PLUMBING LEGEND

TYPE	DESCRIPTION
——-·——	DOMESTIC COLD WATER PIPING
——·——·——	DOMESTIC HOT WATER PIPING
————	SANITARY WASTE PIPING
— — —	SANITARY VENT PIPING
⌶	PIPE TEE UP (DOWN)
○	PIPE TURN UP (UP)
⊂	PIPE TURN DOWN (DN)
⋈	GATE VALVE
◓	BEGINNING OR END OF NEW WORK, CONNECT TO EXISTING

PLUMBING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER	MODEL #	FIXTURE DESCRIPTION	FIXTURE MOUNTING	ACCESSORIES	SUPPLY	WASTE	VENT	ELECTRICAL	REMARKS
P1	AMERICAN STANDARD	CADET ADA/ 215AA.104	ELONGATED BOWL; FLUSH TANK TOILET	FLOOR MOUNTED	SEAT: AMERICAN STANDARD / 5901.100	3/4" C.W.	3"	2"		
P2	AMERICAN STANDARD	LUCERNE/ 0355.012	TOILET LAVATORY	WALL MOUNTED	AMERICAN STANDARD METERING FAUCET 1340.227	1/2" C.W. /H.W.	2"	1-1/2"		
P3	OASIS	P8ACSL	2 STATION WATER COOLER (REFRIGERATED)	WALL MOUNTED		1/2" C.W.	2"	1-1/2"	120V 286 W	
P4	ELKAY	DLR-2522-10	KITCHEN SINK	COUNTER MOUNTED	DELTA MODEL 4175.501 FAUCET, W/SPRAYER	1/2" C.W. /H.W.	2"	1-1/2"		
P5	GUY GRAY		WASHING MACHINE/DRYER COMBO			1/2" C.W. /H.W.	3"	2"		
P6	WATER TITE	AB9700	OUTLET BOX, ICE MAKER	WALL MOUNTED		1/2" C.W.				
P7	A.O. SMITH	DSE-30	30 GALLON ELECTRIC WATER HEATER		3/4" T & P RELIEF VALVE	3/4" C.W./H.W.			208-230V 6000 W	

PLUMBING NOTES:

PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA PLUMBING CODE 2018 EDITION AND LOCAL CODES.

ALL WORK SHALL BE COORDINATED AND PERFORMED WITH PRIOR APPROVAL FROM THE GENERAL CONTRACTOR AND OWNER TO SUIT THE OWNER'S OPERATING CONDITIONS.

PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE GENERAL CONTRACTOR OF ANY DEVIANCIES FROM THE CONTRACT DRAWINGS PRIOR TO STARTING ANY WORK.

THE PLUMBING CONTRACTOR SHALL COORDINATE WITH OTHER TRADES INVOLVED IN THIS PROJECT PRIOR TO INSTALLATION OF HIS EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND ALLOW FOR OPTIMUM WORKING SPACE AND MAINTENANCE. THINK OF OTHER CONTRACTORS AND THEIR REQUIREMENTS IN VERTICAL CHASES AND WALL MOUNT SPACE. ALL CONTRACTORS TO FOLLOW THIS ORDER OF PRIORITY:
1. STORM AND SANITARY SEWER LINES
2. DUCTWORK AND HVAC SYSTEMS
3. HOT AND COLD WATER LINES
4. RIGID CONDUIT
5. CABLE

THE PLUMBING CONTRACTOR TO ORGANIZE HIS PIPING IN ATTIC SPACES, CRAWL SPACES, AND ABOVE CEILINGS. MAKE RUNS PARALLEL, PERPENDICULAR, AND GROUPED TOGETHER WHERE POSSIBLE. LOCATE MAJOR GROUPINGS OVER HALLWAYS AND AREAS OF PUBLIC ACCESS IF POSSIBLE. FREE RUNS OF PIPING IS NOT ACCEPTABLE.

THE PLUMBING CONTRACTOR SHALL LAY OUT AND INSTALL HIS WORK IN ADVANCE OF POURING CONCRETE FLOORS OR WALLS. HE SHALL FURNISH ALL SLEEVES TO THE GENERAL CONTRACTOR FOR OPENINGS THROUGH POURED MASONRY FLOORS, OR WALLS, ABOVE GRADE REQUIRED FOR PASSAGE OF ALL PIPES TO SUPPORT HIS EQUIPMENT.

HORIZONTAL DRAINAGE AND WASTE PIPE SHALL HAVE A MINIMUM SLOPE OR FALL OF 1/8 INCH PER FOOT. ALL CHANGE OF HORIZONTAL DIRECTIONS IN SOIL WASTE PIPE SHALL BE MADE WITH LONG RADIUS FITTINGS WITH "Y" BRANCHES AND 1/8 OR 1/16 BENDS.

COLD AND HOT WATER PIPING ABOVE GRADE SHALL BE TYPE "L" HARD DRAWN COPPER TUBING CONFORMING TO ASTM B-88 WITH SWEAT JOINTS AND WROUGHT OR CAST VALVES AND FITTINGS (UNIONS, STRAINERS, ETC.). JOINT SHALL BE MADE WITH LEAD FREE SOLDER. PEX PIPING MAY BE USED WITH OWNERS APPROVAL.

ALL HOT WATER PIPING SHALL BE INSULATED WITH 1 INCH THICK SECTIONAL INSULATION OR FIBROUS GLASS MATERIALS WITH FACTORY APPLIED COVER. COVER SHALL BE EMBOSSED VAPOR BARRIER, LAMINATED WITH PRESSURE SEALING CAP ADHESIVE.

ALL COLD WATER PIPING SHALL BE INSULATED WITH 1/2 INCH THICK SECTIONAL INSULATION OR FIBROUS GLASS MATERIALS WITH FACTORY APPLIED COVER. COVER SHALL BE EMBOSSED VAPOR BARRIER, LAMINATED WITH PRESSURE SEALING CAP ADHESIVE.

SANITARY HORIZONTAL WASTE, VENT PIPING, AND FITTINGS ABOVE GRADE SHALL BE SCHEDULE 40 PVC-DWV PIPE-CELLULAR CORE FROM CHARLOTTE PIPE AND FOUNDRY COMPANY OR APPROVED EQUAL, AND MUST MEET OR EXCEED THE REQUIREMENTS OF ASTM F-891, NSF STANDARD NO. 14, AND IAPMO UPC.

ALL WASTE STACK PIPING SHALL BE CAST IRON AND INSULATED FOR SOUND IN WALLS.

ALL WASTE AND STORM PIPING ABOVE CEILING, VERTICAL CHASES, WALLS SHALL BE INSULATED WITH 1/2 INCH THICK SECTIONAL INSULATION OR FIBROUS GLASS MATERIALS WITH FACTORY APPLIED COVER. COVER SHALL BE EMBOSSED VAPOR BARRIER, LAMINATED WITH PRESSURE SEALING CAP ADHESIVE. NO INSULATION REQUIRED IN CRAWL SPACE OR BELOW FLOOR SLAB OF ANY WASTE AND STORM PIPING.

IN LIEU OF FIBERGLASS INSULATION, THE PLUMBING CONTRACTOR IS ALLOWED TO USE CLOSED CELL INSULATION, 1/2 INCH THICK ARMSTRONG/ARMAFLEX II ON ALL COLD WATER PIPES. RIGID URETHANE FOAM INSULATION, 1 INCH THICK ARMSTRONG/ARMALOK II ON ALL HOT WATER PIPING.

ALL PLUMBING EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

ALL FIXTURES, DRAINS, TRAPS, ETC. SHALL BE SET PLUMB AND LEVEL.

ALL HANDICAPPED FIXTURES AND TRIM SHALL BE INSTALLED IN ACCORDANCE WITH THE NORTH CAROLINA PLUMBING CODE 2018 EDITION.

CHROME PLATED ESCUTCHEONS SHALL BE PROVIDED AT EACH WALL PENETRATION.

ESCUTCHEONS SHALL BE CHROME PLATED, SPRING TYPE, ON ALL PIPES PASSING THROUGH WALLS AND CEILINGS IN FINISHED AREAS. FLOOR ESCUTCHEONS SHALL BE CAST BRASS, CHROME PLATED, WITH SET SCREW.

ESCUTCHEONS SHALL BE OF SUFFICIENT SIZE TO COVER OUTSIDE DIAMETER OF THE PIPE OR THE INSULATION OF THE PIPE.

FLASHING FOR VENTS THROUGH THE ROOF SHALL BE TWO-PIECE TYPE, 16 OUNCE COPPER COUNTER FLASHING AND BASE FLASHING, OR A TWO-PIECE TYPE, 4 POUND LEAD COUNTER FLASHING AND BASE FLASHING. THE BASE FLASHING SHALL BE INSTALLED BY THE GENERAL CONTRACTOR WITH THE ROOF SYSTEM.

VENT FLASHING SHALL EXTEND DOWN AT LEAST 4 INCHES FROM THE TOP OF THE PIPE. FLASHING SHALL EXTEND AT LEAST 12 INCHES IN ALL DIRECTIONS FROM THE PIPE AND SHALL BE PARALLEL TO THE ROOF LINE.

ALL EQUIPMENT AND INSTALLED MATERIALS SHALL BE THOROUGHLY CLEAN AND FREE OF ALL DIRT, OIL, GRIT, GREASE, AND ETC.

ALL PLUMBING SYSTEMS AND EQUIPMENT SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE BUILDING FROM THE OWNER.

QUIKDRAFT
DRAFTING & DESIGN
(910) 574-4901

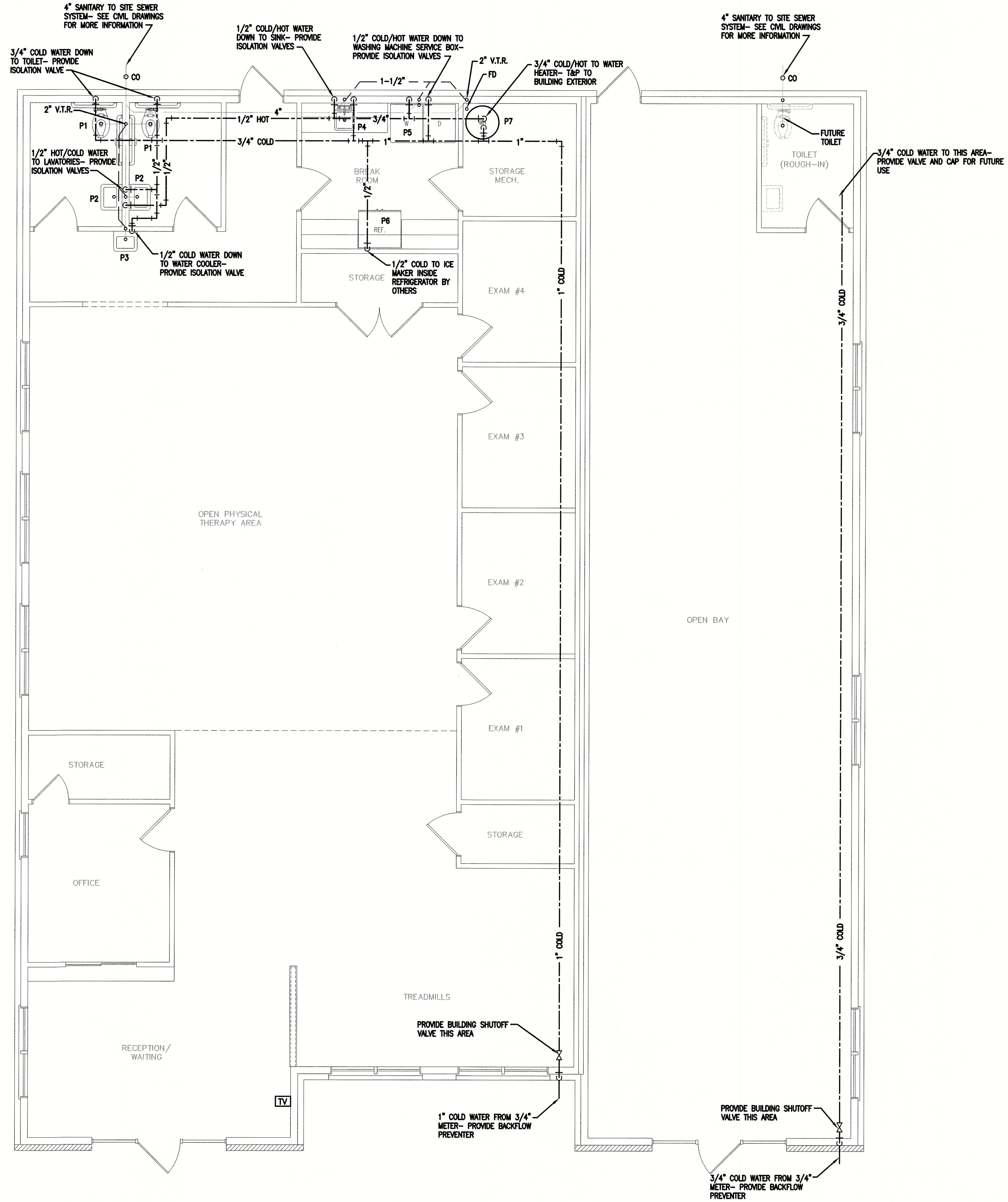
NORTH CAROLINA PROFESSIONAL SEAL 14907 ENGINEER RONALD S. HUFF
A-20-21

FINAL DRAWING [ ] FOR REVIEW PURPOSES ONLY
PRELIMINARY [ ] FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING [X] FOR CONSTRUCTION

NORTHGATE
CAMERON NORTH CAROLINA

PROJECT NO: 21003
DRAWN BY: J.PARRISH
DATE: 04-15-2021

SHEET NO:
P1



1 / P2 PLUMBING FLOOR PLAN
SCALE: 1/4" = 1'-0"

QUIKDRAFT DRAFTING & DESIGN
(910) 574-4901

NORTH CAROLINA PROFESSIONAL SEAL ENGINEER RONALD S. HUF
4-20-21

FINAL DRAWING [ ] FOR REVIEW PURPOSES ONLY
PRELIMINARY [ ] FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING [✓] FOR CONSTRUCTION

NORTHGATE
CAMERON NORTH CAROLINA

PROJECT NO: 21003
DRAWN BY: J.PARRISH
DATE: 04-15-2021

SHEET NO:
P2

GENERAL NOTES:

ALL WORK SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA MECHANICAL CODE 2018 EDITION, ASHRAE, SMACNA, AND NFPA.

STRUCTURAL MEMBERS OF THE BUILDING SHALL NOT BE CUT IN ANY MANNER FOR THE INSTALLATION OF ANY EQUIPMENT UNLESS PRIOR APPROVAL IS OBTAINED.

THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATIONS AND ROUTING OF ALL DUCTWORK, PIPING, AND EQUIPMENT WITH OTHER TRADES TO AVOID CONFLICT.

THE MECHANICAL CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE MECHANICAL PLANS, SCHEDULES, AND DETAILS PRIOR TO INSTALLATION OF THE MECHANICAL SYSTEMS AND REVIEW ANY CONFLICTS WITH THE GENERAL CONTRACTOR.

THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES INVOLVED IN THIS PROJECT PRIOR TO INSTALLATION OF HIS EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND ALLOW FOR OPTIMUM WORKING SPACE AND MAINTENANCE. THINK OF OTHER CONTRACTORS AND THEIR REQUIREMENTS IN VERTICAL CHASES AND WALL MOUNT SPACE.

ALL CONTRACTORS TO FOLLOW THIS ORDER OF PRIORITY:

1. STORM AND SANITARY SEWER LINES
2. DUCTWORK AND HVAC SYSTEMS
3. HOT AND COLD WATER LINES
4. RIGID CONDUIT
5. CABLE

THE MECHANICAL CONTRACTOR SHALL COORDINATE SIZE AND LOCATION OF ALL PENETRATIONS (PERTAINING TO HIS WORK) THROUGH THE ROOF, WALLS, FLOORS WITH THE GENERAL CONTRACTOR. ANY WATERPROOFING AROUND THE OPENINGS TO BE COMPLETED BY THE GENERAL CONTRACTOR.

THE MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL HIS OWN SUPPORT DEVICES. ALL LOCATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS PRIOR TO INSTALLATION. ALL PLATFORMS AND WALKWAYS IN ATTIC SPACES ARE PROVIDED BY THE GENERAL CONTRACTOR. THE MECHANICAL CONTRACTOR TO COORDINATE THE LOCATION AND DIMENSIONS OF ALL PLATFORMS IN THE ATTIC WITH THE GENERAL CONTRACTOR.

ALL EQUIPMENT HAVING ROTATING OR MOVING PARTS SHALL HAVE VIBRATION ISOLATORS TO ELIMINATE TRANSMISSION OF OBJECTIONABLE NOISE TO OTHER MATERIAL OR EQUIPMENT.

WHERE OUTSIDE AIR INTAKE DUCTWORK CONNECTS TO OUTSIDE AIR LOUVER, THE INSIDE FACE OF THE DUCTWORK SHALL BE PRIMED AND PAINTED WITH (2) TWO COATS OF FLAT BLACK TO PREVENT DUCTWORK FROM BEING VISIBLE

THE MECHANICAL CONTRACTOR SHALL PROVIDE NAMEPLATES FOR IDENTIFICATION OF ALL EQUIPMENT. THE NAMEPLATES SHALL BE LAMINATED PHENOLIC PLASTIC, BLACK FRONT AND BACK WITH WHITE CORE, WHITE ENGRAVED LETTERS (1/4 INCH MINIMUM) ETCHED INTO THE WHITE CORE. NAME TAGS TO BE MOUNTED WITH SELF-TAPPING SHEET METAL SCREWS.

ALL EQUIPMENT MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED TO BE FREE OF DEFECTS FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE WORK OR IN ACCORDANCE WITH THE PARTICULAR MANUFACTURER'S STANDARD GUARANTEE IF LONGER. ANY FAULTY MATERIAL OR WORKMANSHIP OR FAILURE OF ANY PART OF THE SYSTEM DURING NORMAL OPERATIONS UNDER THIS GUARANTEE SHALL BE CORRECTED WITHOUT COST TO THE OWNER.

THE MECHANICAL CONTRACTOR SHALL CLEAN ALL OF HIS EQUIPMENT PRIOR TO FINAL CLOSE OUT OF THIS PROJECT TO BE FREE OF ANY DIRT OR DEBRIS IN DRAIN PANS, CONDENSATE DRAINS, CONDENSING UNIT COILS, AND ETC.

ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR MAINTENANCE AND SERVICE.

PROVIDE EQUIPMENT SUPPORT PAD FOR ALL BASE MOUNTED EQUIPMENT. PAD SHALL BE 4" HIGH OR PREFABRICATED CONCRETE PAD FOR ALL CONDENSING UNITS, AND PACKAGE UNITS, 4" MINIMUM FROM EQUIPMENT EDGE TO END OF PAD ON ALL SIDES.

THE MECHANICAL CONTRACTOR SHALL CONFIRM ALL BREAKER AND DISCONNECT SIZES OF HIS EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING ANY EQUIPMENT FOR THIS PROJECT.

CONDENSATE DRAINS SHALL BE A MINIMUM OF 3/4" ø PVC PIPE. A P-TRAP SHALL BE INSTALLED IN PIPE AT THE UNIT. ALL CONDENSATE LINES SHALL BE ROUTED AS INDICATED ON PLANS.

INSTALL FLEXIBLE DUCT CONNECTION AT SUPPLY AND RETURN DUCTWORK CONNECTIONS TO ALL AIR HANDLING UNITS, FAN BOXES, ETC.

DESIGN CRITERIA NOTES:

ALL SUPPLY, RETURN, EXHAUST AND OUTDOOR AIR DUCTWORK (WITH THE EXCEPTION OF COMMERCIAL KITCHEN DUCTWORK) SHALL BE SIZED AT 0.08" PER 100'-0" OF DUCT FOR EXTERNAL STATIC PRESSURE. ALL DUCTWORK SHALL BE 1"WG PRESSURE CLASS.

ECONOMIZERS ARE REQUIRED FOR ANY HVAC SYSTEM WITH A COOLING CAPACITY OF 65,000 BTU/HR OR GREATER (NCECC C403.1)

CORRIDORS SHALL NOT SERVE AS SUPPLY, RETURN, EXHAUST, RELIEF OR VENTILATION AIR DUCTS; CORRIDORS MAY BE USED FOR MAKEUP AIR PROVIDED TO TOILET AREAS FOR EXHAUST MAKEUP PROVIDING THE CORRIDOR IS PROVIDED WITH AN OUTSIDE AIR RATE GREATER THAN THE MAKEUP REQUIRED FOR EXHAUST. WHERE LOCATED IN TENANT SPACES OF LESS THAN 1000 SQ/FT THE USE OF CORRIDORS FOR RETURN AIR IS PERMITTED. (NCMC 601.2.1 & 601.2.3)

HVAC SYSTEM SHALL HAVE PROGRAMMABLE THERMOSTAT CAPABLE OF OFF HOUR CONTROLS (NIGHT SETBACK) TO MAINTAIN NO MORE THAN 85°F OR NO LESS THAN 55°F (NCECC C403.2.4.2.1, C403.2.4.2.3 & C403.2.4.2.3)

THE MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL A DUCT MOUNTED SMOKE DETECTOR IN THE RETURN AIR DUCT AT EACH UNIT IN ACCORDANCE WITH NORTH CAROLINA BUILDING CODE EDITION 2012. THE MECHANICAL CONTRACTOR TO WIRE FROM THE DETECTOR TO EACH UNIT.

DUCTWORK NOTES:

ALL DUCTWORK, PIPING, EQUIPMENT, ETC. SHALL BE SUPPORTED FROM THE BUILDING SUPPORT STRUCTURE AND NOT THE ROOF.

ALL DUCT LAYOUT AND LOCATIONS ARE SHOWN DIAGRAMMATIC. THE MECHANICAL CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE BUILDING CONDITIONS AND COORDINATE THE DUCT LAYOUT WITH ALL CONTRACTORS PRIOR TO INSTALLATION.

ALL DUCTWORK SHALL BE CONSTRUCTED OF SHEET METAL IN ACCORDANCE WITH ASHRAE & SMACNA. DUCT SIZES SHOWN ARE NET FREE AREA REQUIRED.

VOLUME OR SPLITTER DAMPERS SHALL BE INSTALLED WHERE NECESSARY TO GUIDE AND CONTROL THE AIR FLOW. TURNING VANES ARE REQUIRED IN ALL ELBOWS AND AIR DEFLECTION DEVICES WILL BE INSTALLED WHERE REQUIRED FOR A BALANCED SYSTEM. PROVIDE SHEET METAL SLEEVES AND COLLARS WHERE DUCTS PASS THRU WALLS.

ALL DUCTS SHALL BE AIR TIGHT, RIGID AND FREE FROM VIBRATION AND NOISE. ALL LAP JOINTS SHALL BE IN THE DIRECTION OF FLOW AND SEALED WITH DUCT SEALER. ALL TAPES AND MASTICS USED SHALL LISTED WITH UL181A AND SHALL BE MARKED. (NCMC (603.9) & NCECC (C403.2.9)

FLEXIBLE DUCT RUNS SHALL NOT EXCEED 12'-0" IN LENGTH. FLEXIBLE DUCT SHALL BE SUPPORTED EVERY 5'-0". MAXIMUM SAG IS A 1/2 INCH PER FOOT OF SPACING BETWEEN SUPPORTS. SADDLE MATERIAL IN CONTACT WITH THE FLEXIBLE DUCT SHALL BE WIDE ENOUGH SO THAT IT DOES NOT REDUCE THE INTERNAL DIAMETER OF THE DUCT. THE SADDLE MUST COVER ONE-HALF THE CIRCUMFERENCE OF THE OUTSIDE DIAMETER OF THE FLEXIBLE DUCT AND FIT NEATLY AROUND THE LOWER HALF OF THE DUCT'S OUTER CIRCUMFERENCE.

PROVIDE PERMANENT MANUAL DAMPERS IN ALL SUPPLY AND RETURN AIR DUCTS AT THE MAIN TRUNK LINE FOR SYSTEM BALANCING. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR BALANCING THE AIR DISTRIBUTION SYSTEM AFTER THE SYSTEM HAS BEEN INSTALLED AND EQUIPMENT IS OPERATING. MANUAL DAMPERS ARE REQUIRED TO BE INSTALLED IN THE RETURN AIR DUCT IF THE DUCT IS RETURNING AIR FROM INDIVIDUAL ROOMS. MANUAL DAMPERS ARE NOT REQUIRED IF THE DUCT IS RETURNING AIR FROM CENTRALLY LOCATED FILTER/RETURN GRILLES.

THE OUTSIDE AIR INTAKE DUCTWORK SHALL BE HARD ROUND DUCT, FLEXIBLE DUCT WILL NOT BE ACCEPTED. SEE PLAN FOR DUCT SIZE.

ALL OUTSIDE AIR INTAKE DUCTS SHALL HAVE A FILTER BOX TO HOUSE A MINIMUM OF 16 IN. X 20 IN. X 2 IN. THICK FILTER, U.N.O. AT EACH AIR HANDLING UNIT EITHER IN THE ATTIC OR CRAWL SPACE. THE FILTER BOX SHALL HAVE A HINGED DOOR THAT IS GASKETED TO MAINTAIN A AIRTIGHT SEAL WITH A THUMBSCREW TO ACCESS THE FILTER.

THE OUTSIDE AIR FILTER SHALL BE THE HI-E 40 AS MANUFACTURED BY PUROLATOR PRODUCTS AIR FILTRATION COMPANY, OR APPROVED EQUAL. AIR FILTER SHALL BE (2) TWO INCHES DEEP, MEDIUM EFFICIENCY, PLEATED MEDIA, DISPOSABLE PANEL TYPE. THE FILTER MEDIA SHALL BE SELF-EXTINGUISHING NON-WOVEN COTTON AND SYNTHETIC FIBERS. THE FILTER MEDIA SHALL BE BONDED TO A 28-GAUGE CORROSION RESISTANT, EXPANDED METAL SUPPORT GRID WITH A 95% OPEN FACE AREA.

DUCT/PIPING INSULATION NOTES:

ALL SUPPLY AND RETURN AIR DUCTS SHALL BE INSULATED WITH MIN. R-6.0 INSULATION UNLESS NOTED OTHERWISE IN THE DRAWING. NCECC (C403.2.9) ACCEPTABLE MANUFACTURERS ARE JOHNSON MANVILLE.

SUCTION PIPING TO AND FROM AIR HANDLING UNITS SHALL BE INSULATED WITH 1-1/2" THICK PIPE INSULATION IN ACCORDANCE WITH NCECC TABLE (C403.2.10).

ALL FLEXIBLE DUCT REQUIRING INSULATION SHALL HAVE A VALUE OF AT LEAST R-5.0. THE FLEXIBLE DUCT SHALL BE ATCO RUBBER PRODUCTS, INC. UPC NO. 036 OR APPROVED EQUAL WITH A REINFORCED METALLIZED POLYESTER JACKET. THE INNER CORE IS AIRTIGHT AND IS DESIGNED FOR LOW TO MEDIUM OPERATING PRESSURES IN HVAC SYSTEMS. AIR DUCT CONNECTIONS AND JOINTS SHALL BE MADE PER INSTALLATION INSTRUCTIONS OUTLINED BY ATCO.

OUTSIDE AIR INTAKE DUCTWORK AND EXHAUST DUCTWORK IS TO BE UNINSULATED.

HEAT PUMP SCHEDULE

EQUIPMENT INFO			COOLING CAPACITIES						HEATING CAPACITIES		COMPRESSOR/CONDENSER SECTION					ELECTRICAL INFORMATION					MANUFACTURER/MODEL
TAG	TYPE	LOCATION	NOM. TONS	TOTAL COOLING	MIN. IEER	MIN. EER	MIN. SEER	MIN. COP	UNIT CAPACITY	MIN. HSPF	NO. OF COMPR.	COMPRESSOR AMPS RLA	CONDENSER FAN AMPS FLA	NO. OF FANS	FAN HP	UNIT VOLTS	UNIT PHASE	MCA	MOCP	WIRE SIZE (CU. 75 C)	
HP-1	SPLIT-SYSTEM HEATPUMP	GROUND	5.0	60,000	N/A	12.00	14.00	3.5	55,000	8.2	1	15.9	1.10	1	1/5	208	3	21.0	35	#8	TRANE / 4TWA4060A3000A
HP-2	SPLIT-SYSTEM HEATPUMP	GROUND	3.5	42,000	N/A	12.00	14.00	3.5	38,000	8.2	1	13.5	1.10	1	1/5	208	3	18.0	30	#10	TRANE / 4TWA4042A3000A

AIR HANDLING UNIT SCHEDULE

EQUIPMENT INFO				INDOOR FAN SECTION							ELECTRICAL INFORMATION						MANUFACTURER/MODEL
TAG	TYPE	LOCATION	NOM. TONS	SUPPLY CFM	OA CFM	ESP INCHES	FAN TYPE	FAN HP	FAN RPM	FAN FLA	HEAT STRIPS	UNIT VOLTS	UNIT PHASE	MOCP	MCA	WIRE SIZE (DU. 75 C)	
AHU-1	SPLIT-SYSTEM	ABOVE CEILING	5.0	2000	300	0.50	DIRECT	3/4	1050	6.0	7.20	208	1	60	51	#6	TRANE / TEM4A0C60S51SB
AHU-2	SPLIT-SYSTEM	ABOVE CEILING	3.5	1400	140	0.50	DIRECT	1/2	1050	4.1	7.20	208	1	50	48	#8	TRANE / TEM4A0C42S41SB

EXHAUST/VENTILATION/MAKEUP FAN SCHEDULE

EQUIPMENT TYPE			FAN INFORMATION						ELECTRICAL INFORMATION									MFG & MODEL
TAG	SERVICE	LOCATION	EXHAUST CFM	MAKEUP CFM	ESP IN WG	FAN DRIVE	FAN DIA.	SONES	RPM	FAN FLA	FAN HP	FAN WATT	UNIT VOLTS	UNIT PHASE	MOCP	MCA	WIRE SIZE (DU. 75 C)	
EF-1	TOILET EXHAUST	CEILING	70	N/A	0.125	DIRECT	N/A	2.0	1050	–	–	54	120	1	–	–	#12	GREENHECK / SP-B70 OR EQUAL

GRILLE/RETURN SCHEDULE

TAG	CFM	AIR PATTERN	FACE SIZE	NECK SIZE	SERVICE	MFG & MODEL	REMARKS
Ⓐ	0-100	4-WAY	12X12	6"ø	SUPPLY	TITUS TDC OR EQUAL	LAY-IN; OFF WHITE; ALUM.
Ⓑ	0-100	4-WAY	24X24	6"ø	SUPPLY	TITUS TDC OR EQUAL	LAY-IN; OFF WHITE; ALUM.
Ⓒ	100-250	4-WAY	24X24	8"ø	SUPPLY	TITUS TDC OR EQUAL	LAY-IN; OFF WHITE; ALUM.
Ⓓ	0-125	LOUVERED	24X24	8"ø	RETURN	TITUS PAR OR EQUAL	LAY-IN; OFF WHITE; ALUM.; FILTER
Ⓔ	780-1125	LOUVERED	24X24	18X18	RETURN	TITUS PAR OR EQUAL	LAY-IN; OFF WHITE; ALUM.; FILTER
Ⓕ	1125-1600	LOUVERED	24X24	22X22	RETURN	TITUS PAR OR EQUAL	LAY-IN; OFF WHITE; ALUM.; FILTER
Ⓖ	125-225	LOUVERED	24X24	8"ø	RETURN	TITUS PAR OR EQUAL	LAY-IN; OFF WHITE; ALUM.; FILTER

APPENDIX B MECHANICAL DESIGN
2018 BUILDING CODE SUMMARY

NORTHGATE

PROJECT NAME:

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT
METHOD OF COMPLIANCE
PRESCRIPTIVE [X] ENERGY COST BUDGET [ ]

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

THERMAL ZONE: ZONE 3 NORTH CAROLINA
WINTER DRY BULB: 17.0° F
SUMMER DRY BULB: 97.0° F

INTERIOR DESIGN CONDITIONS
WINTER DRY BULB: 68°
SUMMER DRY BULB: 78°
RELATIVE HUMIDITY: 50%

BUILDING HEATING LOAD: 42,800 BTU'S
BUILDING COOLING LOAD: 101,100 BTU'S

MECHANICAL SPACING CONDITIONING SYSTEM

UNITARY
DESCRIPTION OF UNIT: SPLIT SYSTEM HEAT PUMPS
HEATING EFFICIENCY: 8.2 HSPF (8.2 HSPF MINIMUM STANDARD EFFICIENCY, TABLE C403.2.3 (2))

COOLING EFFICIENCY: 14.0 SEER (14.0 SEER MINIMUM STANDARD EFFICIENCY, TABLE C403.2.3 (2))

SIZE CATEGORY OF UNIT: (1) 5.0 & (1) 3.5 TON (≤ 65,000 BTU/H)

BOILER
SIZE CATEGORY. IF OVERSIZED, STATE REASON.: _____

CHILLER
SIZE CATEGORY. IF OVERSIZED, STATE REASON.: _____

LIST EQUIPMENT EFFICIENCIES: _____

DESIGNER STATEMENT: TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT REQUIREMENTS OF THE INTERNATIONAL ENERGY CODE. THE HVAC UNIT QUALIFIES AS MORE EFFICIENT MECHANICAL EQUIPMENT DESCRIBED IN THE CODE.

SIGNED: _____

NAME: _____

TITLE: ENGINEER

HVAC LEGEND

20X12	SUPPLY/MAKEUP DUCTWORK WITH INSIDE SIZE NOTED
20X12	RETURN/EXHAUST DUCTWORK WITH INSIDE SIZE NOTED
	SQUARE/RETANGULAR SUPPLY/RETURN/EXHAUST TRANSITION
	ROUND/OVAL SUPPLY/RETURN/EXHAUST TRANSITION
	RADIUS TYPE SUPPLY/RETURN/EXHAUST DUCTWORK ELBOW
	SQUARE TYPE SUPPLY/RETURN/EXHAUST DUCTWORK ELBOW WITH TURNING VANES
VD	INCREASED AREA TAKEOFF WITH/WITHOUT VOLUME DAMPER
Ⓐ 300	LAY-IN/SURFACE SUPPLY DIFFUSER WITH TAG AND CFM NOTED
Ⓐ 300	SIDEWALL SUPPLY/RETURN/EXHAUST DIFFUSER WITH TAG AND CFM NOTED
Ⓐ	LAY-IN/SURFACE RETURN GRILLE WITH TAG
	ROUND DUCTWORK TURN UP/DOWN
VD	FLEXIBLE/RIGID AIR DUCT CONNECTOR WITH/WITHOUT VOLUME DAMPER
RTU-1	HVAC EQUIPMENT WITH TAG: SEE EQUIPMENT SCHEDULE FOR MORE INFORMATION

QUIKDRAFT

DRAFTING & DESIGN

(910) 574-4901

NORTH CAROLINA PROFESSIONAL SEAL 14907 ENGINEER RONALD S. HUFF

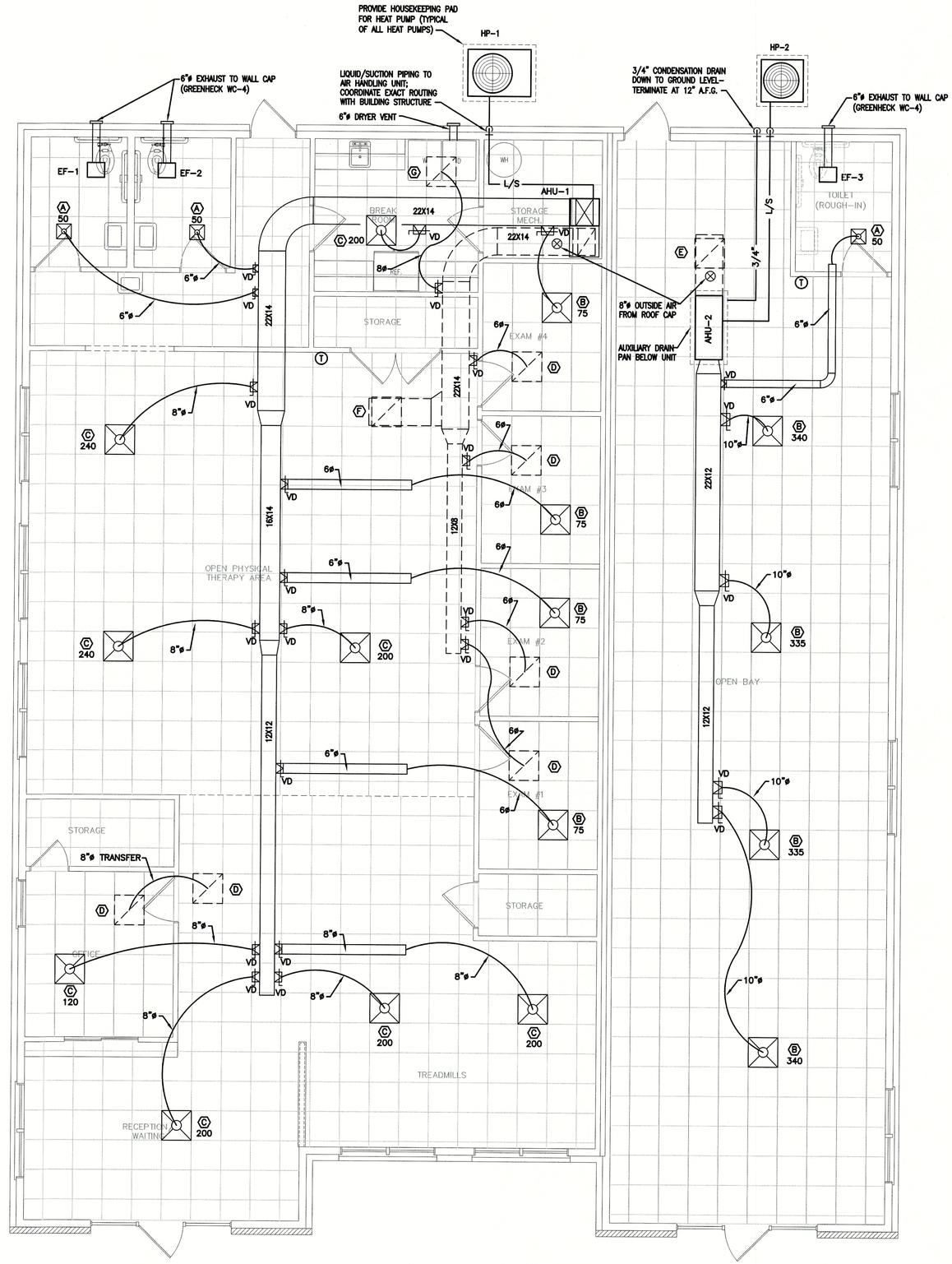
4-20-21

FINAL DRAWING [ ] FOR REVIEW PURPOSES ONLY
PRELIMINARY [ ] FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING [✓] FOR CONSTRUCTION

NORTHGATE
CAMERON NORTH CAROLINA

PROJECT NO: 21003
DRAWN BY: J.PARRISH
DATE: 04-15-2021

SHEET NO:
M1



QUIKDRAFT

DRAFTING & DESIGN

(910) 574-4901

NORTH CAROLINA PROFESSIONAL SEAL 24907 ENGINEER RONALD S. HUFF

A-20-21

FINAL DRAWING [ ] FOR REVIEW PURPOSES ONLY
PRELIMINARY [ ] FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING [X] FOR CONSTRUCTION

NORTHGATE

CAMERON NORTH CAROLINA

PROJECT NO: 21003
DRAWN BY: J.PARRISH
DATE: 04-15-2021

SHEET NO:
M2

1 / M2 HVAC FLOOR PLAN
SCALE: 1/4" = 1'-0"

ELECTRICAL LEGEND

	DUPLEX RECEPTACLE; MOUNT AT 18" A.F.F.
TR	DUPLEX RECEPTACLE; MOUNT AT 18" A.F.F.; TAMPER RESISTANT
GFCI	DUPLEX RECEPTACLE; GROUND FAULT CIRCUIT INTERRUPTER
TR/GFCI	DUPLEX RECEPTACLE; GROUND FAULT CIRCUIT INTERRUPTER; TAMPER RESISTANT
WP/GFCI	DUPLEX RECEPTACLE; WEATHERPROOF/GROUND FAULT CIRCUIT INTERRUPTER
	QUAD RECEPTACLE; MOUNT AT 18" A.F.F.
	2 POLE/208V RECEPTACLE
	SINGLE POLE POWER/LIGHTING HOMERUN (SINGLE PHASE)
	2-POLE POWER HOMERUN (SINGLE PHASE)
	3-POLE POWER HOMERUN (3 PHASE)
	WALL MOUNTED DATA OUTLET
	WALL MOUNTED VOICE (TELEPHONE) OUTLET
	WALL MOUNTED VOICE/DATA OUTLET
TV	TELEVISION OUTLET
	DISCONNECT
J	JUNCTION BOX
	POWER PANEL
$	SWITCH
OS	OCCUPANCY SENSOR WITH MANUAL OVERRIDE
	LAY-IN/SURFACE MOUNTED LED
	EMERGENCY LIGHT
EXIT	EXIT/EMERGENCY COMBO
EXIT	EXIT LIGHT
	REMOTE HEAD FOR EXIT LIGHTING
	EXTERIOR MOUNTED WALL PACK

PANEL A

PHASE 3 WIRE 4 VOLTS 120/208 MAIN 200 MLO
TYPE NEMA 1 MOUNTING FLUSH ENCLOSURE
SHORT CKT. RATING 22,000 RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	B	C	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.
643			LIGHTING	C	#12	20/1	1
	901		LIGHTING	C	#12	20/1	3
		720	EXAM RECEPTACLES	R	#12	20/1	5
720			EXAM RECEPTACLES	R	#12	20/1	7
	720		EXAM RECEPTACLES	R	#12	20/1	9
		720	EXAM RECEPTACLES	R	#12	20/1	11
720			TREADMILL RECEPTACLES	R	#12	20/1	13
	720		TREADMILL RECEPTACLES	R	#12	20/1	15
		720	OPEN AREA RECEPTACLES	R	#12	20/1	17
720			OPEN AREA RECEPTACLES	R	#12	20/1	19
	720		OPEN AREA RECEPTACLES	R	#12	20/1	21
		900	OFFICE RECEPTACLES	R	#12	20/1	23
1080			RECEPTION RECEPTACLES	R	#12	20/1	25
	180		TOILET POWER	R	#12	20/1	27
		180	TOILET POWER	R	#12	20/1	29
360			CORRIDOR RECEPTACLES	R	#12	20/1	31
	720		BREAKROOM RECEPTACLES	R	#12	20/1	33
			SPACE				35
			SPACE				37
			SPACE				39
			SPACE				41
4243	3961	3240	SUB-TOTAL (VA)				

A B C

CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	B	C
2							
4	35/3	#8	N	HP-1	2521		
6						2521	
8	60/2	#6	N	AHU-1			2521
10					5304		
12	30/2	#10	N	WATER HEATER		5304	
14					2250		2250
16	40/2	#8	N	DRYER			
18						3500	3500
20	20/1	#12	N	WASHER	1800		
22				SPACE			
24				SPACE			
26				SPACE			
28				SPACE			
30				SPACE			
32				SPACE			
34				SPACE			
36				SPACE			
38				SPACE			
40				SPACE			
42				SPACE			
				SUB-TOTAL (VA)	11875	11325	8271

C CONTINUOUS LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD
E ESTIMATED LOAD

TOTAL CONNECTED LOAD = 42915 KVA AMPS = 119.12
TOTAL OF 42 SPACES

PANEL B

PHASE 3 WIRE 4 VOLTS 120/208 MAIN 200 MLO
TYPE NEMA 1 MOUNTING FLUSH ENCLOSURE
SHORT CKT. RATING 22,000 RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	B	C	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.
723			LIGHTING	C	#12	20/1	1
	1080		RECEPTACLES	R	#12	20/1	3
		900	RECEPTACLES	R	#12	20/1	5
			SPACE				7
			SPACE				9
			SPACE				11
			SPACE				13
			SPACE				15
			SPACE				17
			SPACE				19
			SPACE				21
			SPACE				23
			SPACE				25
			SPACE				27
			SPACE				29
			SPACE				31
			SPACE				33
			SPACE				35
			SPACE				37
			SPACE				39
			SPACE				41
723	1080	900	SUB-TOTAL (VA)				

A B C

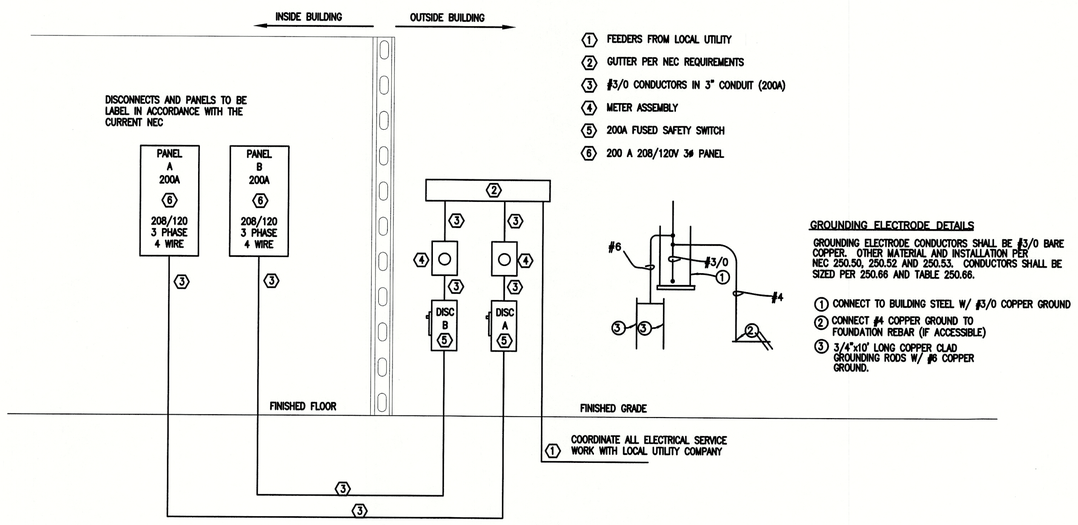
CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	B	C
2					2161		
4	30/3	#8	N	HP-2		2161	
6							2161
8	50/2	#8	N	AHU-2	4992		
10						4992	
12				SPACE			
14				SPACE			
16				SPACE			
18				SPACE			
20				SPACE			
22				SPACE			
24				SPACE			
26				SPACE			
28				SPACE			
30				SPACE			
32				SPACE			
34				SPACE			
36				SPACE			
38				SPACE			
40				SPACE			
42				SPACE			
				SUB-TOTAL (VA)	7153	7153	2161

C CONTINUOUS LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD
E ESTIMATED LOAD

TOTAL CONNECTED LOAD = 19170 KVA AMPS = 53.22
TOTAL OF 42 SPACES

LIGHT FIXTURE SCHEDULE

TAG	DESCRIPTION	SIZE	MOUNTING	LENS	COLOR	LUMENS OUTPUT	BULB	BALLAST TYPE	HOUSING	VOLTAGE	WATTAGE	MANU/MODEL NUMBER	REMARKS
A	LED RECESSED TROFFER	2' X 4'	LAY-IN	N/A	4000 K	3,000	LED	LED DRIVER	STEEL	120	30	LITHONIA NO. 2RTL4 30L EZ1 LP840 OR EQUAL	
B	LED RECESSED TROFFER	2' X 4'	LAY-IN	N/A	4000 K	7,580	LED	LED DRIVER	STEEL	120	71	LITHONIA NO. 2RTL4 72L EZ1 LP840 OR EQUAL	
C	LED WALL LUMINAIRE	10" X 6"	SURFACE	N/A	5000 K	1,017	LED	LED DRIVER	STEEL	120	19	LITHONIA NO. TWS LED 1 50K 120 PE OR EQUAL	WALL PACK MOUNTED AT 10'-0" A.F.G.
D	LED CANOPY/CEILING	12" X 8"	SURFACE	N/A	5000 K	3,389	LED	LED DRIVER	STEEL	120	41	LITHONIA NO. VRC 1 50K MVOLT OR EQUAL	EXTERIOR CANOPY LIGHT
EM	EMERGENCY	N/A	WALL	N/A	N/A	N/A	(2) LAMPS	ELECTRONIC	POLYCARBONATE	120/240		LITHONIA 6ELM2 N	6 VOLT NICAD BATTERY, TEST SWITCH, POWER INDICATOR
EX	EXIT SIGN	N/A	WALL	SINGLE	N/A	N/A	LED LIGHT	LED DRIVER	POLYCARBONATE	120/240		LITHONIA LHQM S W 3 R 120/240 EL N	6 VOLT NICAD BATTERY, (2) REMOTE HEADS



POWER RISER DIAGRAM

NOT TO SCALE

ELECTRICAL NOTES:

ALL WORK SHALL BE IN ACCORDANCE WITH 2020 NEC.

WIRE AND CABLE SHALL BE INSULATED, TYPE THHN, 600 VOLTS, WITH COPPER CONDUCTORS. CONDUCTOR SIZES NO. 8 AWG AND LARGER MAY BE STRANDED. CONDUCTOR SIZES NO. 10 AWG AND SMALLER MAY BE SOLID OR STRANDED.

ROMEX CANNOT BE USED IN THIS PROJECT.

EMT SHALL BE GALVANIZED STEEL TUBING 1/2-INCH MINIMUM SIZE, EQUAL TO ELECTRUNITE BRAND OR APPROVED AND USED ONLY WITH HEXAGONAL ALL STEEL COMPRESSION FITTINGS. MC CABLE MAY BE SUBSTITUTED FOR CONDUIT RACEWAYS WHERE PERMITTED BY THE CODE, AND APPROVED BY OWNER

PLASTIC CONDUIT SHALL BE RIGID, 3/4-INCH MINIMUM, NONMETALLIC, HEAVY DUTY, POLYVINYLCHORIDE (PVC), TYPE I WILL BE USED FOR CONCRETE ENCASEMENT. FITTINGS SHALL BE THE SAME MATERIALS AND MANUFACTURER AS THE PLASTIC CONDUIT.

FLEXIBLE METAL CONDUIT SHALL BE 1/2-INCH MINIMUM SINGLE STRIP, STEEL, HOT DIPPED GALVANIZED INSIDE AND OUTSIDE, MAXIMUM LENGTH OF 72 INCHES FOR LIGHTING, AND 36 INCHES FOR MOTORS. FLEXIBLE METAL CONDUIT SHALL BE LIQUID TIGHT OR WATER TIGHT WITH PVC JACKET WHERE USED IN DAMP, WET, OR OUTSIDE AREAS, AND LIQUID TIGHT OR WATER TIGHT CONNECTORS SHALL BE USED.

NO RECEPTACLES OR TELEPHONE OUTLETS ARE TO BE MOUNTED BACK TO BACK. KEEP AT LEAST 1 1/2 INCHES BETWEEN RECEPTACLES AND TELEPHONE OUTLETS.

ALL RECEPTACLES WITHIN THE FOLLOWING COMMERCIAL SPACES SHALL BE TAMPER RESISTANT PER 2017 NEC 406.12: MOTEL GUEST/SUITE ROOMS, CHILD CARE FACILITIES, PRESCHOOLS AND ELEMENTARY EDUCATION FACILITIES, BUSINESS OFFICES, CORRIDORS, WAITING ROOMS AND THE LIKE AT (CLINICS, MEDICAL AND DENTAL OFFICES, AND OUTPATIENT FACILITIES), SUBSET OF ASSEMBLY OCCUPANCIES DESCRIBED 518.2 TO INCLUDE PLACES OF WAITING TRANSPORTATION, GYMNASIUMS, SKATING RINKS, AND AUDITORIUMS, AND DORMITORIES.

ALL CONDUCTORS SHALL BE COPPER WITH A MINIMUM SIZE OF #12 AWG EXCEPT FOR FIRE ALARM. THESE CONDUCTORS SHOULD COMPLY WITH NFPA REQUIREMENTS.

THE ELECTRICAL CONTRACTOR SHALL ALIGN ALL FIXTURES, SMOKE DETECTORS, CEILING DIFFUSERS, ETC. AS REQUIRED TO PROVIDE A UNIFORM PRESENTATION. FOLLOW THE REFLECTED CEILING PLAN IF PROVIDED

CIRCUIT BREAKERS AND WIRE ARE SIZED FOR SPECIFIC EQUIPMENT. BEFORE ORDERING WIRE, BREAKERS, FIXTURES, CONDUIT, AND ETC. FOR THIS PROJECT: THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS ON THE JOB AND VERIFY THE ELECTRICAL DATA FOR THE EQUIPMENT THAT WILL BE ACTUALLY INSTALLED. RECOMPUTE WIRE AND BREAKER SIZES IF REQUIRED BY THE NEC.

THE MOUNTING HEIGHTS AND LOCATIONS OF ALL WALL MOUNTED OUTLETS AND JUNCTION BOXES SHALL BE REVIEWED AND COORDINATED WITH THE GENERAL CONTRACTOR AND OWNER PRIOR TO INSTALLATION FOR USE WITH ACTUAL EQUIPMENT.

ALL LIGHT SWITCHES, RECEPTACLES, WALL PLATES, TELEPHONE/COMPUTER OUTLET BOXES, AND, CABLE OUTLET BOXES SHALL BE WHITE.

EACH CONTRACTOR WILL PROVIDE HIS OWN SUPPORT OF ALL DEVICES AND EQUIPMENT PROVIDED IN HIS CONTRACT AND SHALL SUPPORT SUCH EQUIPMENT PER APPROVED GOVERNING CODES. UNACCEPTABLE WORKMANSHIP OR MATERIALS SHALL BE REPLACED AT THE ELECTRICAL CONTRACTORS EXPENSE.

THE ELECTRICAL CONTRACTOR SHALL REFER TO THE DRAWINGS FOR FLOOR PLAN AND BUILDING ELEVATION DIMENSIONS.

THE ELECTRICAL CONTRACTOR TO ORGANIZE HIS CONDUIT, WIRE, AND CABLE RUNS IN ATTIC SPACES AND ABOVE CEILINGS. MAKE RUNS PARALLEL, PERPENDICULAR, AND GROUPED TOGETHER WHERE POSSIBLE. LOCATE MAJOR GROUPINGS OVER HALLWAYS AND AREAS OF PUBLIC ACCESS. FREE RUNS OF PHONE, TELEVISION, SECURITY, ALARM, AND OTHER CABLES IS NOT ACCEPTABLE.

ALL DISCONNECT SWITCHES AND BREAKER SIZES SHOWN FOR MECHANICAL EQUIPMENT, KITCHEN EQUIPMENT, AND ETC. SHALL BE VERIFIED BEFORE PURCHASE AND INSTALLATION OF SAID EQUIPMENT WITH THE EQUIPMENT SUPPLIER AND MECHANICAL CONTRACTOR.

WHERE EQUIPMENT PENETRATES EXTERIOR WALLS OR ROOF, THEY SHALL BE PROPERLY SEALED.

EXHAUST FANS ARE TO BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR, AND ELECTRICAL WIRING BY THE ELECTRICAL CONTRACTOR.

THE ELECTRICAL CONTRACTOR SHALL PROVIDE NAMEPLATES FOR IDENTIFICATION OF ALL EQUIPMENT, SWITCHES, PANELS, ETC. THE NAMEPLATES SHALL BE LAMINATED PHENOLIC PLASTIC, BLACK FRONT AND BACK WITH WHITE CORE. WHITE ENGRAVED LETTERS (1/4 INCH MINIMUM) ETCHED INTO THE WHITE CORE. NAME TAGS TO BE MOUNTED WITH SELF-TAPPING SHEET METAL SCREWS.

THE ELECTRICAL CONTRACTOR IS NOT TO SCALE THE DRAWINGS FOR RECEPTACLES AND LIGHT FIXTURES TO BE INSTALLED. THE DRAWINGS ARE FOR DIAGRAMMATIC PURPOSES ONLY TO SHOW GENERAL LOCATION. THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT LOCATION OF RECEPTACLES AND LIGHT FIXTURES WITH THE GENERAL CONTRACTOR AND/OR CASEWORK DRAWINGS.

QUIKDRAFT
DRAFTING & DESIGN
(910) 574-4901

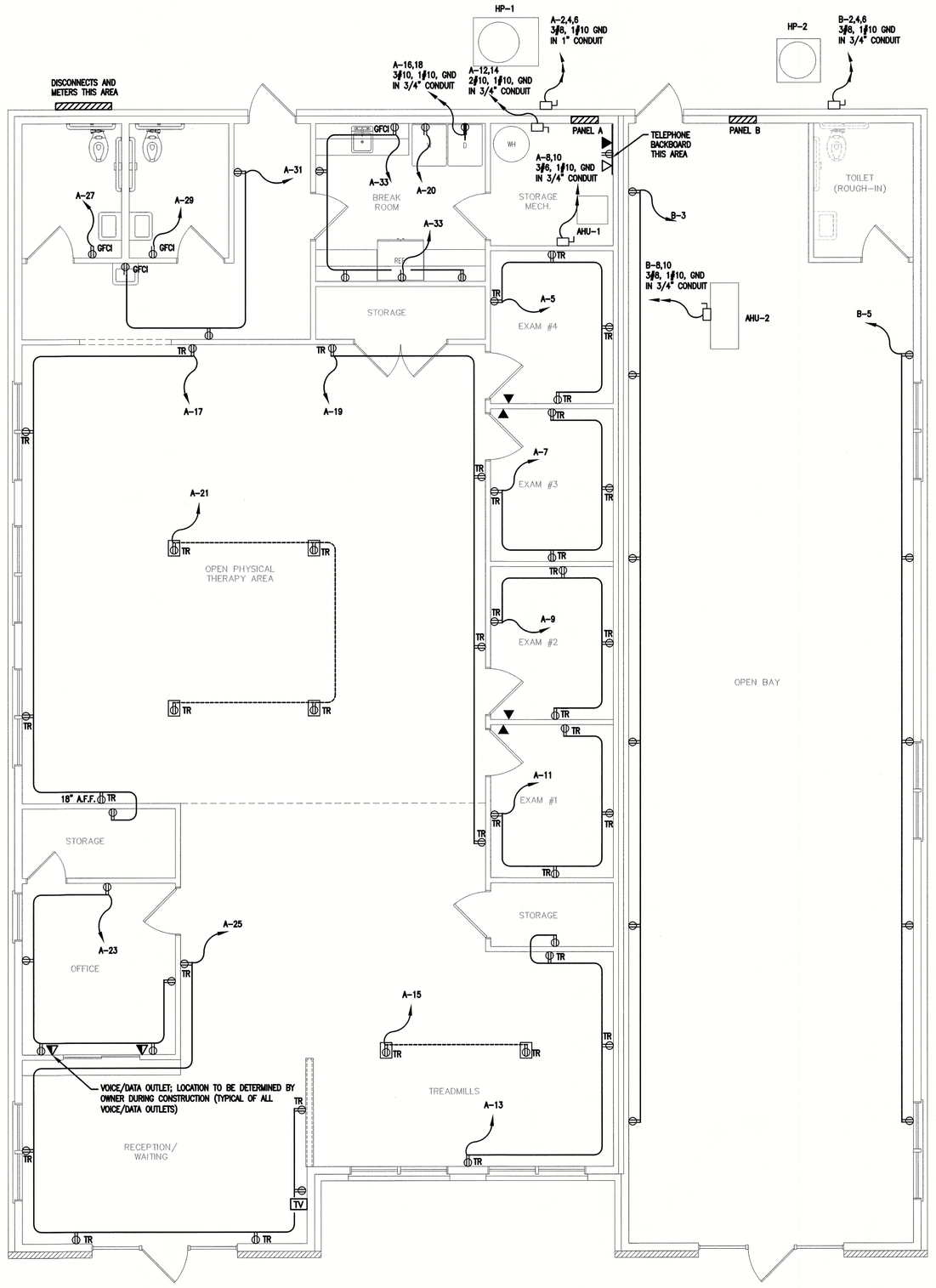
NORTH CAROLINA PROFESSIONAL SEAL 14907 ENGINEER RONALD S HUFF
4-20-21

FINAL DRAWING [ ] FOR REVIEW PURPOSES ONLY
PRELIMINARY [ ] FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING [X] FOR CONSTRUCTION

NORTHGATE
CAMERON NORTH CAROLINA

PROJECT NO: 21003
DRAWN BY: J.PARRISH
DATE: 04-15-2021

SHEET NO:
E1



1 / E2 ELECTRICAL FLOOR PLAN - POWER
SCALE: 1/4" = 1'-0"

QUIKDRAFT

DRAFTING & DESIGN

(910) 574-4901

NORTH CAROLINA PROFESSIONAL SEAL 14907 ENGINEER RONALD S. HUFF

4-20-21

FINAL DRAWING [ ] FOR REVIEW PURPOSES ONLY

PRELIMINARY [ ] FOR DESIGN DEVELOPMENT ONLY

FINAL DRAWING [X] FOR CONSTRUCTION

NORTHGATE

CAMERON NORTH CAROLINA

PROJECT NO: 21003

DRAWN BY: J.PARRISH

DATE: 04-15-2021

SHEET NO:

E2

QUIKDRAFT
DRAFTING & DESIGN
(910) 574-4901

NORTH CAROLINA PROFESSIONAL SEAL 14907 ENGINEER RONALD S. HUFF

4-20-21

FINAL DRAWING [] FOR REVIEW PURPOSES ONLY
PRELIMINARY [] FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING [✓] FOR CONSTRUCTION

NORTHGATE

CAMERON NORTH CAROLINA

PROJECT NO: 21003
DRAWN BY: J.PARRISH
DATE: 04-15-2021

SHEET NO:
E3

1 / E3 ELECTRICAL FLOOR PLAN - LIGHTING
SCALE: 1/4" = 1'-0"