl film (GC shall provide frosted samples to client and architect for final selection) [install in 1" tall dry glaze U-channel, surface mounted to countertop]
shds-1	roller shades, Mecho Shades, SoHo 1600 series, 3% open, shade color: 1615 smoke, housing color: Quaker Bronze

room finish schedule

room no.	room name	floor	base	wall north	wall south	wall east	wall west	ceiling	clg. ht.	remarks
101	lobby	lvt-1	b-1	wc-1/wg-1/pt-1	wc-1/wg-1/pt-1	wc-1/wg-1/pt-1	wc-1/wg-1/pt-1	gyp. / act-1	9'-0"	pt-1 above chair rail, wc-1 below chair rail
102	waiting	lvt-1	b-1	wc-1/wg-1/pt-1	wc-1/wg-1/pt-1	wc-1/wg-1/pt-1	wc-1/wg-1/pt-1	gyp. / act-2	9'-0" / 11'-0"	pt-1 above chair rail, wc-1 below chair rail
103	restroom	t-1	-	cwt-1 / pt-3	cwt-1 / pt-3	cwt-1 / pt-7	cwt-1 / pt-3	act-2	9'-0"	pt-5 @ Dens-Armour gyp ceiling
104	business office	lvt-1	b-1	pt-2	pt-2	pt-1	pt-2	gyp. / act-2	8'-0" / 9'-0"	
105	vitals	lvt-1	b-1	pt-1	pt-1	pt-2	pt-1	act-2	9'-0"	
106	pre-exam	lvt-1	b-1	pt-1	-	pt-2	pt-1	act-2	9'-0"	
107	corridor	lvt-1	b-1	pt-1	pt-1	pt-1	pt-1	act-2	9'-0"	corner guards at corridor
108	electrical	lvt-1	b-1	pt-1	pt-1	pt-1	pt-1	act-2	9'-0"	
109	x-ray	lvt-1	b-1	pt-1	pt-1	pt-2	pt-1	act-2	9'-0"	
110	exam	lvt-1	b-1	pt-1	pt-1	pt-2	pt-1	act-2	9'-0"	
111	exam	lvt-1	b-1	pt-1	pt-1	pt-2	pt-1	act-2	9'-0"	
112	exam	lvt-1	b-1	pt-1	pt-1	pt-2	pt-1	act-2	9'-0"	
113	exam	lvt-1	b-1	pt-1	pt-1	pt-2	pt-1	act-2	9'-0"	
114	biohazard	lvt-1	b-1	pt-1	pt-1	pt-1	pt-1	act-2	9'-0"	
115	exam	lvt-1	b-1	pt-1	pt-1	pt-1	pt-2	act-2	9'-0"	
116	lab	lvt-1	b-1	pt-2	pt-2	pt-2	pt-2	act-2	10-0"	
117	nurse's station	lvt-1	b-1	pt-2	pt-2	pt-2	pt-2	act-2	10'-0"	
118	doctor's station	lvt-1	b-1	pt-2	pt-2	pt-2	pt-2	act-2	10'-0"	
119	drug restroom	t-1	-	cwt-1 / pt-3	cwt-1 / pt-7	cwt-1 / pt-3	cwt-1 / pt-3	gyp bd	9'-0"	pt-5 @ Dens-Armour gyp ceiling
120	D.S. collection	lvt-1	b-1	pt-1	pt-1	pt-1	-	act-2	10'-0"	
121	IT	lvt-1	b-1	pt-6	pt-6	pt-6	pt-6	act-2	9'-0"	
122	employee restroom	t-1	-	cwt-1 / pt-3	cwt-1 / pt-3	cwt-1 / pt-7	cwt-1 / pt-3	act-2	9'-0"	pt-5 @ Dens-Armour gyp ceiling
123	breakroom	lvt-1	b-1	pt-1	pt-1	pt-1	pt-2	act-2	9'-0"	
124	storage	lvt-1	b-1	pt-1	pt-1	pt-1	pt-1	act-2	9'-0"	
125	office	lvt-1	b-1	pt-1	pt-1	pt-2	pt-1	act-2	9'-0"	
126	corridor	lvt-1	b-1	pt-1	pt-1	pt-1	pt-1	act-2	9'-0"	corner guards at corridor
127	triage	lvt-1	b-1	pt-1	pt-1	pt-1	pt-1	act-2	9'-0"	
128	janitor	lvt-1	b-1	pt-3	pt-3	pt-3	pt-3	-	open	

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STATE OF MISSOURI
CHRISTOPHER LEE HAFNER
NUMBER A-2007020152
ARCHITECT

08.19.2022

A tenant finish for
CareNow Urgent Care
3509 SW Market Street
Lee's Summit, MO 64082

date
08.19.2022
drawn by
DAE
checked by
DAE
revisions

sheet number
A4
drawing type
permit
project number
22102

general finish notes:

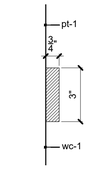
- All trim shall be pt-4 unless otherwise noted.
- All interior glazing shall be clear. Temper all interior glass.
- Interior aluminum storefront shall have clear anodized aluminum finish.
- Each material specified for application on the entire project shall be from the same dye lot.
- All surfaces shall be cleaned and conditioned to receive new finish as required by finish product manufacturer. Surfaces shall be smooth, free from depressions, protrusions, pits, slumps, streaks, flashing, and variation in texture. Installer/subcontractor shall notify general contractor prior to installation if conditions are not satisfactory.
- All wall mounted mechanical slots or grilles to be painted to match the wall on which they occur. Do not paint prefinished wall mullion end caps.
- Contractor shall be responsible for leveling of floor slabs to receive specified finishes.
- All patterned flooring shall be centered in both directions and generated from center of room outward toward partitions, unless otherwise noted.
- All floor finish changes shall occur under centerline of door in closed position.
- Combustible interior finish products shall be provided per the requirement of the International Building Code section 803.4.
- Carpet seams shall occur at junctions of partitions, thresholds or change of direction in corridors. No strip patch allowed smaller than 4'-0".
- Finishes shall be bid as specified or as approved equal only.
- Utilize Dens-Armour Plus in all plumbing wet walls, walls anticipated to be in contact with moisture, or walls receiving ceramic tile.
- Furnish and install crack isolation membrane below all ceramic floor tile.
- Furnish and install Schluter metal transition strip at transition of tile to carpet throughout. Carpet to sealed concrete shall occur with rubber transition to match rubber base.
- Furnish and install Schluter metal trim (sch-1) on all exposed ceramic wall tile edges (vertical and horizontal).
- Furnish and install dryfall paint on any exposed steel.
- Caullk around existing window after gypsum board insulation is complete.
- Furnish and install 6" batt. insulation overall acoustical ceiling panels, tightly connected for thermal sound protection.

flooring legend:

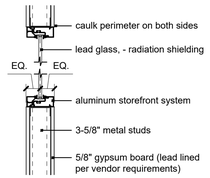
lvt-1 - refer to finish legend
luxury vinyl tile

t-1 - refer to finish legend
floor tile

cpt-1 - refer to finish legend
walk off mat



2 chair rail detail (wg-1)
scale: 3" = 1'-0"



3 x-ray lead window
scale: 1" = 1'-0"

1 finish floor plan
scale: 1/4" = 1'-0"

north

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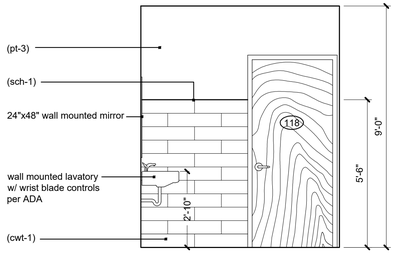
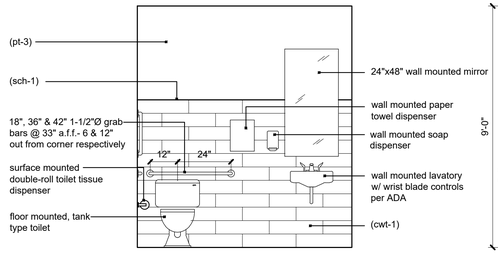


4 restroom elevation
scale: 3/8" = 1'-0"



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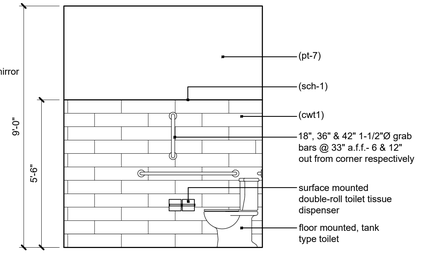
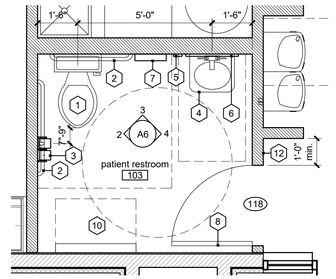
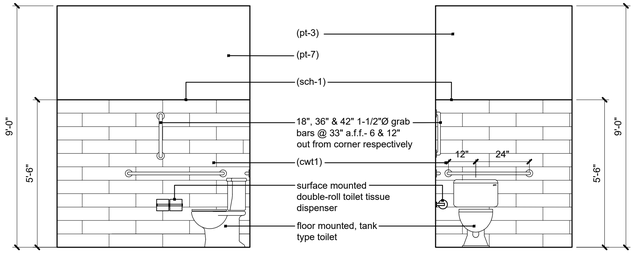


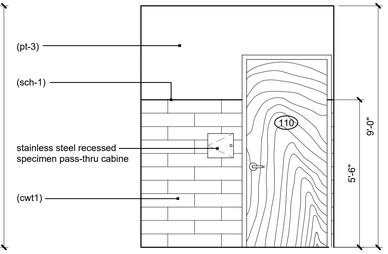
2 restroom elevation
scale: 3/8" = 1'-0"



1 enlarged patient restroom plan
scale: 3/8" = 1'-0"

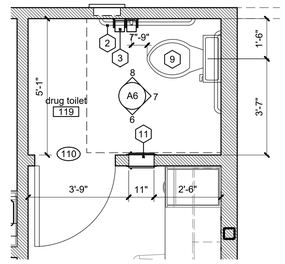


8 drug elevation
scale: 3/8" = 1'-0"



7 drug elevation
scale: 3/8" = 1'-0"

6 drug elevation
scale: 3/8" = 1'-0"

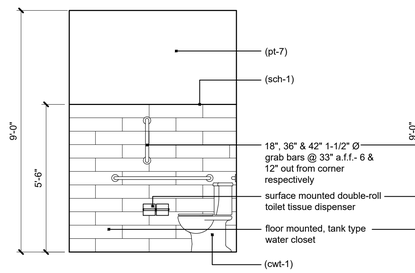


5 enlarged drug restroom plan
scale: 3/8" = 1'-0"

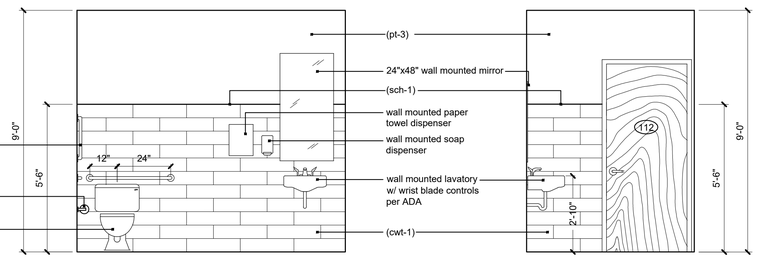
restroom accessory list: (##)

**all restroom accessories to be mounted per ADA

1. ADA height floor mounted, tank type toilet (white).
2. 18" A.D.A. grab bar - stainless steel
   36" A.D.A. grab bar - stainless steel
   42" A.D.A. grab bar - stainless steel
3. Surface-mounted double roll toilet paper dispenser. Bobrick B-6867 or approved equal.
4. Wall mounted sink @ 2'-10" a.f.f. (white).
5. Wall mounted soap dispenser (Furnished and Installed by Owner).
6. 24" x 48" wall mounted frameless mirror, above sink with bottom of reflective surface at 40" a.f.f. max. per ADA.
7. Paper towel dispenser. Bobrick B-2620 or approved equal.
8. Coat Hook on restroom side of door per ADA. Bobrick B-542 or approved equal.
9. ADA height floor mounted, tank type toilet (white) with locking tank.
10. Vertical baby changing station - Koala Bear KB101 - Grey 01 or approved equal.
11. Stainless steel recessed specimen pass-thru cabinet. Bobrick B-505 S.S. satin finish.
12. ADA restroom tactile sign - mounted per ADA chapter 7.

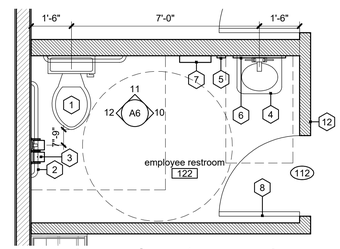


12 restroom elevation
scale: 3/8" = 1'-0"

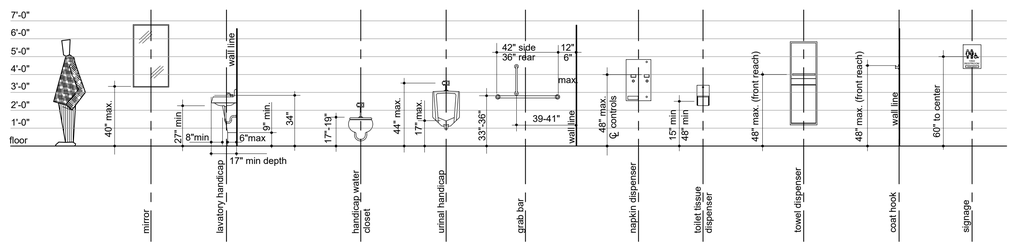


11 restroom elevation
scale: 3/8" = 1'-0"

10 restroom elevation
scale: 3/8" = 1'-0"



9 enlarged restroom plan
scale: 3/8" = 1'-0"



13 ADA mounting heights
scale: 1/4" = 1'-0"

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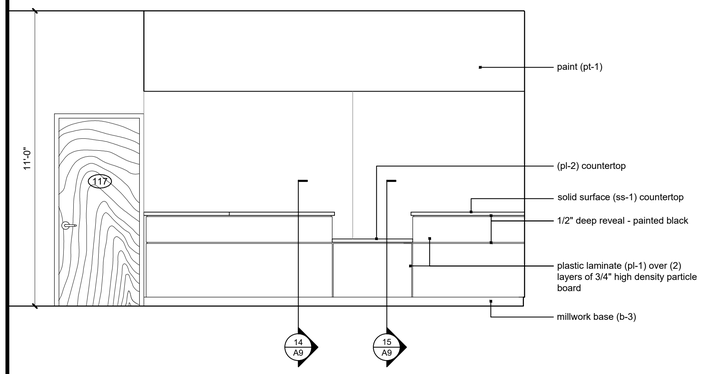
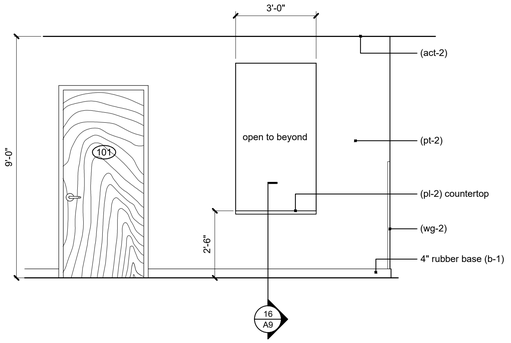
millwork keyway legend: (##)

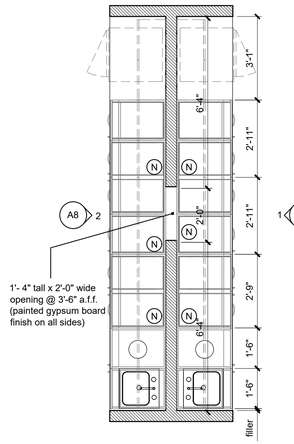
C - cash
D - doctor
F - front desk
L - lab
N - nurse
DS - drug test storage



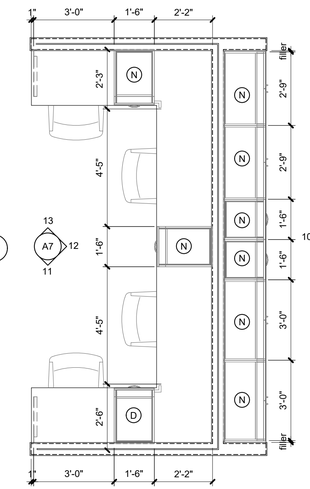
5 business center elevation
scale: 3/8" = 1'-0"



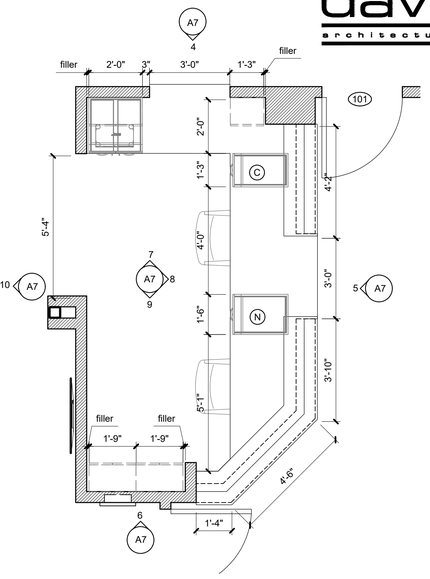
4 business center elevation
scale: 3/8" = 1'-0"



3 enlarged lab plan
scale: 3/8" = 1'-0"



2 enlarged doc/nurse station plan
scale: 3/8" = 1'-0"



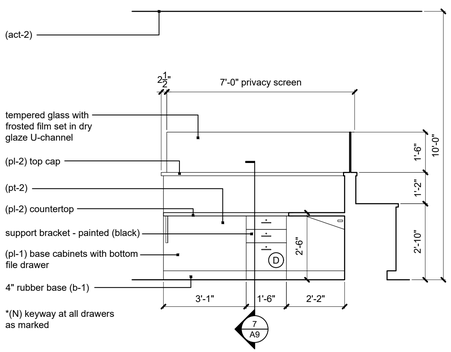
1 enlarged business office plan
scale: 3/8" = 1'-0"

9 business center elevation
scale: 3/8" = 1'-0"

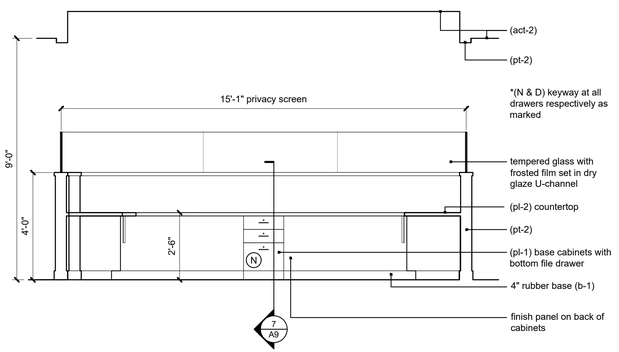
8 business center elevation
scale: 3/8" = 1'-0"

7 business center elevation
scale: 3/8" = 1'-0"

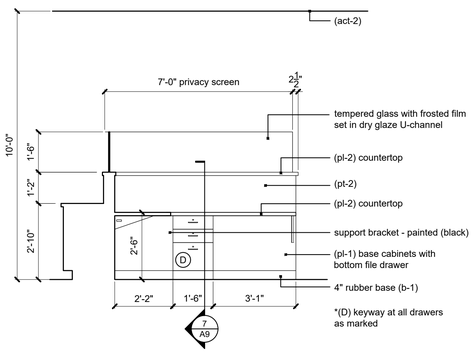
6 business center elevation
scale: 3/8" = 1'-0"



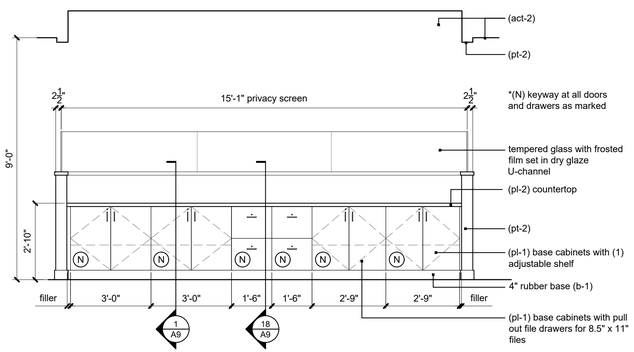
13 nurse/doctor station elevation
scale: 3/8" = 1'-0"



12 nurse/doctor station elevation
scale: 3/8" = 1'-0"



11 nurse/doctor station elevation
scale: 3/8" = 1'-0"



10 nurse/doctor station elevation
scale: 3/8" = 1'-0"

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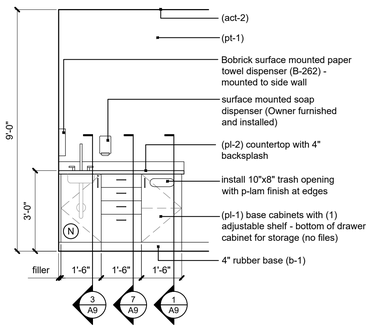
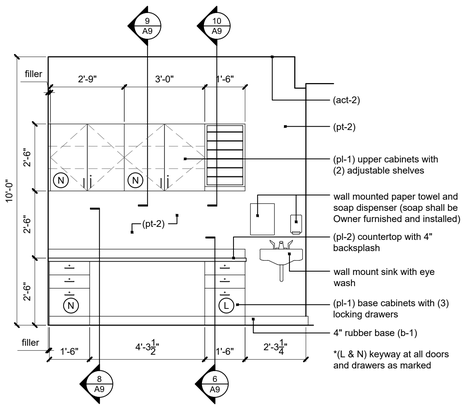
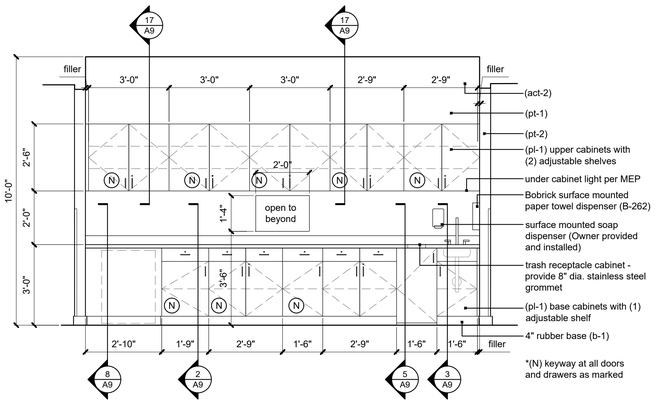


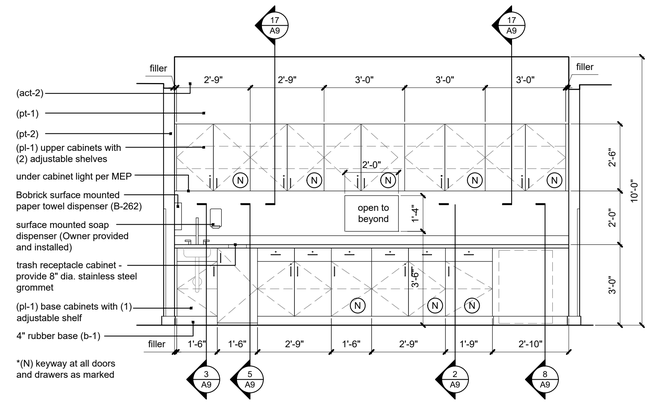
4 exam elevation (typ.)
scale: 3/8" = 1'-0"



3 D.S collection elevation
scale: 3/8" = 1'-0"



2 lab elevation
scale: 3/8" = 1'-0"



1 nurse elevation
scale: 3/8" = 1'-0"

8 x-ray elevation
scale: 3/8" = 1'-0"

7 breakroom elevation
scale: 3/8" = 1'-0"

6 triage elevation
scale: 3/8" = 1'-0"

5 waiting elevation
scale: 3/8" = 1'-0"

11 doctor's office elevation
scale: 3/8" = 1'-0"

10 doctor's office elevation
scale: 3/8" = 1'-0"

9 vitals elevation
scale: 3/8" = 1'-0"

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CHRISTOPHER LEE HAFNER
NUMBER A-2007020152
ARCHITECT

08.19.2022

A tenant finish for
CareNow Urgent Care
3509 SW Market Street
Lee's Summit, MO 64082

date
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drawn by
DAE
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sheet number
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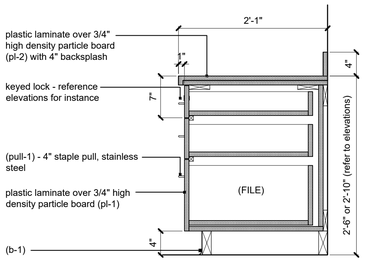
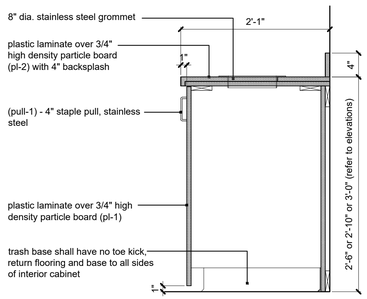
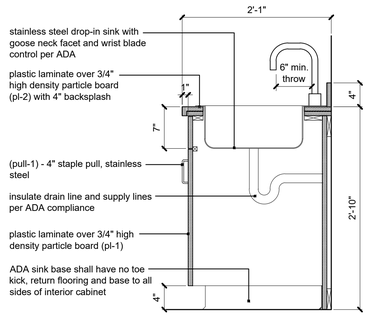


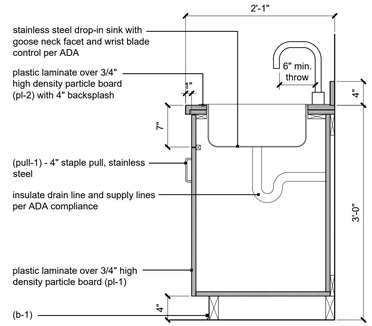
6 base 3-drawer cabinet detail
scale: 1" = 1'-0"



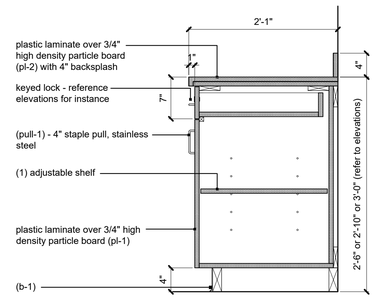
5 base trash cabinet detail
scale: 1" = 1'-0"



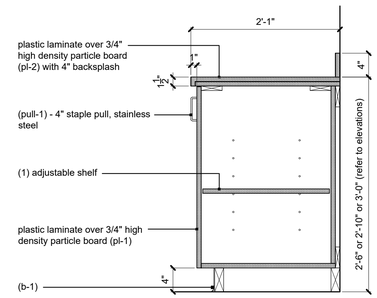
4 base break rm. cabinet detail
scale: 1" = 1'-0"



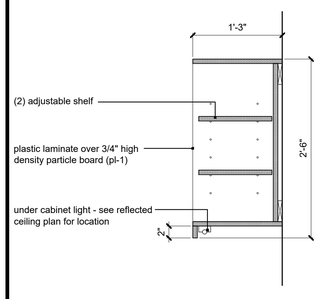
3 base sink cabinet detail
scale: 1" = 1'-0"



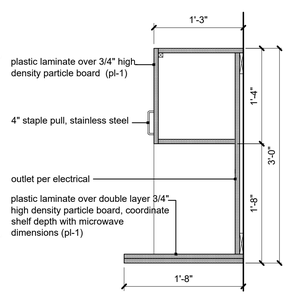
2 base cabinet detail
scale: 1" = 1'-0"



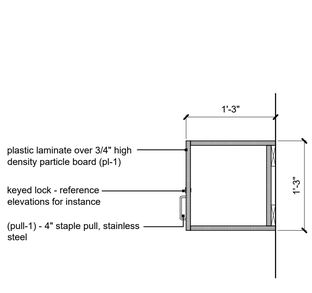
1 base cabinet detail
scale: 1" = 1'-0"



13 upper open cab. detail
scale: 1" = 1'-0"

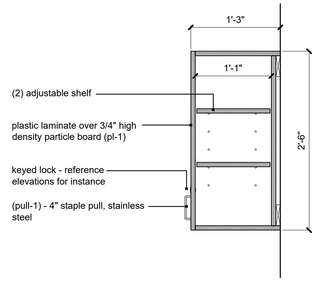


12 upper half cab. detail
scale: 1" = 1'-0"

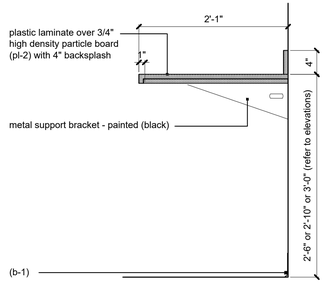


11 upper half cab. detail
scale: 1" = 1'-0"

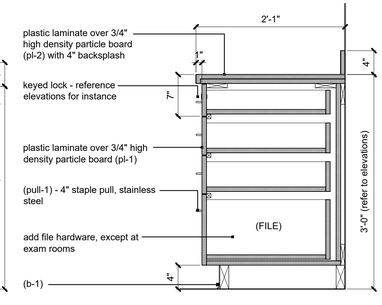
10 upper full open cab. detail
scale: 1" = 1'-0"



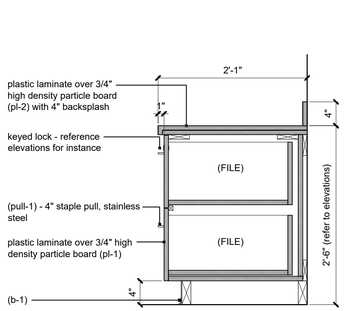
9 upper full cab. detail
scale: 1" = 1'-0"



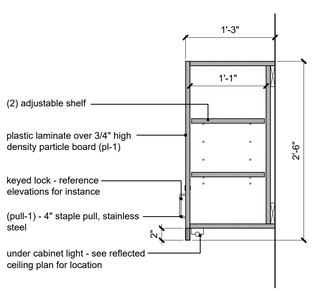
8 base bracket detail
scale: 1" = 1'-0"



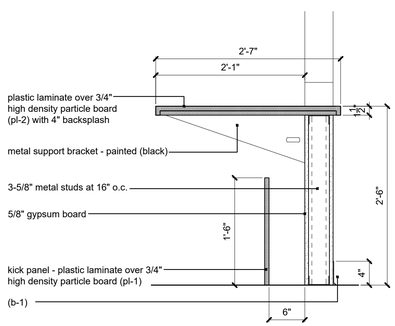
7 base 4-drawer cabinet detail
scale: 1" = 1'-0"



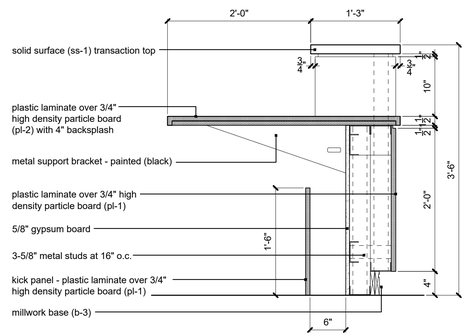
18 base 4-drawer cabinet detail
scale: 1" = 1'-0"



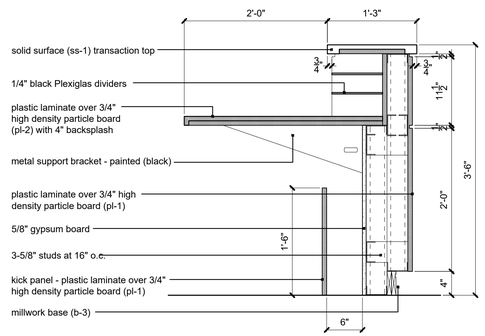
17 upper full cab. detail
scale: 1" = 1'-0"



16 reception desk detail
scale: 1" = 1'-0"



15 reception desk detail
scale: 1" = 1'-0"



14 reception desk detail
scale: 1" = 1'-0"

A tenant finish for
CareNow Urgent Care
3509 SW Market Street
Lee's Summit, MO 64082

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22102

MECHANICAL SPECIFICATIONS

1. GENERAL PROVISIONS:
   - A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE PLUMBING AND MECHANICAL SYSTEMS OUTLINED.
   - B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR APPROVAL AS REQUIRED BY THE AUTHORITIES.
   - C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.
   - D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.
   - E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, PIPE, DUCT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.
   - F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED.
   - G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
2. OPERATION AND MAINTENANCE MANUALS:
   - A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.
   - B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS.
   - C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE BOUND IN A 3-RING BINDER AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, CONTRACTORS, ETC.
3. MANUFACTURERS:
   - A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN, UNLESS NOTED OTHERWISE.
4. MOTORS:
   - A. PROVIDE THERMAL OVERLOAD PROTECTION FOR EACH MOTOR PROVIDED BY THIS WORK.
5. TESTING, BALANCING, AND CLEANING:
   - A. ALL PIPING SHALL BE TESTED FOR LEAKS BEFORE BEING CONCEALED IN WALL CONSTRUCTION OR COVERED WITH INSULATION.
   - B. SEWER AND VENT PIPING SHALL BE HYDROSTATICALLY TESTED WITH NO LESS THAN 10 FEET OF HEAD FOR A PERIOD OF NOT LESS THAN 15 MINUTES, PER THE LOCAL PLUMBING CODE, WITH NO LEAKS.
   - C. DOMESTIC WATER PIPING SHALL BE HYDROSTATICALLY TESTED AT A PRESSURE OF NOT LESS THAN 1-1/2 TIMES THE OPERATING PRESSURE, BUT NOT LESS THAN 60 PSI, FOR A PERIOD OF NOT LESS THAN 2 HOURS, WITH NO LEAKS.
   - D. DUCTWORK AND PIPING SHALL BE BALANCED BY QUALIFIED INDEPENDENT BALANCING PERSONNEL WHO HAVE PREVIOUS EXPERIENCE WITH BALANCING PROCEDURES AND ARE CERTIFIED BY THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB).
     - 1) BALANCING SHALL INCLUDE THE BALANCING OF THE EQUIPMENT AND AIR DISTRIBUTION SYSTEMS TO PROVIDE DESIGN QUANTITIES INDICATED AND VERIFICATION OF PERFORMANCE OF ALL EQUIPMENT AND AUTOMATIC CONTROLS.
     - 2) WITH IN 30 DAYS OF THE COMPLETION OF THE TESTING AND BALANCING WORK, SUBMIT THE TEST AND BALANCING REPORT BEARING THE SIGNATURE OF THE TEST AND BALANCE ENGINEER. THE REPORTS SHALL BE CERTIFIED PROOF THAT THE SYSTEMS HAVE BEEN TESTED, ADJUSTED, AND BALANCED IN ACCORDANCE WITH THE REFERENCED STANDARDS; ARE AN ACCURATE REPRESENTATION OF HOW THE SYSTEMS HAVE BEEN INSTALLED AND ARE OPERATING. REPORTS SHALL BE BOUND IN A VINYL BINDER AND THE BINDER LABELED OR MAY BE AN ELECTRONIC PDF SUBMITTAL.
   - E. BEFORE DOMESTIC WATER PIPING IS PLACED IN SERVICE, ALL DOMESTIC WATER DISTRIBUTION SYSTEMS, INCLUDING THOSE FOR COLD WATER AND HOT WATER SYSTEMS, SHALL BE FLUSHED, STERILIZED AND CHLORINATED IN ACCORDANCE WITH HEALTH DEPARTMENT REGULATIONS. THE SYSTEMS SHALL BE THOROUGHLY FLUSHED OF ALL DIRT AND FOREIGN MATTER, THEN FILLED WITH WATER TREATED WITH 50 PPM OF CHLORINE. DURING THE FILLING PROCESS, VALVES AND FAUCETS SHALL BE OPENED SEVERAL TIMES TO ASSURE TREATMENT OF THE ENTIRE SYSTEM. THE TREATED WATER SHALL BE LEFT IN THE SYSTEM FOR 24 HOURS AFTER WHICH TIME THE SYSTEM SHALL BE FLUSHED; IF THE RESIDUAL CHLORINE IS NOT LESS THAN 10 PPM, THE FLUSHING SHALL BE REPEATED. AFTER STERILIZATION, SAMPLES OF WATER IN THE SYSTEM SHALL BE APPROVED BY THE BOARD OF HEALTH.
6. PLUMBING:
   - A. PROVIDE AN APPROVED WATER HAMMER ARRESTOR FOR EACH PLUMBING FIXTURE SUPPLY AS REQUIRED BY FIXTURE MANUFACTURER.
   - B. ALL EXPOSED WASTE PIPE SHALL BE CHROME PLATED BRASS PIPE, NO FERROUS PIPE.
   - C. PROVIDE CLEANOUTS AT EACH CHANGE OF DIRECTION AND AT 100 FOOT INTERVALS IN STRAIGHT RUNS.
   - D. PROVIDE ACCESS PANELS FOR ALL CONCEALED VALVES AND TRAPS.
   - E. CLEANOUTS:
     - 1) VINYL TILE FLOOR: JR SMITH #4140, OR EQUAL.
     - 2) QUARRY TILE FLOOR: JR SMITH #4200, OR EQUAL.
     - 3) CARPETED FLOOR: JR SMITH #4020-Y, OR EQUAL.
     - 4) UNFINISHED FLOOR: JR SMITH #4020, OR EQUAL.
     - 5) WALL: JR SMITH #4472, OR EQUAL, 24" ABOVE THE FLOOR.
   - F. PROVIDE DIELECTRIC UNIONS WITH APPROPRIATE END CONNECTIONS TO MATCH THE PIPE SYSTEM IN WHICH INSTALLED (SCREWED, SOLDERED, OR FLANGED). PROVIDE DIELECTRIC UNIONS ON ALL PIPING CONNECTIONS TO HOT WATER HEATERS AND EXPANSION TANKS.
   - G. WATER HEATERS:
     - 1) EVERY WATER HEATER SHALL HAVE AN APPROVED MEANS INSTALLED ON THE COLD WATER SUPPLY LINE ABOVE THE EQUIPMENT TO PREVENT SIPHONING OF A STORAGE WATER HEATER OR TANK.
     - 2) BOTTOM FED WATER HEATERS AND TANKS CONNECT TO WATER HEATERS SHALL HAVE A VACCUM RELIEF VALVE INSTALLED. ANSI Z21.22.
     - 3) STORAGE HEATERS OPERATING ABOVE ATMOSPHERIC PRESSURE SHALL HAVE AN APPROVED PRESSURE RELIEF VALVE AND/OR TEMPERATURE RELIEF VALVE.
   - H. ALL SEWER PIPING LOCATED INSIDE THE BUILDING SHALL BE INSTALLED WITH THE FOLLOWING SLOPES.
     - 1) INSTALL 2-1/2" AND SMALLER PIPE AT 1/4" PER FOOT FALL.
     - 2) INSTALL 3" AND LARGER PIPE AT 1/8" PER FOOT FALL.
7. PIPING:
   - A. DOMESTIC COLD, HOT, AND HOT WATER RECIRCULATING (ABOVEGROUND).
     - 1) TYPE L HARD DRAWN COPPER TUBING, ASTM B-88.
       - a) WROUGHT COPPER SOLDERED FITTINGS, ASTM B75 ALLOY C12200. ANSI B16.22. MSS SP-104.
       - b) MECHANICAL PRESS COPPER FITTINGS FOR USE IN PLUMBING OR MECHANICAL APPLICATIONS. ASME B16.22, ASME B16.51, or ASME B16.18. MECHANICAL PRESS COPPER FITTINGS SHALL CONFORM TO IAPMO PS-117 OR ASME B16.51.
     - 2) PEX, HIGH-DENSITY CROSS-LINKED POLYETHYLENE TUBING SHALL BE MANUFACTURED TO THE REQUIREMENTS OF ASTM F876 AND MEET THE STANDARD GRADE HYDROSTATIC PRESSURE RATINGS FROM PLASTIC PIPE INSTITUTE IN ACCORDANCE WITH TR-4/03.
       - a) PEX-A AND PEX-B MEETING ANSI/NSF61 AND ANSI/NSF372 STANDARDS FOR POTABLE WATER SAFETY AND LEAD-FREE STANDARDS AND MUST BE MARKED WITH "PW-G", "NSF-61-G" OR OTHER NSF-APPROVED MARKING. ASTM F2023 FOR USE WITH CHLORINATED WATER.
       - b) PEX MECHANICAL, CRIMP/INSERT OR EXPANSION FITTINGS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PIPE SIZES GIVEN ON THE DRAWINGS ARE NOMINAL COPPER PIPE SIZE, INCREASE PEX PIPING SIZE TO EQUAL OR EXCEED COPPER PIPE INSIDE DIAMETER FOR SUPPLY MAINS.
     - 3) VALVES
       - a) TO BE INSTALLED ON THE FIXTURE SUPPLY TO EACH PLUMBING FIXTURE.
       - b) TO BE INSTALLED ON THE WATER SUPPLY SIDE TO EACH APPLIANCE OR MECHANICAL EQUIPMENT.
       - c) TYPES:
         1. GATE VALVE: JOMAR T/S-301G OR EQUAL. LEAD-FREE NSF 61, ANSI B1.20.1.
         2. GLOBE VALVE: JOMAR TGG OR EQUAL.
         3. BALL VALVE: JOMAR JP100PxP OR EQUAL COMPACT LEAD FREE BRASS BALL VALVE. UL842, CSA 3371-12 & 3371-92, FM, CALIFORNIA CODE AB1953, NSF61 ANNEX G APPROVED.
         4. BALL VALVE: JOMAR T-100NE OR EQUAL. UL842, FM, CSA, NSF 61-8, MSS SP-110
   - B. LEAD CONTENT OF WATER SUPPLY PIPE AND FITTINGS:
     - 1) PIPE AND PIPE FITTINGS, INCLUDING VALVES AND FAUCETS, UTILIZED IN THE WATER SUPPLY SYSTEM SHALL NOT HAVE MORE THAN 8% LEAD CONTENT.
     - 2) PIPE, PIPE FITTINGS, JOINTS, VALVES, FAUCETS, AND FIXTURE FITINGS UTILIZED TO SUPPLY WATER FOR DRINKING OR COOKING PURPOSES SHALL COMPLY WITH NSF 372 AND SHALL HAVE A WEIGHTED AVERAGE LEAD CONTENT OF 0.25% OR LESS.
   - C. SANITARY SEWER AND VENTS. (UNDERGROUND, INTERIOR TO THE BUILDING).
     - 1) ABS PIPE AND FITTINGS: ABS PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. SOLID-WALL ABS PIPE: ASTM D 2661, SCHEDULE 40. ABS SOCKET FITTINGS: ASTM D 2661, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS. SOLVENT CEMENT: ASTM D 2235.
     - 2) PVC PIPE AND FITTINGS: PVC PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. SOLID-WALL PVC PIPE: ASTM D 2665, DRAIN, WASTE, AND VENT. PVC SOCKET FITTINGS: ASTM D 2665, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS AND TO FIT SCHEDULE 40 PIPE. ADHESIVE PRIMER: ASTM F 656. SOLVENT CEMENT: ASTM D 2564.
     - 3) HUBLESS CAST IRON SOIL PIPE AND FITTINGS: HUBLESS CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 888 AND CISPI STANDARD 301. HUBLESS COUPLINGS SHALL CONFORM TO CISPI STANDARD 310 AND BE CERTIFIED BY NSF® INTERNATIONAL.
     - 4) HUB AND SPIGOT CAST IRON SOIL PIPE AND FITTINGS: HUB AND SPIGOT CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 74.
   - D. SANITARY SEWER AND VENTS. (ABOVE GROUND, INTERIOR TO THE BUILDING).
     - 1) ABS PIPE AND FITTINGS: ABS PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. SOLID-WALL ABS PIPE: ASTM D 2661, SCHEDULE 40. CELLULAR-CORE ABS PIPE: ASTM F 628, SCHEDULE 40.ABS SOCKET FITTINGS: ASTM D 2661, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS. SOLVENT CEMENT: ASTM D 2235.

MECHANICAL SPECIFICATIONS (CONTINUED)

     - 2) PVC PIPE AND FITTINGS: PVC PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. SOLID-WALL PVC PIPE: ASTM D 2665, DRAIN, CELLULAR-CORE PVC PIPE: ASTM F 891, SCHEDULE 40. WASTE, AND VENT. PVC SOCKET FITTINGS: ASTM D 2665, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS AND TO FIT SCHEDULE 40 PIPE. ADHESIVE PRIMER: ASTM F 656. SOLVENT CEMENT: ASTM D 2564.
     - 3) HUBLESS CAST IRON SOIL PIPE AND FITTINGS: HUBLESS CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 888 AND CISPI STANDARD 301. HUBLESS COUPLINGS SHALL CONFORM TO CISPI STANDARD 310 AND BE CERTIFIED BY NSF® INTERNATIONAL.
     - 4) HUB AND SPIGOT CAST IRON SOIL PIPE AND FITTINGS: HUB AND SPIGOT CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 74.
   - E. CONDENSATE DRAINS & INDIRECT WASTE (ABOVEGROUND).
     - 1) DWV, WROUGHT COPPER, ANSI B-16.29 (WATER HEATER T&P).
   - F. ALL PIPE HANGERS AND SUPPORTS SHALL BE STANDARD PRODUCTS OF GRINNELL, FEE AND MASON, OR ELCEN. HANGER SPACING SHALL BE IN ACCORDANCE WITH MSS-SP-69.
   - G. SLEEVES
     - 1) PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK. ALL SLEEVES SHALL BE OF SUFFICIENT SIZE TO PERMIT PIPE MOVEMENT DUE TO EXPANSION AND CONTRACTION AND TO ACCOMMODATE PIPE INSULATION.
     - 2) INTERIOR PARTITIONS: 16 GAGE GALVANIZED STEEL, PACK BETWEEN PIPE AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.
     - 3) ROOF: PROSET OR EQUAL, MANUFACTURED PVC SCHEDULE 40 PIPE SLEEVE WITH WATERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.
     - 4) PROTECTION AGAINST CONTACT: METALLIC PIPING, EXCEPT FOR CAST IRON, DUCTILE IRON AND GALVANIZED STEEL SHALL NOT BE PLACED IN DIRECT CONTACT WITH STEEL FRAMING MEMBERS, CONCRETE, OR CINDER WALLS AND FLOORS OR OTHER MASONRY. METALLIC PIPING SHALL NOT BE PLACED IN DIRECT CONTACT WITH CORROSIVE SOIL. SHEATHING USED TO PREVENT DIRECT CONTACT SHALL HAVE A THICKNESS OF GREATER THAN .008: AND THE SHEATHING SHALL BE MADE OF PLASTIC. ANY PIPE THAT PASSES THROUGH A FOUNDATION WALL OR FOOTING SHALL BE PROVIDED WITH A RELIEVING ARCH, OR A PIPE SLEEVE SHALL BE BUILT INTO THE FOUNDATION WALL. THE SLEEVE SHALL BE TWO SIZES GREATER THAN THE PIPE PASSING THOUGH THE WALL OR FOOTING.
     - 5) PLUMBING VENTS: FLASH ROOF VENT INTO ROOFING SYSTEM AS REQUIRED BY THE ROOFING CONTRACTOR TO MAINTAIN EXISTING ROOF WARRANTY. ALL PLUMBING VENT TERMINALS SHALL TERMINATE A MINIMUM OF 12" ABOVE ROOF OR EQUAL TO HEIGHT OF PARAPET, WHICHEVER IS GREATER.
   - H. PROVIDE CHROME PLATED ESCUTCHEONS ON ALL PIPE ENTERING FINISHED AREAS.
8. WATER HEATERS
   - A. COMMERCIAL, LIGHT-DUTY, STORAGE, ELECTRIC, DOMESTIC-WATER HEATERS:
     1. STANDARD: UL 174
     2. STORAGE-TANK CONSTRUCTION: STEEL, VERTICAL ARRANGEMENT.
        - a. PRESSURE RATING: 150 PSIG.
        - b. INTERIOR FINISH: COMPLY WITH NSF 61 AND NSF 372 BARRIER MATERIALS FOR POTABLE-WATER TANK LININGS, INCLUDING EXTENDING LINING MATERIAL INTO TAPPINGS.
     3. FACTORY-INSTALLED, STORAGE-TANK APPURTENANCES:
        - a. ANODE ROD: REPLACEABLE MAGNESIUM.
        - b. DIP TUBE: REQUIRED UNLESS COLD-WATER INLET IS NEAR BOTTOM OF TANK.
        - c. DRAIN VALVE: CORROSION-RESISTANT METAL WITH HOSE-END CONNECTION.
        - d. INSULATION: COMPLY WITH ASHRAE/IES 90.1
        - e. JACKET: STEEL WITH ENAMELED FINISH OR HIGH-IMPACT COMPOSITE MATERIAL.
        - f. HEAT-TRAP FITTINGS: INLET TYPE IN COLD-WATER INLET AND OUTLET TYPE IN HOT-WATER OUTLET.
        - g. HEATING ELEMENTS: ELECTRIC, SCREW-IN IMMERSION TYPE.
        - h. TEMPERATURE CONTROL: ADJUSTABLE THERMOSTAT.
        - i. SAFETY CONTROL: HIGH-TEMPERATURE-LIMIT CUTOFF DEVICE OR SYSTEM.
        - j. RELIEF VALVE: ASME RATED AND STAMPED FOR COMBINATION TEMPERATURE-AND-PRESSURE RELIEF VALVES. INCLUDE RELIEVING CAPACITY AT LEAST AS GREAT AS HEAT INPUT, AND INCLUDE PRESSURE SETTING LESS THAN WORKING-PRESSURE RATING OF DOMESTIC-WATER HEATER. SELECT RELIEF VALVE WITH SENSING ELEMENT THAT EXTENDS INTO STORAGE TANK.
   - B. DOMESTIC-WATER EXPANSION TANKS:
     1. DESCRIPTION: STEEL, PRESSURE-RATED TANK CONSTRUCTED WITH WELDED JOINTS AND FACTORY-INSTALLED, BUTYL-RUBBER DIAPHRAGM. INCLUDE AIR PRECHARGE TO MINIMUM SYSTEM-OPERATING PRESSURE AT TANK.
     2. CONSTRUCTION:
        - a. TAPPINGS: FACTORY-FABRICATED STEEL, WELDED TO TANK BEFORE TESTING AND LABELING. INCLUDE ASME B1.20.1 PIPE THREAD.
        - b. INTERIOR FINISH: COMPLY WITH NSF 61 AND NSF 372 BARRIER MATERIALS FOR POTABLE-WATER TANK LININGS, INCLUDING EXTENDING FINISH INTO AND THROUGH TANK FITTINGS AND OUTLETS.
        - c. AIR-CHARGING VALVE: FACTORY INSTALLED.
     3. CAPACITY AND CHARACTERISTICS:
        - a. WORKING-PRESSURE RATING: 150 PSIG .
9. INSULATION AND DUCT LINING:
   - A. ALL INSULATIONS AND ACCESSORIES SHALL HAVE A FIRE HAZARD CLASSIFICATION WITH A FLAME SPREAD RATING OF NOT OVER 25, A FUEL CONTRIBUTION RATING OF NOT OVER 50, AND A SMOKE DEVELOPED RATING OF NOT OVER 50, IN ACCORDANCE WITH NFPA.
   - B. PIPE INSULATION - ABOVE GRADE:
     - 1) THE PIPING INSULATION USED SHALL HAVE A THERMAL CONDUCTIVITY OF 0.27 Btu PER in/hr*sqft*F° OR LESS.
     - 2) FIBERGLASS INSULATION WITH FACTORY APPLIED VAPOR BARRIER, ASJ JACKET, FACTORY APPLIED PRESSURE SEALING LONGITUDE LAP JOINT, NO STAPLES, ZESTON PREMOLDED PVC FITTING COVERS. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
     - 3) FLEXIBLE CLOSED CELL ELASTOMERIC THERMAL INSULATION, UNSLIT OR PRESLIT WITH PRESSURE SENSITIVE ADHESIVE SYSTEM FOR CLOSURE AND VAPOR SEALING, EQUAL TO ARMSTRONG AP ARMAFLEX OR ARMAFLEX 2000.
     - 4) FOR NON CIRCULATING SYSTEMS, THE FIRST 8 FEET OF INLET AND OUTLET PIPING BETWEEN THE TANK AND THE HEAT TRAP (INCLUDING THE HEAT TRAP) MUST BE INSULATED.
     - 5) FOR CIRCULATING SYSTEMS, ALL HOT WATER PIPING IN THE CIRCULATION LOOP MUST BE INSULATED AS SPECIFIED BELOW.
     - 6) INSULATION SCHEDULE:
       - a) DOMESTIC COLD WATER 1/2"
       - b) DOMESTIC HOT WATER 1" FOR PIPING UP TO 1-1/4"Ø, & 1-1/2" FOR PIPING 1-1/2"Ø AND LARGER
       - c) HOT WATER RECIRCULATING 1"
       - d) CONDENSATE DRAINS INSIDE BUILDING 1/2"
   - C. DUCTWORK: ACOUSTICAL INSULATION.
     - 1) DUCT LINING: 2 LB/CF, THICKNESS AS SCHEDULED, AIR STREAM SIDE COATED, INSTALL PER SMACNA STANDARDS.
       - a) DUCT LINING SCHEDULE:
         - (1) RECTANGULAR SUPPLY DUCT 1/2" : THROUGHOUT THE FIRST 10 FEET OF DUCT.
         - (2) RETURN AIR DUCT 1/2" : THROUGHOUT THE FIRST 10 FEET OF DUCT.
   - D. DUCTWORK: THERMAL INSULATION.
     - 1) DUCT COVERING: 3/4 LB/CF, FIBERGLASS BLANKET WITH FACTORY APPLIED VAPOR BARRIER AND FACING, THICKNESS AS SCHEDULED, INSTALLATION IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
       - a) DUCT COVERING SCHEDULE: MINIMUM R-6
         - (1) ROUND SUPPLY DUCT 2"
         - (2) RECTANGULAR SUPPLY DUCT 2"
         - (3) RETURN AIR DUCT 2"
10. DUCTWORK:
   - A. ALL DUCTWORK, UNLESS OTHERWISE INDICATED, SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL COMPLYING WITH ASTM A 527, LOCKFORMING QUALITY, WITH G 90 ZINC COATING IN ACCORDANCE WITH ASTM A 525; AND MILL PHOSPHATIZED FOR EXPOSED LOCATIONS.
   - B. WHERE DUCTWORK IS INDICATED TO BE EXPOSED TO VIEW IN OCCUPIED SPACES, PROVIDE MATERIALS WHICH ARE FREE FROM VISUAL IMPERFECTIONS INCLUDING PITTING, SEAM MARKS, ROLLER MARKS, STAINS AND DISCOLORATIONS, AND OTHER IMPERFECTIONS, INCLUDING THOSE WHICH WOULD IMPAIR PAINTING.
   - C. DUCTWORK, METAL GAUGES, REINFORCING, ETC. SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION FOR A 2 INCH WATER GAUGE STATIC PRESSURE.
     - 1) RECTANGULAR DUCT:
       - a) ELBOWS, UNLESS INDICATED OTHERWISE SHALL BE CONSTRUCTED WITH CENTERLINE RADIUS OF NOT LESS THAN 1.5 DUCT WIDTH OR SQUARE ELBOW WITH DOUBLE WALL STREAMLINE VANES.
       - b) RETURN AIR ACOUSTICAL ELBOWS AND SOUND BOOTS SHALL BE A SQUARE ELBOW WITH NO TURNING VANES.
       - c) SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3.
     - 2) ROUND AND OVAL SPIRAL SEAM DUCT:
       - a) PROVIDE RADIUS TYPE FITTINGS FABRICATED OF MULTIPLE SECTIONS WITH MAXIMUM 15 DEGREE CHANGE OF DIRECTION PER SECTION. UNLESS SPECIFICALLY DETAILED OTHERWISE, USE 45 DEGREE LATERALS FOR BRANCH TAKEOFF CONNECTIONS. WHERE 90 DEGREE BRANCHES ARE INDICATED PROVIDE CONICAL TYPE TEES.
       - b) SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3.
       - c) AS AN OPTION, PROVIDE FACTORY-FABRICATED DUCT AND FITTINGS, IN LIEU OF SHOP-FABRICATED DUCT AND FITTINGS.
         - (1) ELBOWS: ONE PIECE CONSTRUCTION FOR 90 DEGREES AND 45 DEGREE ELBOW 14" AND SMALLER. PROVIDE MULTIPLE GORE CONSTRUCTION FOR LARGER DIAMETERS WITH STANDING SEAM CIRCUMFERENTIAL JOINT.
         - (2) DIVIDED FLOW FITTINGS: 90 DEGREE TEES, CONSTRUCTED WITH SADDLE TAP SPOT WELDED AND BONDED TO DUCT FITTING BODY.
       - d) ROUND LONGITUDINAL SEAM DUCT. USE FOR RIGID METAL DUCT ON LEAVING SIDE OF DUCT IN CONCEALED LOCATIONS FOR EXTENSION TO FLEX FOR DIFFUSERS, UNLESS OTHERWISE INDICATED.
   - D. DUCT SIZES SHOWN ON THE DRAWINGS ARE SHEETMETAL SIZES, ALLOWANCE FOR DUCT LINER HAS BEEN MADE WHERE APPLICABLE.
   - E. INSTALLATION OF METAL DUCTWORK:
     - 1) GENERAL: ASSEMBLE AND INSTALL DUCTWORK IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE AIR-TIGHT SYSTEMS (MAXIMUM 5% LEAKAGE), WITH NO OBJECTIONABLE NOISE, AND CAPABLE OF PERFORMING INDICATED SERVICE. INSTALL EACH RUN WITH MINIMUM NUMBER OF JOINTS. ALIGN DUCTWORK ACCURATELY WITH INTERNAL SURFACES

MECHANICAL SPECIFICATIONS (CONTINUED)

SMOOTH. SUPPORT DUCTS RIGIDLY WITH SUITABLE STRAPS, BRACES, HANGERS AND ANCHORS IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" LATEST EDITION. DUCT HANGERS SHALL BE OF THE TYPE WHICH WILL HOLD DUCTS TRUE-TO-SHAPE AND TO PREVENT BUCKLING. SUPPORT VERTICAL DUCTS AT EVERY FLOOR.

     - 2) AUXILIARY STEEL: PROVIDE AUXILIARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT DUCTWORK.
     - 3) ROUTING: LOCATE DUCTWORK RUNS, EXCEPT AS OTHERWISE INDICATED, VERTICALLY AND HORIZONTALLY AND AVOID DIAGONAL RUNS WHEREVER POSSIBLE. LOCATE RUNS AS INDICATED BY DIAGRAMS, DETAILS AND NOTATIONS OR, IF NOT OTHERWISE INDICATED, RUN DUCTWORK IN SHORTEST ROUTE WHICH DOES NOT OBSTRUCT USABLE SPACE OR BLOCK ACCESS FOR SERVICING BUILDING AND ITS EQUIPMENT. HOLD DUCTS CLOSE TO WALLS, OVERHEAD CONSTRUCTION, COLUMNS, AND OTHER STRUCTURAL AND PERMANENT ENCLOSURE ELEMENTS OF BUILDING. WHEREVER POSSIBLE IN FINISHED AND OCCUPIED SPACES, CONCEAL DUCTWORK FROM VIEW, BY LOCATING IN MECHANICAL SHAFTS, HOLLOW WALL CONSTRUCTION OR ABOVE SUSPENDED CEILINGS. DO NOT ENCASE HORIZONTAL RUNS IN SOLID PARTITIONS, EXCEPT AS SPECIFICALLY SHOWN. COORDINATE LAYOUT WITH SUSPENDED CEILING AND LIGHTING LAYOUTS AND SIMILAR FINISHED WORK.
     - 4) DO NOT ROUTE DUCTWORK THROUGH ELECTRICAL EQUIPMENT SPACES AND ENCLOSURES, UNLESS INDICATED OTHERWISE.
     - 5) PENETRATIONS:
       - a) WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS OR EXTERIOR WALLS, AND ARE EXPOSED TO VIEW, CONCEAL SPACE BETWEEN OPENING AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME GAGE AS DUCT. OVERLAP OPENING ON 4 SIDES BY AT LEAST 1-1/2". FASTEN TO DUCT AND WALL.
       - b) WHERE DUCTS PASS THROUGH FIRE-RATED FLOORS, WALLS, OR PARTITIONS, PROVIDE FIRESTOPPING BETWEEN DUCT AND WALL.
     - 6) COORDINATION: COORDINATE DUCT INSTALLATIONS WITH INSTALLATION OF ACCESSORIES, DAMPERS, COIL FRAMES, EQUIPMENT, CONTROLS, AND OTHER ASSOCIATED WORK OF THE DUCTWORK SYSTEM.
     - 7) INSTALLATION: INSTALL METAL DUCTWORK IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS", LATEST EDITION.
   - F. EQUIPMENT CONNECTIONS:
     - 1) CONNECT METAL DUCTWORK TO EQUIPMENT AS INDICATED, PROVIDE FLEXIBLE CONNECTION FOR EACH DUCTWORK CONNECTION TO EQUIPMENT MOUNTED ON VIBRATION ISOLATORS, AND/OR EQUIPMENT CONTAINING ROTATING MACHINERY. PROVIDE ACCESS DOORS AS REQUIRED.
   - G. SEAL ALL CONCEALED DUCTWORK JOINTS WITH NON-HARDENING, NON-MIGRATING MASTIC SEALANT, AS RECOMMENDED FOR SEALING SEAMS AND JOINTS IN DUCTWORK. OIL BASE CAULKING AND GLAZING COMPOUNDS SHALL NOT BE ACCEPTABLE. DUCTS SHALL BE SEALED TO THE CLASS LEVEL LISTED BELOW.

1) UNCONDITIONED SPACES	CLASS B	CLASS A	CLASS C	CLASS B
2) CONDITIONED SPACES (PLENUM)	CLASS C	CLASS B	CLASS B	CLASS C
	SUPPLY $\leq$ 2" W.C.	SUPPLY > 2" W.C.	EXHAUST	RETURN

11. FLEXIBLE DUCT:
   - A. ATCO #086 (R-6), OR EQUAL.
   - B. FACTORY APPLIED INSULATION AND VAPOR BARRIER, 1-1/2" THICK.
   - C. MAXIMUM LENGTH OF 5'-0".
12. EXHAUST FANS:
   - A. CENTRIFUGAL CEILING EXHAUSTERS SHALL BE ELECTRICALLY POWERED CENTRIFUGAL TYPE FAN SUITABLE FOR MOUNTING IN THE CEILING WITH A PERFORATED OFF-WHITE METAL GRILLE WITH A THUMBSCREW ATTACHMENT FOR EASY ACCESS TO FAN HOUSING. UNIT SHALL CONSIST OF A GALVANIZED STEEL HOUSING LINED WITH ACOUSTICAL INSULATION AND SHALL INCLUDE AN INTEGRAL BACKDRAFT DAMPER ON FAN DISCHARGE. MOTOR SHALL BE A PERMANENT SPLIT-CAPACITOR TYPE MOTOR, PERMANENTLY LUBRICATED, WITH THERMAL OVERLOAD PROTECTION. PROVIDE DISCONNECT SWITCH OR OTHER MEANS OF DISCONNECT AT MOTOR IN FAN HOUSING.
12. SMOKE DETECTORS:
   - A. UNITS MOUNTED IN THE DUCTWORK SHALL BE A DUCT MOUNTED UL LISTED PHOTO-ELECTRIC SELF-CONTAINED SMOKE DETECTOR WITH HOUSING. UNITS SHALL BE EQUAL TO SIMPLEX #4098-9687. THE SAMPLING TUBE SHALL BE #2098-9804, LENGTH AS REQUIRED FOR DUCT.
   - B. DUCT DETECTOR REMOTE TEST STATION SHALL BE SIMPLEX #4098-9842 WITH REMOTE ALARM INDICATOR, POWER-ON INDICATOR, TONE-ALERT, TONE-ALERT SILENCE SWITCH, AND TEST/RESET SWITCH.
     - 1) DEVICES SHALL BE MOUNTED IN APPROVED LOCATION AS INDICATED ON THE FLOOR PLANS OR AS DIRECTED BY LOCAL AUTHORITY HAVING JURISDICTION.
   - C. PROVIDE AND INSTALL A PHOTO-ELECTRIC SMOKE DETECTOR IN THE RETURN AIR DUCT FOR EACH HVAC UNIT AS INDICATED ON THE FLOOR PLANS. DETECTORS ARE TO BE PROVIDED WITH A SUB-BASE CONTAINING AUXILIARY RELAY CONTACTS. RELAY CONTACTS SHALL BE WIRED INTO UNIT CONTROL WIRING, SO AS TO SHUT UNIT DOWN IN THE CASE OF SMOKE DETECTION. PROVIDE ALL CONTROL WIRING. ELECTRICAL CONTRACTOR SHALL PROVIDE 120 VOLT POWER TO EACH DETECTOR.
   - D. SMOKE DETECTORS SHALL BE INTERLOCKED. IN ALARM CONDITION OF A SINGLE DETECTOR ALL UNITS SHALL SHUT DOWN.
13. CONTROL WIRING:
   - A. ELECTRICAL WIRING AND WIRING CONNECTIONS REQUIRED FOR THE INSTALLATION OF THE TEMPERATURE CONTROL SYSTEM, SHALL BE PROVIDED BY THIS CONTRACTOR, UNLESS SPECIFICALLY SHOWN ON THE ELECTRICAL DRAWINGS OR SPECIFICATIONS.
   - B. INSTALL CONTROL WIRING, WITHOUT SPLICES BETWEEN TERMINAL POINTS, COLOR CODED. INSTALL IN NEAT WORKMANLIKE MANNER, SECURELY FASTENED. INSTALL IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND THE ELECTRICAL SPECIFICATIONS.
     - 1) INSTALL CIRCUITS OVER 25 VOLT WITH COLOR CODED NUMBER 12 WIRE.
     - 2) INSTALL CIRCUITS UNDER 25 VOLT WITH COLOR CODED NUMBER 18 WIRE WITH 0.031 INCH HIGH TEMPERATURE 105 DEGREES F PLASTIC INSULATION ON EACH CONDUCTOR AND PLASTIC SHEATH OVER ALL.
     - 3) INSTALL ELECTRONIC CIRCUITS WITH COLOR CODED NUMBER 22 WIRE WITH 0.023 INCH POLYETHYLENE INSULATION ON EACH CONDUCTOR WITH PLASTIC JACKETED COPPER SHIELD OVER ALL.
     - 4) INSTALL LOW VOLTAGE CIRCUITS, LOCATED IN CONCRETE SLABS AND MASONRY WALLS, OR EXPOSED IN OCCUPIED AREAS, IN ELECTRIC CONDUIT.
     - 5) ALL WIRING IN AREAS USED AS AIR PLENUMS SHALL BE IN ELECTRIC CONDUIT EXCEPT THAT LOW VOLTAGE WIRING MAY BE TEFLON COATED, ALUMINUM SHEATHED CABLE OR OTHER WIRE SPECIFICALLY APPROVED FOR INSTALLATION IN AIR PLENUMS, WHERE ACCEPTABLE BY LOCAL CODES.
     - 6) ALL WIRING IN AREAS NOT USED FOR AIR MOVEMENT SHALL BE IN ELECTRIC METALLIC TUBING EXCEPT LOW VOLTAGE WIRING MAY BE IN APPROVED SIGNAL CABLE WHERE ACCEPTED BY LOCAL CODES.
   - C. THERMOSTATIC CONTROLS TO HAVE A 5°F DEADBAND AND SETPOINT OVERLAP RESTRICTIONS.
     - 1) TEMPERATURE CONTROLS SETBACK TO BE 55°F (HEAT) AND 85° (COOL), 2-HOUR OCCUPANT OVERRIDE, 10-HOUR BACKUP.
   - D. THERMOSTATIC CONTROLS TO HAVE A 5°F DEADBAND AND SETPOINT OVERLAP RESTRICTIONS.
14. REMODELING WORK:
   - A. DEMOLITION: DISCONNECT, DEMOLISH, AND REMOVE ABANDONED MECHANICAL MATERIALS AND EQUIPMENT INDICATED TO BE REMOVED AND NOT INDICATED TO BE SALVAGED OR REMAIN.
   - B. EQUIPMENT TO BE SALVAGED:
     - 1) DISCONNECT AND REMOVE, EXISTING MECHANICAL EQUIPMENT INDICATED TO BE REMOVED AND SALVAGED. DELIVER EQUIPMENT TO THE LOCATION DESIGNATED BY THE OWNER FOR STORAGE.
     - 2) ALL MATERIALS AND EQUIPMENT DESIGNATED TO BE REUSED OR RELOCATED SHALL BE CAREFULLY REMOVED, AND STORED UNTIL NEEDED FOR REMODELING WORK. ALL ITEMS SHALL BE RESTORED TO "LIKE NEW" CONDITION WITH RUST OR CORROSION REMOVED, SURFACE PAINT TOUCHED UP OR REPAINTED AS REQUIRED TO MATCH NEW CONSTRUCTION, AND THOROUGHLY CLEANED AND INSPECTED. ANY ITEMS WHICH BECOME DAMAGED BEYOND REPAIR AS A RESULT OF CONSTRUCTION OR DEMOLITION ACTIVITY SHALL BE REPLACED WITH NEW MATERIAL EQUIVALENT IN EVERY RESPECT.
   - C. DISPOSAL AND CLEANUP: REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND EQUIPMENT NOT INDICATED TO BE SALVAGED.
   - D. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER REMODELING OPERATIONS ARE COMPLETE.
   - E. LOCATE, IDENTIFY, AND PROTECT MECHANICAL SERVICES PASSING THROUGH REMODELING AREA AND SERVING OTHER AREAS OUTSIDE THE REMODELING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE REMODELING LIMITS. WHERE MECHANICAL SERVICES ARE LOCATED IN A WALL, ETC. TO BE DEMOLISHED, REROUTE PIPING TO NEW OR EXISTING CONSTRUCTION TO MAINTAIN CONTINUITY OF THE SYSTEM. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS.
   - F. REMOVE ALL PIPING TO BE DEMOLISHED BACK TO PIPE MAIN OR EDGE OF PROJECT AREA, AND CAP PIPE.
   - G. PIPING AND DUCTS EMBEDDED IN FLOORS, WALLS, AND CEILINGS MAY REMAIN IF SUCH MATERIALS DO NOT INTERFERE WITH NEW INSTALLATIONS. PIPING AND DUCTS TO REMAIN SHALL BE APPROVED BY THE ARCHITECT. REMOVE MATERIALS ABOVE ACCESSIBLE CEILINGS. DRAIN AND CAP PIPING AND DUCTS ALLOWED TO REMAIN ABOVE CEILING OR BELOW FLOOR, CONCEALED FROM VIEW, EXCEPT AS OTHERWISE NOTED. PATCH FLOOR TO MATCH EXISTING.
   - H. PIPE AND DUCT SHALL BE CONCEALED WITH NEW OR EXISTING CONSTRUCTION WHENEVER POSSIBLE, UNLESS INDICATED OTHERWISE.

CODE INFORMATION

2018 - INTERNATIONAL BUILDING CODE
2018 - INTERNATIONAL PLUMBING CODE
2018- INTERNATIONAL MECHANICAL CODE
2018 - INTERNATIONAL FUEL GAS CODE
2018 - INTERNATIONAL FIRE CODE
2017 - NATIONAL ELECTRICAL CODE
ICC/ANSI A117.1-2009, ACCESSIBLE & USABLE BUILDINGS & FACILITIES

BC PROJECT #: 22576
MISSOURI PE COA #2009003629

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8/19/2022
STATE OF MISSOURI
ERIK B. KNUDSEN
NUMBER
PE-2004026504
REGISTERED PROFESSIONAL ENGINEER

A tenant finish for
CareNow Urgent Care
3509 SW Market Street
Lee's Summit, MO 64082

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drawn by
checked by
revisions

sheet number
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drawing type
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project number
22102

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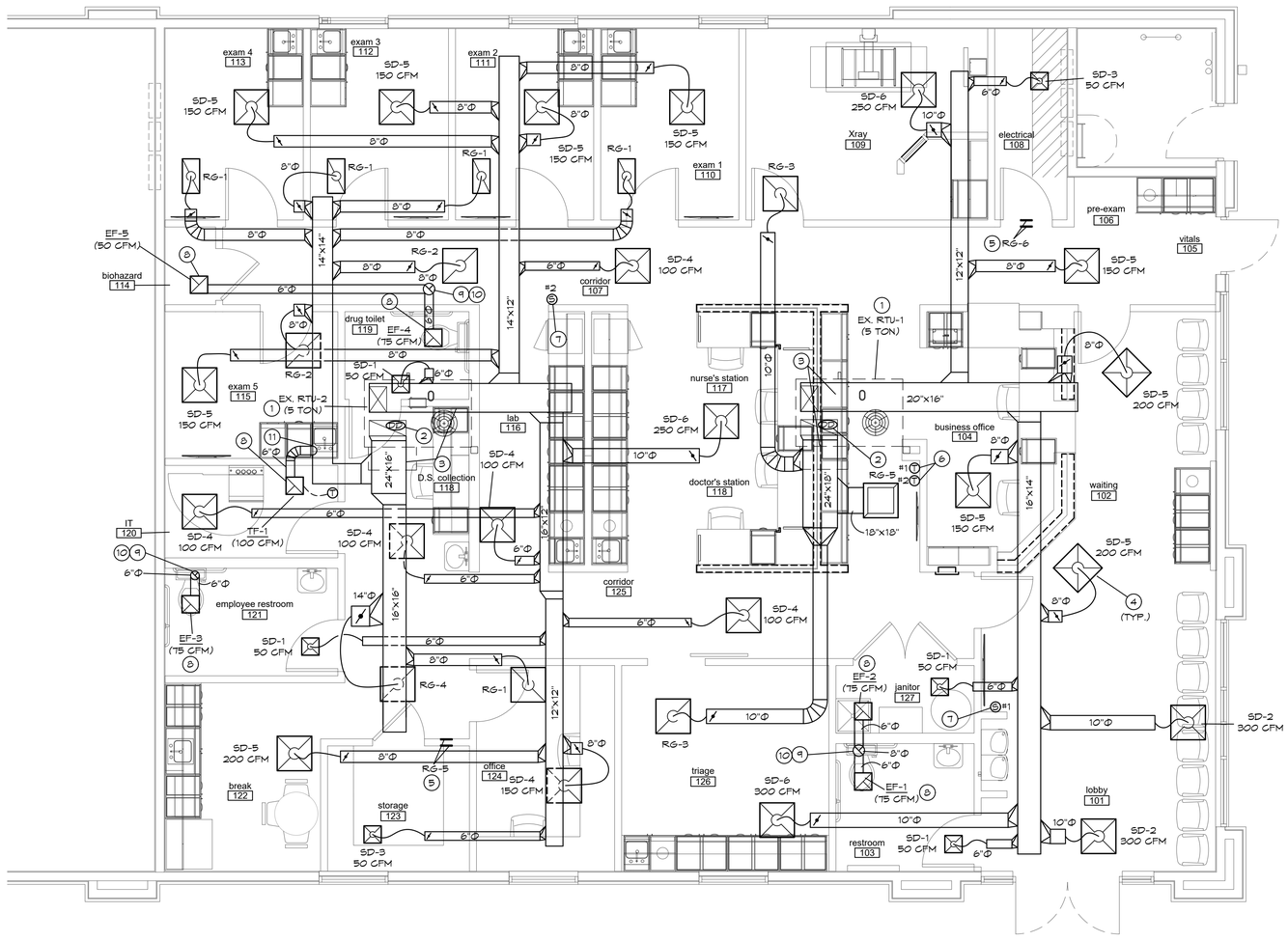

NORTH

MECHANICAL FLOOR PLAN

SCALE: 1/4" = 1'-0"

MECHANICAL GENERAL NOTES:

1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
2. THIS CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE MECHANICAL SYSTEMS.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DIFFUSERS.
4. INSTALL ALL DUCT, PIPE, ETC. AS HIGH AS POSSIBLE.
5. DUCT SIZES SHOWN ARE ACTUAL SHEET METAL SIZES AND INCLUDE AN ALLOWANCE FOR DUCT LINER WHERE APPLICABLE.
6. PROVIDE FLEXIBLE CONNECTION BETWEEN DUCTWORK AND ROOFTOP UNITS, EXHAUST FANS, AND OTHER MOTORIZED EQUIPMENT.
7. NO DUCT SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
8. ALL MECHANICAL SYSTEMS SHALL BE BALANCED BY A CERTIFIED BALANCING CONTRACTOR. REFER TO SPECIFICATIONS FOR DETAILS.

MECHANICAL PLAN NOTES:

1. EXISTING SINGLE PACKAGED ROOF TOP HVAC UNIT TO REMAIN. ADJUST OUTDOOR AIR DAMPER ON UNIT AS PER OUTDOOR SCHEDULE. COORDINATE WITH LANDLORD TO PROVIDE PREVENTIVE MAINTENANCE AS SCHEDULE.
2. VERIFY INSTALLATION OF DUCT MOUNTED SMOKE DETECTOR AND REMOTE AUDIO/VISUAL ENUNCIATOR . PROVIDE AND INSTALL NEW IF NONE ARE PRESENT.
3. PROVIDE CONCEALED SUPPLY AND RETURN DUCTWORK & CONNECT TO EXISTING SUPPLY & RETURN DUCT DROPS. ROUTE DUCTWORK UP HIGH AND SUPPORT TO THE STRUCTURE. ALL DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS. COORDINATE INSTALLATION OF DUCTWORK WITH FIRE SPRINKLER PIPING.
4. PROVIDE NEW LAY IN CEILING MOUNTED SUPPLY DIFFUSER AS DETAILED.
5. PROVIDE RETURN TRANSFER GRILLE ON EACH SIDE OF WALL.
6. RELOCATE & REINSTALL THERMOSTAT WHERE SHOWN ON PLAN. PROVIDE 7 DAY PROGRAMMABLE THERMOSTAT IF EXISTING THERMOSTAT IS FOUND TO BE NON PROGRAMMABLE. MOUNT THERMOSTAT 48" ABOVE THE FINISHED FLOOR.
7. LOCATION OF TEMPERATURE SENSOR. MOUNT 48" ABOVE THE FINISHED FLOOR.
8. PROVIDE CEILING MOUNTED EXHAUST FAN WITH INTEGRAL BACKDRAFT DAMPER. SUPPORT UNIT FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
9. ROUTE EXHAUST AIR DUCT UP THRU ROOF TO ROOF CAP WITH BACKDRAFT DAMPER AS REQUIRED. PROVIDE BIRD SCREEN FOR CAP AS REQUIRED. SEAL PENETRATION WEATHER TIGHT. ENSURE MIN. 10'-0" CLEARANCE FROM ALL OUTDOOR AIR INTAKES.
10. CUT EXISTING ROOF AND FLASH INTO ROOF AS REQUIRED. ALL ROOFING WORK SHALL BE PERFORMED BY LANDLORD'S ROOFING CONTRACTOR (AT THIS CONTRACTOR'S EXPENSE) TO MAINTAIN EXISTING ROOF WARRANTY. VERIFY APPROVED ROOFING CONTRACTOR WITH LANDLORD PRIOR TO PERFORMING WORK.
11. TRANSFER AIR FAN TO CONNECT TO RETURN AIR DUCT.

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REGISTERED PROFESSIONAL ENGINEER

MECHANICAL SYMBOLS

	NEW SUPPLY DIFFUSER
	NEW RETURN AIR GRILLE
	EXHAUST GRILLE/FAN
T	THERMOSTAT, MOUNTED AT 48" AFF
SD	DUCT-MOUNTED SMOKE DETECTOR
	NEW DUCTWORK
32"x14"	SIZE OF RECTANGULAR DUCT
6"Φ	SIZE OF ROUND DUCT
	FLEXIBLE DUCTWORK
	FLEXIBLE CONNECTION TO FAN
3	FLOOR PLAN NOTE DESIGNATION
S.A.	SUPPLY AIR
R.A.	RETURN AIR
EXH.	EXHAUST AIR
	TRANSITION IN DUCT SIZE
	ELBOW WITH TURNING VANES
	MANUAL VOLUME DAMPER
M	MANUAL VOLUME DAMPER
M	MOTORIZED CONTROL DAMPER
	SUPPLY AIR DUCT UP/DOWN
	RETURN AIR DUCT UP/DOWN
	EXHAUST AIR DUCT UP/DOWN
UP	CHANGE IN ELEVATION UP (UP) DOWN (DN) IN DIRECTION OF FLOW
RTU-1	SCHEDULED MECHANICAL EQUIPMENT

EXISTING ROOFTOP UNIT SCHEDULE (BY LANDLORD)

MARK	MFGR	MODEL NO.	NOM. TONS	EVAP. CFM	EXT. STATIC P. IN. WG.	COOLING				HEATING (GAS)		ELECTRICAL				MINIMUM OUTDOOR AIR (CFM)	SEER /EER	FREON	NOTES
						TOTAL BTUH	SENS. BTUH	AMB.	EVAP. EAT DB/WB	BTUH INPUT	BTUH OUTPUT	VOLT/Φ/HZ	BLOWER MOTOR	MIN. MCA (AMPS)	MOCP (AMPS)				
EX. RTU-1	CARRIER	48LCD006	5	2,000	0.9	60,000	54,000	100	80/67	115	89	208/3/60	2 HP	"	"	250	14 /12.0	R-410a	1,2
EX. RTU-2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	350	↓	↓	1,2

NOTES: 1. UNIT IS EXISTING TO REMAIN. REFER TO PREVENTIVE MAINTENANCE CHECK-UP FOR ADDITIONAL INFORMATION.
2. ADJUST OUTDOOR AIR DAMPER TO PROVIDE 250 CFM OF OUTDOOR AIR FOR RTU-1 & 350 CFM OF OUTDOOR AIR FOR RTU-2.

DIFFUSER, REGISTER & GRILLE SCHEDULE

MARK	MFGR	MODEL	NECK SIZE	FACE SIZE	FINISH	NOTES
SD-1	TITUS	TMS/1	6"Φ	12"X12"	WHITE	1
SD-2	↓	↓	10"Φ	24"X24"	↓	1
SD-3	↓	TMS/3	6"Φ	12"X12"	↓	2
SD-4	↓	↓	↓	24"X24"	↓	-
SD-5	↓	↓	8"Φ	↓	↓	-
SD-6	↓	↓	10"Φ	↓	↓	-
RG-1	↓	PAR/3	8"Φ	24"X12"	↓	-
RG-2	↓	↓	↓	24"X24"	↓	-
RG-3	↓	↓	10"Φ	↓	↓	-
RG-4	↓	↓	14"Φ	↓	↓	-
RG-5	↓	↓	18"X18"	↓	↓	-
RG-6	↓	350RL	10"X8"	"	↓	-

NOTES: 1. PROVIDE WITH OPPOSED BLADE DAMPER.
2. PROVIDE WITH TRM KIT.

EXISTING ROOF TOP UNIT SHOULD HAVE A PREVENTATIVE MAINTENANCE CHECK-UP TO INCLUDE THE FOLLOWING CRITERIA

1. CHANGE ALL FILTERS.
2. CLEAN ALL CONDENSATE DRAIN PANS AND FLUSH ALL CONDENSATE DRAIN LINES.
3. CLEAN ALL EVAPORATOR AND CONDENSER COILS WITH A NON-ACID CLEANER.
4. CHECK FOR REFRIGERANT LEAKS AND REPAIR AS NECESSARY (RECHARGE SYSTEM AS NEEDED.)
5. CHANGE ALL BELTS.
6. GREASE ALL MOVING PARTS AND BEARING.
7. CHECK DUCTWORK CONNECTIONS AND REPAIR AS NEEDED.
8. CHECK ECONOMIZER OPERATION.
9. ALL UNITS SHALL BE FUNCTIONING PROPERLY.
10. COORDINATE WITH OWNER FOR REQUIRED REPAIR.

EXHAUST & TRANSFER FAN SCHEDULE

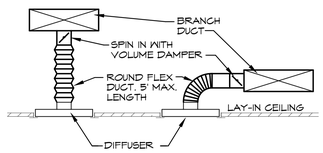
MARK	MFGR	MODEL	CFM	EXTERNAL STATIC P. IN. WG.	RPM	ELECTRICAL		FAN TYPE	CONTROLS	NOTES
						VOLT/Φ/HZ	PWR			
EF-1	COOK	GC-148	75	0.3	1,075	120/1/60	48 W	CEILING FAN	LIGHT	1
EF-2	↓	↓	↓	↓	↓	↓	↓	↓	TIMER	1
EF-3	↓	↓	↓	↓	↓	↓	↓	↓	LIGHT	1
EF-4	↓	↓	↓	↓	↓	↓	↓	↓	↓	1
EF-5	↓	GC-128	50	↓	750	↓	27 W	↓	TIMER	1
TF-1	↓	GC-166	100	↓	1,450	↓	72 W	↓	THERMOSTAT	2,3

NOTES: 1. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER, VARI-SPEED CONTROLLER (NEAR FAN AND ABOVE CEILING), AND WEATHER HEAD.
2. PROVIDE LINE VOLTAGE COOLING ONLY THERMOSTAT FOR CONTROL OF FAN. SET TO 80°F.
3. PROVIDE PROVIDE CEILING GRILLE AND VARI-SPEED CONTROLLER NEAR FAN ABOVE CEILING.

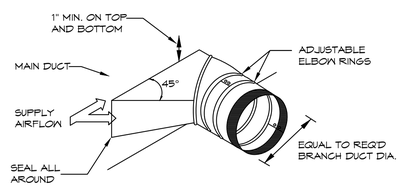
OUTDOOR AIR CALCULATIONS

UNIT	Area (sqft)	ROOM NAME / OCCUPANCY CLASSIFICATION	Occupant Density #/1000 sqft	People outdoor airflow rate in breathing zone, (Rp) cfm/person	Area outdoor airflow rate in breathing zone, (Ra) cfm/sqft	Exhaust airflow rate cfm/sqft	Breathing zone outdoor airflow (Vbz)	Zone air distribution effectiveness (Ez)	Zone outdoor airflow (cfm)
EX. RTU-1	190	101 Lobby /Lobby	30	5	0.06		40	0.8	50
	172	102 Waiting / Lobby	30	5	0.06		36	0.8	45
	110	104 Business Office / Office	5	5	0.06		9	0.8	12
	35	105 Vitals / Medical Room	10	25	0.06		11	0.8	14
	30	106 Pre Exam / Medical Room	10	25	0		8	0.8	9
	46	108 Electrical / Storage	0	0	0.12		6	0.8	7
	155	109 Xray / Medical Room	10	25	0		39	0.8	48
	95	117 Nurse Station / Office	5	5	0.06		8	0.8	10
	95	118 Doctor Station / Office	5	5	0.06		8	0.8	10
	32	127 Janitor / Storage	0	0	0.12		4	0.8	5
								Total	210
EX. RTU-2	220	107 Corridor / Corridior	0	0	0.06		13	0.8	17
	88	110 Exam / Medical Room	10	25	0		22	0.8	28
	88	111 Exam / Medical Room	10	25	0		22	0.8	28
	88	112 Exam / Medical Room	10	25	0		22	0.8	28
	88	113 Exam / Medical Room	10	25	0		22	0.8	28
	85	115 Exam / Medical Room	10	25	0		21	0.8	27
	90	116 Lab / Medical Room	10	25	0.06		28	0.8	35
	95	118 DS Collection / Medical Room	10	25	0.06		29	0.8	37
	54	120 IT / Storage	0	0	0.12		6	0.8	8
	98	122 Break Room / Break Room	25	5	0.06		18	0.8	23
	60	123 Storage / Storage	0	0	0.12		7	0.8	9
	96	124 Office / Storage	5	5	0.06		8	0.8	10
	220	125 Corridor / Corrisior	0	0	0.06		13	0.8	17
	144	126 Triage / Medical Room	10	25	0		36	0.8	45
								Total	336

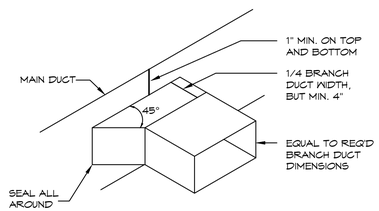
NOTES: 1. PROVIDE 250 CFM OF OUTDOOR AIR FOR RTU-1 & 350 CFM OF OUTDOOR AIR FOR RTU-2



DIFFUSER DETAIL
SCALE: NONE



BRANCH DUCT TAKEOFF DETAIL
SCALE: NONE



BRANCH DUCT TAKEOFF DETAIL
SCALE: NONE

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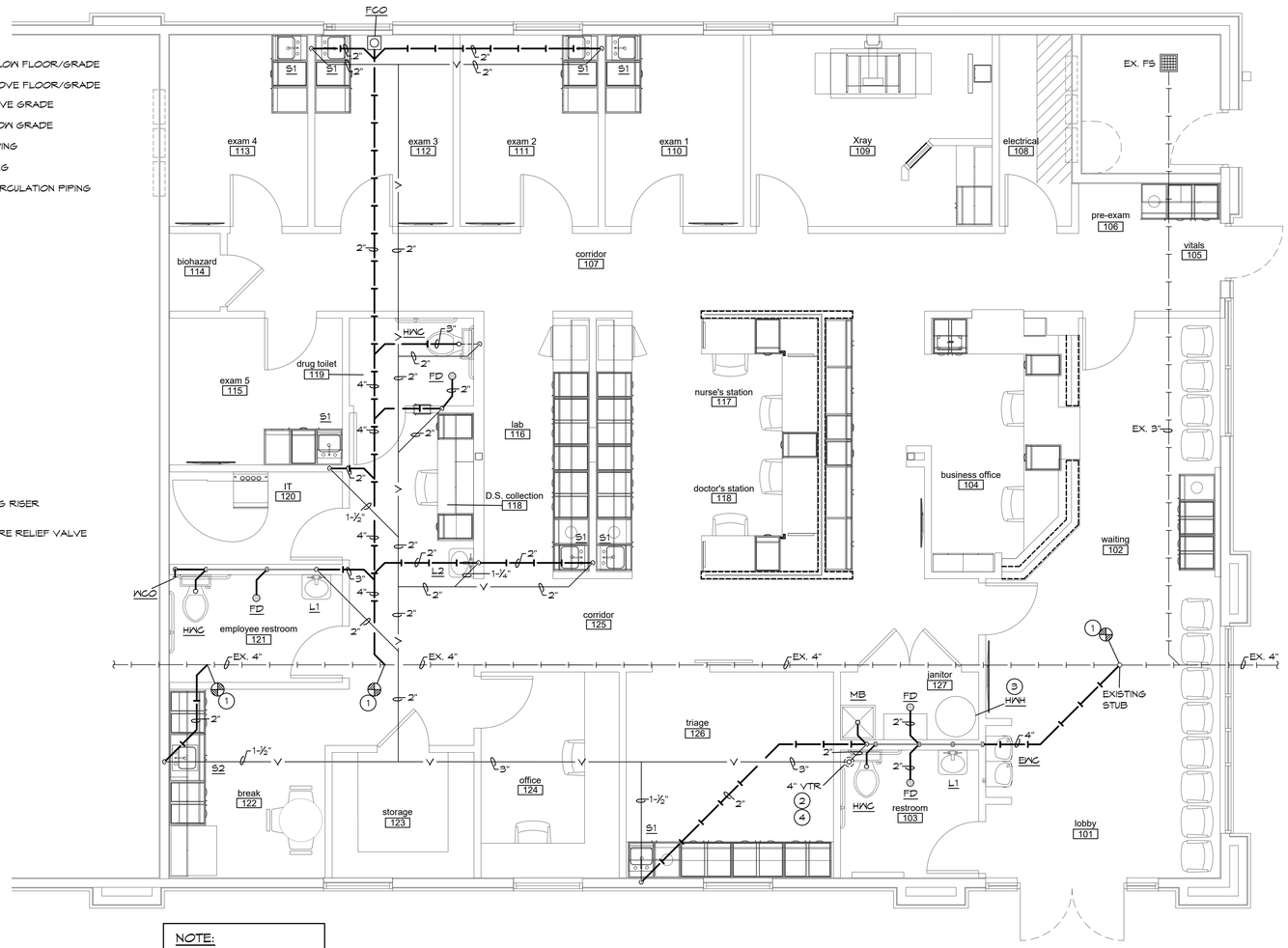
8/19/2022

STATE OF MISSOURI
ERIK B. KNUDSEN
NUMBER PE-2004026504
REGISTERED PROFESSIONAL ENGINEER

PLUMBING SYMBOLS

- SOIL AND WASTE PIPING BELOW FLOOR/GRADE
- SOIL AND WASTE PIPING ABOVE FLOOR/GRADE
- SANITARY VENT PIPING ABOVE GRADE
- SANITARY VENT PIPING BELOW GRADE
- DOMESTIC COLD WATER PIPING
- DOMESTIC HOT WATER PIPING
- DOMESTIC HOT WATER RECIRCULATION PIPING
- EQUIPMENT DRAIN LINE
- PIPING TURNING DOWN
- PIPING TURNING UP
- TEE TOP CONNECTION
- UNION
- BACKFLOW PREVENTER
- FD — FLOOR DRAIN
- FCO — FLOOR CLEAN OUT
- WCO — WALL CLEAN OUT
- VALVE
- BALANCING VALVE
- CHECK VALVE
- CONNECT TO EXISTING
- I.E. — INVERT ELEVATION OF PIPE
- MATCH MARKS ON PLUMBING RISER DIAGRAM
- TEMPERATURE AND PRESSURE RELIEF VALVE



NOTE:
REFER TO SANITARY WASTE AND VENT RISER DIAGRAM FOR ALL BRANCH PIPE SIZES.

NORTH

WASTE & VENT PLAN
SCALE: 1/4" = 1'-0"

PLUMBING GENERAL NOTES:

1. INSTALL ALL PIPE, ETC. AS HIGH AS POSSIBLE.
2. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF FIXTURES.
4. SAWCUT EXISTING FLOOR AS REQUIRED FOR INSTALLATION OF UNDERFLOOR PIPING. PATCH FLOOR TO MATCH EXISTING.
5. NO PIPING SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
6. CONTRACTOR TO TEST WATER PRESSURE ON SITE AND PROVIDE PRESSURE REDUCING VALVE ON WATER SERVICE IF PRESSURE IS OVER 80 PSI.

PLUMBING PLAN NOTES:

1. CONNECT SANITARY LINE TO EXISTING SANITARY LINE. FIELD VERIFY EXACT LOCATION, ELEVATION AND DIRECTION OF FLOW OF EXISTING SANITARY LINE PRIOR TO INSTALLATION OF ANY NEW PIPING.
2. LOCATION OF 4" VTR. VERIFY MINIMUM 10' FT. CLEARANCE FROM ANY FRESH IN TAKE.
3. ROUTE WATER HEATER T&P DRAIN TO FLOOR DRAIN AND TERMINATE WITH AIR GAP.
4. CUT EXISTING ROOF AND FLASH INTO ROOF AS REQUIRED. ALL ROOFING WORK SHALL BE PERFORMED BY BUILDING OWNER'S ROOFING CONTRACTOR (AT THIS CONTRACTOR'S EXPENSE) TO MAINTAIN EXISTING ROOF WARRANTY. VERIFY APPROVED ROOFING CONTRACTOR WITH BUILDING OWNER PRIOR TO PERFORMING WORK.

PLUMBING FIXTURE BRANCH PIPING SCHEDULE

FIXTURE	WASTE	VENT	CW	HW
WATER CLOSET (TANK TYPE)	3"	2"	1/2"	- -
LAVATORY	1-1/4"	1-1/4"	1/2"	1/2"
SINK	1-1/2"	1-1/2"	1/2"	1/2"
FLOOR DRAIN	2"	2"	- -	- -
MOP BASIN	2"	2"	3/4"	3/4"
ELECTRIC WATER COOLER	1-1/2"	1-1/2"	1/2"	- -

NOTE: INDIVIDUAL VENTS FOR FIXTURES ON PLANS AND RISER DIAGRAMS HAVE BEEN INCREASED WHERE HORIZONTAL VENT LENGTH IS IN EXCESS OF THE MAXIMUM DISTANCE INDICATED BY THE CODE.

PLUMBING DRAINAGE CALCULATIONS

FIXTURE	QUANTITY	FU	TOTAL FU
WATER CLOSET	3	4	12
LAVATORY	3	1	3
SINK- MEDICAL	6	1	6
SINK- BREAK ROOM	1	2	2
FLOOR DRAIN	4	2	8
MOP SINK	1	2	2
TOTAL			33 FU

VENT MAINS - 4"
WASTE MAIN - 4"

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BC PROJECT #: 22576
MISSOURI PE COA #2009003629

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drawing type
permit
project number
22102

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NOTE:
REFER TO DOMESTIC WATER RISER DIAGRAM FOR ALL BRANCH PIPE SIZES.

NORTH

DOMESTIC WATER & GAS FLOOR

SCALE: 1/4" = 1'-0"

PLUMBING PLAN NOTES:

1. DOMESTIC WATER LINE WITH SHUT OFF VALVE AND REDUCED PRESSURE ZONE BACKFLOW PREVENTOR INSIDE OF THE BUILDING EXISTING TO REMAIN. FIELD VERIFY ALL EXISTING CONDITION PRIOR TO BEGINNING OF NEW WORK.
2. CONNECT DOMESTIC WATER LINE TO EXISTING DOMESTIC WATER LINE.
3. INSTALL ELECTRIC WATER HEATER ON STAND MOUNTED A MIN. OF 12" AFF. MAKE HOT AND COLD WATER PIPING CONNECTIONS THROUGH DIELECTRIC UNIONS. PROVIDE AND INSTALL ALL HARDWARE AND APPURTENANCES FOR COMPLETE INSTALLATION PER APPLICABLE CODES AND MANUFACTURER'S RECOMMENDATIONS. PROVIDE THERMAL EXPANSION TANK.
4. CONNECT HOT WATER RECIRC. PIPING BACK TO WATER HEATER AS REQUIRED. REFER TO RISER DIAGRAM FOR MORE INFORMATION.
5. PROVIDE DOMESTIC WATER CONNECTION TO ICE MAKER BOX FOR COFFEE MACHINE. PROVIDE DUAL CHECK BACK FLOW PREVENTOR. ROUTE WATER PIPING DOWN THROUGH THE WALL, LOCATE INSIDE OF CABINET.
6. ROUTE PIPING ON INTERIOR SIDE OF INSULATION FOR FREEZE PROTECTION.

PLUMBING FIXTURE WATER COUNT

FIXTURE	QUANTITY	CW FU	CW TOTAL FU	HW FU	HW TOTAL FU	COMBINED FU	COMBINED TOTAL FU
WATER CLOSET	3	5	15	0	0	5	15
LAVATORY	3	1.5	4.5	1.5	4.5	2	6
SINK- MEDICAL	6	1.5	9	1.5	9	2	12
SINK- BREAK ROOM	1	2.25	2.25	2.25	2.25	3	3
MOP SINK	1	2.25	2.25	2.25	2.25	3	3
WATER COOLER	1	0.25	0.25	0	0	0.25	0.25
ICE BOX	2	0.25	0.5	0	0	0.25	0.5
			33.75 FU		18 FU		39.75 FU

COLD WATER MAIN - 1"
HOT WATER MAIN - 3/4"

PIPE HANGER SCHEDULE

PIPE MATERIAL	MAXIMUM HANGER SPACING	HANGER ROD DIAMETER
ABS (All sizes)	4'	3/8"
PVC (All Sizes)	4'	3/8"
CPVC, 1 inch and smaller	3'	1/2"
CPVC, 1-1/4 inches and larger	4'	1/2"
Cast Iron (All Sizes)	5'	5/8"
Cast Iron (All Sizes) with 10 foot length of pipe	10'	5/8"
Copper Tube, 1-1/4 inches and smaller	6'	1/2"
Copper Tube, 1-1/2 inches and larger	10'	1/2"
Steel, 3 inches and smaller	12'	1/2"
Steel, 4 inches and larger	12'	5/8"
Pex, 1" and below without support channel	32"	3/8"
Pex, 1-1/4" and above without support channel	48"	3/8"
Pex ¾" and below with support channel	6'	3/8"
Pex 1" and above with support channel	8'	3/8"

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STATE OF MISSOURI
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NUMBER PE-2004026504
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ELECTRICAL SPECIFICATIONS

1. GENERAL PROVISIONS:
   A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEMS OUTLINED.
   B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR APPROVAL AS REQUIRED BY THE AUTHORITIES.
   C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRIC CODE (NEC) AND ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.
   D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.
   E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, CONDUIT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.
   F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED.
   G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
   H. CONTRACTOR SHALL PROVIDE ACCESS PANELS WHERE NECESSARY FOR CONCEALED ELECTRIAL COMPONENTS.
   I. CONTRACTOR SHALL PROMPTLY CALL ENGINEERS ATTENTION TO ANY APPARENT CONTRADICTIONS, AMBIGUITIES, ERRORS, DISCREPANCIES, OR OMISSIONS IN THE PLANS OR SPECIFICATIONS.
2. OPERATION AND MAINTENANCE MANUALS:
   A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.
   B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS.
   C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE COLLATED AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, CONTRACTORS, ETC. CONTRACTORS, ETC. DOCUMENTS SHALL BE COMPILED AND BOUND IN DIGITAL FILE OR 3 RING BINDER.
3. MANUFACTURERS:
   A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN, UNLESS NOTED OTHERWISE.
4. TESTING, AND BALANCING:
   A. ALL CIRCUITS SHALL BE TESTED FOR CONTINUITY, SHORTS, AND GROUNDS BEFORE CONNECTING TO THE PROPER PHASE AS DESIGNED TO BALANCE THE LOADING BETWEEN PHASES.
   B. POWER AND LIGHTING PANELS SHALL BE PROPERLY PHASED TO DISTRIBUTE THE LOAD AND SHALL BE CONNECTED AND ADJUSTED TO OPERATE AS SPECIFIED.
   C. ALL MOTORS AND SIMILAR EQUIPMENT SHALL BE CHECKED FOR PROPER PHASE ROTATION AND OPERATION.
5. RACEWAYS:
   A. CONDUIT INSIDE THE BUILDING SHALL BE METALLIC TUBING (EMT), BEARING THE UL LABEL, WITH COMPRESSION TYPE FITTINGS OR SCREW SET FITTINGS.
   B. CONDUIT EXPOSED TO THE WEATHER, INSTALLED UNDERGROUND, IN CONCRETE, OR USED FOR SERVICE ENTRANCE SHALL BE STANDARD RIGID CONDUIT (GALVANIZED) WITH THREADED FITTINGS.
   C. UNDERGROUND CONDUIT MAY BE POLYVINYL CHLORIDE WITH A DEFLECTION TEMPERATURE UNDER LOAD AT 264 PSI, OF 70 DEGREES C, AND A TENSILE STRENGTH OF 5,200 PSI. JOINTS SHALL BE FLUSH SOLVENT WELDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE EQUAL TO CARLON POWER AND COMMUNICATIONS DUCT TYPE DB (DIRECT BURIAL). CONDUIT AND FITTINGS SHALL BE PRODUCED BY THE SAME MANUFACTURER.
   D. FLEXIBLE METAL CONDUIT SHALL ONLY BE USED FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND LIGHT FIXTURES. MAXIMUM LENGTH SHALL BE 6'-0".
6. CONDUCTORS:
   A. WIRES SHALL BE CONTINUOUS WITHOUT SPLICES OR TAPS IN CONDUIT RUNS. ALL SPLICES SHALL BE MADE IN JUNCTION, PULL, OR OUTLET BOXES. ALL WIRE SHALL BE INSTALLED IN CONDUIT, WIREWAYS, OR OTHER PROTECTIVE COVER SANCTIONED BY CODES.
   B. CONDUCTORS FOR LIGHTING AND POWER SHALL BE COPPER, MINIMUM NO. 12 A.W.G., 600 VOLT.
   C. NO. 10 GAUGE AND SMALLER CONDUCTORS SHALL BE TYPE THHN (WET LOCATIONS) OR THHN (DRY LOCATIONS), SOLID CONDUCTOR, UNLESS OTHERWISE INDICATED.
   D. NO. 8 GAUGE AND LARGER CONDUCTORS SHALL BE TYPE THWN (WET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED, UNLESS OTHERWISE INDICATED.
   E. SERVICE ENTRANCE AND PANEL FEEDER CONDUCTORS, NO. 3 GAUGE AND LARGER SHALL BE TYPE XHHW-2 (WET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED COPPER, UNLESS OTHERWISE INDICATED.
7. AC CABLE:
   A. AC CABLE OR EQUAL SHALL BE SUITABLE FOR INSTALLATION IN CONCEALED AREAS SUCH AS ABOVE CEILINGS AND INSIDE WALL CONSTRUCTION. ALL EXPOSED RACEWAY SHALL BE CONDUIT AS SPECIFIED FOR RACEWAYS.
   B. AC CABLE SHALL CONSIST OF INTERLOCKED ARMORED CABLE MADE OF THREE OR FOUR TYPE THHN SOLID COPPER CONDUCTORS INSULATED WITH HEAT AND MOISTURE RESISTANT POLYVINYL CHLORIDE (PVC), WITH NYLON OR EQUIVALENT UL LISTED JACKET, PER UL STANDARD 83. THE THREE CONDUCTORS SHALL BE TWISTED TOGETHER WITH THE COPPER GROUNDING CONDUCTOR, SUITABLE FILLERS, AND WRAPPED IN BINDER TAPE. THE ASSEMBLY SHALL BE ARMORED WITH SPIRALLY WRAPPED INTERLOCKED ARMOR OR ALUMINUM OR GALVANIZED STEEL.
      1) THE INTERLOCKED ARMOR SHALL BE FORMED FROM STRIPS OF ALUMINUM ALLOY OR GALVANIZED STEEL INTERLOCKED WITH EACH OTHER AND FORM A ROUND FLEXIBLE TUBE.
      2) CABLES SHALL BE TESTED IN ACCORDANCE WITH UL STANDARD 1479 AND 1581 FOR TYPE AC CABLE AND RATED AT 600 VOLTS, 90 DEGREES C FOR DRY LOCATIONS AND 75 DEGREES C FOR WET LOCATIONS.
   C. AC CABLE INSTALLED IN PATIENT CARE AREAS SHALL BE "HCF" TYPE WITH #16 AWG INTEGRAL BOND WIRE.
      1) CABLES SHALL MEET ALL NEC REQUIREMENTS FOR ARTICLE 517 AND SHALL BE UL LISTED FOR USE IN HEALTH CARE FACILITIES.
8. WIRING DEVICES:
   A. WALL SWITCHES SHALL BE SPECIFICATION GRADE, QUIET TYPE, FLUSH TOGGLE SWITCH, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES.
      1) SINGLE POLE: HUBBELL #CS1221-X, OR EQUAL.
      2) THREE WAY: HUBBELL #CS1223-X, OR EQUAL.
   B. RECEPTACLES SHALL BE SPECIFICATION GRADE, DUPLEX, GROUNDING, THREE-WIRE TYPE, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES. HUBBELL #CR5352-X, OR EQUAL.
   C. GROUND FAULT INTERRUPTER RECEPTACLES (GFI) SHALL BE HUBBELL #GF20-XL. DEVICE COVER PLATES SHALL BE AS HEREINBEFORE SPECIFIED.
   D. ISOLATED GROUND RECEPTACLES (IG) SHALL BE HUBBELL #CR5352IG, ORANGE COLOR. DEVICE COVER PLATES SHALL BE AS HEREINBEFORE SPECIFIED.
   E. RECEPTACLES OUTSIDE BUILDING AND WHERE NOTED AS WEATHERPROOF, SHALL BE AS HEREINBEFORE SPECIFIED EXCEPT SHALL BE INSTALLED IN A WEATHERPROOF ENCLOSURE WHICH SHALL BE INTERMATIC #WP1010MG OR #WP1010MHG DIECAST METAL WEATHERPROOF RECEPTACLE COVER. COVER SHALL BE WEATHER PROOF RATED WHILE IN USE.
   F. DUPLEX RECEPTACLES IN PATIENT CARE AREAS SHALL BE HOSPITAL GRADE, GROUNDING, THREE WIRE TYPE, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVERPLATES. HUBBELL #HBL8300HX, OR EQUAL.
      G. ALL DUPLEX RECEPTACLES CONNECTED TO EMERGENCY PANEL SHALL BE HOSPITAL GRADE HUBBELL HBL8300HR WITH RED THERMOPLASTIC COVERPLATES. COVERPLATES SHALL ALSO HAVE PANEL DESIGNATION AND CIRCUIT NUMBER ENGRAVED.
   H. VERIFY DEVICES AND DEVICE COVERPLATES COLOR WITH ARCHITECT.
9. BOXES:
   A. HOT DIPPED GALVANIZED STEEL BOXES. PROVIDE TYPE TO SUIT CONDITIONS FOR INSTALLATION.
   B. ALL BOXES SHALL BE FLUSH MOUNTED, UNLESS INDICATED OTHERWISE.
10. PANELBOARDS:
   A. PANELBOARDS ARE EXISTING AND SHALL BE REUSED. PROVIDE ADDITIONAL BREAKERS AS REQUIRED TO CONNECT CIRCUITS AS SHOWN ON THE DRAWINGS. ADDITIONAL BREAKERS SHALL BE THERMAL MAGNETIC, QUICK-BREAK BOLT ON CIRCUIT BREAKERS WITH ONE HANDLE FOR SINGLE OR MULTI-POLE RATINGS AND SHALL BE COMPATIBLE WITH EXISTING PANELS.
   B. COMPLETE EXISTING DIRECTORY AS REQUIRED TO IDENTIFY NEW CIRCUIT, LISTING LOAD SERVED AND OTHER PERTINENT DATA.

ELECTRICAL SPECIFICATIONS (CONTINUED)

11. DISCONNECTS:
   A. DISCONNECTS SHALL BE EXTERNALLY OPERATED, QUICK-MAKE, QUICK-BREAK, SAFETY, WITH PROVISIONS FOR PAD LOCKING. FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL BE PROVIDED AS INDICATED.
   B. INDOOR SWITCHES SHALL BE NEMA 1 AND OUTDOOR SWITCHES SHALL BE NEMA 3R, UNLESS INDICATED OTHERWISE.
12. FUSES:
   A. FUSES PROTECTING CIRCUIT BREAKER PANELS SHALL BE CURRENT LIMITING U.L. CLASS RK-1 FUSES WITH 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE SILVER FOR RATINGS ABOVE 60 AMPERES.
   B. ALL OTHER FUSES SHALL BE U.L. CLASS RK-5, DUAL-ELEMENT WITH A MINIMUM TIME-DELAY OF 10 SECONDS AT 500% RATING. FUSES SHALL HAVE CURRENT-LIMITING SHORT-CIRCUIT LINKS AND 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE COPPER.
13. LIGHT FIXTURES:
   A. WHERE LIGHT FIXTURES ARE MOUNTED IN A LAY-IN CEILING, PROVIDE A MINIMUM OF 2 SUPPORT WIRES ATTACHED DIRECTLY BETWEEN EACH LIGHT FIXTURE AND THE BUILDING STRUCTURE. SUPPORT WIRES SHALL BE A MINIMUM OF 12 GAUGE GALVANIZED STEEL WIRE, SOFT ANNEALED.
   B. FIXTURES ARE REQUIRED AT ALL LIGHTING OUTLETS SHOWN ON THE DRAWINGS. APPROVED LIGHTING FIXTURE WIRE IS REQUIRED IN ALL FIXTURES AND FIXTURE RACEWAYS. WEATHERPROOF WIRING IS REQUIRED FOR EXTERIOR FIXTURES. ALL PARTS OF FIXTURES AND WIRING SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.
   C. ALL FIXTURES SHALL CARRY UL AND ETL LABELS.
14. SLEEVES:
   A. PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK.
   B. INTERIOR PARTITIONS: 16 GAGE GALVANIZED STEEL, PACK BETWEEN CONDUIT AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.
   C. ROOF: PROSET OR EQUAL, MANUFACTURED PVC SCHEDULE 40 PIPE SLEEVE WITH WEATHERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.
15. GROUNDING:
   A. GROUND ALL ELECTRICAL APPARATUS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 250, AND ANY LOCAL REQUIREMENTS. INSURE CONTINUOUS BOND WHERE FLEXIBLE CONDUIT IS USED. PROVIDE BONDING JUMPER INSIDE ALL FLEXIBLE CONDUIT.
   B. BOND METAL PIPING SYSTEMS IN COMPLIANCE WITH NEC 250.4(A)(4).
16. REMODELING WORK:
   A. DEMOLITION: DISCONNECT, DEMOLISH AND REMOVE ABANDONED ELECTRICAL MATERIALS AND EQUIPMENT INDICATED TO BE REMOVED AND NOT INDICATED TO BE SALVAGED OR REMAIN.
   B. EQUIPMENT TO BE SALVAGED:
      1) DISCONNECT AND REMOVE EXISTING ELECTRICAL EQUIPMENT INDICATED TO BE REMOVED AND SALVAGED. DELIVER EQUIPMENT TO THE LOCATION DESIGNATED BY THE OWNER FOR STORAGE.
      2) ALL MATERIALS AND EQUIPMENT DESIGNATED TO BE REUSED OR RELOCATED SHALL BE CAREFULLY REMOVED AND STORED UNTIL NEEDED FOR REMODELING WORK. ALL ITEMS SHALL BE RESTORED TO "LIKE NEW" CONDITION WITH RUST OR CORROSION REMOVED, SURFACE PAINT TOUCHED UP OR REPAINTED AS REQUIRED TO MATCH NEW CONSTRUCTION, AND THOROUGHLY CLEANED AND INSPECTED. ANY ITEMS WHICH BECOME DAMAGED BEYOND REPAIR AS A RESULT OF CONSTRUCTION OR DEMOLITION ACTIVITY SHALL BE REPLACED WITH NEW MATERIAL EQUIVALENT IN EVERY RESPECT.
   C. DISPOSAL AND CLEANUP: REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND EQUIPMENT NOT INDICATED TO BE SALVAGED.
   D. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER REMODELING OPERATIONS ARE COMPLETE.
   E. PROVIDE ALL ALTERATIONS AND REWORK INDICATED AND/OR REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF ALL EXISTING ELECTRICAL SYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. LOCATE, IDENTIFY, AND PROTECT ELECTRICAL SERVICES PASSING THROUGH REMODELING AREA AND SERVING OTHER AREAS OUTSIDE THE REMODELING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE REMODELING LIMITS. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS.
      1) ABANDONED CONDUIT SHALL HAVE WIRE REMOVED AND SHALL BE CAPPED. ABANDONED OUTLETS IN WALLS OR PARTITIONS SHALL HAVE DEVICES AND WIRE REMOVED, AND SHALL BE COVERED.
      2) WHERE EXISTING CONDUITS TERMINATE AT AN EXISTING OUTLET IN A WALL, CEILING, OR FLOOR TO BE REMOVED, DISCONNECT AND REMOVE DEVICE AND WIRE FROM CONDUIT. CONDUIT SHALL BE CUT BACK AND CAPPED (BELOW THE FLOOR OR ABOVE THE CEILING) SO NOT TO CREATE AN OBSTRUCTION. PATCH FLOOR TO MATCH EXISTING.
      3) WHERE EXISTING CIRCUITS EXTEND BEYOND THE OUTLET IN THE EXISTING WALL, CEILING, OR FLOOR TO BE REMOVED, FURNISH AND INSTALL NEW CONDUIT AND WIRE TO EITHER REROUTE THE CIRCUIT OR FEED THE REMAINING OUTLET(S) FROM ANOTHER ELECTRICAL SOURCE, BUT IN SUCH A MANNER AS NOT TO REVISE THE CIRCUIT. ALL REROUTED CONDUIT SHALL BE APPROVED BY THE ARCHITECT.
      4) WHERE EXISTING OUTLETS IN A WALL, CEILING, OR FLOOR TO BE REMOVED ARE ESSENTIAL TO MAINTAIN OPERATION OF OTHER REMAINING OUTLETS, RELOCATE THE OUTLET TO A NEW CONVENIENT LOCATION. EXISTING WIRING DEVICES SHALL NOT BE REUSED, UNLESS OTHERWISE INDICATED.
      5) WHERE LIGHTING FIXTURES ARE INDICATED TO BE DEMOLISHED, REMOVE ALL WIRE AND MODIFY THE EXISTING CONDUIT (IF APPLICABLE) FOR THE NEW LIGHTING. ALL UNUSED CONDUIT SHALL BE REMOVED.
      6) WHERE A TELEPHONE CIRCUIT EXTENDS BEYOND AN OUTLET IN AN EXISTING WALL, CEILING, OR FLOOR TO BE REMOVED, PROVIDE NECESSARY EMPTY CONDUIT AND NOTIFY THE OWNER WHO WILL REQUEST THE OWNER TO ARRANGE WITH THE TELEPHONE COMPANY FOR NEW WIRING TO OUTLETS THAT REMAIN.
      7) WHERE EXISTING CONDUIT AND WIRE RUNS ARE LOCATED IN OR ATTACHED TO AN EXISTING WALL, CEILING OR FLOOR TO BE REMOVED, THEY SHALL BE REROUTED IN EITHER NEW OR EXISTING CONSTRUCTION TO MAINTAIN CONTINUITY OF CIRCUITS UNLESS OTHERWISE INDICATED.
      8) CONDUIT SHALL BE CONCEALED WITHIN THE EXISTING BUILDING CONSTRUCTION WHEREVER POSSIBLE, EXCEPT WHERE OTHERWISE INDICATED.
      9) EXISTING WIRE SHALL BE DISCONNECTED AND REMOVED WHEREVER EXISTING CIRCUITS ARE ABANDONED.

ELECTRICAL SYMBOLS LIST

CIRCUITING & NOTES	
+46"	SPECIAL MOUNTING HEIGHT FOR ASSOCIATED DEVICE (CENTERLINE OF DEVICE)
GFI	GROUND FAULT CIRCUIT INTERRUPTER DEVICE
WP	WEATHERPROOF ENCLOSURE ON DEVICE
WR	WEATHERPROOF RESISTANT DEVICE
IG	ISOLATED GROUND DEVICE
EM	EMERGENCY BATTERY BACKUP
TR	TAMPER RESISTANT OUTLET
(TIE)	PARTIAL HOMERUN. REFER TO PLANS FOR ADDITIONAL DEVICES CONNECTED TO THIS CIRCUIT.
⊠	ELECTRICAL FLOOR PLAN NOTE WITH DESIGNATION
2 LP	CONDUIT CONCEALED WHERE POSSIBLE OR AS NOTED, ARROWS INDICATE HOME RUN TO PANEL. CIRCUIT NUMBERS INDICATED
	#12 WIRE IN CONDUIT, UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	GROUNDING CONDUCTOR, #12 WIRE UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	CONDUIT ROUTED UNDER FLOOR/GRADE
LIGHTING	
	EMERGENCY TWIN HEAD LIGHT FIXTURE
	EXIT LIGHT WITH DIRECTIONAL ARROWS INDICATED
A	STRIP FIXTURE WITH TYPE DESIGNATION
A	RECESSED OR SURFACE MOUNTED FIXTURE WITH TYPE DESIGNATION
A NL	NIGHT LIGHT, CONNECT TO UNSWITCHED CIRCUIT
A	CEILING OR RECESSED FIXTURE WITH TYPE DESIGNATION
A	WALL MOUNTED FIXTURE WITH TYPE DESIGNATION
POWER DEVICES	
	DUPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	FOURPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	DEVICE MOUNTED ABOVE COUNTER AND/OR SPLASH GUARD
	HEAVY DUTY OUTLET - NEMA CONFIGURATION SIZE PER EQUIPMENT MANUFACTURER'S RECOMMENDATION
	PANEL BOARD, TOP OF BOX 6'-0" AFF
J	JUNCTION BOX
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
M	MOTOR WITH DESIGNATION
CONTROLS	
S	SINGLE POLE WALL SWITCH, TOP OF BOX AT 48" AFF
S_M	MANUAL MOTOR STARTER WITH OVERLOADS
OCCUPANCY SENSORS 1. DUAL TECHNOLOGY/ULTRASONIC CEILING SENSORS SHALL BE MOUNTED 6' FROM SUPPLY/EXHAUST AIR DIFFUSERS. 2. LOW VOLTAGE CEILING SENSORS SHALL BE PROVIDED WITH 6' SLACK CONDUCTOR COILED AT SENSOR.	
S_O	INFRARED OCCUPANCY SENSOR, WATT STOPPER #PW-100, TOP OF BOX AT 48" AFF
S_{OM}	INFRARED OCCUPANCY SENSOR, WATT STOPPER #PW-100, TOP OF BOX AT 48" AFF. SENSOR TO BE WIRED FOR 'MANUAL-ON' OPERATION
S_{OD}	INFRARED OCCUPANCY SENSOR WITH DIMMING, WATT STOPPER #PW-100D LINE VOLTAGE OR #DN-311 0-10V, TOP OF BOX AT 48" AFF, VERIFY DIMMER COMPATIBILITY
OS	DUAL TECHNOLOGY CEILING MOUNT OCCUPANCY SENSORS, WATTSTOPPER DT-300
PS	OCCUPANCY SENSOR POWER PACK, WATTSTOPPER BZ-150 OR EQUAL, PROVIDE LOW VOLTAGE WIRING TO OCCUPANCY SENSORS AND MOMENTARY SWITCHES
S_{MO}	MOMENTARY SWITCH, TOP OF BOX AT 48" AFF
COMMUNICATIONS	
	DATA/TELEPHONE OUTLET WITH ¾" CONDUIT STUBBED UP TO ABOVE ACCESSIBLE CEILING, BOTTOM OF BOX AT 18", UNLESS NOTED OTHERWISE. PROVIDE WITH PULL STRING
TV	FLAT SCREEN TELEVISION - PROVIDE AND INSTALL ONE (1) HUBBELL #RR2012HBSTR RECESSED CLOCK HANGER RECEPTACLE WITH COVERPLATE AND ONE(1) HUBBELL #HBL260 TWO GANG LARGE CAPACITY WALL BOX (UP TO 2" KNOCKOUT) W/ MUD RING AND COVERPLATE FOR DATA. PROVIDE 2"C WITH PULL STRING TO ABOVE ACCESSIBLE CEILING FOR DATA CABLES. MOUNT BOX AT 7'-6" AFF UNLESS NOTED OTHERWISE (VERIFY)
MISCELLANEOUS	
	COMBINATION POWER AND DATA FLOORBOX
T	LINE VOLTAGE THERMOSTAT PROVIDED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL WIRING
	120 - 24 VOLT INDUSTRIAL CONTROL TRANSFORMER 50 VA VA MINIMUM W/ CIRCUIT BREAKER (MANUAL RESET) FOR ALL VAV BOXES AND BYPASS DAMPERS, VERIFY EXACT REQUIREMENTS WITH MECHANICAL UNITS BEING SUPPLIED
SD	DUCT MOUNT SMOKE DETECTOR

ELECTRICAL GENERAL NOTES:

1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
2. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED.
3. ALL EXPOSED RACEWAYS SHALL BE IN EMT CONDUIT, MC CABLE IS NOT PERMITTED IN EXPOSED AREAS.
4. ELECTRICAL CONTRACTOR SHALL REMOVE ALL EXISTING ELECTRICAL EQUIPMENT, FIXTURES, SYSTEMS, CONDUIT AND WIRE, ETC. NOT BEING REUSED. DO NOT JUST ABANDON.
5. ELECTRICAL CONTRACTOR TO COORDINATE MANUFACTURER ELECTRICAL REQUIREMENTS FOR HVAC EQUIPMENT BEING FURNISHED WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. EQUIPMENT DISCONNECTS TO BE PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE IN MECHANICAL SCHEDULES.
6. ALL ELECTRICAL DEVICES ARE EXISTING AND TO REMAIN UNLESS NOTED OTHERWISE OR CONFLICT WITH NEW CONSTRUCTION. MAINTAIN PROPER OPERATION OF ALL EXISTING ELECTRICAL.
7. ALL MATERIALS EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
8. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL PER NEC 210.4.
9. ALL BRANCH CIRCUITS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 3% VOLTAGE DROP. ALL FEEDERS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 2% VOLTAGE DROP. ELECTRICAL CONTRACTOR SHALL VERIFY WIRING INDICATED IS SUFFICIENT AND INCREASE CONDUCTOR SIZE AS REQUIRED BASED OFF ACTUAL INSTALLED LENGTH OF CONDUCTORS.

HEALTH CARE FACILITY NOTES:

1. PATIENT AREAS (EXAM, TRIAGE, D.S. COLLECTION & X-RAY) SHALL COMPLY WITH NEC ARTICLE 517 FOR HEALTH CARE FACILITIES.
2. ALL BRANCH CIRCUITS SUPPLYING PATIENT AREAS SHALL HAVE REDUNDANT GROUNDING PER NEC 517.13(a) & (b). ALL UNDER FLOOR CONDUITS FOR BRANCH CIRCUITS SHALL BE METALLIC.
3. ALL DEVICES IN PATIENT CARE AREAS SHALL BE HOSPITAL GRADE, GROUNDING, THREE WIRE TYPE, RATED FOR 20 AMPS, WITH COVER PLATES. HUBBELL #HBL8300-I, OR EQUAL. VERIFY COLOR WITH ARCHITECT.

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8/19/2022

STATE OF MISSOURI
DARIN T. SEIDEL
NUMBER PE-2009030047
REGISTERED PROFESSIONAL ENGINEER

A tenant finish for CareNow Urgent Care

3509 SW Market Street
Lee's Summit, MO 64082

date
08.19.2022
drawn by
PH/SK
checked by
DS/EK
revisions
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BC PROJECT #: 22576
MISSOURI PE COA #2009003629

BC ENGINEERS INCORPORATED
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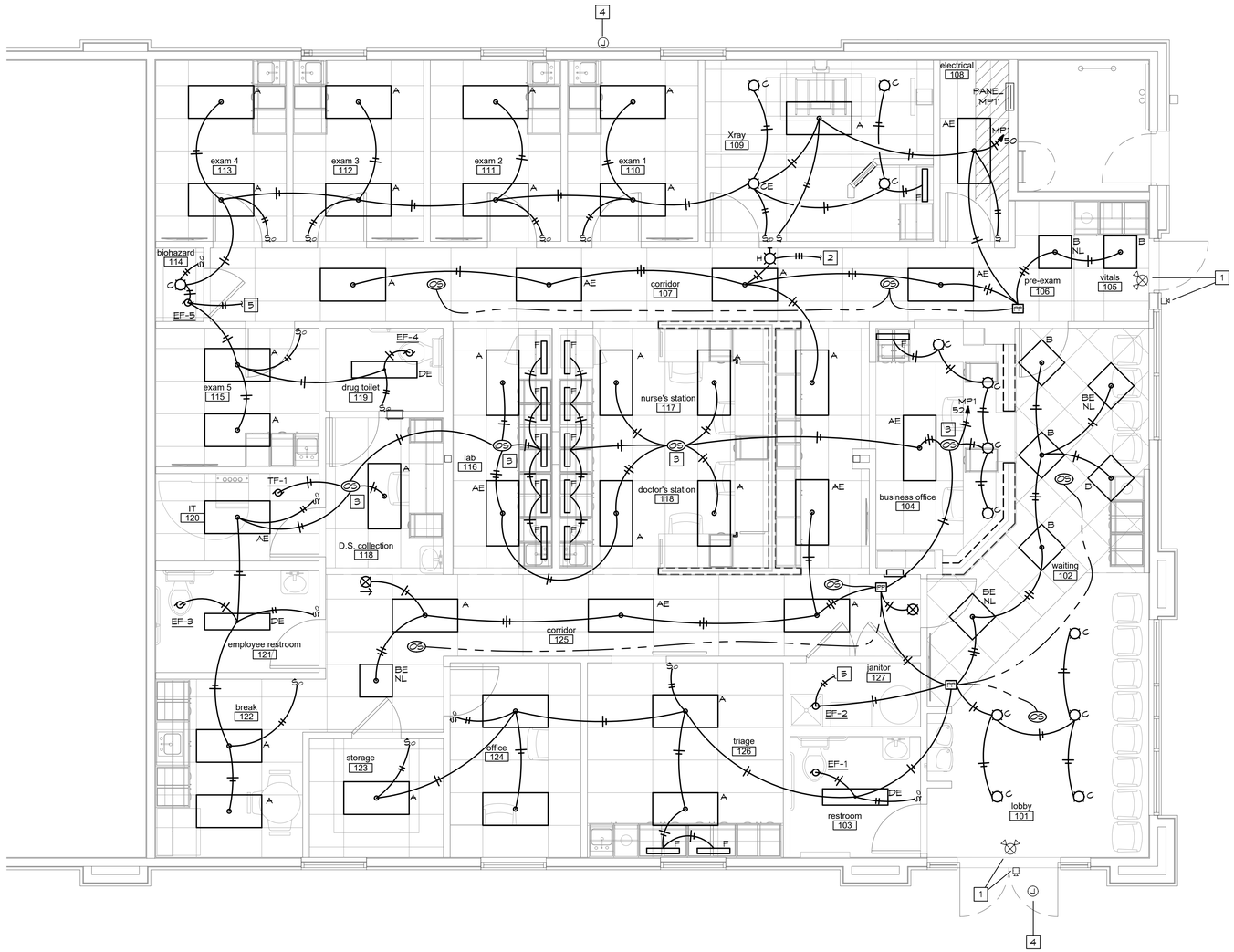
8/19/2022

STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
DARIN T. SEIDEL
NUMBER PE-2009030629

LIGHTING PLAN NOTES:

1. EXISTING LIGHT FIXTURES, ON EXISTING CIRCUIT, TO REMAIN.
2. SEE ENLARGED POWER PLAN FOR X RAY ROOM ON SHEET E2
3. PROVIDE DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR. WATTSTOPPER DT-355.
4. EXISTING JUNCTION BOX FOR SIGNAGE, ROUTED TO EXISTING LANDLORD ELECTRICAL PANEL, TO REMAIN.
5. ROUTE EXHAUST FAN CONTROL CIRCUITRY THROUGH TIME SWITCH. INTERMATIC T171 OR EQUAL.



NORTH

ELECTRICAL LIGHTING PLAN

SCALE: 1/4" = 1'-0"

BC PROJECT #: 22576
MISSOURI PE COA #2009003629

BC ENGINEERS INCORPORATED
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A tenant finish for

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STATE OF MISSOURI
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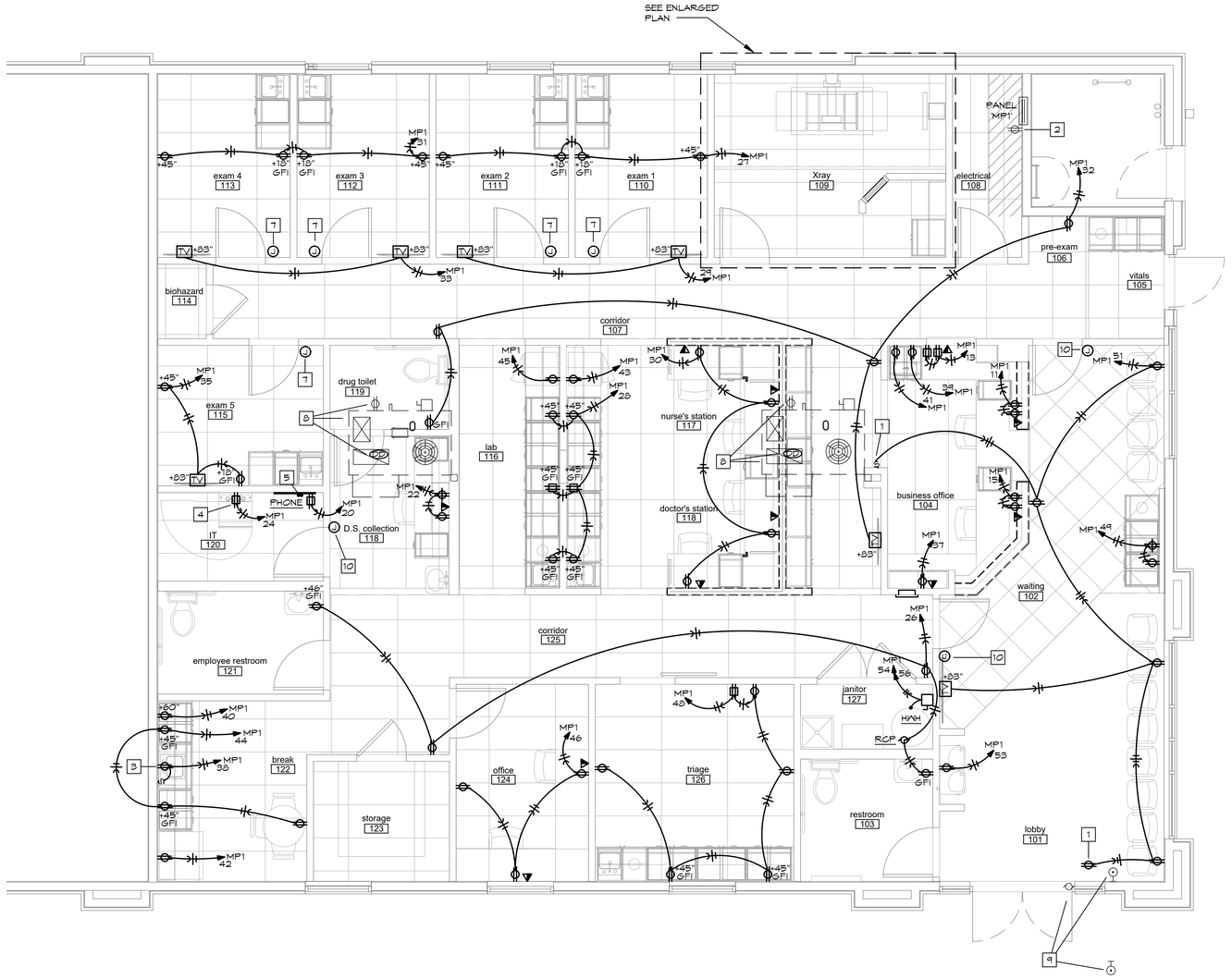
DARIN T. SEIDEL
NUMBER PE-2009030629
PROFESSIONAL ENGINEER

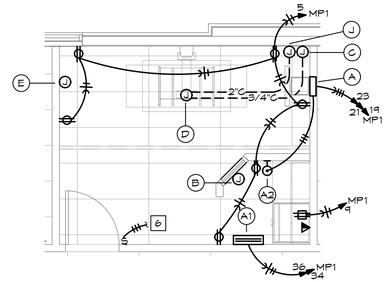
ELECTRICAL PLAN NOTES:

1. PROVIDE CEILING MOUNTED RECEPTACLE FOR OPEN SIGN. RECEPTACLE TO BE CONTROLLED BY SWITCH AT BUSINESS OFFICE.
2. EXISTING RECEPTACLE, ON EXISTING CIRCUIT, TO REMAIN.
3. PROVIDE RECEPTACLE UNDER SINK CONTROLLED BY ABOVE COUNTER SWITCH FOR DISPOSAL.
4. PROVIDE RECEPTACLE FOR DATA CABINET. VERIFY MOUNTING LOCATION PRIOR TO ROUGH-IN.
5. "AC" GRADE PLYWOOD PAINTED WITH FIRE RETARDANT PAINT FOR COMMUNICATION BACKBOARD. EXTEND (2) 2" FROM STUB-IN LOCATION TO ABOVE BACKBOARD
6. CONNECT TO X-RAY IN USE FIXTURE SEE SHEET E1.
7. J-BOX W/ CONDUIT & PULLSTRINGS TO ACCESSIBLE CEILING SPACE FOR SPEAKER CONTROL.
8. EXISTING ROOFTOP UNIT, EXISTING CONVENIENCE RECEPTACLE, AND EXISTING DUCT SMOKE DETECTOR, ON EXISTING CIRCUITS, TO REMAIN.
9. EXISTING DOOR MOTOR AND CONTROLS, ON EXISTING CIRCUIT, TO REMAIN.
10. WIRELESS KEYPAD FOR DOOR ENTRY. COORDINATE REQUIREMENTS WITH MANUFACTURER.



NORTH

ELECTRICAL POWER PLAN
SCALE: 1/4" = 1'-0"



X-RAY POWER PLAN
SCALE: 1/4" = 1'-0"

X-RAY LAYOUT PRELIMINARY ONLY. VERIFY ALL REQUIREMENTS WITH X-RAY SUPPLIER DRAWINGS.

X-RAY POWER PLAN NOTES:

- (A) SHUNT-TRIP MAIN CIRCUIT BREAKER IN FLUSH MOUNTED NEMA ENCLOSURE WITH NEUTRAL AND GROUND ACCESSORIES. VERIFY ALL REQUIREMENTS WITH EQUIPMENT SUPPLIER. PROVIDE AUXILIARY BOOST TRANSFORMER PER MANUFACTURER'S INSTRUCTIONS.
- (A1) 120/208V, 1Ø, 3W FLUSH-MOUNTED LOAD CENTER "X" - MIN. 6 SPACES. PROVIDE (1) 20A/1P AND (1) 15A/1P BREAKER.
- (A2) RED, MUSHROOM-STYLE EMERGENCY POWER OFF SWITCH. CONNECT TO SHUNT-TRIP CIRCUIT BREAKER AT LOCATION #1 AS REQUIRED FOR PROPER OPERATION.
- (B) 6"x6"x4" DEEP JUNCTION BOX. SPLIT REMOVABLE COVER SHALL CONTAIN A 2" GROMMETED OPENING. LOCATE COVER 12" ABOVE FINISHED FLOOR.
- (C) 8"x8"x4" DEEP JUNCTION BOX. SPLIT REMOVABLE COVER SHALL CONTAIN A 2" GROMMETED OPENING. LOCATE COVER 12" AFF. PROVIDE 4' SEALTITE WITH 90° CONNECTORS AT EACH END. PROVIDE 2#12, 1#12G IN 3/4"C TO 15A/1P BREAKER IN LOAD CENTER "X"
- (D) 8"x8"x4" DEEP JUNCTION BOX. SPLIT REMOVABLE COVER SHALL CONTAIN A 2" GROMMETED OPENING. LOCATE COVER FLUSH IN FINISHED FLOOR. PROVIDE 2#12, 1#12G IN 3/4"C TO 20A/1P BREAKER IN LOAD CENTER "X"
- (E) 6"x6"x4" DEEP JUNCTION BOX. SPLIT REMOVABLE COVER SHALL CONTAIN A 2" GROMMETED OPENING. LOCATE COVER 43" AFF
- (J) 8"x8"x4" DEEP JUNCTION BOX. SPLIT REMOVABLE COVER SHALL CONTAIN A 2" GROMMETED OPENING. LOCATE COVER 12" AFF. PROVIDE (1) 3/4"C AND (1) 2"C TO LOCATION "D", (1) 2"C TO LOCATION "B" AND (1) 2"C TO LOCATION "E"

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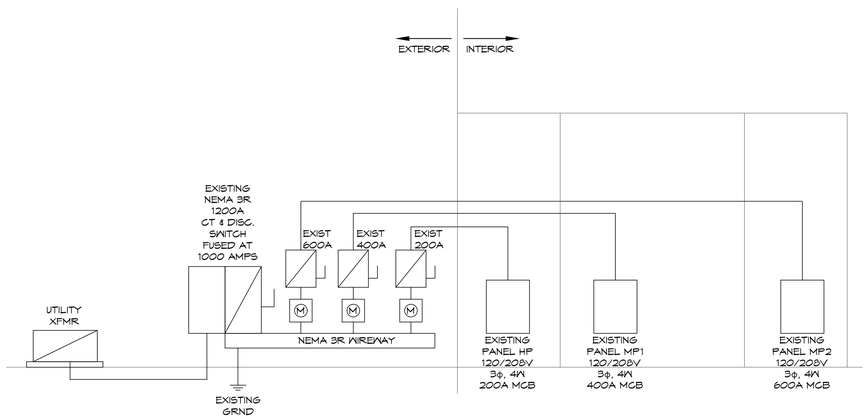
LIGHT FIXTURE SCHEDULE

MARK NO.	MANUFACTURER & CATALOG NUMBER	VOLTS WATTS	LIGHT SOURCE	DESCRIPTION	EQUIVALENT MANUFACTURERS
A	COLUMBIA LCAT24-35MLG-EDU	120V 39W	LED 5000LM 3500K	RECESSED 2'X4' LED CONTEMPORARY ARCHITECTURAL TROFFER	WILLIAMS LITHONIA OR EQUAL
AE	COLUMBIA LCAT24-35MLG-EDU-EL L14	120V 39W	LED 5000LM 3500K	SAME AS 'A' BUT WITH 90 MINUTE EMERGENCY BATTERY PACK.	WILLIAMS LITHONIA OR EQUAL
B	COLUMBIA LCAT22-35MLG-EDU	120V 39W	LED 5000LM 3500K	RECESSED 2'X2' LED CONTEMPORARY ARCHITECTURAL TROFFER	WILLIAMS LITHONIA OR EQUAL
BE	COLUMBIA LCAT22-35MLG-EDU-EL L14	120V 39W	LED 5000LM 3500K	SAME AS 'B' BUT WITH 90 MINUTE EMERGENCY BATTERY PACK.	WILLIAMS LITHONIA OR EQUAL
C	PRESCOLITE LF6SL/6LF5L11L35K	120V 13.9W	LED 1100LM 3500K	6" LED OPEN DOWNLIGHT	WILLIAMS LITHONIA OR EQUAL
CE	PRESCOLITE LF6SLEM/6LF5L11L35K EM	120V 13.9W	LED 1100LM 3500K	SAME AS TYPE 'C' BUT WITH 90 MINUTE EMERGENCY BATTERY PACK.	WILLIAMS LITHONIA OR EQUAL
D	COLUMBIA LNC4-35ML-EU PROVIDE CHAIN KIT IN ROOMS WITH OPEN CEILING	120V 43W	LED 5000LM 3500K	48" WIDE SPECIFICATION GRADE WRAPAROUND/LED	WILLIAMS LITHONIA OR EQUAL
DE	COLUMBIA LNC4-35ML-EU-ELL14 PROVIDE CHAIN KIT IN ROOMS WITH OPEN CEILING	120V 43W	LED 5000LM 3500K	SAME AS 'D' BUT WITH 90 MINUTE EMERGENCY BATTERY PACK	WILLIAMS LITHONIA OR EQUAL
F	STRATALUME CONNECTS MAUGLED-I-MW-11L35K-2TT	120V 11W	LED	24" UNDERCABINET LIGHTING	WILLIAMS LITHONIA OR EQUAL
G	COLUMBIA MPS2-35ML-FW	120V 29W	LED 3500LM 3500K	2' LINEAR STRIP	
H	COLE LIGHTING S252-S-N-STF-L-XRAY IN USE	120V 1.5W	LED	ILLUMINATED SIGN, RED LETTERING ON WHITE BACKGROUND "X-RAY IN USE"	OR EQUAL
⊗	DUAL-LITE EVE-U-R-W-E	120V 1	INCL	EXIT LIGHT WITH LED LAMPS, RED LETTERS ON WHITE BACKGROUND, UNIVERSAL MOUNT, BATTERY BACKUP	SURE-LITES LITHONIA OR EQUAL
⊗	DUAL-LITE EVG-U-R-W	120V 3	INCL	COMBINATION EMERGENCY/EXIT LIGHT WITH LED LAMPS, RED LETTERS ON WHITE BACKGROUND, TWIN LED EMERGENCY LIGHT HEADS, UNIVERSAL MOUNT, BATTERY BACKUP	SURE-LITES LITHONIA OR EQUAL

NOTES:

EXIST PANEL: MP1		VOLTS:	120/208V		PH: 3Ø		WIRE: 4W		LOCATION:		ELECTRICAL ROOM			MOUNTING: SURFACE	
BUS: 400A		MAIN:	400A MCB											FEEDER: SEE RISER DIAGRAM	
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	EXIT LTS (EX)	20	1	12	100			180			12	1	20	PANEL RECEPTACLE (EX)	2
3	DUCT DETECTORS (EX)	20	1	12		500			360		12	1	20	RTU CONVENIENCE RECEPTS (EX)	4
5	X-RAY RECEPT	20	1	12			1,080			500	12	1	20	ADA DOOR CONTROLS (EX)	6
7	SPARE	20	1					3,840							8
9	X-RAY CONTROLS	20	1	12		1,500			3,840		8	3	45	RTU-4	10
11	BUSSINESS OFFICE RECEPT	20	1	12			360			3,840				(EX)	12
13	BUSSINESS OFFICE RECEPT	20	1	12	720			3,840							14
15	BUSSINESS OFFICE RECEPT	20	1	12		360			3,840		8	3	45	RTU-5	16
17	SPARE	20	1							3,840				(EX)	18
19	X-RAY	100	3	3	10,000			360			12	1	20	TELE BOARD	20
21						10,000			360		12	1	20	D.S. COLLECTION RECEPTS	22
23							10,000			360	12	1	20	DATA RACK	24
25	SPARE	20	1					720			12	1	20	RECEPT. HALL & RESTROOMS	26
27	EXAM 1 & EXAM 2 RECEPT	20	1	12		720			1,440		12	1	20	LAB RECEPT.	28
29	EXAM 1 & EXAM 2 TV	20	1	12			360			720	12	1	20	NURSE/DOC STN RECEPT.	30
31	EXAM 3 & EXAM 4 RECEPT	20	1	12	720			900			12	1	20	RECEPT. HALL & RESTROOMS	32
33	EXAM 3 & EXAM 4 TV	20	1	12		360			1,500		8	2	40	LOAD CENTER "X"	34
35	EXAM 5	20	1	12			540			1,500					36
37	BUSINESS OFFICE RECEPT	20	1	12	180			600			12	1	20	BREAKROOM DISPOSAL (GF)	38
39	BUSINESS OFFICE RECEPT	20	1	12		180			1,000		12	1	20	MICROWAVE (GF)	40
41	BUSINESS OFFICE RECEPT	20	1	12			180			900	12	1	20	REFRIGERATOR (GF)	42
43	REFRIGERATOR	20	1	12	900			540			12	1	20	BREAKROOM RECEPT	44
45	REFRIGERATOR	20	1	12		900			540		12	1	20	DOC OFFICE RECEPT	46
47	SPARE	20	1							1,260	12	1	20	TRIAGE	48
49	COFFEE STATION	20	1	12	1,000			940			12	1	20	LIGHTING	50
51	WAIT ROOM RECEPT	20	1	12		1,080			1,626		12	1	20	LIGHTING	52
53	DRINKING FOUNTAIN (GF)	20	1	12			500			4,500	6	2	60	WATER HEATER	54
55	SPARE	20	1					4,500							56
57	SPARE	20	1									1	20	SPARE	58
59	SPARE	20	1									1	20	SPARE	60
NOTES:					13,620	15,600	13,020	16,450	14,506	17,420					
(GF)-GFCI BRKR, (EX)-EXISTING BRKR					30,070		30,106		30,440					TOTAL CONNECTED LOAD:	90,616 VA
														NEC DEMAND LOAD:	87,953 VA
														DEMAND AMPS @ 208 VOLT / 3Ø:	244.13 A



ELECTRICAL RISER DIAGRAM

SCALE: NONE

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8/19/2022

STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER DARIN T. SEIDEL NUMBER PE-2009030629

A tenant finish for
CareNow Urgent Care
3509 SW Market Street
Lee's Summit, MO 64082

date
08.19.2022
drawn by
PH/SK
checked by
DS/EK
revisions
△

BC PROJECT #: 22576
MISSOURI PE COA #2009003629

BC ENGINEERS INCORPORATED
5720 Reeder Shawnee, Ks. 66203 (913)262-1772

sheet number
E3
drawing type
permit
project number
22102