AN EXPANSION OF THE EXISTING TENANT OFFICE AREA PORTSIDE DEVELOPMENT - BUILDING B BERKELEY COUNTY, SC

Issue Date/ Description: 2/13/2023 CODE COMMENT RESPONSE

<u>OWNER</u>

RANDOLPH DEVELOPMENT

GILBERT + LEE CONSTRUCTION

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MPS Project No: 020549.01 Agency Review ID:

DRAWING LIST

	DRAWING INDEX
SHEET NO	SHEET NAME
GENERAL	
G001	COVER SHEET AND LIFE SAFETY
ARCHITECTURAL	
A001	ABBREVIATION, SYMBOLS, LEGENDS, & DETAILS
A002	PARTITION TYPES, AND SCHEDULES
A100	TENANT FLOOR PLAN, RCP, AND ENLARGED PLANS
MECHANICAL	
M101	MECHANICAL PLAN
ELECTRICAL	
E101	ELECTRICAL PLAN

LINE TYPES		ANNOTATIO
BETOND		NORTH
CENTERLINE		
DEMOLISHED		
HIDDEN		
OVERHEAD		A
ANNOTATIONS		$\langle L1 \rangle$
¢		 SA4
	- FACE DIMENSION	
	- CENTERLINE DIMENSION	01
80.1	COLUMN GRID TAG - NEW	TA-1
3A — —	COLUMN GRID TAG - EXISTING	(F1)
ALIGN -	ALIGN FACE OF SURFACES	E123456
0'-0"	SPOT ELEVATION	S99
Name Elevation	LEVEL / ELEVATION HEIGHT	1t
$\underline{1}$	REVISION TAG AND CLOUD	AFF
		<u>R(</u>
		ROOM NAME 150 SF
		DEPT/ PHASE ROOM NAME

SHEET NO	SHEET NAME
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MECHANICAL	
M101	MECHANICAL PLAN
ELECTRICAL	
E101	ELECTRICAL PLAN

CHARLESTON ENGINEERING 125 WAPPOO CREEK DR. BLDG. B CHARLESTON, SC 29412 (843) 762-4242 rob@charlestonengineering.com MR. ROBERT F. TURNER, P.E.

MECHANICAL

ELECTRICAL

CHARLESTON ENGINEERING 125 WAPPOO CREEK DR. BLDG. B CHARLESTON, SC 29412 (843) 762-4242 johnny@charlestonengineering.com MR. JOHN D. DEDEN, P.E.

FIRE PROTECTION

D

12" = 1'-0"



VIEW REFERENCE

NOTE: THE CIVIL DRAWINGS WERE SUBMITTED UNDER A SEPARATE PERMIT PACKAGE - PERMIT # J-26941.0003

Current Revision Date
2/13/2023
2/9/2023
2/9/2023
2/9/2023
2/8/2023
2/8/2023

<u>ONS</u>

NORTH (PROJECT OR TRUE) PROJECT NORTH TRUE NORTH

WINDOW / CURTAIN WALL TAG

LOUVER TAG

WALL TAG

DEMOLITION KEYNOTE

KEYNOTE

ACCESSORY TAG

FURNITURE TAG

EQUIPMENT TAG

SIGNAGE TAG

CEILING TAG CEILING TYPE (IF / WHEN INDICATED) CEILING HEIGHT

COM TAG(S): ROOM TAG WITH AREA (NO ROOM #)

00999

ROOM NAME

00999

150 SF

122A

45 MIN 🗂

- ROOM NAME ROOM # = 2 OR 3 DIGITSE (IF SHOWN) - FLOOR # = 1 OR 2 DIGITS

AREA (IF SHOWN)

DOOR TAG: FLOOR # = 1 OR 2 DIGITS ROOM # = 2 OR 3 DIGITS DOOR SEQUENCE (ALPHABETIC)

— DOOR RATING (IF SHOWN)

VIEW NAME A1 \A101 / 1/8[™] = 1'-0" - VIEW SCALE - CURRENT SHEET DETAIL VIEW TITLE REFERENCE DETAIL NUMBER VIEW NAME A1 \ A101 / 1/8" = 1'-0" - VIEW SCALE - CURRENT SHEET PLAN / DETAIL CALLOUT - REFERENCED SHEET **BUILDING SECTION CALLOUT** 1 SIM 1 SIM A610 **A610** - REFERENCED SHEET WALL SECTION CALLOUT A5 ` - REFERENCED SHEET DETAIL SECTION CALLOUT SIM A601 REFERENCED SHEET 1 Ref 1 Ref 🗲 A510 EXTERIOR ELEVATION CALLOUT

PHOTO REFERENCE TAG

- PLAN NUMBER

PLAN VIEW TITLE REFERENCE

Ref INTERIOR ELEVATION CALLOUT







		\sim		5	\frown				
CODE SUMMARY						_			
PROJECT DESCRIPTION	OCCUPANT LOAD CAI	<u>_CULATION</u> (S	SCBC TABLE 100)4.5)					
A NEW 702 SF TOTAL EXPANSION TO AN EXISTING SPECULATIVE OFFICE WITHIN A SHELL BUILDING THE PRIMARY FUNCTION OF THE BUILDING IS A SPECULATIVE LOGISTICS AND WAREHOUSE USE FOR FUTURE MULTIPLE TENANTS POTENTIALLY DIVIDED INTO 4 SPACES	USE GROUP		AREA	AREA PER OCCUPANT	OCCUPANT LOAD (TABULAR LOAD)				
THE AREAS OF THE BUILDING ARE:	NEW OFFICE EXPANSION	(B)	702 SF	150 SF	5				
 702 SF SPECULATIVE OFFICE EXPANSION (CLASSIFIED AS B OCCUPANCY) 1,520 SF EXISTING SPECULATIVE OFFICE AREA (CLASSIFIED AS B OCCUPANCY) 	EXISTING OFFICE (B) TOTAL		1,520 SF 2,222 SF	150 SF N/A	11 16	_			
APPLICABLE CODES	EGRESS WIDTH (SCB	C 1005.3.2)							
SOUTH CAROLINA BUILDING CODE 2021 SOUTH CAROLINA PLUMBING CODE 2021 SOUTH CAROLINA MECHANICAL CODE 2021 SOUTH CAROLINA FUEL GAS CODE 2021 SOUTH CAROLINA FUEL GAS CODE 2021	OTHER EGRESS COMPONEN WIDTH REQUIRED: 3.2 INCHE WIDTH PROVIDED: 108" OF E WIDE DOORS.	NTS: 16 TOTAL OC ES OF TOTAL EGR EGRESS HAVE BEI	CUPANT LOAD X 0.2 RESS WIDTH REQUIR EN PROVIDED AT (1)	" PER OCCUPAN ED. 36-INCH WIDE DO	T PER 1005.3.2 OORS AND (1) 72-INCH				
INTERNATIONAL ENERGY EFFICIENCY CODE 2009 2020 NATIONAL ELECTRICAL CODE	MAXIMUM COMMON F		ESS TRAVEL (SO	CBC TABLE 1	006.2.1)				
ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES - ICC/ANSI A117.1 - 2017				47.0					
JORISDICTION. BERKELET COUNTY, SOUTH CAROLINA	EXIT ACCESS TRAVEL DISTANCE (SCBC TABLE 1017.2)								
USE AND OCCUPANCY CLASSIFICATION	S-1 WITH SPRINKLER SYSTE 1017.2.2 SUBPARAGRAPHS 1 B WITH SPRINKLER SYSTE	.M: 400 FT (INCRE I, 2 AND 3.) M: 300 FT	EASED DISTANCE BA	SED ON MEETING	G REQUIREMENTS OF SECTIO)N			
THE OCCUPANCY CLASSIFICATIONS INCLUDE NONSEPARATED MIXED USE AS ALLOWABLE PER TABLE 508.4 FOR THE FOLLOWING OCCUPANCY TYPES:	COPRIDORS (SCRC SECTION 1020)								
 MODERATE-HAZARD STORAGE GROUP S-1 (SCBC SECTION 311) LOW-HAZARD STORAGE GROUP S-2 (SCBC SECTION 311) FUTURE BUSINESS GROUP B (SCBC SECTION 304) 	CORRIDOR FIRE RESISTANCE RATING: FIRE RATING NOT REQUIRED FOR BUILDINGS WITH SPRINKLER SYSTEMS IN ACCORDANCE WITH SECTION SCBC 903.1.1 OR 903.3.1.2 FOR OCCUPANCIES B AND S. (TABLE 1020.1 AND								
	 MINIMUM CORRIDOR WIDTH: 44" (TABLE 1020.2) MAXIMUM LENGTH OF DEAD END CORRIDORS: 50 FT (SECTION 1020.4 EXCEPTION 2). SPRINKLER SYSTEM PROVIDED. 								
$\Box I-B \mathbf{X} II-B \Box III-B \Box V-B$				1)					
SPRINKLERED BUILDING (SCBC AND SCFC SECTION 903)	MINIMUM NUMBER OF EXITS	FOR BETWEEN 50	01 AND 1,000 OCCUP	L <u>)</u> ANTS: 3 EXITS RE	Equired. <u>10 exits providei</u>	<u>D.</u>			
MINIMUM SPRINKLER REQUIREMENTS: THE POTENTIAL FOR HIGH-PILED COMBUSTIBLE STORAGE REQUIRES SPRINKLER SYSTEMS MEETING SCBC / SCFC SECTION 903.1.1.1 NFPA 13 SPRINKLER SYSTEMS.	PLUMBING FACILITIES	ANALYSIS	3C TABLE 2902.1						
PROPOSED SPRINKLER SYSTEM: EARLY SUPPRESSION FAST RESPONSE (ESFR) SPRINKLERS PER NFPA13 INSTALLED IN WAREHOUSE AREA AND STANDARD SPRINKERS INSTALLED IN CEILINGS OR ROOFS IN REMAINDER OF BUILDING FOR ALL BUSINESS OCCUPANCY TYPES	S OCCUPANCIES • WATER CLOSETS • LAVATORIES • DRINKING FOUNTAIN B OCCUPANCIES • WC'S	1 PER 100 1 PER 100 1 PER 1,000 1 PER 25 FOR T	THE FIRST 50 AND 1 F	PER 50 FOR THE	REMAINDER EXCEEDING 50				
FIRE EXTINGUISHERS (SCBC SECTION 906)		1 PER 40 FOR T	THE FIRST 80 AND 1 F	PER 80 FOR THE	REMAINDER EXCEEDING 80				
FIRE EXTINGUISHERS PROVIDED PER SCBC SECTION 906. COORDINATE LOCATION WITH LOCAL FIRE OFFICIAL.	SERVICE SINK	1 PER BUILDING	G						
NONSEPARATED OCCUPANCIES (SCBC SECTION 508.3)									
FIRE RATED SEPARATIONS ARE NOT REQUIRED BETWEEN THE S AND B OCCUPANCIES BASED ON THE	REQUIRED PLUMBING	FIXTURES (S	SPEC OFFICE OI	NLY) PER SC	BC TABLE 2902.1				
FRUVISIUNS OF SUDU SEUTION 300.3 AND KEQUIKEIVIEN IS OF URAFTER Y.	P OCCUDANCY		MC	1		1 35			

FIRE RATED SEPARATIO PROVISIONS OF SCBC SECTION 508.3 AND REQUIREMENTS OF CHAPTER 9. FIRE RESISTANCE RATING REQUIREMENTS OF BUILDING ELEMENTS

(SCBC TABLES 601 AND 602) SCBC TABLES 601 AND 602: BASED ON TYPE IIB CONSTRUCTION, SCBC TABLES 601 AND 602 DO NOT REQUIRE STRUCTURAL ELEMENTS, FLOOR, ROOF, NON-BEARING WALLS OR EXTERIOR WALLS TO BE FIRE

EXIT SIGNS (SCBC SECTION 1013) **EXIT SIGNS INSTALLATION PER SECTION 1013**

RATED.

MEANS OF EGRESS ILLUMINATION (SCBC SECTION 1008) MEANS OF EGRESS ILLUMINATION PER SECTION 1008

DRINKING **B OCCUPANCY** WC LAV FOUNTAIN (SPEC OFFICE ONLY) 16 OCCUPANTS M F N/A М REQUIRED FOR 8 M AND 8 F 1 | 1 1 1

MAXIMUM TRAVEL DISTANCE TO TOILET FACILITIES (SCBC 2902.3.2) 500 FT MAXIMUM ALLOWED BY CODE

BRACKET MOUNTED FIRE EXTINGUISHER

CABINET

EXTERIOR FIRE EXTINGUISHER

CEILING MOUNTED EXIT SIGN

(ARROWS WHEN INDICATED)

WALL MOUNTED EXIT SIGN

(ARROWS WHEN INDICATED)

FIRE RATING AND NOTES:

1. SEE FLOOR PLAN(S) AND WALL TYPE SCHEDULE FOR WALL ASSEMBLY TYPES AND CONSTRUCTION

> 2. FIRE CAULK AROUND ALL ELECTRICAL CONDUIT PASSING THROUGH WALLS.

3. SEE MECHANICAL AND PLUMBING DRAWINGS FOR SPECIAL DETAILS WHERE DUCTWORK AND PIPING PASS THROUGH WALLS.

4. REFER TO SHEET G0.03 & G1.01 FOR GENERAL FLOOR, ROOF, AND STRUCTURAL RATING REQUIREMENTS AND RELEVANT PROPOSED PROTECTION SYSTEMS.



SINK

N/A

1



A1 MPS MANEUVERING CLEARANCES AT DOORS (ICC/ANSI-2017) A001 3/8" = 1'-0"

2	

TURE, AND EQUIPMENT	MIRR	MIRROR
BOVE	MISC	
	MOD BIT	
	MOPR	MOP RACK
	MR	MOISTURE RESISTANT
	MTL	METAL
NRY	NA	NOT APPLICABLE
	NCOMBL	NONCOMBUSTIBLE
ENFORCED PLASTIC/PANELS	NO	NUMBER
	NOM	NOMINAL
	NTP	NOTICE TO PROCEED
	٥A	OVERALI
RACTOR	00	ON CENTER
	OD	OUTSIDE DIAMETER
EINFORCED CONCRETE	OF/CI	OWNER FURNISHED/CONT
EINFORCED GYPSUM	OFD	
	OFS	OUTSIDE FACE OF STUDS
	OPNG	OPENING
IAXIMUM PRICE	OPP	OPPOSITE
ER CEILING	OPR	
	ORD	OVERFLOW ROOF DRAIN
	OVFL	OVERFLOW
BOARD		DAINT
D :EB	Ρ ΡΔΤ	
EK	PB	PANIC BAR / PAINTED BAS
	PBD	PARTICLEBOARD
	PC	POLISHED CONCRETE
	PERF	
WOOD DOOK	PERP	PERPENDICULAR
	PGBD	PEGBOARD
L	PHAR	PHARMACY
	PLAM PLBG	
ER/ INSIDE DIMENSION	PLYWD	PLYWOOD
TAL PANEL	POL	POLISHED
	PORC	PORCELAIN
=T	PREFIN	PREFINISH
-1	PREFMD	PREFORMED
'N	PT	PRESSURE TREATED
	от	
	QTB	QUARRY TILE BASE
	QZ	QUARTZ
ASS	-	DADUIO
	RADN	RADIUS RADIATION
ONCRETE MASONRY UNIT	RB	RESILIENT BASE
ER	RB HK	ROBE HOOK
	RBR	RUBBER
00T)		
001)	RD	ROOF DRAIN
	RDG INS	RIGID INSULATION, SOLID
	REBAR	REINFORCING STEEL BAR
PSUM BOARD		
	REINF	REINFORCE
	REQD	REQUIRED
	RESIL	RESILIENT
NK, SQAURE, PATTERNED)	RESP	
UNCRETE	RFG	ROOFING
1	RFI	REQUEST FOR INFORMAT
	RFP	REQUEST FOR PROPOSAL
	KH RIG	ROUF HATCH
READ	RM	ROOM
OOM	RO	ROUGH OPENING
	RTF	RUBBER TILE FLOOR
	KIU RV	ROOF TOP UNIT



1. ALL DIMENSIONS SHOWN ARE MINIMUMS. DIMENSIONS AND CLEARANCES SHOWN MUST BE PROVIDED AT ALL DOORS.CONTRACTOR SHALL REVIEW FIELD LAYOUT AND CONFIRM THAT ALL OF THE APPROPRIATE CLEARANCES ARE PROVIDED. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION. ANY REMEDIAL WORK THAT SHOULD HAVE BEEN AVOIDED BY BRINGING DISCREPANCIES TO THE ARCHITECT'S ATTENTION SHALL BE AT THE CONTRACTORS









	1					2					3			
SA					SB					SD				
STRUCTURE ABOVE	s s	SLAB OR DECKING	ABOVE, REF STRUG	TURAL	STRUCTURE ABOVE		 SLAB OR DECKING DIAGONALLY BRAG @ 48" MAX, STAGO 	ABOVE, REF STRUC CE BACK TO STRUCT ERED, REF STRUCT	TURAL URE URAL	STRUCTURE ABOVE		 SLAB OR DECKING DIAGONALLY BRAG @ 48" MAX, STAGG 	ABOVE, REF STRUC CE BACK TO STRUCT ERED, REF STRUCT	CTURAL TURE TURAL
CEILING LINE		CONTINUOUS FIRE AT TOP AND BOTTC RATED WALLS. PRC ACOUSTICAL SEAL/	RATED ACOUSTICA M OF WALL (BOTH OVIDE NON-FIRE-RA ANT AT NON-RATED	L SEALANT SIDES) FOR TED WALLS	CEILING LINE	*				CEILING LINE				
	– ((E S F V	FULL CAVITY WIDT BATT INSULATION, V STEEL PINS SECUR FACE OF GYPSUM E /ERTICAL & HORIZO	H) ACOUSTICAL WITH GALVANIZED ED TO INTERIOR BOARD @ 16" OC DNTAL				 (FULL CAVITY WID BATT INSULATION STEEL PINS SECU FACE OF GYPSUM VERTICAL & HORIZ 	TH) ACOUSTICAL WITH GALVANIZED RED TO INTERIOR BOARD @ 16" OC ONTAL				 (FULL CAVITY WID BATT INSULATION, STEEL PINS SECUI FACE OF GYPSUM VERTICAL & HORIZ 	TH) ACOUSTICAL WITH GALVANIZED RED TO INTERIOR BOARD @ 16" OC ONTAL	
) PLAN	5 F	5/8" TYPE 'X' GYPSU METAL STUD FRAM REFERENCE CHAR STEEL RUNNER, FA	IM BOARD ING @ 16" OC T BELOW STENED TO		PLAN		 5/8" TYPE 'X' GYPS METAL STUD FRAI REFERENCE CHAF STEEL RUNNER, F 	UM BOARD AING @ 16" OC RT BELOW ASTENED TO		PLAN		 5/8" TYPE 'X' GYPS METAL STUD FRAM REFERENCE CHAR STEEL RUNNER, FA 	UM BOARD AING @ 16" OC RT BELOW ASTENED TO	
	F A C	CONCRETE SLAB @ 30TTOM OF METAL FINISH FLOORING A AS SCHEDULED CONCRETE SLAB, F	2 12" OC TOP AND STUD FRAMING AND WALL BASE REF STRUCTURAL				CONCRETE SLAB BOTTOM OF META - FINISH FLOORING AS SCHEDULED - CONCRETE SLAB,	② 12" OC TOP AND L STUD FRAMING AND WALL BASE REF STRUCTURAL				CONCRETE SLAB (BOTTOM OF META - FINISH FLOORING BASE AS SCHEDUI - CONCRETE SLAB,	② 12" OC TOP AND L STUD FRAMING AND WALL .ED REF STRUCTURAL	
	SA4 3 5/8"	SA6	SA8	-		SB4	SB6	SB8			SD2	SD4	SD6	SD8
ACTUAL DIMENSION 'X'	4 7/8"	7 1/4"	9 1/4"	-		4 7/8"	7 1/4"	9 1/4"	-		2 1/4"	4 1/4"	6 5/8"	8 5/8"
FIRE RATING (ONLY IF INDICATED ON LIFE SAFETY PLA	1-HR (UL #U419)	1-HR (UL #U419)	1-HR (UL #U419)	-	FIRE RATING	-	-	-	-	FIRE RATING		-	-	-
ACOUSTICAL RATING (WITH BATTS)	49 STC (SA-870717)	49 STC (SA-870717)	49 STC (SA-870717)	-	ACOUSTICAL RATING (WITH BATTS)	-	-	-	-	ACOUSTICAL RATING (WITH BATTS)		-	-	-

			FINIS	H MATERIAL LEGEN	C		
Material	KEY	MANUFACTURER	PATTERN / ITEM NO	COLOR	SIZE	FINISH	NOTES
ACOUSTICAL CEILING PANEL							
ACOUSTICAL CEILING PANEL	ACP-1	USG	OLYMPIA MICRO CLIMAPLUS	-	24" x 24"	FACTORY	TEGULAR, MILDEW AND MOLD RESISTANT
CARPET TILE							
CARPET TILE	CPT-1	SHAW CONTRACT	SPACE WORX	SURROUND - BLUE HERRING	24"X24"	FACTORY	OPEN OFFICE, CORRIDOR, PRIVATE OFFICE, CONF. ROOM, IT AREA
CASEWORK - HARDWARE							
CASEWORK - HARDWARE	-		WIRE PULLS	STAINLESS STEEL	4"	FACTORY	ALL CASEWORK REQUIRING HARDWARE
CASEWORK - PLASTIC LAMINA	ΓF						
CASEWORK - PLASTIC LAMINATE	PL-1	FORMICA	-	WHITE SCULPTED	-	FACTORY	CABINET FACES IN BREAKROOM, KITCHEN, CAFETERIA, AND MAILROOM
CASEWORK - PLASTIC LAMINATE	PL-2	WILSONART	-	OILED SOAPSTONE	-	FACTORY	COUNTERTOPS IN BREAKROOM, KITCHEN, CAFETERIA, AND MAILROOM
PAINT - INTERIOR							
PAINT - INTERIOR	P-1	SHERWIN-WILLIAMS	-	SW #7070 "SITE WHITE"	-	EGGSHELL	UNIVERSAL WALL PAINT
PAINT - INTERIOR	P-2	SHERWIN-WILLIAMS	-	SW #7070 "SITE WHITE"	-	SEMI-GLOSS	TOILET ROOMS, JANITOR'S CLOSET, AND LOCKER ROOMS
PAINT - INTERIOR	P-3	SHERWIN-WILLIAMS	-	SW #7072 "ONLINE"	-	EGGSHELL	ACCENT #1, SEE FINISH PLAN
RUBBER COVED BASE							
RUBBER COVED BASE	RB-1	ROPPE	-	CHARCOAL-123	4" HIGH	FACTORY	AT LVT-1, CPT-1, CPT-2, AND VCT FLOORING LOCATIONS
SEALED CONCRETE							
SEALED CONCRETE	SC-1		ASHFORD FORMULA				SURFACE HARDENER - PRODUCTION AREA, LOGISTICS WAREHOUSE
STAINED WOOD VENEER DOOF	RS						
STAINED WOOD VENEER DOORS	SCWD	MARSHFIELD	BIRCH	BOMBAY	-	FACTORY	ALSO KNOW AS "STOUT" BY MASONITE
VINYL COMPOSITION TILE							
VINYL COMPOSITION TILE	VCT-1	MANNINGTON		PEWTER	12"X12"	FACTORY	BREAK ROOM, TOILET ROOMS, LAID QUARTER TURN, TYPICAL
				1			

					TENA		OOM FINI	SH SC	HEDULI	=		
		FL	OOR		W	ALLS		CE	ILING	MIL	LWORK	
ROOM NO.	ROOM NAME	FINISH	BASE	N	E	S	W	MATERIAL	FINISH	COUNTERT OPS	CABINET FACES	COMMENTS
4001				D 4								
103L 103M	OFFICE	CPT-1	RB-1	P-1 P-1	P-3	P-1 P-1	P-1	ACP-1 ACP-1	FACTORY			
103N	JANITOR	SC-1	RB-1	P-1	P-1	P-1	P-1	ACP-1	FACTORY			
1030	ELECTRICAL	CPT-1	RB-1	P-1	P-1	P-1	P-1	ACP-1	FACTORY			
103P	WORKSPACE	CPT-1	RB-1	P-1	P-1	P-1	P-1	ACP-1	FACTORY			

					TE	ENANT	DOOR S	CHEDU	LE			
	DOOF	२			D	OOR		FR	AME	DETA	AILS	
DOOR NO.	WIDTH	HEIGHT	Door Thickness	TYPE	RATING	MATERIAL	HARDWARE TYPE	TYPE	MATERIAL	HEAD	JAMB	REMARKS
		1	1	1		1	1	1				
103C	3' - 0" (PAIR OF DOORS)	7' - 0"	1 3/4"	D3		WOOD	1	F1	HM			PAIR OF DOORS
103D	3' - 0"	7' - 0"	1 3/4"	D2		WOOD/GLASS	1	F1	HM	H1	H1	
103E	3' - 0"	7' - 0"	1 3/4"	D2		WOOD/GLASS	1	F1	HM			
103F	3' - 0"	7' - 0"	1 3/4"	D2		WOOD/GLASS	1	F1	НМ			
103G	3' - 0"	7' - 0"	1 3/4"	D1A		WOOD	1	F1	HM			



DOOR TYPES



<u>D1A:</u> 1-3/4" SOLID CORE WOOD

DOOR <u>D1B:</u> 1-3/4" INSULATED HOLLOW METAL W/ PAINT FINISH



D2: INTERIOR 1-3/4" SOLID CORE WOOD DOOR WITH 6" X 27" VISION LITE



1 EA; SURFACE CLOSER 1 EA; GASKETING 3 EA; SILENCERS 1 EA; WALL STOP

DOOR AND FRAME TYPES



FRAME TYPES 2



DOOR HARDWARE SET SCHEDULE

SET #1 (INTERIOR OFFICE,CONFERENCE) 3 EA; HINGES US 32D STAINLESS STEEL 1 EA; OFFICE FUNCTION MORTICE CYLINDER LOCKSET US 26D STAINLESS STEEL

SATIN NICKEL FINISH

ALUMINUM

A)	FIELD VERIFY ALL ROUGH OPENINGS PRIOR TO MANUFACTURE OF FRAMES, DOORS, STOREFRONTS, ETC.
B)	PROVIDE DOOR SWINGS AS REPRESENTED, UNLESS NOTED OTHERWISE.
C)	ALL DOOR NUMBERS ARE LABELED PER THEIR ROOM NUMBERS, THEN A SEQUENTIAL SUFFIX "A, B, C"
D)	ALL HINGED DOORS TO HAVE HOLLOW METAL FRAMES WITH EITHER 2" OR 4" HEADS AS INDICATED IN THE SCHEDULE AND PER THE DETAILS. OTHER CRITERIA (RATING, ETC.) AS SCHEDULED.
E)	ALL ALUMINUM STORFRONT IS TO BE FRONT-GLAZED W/ G1T AT EXTERIOR WALL AND G3T AT INTERIOR WALL. FRAMES SHOULD

GENERAL DOOR

AND FRAME NOTES

BE 2" NOMINAL X 4 1/2" NOMINAL.

3



WINDOW TYPES A002 3/8" = 1'-0"



A002 1/2" = 1'-0"

GLASS TYPE SCHEDULE

(GIT) 1-INCH INSULATED GLASS FULLY TEMPERED, WITH LOW-E COATING, CLEAR (EXTERIOR GLASS) G2 1-INCH INSULATED GLASS, WITH LOW-E COATING, CLEAR (EXTERIOR GLASS)

(G3T) 1/4-INCH FULLY TEMPERED GLASS, CLEAR

(G4) 1/4-INCH VISION GLAZING, CLEAR

(s1) SPANDEL PANEL, COLOR BY ARCH

(G5T) 1/2" BUTT-GLAZED TEMPERED GLASS

- CONSTRUCTION UNLESS SPECIFICALLY NOTED OTHERWISE
- DIAGRAM
- LOCATIONS AND RATINGS.
- AND JANITOR ROOMS.
- CORRIDORS, & STAIRWELLS.
- BETWEEN THE STC RATED SYSTEM AND ALL DISSIMILAR SURFACES (IE
- LOCATIONS.
- ASSEMBLY AND THAT IS ALSO COMPATIBLE WITH JOINT SUBSTRATES. SUBMIT COMPLETE JOINT SYSTEM PRODUCT INFORMATION FOR ALL CONDITIONS.
- SPACES EXIST ABOVE (OR BELOW).
- STRUCTURE ABOVE. IMMEDIATELY AND REPLACED WITH NEW DRY GYPSUM BOARD.
- INFORMATION. MARK OR SUBMIT EQUIVALENT TESTING DATA. LIMITING HEIGHTS AND ALLOWABLE DEFLECTION FOR SPECIFIC APPLICATIONS
- GAUGE OR GREATER. WALLS.
- SHALL RUN FULL HEIGHT OF PARTITION UNLESS NOTED OTHERWISE. SOUND MATERIAL.
- WALL TYPE AS ADJACENT WALLS. WITHIN THE WALLS. THIS INCLUDES BUT IS NOT LIMITED TO, ALL MILLWORK,

- LOCATION PLAN TO ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.



VAPOR BARRIER. FLUID APPLIED WITH TAPED SEAMS, OR BUILDING WRAP WITH OVERLAP AND TAPED SEAMS 3/4" FIRE RETARDANT PLYWOOD -BATT INSULATION, MIN R-19 -8" METAL STUD ——— STENCIL "NO STOAGE" IN RED 3 INCH HIGH LETTERS ON WALL @ 10' O.C. -----VAPOR BARRIER RUN BEHIND GWB. PERFORATED HANGING STRAPS SCREWED TO BOTTOM OF LIGHT-GAUGE JOISTS 5/8" GWB TYPE "X" 3 5/8" OR 6" METAL STUD, SEE FLOOR PLAN BATT INSULATION, MIN R-13 -5/8" GWB TYPE "X"

A5 DUSTCAP COVER ENLARGED DETAIL AT SPEC OFFICE A002 1" = 1'-0"



2

A1 ENLARGED TENANT OFFICE EXPANSION PLAN A100 3/8" = 1'-0"

1





4

A3 ENLARGED TENANT OFFICE EXPANSION RCP A100 3/8" = 1'-0"

3

15



5

LIGHT FIXTURES WITH HVA AND DUCTWORK RUNS AS DEVICES. 4. SEE ELECTRICAL DRAWI LIGHT FIXTURES AND EMEF LOCATIONS.	C SUPPLY DUCTS, RETURNS, WELL AS FIREPROTECTION NGS FOR LOCATION OF NIGHT RGENCY LIGHTING FIXTURE
	GYPSUM BOARD CEILING
	2 x 2 ACOUSTICAL CEILING TILES
<u>CEILING TAG</u> 2' x 2' ACT 10'-0" A.F.F.	CEILING SYSTEM (WHEN INDICATED) CEILING HEIGHT
↑♥↑	EXIT SIGN - WALL MOUNTED (DIRECTIONAL ARROWS WHERE INDICATED)
$\stackrel{\rightarrow}{\bigotimes}$	EXIT SIGN - CEILING MOUNTED (DIRECTIONAL ARROWS WHERE INDICATED)
	EMERGENCY LIGHT
\bigotimes	ROUND SUPPLY DIFFUSER
	2 x 2 SUPPLY DIFFUSER
	2 x 2 RETURN DIFFUSER
	EXHAUST FAN
	2 x 2 RECESSED FLUORESCENT
	2 x 4 RECESSED FLUORESCENT

GENERAL CEILING NOTES:

TYPES

FINISH SCHEDULE.

1. ALL FIXTURES IN CEILING TO BE CENTERED ON FULL

2. CEILING TYPES AND FINISHES ARE AS SHOWN ON

3. CONTRACTOR SHALL COORDINATE THE LOCATION OF

TILE. SEE ELECTRICAL DRAWINGS FOR SPECIFIC FIXTURE





DIVISION 15000: HVAC SPECIFICATIONS

GENERAL PROVISIONS:

- A. IN RESPECT TO ALL MATERIALS REQUIRED, THE CONTRACTOR SHALL FURNISH MATERIALS MEETING NEMA, ASME AND ASTM SPECIFICATIONS. THE INSTALLATION OF ALL WORK SHALL CONFORM TO THE 2021 VERSION OF THE INTERNATIONAL MECHANICAL CODE AND ALL AMENDMENTS, AND THE 2009 INTERNATIONAL ENERGY CODE. MECHANICAL CONTRACTOR IS RESPONSIBLE TO PAY ALL FEES FOR MECHANICAL PERMITS PRIOR TO STARTING WORK. MECHANICAL CONTRACTOR SHALL BE LICENSED IN THIS AREA TO PERFORM THE WORK. SEE DIVISION 1, "GENERAL REQUIREMENTS" OF THIS PROJECT SPECIFICATION FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- B. MATERIALS SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED, AND SHALL BE PROTECTED FROM ALL INJURY UNTIL FINAL ACCEPTANCE OF THE SYSTEM. IF NECESSARY, THE EQUIPMENT MUST BE CLEANED AND SPOT-PAINTED. PROVIDE AN EXTRA SET OF CLEAN FILTERS FOR ALL HVAC UNITS TO OWNER AFTER CONSTRUCTION IS SUBSTANTIALLY COMPLETED.
- C. THIS CONTRACTOR SHALL REMOVE ALL TOOLS, SURPLUS MATERIALS AND DEBRIS OF ALL KINDS FROM HIS WORK AND LEAVE ALL IN A CLEAN, PERFECT CONDITION, FULLY SATISFACTORY TO THE ARCHITECT.
- D. CONTRACTOR SHALL PROVIDE OWNER WITH TWO (2) SETS OF "AS-BUILT" DRAWINGS.
- E. FURNISH ALL MATERIALS, TRANSPORTATION, RIGGING, HOISTING, ETC. TO PROVIDE A COMPLETE AND OPERABLE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM.
- F. ALL EQUIPMENT IS TO BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND INSTRUCTIONS, UNLESS NOTED OTHERWISE. GOOD CONSTRUCTION PRACTICES SHALL BE USED IN A TIMELY FASHION THAT DOES NOT DELAY THE WORK OF OTHER TRADES. COORDINATE ALL WORK WITH OTHER TRADES AND WITH THE GENERAL CONTRACTOR TO ENSURE PROPER INSTALLATION OF THE SYSTEM WITH NO INTERFERENCES AND WITH PROPER CLEARANCE.
- G. ALL TEMPERATURE CONTROL WIRING SHALL BE DONE BY THE MECHANICAL CONTRACTOR. USE CONDUIT WHERE EXPOSED. THIS CONTRACTOR SHALL FURNISH ALL REQUIRED CONTROLS AND WIRING DIAGRAMS AND SHALL SUPERVISE INSTALLATION. DELIVER RECORD CONTROLS DRAWINGS TO THE OWNER.
- H. SYSTEM IS TO BE BALANCED BY AN AABC {OR NEBB} CONTRACTOR OR AIRFLOW SERVICES, LLC. COMPLY WITH SMACNA HVAC TAB TO ACHIEVE AND CONFIRM COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS. DELIVER REPORT TO OWNER AND ENGINEER. REPORTS MUST INDICATE A MINIMUM OF THE FOLLOWING MEASUREMENTS: HEATING AND COOLING DELTA-T ACROSS UNITS, CFM OF SUPPLY, RETURN, EXHAUST, AND OUTSIDE AIR AND THEIR ASSOCIATED TEMPERATURES, AND TOTAL AND STATIC PRESSURES. T&B WORK SHALL INCLUDE ANY KITCHEN EXHAUST FANS. ENGINEER REQUIRES T&B TO ADJUST LAST VOLUME DAMPER IN SYSTEM, IF SYSTEM IS ON LOW SPEED, AS NECESSARY TO PREVENT OVER FLOWING OF CFM. THIS INCLUDES MINI SPLITS.
- PROVIDE MAINTENANCE MANUALS FOR ALL MECHANICAL SYSTEMS AND EQUIPMENT TO EACH OWNER BEFORE FINAL ACCEPTANCE. ALL SYSTEMS AND EQUIPMENT ARE TO BE GUARANTEED FOR PARTS AND LABOR FOR ONE YEAR (EXCEPT COMPRESSORS SHALL ALSO HAVE 5 YEAR GUARANTEE ON PARTS).
- ALL WORK SHALL BE VERIFIED WITH OWNER PRIOR TO PURCHASING ANY EQUIPMENT AND MATERIALS OR PROVIDING ANY LABOR. ANY CHANGES TO THE DESIGN SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE ANY WORK IS DONE. MECHANICAL SHALL COORDINATE WITH ANY KITCHEN CONSULTANT DRAWINGS.
- K. CERTIFIED VENDOR SHOP DRAWINGS SHALL BE SUBMITTED FOR EQUIPMENT IDENTIFIED IN JOB SPECIFICATIONS AND DRAWINGS. EXCEPT UNDER SPECIAL PERMISSION, ORDERS SHALL NOT BE PLACED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED BY THE ENGINEER. SHOP DRAWINGS SHALL BE UTILIZED FOR DIMENSIONS, CONNECTIONS, ETC., OF ALL EQUIPMENT. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS, CONSTRUCTION DETAILS, ETC.
- THE CONTRACTOR MAY SUBSTITUTE ANY EQUIPMENT IN LIEU OF WHAT IS INDICATED ON THE DRAWINGS AND SPECS, PROVIDED IT IS APPROVED BY THE ARCHITECT/ENGINEER. PRE-APPROVED SUBSTITUTE MANUFACTURERS ARE LISTED IN THE SPECS. REQUEST FOR PRIOR APPROVAL OF ANY OTHER MANUFACTURER MUST BE MADE IN WRITING TO THE ARCHITECT/ENGINEER (10) DAYS PRIOR TO THE BID DATE. THE USE OF SUBSTITUTE EQUIPMENT IS THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AN EQUALLY FUNCTIONAL SYSTEM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE AND COORDINATE ALL REQUIRED CHANGES ASSOCIATED WITH THE SUBSTITUTE EQUIPMENT RELATED TO ELECTRICAL, PLUMBING, PIPING, CONTROLS, STRUCTURAL, DUCTWORK, FIRE PROTECTION, AND OTHER RELATED EQUIPMENT.
- M. SEISMIC EQUIPMENT: ALL NEW, (AND EXISTING IF INCORPORATED INTO THE CONSTRUCTION) MECHANICAL, PLUMBING, AND GAS EQUIPMENT, APPLIANCES, PIPING AND SUPPORTS THAT ARE EXPOSED TO THE WIND AND/OR SEISMIC FORCES. SHALL BE DESIGNED TO RESIST THE WIND AND/OR SEISMIC FORCES IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (2021 IMC 301.12, 301.15, 506.3.3, IPC 308.2, 502.4, IFGC 301.10, 301.12). ALL SEISMIC HARDWARE SHALL BE DESIGNED, STAMPED, AND PROVIDED BY A SEISMIC VENDOR SUCH AS CHAPMAN, FAULKNER HAYNES, VIBRO-ACOUSTICS, AND KINETICS. SEISMIC SUBMITTALS ARE TO BE APPROVED AND BECOME PART OF THE CONSTRUCTION DOCUMENTS.. BE ADVISED THAT THE GC AND MC MUST WORK WITH STRUCTURAL TO USE THE SEISMIC SUBMITTALS TO ACCOMMODATE THE PARTICULAR EQUIPMENT PURCHASED. SUBSTITUTE EQUIPMENT MAY HAVE DIFFERENT DIMENSIONS. CUSTOM SUPPLEMENTAL METAL SUPPORTS MAY BE REQUIRED. SEISMIC ENGINEERING IS A DELEGATED DESIGN, DELEGATED BY THE MECHANICAL ENGINEER.
- N. ENGINEER/ARCHITECT MUST BE GIVEN FULL OPPORTUNITY TO MAKE ANY INSPECTIONS AS DESIRED, OF ALL PHASES OF CONSTRUCTION AND EQUIPMENT. CONTRACTOR MUST NOTIFY AND PROVIDE ENGINEER WITH OPPORTUNITY TO INSPECT MECHANICAL SYSTEMS BEFORE CEILING IS INSTALLED. ANY WORK WHICH IS BEING IMPROPERLY INSTALLED MAY BE REJECTED AS SPECIFIED IN THE JOB SPECIFICATIONS.
- O. WHEN HVAC EQUIPMENT IS OPERATED DURING CONSTRUCTION, THE MECHANICAL AND GENERAL CONTRACTOR SHALL MAKE EVERY PRECAUTION TO PROTECT THE HVAC SYSTEM DURING OPERATION. CONTRACTORS SHALL KEEP ALL FILTERS CLEAN, NOT OPERATE UNITS WHEN DOORS AND WINDOWS ARE OPEN, AND NOT OPERATE UNITS WHEN SANDING, SWEEPING, PAINTING, ETC. IS BEING DONE. IF UNITS HAVE TO BE OPERATED IN A DIRTY ENVIRONMENT, 2" FILTER MEDIA MUST BE TAPED OVER THE RETURN GRILLS.
- P. ENTIRE SYSTEM INCLUDING ALL EQUIPMENT (HVAC EQUIPMENT, CONTROLS, VALVES, GAUGES, ETC.) SHALL HAVE A ONE YEAR EQUAL PARTS AND LABOR WARRANTY FROM THE DATE OF SUBSTANTIAL COMPLETION AS DEFINED BY THE ARCHITECT. ALL ADDITIONAL WARRANTIES SUCH AS THE AIR CONDITIONING COMPRESSORS, SHALL APPLY AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- Q. SEE ARCHITECTURAL DRAWINGS FOR PHASING REQUIREMENTS AND PLAN CONSTRUCTION AND ADDITIONAL EQUIPMENT NEEDED ACCORDINGLY.
- R. LABEL ALL EQUIPMENT AND PIPING WITH PERMANENT SIGNAGE WITH 1" LETTERING. IDENTIFICATION TAGS SHALL BE BY BRIMAR OR EQUAL.
- S. THE GENERAL ROUTES OF THE DUCTS AND PIPES ARE VERBALIZED AND/OR SHOWN ON THE PLANS. THE EXACT ROUTE SHALL BE DETERMINED BY JOB CONDITIONS AND SHALL BE COORDINATED WITH ALL OTHER TRADES. FIELD COORDINATE ROUTING OF DUCTWORK AND PIPING PRIOR TO FABRICATION. ADDITIONAL OFFSETS, FITTINGS, ETC., MAY BE REQUIRED DUE TO CONFLICTS WITH TRADES AND/OR TO MEET FIELD CONDITIONS. OFFSETS, FITTINGS, ETC., SHALL BE FURNISHED AND INSTALLED AS NECESSARY. CONTRACTOR HAS THE OPTION TO PROVIDE SKETCH/PLANS FOR ALTERNATE ROUTING. MUST GET APPROVAL FROM ENGINEER. ALSO MUST UNDERSTAND THAT TESTING AND BALANCE IS REQUIRED TO ACHIEVE THE ASSOCIATED FLOW RATES.
- T. OWNER MUST UNDERSTAND THAT WHERE APPLICABLE, THE SYSTEMS ARE DESIGNED UNDER THE INTERNATIONAL ENERGY CODE FOR A TARGET THERMOSTAT SET POINT OF 74 DEGREES. THIS SETTING IS HIGHLY RECOMMENDED DURING THE HOT HUMID SUMMER. NOT ONLY FOR ENERGY EFFICIENCY, BUT ALSO FOR HUMIDITY REDUCTION. IF THE OUTDOORS IS DRY, THE SYSTEM CAN BE SET DOWN TO AS LOW AS 70 DEGREES. ANYTHING LESS THAN 70 IS NOT RECOMMENDED. OWNER MUST PRACTICE GOOD DOOR MANAGEMENT AND KEEP DOORS AND WINDOWS SHUT DURING THE SUMMER. OTHERWISE THERE MAY BE HUMIDITY PROBLEMS. BUILDING ENVELOPE TESTING IS HIGHLY RECOMMENDED. AS PART OF THE CONSTRUCTION PROCESS.

DUCTWORK:

- A. LOW PRESSURE (2" PRESSURE CLASS), HIGH PRESSURE (6" PRESSURE CLASS): PER SMACNA "DUCT CONSTRUCTION" CLASSIFICATION. DUCTWORK AND PLENUMS: SEAL CLASS A. LEAKAGE SHALL NOT EXCEED 5%.
- B. LOW PRESSURE DUCT FABRICATION AND INSTALLATION SHALL BE AS FOLLOWS:
 - ALL RIGID DUCTWORK SHALL BE GALVANIZED SHEET METAL. UNLESS SPECIFIED DIFFERENTLY BELOW OR ON DRAWINGS. ALL METAL AND FLEXIBLE DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH STANDARDS SET FORTH IN LATEST EDITION OF THE SMACNA "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE".
 - DUCT SIZES SHOWN ON THE PLANS ARE DIMENSIONS, AND SHALL BE ADHERED TO UNLESS JOB CONDITIONS REQUIRE ALTERATIONS. REVISIONS TO DUCT SIZES SHALL BE BASED ON THE SAME EQUAL AREA OF DUCTWORK THAT REQUIRES FIELD CHANGES. IF DUCT IS LINED, THE DUCT SHALL BE BUILT TO ACCOMMODATE THE INSIDE DIMENSION SHOWN. CONTRACTOR HAS THE OPTION TO CONVERT TO EQUIVALENT ROUND DUCTS, BUT THE T&B REPORT MUST BE MET FOR EVERY GRILLE, AND IF NOT, THE CONTRACTOR MUST MODIFY DUCTWORK TO ACHIEVE AT HIS COST.
 - ALL RADIUS ELBOWS IN THE DUCT SYSTEM SHALL BE MADE WITH CENTERLINE RADIUS OF ONE AND ONE-HALF (1 1/2) TIMES THE TURNING WIDTH OF THE DUCT. ALL SQUARE ELBOWS SHALL BE INSTALLED WITH SINGLE THICKNESS TURNING VANES. CHANGES IN DUCT SIZES SHALL BE 15 DEG. DIVERGING AND 60 DEG. CONTRACTING, FLOW MAXIMUM ANGLES.
 - THE GENERAL ROUTE OF THE DUCTS IS SHOWN ON THE PLANS. THE EXACT ROUTE SHALL BE DETERMINED BY JOB CONDITIONS AND SHALL BE COORDINATED WITH ALL OTHER TRADES. FIELD COORDINATE ROUTING OF DUCTWORK 4. PRIOR TO DUCTWORK FABRICATION. ADDITIONAL OFFSETS, FITTINGS, ETC., REQUIRED DUE TO CONFLICTS WITH TRADES AND/OR TO MEET FIELD CONDITIONS SHALL BE FURNISHED AND INSTALLED AS NECESSARY.
- HANGERS TO BE 8 FT. CENTERS MAXIMUM WITH 1" X 20 GAUGE MINIMUM STRAPS FOR DUCTS (BENT UNDER BOTTOM OF DUCT AND ATTACHED WITH INSULATION ON THE OUTSIDE OF THE STRAP AND ALL INSULATION PENETRATION 5. SEALED WITH MASTIC). FOR LARGE DUCTS FOLLOW SMACNA FOR HANGER CONSTRUCTION.
- INSULATED SHEET METAL DUCTWORK SHALL BE SEALED WITH DUCT SEALANT PRIOR TO THE INSTALLATION OF DUCT INSULATION. JOINTS OF UNINSULATED SHEET METAL (EXHAUST DUCT) SHALL BE SEALED WITH DUCT SEALANT. 6 USE UNITED DUCT SEALER, OR DUCTMATE (WATER OR SOLVENT BASED).
- C. INSULATION SHALL BE AS FOLLOWS:
 - 1. ALL SUPPLY. OUTSIDE AIR. AND RETURN AIR (EXCEPT AS INDICATED BELOW) SHEET METAL DUCTWORK SHALL BE INSULATED WITH 2.2" THICK FIBERGLASS ALL-SERVICE DUCT WRAP WITH FACTORY-LAMINATED FRK FOIL REINFORCED KRAFT FACING. SEAL INSULATION WITH (2) COATS OF CHILDERS CP-30 OR CP-35 MASTIC (OR EQUAL) AND WITH AN INTERMEDIATE LAYER OF OPEN WEAVE GLASS FABRIC. TAPE WILL NOT BE ALLOWED. ANY DUCTWORK IN ATTIC ABOVE BUILDING INSULATION SHALL HAVE 3 INCHES OF DUCTWRAP.
 - ALL INSULATION ADHESIVE USED FOR APPLYING INSULATION SHALL HAVE FIRE AND SMOKE HAZARD RATINGS AS TESTED UNDER ASTM-84, NFPA-255, AND U.L. 723 NOT EXCEEDING A FLAME SPREAD 25 AND SMOKE DEVELOPED 2. OF 50.
 - .3 DUCT LINER SHALL BE EQUAL TO CERTAINTEED TOUGHGUARD DUCT LINER WITH ENHANCED SURFACE AND WITH AN AIR STREAM SURFACE THAT CONTAINS AN EPA REGISTERED ANTIMICROBIAL AGENT. PROVIDE LINED DUCT FOR ALL RETURN PLENUMS AT AHU'S. DUCT LINER SHALL BE 1" THICK WITH 1.5 PCF DENSITY. INSTALL ALL INSULATION IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. UPSIZE DUCTWORK FOR LINED DUCT.
 - DRAIN LINE AND REFRIGERANT INSULATION SHALL BE RUBBER BASED CLOSED CELL ELASTOMERIC FOAM INSULATION EQUAL TO ARMAFLEX. INSULATION SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM D 1056 OR D1667, FLEXIBLE, CLOSED CELL, POLYETHELYNE/POLYOLEFIN PRE-SLIT TUBING. APPROVED MANUFACTURERS ARE HALSTEAD AND NOMACO. SUPPORT REFRIGERANT PIPING AND COPPER DRAIN EVERY 10 FEET WITH UNISTRUT. PROVIDE SADDLES FOR 5/8" REFRIGERANT PIPE AND LARGER AND 1" AND LARGER DRAIN PIPE. SUPPORT PVC DRAIN PIPE EVERY 6 FEET. PROVIDE 3/4" THICKNESS FOR REFRIGERANT LINE AND 1/2" FOR DRAIN LINE. INSULATION EXPOSED TO THE WEATHER SHALL BE FINISHED WITH TWO COATS OF UV PAINT EQUAL TO ARMACELL WB. COLOR BY OWNER/ARCHITECT.
- D. FLEXIBLE DUCTS SHALL BE EQUAL TO FLEXMASTER TYPE 8M INSULATED (R=6), CONFORMING TO UL181 CLASS 1 AIR DUCT WITH A FLAME SPREAD LESS THAN 25 AND A SMOKE DEVELOPMENT OF LESS THAN 50. FLEXIBLE DUCTS SHALL BE USED TO CONNECT BRANCH DUCTS TO AIR DISTRIBUTION DEVICES AND SHALL NOT EXCEED 8 FEET IN LENGTH. FLEXIBLE DUCTS SHALL BE ROUTED AS STRAIGHT AS POSSIBLE AND WITHOUT CRIMPS OR KINKS. FASTEN TO DUCTS AND DEVICES WITH DUCT STRAPS PER MANUFACTURER'S INSTRUCTIONS. SUBSTITUTES MUST ACHIEVE EQUAL SOUND RATINGS. THERMAFLEX M-KE IS AN APPROVED EQUAL.
- E. SQUARE-TO-ROUND SIDE TAKE-OFFS SHALL BE EQUAL TO FLEXMASTER STO WITH DAMPER FOR SUPPLY AND STO FOR RETURN. PROVIDE 26 GAUGE G-90 GALVANIZED STEEL, 1" WIDE PREPUNCHED MOUNTING FLANGES WITH CORNER CLIP AND ADHESIVE GASKETS. DAMPER NOT REQUIRED FOR RETURNS UNLESS INDICATED ON THE DRAWING.
- F. ROUND-TO-ROUND TAKEOFF COLLARS SHALL BE EQUAL TO FLEXMASTER SPST. PROVIDE DAMPER FOR SUPPLY ONLY. PROVIDE WITH FLANGE, AND FOAM GASKET, BUT WITHOUT SCOOP. SECURE COLLAR TO DUCT WITH SHEET METAL SCREWS AND SEAL TO DUCT AIR TIGHT WITH DUCT SEALANT. DAMPER NOT REQUIRED FOR RETURNS UNLESS INDICATED ON THE DRAWING.
- G. FURNISH AND INSTALL ALL MANUAL DAMPERS INDICATED ON DRAWINGS OR NECESSARY TO PROPERLY DISTRIBUTE AND BALANCE AIR. DAMPERS SHALL BE BUTTERFLY TYPE AND BE EQUAL TO FLEXMASTER SLBO WITH 3/8" SQUARE SHAFT, NYLON BEARINGS, INSULATION BUILD OUT AND HEAVY DUTY LOCKING HAND QUADRANT AND INTEGRAL BEADS ON BOTH ENDS. RECTANGULAR DAMPERS SHALL BE EQUAL TO RUSKIN CD-35. FOR ALL VOLUME DAMPERS ABOVE HARD CEILING, WHICH ARE NOT ACCESSIBLE, USE REMOTE CABLE CONTROL SYSTEM BY ZONING REGULATOR (FAULKNER-HAYNES). PROVIDE 270-896C CONTROLLER AND FACTORY DAMPER. EQUAL AND OPTIONAL PRODUCT IS THE ELECTRONIC TYPE, YOUNG REGULATOR MODEL EDB.
- H. PROVIDE FLEXIBLE DUCT CONNECTORS AT SUPPLY AND RETURN OF ALL AIR HANDLERS.

DIVISION 15000: HVAC SPECIFICATIONS

EQUIPMENT:

- A. SPLIT SYSTEM HEAT PUMP UNITS: SPECIFIED UNIT IS TRANE. AMERICAN STANDARD, CARRIER, BRYANT, ICP, YORK, AND LENNOX ARE APPROVED EQUALS IF THEY MEET THE CAPACITIES AND SEERS FOR ALL BELT DRIVEN AIR HANDLERS. REFRIGERANT PIPING SHALL BE COPPER PIPE AND FITTINGS. REFRIGERANT LINE SIZING PIPE INSTALLATION ARE TO BE BY MANUFACTURER'S RECOMMENDATIONS, ESPECIALLY FOR LONG RUNS. CONDENSING UNIT TO BE SEISMICALLLY FASTENED PER IBC. WHERE INSTALLED ON ROOF, FLASHED CURB RAILS ARE REQUIRED.
- B. PROVIDE THERMOSTATS WITH THE FOLLOWING: AUTOMATIC CHANGE-OVER, ON/OFF/AUTO FAN SWITCH, ON/OFF MODE SWITCH, MOUNTED 48" AFF, AND 7 DAY PROGRAMMABLE WITH NO BATTERIES REQUIRED. (2) HOURS OF TRAINING IN THERMOSTAT OPERATION FOR THE OWNER.
- C. LOUVERS AND BRICK VENTS: LOUVERS SHALL BE DRAINABLE WITH BIRD SCREEN AND EXTENDED SILL. BRICK VENTS SHALL HAVE INTEGRAL WATER STOP, EXTENDED SILL AND 1/4" MESH SCREEN. LOUVERS OR EQUAL. EQUAL MANUFACTURERS ARE PENN, RUSKIN, NCA, UNITED ENERTECH, OR POTTORFF. CONSTRUCTION SHALL BE EXTRUDED ALUMINUM WITH ANODIZED BRONZE FINISH OR KYNAR COLOR BY ARCHITECT.
- D. ROUND MOTORIZED DAMPERS FOR FRESH AIR SHALL BE 24 VOLT. ROUND DAMPERS SHALL BE FAIL TO CLOSED HONEYWELL MODEL ARD25 OR YOUNG REGULATOR MODEL 4010 OR EQUAL. T&B TO SET VOLT AND EQUAL TO RUSKIN CD-50. INTERLOCK CONTROL WRING BY MECHANICAL FOR ALL DAMPERS. WIRE TO TIME CLOCK IF INDICATED.
- HAVE A 5 YEAR WARRANTY.
- M. FILTERS: ALL FILTERS SHALL BE A MINIMUM OF MERV 13. PROVIDE OWNER WITH A PRICE ADDER TO INSTALL UV LIGHT FILTER IN ALL DUCTED SYSTEMS.

ROOF REFRIGERANT PIPE PENETRATION DETAIL NO SCALE

SCHEDULED. SCROLL COMPRESSOR REQUIRED. INTERNAL PROTECTION DEVICES SHALL INCLUDE TEMPERATURE AND CURRENT SENSITIVE OVERLOADS, LOSS OF CHARGE PROTECTION, SHORT CYCLING PROTECTION, SLOPED DRAIN PAN, AND PRESSURE RELIEF VALVE. FAN MOTOR SHALL HAVE THERMAL OVERLOAD PROTECTION. PROVIDE COMPRESSOR HARD START KIT AND COIL GUARD. ALL MODELS MUST BE UL OR CSA LISTED AND RATED PER ARI STANDARDS. PROVIDE OWNER WITH AN EXTRA SET OF FILTERS. PROVIDE A MINIMUM WARRANTY OF 1 YEAR PARTS AND 5 YEARS COMPRESSOR. FACTORY STARTUP IS REQUIRED

MUST BE AMCA 550 RATED (INTAKE LOUVERS ONLY) AND RATED FOR WIND BORN DEBRIS AND RAIN (AMCA 540) IN THE GEOGRAPHIC LOCATION OF THE JOB. LOUVERS ABOVE 30 FEET DO NOT HAVE TO BE 540 RATED. LOUVER SHALL BE NAILOR 1606DHPM. 550 RATED LOUVERS SHALL HAVE FACTORY MOUNTED NAILOR 2020 DAMPER AND MANUAL OPERATOR OR EQUAL. BRICK VENT SHALL BE RUSKIN BV-100

MINIMUM & MAXIMUM BLADE POSITION STOP PER THE AHU SCHEDULE OR NOTES. POWER WIRING FROM 24 VOLT TRANSFORMER IN UNIT BY MECHANICAL. RECTANGULAR MOTORIZED DAMPERS SHALL BE 24

COIL COATINGS: MUST BE ADD ALTERNATE FOR OWNER TO CONSIDER AS IT IS RECOMMENDED. COIL COATINGS ARE REQUIRED FOR ALL CONDENSER COILS AND ALL 100% FRESH AIR UNIT EVAPORATOR COILS. COATING SHALL BE EITHER 1.) A FACTORY APPLIED BY INFINITY COATING SERVICES, APPROVED EQUALS: ELECTRO-FIN / E-COATING, BRONZ-GLOW, OR ADSIL, OR 2.) AN ON-SITE INSUTU SPRAYED COATING BY INFINITY COATING SERVICES, APPROVED EQUALS: LUVATA ES2 WITH STAINLESS STEEL PARTICLES. ALL ON-SITE COATINGS MUST BE DONE UNDER THE PROTECTION OF A TENT OR GUARD. ALL COATINGS MUST

NOTES:

- 1.) FLOOR MOUNTED AHU: BOLT ANGLE FRAME TO FLOOR WITH ANCHOR BOLT AND BUSHING. BOLT THRU NEOPRENE PAD. FRAME MUST BE BOLTED TO FLOOR OUTSIDE OF EMERGENCY PAN.
- 2.) ROOF RAIL MOUNTED UNIT: BOLT UNIT TO RAIL THROUGH VIBRATION PAD WITH ANCHOR BOLT, ANGLE, AND BUSHING.

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	PORTSIDE DEVELOPMENT	BUILDING B	TENANT IMPROVEMENTS	BERKELEY COUNTY, SC
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CE | ENGINEERING

125 Wappoo Creek Dr.

Building B

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

EXIT FIXTURES; SEE SCHEDULE

OCCUPANCY SENSOR

3 WAY SWITCH

DIMMER SWITCH

<u>LEGEND</u>

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DUPLEX RECEPTACLE

DRY TYPE TRANSFORMER

ELECTRICAL SPECIFICATIONS

PART 1 – GENERAL

- 1.01 SCOPE: A. FURNISH AND INSTALL A COMPLETELY WIRED AND OPERATIONAL ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO THESE MAJOR ITEMS.
 - LIGHTING FIXTURES AS INDICATED AND SPECIFIED ON PLANS. ELECTRICAL PANELS, CONTROLS, SERVICE, DISCONNECTS, CONDUIT, WIRING, ETC., FOR ALL OUTLETS AND EQUIPMENT.
 - TELEPHONE OUTLETS AND CONDUIT AS INDICATED.

1.02 CODES, REGULATIONS AND STANDARDS: A. THE INSTALLATION SHALL COMPLY WITH APPLICABLE LOCAL AND STATE CODES AND ORDINANCES, INCLUDING THE REGULATIONS OF THE

- FOLLOWING: ICC A117.1 ACCESSIBILITY AND USEABLE BUILDING AND FACILITIES STANDARDS - 2017 2.10 TELEPHONE SYSTEM: SOUTH CAROLINA BUILDING CODE - 2021 A. PROVIDE EXTERIOR TELEPHONE CABINET WITH BACKBOARD AND GROUND CONDUCTOR AS INDICATED. PROVIDE CONDUITS WITH PULL STRINGS TO NATIONAL ELECTRIC CODE - 2020 SERVICE LOCATION. INTERNATIONAL ENERGY CONSERVATION CODE - 2009 LOCAL BUILDING CODES AND ORDINANCES 2.11 FIRE ALARM SYSTEM: PROVIDE A COMPLETE ADDRESSABLE FIRE ALARM SYSTEM WITH DEVICES AS SHOWN ON DRAWINGS. THE FOLLOWING INDUSTRY STANDARDS, SPECIFICATIONS ARE ALSO MINIMUM REQUIREMENTS: INSTALL AND TEST SYSTEM PER NFPA72. THE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION STANDARDS (NEMA). THE MANUFACTURER'S RECOMMENDATION. 2.12 TEMPERATURE CONTROL: UNDERWRITER LABORATORIES INCORPORATED STANDARDS (UL). UNLESS OTHERWISE INDICATED ON THE PLANS, ALL CONDUIT, WIRING, BOXES, ETC. FOR TEMPERATURE CONTROLS SHALL BE FURNISHED AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI). INSTALLED BY THE MECHANICAL CONTRACTOR. 1.03 PERMITS 2.13 LABELING
- A. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTION FEES.
- 1.04 INSPECTION OF SITE:
- PRIOR TO SUBMITTING A BID, VISIT THE SITE OF THE PROPOSED CONSTRUCTION TO BECOME THOROUGHLY ACQUAINTED WITH EXISTING UTILITIES, WORKING CONDITIONS, ETC. ALLOWANCE WILL NOT BE MADE FOR NONCOMPLIANCE WITH THIS CONDITION AFTER BIDDING.
- 1.05 CLEAN-UP:
- KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL, OR RUBBISH CAUSED BY EMPLOYEES OR WORK UNDER THIS DIVISION OF THE SPECIFICATION, AT THE COMPLETION OF THE WORK, REMOVE ALL SURPLUS MATERIALS, TOOLS, ETC., AND LEAVE THE PREMISES "BROOM-CLEAN". REMOVE ALL TEMPORARY WIRING UPON PROJECT COMPLETION.
- 1.06 DRAWINGS:
 - A. THE DRAWINGS INDICATE THE GENERAL ARRANGEMENT AND LOCATIONS OF THE ELECTRICAL WORK. DATA PRESENTED ON THE THESE DRAWINGS ARE AS ACCURATE AS PLANNING CAN DETERMINE, BUT FIELD VERIFICATION OF ALL DIMENSIONS, LOCATIONS, LEVELS, ETC., TO SUIT FIELD CONDITIONS IS REQUIRED. REVIEW ALL ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND ADJUST ALL WORK TO MEET THE REQUIREMENTS OF CONDITIONS SHOWN. THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER ALL OTHER DRAWINGS. DISCREPANCIES BETWEEN DIFFERENT PLANS, OR BETWEEN DRAWINGS AND SPECIFICATIONS, OR REGULATIONS AND CODES GOVERNING THE INSTALLATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING BEFORE THE DATE OF BID OPENING. IF DISCREPANCIES ARE NOT REPORTED, BID THE GREATER QUANTITY OR BETTER QUALITY, AND APPROPRIATE ADJUSTMENTS WILL BE MADE AFTER CONTRACT AWARD. FIELD MEASURE AND CONFIRM MOUNTING HEIGHTS AND LOCATION OF ELECTRICAL EQUIPMENT WITH RESPECT TO COUNTERS, MECHANICAL EQUIPMENT, ETC. DO NOT SCALE DISTANCES OFF THE ELECTRICAL DRAWINGS; USE ACTUAL BUILDING DIMENSIONS.
 - B. IN ALL CASES SWITCHES CONTROLLING LIGHTING ARE TO BE LOCATED ON THE STRIKE SIDE OF DOORS. LOCATION INDICATED FOR SWITCHES AND OUTLETS ARE APPROXIMATE. OWNER MAY MAKE MINOR RELOCATIONS AT NO ADDITIONAL CHARGE. SHOULD STRUCTURAL ELEMENTS PREVENT RUNNING OF CONDUITS, INSTALLATION OF OUTLETS OR CABINETS AS SHOWN ON THE DRAWINGS, THE NECESSARY MINOR CHANGE, AS DETERMINED BY THE ARCHITECT SHALL BE PERMITTED.
- 1.07 CUTTING AND FITTING:
- PERFORM CORING, CUTTING, CHOPPING, FITTING, REPAIRING AND FINISHING OF THE WORK NECESSARY FOR THE INSTALLATION OF THE EQUIPMENT OF THIS SECTION. HOWEVER, NO CUTTING OF THE WORK OF OTHER TRADES OR OF ANY STRUCTURAL MEMBER SHALL BE DONE WITHOUT THE CONSENT OF THE ARCHITECT AND LANDLORD. PROPERLY FILL SEAL, FIREPROOF AND WATERPROOF ALL OPENINGS, SLEEVES, AND HOLES IN SLABS. FURNISH AND INSTALL ALL REQUIRED SLEEVES AND INSERTS.
- 1.08 COORDINATION WITH OTHER TRADES:
 - COOPERATE WITH OTHER TRADES SO THAT INSTALLATION OF ELECTRICAL OUTLETS AND EQUIPMENT WILL BE PROPERLY COORDINATED. CHECK CONDUIT, FIXTURE, AND OTHER EQUIPMENT LOCATIONS WITH THE OTHER TRADES TO AVOID CONFLICT WITH THE PIPING, DUCTWORK, STEEL, PIPING, BEAMS, OR OTHER OBSTRUCTIONS.
- CAREFULLY CHECK THE LOCATIONS OF THE OUTLET BOXES AND DETERMINE THAT THEY HAVE NOT BEEN DISTURBED DURING THE INSTALLATION OF MATERIAL OF OTHER TRADES.
- VERIFY ALL CIRCUITS FOR HVAC WITH MECHANICAL CONTRACTOR. C.
- 1.09 UTILITY COMPANIES
- A. COORDINATE ALL INCOMING SERVICES (POWER AND TELEPHONE) WITH RESPECTIVE UTILITY COMPANIES. INCLUDE ALL CHARGES IN BID.
- PART 2 PRODUCTS AND EXECUTION
- 2.01 MATERIALS:
- A. ALL MATERIAL SHALL BE NEW AND OF QUALITY AS SPECIFIED ON THE PLANS OR SPECIFICATIONS AND MUST CARRY THE UNDERWRITER'S LABORATORIES APPROVAL COVERING THE PURPOSE FOR WHICH THEY ARE USED, IN ADDITION TO MEETING ALL REQUIREMENTS OF THE CURRENT APPLICABLE CODES AND REGULATIONS.
- 2.02 CONDUIT:
- A. RIGID GALVANIZED STEEL (RGS) MAY BE USED IN ALL AREAS. INTERMEDIATE METALLIC CONDUIT (IMC) MAY BE USED IN INDOOR LOCATIONS. USE ELECTRICAL METALLIC TUBING (EMT) IN INDOOR LOCATIONS NOT IN CONTACT WITH EARTH. NOT IN CONCRETE SLABS OR CONCRETE WALLS AND NOT SUBJECT TO DAMAGE. USE FLEXIBLE STEEL CONDUIT NOT EXCEEDING 36" FOR INDOOR FINAL CONNECTIONS TO MECHANICAL EQUIPMENT AND NOT EXCEEDING 72" AND RECESSED REMOVABLE LIGHT FIXTURES. USE LIQUID-TIGHT FLEXIBLE STEEL CONDUIT NOT EXCEEDING 36" FOR
- OUTDOOR FINAL CONNECTIONS TO EQUIPMENT OR IN WET LOCATIONS. USE SCHEDULE 40 PVC BELOW GRADE & IN SLAB. WHERE THE CONDUIT ENTERS OUTLET BOXES, FIXTURES OR CABINETS, FIRMLY FASTEN BY DOUBLE LOCKNUTS AND BUSHINGS. FIRMLY FASTEN CONDUIT TO THE BUILDING CONSTRUCTION. RUN EXPOSED CONDUITS PARALLEL TO THE BUILDING LINES, SUPPORTED BY APPROPRIATE HANGERS (UNISTRUT, T&B OR APPLETON) FROM STRUCTURE, SUPPORT CONDUITS ON 5 FOOT INTERVALS AND WITHIN 3 FEET OF ANY BOX OR FITTING. DO NOT SUPPORT CONDUITS FROM CEILING, PIPING, CEILING SUPPORTS, DUCTWORK, OR OTHER CONDUITS.
- CONDUIT CONNECTORS SHALL BE DOUBLE LOCKNUT TYPE, UL LISTED AND LABELED, WITH COMPRESSION FITTINGS.
- CONDUIT SIZES SHALL BE AS REQUIRED BY CODE AND AS INDICATED OR SPECIFIED HEREIN. MINIMUM CONDUIT SIZE 1/2".
- ALL EMPTY CONDUIT SYSTEMS SHALL HAVE 200 LB. TEST PULL CORD TO FACILITATE INSTALLATION OF FUTURE WIRE. CONCEAL CONDUITS AND OUTLETS WITHIN THE BUILDING STRUCTURE; EXCEPT THAT CONDUITS MAY BE RUN EXPOSED AT PANELS AND ON
- CEILING. RUN CONDUIT SHOWN TO BE INSTALLED IN CABINETS. AND CASEWORK DIRECTED BY ARCHITECT.

2.03 OUTLET, PULL AND JUNCTION BOXES:

- A. EACH SWITCH, LIGHT, RECEPTACLE OR OTHER OUTLETS SHALL BE PROVIDED WITH A CODE GAUGE, GALVANIZED STEEL OUTLET BOX. JUNCTION AND PULLBOXES SHALL BE CODE GAUGE, GALVANIZED STEEL. OUTLET BOXES SHALL BE OF THE ONE PIECE, KNOCKOUT TYPE, IN GENERAL 4" SQUARE WITH PLASTER RING. PLASTER RINGS SHALL BE SET TO PROVIDE NOT MORE THAN 1/8" FROM WALL SURFACE TO RING. IN NO CASE SHALL PLASTER RING PROJECT BEYOND SURFACE OF WALL. SINGLE GANG RINGS SIMILAR TO STEEL CITY 52020 SHALL BE USED FOR BOXES IN UNFINISHED BRICK.
- BOXES INSTALLED IN POURED CEMENT FLOORS SHALL BE FLUSH TYPE PVC WITH WATERTIGHT GASKETED COVERS, GRAY METALLIC FINISH. WHERE BOXES ARE INSTALLED IN FLOORS WITH TILE OR CARPET FLOOR COVERING, COVERS SHALL BE OF THE RECESSED TYPE TO ACCOMMODATE THE FLOOR COVERING.
- BOXES INSTALLED FOR THE ALARM. COMPUTER AND SECURITY SYSTEM SHALL BE PROVIDED WITH APPROPRIATE COVERPLATES. C.
- 2.04 CONDUCTORS: UNLESS OTHERWISE SPECIFIED, ALL WIRE SHALL BE TYPE THW, THWN OR XHHW COPPER. THE WIRES SHALL BE COLOR CODED INDICATING PHASE & VOLTAGE. UNLESS OTHERWISE REQUIRED BY LOCAL ORDINANCES, GROUND WIRES SHALL BE GREEN, NEUTRAL WIRES SHALL BE WHITE. CONDUCTORS SHALL BE #12 AWG, UNLESS OTHERWISE INDICATED.
- DO NOT INSTALL CONDUCTORS UNTIL CONDUIT SYSTEM IS COMPLETE. USE MINERALAC #100 OR EQUIVALENT AS A LUBRICANT TO FACILITATE THE INSTALLATION OF THE CONDUCTORS IN THE CONDUIT SYSTEM.
- ALL BRANCH CIRCUITS SHALL CONTAIN A GROUND CONDUCTOR. ALL 3 PH BRANCH CIRCUITS SHALL CONSIST OF 3 PHASE CONDUCTORS AND C. GROUND CONDUCTOR.
- TYPE MC CABLE MAY BE USED WHERE CONCEALED IN WALLS OR ABOVE CEILING. D.
- 2.05 WIRING DEVICES: 20A, 125 VOLT.
 - WALL SWITCHES SHALL BE SPECIFICATION GRADE AC SILENT TYPE SWITCHES. RECEPTACLES SHALL BE SPECIFICATION GRADE, DUPLEX TYPE, NEMA 5-20R, 20 AMPERE, 125 VOLT GROUNDED TYPE. DEVICE PLATES SHALL BE STANDARD SIZE SMOOTH FINISH, UNBREAKABLE NYLON. PROVIDE TYPE OF FACEPLATES TO MATCH DEVICES.
 - COLOR OF DEVICES SHALL BE SELECTED BY ARCHITECT.
- 2.06 PANELBOARDS:
 - PROVIDE BRANCH CIRCUIT PANELBOARD(S) AS SHOWN ON DRAWINGS AND AS SPECIFIED HEREIN. PROVIDE TIN-PLATED ALUMINUM BUS BARS. MULTIPLE POLE BREAKERS SHALL HAVE HANDLE TIES SO ALL POLES ACT SIMULTANEOUSLY. MAIN BREAKER SHALL BE CENTER MOUNTED. EQUIPMENT RATINGS SHALL EXCEED AVAILABLE FAULT CURRENT (PANELS MAY BE SERIES FAULT RATED). PROVIDE TYPED CIRCUIT DIRECTORY UNDER PLASTIC COVER IN EACH PANEL DOOR. CIRCUIT BREAKERS SHALL BE SWITCH RATED BOLT-ON TYPE. BALANCE FINAL LOADS WITHIN 10% OF ALL THREE PHASES. MOUNT PANELS 6'-6" TO TOP.
- 2.07 LIGHTING FIXTURES:
- PROVIDE LIGHTING FIXTURES, COORDINATE PROCUREMENT OF THESE FIXTURES WITH OWNER'S REPRESENTATIVE IN A TIMELY MANNER TO MEET JOB SCHEDULES. RECEIVE, UNCRATE, INSPECT, STORE AND PROTECT ALL MATERIAL. INSTALL AND LAMP FIXTURES AS NOTED ON DRAWINGS. B. SUBMIT ALL LIGHTING FIXTURES TO OWNER FOR APPROVAL.

- 2.08 SAFETY SWITCHES: SAFETY SWITCHES SHALL BE GENERAL DUTY TYPE, 250 VOLT, WITH NUMBER OF POLES REQUIRED FOR 120/208 VAC AND HEAVY DUTY FOR 277/480 VAC SERVICE. SAFETY SWITCHES FOR AIR CONDITIONING USE SHALL BE OF THE FUSIBLE TYPE. SWITCH SIZE SHALL BE AS REQUIRED BY CODE AND AS INDICATED ON THE DRAWINGS. WHERE OUTSIDE THE BUILDING, THE SWITCHES SHALL BE RAIN TIGHT TYPE NEMA 3R. ALL SWITCHES SHALL BE LOCKABLE. VERIFY DISCONNECT SIZES WITH EQUIPMENT MANUFACTURERS.
- 2.09 MOTOR WIRING: WIRE ALL MOTORS TO CONFORM WITH MANUFACTURERS RECOMMENDATIONS AND WITH APPLICABLE CODES. PROVIDE NECESSARY MATERIAL, INCLUDING WIRE, CONDUIT, FITTINGS, ETC. REQUIRED TO CONNECT MOTOR. MOTORS, CONTROLS, ETC. SHALL BE FURNISHED BY THE SUPPLIER OF THE DRIVEN EQUIPMENT. VERIFY EQUIPMENT LOCATION AND SIZES WITH THE TRADE SUPPLYING THE MOTOR BEFORE INSTALLING THE CONDUIT OR OUTLETS.

A. PROVIDE NAMEPLATES TO IDENTIFY PANELBOARDS, DISCONNECT SWITCHES, STARTERS, AND OTHER MAJOR EQUIPMENT.

2.14 GUARANTEE

- GUARANTEE ALL MATERIAL FURNISHED AND ALL WORKMANSHIP PERFORMED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL Α. ACCEPTANCE OF THE WORK. ANY DEFECTS DEVELOPING WITHIN THIS PERIOD, TRACEABLE TO MATERIAL FURNISHED AS PART OF THIS SECTION OR WORKMANSHIP PERFORMED HEREUNDER, SHALL BE CORRECTED AT NO EXPENSE TO THE OWNER.
- 2.15 CONDITIONS PRECEDENT TO FINAL ACCEPTANCE:
- UPON COMPLETION OF PROJECT, PREPARE AND SUBMIT ONE COMPLETE SET OF ELECTRICAL RECORD DRAWING OF "AS-BUILT" CONDITIONS Α SHOWING ALL WIRING AS ACTUALLY INSTALLED. PRINTS SHALL ALSO SHOW, AS INDICATED BY MARKED-UP NOTATIONS, ALL DEVIATIONS AND CHANGES OF WIRING AND CIRCUIT NUMBER FROM THE ORIGINAL CONTRACT DRAWINGS.

PANEL SCHEDULE PC (EXISTING PANEL

120/208 VO	LT, 3 PHASE, 4 WIRE, 10	0K AIC, 100 M	AIN CIRCUIT	BREAKER					SURFACE	MOUNTED
СИТ	DESCRIPTION	\/A	סוסד		KVA		סוסד	١/٨	DESCRIPTION	СИТ
CKI	DESCRIPTION	VA	IRIP	A	В	С	IRIP	VA	DESCRIPTION	CKI
1	LIGHTING (EXISTING)	200	20/1	1.10			20/1	900	RECEPTACLES (EXISTING)	2
3	RTU-2 (EXISTING)	1000	25/2		1.36		20/1	360	RECEPTACLES (EXISTING)	4
5		1000				1.36	20/1	360	RECEPTACLES (EXISTING)	6
7	WATER HEATER	2225	30/2	3.31			20/1	1080	RECEPTACLES (EXISTING)	8
9		2225			3.67		20/1	1440	RECEPTACLES (EXISTING)	10
11	RTU-1 (EXISTING)	1500	35/2			2.22	20/1	720	RECEPTACLES	12
13		1500		2.94			20/1	1440	RECEPTACLES	14
15	LIGHTING	480	20/1		1.20		20/1	720	MODULAR FURNITURE	16
17	HP-1	1250	20/2			1.25			SPACE	18
19		1000		1.00					SPACE	20
21	AHU-1	2000	20/2		2.00				SPACE	22
23		2000				2.00			SPACE	24
25	SPACE								SPACE	26
27	SPACE								SPACE	28
29	SPACE								SPACE	30

TOTAL CONNECTED KVA TOTAL CONNECTED AMPS

	L		RE SCHEDULE		
FIXTURE	DESCRIPTION	MANUFACTURER			
LETTER	DESCRIPTION	(OR EQUAL)		VOLTAGE	LAMPS
В	2 X 4 LED FLAT PANEL	LITHONIA LIGHTING	CPX 2X4 4000LM 35K M4	120/277	4000 LUMEN LED
Х	COMBINATION EXIT/ EMERGENCY BATTERY PACK	LITHONIA LIGHTING	ECG LED HO M6	277	LED

COMcheck Software Interior Lighti	Version 4.1.5.5 ing Compliance	 7. Medical task lig of the nonexel 8. Each space recontrolling all lamp luminaire <i>Exceptions:</i>
Certificate		☐ Only one iu ☐ An occupar ☐ The area is
Section 1: Project Information		Areas that u
Energy Code: 2009 IECC		9. Automatic light
Project Title: Portside Building B Project Type: New Construction		Exceptions:
Construction Site: Owner/Agent:	Designer/Contractor:	Sleeping ur 10.Photocell/astro
		Exceptions:
Section 2: Interior Lighting and Power Cal	culation	Lighting inte
A	в с р	
Area Category	Floor Area Allowed Allowed Watts (ft2) Watts / ft2 (B x C)	Exceptions:
Office	665 1 665	
	l otal Allowed Watts = 665	Section 5: Co
A Fixture ID : Description / Lamp / Wattage Per Lam	B C D E pp / Ballast Lamps/ # of Fixture (C X D) Fixture Fixtures Watt.	and other calculations requirements in COM
Office (665 sq.ft.)	1 12 40 480	Name - Title
	1 12 40 400	
	Total Proposed Watts = 480	
Section 4: Requirements Checklist Interior Lighting PASSES: Design 28% better than code.	Total Proposed Watts = 480	
Section 4: Requirements Checklist Interior Lighting PASSES: Design 28% better than code. Lighting Wattage:	Total Proposed Watts = 480	
Section 4: Requirements Checklist Interior Lighting PASSES: Design 28% better than code. Lighting Wattage: 1. Total proposed watts must be less than or equal to total allow	Total Proposed Watts = 480	
Section 4: Requirements Checklist Interior Lighting PASSES: Design 28% better than code. Lighting Wattage: Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2" Allowed Watts Proposed Watts Colspan="2">Colspan="2">Colspan="2" Colspan="2">Colspan="2" Colspan="2" C	Total Proposed Watts = 480 ved watts. pmplies YES	
Section 4: Requirements Checklist Interior Lighting PASSES: Design 28% better than code. Lighting Wattage: 1. Total proposed watts must be less than or equal to total allow Allowed Watts Proposed Watts Controls, Switching, and Wiring: 2. Daylight zones under skylights more than 15 feet from the pervertical fenestration. 3. Daylight zones have individual lighting controls independent for the perventional controls in the perventional controls in the perventional controls in the perventional controls in the pervention controls in the pervention controls in the	Total Proposed Watts = 480 ved watts. omplies YES erimeter have lighting controls separate from daylight zones adjacent to from that of the general area lighting.	
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Section 4: Requirements Checklist Interior Lighting PASSES: Design 28% better than code. Lighting Wattage: 1. Total proposed watts must be less than or equal to total allow Allowed Watts Proposed Watts Controls, Switching, and Wiring: 2. Daylight zones under skylights more than 15 feet from the pervertical fenestration. 3. Daylight zones have individual lighting controls independent for Exceptions: □ Contiguous daylight zones spanning no more than two ori □ Daylight spaces enclosed by walls or ceiling height partition separate switch for general area lighting. ✓ 4. Independent controls for each space (switch/occupancy sens	Total Proposed Watts = 480 wed watts. Omplies YES erimeter have lighting controls separate from daylight zones adjacent to from that of the general area lighting. ieentations are allowed to be controlled by a single controlling device. ons and containing two or fewer light fixtures are not required to have a sor).	
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history display lighting claimed to be exempt from compliance has a control device independent of the control ve a manual control also allows for reducing the connected lighting load by at least 50 percent by either dual switching of alternate rows of luminaires, alternate luminaires, or alternate lamps, switching the middle ently of other lamps, or switching each luminaire or each lamp.

pace.

- evice controls the area storeroom, restroom, public lobby or sleeping unit
- n 0.6 Watts/sg.ft. control in buildings larger than 5,000 sq.ft.

care areas; and spaces where automatic shutoff would endanger safety or security. e switch on exterior lights.

4 hour use

nd three-lamp ballasted luminaires (No single-lamp ballasts).

ncy ballasts; Luminaires on emergency circuits or with no available pair.

ce Statement

posed lighting design represented in this document is consistent with the building plans, specifications with this permit application. The proposed lighting system has been designed to meet the 2009 IECC on 4.1.5.5 and to comply with the mandatory requirements in the Requirements Checklist.

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C H A R L E S T O N CEENGINEERING

125 Wappoo Creek Dr.

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Description Rev# Date

CHECKED BY: DEDEN

DESIGNED BY: DEDEN

DRAWN BY:

JOB NUMBER:

DATE:

2/8/2023

DEDEN

2305

ELECTRICAL SPECS. & SCHEDS

E201

Report date: 01/11/23 Page 2 of 2