Summit Behavioral Healthcare Tenant Infill Remodel 3340 NE Ralph Powell Rd, Lee's Summit, MO 64064

DIRECTORY

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MEP ENGINEER: JSC Engineers, PC 24 NW Chipman Rd Lee's Summit, MO, 64063 TEL: (816) 272-5289 **REP: Justin Smothers**

VICINITY PLAN



VICINITY MAP



PROJECT GENERAL NOTES

- CONTRACTORS SHALL NOT SCALE THESE DRAWINGS FOR CONSTRUC PURPOSES IN THE EVENT OF OMISSION OF NECESSARY DIMENSIONS OR

- DETAILS OR APPROVED SHOP DRAWINGS / DATA SHEETS IN ACCORDANCE WITH THE PROJECT SPECIFICATION:
- CEILING HEIGHTS SCHEDULED ON THE ROOM FINISH SCHEDULE OR THI
- VERIFY ALL ELEVATIONS AND DIMENSIONS OF STRUCTURAL ELEMENTS WITH ARCHITECTURAL DRAWINGS. IN CASE OF CONFLICT, NOTIFY THE ARCHITECT THE CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR THEM. ALL DIMENSIONAL DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- CONTRACTOR SHALL ADD SUFFICIENT BLOCKING IN STUD WALLS TO SUPPOR ALL ITEMS OR EQUIPMENT SHOWN OR SPECIFIED TO BE ATTACHED TO THE WALLS. PROVIDE ADDITIONAL STRUCTURAL SUPPORT (ANGLES, CHANNELS, ETC) WITHIN WALLS WHERE WEIGHT OF ATTACHED ITEMS OR EQUIPMENT IS TOO GREAT TO BE SUPPORTED BY WALL STUDS. PROVIDE BLOCKING FOR OWNER FURNISHED OR INSTALLED ITEMS
- PARTITIONS WHERE INDICATED BY SYMBOL ARE TO EXTEND AND SEAL AGAINST THE BOTTOM OF THE DECK ABOVE.
- USE METAL CORNER BEADS ON ALL GYPSUM BOARD EXTERIOR CORNERS
- TRANSITION OF DIFFERENT FLOORING MATERIALS AT DOORWAYS SHALL OCCUR AT CENTERLINE OF DOORS TYPICALLY.
- PAINT ALL WALL SURFACES, DOOR FRAMES, BULKHEADS AND CEILINGS IN ROOMS WHERE INDICATED ON THE ROOM FINISH SCHEDULE. PAINT BEHIND ALL MOVEABLE ITEMS ADJACENT TO WALLS RECEIVING PAINT AND RELOCATE THEM.
- WEATHER-EXPOSED SURFACES SHALL HAVE A WEATHER RESISTIVE BARRIER TO PROTECT THE INTERIOR WALL COVERING AND EXTERIOR OPENINGS SHALL BE FLASHED IN SUCH A MANNER AS TO MAKE THEM WATERPROOF.
- A GYPSUM BOARD CONTROL JOINT SHALL BE INSTALLED WHERE A WALL PARTITION OR CEILING TRAVERSES A CONTROL JOINT (EXPANSION, SEISMIC OR BUILDING CONTROL ELEMENT) IN THE BASE BUILDING STRUCTURE.
- A GYPSUM BOARD CONTROL JOINT SHALL BE INSTALLED WHERE A WALL OR PARTITION RUNS IN AN UNINTERRUPTED STRAIGHT PLAN EXCEEDING 30 LINEAR FEET.
- GYPSUM BOARD CONTROL JOINTS SHALL BE INSTALLED IN WALLS, PARTITIONS OR CEILINGS AS PER ASTM C 840 OR GA-216.



WARMAN ARCHITECTURE+DESIGN

1735 SWIFT AVE. NORTH KANSAS CITY, MISSOURI 64116 V. 816.474.2233 F. 816.474.1051

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KATHLEEN ANN WARMAN - ARCHITEC MO # A-5819 Review rmit Φ for 20 ssued 60-

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DEFERRED SUBMITTALS

- SIGNAGE 1.
- FIRE SUPPRESSION PLANS

GENERAL CONTRACTOR NOTE

ALL SUB-CONTRACTORS SHALL BE PROVIDED WITH A COMPLETE SET OF CONSTRUCTION DOCUMENTS FOR **BIDDING AND CONSTRUCTION**



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CODE DA	ТА		116) 	
1. USE GROUP CL/	ASSIFICATION:		SIGN		0745
2. CONSTRUCTION	I TYPE:	B - BUSINESS	COLIF SOLIF	051	C 000
	TYPE VB CONS	TRUCTION (SPRINKLERED)	TURE MISC	474.1	/ #AR
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	S ABOVE GRADE	1	AS C)	of Aut
4. BUILDING AREA	: JILDING AREA	36,000 SF	<mark>n af</mark> Ft a Ans	2233	cate (
ACTUAL BUILDI	NG AREA	<u>18,543 SF</u> 5,719 SF	SWI SWI FH K	6.474	Certifi
5. OCCUPANCY LC (150 SF/OCC) (C	OAD: ODE)	39 OCC	MAR L735 MOR ⁻	/. 816	tate (
6. FIRE RESISTAN (N = NO GENER	T RATING OF STRUCTURE ELEMENTS: AL REQUIREMENTS FOR FIRE RESISTANCE)				ouri S
A. EXTERIOR W B. FIRE WALLS	ALLS (LOAD BEARING)	<u>N/A HR(S)</u> N/A HR(S)			Misso
C. FIRE SEPARA 1. FIRE ENCI 2. SHAFTS	ATION ASSEMBLIES: OSURE OF EXITS	N/A HR(S)			
3. MIXED US D. FIRE PARTIT	E & FIRE AREA SEPARATION	<u>1 HR(S)</u>		777 Fra	
2. TENANT S E. SMOKE BARI	PACE SEPARATIONS	<u>1 HR(S)</u> 1 HR(S) 1 HR(S)	Martin OF	MISS	A A A
F. OTHER NON G. INTERIOR LC COLUMNS, G	LOAD BEARING PARTITIONS DAD BEARING WALLS, PARTITIONS, IRDERS, TRUSSES & FRAMING	<u>0 HR(S)</u> 0 HR(S)	KAT WA	HLEEN ANN C RMAN	T*
H. STRUCTURA	L MEMBERS SUPPORTING WALLS	0 HR(S) 0 HR(S)	Hi NU	MBER 2	3)
J. KOUF CONS TRUSSES, AF	RCHES & ROOF DECKS	<u>0 HR(S)</u>	ARCH	HITEC	TOCOLO
7. EXITS: A. DOORS [.]			KATHLEEN ANN W MO #	/ARMAN - A # A-5819	ARCHITECT
REQUIREL PROVIDEL))	39 OCC x 0.2" = 7.8" 72"		T	
D. NUMBER OF REQUIREI PROVIDEI	LAIIO))	<u>1</u> 2	RE		
C. TRAVEL DIS ALLOWAB PROVIDE	TANCE	300' MAX 104'-6" MAX	CAI		
D. MAX. DEAD E E. MIN. CORRID E. MIN. DOOD M	END CORRIDOR DISTANCE OR WIDTH	50'-0" 44"	H H		
8. FIRE PROTECTI	ON SYSTEMS:	JZ ULEAK	EAL .L RD	1064	
A. FIRE & SMOP B. FIRE ALARM	E DETECTION REQUIRE REQUIRE	ED <u>NO</u> PROVIDED <u>NO</u> ED <u>YES</u> PROVIDED <u>Y</u> ES	L H Wel	MO 64	ATA 2.4
C. SPRINKLER D. STANDPIPE	SYSTEM REQUIRE SYSTEM REQUIRE	D YES PROVIDED YES D NO PROVIDED NO D NO PROVIDED NO	RA PC	МIT, Л	20
F. PORTABLE F	IRE EXTINGUISHER REQUIRE	D YES PROVIDED YES	VIO	SUMI	JDE ZDE
9. PLUMBING FIXT TOTAL OCCUPA	URE CALCULATION:	39 (20 MEN / 20 WOMEN)	HA:	EE'S	ŭ
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WOMENS ROOM	1 FIXTURES (PROVIDED) 2 WATE	R CLOSET & 2 LAVATORIES	MIT		
			SUM		
APPLICA	BLE CODES		U		
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LEGEND					
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					CSD-1 TITUS OI
					CRG-2 TITUS 5 NOTES:
					A. NECK SIZE SHOWN ON B. BAKED ENAMEL FINISI
					C. FRAME TYPE TO MATC
					FOIL TAPE A INSULATION JOIN
					SEE NOTE 1 PRE-INSULATED FLEX
					DUCT AS REQU INSTALL PERMANE SEALED AND SUPPO
					TO PREVENT KIN AND SHARP TU
					METAL BAND (TYPICA
					VOLUME DAMPER, FIRE DAMPER OR COMBINATION
					AS SCHEDULED
					<u>NOTES:</u> 1. EXTEND EXCEED
					SCALE : NO SCALE
1	2	3	4	5 6	1 7 I

	MECHANICAL SPECIFICATIONS	MECHANICAL SYMBOLS	GN 64116
	<u>1. GENERAL PROVISIONS:</u> A. PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE COMPLETE INSTALLATION OF THE MECHANICAL SYSTEMS OUTLINED.	THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS, ETC, ARE NECESSARILY USED ON THE DRAWINGS. HVAC EQUIPMENT & DUCTWORK	E+DESI(SOURI (1051
	 B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATIONS OF COMPLIANCE OR APPROVAL AS REQUIRED BY 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 BF 	SPIN-IN FITTING WITH MANUAL VOLUME DAMPER	. НІТЕСТИR Е. 5 СІТҮ, MIS F. 816.474.1
	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.	ELBOW WITH TURNING VANES	MAN ARC SWIFT AV TH KANSA 5.474.2233
	 G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECT FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE. H. INSPECTION OF THE SITE: THIS CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE MEP DRAWINGS, SPECIFICATIONS, DETAIL, AND THE SITE. THIS CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY SPECIAL OR UNUSUAL PROBLEMS, CONFLICTS, OR OBSTRUCTIONS THAT AFFECT HIS BID. I. FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY, THE MECHANICAL AND PLUMBING DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS AND FITTINGS REQUIRED FOR 	Image: Return, Exhaust, or outside air duct down	1735 NOR V. 816
	INSTALLATION. DO NOT SCALE DRAWINGS. THE SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DATA AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION SECTIONS WHERE MECHANICAL WORK INTERFACES WITH OTHER TRADES. J. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON THE PLANS OR WITH CODE REQUIREMENTS, THE NOTE OR CODE WHICH PRESCRIBES AND ESTABLISHES THE MORE COMPLETE JOB, OR HIGHER STANDARD, SHALL PREVAIL	EQUIPMENT WITH FLEXIBLE DUCT CONNECTION	
	 K. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE FOR EXPOSED WORK. COORDINATE WITH WORK OF OTHER SECTIONS. COMPLY WITH APPLICABLE REGULATIONS AND CODE REQUIREMENTS. PROVIDE PROPER CLEARANCES FOR SERVICING. L. INCLUDE ALL BASIC MATERIALS AND CONSTRUCTION METHODS INCLUDING PIPES, PIPE FITTINGS, AND 	UCT TRANSITION Image: Branch duct Image: Duct mounted smoke detector	JUSTIN R. SMOTHERS
	SPECIALTIES AND SUPPORTING DEVICES, VALVES, PIPE AND VALVE IDENTIFICATION, PUMPS, VIBRATION ISOLATION, ETC. M. FURNISH ADEQUATE ACCESS PANELS AND DOORS TO ALLOW FOR FUTURE PIPING ALTERATIONS, REPLACEMENT, AND MAINTENANCE OF PIPING. PROPERLY IDENTIFY ALL ACCESS PANELS AND DOORS. 2. INSULATION AND DUCT LINING:	(FD) FIRE DAMPER C02 CARBON DIOXIDE SENSOR (FSD) FIRE SMOKE DAMPER HS HUMIDITY SENSOR	NUMBER PE-2012003568
	C. DUCTWORK 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. DUCT COVERING SHALL BE MINIMUM R-6. a. SUPPLY AIR DUCT: 2"	(sd) SMOKE DAMPER [SP] STATIC PRESSURE SENSOR (MD) MOTORIZED DAMPER TS TEMPERATURE SENSOR (BD) BACKDRAFT DAMPER (H) HUMIDISTAT (VD) VOLUME DAMPER (T) THERMOSTAT	
	 A. ALL PIPING SHALL BE TESTED FOR LEAKS BEFORE BEING CONCEALED IN WALL CONSTRUCTION OR COVERED WITH INSULATION. B. DUCTWORK AND PIPING SHALL BE BALANCED BY QUALIFIED BALANCING PERSONNEL WHO HAVE PREVIOUS EXPERIENCE WITH BALANCING PROCEDURES AND ARE FAMILIAR WITH TESTING AND BALANCING PROCEDURES OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). 	CEILING DIFFUSER W/FLEX DUCT (SEE SPECS)	ALTHCAI
	 BALANCING SHALL INCLUDE THE BALANCING OF THE EQUIPMENT AND AIR DISTRIBUTION SYSTEMS TO PROVIDE DESIGN QUANTITIES INDICATED AND VERIFICATION PERFORMANCE OF ALL EQUIPMENT AND AUTOMATIC CONTROLS. 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 DATA ANGED IN ACCORDANCE WITH THE DEFERENCED STANDARDS. ARE AN ACCURATE. 	SAME SIZE AS DIFFUSER NECK. MARK - 450 AIRFLOW (CFM) CEILING - RETURN CRILLE	RAL HE/ H POWELL IIT, MO 6406 PECIFIC
DIFFUSER, REGISTER AND GRILLE SCHEDULE JFACTURER MODEL FACE TYPE MOUNTING TYPE FACE SIZE (IN.) MAX NC NOTES	AND BALANCED IN ACCORDANCE WITH THE REPERENCED STANDARDS, ARE AN ACCORATE REPRESENTATION OF HOW THE SYSTEMS HAVE BEEN INSTALLED AND ARE OPERATING. REPORTS SHALL BE BOUND IN A VINYL BINDER AND THE BINDER LABELLED OR MAY BE AN ELECTRONIC PDF SUBMITTAL. <u>4. DUCTWORK:</u> A. ALL DUCTWORK UNLESS OTHERWISE INDICATED SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL		EHAVIO 840 NE RALP LEE'S SUMM NICAL S AND SY
FITUSOMNIPLAQUE FACELAY-IN24 x 2425A-CFITUS50FEGGCRATELAY-IN24 x 2425A-CFITUS50FEGGCRATELAY-IN12 x 2425A-C	COMPLYING WITH ASTM A 527, LOCKFORMING QUALITY, WITH G60 ZINC COATING IN ACCORDANCE WITH ASTM A 525, AND MILL PHOSPHATIZED FOR EXPOSED LOCATIONS. B. DUCTWORK METAL GAUGES, REINFORCING, ETC SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION FOR A 2" WATER GAUGE STATIC PRESSURE. C. ALL FITTINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION. D. RECTANGULAR DUCT:	ABBRE VIA HONSAFFABOVE FINISHED FLOORMCMECHANICAL CONTRACTORBASBUIDLING AUTOMATION SYSTEMMINMINIMUMBDBACKDRAFTNCNOISE CRITERIACFMCUBIC FEET PER MINUTEOAOUTSIDE AIRDDCDIRECT DIGITAL CONTROLRARETURN AIRDXDIRECT EXPANSIONSASUPPLY AIR	MECHA
SIZE SHOWN ON DRAWINGS. DENAMEL FINISH, WHITE E TYPE TO MATCH CEILING CONSTRUCTION, COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN.	 ELBOWS, UNLESS INDICATED OTHERWISE, SHALL BE CONSTRUCTED WITH CENTERLINE RADIUS OF NOT LESS THAN 1.5 DUCT WIDTH OR SQUARE ELBOWS WITH DOUBLE WALL STREAMLINE ELBOWS. TAKE-OFF FITTINGS: BRANCH DUCT TAKE-OFF FITTINGS FOR SUPPLY AND EXHAUST DIFFUSER/REGISTERS SHALL INCLUDE AN INTEGRAL MANUAL VOLUME DAMPER WITH LOCKING QUADRANT, DAMPER NOT REQUIRED ON RETURN AIR. FOR RECTANGULAR TO ROUND TAKE-OFFS, UTILIZE A "BUCKLEY" MODEL 3300 & 3300D OR EQUAL. 	EAEXHAUST AIRSDSMOKE DUCT DETECTORFFAFROM FLOOR ABOVETFATO FLOOR ABOVEFFBFROM FLOOR BELOWTFBTO FLOOR BELOWGPMGALLONS PER MINUTETYPTYPICALIN WCINCHES OF WATER COLUMNUNOUNLESS NOTED OTHERWISEMAXMAXIMUMW/WITH	<u>ه</u>
	 RETURN AIR ACOUSTIC ELBOWS AND SOUND BOOTS SHALL BE A SQUARE ELBOW WITH NO TURNING VANES. SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE A MINIMUM 1 TO 3. ROUND DUCT (SEE INSULATION SECTION FOR SPIRAL DUCT): 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 TAKEOFE CONNECTIONS. WHERE 90 DEGREE BRANCHES ARE 	MBH 1000 BIU PER HOUR W/O WITHOUT STANDARD MOUNTING HEIGHTS (AFF, UNLESS NOTES OTHERWISE) THERMOSTATS (USER ADJUSTABLE) (TOP OF DEVICE) 48"	o II, LLC Suite 101 , MO 64116
METAL BAND OVER INSULATION (TYPICAL)	 INDICATED PROVIDE CONICAL TYPE TEES. 2. SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3. 3. ROUND LONGITUDINAL SEAM DUCT: USE FOR RIGID METAL DUCT ON LEAVING SIDE OF DUCT IN CONCEALED LOCATIONS FOR EXTENSION TO FLEX FOR DIFFUSERS. F. SEAL ALL CONCEALED DUCTWORK JOINTS WITH NON-HARDENING, NON-MIGRATING MASTIC SEALANT, AS RECOMMENDED FOR SEALING SEAMS AND JOINTS IN DUCTWORK. OIL BASED CAULKING AND GLAZING COMPOLINDS. SHALL NOT BE ACCEPTABLE DUCTS. SHALL PE SEALED TO THE CLASS LEVEL LISTED. 	ANNOTATION # PLAN WORK NOTE	nte Crist 04 Swift St., 1 Kansas City
FOIL TAPE AT	COMPOUNDS SHALL NOT BE ACCEPTABLE. DUCTS SHALL BE SEALED TO THE CLASS LEVEL LISTED BELOW: (1) UNCONDITIONED SPACES: CLASS B (2) CONDITIONED SPACES (PLENUM): CLASS C CLASS B CLASS C SUPPLY 2"WC OR LESS EXHAUST RETURN SIZES SHOWN ON THE DRAWINGS ARE SHEET METAL SIZES INCREASE SHEET METAL SIZES	RIU MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE) Image: Connection Point of New Work to Existing Image: Connection Point Point of New Work to Existing Image: Connection Point P	North More
SEE NOTE 1.	 ACCORDINGLY TO ACCOUNT FOR THICKNESS OF DUCT LINER. H. WHETHER SHOWN ON PLANS OR NOT, PROVIDE MANUAL VOLUME DAMPERS IN EACH RUNOUT TO EACH SUPPLY DIFFUSER OR REGISTER. PROVIDE ACCESS PANELS TO DAMPERS LOCATED ABOVE HARD CEILINGS. I. PROVIDE AUXILIARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT DUCTWORK. J. WHERE DUCTS PASS THROUGH FIRE-RATED FLOORS, WALLS, OR PARTITIONS, PROVIDE FIRESTOPPING 	M1 LOWER NUMBER INDICATES SHEET NUMBER	LACE LA
AND SHARP TURNS BAND (TYPICAL) - INSULATION DIFFUSER WITH - OVER DIFFUSER	 K. 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 GAUGE AS DUCT. OVERLAP OPENING ON 4 SIDES BY AT LEAST 1–1/2". FASTEN TO DUCT AND WALL. 5. FLEXIBLE DUCT: 		REVISIONS
E/FIRE DAMPER AS SCHEDULED CEILING	 A. ATCO #086 (R-6), OR EQUAL. B. FACTORY APPLIED INSULATION AND VAPOR BARRIER, 1-1/2" THICK. C. MAXIMUM LENGTH OF 6'-0". <u>6. REMODELING WORK:</u> A. THIS PROJECT INVOLVES CONSTRUCTION INSIDE AN EXISTING STRUCTURE. CONTRACTORS. BY 		3Y DATE
NOTES: 1. EXTEND RIGID METAL DUCT SO THAT MAXIMUM FLEXIBLE DUCT LENGTH DOES NOT EXCEED 6'-0". PROVIDE RIGID 90" ELBOW WHERE REQUIRED TO KEEP FLEXIBLE DUCT WITHIN 6'-0" LENGTH LIMITATION.	SUBMITTING A BID ARE DEEMED TO BE COMPLETELY FAMILIAR WITH THE EXISTING CONDITIONS OF THE BUILDING AS IT INFLUENCES THE WORK DESCRIBED. NO CLAIMS FOR EXTRA COMPENSATION WILL BE CONSIDERED FOR EXISTING CONDITIONS VISIBLE OR REASONABLY INFERABLE FROM A CAREFUL EXAMINATION OF THE EXISTING BUILDING CONDITIONS. B. CONTRACTOR SHALL INSPECT THE EXISTING FIELD CONDITIONS AT THE SITE AND THE CONTRACT DOCUMENTS PRIOR TO THE START OF ANY WORK TO DETERMINE WHAT EFFECT THE EXISTING		Image: marked bit with the second sec
	 CONDITIONS WILL HAVE ON THE WORK POTENTIAL. CONTRACTOR SHALL REPORT DISCREPANCIES TO THE ARCHITECT AND INCLUDE IN THE BID ALL COSTS REQUIRED TO MAKE THE WORK MEET EXISTING CONDITIONS. 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 DIFT. DUST, AND NOISE EPOM PENNO, TRANSMITTED TO ADJACENT ADDATE. 	JSC ENGINEERS	DRAWN BY: JSC APPROVED BY: JRS SHEET NUMBER
	DARKIERS TO REEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER REMODELING OPERATIONS ARE COMPLETE.	MO COA NO. 2012006786 / KS COA NO. E-2818 1925 CENTRAL ST. SUITE #201 KANSAS CITY, MO 64108	

	SYMBOLS LEGEND	
	NOTE: THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS, ETC,	PART I – GENERAL
LIGHTING FIXTURE	ARE NECESSARILY USED ON THE DRAWINGS.	A. GENERAL 1. FURNISH AND INSTALL A COMPLETELY WIRED AND OPERATIONAL ELECTRICAL SYSTE
	TURE (SEE LIGHTING FIXTURE SCHEDULE)	DRAWINGS AND SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO, THESE MAJOR A. LIGHTING FIXTURES AS INDICATED AND SPECIFIED ON THE PLANS.
		C. TELEPHONE, TELEVISION, AND FIRE ALARM. OUTLETS AND CONDUIT AS INDICATE
		2. OBTAIN AND REVIEW ALL OTHER DRAWINGS INCLUDING REFLECTED CEILING PLAN, II ELEVATIONS, FURNITURE PLANS AND ALL MILL WORK DRAWINGS. COORDINATE INST
TRACK	LIGHT	3. OBTAIN SUBMITTAL AND SHOP DRAWINGS FROM OTHER TRADES AND EQUIPMENT TO
Ø DOWNL Ø⊣ wall i	GHT FIXTURE WITH EMERGENCY BATTERY DRIVER UNIT	INSTALLATION ACCORDINGLY.
Ø PENDA	IT MOUNTED FIXTURE WITH EMERGENCY BATTERY DRIVER UNIT	4. INSTALLATION SHALL COMPLY WITH ALL CURRENT APPLICABLE CODES AND GOVERN JURISDICTION.
O DOWNL	GHT FIXTURE OUNTED FIXTURE	5. FIRE ALARM SYSTEM, IF REQUIRED PER IBC, SHALL BE DESIGN-BUILD BY OWNER'S
X PENDA	IT MOUNTED FIXTURE	SUBMIT STAMPED DRAWINGS TO AHJ FOR REVIEW AND APPROVAL. FIRE ALARM C RESPONSIBLE FOR TESTING AND VERIFYING THAT THE AUDIBILITY OF THE FIRE ALA
● WALL V SINGLE	ASHER FACE EXIT SIGN – UNIVERSAL MOUNTED	MINIMUM OF 15 DBA ABOVE AMBIENT NOISE LEVELS. ADD HORNS WHERE REQUIRED LEVELS.
SINGLE	FACE EXIT SIGN W/ DIRECTIONAL ARROWS — SAL MTD	6. PROVIDE FIRE STOP ON ALL PIPING THAT PENETRATES RATED WALLS. METHOD OF WALL RATING. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED
	FACE EXIT SIGN W/ DIRECTIONAL ARROWS - SAL MTD	CONTRACTOR SHALL PROVIDE FIRE RATED ENCLOSURES AROUND ALL ROUGH-IN B THAT ARE LOCATED IN FIRE RATED WALLS AND SHALL FIRE CAULK ALL OPENINGS
	EADED EMERGENCY UNIT	B. RELATED WORK BY OTHERS 1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT. TRENCH. AND BACKFILL F
	S	ENTRANCE FROM THE MAIN SERVICE TO UTILITY POINT OF ELECTRICAL SERVICE. E CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE ELECTRICAL SERVICE
S SINGLE	 POLE SWITCH @ +48" UNLESS NOTED	SERVING UTILITY COMPANY. 2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, TRENCH, AND BACKFILL F AND CATV SERVICE FROM THE TELEPHONE TERMINAL ROADD OD CADINET TO THE
Sabc SWITCH LETTER	BANK @ +48" UNLESS NOTED. LOWER CASE INDICATES FIXTURE CONTROLLED.	CATV COMPANY POINT OF SERVICE. COORDINATE WITH LOCAL UTILITY COMPANIES.
S3 3-WAY	SWITCH @ +48" UNLESS NOTED	C. CODES, REGULATIONS, AND STANDARDS 1. THE INSTALLATION SHALL COMPLY WITH APPLICABLE LOCAL AND STATE CODES AN THE DECIMATION OF THE MATERIA STATE CODES AND
SD DIMMER	SWITCH - SIZE AS REQUIRED @ +48" UNLESS NOTED	INTERCEPTIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE A REQUIREMENTS OF THE POWER, TELEPHONE, AND CATV COMPANIES FURNISHING SE INSTALLATION.
Sm manua Sos wall s	. MOTOR STARTER WITCH WITH OCCUPANCY SENSOR. DIGITAL LOW VOLTAGE WALL SWITCH. SWITCH @	2. THE LATEST EDITIONS OF THE FOLLOWING INDUSTRY STANDARDS, SPECIFICATIONS, MINIMUM REQUIREMENTS:
+48" Slv two b	NLESS NOTED. ITTON DIGITAL LOW VOLTAGE WALL SWITCH. PROVIDES ON/OFF/0-10V DIMMING. SWITCH	A. THE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION STANDARDS. B. THE NATIONAL ELECTRICAL CODE, INCLUDING LOCAL AMENDMENTS.
@ +48	UNLESS NOTED. PROVIDE EXTRA CONTROL CABLES NEEDED TO FIXTURE CONTROLLED.	D. AMERICAN NATIONAL STANDARDS INSTITUTE. E. INTERNATIONAL BUILDING CODE.
(os) LIGHTIN (PP) LIGHTIN	G CONTROLS CEILING MOUNT OCCUPANCY SENSOR G CONTROLS POWER PACK	D. INSPECTION OF SITE
PC PHOTO	ELL	1. PRIOR TO SUBMITTING A BID FOR ELECTRICAL WORK, THE CONTRACTOR SHALL VIS PROPOSED CONSTRUCTION AND SHALL THOROUGHLY ACQUAINT HIMSELF WITH EXIS WORKING CONDITIONS TO BE ENCOUNTERED, ETC., ALLOWANCE WILL NOT BE MADE
TC TIMECL	DCK	WITH THIS CONDITION AFTER BIDDING. 2. ELECTRICAL INSTALLATION SHALL MEET THE EXISTING CONDITIONS.
	G CONTACTOR	E. STORAGE AND HANDLING OF MATERIAL
<u>POWER DISTRIBUT</u>	<u>JN</u> BOARD, MOTOR CONTROL CENTER OR DISTRIBUTION BOARD	1. DELIVER MATERIALS AND EQUIPMENT TO THE PROJECT IN THE MANUFACTURER'S C LABELED CONTAINERS. PROTECT AGAINST MOISTURE, TAMPERING, OR DAMAGE FR OR STORAGE CONTRACTOR SHALL PROTECT AND BE RESPONSIBLE FOR ANY DAM
<u>ezza</u> 277/48	0V, 3 PHASE, 4 WIRE PANELBOARD, UNO	MATERIALS UNTIL FINAL ACCEPTANCE BY THE OWNER, AND SHALL MAKE GOOD WI OWNER, ANY DAMAGE OR LOSS THAT MAY OCCUR DURING THIS PERIOD.
■ 120/20 □ 120/24	8V, 3 PHASE, 4 WIRE PANELBOARD, UNO 3V, 1 PHASE, 3 WIRE PANELBOARD, UNO	2. ARRANGE FOR TIMELY DELIVERY OF MATERIALS AND EQUIPMENT TO THE JOB SITE THE LENGTH OF TIME BETWEEN DELIVERY AND INSTALLATION.
T TRANSF	ORMER	3. COVER AND PROTECT ANY MATERIAL WHICH MAY BE AFFECTED BY THE WEATHER STORED AT THE PROJECT SITE. ANY MATERIAL FOUND DEFECTIVE OR NOT INSTAL WITH THE CONTRACT DOCUMENTS MAY BE REJECTED BY THE ENGINEER.
<u>POWER DEVICES</u>		F. CLEANUP
SPECIA @ +18	. HEAVY DUTY RECEPTACLE – SIZE AS NOTED. UNLESS NOTED	1. KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS, OR RUBBIS EMPLOYEES OR WORK UNDER THIS DIVISION OF THE SPECIFICATIONS. AT THE COM REMOVE ALL SURPLUS MATERIALS TOOLS FTC. AND LEAVE THE PREMISES BROOM
← 1/2 SV	TCHED RECEPTACLE @ +18" UNLESS NOTED	<u>G. EXCAVATION, CUTTING, AND FITTING</u>
FLUSH	FLOOR BOX WITH TYPE INDICATED	1. PERFORM ALL EXCAVATION AND BACK FILLING REQUIRED FOR WORK PERFORMED U THE SPECIFICATIONS. USE EXCAVATED MATERIALS FOR BACKFILL UNLESS OFF SIT
	RECEPTACLE @ +18" UNLESS NOTED	2. PERFORM THE EXCAVATION, CUTTING, FITTING, REPAIRING, AND FINISHING OF THE THE INSTALLATION OF THE EQUIPMENT OF THIS SECTION. HOWEVER, NO CUTTING
	DUPLEX RECEPTACLE @ +18" UNLESS NOTED	OTHER TRADES OR OF ANY STRUCTURAL MEMBERS SHALL BE DONE WITHOUT THE ARCHITECT.
	RECEPTACLE INSTALLED ABOVE COUNTERTOP	H. DRAWINGS 1. THE DRAWINGS INDICATE THE GENERAL ARRANGEMENT AND LOCATIONS OF THE FL
$\begin{array}{c} GFI \\ \hline \\ \\ \hline \\ \\ \hline \\$	ULT RATED DUPLEX RECEPTACLE	PRESENTED ON THESE DRAWINGS ARE AS ACCURATE AS PLANNING CAN DETERMIN VERIFICATION OF ALL DIMENSIONS, LOCATIONS, LEVELS, ETC., TO SUIT FIELD COND
AF $\bigoplus_{w \models}$ DUPLEX	RECEPTACLE WITH WEATHERPROOF COVERPLATE	REVIEW ALL ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS AND ADJU THE REQUIREMENTS OF CONDITIONS SHOWN. THE ARCHITECTURAL DRAWINGS SHAL
₩P @ 18" ⊕ 4–POR	JNLESS NOTED ⁻ USB RECEPTACLE – LEGRAND TM8USB4WCC6	SPECIFICATIONS, OR REGULATIONS AND CODES GOVERNING THE INSTALLATION SHA ATTENTION OF THE ENGINEER IN WRITING BEFORE THE DATE OF BID OPENING. IF
	N BOX	NOT REPORTED, THE CONTRACTOR SHALL BID THE GREATER QUANTITY OR BETTER APPROPRIATE ADJUSTMENTS WILL BE MADE AFTER CONTRACT AWARD. CONTRACT
	NECT SWITCH – SIZE AND TYPE NOTED	EQUIPMENT WITH RESPECT TO COUNTERS, RADIATION, ETC. DO NOT SCALE DISTA
	ATION FUSED STARTER DISCONNECT SWITCH FUSE SIZE AS INDICATED, STARTER SIZE '1'	I. COOPERATION WITH OTHER CONTRACTORS
EF	2	1. COOPERATE WITH THE OTHER TRADES SO THAT THE INSTALLATION OF THE ELECTI EQUIPMENT WILL BE PROPERLY COORDINATED. CONDUIT, LIGHTING FIXTURES, AND
MECHA	NICAL EQUIP. CONNECTION, SEE SCHED. ON MECH. PLAN	STEEL, BEAMS, OR OTHER OBSTRUCTIONS. 2. CAREFULLY VERIFY THE LOCATIONS OF THE OUTLET BOXES AND DETERMINE THAT
TELEPH	ONE OUTLET® +18" UNLESS NOTED	DISTURBED DURING THE INSTALLATION OF MATERIALS OF OTHER TRADES. 3. COORDINATE THE LOCATION OF THE TRENCHES AND CONDUITS FOR ELECTRICAL A
	ATION TELEPHONE/DATA OUTLET @ +18" UNLESS NOTED	SERVICES WITH THE GENERAL CONTRACTOR. 4. COORDINATE HVAC AND PLUMBING EQUIPMENT CONNECTION REQUIREMENTS WITH H CONTRACTORS
TELEVI	ION OUTLET @ +60" UNLESS NOTED	J. RECORD DRAWINGS
SMOKE	DETECTOR	1. THE ELECTRICAL CONTRACTOR SHALL MAINTAIN A SET OF DRAWINGS AT THE JOB EXCLUSIVE PURPOSE OF MAINTAINING A RECORD OF ALL WORK INSTALLED AND TO
	LIECTOR MOKE DETECTOR	2. AT THE COMPLETION OF THE PROJECT, ONE SET OF REPRODUCIBLE DRAWINGS, SH CONDITIONS SHALL BE DELIVERED TO THE OWNER FOR ACCEPTANCE PRIOR TO FIL
RT REMOT	TEST STATION WITH INDICATING LIGHT. MOUNT AT 48" AFF UNO.	
	RY SYSTEM TERMINAL CABINET	
CONNE	CTION POINT OF NEW WORK TO EXISTING	
GENERAL		
CONDU CONDU	I RUN CONCEALED IN WALL OR ABOVE CEILING T RUN BELOW FLOOR OR GRADE	
21-3,5,7 HOMER	IN TO PANELBOARD, INFORMATION AT ARROWS ARE CIRCUIT NUMBERS AND PANELBOARD	
	ES 1/2" CONDUCT CONCEALED IN CEILING OR WALL WITH (3) CONDUCTORS. (1) PHASE.	
(1) NE	ITRAL AND (1) GROUND WIRE. ALL ARE #12 AWG UNLESS NOTED OTHERWISE.	
L) UK EIR: DENOTI	S EXISTING TEM/EQUIPMENT TO REMAIN	

ELECTRICAL SPECIFICATIONS

PART II - PRODUCTS AND EXECUTION

A COMPLETELY WIRED AND OPERATIONAL ELECTRICAL SYSTEM AS SHOWN ON THE FIED HEREIN, INCLUDING BUT NOT LIMITED TO, THESE MAJOR ITEMS. AS INDICATED AND SPECIFIED ON THE PLANS. SERVICE, CONDUIT, WIRING, ETC., FOR ALL OUTLETS AND EQUIPMENT.

ALL OTHER DRAWINGS INCLUDING REFLECTED CEILING PLAN, INTERIOR AND EXTERIOR E PLANS AND ALL MILL WORK DRAWINGS. COORDINATE INSTALLATION OF ALL ND EQUIPMENT PRIOR TO ROUGH-IN.

ND SHOP DRAWINGS FROM OTHER TRADES AND EQUIPMENT TO COORDINATE INGLY.

COMPLY WITH ALL CURRENT APPLICABLE CODES AND GOVERNING AGENCIES HAVING

REQUIRED PER IBC, SHALL BE DESIGN-BUILD BY OWNER'S/GC'S FIRE ALARM SHALL BE IN ACCORDANCE WITH NFPA 72. FIRE ALARM CONTRACTOR SHALL MINGS TO AHJ FOR REVIEW AND APPROVAL. FIRE ALARM CONTRACTOR IS TING AND VERIFYING THAT THE AUDIBILITY OF THE FIRE ALARM SYSTEM MEETS A BOVE AMBIENT NOISE LEVELS. ADD HORNS WHERE REQUIRED TO MAINTAIN MINIMUM

I ALL PIPING THAT PENETRATES RATED WALLS. METHOD OF FIRE STOP SHALL MEET TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS. THIS ROVIDE FIRE RATED ENCLOSURES AROUND ALL ROUGH-IN BOXES, PANELS, ETC. FIRE RATED WALLS AND SHALL FIRE CAULK ALL OPENINGS IN RATED ASSEMBLIES.

RACTOR SHALL PROVIDE CONDUIT, TRENCH, AND BACKFILL FOR ELECTRICAL SERVICE MAIN SERVICE TO UTILITY POINT OF ELECTRICAL SERVICE. ELECTRICAL OORDINATE THE INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE WITH

RACTOR SHALL PROVIDE CONDUIT. TRENCH. AND BACKFILL FOR PRIMARY PHONE ROM THE TELEPHONE TERMINAL BOARD OR CABINET TO THE PHONE COMPANY AND OF SERVICE. COORDINATE WITH LOCAL UTILITY COMPANIES.

<u>D_STANDARDS</u>

LL COMPLY WITH APPLICABLE LOCAL AND STATE CODES AND ORDINANCES, WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND WITH THE POWER, TELEPHONE, AND CATV COMPANIES FURNISHING SERVICES TO THIS

OF THE FOLLOWING INDUSTRY STANDARDS, SPECIFICATIONS, AND CODES ARE

CTRICAL MANUFACTURER'S ASSOCIATION STANDARDS. CTRICAL CODE, INCLUDING LOCAL AMENDMENTS. RATORIES INCORPORATED STANDARDS.

A BID FOR ELECTRICAL WORK, THE CONTRACTOR SHALL VISIT THE SITE OF THE TION AND SHALL THOROUGHLY ACQUAINT HIMSELF WITH EXISTING UTILITIES, AND TO BE ENCOUNTERED, ETC. ALLOWANCE WILL NOT BE MADE FOR NONCOMPLIANCE AFTER BIDDING. TION SHALL MEET THE EXISTING CONDITIONS.

OF MATERIAL

ND EQUIPMENT TO THE PROJECT IN THE MANUFACTURER'S ORIGINAL, UNOPENED, PROTECT AGAINST MOISTURE, TAMPERING, OR DAMAGE FROM IMPROPER HANDLING ACTOR SHALL PROTECT AND BE RESPONSIBLE FOR ANY DAMAGE TO WORK OR ACCEPTANCE BY THE OWNER, AND SHALL MAKE GOOD WITHOUT COST TO THE OR LOSS THAT MAY OCCUR DURING THIS PERIOD.

DELIVERY OF MATERIALS AND EQUIPMENT TO THE JOB SITE IN ORDER TO MINIMIZE BETWEEN DELIVERY AND INSTALLATION. ANY MATERIAL WHICH MAY BE AFFECTED BY THE WEATHER WHILE IN TRANSIT OR ECT SITE. ANY MATERIAL FOUND DEFECTIVE OR NOT INSTALLED IN ACCORDANCE OCUMENTS MAY BE REJECTED BY THE ENGINEER.

REE FROM ACCUMULATION OF WASTE MATERIALS, OR RUBBISH CAUSED BY UNDER THIS DIVISION OF THE SPECIFICATIONS. AT THE COMPLETION OF THE WORK MATERIALS, TOOLS, ETC., AND LEAVE THE PREMISES BROOM-CLEAN.

<u>ND FITTING</u> TION AND BACK FILLING REQUIRED FOR WORK PERFORMED UNDER THIS DIVISION OF USE EXCAVATED MATERIALS FOR BACKFILL UNLESS OFF SITE MATERIALS ARE

TION, CUTTING, FITTING, REPAIRING, AND FINISHING OF THE WORK NECESSARY FOR THE EQUIPMENT OF THIS SECTION. HOWEVER, NO CUTTING OF THE WORK OF ANY STRUCTURAL MEMBERS SHALL BE DONE WITHOUT THE CONSENT OF THE

TE THE GENERAL ARRANGEMENT AND LOCATIONS OF THE ELECTRICAL WORK. DATA DRAWINGS ARE AS ACCURATE AS PLANNING CAN DETERMINE, BUT FIELD DIMENSIONS, LOCATIONS, LEVELS, ETC., TO SUIT FIELD CONDITIONS IS REQUIRED. FURAL, STRUCTURAL, AND MECHANICAL DRAWINGS AND ADJUST ALL WORK TO MEET CONDITIONS SHOWN. THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE WINGS. DISCREPANCIES BETWEEN DIFFERENT PLANS, OR BETWEEN DRAWINGS AND EGULATIONS AND CODES GOVERNING THE INSTALLATION SHALL BE BROUGHT TO THE GINEER IN WRITING BEFORE THE DATE OF BID OPENING. IF DISCREPANCIES ARE CONTRACTOR SHALL BID THE GREATER QUANTITY OR BETTER QUALITY, AND MENTS WILL BE MADE AFTER CONTRACT AWARD. CONTRACTOR SHALL BE MEASURE AND CONFIRM MOUNTING HEIGHTS AND LOCATION OF ELECTRICAL ECT TO COUNTERS, RADIATION, ETC. DO NOT SCALE DISTANCES OFF THE USE ACTUAL BUILDING DIMENSIONS.

<u>CONTRACTORS</u>

OTHER TRADES SO THAT THE INSTALLATION OF THE ELECTRICAL OUTLETS AND ROPERLY COORDINATED. CONDUIT, LIGHTING FIXTURES, AND OTHER EQUIPMENT VERIFIED WITH OTHER TRADES TO AVOID CONFLICT WITH THE PIPING, DUCTWORK, HER OBSTRUCTIONS. LOCATIONS OF THE OUTLET BOXES AND DETERMINE THAT THEY HAVE NOT BEEN

INSTALLATION OF MATERIALS OF OTHER TRADES. ATION OF THE TRENCHES AND CONDUITS FOR ELECTRICAL AND TELEPHONE UTILITY ENERAL CONTRACTOR. D PLUMBING EQUIPMENT CONNECTION REQUIREMENTS WITH HVAC AND PLUMBING

RACTOR SHALL MAINTAIN A SET OF DRAWINGS AT THE JOB SITE FOR THE

F MAINTAINING A RECORD OF ALL WORK INSTALLED AND TO SHOW ANY DEVIATIONS CATED ON THE DRAWINGS. F THE PROJECT, ONE SET OF REPRODUCIBLE DRAWINGS, SHOWING ALL RECORD DELIVERED TO THE OWNER FOR ACCEPTANCE PRIOR TO FINAL PAYMENT.

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- 2. GROUNDED CONDUCTOR (NEUTRAL) OF THE WIRING SYSTEM SHALL BE CONNECTED TO THE SYSTEM GROUNDING CONDUCTOR AT A SINGLE PLACE IN EACH SYSTEM BY REMOVABLE BONDING JUMPERS. SIZED ACCORDING TO THE APPLICABLE PROVISIONS OF THE NATIONAL ELECTRICAL CODE. THE GROUNDED CONDUCTOR (NEUTRAL) TO THE GROUNDING CONDUCTOR CONNECTION SHALL BE LOCATED IN THE ENCLOSURE FOR THE SYSTEM'S OVERCURRENT PROTECTION OR WHERE OTHERWISE INDICATED ON THE
- PLANS OR SPECIFICATIONS. 3. A GROUND BUS SEPARATE FROM THE NEUTRAL BUS SHALL BE PROVIDED IN ALL DISTRIBUTION PANELS AND PANELBOARDS. PROPER TORQUE ON GROUND BUS SHALL BE VERIFIED, PER MANUFACTURER'S RECOMMENDATIONS, PRIOR TO ENERGIZING EQUIPMENT.
- 4. GROUND BUSES AND NEUTRAL BUSES IN ALL DISTRIBUTION PANELS, LOAD CENTERS, PANELBOARDS, ANI THOSE PROVIDED IN ANY EQUIPMENT SHALL BE ISOLATED EXCEPT WHERE REQUIRED TO BE CONNECTED AS SPECIFIED ABOVE FOR THE SERVICE ENTRANCE
- 5. WHEN INDICATED ON THE DRAWINGS, EQUIPMENT GROUNDING CONDUCTORS SHALL BE EXTENDED FROM THE GROUND BUS IN THE DISTRIBUTION EQUIPMENT TO THE RECEPTACLE, FIXTURE OR DEVICE LUGS WHERE THEY ARE PROVIDED. WHERE LUGS ARE NOT PROVIDED, EQUIPMENT GROUNDING CONDUCTORS SHALL BE CONNECTED TO EQUIPMENT ENCLOSURES. THE CONNECTIONS SHALL BE ARRANGED SUCH TH REMOVAL OF THE RECEPTACLE, EQUIPMENT GROUND CONDUCTORS, OR GROUND JUMPERS FROM GROUND BUSING SHALL NOT AFFECT THE GROUND SYSTEM.
- 6. RACEWAYS MAY NOT BE USED AS A GROUNDING CONDUCTOR FOR POWER AND LIGHTING CIRCUITS. ALL CONDUIT SHALL HAVE SEPARATE CODE SIZED GREEN GROUND WIRE INSTALLED IN THE CONDUIT TO INSURE A CONTINUOUS GROUNDING PATH.
- 7. IN INACCESSIBLE LOCATIONS, MAKE CONNECTIONS BY EXOTHERMIC WELD PROCESS. 8. IN ACCESSIBLE LOCATIONS, CONNECTIONS SHALL BE MADE WITH BOLTED THROUGH, APPROVED SOLDERLESS BRONZE GROUNDING DEVICES.

<u>D. WIRE</u> 1. CONDUCTOR SIZES SHOWN ON THE DRAWINGS ARE BASED ON COPPER WIRE. UNLESS OTHERWISE SPECIFIED, ALL WIRE SHALL BE TYPE XHHW OR SE FOR FEEDERS OR BRANCH CIRCUITS LARGER THAN 4 AWG, TYPE THHN/THWN INSULATION FOR FEEDERS AND BRANCH CIRCUITS 4 AWG AND SMALLER. ALL BRANCH CIRCUIT WIRING SHALL BE COPPER.

- REQUIRED BY LOCAL ORDINANCES GROUND WIRES SHALL BE GREEN, NEUTRAL WIRES SHALL BE 120V-WHITE [277V-GREY]; LIVE WIRES 480Y/277V SHALL BE BROWN (PHASE A), ORANGE (PHASE B), AND YELLOW (PHASE C); AND LIVE WIRES 208Y/120V AND 120/240V SHALL BE BLACK (PHASE A), REE (PHASE B). AND BLUE (PHASE C). WHERE BOTH 208Y/120V AND 120/240V EXIST IN THE SAME BUILDIN THE CONDUCTORS OF EACH CONFIGURATION SHALL BE SEPARATELY IDENTIFIED (NOT THE SAME COLORS' "HIGH-LEG" PHASE OF DELTA SYSTEM SHALL ALWAYS BE MARKED ORANGE. CIRCUIT SHALL BE LABELED IN EACH J-BOX.
- A. ALL CONDUCTORS SHALL BE RATED 600 VOLT. 3. SPLICES IN EXTERIOR PULL BOXES AND MANHOLES SHALL BE WEATHERPROOF USING "SCOTCHCAST SPLICE KIT OR APPROVED EQUAL. SEAL ENDS OF CONDUITS AND DUCTS WITH "DUCTSEAL" OR APPROVED EQUAL.
- 4. PROVIDE SOLID CONDUCTOR FOR 10 AWG AND SMALLER.
- 5. NO WIRE SHALL BE INSTALLED IN THE CONDUIT SYSTEM UNTIL THE CONDUIT SYSTEM IS COMPLETE. USE MINERALAC NO. 100 OR EQUIVALENT AS A LUBRICANT TO FACILITATE THE INSTALLATION OF THE CONDUCTORS IN THE CONDUIT SYSTEM.
- 6. MC CABLE WITH COPPER CONDUCTORS AND GROUND WIRE MAY BE USED WHERE PERMITTED.
- E. CONDUIT 1. ALL WIRING SHALL BE INSTALLED IN LISTED METALLIC CONDUIT EXCEPT AS PERMITTED IN OTHER SECTIONS. RGS, WITH A 20 MIL PVC COATING WILL BE USED WHEN IN CONTACT WITH EARTH. IMC MAY BE USED IN INDOOR LOCATIONS NOT IN CONTACT WITH THE EARTH. EMT MAY BE USED IN INDOOR LOCATIONS NOT IN CONTACT WITH EARTH. NOT IN CONCRETE SLABS OR WALLS AND NOT SUBJECT TO DAMAGE. PVC MAY BE USED IN OR BELOW CONCRETE AND DIRECT BURIED IN EARTH. FLEXIBLE STEEL CONDUIT SHALL BE USED FOR INDOOR FINAL CONNECTIONS TO EQUIPMENT IN LENGTHS NOT TO EXCEED 72". LIQUID-TIGHT FLEXIBLE STEEL CONDUIT SHALL BE FOR OUTDOOR FINAL CONNECTIONS TO EQUIPMENT NOT TO EXCEED 48".
- 2. WHERE CONDUIT ENTERS OUTLET BOXES, FIXTURES OR CABINETS, FIRMLY FASTEN WITH STEEL SET SCRE COMPRESSION CONNECTORS, OR DOUBLE LOCKNUTS FOR GRC. ALL CONNECTIONS SHALL HAVE BUSHING OR INSULATED THROAT CONNECTORS. FIRMLY FASTEN CONDUIT TO THE BUILDING CONSTRUCTION. RUN EXPOSED CONDUIT PARALLEL TO THE BUILDING LINES, SUPPORTED BY APPROPRIATE HANGERS (UNISTRUT T & B OR APPLETON, OR EQUAL).
- 3. COVER METALLIC CONDUIT IN CONTACT WITH EARTH WITH POLYETHYLENE TAPED SPIRAL WRAPPED, 1/2 LAPPED TO PROVIDE 20 MIL. THICKNESS. TAPE SHALL BE SCOTCH NO. 50 TAPE. CONDUIT AND DUCTS NOT UNDER BUILDINGS AND FEEDER DUCTS SHALL BE INSTALLED PER N.E.C. 300-5. MAKE JOINTS WITH COMPOUND TO BE WATERTIGHT.
- 4. SCHEDULE 40 PVC CONDUIT SHALL BE PERMITTED UNDERGROUND WITH PROPER FITTINGS, ALL UL APPROVED AND CEMENTED JOINTS. PENETRATIONS THROUGH FLOOR SLABS AND BENDS GREATER THAN 22° SHALL BE WRAPPED RIGID GALVANIZED STEEL ELBOWS.
- 5. FITTINGS AND CONDUIT BODIES SHALL BE STEEL. DIECAST FITTINGS ARE NOT ACCEPTABLE.
- 6. CONDUIT SIZES SHALL BE AS REQUIRED BY CODE AND AS INDICATED OR SPECIFIED. 7. ALL EMPTY CONDUIT SYSTEMS SHALL HAVE A 200 LB. TEST NYLON PULL STRING TO FACILITATE
- INSTALLATION OF FUTURE WIRE. 8. WIRING, CONDUITS, AND OUTLETS SHALL BE CONCEALED WITH THE BUILDING STRUCTURE, EXCEPT THAT
- CERTAIN MOTOR AND LIGHTING FEEDER CONDUITS MAY BE RUN EXPOSED IN CERTAIN AREAS AS INDICATED ON THE DRAWINGS.
- 9. CONDUIT PENETRATION THROUGH ROOF SHALL HAVE ROOF FLASHING WITH CAULK TYPE COUNTER FLASHING SLEEVE. INSTALLATION SHALL BE WATERTIGHT

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- 1. EACH SWITCH, LIGHT, RECEPTACLE OR OTHER OUTLET, SHALL BE PROVIDED WITH A CODE SIZED, STEEL OUTLET BOX. JUNCTION AND PULL BOXES SHALL BE METAL AND CODE SIZED. 2. BOXES INSTALLED IN POURED CEMENT FLOORS SHALL BE FLUSH TYPE CAST IRON OR STEEL WITH WATERTIGHT GASKETED COVERS. WHERE BOXES ARE INSTALLED IN FLOORS WITH TILE OR CARPET FLOOR COVERING, COVERS SHALL BE OF THE RECESSED TYPE TO ACCOMMODATE THE FLOOR COVERING.
- 3. BOXES INSTALLED FOR THE ALARM, COMPUTER, AND SECURITY SYSTEM SHALL BE PROVIDED WITH APPROPRIATE COVER PLATES.
- 4. BOXES FOR TELEPHONE, COMPUTER, T.V., FIRE ALARM, SECURITY, AND SIMILAR SYSTEMS SHALL BE MINIMUM 2-1/8" DEEP.

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	ELECTRICAL SPECIFICATIONS		NĐI	l 6411	
PART A. M/ 1. B. SHC 1.	<u>ATERIALS</u> ALL MATERIALS 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. <u>OP DRAWINGS AND APPROVALS</u> THE ITEMS SPECIFIED HEREIN AND ON DRAWINGS ARE USED AS A STANDARD OF QUALITY. ANY	 <u>G WIRING DEVICES (COMMERCIAL)</u> WALL SWITCHES SHALL BE SPECIFICATION GRADE AC SILENT TYPE SWITCHES, 20A 120/277 VOLT. RECEPTACLES SHALL BE SPECIFICATION GRADE, DUPLEX TYPE. NEMA5-20R, 20 AMPERE, 120VOLT GROUNDED TYPE. SPECIAL APPLICATION RECEPTACLES SHALL BE INDICATED ON PLANS. MOUNT WITH THE GROUND DOWN. DEVICE PLATES SHALL BE EQUAL TO SIERRA SMOOTH-LINE PLASTIC WALL PLATES. COLOR SHALL BE WHITE, UNLESS OTHERWISE NOTED. RECEPTACLES IN OUTDOOR AND WET LOCATIONS SHALL BE INSTALLED WITH A HINGED OUTLET COVER/ENCLOSURE CLEARLY MARKED AND U.L. LISTED SUITABLE FOR WET LOCATIONS WHILE IN USE, FOLIAL TO TAYMAC SPECIFICATION GRADE 	HITECTURE+DES	с. 5 CITY, MISSOURI F. 816.474.1051	
2.	 MATERIALS OF EQUAL QUALITY AND AESTHETIC VALUE WILL BE GIVEN CONSIDERATION AS A SUBSTITUTE FOR THE MATERIALS SPECIFIED. NO APPROVAL WILL BE GIVEN TO A SPECIFIC CATALOG NUMBER, MODEL, OR TYPE OF EQUIPMENT, PRIOR TO BIDDING. AFTER BIDDING, THE DECISION OF THE ARCHITECT AND/OR ENGINEER DETERMINING EQUAL MATERIALS WILL BE FINAL. THE CONTRACTOR SHALL SUBMIT (3) IDENTICAL BOUND SETS OF SHOP DRAWINGS ON THE FOLLOWING TEMS TO THE G.C.: A. LIGHTING FIXTURE CUTS AND PERFORMANCE DATA. B. OUTLINE DRAWINGS AND DATA SHEETS OF EACH PANELBOARD, LOAD CENTERS, AND DISTRIBUTION PANELS. C. OUTLINE DRAWINGS OF ALL SWITCH GEAR COMPONENTS. D. WIRING DEVICES AND COVERPLATES. E. ALL CIRCUIT BREAKERS INSTALLED IN PANELBOARDS, LOAD CENTERS, AND DISTRIBUTION PANELS. 	 J. PANEL BOARDS CIRCUIT BREAKER TYPE AS INDICATED ON DRAWINGS. UNLESS INDICATED OTHERWISE, ALL PANELS SHALL HAVE PANEL BOARD TYPE CONSTRUCTION WITH BOLT-ON CIRCUIT BREAKERS FOR 3Ø PANELS MANUFACTURERS SHALL BE GENERAL ELECTRIC, SQUARE D, SEIMENS, CUTLER-HAMMER WITH VOLTAGE, SIZES, AND RATINGS AS INDICATED ON DRAWINGS. THE CIRCUIT BREAKERS SHALL BE OPERABLE IN ANY POSITION AND BE REMOVABLE FROM THE FRONT OF THE PANEL BOARD WITHOUT DISTURBING THE ADJACENT UNITS. BRANCH BREAKERS SHALL BE OF SUCH DESIGN THAT COMBINATION OF SINGLE-POLE, DOUBLE-POLE, AND THREE-POLE BREAKERS CAN BE ASSEMBLED ON THE SAME PANEL. EACH BRANCH CIRCUIT SHALL BE CLEARLY NUMBERED. BRANCH AND MAIN TERMINALS SHALL BE SOLDERLESS TYPE. HANDLE TIES TO FORM MULTI-POLE BREAKERS NOT ACCEPTABLE. 	WARMAN ARC	V. 816.474.2233	
<u>C. SY</u> 1. 2.	<u>STEM GROUNDING</u> GROUNDING SHALL COMPLY WITH REQUIREMENTS OF ARTICLE 250. ALL EXPOSED NONCURRENT CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, METALLIC RACEWAY SYSTEMS, METALLIC CABLE ARMOR, GROUNDING CONDUCTOR OF NONMETALLIC SHEATHED CABLES, GROUNDING CONDUCTOR IN NONMETALLIC RACEWAYS, AND GROUNDED CONDUCTORS OF THE WIRING SYSTEM SHALL BE GROUNDED. GROUNDED CONDUCTOR (NEUTRAL) OF THE WIRING SYSTEM SHALL BE CONNECTED TO THE SYSTEM	 K. LIGHTING FIXTURES PROVIDE ALL LIGHTING FIXTURES, WIRED AND CONNECTED. THE DRAWINGS INDICATE THE FIXTURES FOR EACH LOCATION. PROVIDE LAMPS FOR ALL FIXTURES. THE LAMPS SHALL BE BY THE SAME MANUFACTURER. VERIFY CEILING CONSTRUCTION BEFORE ORDERING RECESSED UNITS. PROVIDE PLASTER FRAMES AND HANGERS AS REQUIRED. CEILING CONSTRUCTION, ARCHITECTURAL ACCESSORIES, VOLTAGE, AND DRIVERS TO MEET THE EXISTING CEILING CONDITION. 			,
3.	GROUNDING CONDUCTOR AT A SINGLE PLACE IN EACH SYSTEM BY REMOVABLE BONDING JUMPERS, SIZED ACCORDING TO THE APPLICABLE PROVISIONS OF THE NATIONAL ELECTRICAL CODE. THE GROUNDED CONDUCTOR (NEUTRAL) TO THE GROUNDING CONDUCTOR CONNECTION SHALL BE LOCATED IN THE ENCLOSURE FOR THE SYSTEM'S OVERCURRENT PROTECTION OR WHERE OTHERWISE INDICATED ON THE PLANS OR SPECIFICATIONS. A GROUND BUS SEPARATE FROM THE NEUTRAL BUS SHALL BE PROVIDED IN ALL DISTRIBUTION PANELS AND PANELBOARDS. PROPER TORQUE ON GROUND BUS SHALL BE VERIFIED, PER MANUFACTURER'S	 <u>LIGHTING CONTROL</u> FURNISH AND INSTALL TIME SWITCHES, PHOTOCELLS, CONTRACTORS AND FULL LIGHTING CONTROL SYSTEMS AS REQUIRED FOR LIGHTING CONTROLS INDICATED ON THE DRAWINGS. TIME SWITCHES SHALL BE EQUAL TO PARAGON, GENERAL ELECTRIC, TORK, OR INTERMATIC AND SHALL HAVE SIZE AND NUMBER OF POLES AS REQUIRED. PHOTOCELLS SHALL BE EQUAL TO TORK OR INTERMATIC WITH VOLTAGE AS INDICATED. 		JUSTIN R. SMOTHER:	
4. 5.	RECOMMENDATIONS, PRIOR TO ENERGIZING EQUIPMENT. GROUND BUSES AND NEUTRAL BUSES IN ALL DISTRIBUTION PANELS, LOAD CENTERS, PANELBOARDS, AND THOSE PROVIDED IN ANY EQUIPMENT SHALL BE ISOLATED EXCEPT WHERE REQUIRED TO BE CONNECTED AS SPECIFIED ABOVE FOR THE SERVICE ENTRANCE WHEN INDICATED ON THE DRAWINGS, EQUIPMENT GROUNDING CONDUCTORS SHALL BE EXTENDED FROM THE GROUND BUS IN THE DISTRIBUTION EQUIPMENT TO THE RECEPTACLE, FIXTURE OR DEVICE LUGS WHERE THEY ARE PROVIDED. WHERE LUGS ARE NOT PROVIDED, EQUIPMENT GROUNDING CONDUCTORS SHALL BE CONNECTED TO EQUIPMENT ENCLOSURES. THE CONNECTIONS SHALL BE ARRANGED SUCH THAT	 M. TELEPHONE AND CABLE TELEVISION SYSTEMS 1. TELEPHONE WALL OUTLETS SHALL CONSIST OF NO LESS THAN 2-1/8" DEEP BOXES MOUNTED 18" ABOVE THE FLOOR UNLESS OTHERWISE INDICATED. PROVIDE A TERMINAL MOUNTING BOARD FOR THE INCOMING SERVICE CABLE. 2. CABLE TELEVISION OUTLETS SHALL CONSIST OF NO LESS THAN 2-1/8" DEEP BOXES MOUNTED 18" ABOVE THE FLOOR UNLESS OTHERWISE INDICATED. PROVIDE A TERMINAL MOUNTING BOARD FOR THE INCOMING SERVICE CABLE. 		NUMBER PE-20120035 STONAL E 08-07-2	68 A
6. 7. 8.	REMOVAL OF THE RECEPTACLE, EQUIPMENT GROUND CONDUCTORS, OR GROUND JUMPERS FROM GROUND BUSING SHALL NOT AFFECT THE GROUND SYSTEM. RACEWAYS MAY NOT BE USED AS A GROUNDING CONDUCTOR FOR POWER AND LIGHTING CIRCUITS. ALL CONDUIT SHALL HAVE SEPARATE CODE SIZED GREEN GROUND WIRE INSTALLED IN THE CONDUIT TO NSURE A CONTINUOUS GROUNDING PATH. N INACCESSIBLE LOCATIONS, MAKE CONNECTIONS BY EXOTHERMIC WELD PROCESS. N ACCESSIBLE LOCATIONS, CONNECTIONS SHALL BE MADE WITH BOLTED THROUGH, APPROVED SOLDERLESS BRONZE GROUNDING DEVICES	 <u>N. GUARANTEE</u> 1. GUARANTEE ALL MATERIAL FURNISHED AND ALL WORKMANSHIP PERFORMED FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF WORK. ANY DEFECTS DEVELOPING WITHIN THIS PERIOD, TRACEABLE TO MATERIAL FURNISHED AS A PART OF THIS SECTION OR WORKMANSHIP PERFORMED HEREUNDER, SHALL BE MADE GOOD AT NO EXPENSE TO THE OWNER. O. REMODELING WORK 	ICARE		SIO
<u>D. WI</u> 1. 2.	RE CONDUCTOR SIZES SHOWN ON THE DRAWINGS ARE BASED ON COPPER WIRE. UNLESS OTHERWISE SPECIFIED, ALL WIRE SHALL BE TYPE XHHW OR SE FOR FEEDERS OR BRANCH CIRCUITS LARGER THAN 4 AWG, TYPE THHN/THWN INSULATION FOR FEEDERS AND BRANCH CIRCUITS 4 AWG AND SMALLER. ALL BRANCH CIRCUIT WIRING SHALL BE COPPER. A. ALUMINUM CONDUCTORS MAY BE UTILIZED FOR SERVICE ENTRANCE AND PANEL FEEDERS. CONDUCTORS SHALL BE ALUMINUM ALLOY AA-8000 SERIES. THE WIRES SHALL BE MARKED WITH COLOR TO SIMPLIFY CIRCUIT IDENTIFICATION. UNLESS OTHERWISE REQUIRED BY LOCAL ORDINANCES GROUND WIRES SHALL BE GREEN, NEUTRAL WIRES SHALL BE 120V-WHITE [277V-GREY]; LIVE WIRES 480Y/277V SHALL BE BROWN (PHASE A), ORANGE (PHASE B), AND YELLOW (PHASE C); AND LIVE WIRES 208Y/120V AND 120/240V SHALL BE BLACK (PHASE A), RED (PHASE B), AND BLUE (PHASE C). WHERE BOTH 208Y/120V AND 120/240V EXIST IN THE SAME BUILDING, THE CONDUCTORS OF EACH CONFIGURATION SHALL BE SEPARATELY IDENTIFIED (NOT THE SAME COLORS).	 THOUSE PROJECT INVOLVES CONSTRUCTION INSIDE AN EXISTING STRUCTURE. CONTRACTORS, BY SUBMITTING A BID ARE DEEMED TO BE COMPLETELY FAMILIAR WITH THE EXISTING CONDITIONS OF THE BUILDING AS IT INFLUENCES THE WORK DESCRIBED. NO CLAIMS FOR EXTRA COMPENSATION WILL BE CONSIDERED FOR EXISTING CONDITIONS VISIBLE OR REASONABLY INFERABLE FROM A CAREFUL EXAMINATION OF THE EXISTING BUILDING CONDITIONS. CONTRACTOR SHALL INSPECT THE EXISTING FIELD CONDITIONS AT THE SITE AND THE CONTRACT DOCUMENTS PRIOR TO THE START OF ANY WORK TO DETERMINE WHAT EFFECT THE EXISTING CONDITIONS WILL HAVE ON THE WORK POTENTIAL. CONTRACTOR SHALL REPORT DISCREPANCIES TO THE ARCHITECT AND INCLUDE IN THE BID ALL COSTS REQUIRED TO MAKE THE WORK MEET EXISTING CONDITIONS. DEMOLITION: DISCONNECT, DEMOLISH, AND REMOVE ABANDONED MATERIALS AND EQUIPMENT INDICATED TO BE REMOVED AND NOT INDICATED TO BE SALVAGED OR REMAIN. DISPOSAL AND CLEANUP: REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND EQUIPMENT NOT INDICATED TO BE SALVAGED. PROTECT MATERIALS INDICATED TO REMAIN. 	IAVIORAL HEALTH	NE RALPH POWELL RD E'S SUMMIT, MO 64064	ELECTRICAL ATIONS AND SYMB
3.	"HIGH-LEG" PHASE OF DELTA SYSTEM SHALL ALWAYS BE MARKED ORANGE. CIRCUIT SHALL BE LABELED N EACH J-BOX. A. ALL CONDUCTORS SHALL BE RATED 600 VOLT. SPLICES IN EXTERIOR PULL BOXES AND MANHOLES SHALL BE WEATHERPROOF USING "SCOTCHCAST" SPLICE KIT OR APPROVED EQUAL. SEAL ENDS OF CONDUITS AND DUCTS WITH "DUCTSEAL" OR APPROVED EQUAL. PROVIDE SOUD CONDUCTOR FOR 10 AWG AND SMALLER		AMIT BEH	3340 LEE	PECIFIC,
5. 6. E. CC	NO WIRE SHALL BE INSTALLED IN THE CONDUIT SYSTEM UNTIL THE CONDUIT SYSTEM IS COMPLETE. USE WINERALAC NO. 100 OR EQUIVALENT AS A LUBRICANT TO FACILITATE THE INSTALLATION OF THE CONDUCTORS IN THE CONDUIT SYSTEM. WC CABLE WITH COPPER CONDUCTORS AND GROUND WIRE MAY BE USED WHERE PERMITTED.		SUN		S
1. 2. 3.	ALL WIRING SHALL BE INSTALLED IN LISTED METALLIC CONDUIT EXCEPT AS PERMITTED IN OTHER SECTIONS. RGS, WITH A 20 MIL PVC COATING WILL BE USED WHEN IN CONTACT WITH EARTH. IMC MAY BE USED IN INDOOR LOCATIONS NOT IN CONTACT WITH THE EARTH. EMT MAY BE USED IN INDOOR LOCATIONS NOT IN CONTACT WITH EARTH, NOT IN CONCRETE SLABS OR WALLS AND NOT SUBJECT TO DAMAGE. PVC MAY BE USED IN OR BELOW CONCRETE AND DIRECT BURIED IN EARTH. FLEXIBLE STEEL CONDUIT SHALL BE USED FOR INDOOR FINAL CONNECTIONS TO EQUIPMENT IN LENGTHS NOT TO EXCEED 72". LIQUID-TIGHT FLEXIBLE STEEL CONDUIT SHALL BE FOR OUTDOOR FINAL CONNECTIONS TO EQUIPMENT NOT TO EXCEED 48". WHERE CONDUIT ENTERS OUTLET BOXES, FIXTURES OR CABINETS, FIRMLY FASTEN WITH STEEL SET SCREW, COMPRESSION CONNECTORS, OR DOUBLE LOCKNUTS FOR GRC. ALL CONNECTIONS SHALL HAVE BUSHINGS OR INSULATED THROAT CONNECTORS. FIRMLY FASTEN CONDUIT TO THE BUILDING CONSTRUCTION. RUN EXPOSED CONDUIT PARALLEL TO THE BUILDING LINES, SUPPORTED BY APPROPRIATE HANGERS (UNISTRUT, T & B OR APPLETON, OR EQUAL). COVER METALLIC CONDUIT IN CONTACT WITH EARTH WITH POLYETHYLENE TAPED SPIRAL WRAPPED, 1/2 LAPPED TO PROVIDE 20 MIL. THICKNESS. TAPE SHALL BE SCOTCH NO. 50 TAPE. CONDUIT AND DUCTS NOT UNDER BUILDINGS AND FEEDER DUCTS SHALL BE INSTALLED PER N.E.C. 300-5. MAKE JOINTS WITH COMPOUND TO BE WATERTIGHT. SCHEDULE 40 PVC CONDUIT SHALL BE PERMITTED UNDERGROUND WITH PROPER FITTINGS, ALL UL			Monte Cristo II, LLC 1804 Swift St., Suite 101	
5. 6. 7. 8. 9.	APPROVED AND CEMENTED JOINTS. PENETRATIONS THROUGH FLOOR SLABS AND BENDS GREATER THAN 22° SHALL BE WRAPPED RIGID GALVANIZED STEEL ELBOWS. FITTINGS AND CONDUIT BODIES SHALL BE STEEL. DIECAST FITTINGS ARE NOT ACCEPTABLE. CONDUIT SIZES SHALL BE AS REQUIRED BY CODE AND AS INDICATED OR SPECIFIED. ALL EMPTY CONDUIT SYSTEMS SHALL HAVE A 200 LB. TEST NYLON PULL STRING TO FACILITATE NSTALLATION OF FUTURE WIRE. WIRING, CONDUITS, AND OUTLETS SHALL BE CONCEALED WITH THE BUILDING STRUCTURE, EXCEPT THAT CERTAIN MOTOR AND LIGHTING FEEDER CONDUITS MAY BE RUN EXPOSED IN CERTAIN AREAS AS NDICATED ON THE DRAWINGS. CONDUIT PENETRATION THROUGH ROOF SHALL HAVE ROOF FLASHING WITH CAULK TYPE COUNTER FLASHING SLEEVE. INSTALLATION SHALL BE WATERTIGHT. CONDUITS SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO THE STRUCTURE		SOURCE		
F. OUT 1. 2. 3. 4.	<u>LET, PULL, AND JUNCTION BOXES</u> EACH SWITCH, LIGHT, RECEPTACLE OR OTHER OUTLET, SHALL BE PROVIDED WITH A CODE SIZED, STEEL OUTLET BOX. JUNCTION AND PULL BOXES SHALL BE METAL AND CODE SIZED. BOXES INSTALLED IN POURED CEMENT FLOORS SHALL BE FLUSH TYPE CAST IRON OR STEEL WITH WATERTIGHT GASKETED COVERS. 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 COVER PLATES. BOXES FOR TELEPHONE, COMPUTER, T.V., FIRE ALARM, SECURITY, AND SIMILAR SYSTEMS SHALL BE MINIMUM 2–1/8" DEEP.		BY DATE REVISIONS S		
		JSC ENGINEERS 1925 CENTRAL ST. SUITE #201 KANSAS CITY, MO 64108	# DATE: DESIGNE DRAWN E APPROV SH J	ED BY: BY: ED BY: EET NUMI EET NUMI	08.07.23 JSC JSC JRS BER) 1 ER

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GENERAL NOTES

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A. EXISTING WORK SHOWN LIGHT, NEW SHOWN BOLD.

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- B. DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL PLANS OR FIELD MEASUREMENTS FOR DIMENSIONS.
- C. ALL WORK SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70) AND ALL LOCAL BUILDING CODES AND AMENDMENTS.

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- D. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACE AVAILABLE, AND WITHOUT INTERFERENCES.
- E. THIS CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE ELECTRICAL SYSTEMS.
- F. ALL WIRING SHALL BE IN APPROVED RACEWAY.

KEYED PLAN NOTES

- 1. EXISTING PANELBOARD TO REMAIN. REFER PANEL SCHEDULES ON SHEET E201 FOR INFORMATION ON NEW OFFICE CIRCUITS. 2. EXISTING POWER AND CONTROLS TO REMAIN IN THIS ROOM.
- 3. RELOCATE RECEPTACLE SERVING REFRIGERATOR TO NEW EQUIPMENT LOCATION. EXTEND CONDUIT AND WIRING AS NECESSARY TO MAKE CONNECTION IN NEW LOCATION.
- 4. EXISTING MICROWAVE AND GENERAL COUNTER RECEPTACLES TO REMAIN. COORDINATE LOCATION WITH NEW CASEWORK.
- 5. CONNECT NEW RECEPTACLES TO EXISTING RECEPTACLE CIRCUIT SERVING NEWLY DEMISED ROOM AND REWIRE AS INDICATED. CONTRACTOR TO CONFIRM ADDING NEW RECEPTACLES WILL NOT OVERLOAD EXISTING CIRCUIT AFTER DEMO. LABEL DEVICES WITH NEW HOMERUN.
- 6. RELOCATE EXISTING DEVICE TO NEW LOCATION SHOWN. EXTEND CONDUIT AND WIRING AS NECESSARY TO MAKE CONNECTION IN NEW LOCATION.

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DATE:

DESIGNED BY:

APPROVED BY:

SHEET NUMBER

E-102

JOB NUMBER

23-082

DRAWN BY:

08.07.23

JSC

JSC

JRS

		ELECTR	CAL LIGHTING	SCHEDULE (OR EQUA	AL. VERIFY ALL SELECTIONS AND FINISHES WITH OWNER AND ARCHITECT PRIOR TO ORDERING).	
	FIXTURE TYPE NAM	MANUFACTURER ME SERIES	VOLT MOUNTING	G LAMP TYPE	REMARKS	VC
	A/AE LITHO	NIA 2BLT4-40L-ADSM-GZ10-LP830	32 RECESSED	INCLUDED LED	2'X4' DIMMABLE LED TROFFER- 3000K - 4000LM'	
		NIA LHQM-LED-R-SD	5 SURFACE	INCLUDED LED	EMERGENCY EXIT EGRESS COMBO LIGHTING UNIT WITH RED FACE EXIT SIGN AND 90 MIN. BAT	TTERY PACK 12
		DNIA ELA-B-T-QWP-L0309-SD	5 SURFACE	INCLUDED LED	OUTDOOR EMERGENCY REMOTE EGRESS LIGHTING UNIT	1:
	q-p LITHO	NIA ELM2-SD	5 SURFACE	INCLUDED LED	EMERGENCY EGRESS LIGHTING UNIT WITH 90 MIN. BATTERY PACK	1:
		NIA LE-S-W-1/2-R-EL-N	5 SURFACE	INCLUDED LED	EMERGENCY EXIT SIGN UNIT WITH RED LEGEND AND 90 MIN. BATTERY PACK - SELF-DIAGNOST	TIC
	PANELBOARD: D1A (EXISTING) BUS AMPS: 400A MAIN SIZE/TYPE: MLO /OLTS/PHASE: 208Y/120V, 3PH, 4W	FED FROM: EXISTING AIC RATING: 65000 FULLY RATED SERVES: MOUNTING: SURFACE	LINE-SIDE LUGS: MECHA EQUIPMENT GROUN	NICAL D BUS MAIN SIZE/TYPE: 200A MCB VOLTS/PHASE: 208Y/120V, 3	D2A (EXISTING) AIC RATING: 65000 FULLY RATED SERVES: SOUTH OFFICES 3PH, 4W MOUNTING: SURFACE	INE-SIDE LUGS: MECHA EQUIPMENT GROUN
	CKT DESCRIPTION VOLTAMP	LOCATION: PS/PHASE WIRE BKR P P BKR WIRE VOLTAMPS/PHA B C NO. AMP AMP NO. A B	C DESCRIPTION	SECTION: 1 CKT CKT NO. NO.	LOCATION: UTILITY CLOSET ON VOLTAMPS/PHASE WIRE BKR VIRE VOLTAMPS/PHASE A B C NO. A B C	DESCRIPTION
	1 2,500 3 CU-1 2,5 5	Image: boot with the second state withe second state with the second state with the sec	GENERAL PURPOSE RCPTS GENERAL PURPOSE RCPTS 720 GENERAL PURPOSE RCPTS	1 2 2 4 3 6 5	2,500 EX 40 3 1 20 EX 720 BREA 2,500 2,500 EX 40 3 1 20 EX 1,100 REFR 1 20 EX 1 20 EX 720 C C	AKROOM RECEP RIGERATOR EPS
	7 SPARE 9 REFRIGERATOR 1,2 11 PHONE BOARD QUAD 1	20 1 1 20 EX 500 500 200 EX 20 1 1 20 EX 1,000 360 EX 20 1 1 20 EX 1,000	PLUG MOLD LIGHTING 540 BREAKROOM GFI/MICRO/D	8 7 DRINKING FOUNTAIN 10 9 EXHAUST FAN /15 12 11 RECEPS	N 800 EX 20 1 1 20 EX 1,000 LIGHT 400 EX 20 1 1 20 EX 720 PHON 720 EX 20 1 1 20 EX 720 PHON	TING NE BOARD EPS
	13GARBAGE DISPOSAL50015FA PAN50017EXHAUST FAN / TIME CLOCK500	EX 20 1 1 20 EX 720 Image: Constraint of the state of the	GENERAL PURPOSE RCPTS LIGHTING 1,200 SIGN / ENTRY LIGHTING	4 14 13 BREAKROOM GFCI 16 15 RECEPS 18 17 LIGHTING	540 EX 20 1 1 20 EX 500 FURN 720 EX 20 1 2 20 EX 1,000 WATE 1,000 EX 20 1 2 20 EX 1,000 WATE	VACE ER HEATER
	19 FURNACE 400 21 WATER HEATER 1,3 23 1	EX 20 1 1 20 EX 720 720 350 EX 20 2 1 20 EX 720 720 1,350 EX 20 2 1 20 EX 720 720	OFFICE RECEPTACLES OFFICE RECEPTACLES SPACE	20 19 FURNITURE 22 21 FURNITURE 24 23 FURNITURE	800 EX 20 1 1 20 EX 720 BREA 1 800 EX 20 1 1 20 EX 720 BREA 1 1 20 EX 20 1 1 20 EX 1,500 PRIN 1 1 20 EX EX 20 1 1 20 EX 1,500 DREA	NKROOM RECEP TER NOWN LOAD
	25 OFFICE 720 27 OFFICE FURNITURE 72 29 OFFICE FURNITURE - FLOOR 72	EX 20 1 1 20 EX 360 9 20 EX 20 1 2 30 EX 1,500 1 720 EX 20 1 2 30 EX 1,500 1	IT ROOM QUAD SERVER EQUIPMENT 1,500	26 25 FURNITURE 28 27 FURNITURE 30 29 FURNITURE	800 EX 20 1 1 20 EX 1,200 ITRO 1 800 EX 20 1 1 20 EX 1,200 ITRO 1 800 EX 20 1 1 20 EX 500 DAME 1 1 20 EX EX 20 1 1 20 EX 500 DAME	DOM A/C PERS /ER
	31 HP UNITS 1,100 33 1,1 1,1 35 1 1	EX 20 2 1 30 EX 1,500 100 2,500 1 20 12 540 1	SERVER RCPT - TWIST LOCK RCPT - THERAPY ROOMS 540 RCPT - RECEPTION	32 31 PRINTER 34 33 PRINTER 36 35 PRINTER	1,000 EX 20 1 1 20 EX 720 SERV 1,000 EX 20 1 1 30 EX 720 SERV 1,000 EX 20 1 1 30 EX 720 SERV 1,000 EX 20 1 1 20 EX 720 SERV	/ER /ER JRITY
	37 CU-2 2,500 39 2,5 2,5 41 NOT USABLE 2	EX 40 3 1 20 EX 1,350 500 1 1 - <td< td=""><td>PRINTER NOT USABLE NOT USABLE</td><td>38 37 LIGHTING 40 39 SIGN EAST 42 41 SIGN SOUTH / TIMECL</td><td>1,000 EX 20 1 1 20 EX 1,350 MICR 1,200 EX 20 1 1 20 EX 1,350 MICR 200 1,200 EX 20 1 1 20 EX 500 CONE 200 1,200 EX 20 1 1 20 EX 500 FIRE</td><td>OWAVE DENSATE PUMP ALARM</td></td<>	PRINTER NOT USABLE NOT USABLE	38 37 LIGHTING 40 39 SIGN EAST 42 41 SIGN SOUTH / TIMECL	1,000 EX 20 1 1 20 EX 1,350 MICR 1,200 EX 20 1 1 20 EX 1,350 MICR 200 1,200 EX 20 1 1 20 EX 500 CONE 200 1,200 EX 20 1 1 20 EX 500 FIRE	OWAVE DENSATE PUMP ALARM
=	SUBTOTAL 7,720 9,8 TOTAL PHASE A - VA 13,590 LOAD AMPS 113 COOLING	370 7,830 5,870 5,480 CONN. VA DF LOAD CONN. VA 1.00 REFRIG Image: Connect of the second seco	4,500 SUBTOTAL DF 1.00	TOTAL PHASE A - VA AMPS	- 7,440 7,420 8,020 6,210 6,040 4,880 13,650 LOAD CONN. VA DF LOAD CONN. VA DF 114 COOLING 1.00 REFRIG 1.00	SUBTOTAL
	TOTAL PHASE B - VA15,350HEATINGAMPS128LIGHTINGTOTAL PHASE C - VA12,330RECEPTACLI	0 SIGN/DISP 1.25 KITCHEN ES 1,080 1.0/.5 EXISTING	1.25 1.00 1.00	TOTAL PHASE B - VA AMPS TOTAL PHASE C - VA	13,460 HEATING 0 SIGN/DISP 1.25 112 LIGHTING 1.25 KITCHEN 1.00 12,900 RECEPTACLES 1.0/.5 EXISTING 40,010 1.00	
	AMPS103MOTORSTOTAL PNLBD - VA41,270SUPP HEATAMPS115MISC EQUIP	1.00 LRG MOTOR 1.00 SHOW WNDW 1.00 LTG TRACK	1.25 TOTAL DEMAND 1.25 41,270 \ 1.00 115	AMPS A TOTAL PNLBD - VA A AMPS	108 MOTORS 1.00 LRG MOTOR 1.25 40,010 SUPP HEAT 1.00 SHOW WNDW 1.25 111 MISC EQUIP 1.00 LTG TRACK 1.00	TOTAL DEMAND 40,010 11
F	PANELBOARD NOTES CIRCUITS IN <i>ITALICS</i> = EXISTING LABELED LC	DAD TO REMAIN		PANELBOARD NOTES CIRCUITS IN <i>ITALICS</i>	S = EXISTING LABELED LOAD TO REMAIN	
		ΡΔ		SCHEDULES		
		SCALE :	N/A		2	
					ELECTRICAL SERVICE ENTRANCE AND DISTRIBUTION EQUIPMENT	
					TO THE ELECTRICAL DISTRIBUTION EQUIPMENT IN THIS SCOPE.	
					SINGLE LINE DIAGRAM	
					SCALE : N/A	

V. 816.474.2233 F. 816.4
NUMBER PE-2012003568 08-07-2023
SUMMIT BEHAVIORAL HEALTHCARE 3340 NE RALPH POWELL RD 1.EE'S SUMMIT, MO 64064 ELECTRICAL SCHEDULES & DIAGRAMS
Monte Cristo II, LLC 1804 Swift St., Suite 101 North Kansas City, MO 64116
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