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DM	A JO	E'S					SC	OPE	EOF	WO	RK	
AIS	, ME	_ •				The project is (The work inclu Insulation, wine Plumbing, fixtui	GROUND-UP NEW CO DES FOUNDATION, S DOWS, DOORS, HAR RES, HVAC WITHOU	ONSTRUCTION FOR A SLAB, WOOD STUD WA DWARE, ROOFING, CA T HOOD, POWER, LIGH	STICK BUILT 886 SF G ALLS, ROOF TRUSSES NOPIES, INTERIOR D ITING.	QUICK SERVE, DRIVE TH AND BEAMS, EXTERIC RY WALL FRP, FINISHE	IROUGH SPECIALTY CO R SHEATHING, TRIM, S S, LAY-IN CEILING, ACC	DFFEE SHOP. EALANT, ESSORIES,
	SOUTH	STREET				THE PAD IS ASSUI DOCUMENTS. STF REPORT AND REC PERIMETER.	MED TO BE PREPAR RUCTURAL DESIGN A COMMENDATIONS. G	ED BY THE OWNER. AI ASSUMES PAD AND SE C IS RESPONSIBLE FC	LL BUILDING PAD ANE LECT FILL HAS BEEN DR ALL SERVICE CONI) GRADING WORK SHA DELIVERED IN ACCOR NECTIONS FROM AT LE	LL BE COVERED IN THE DANCE WITH THE GEO AST 5'-0" OUTSIDE THE	e civil Technical Building
S, ME (STON (COUNTY											
ISSUE	E: 2024.08	8.30				DE	FEF	RRE) SU	BMI	TTAL	.S
						CONTRACTOR IS I	RESPONSIBLE FOR <i>i</i>	ALL DEFERRED SUBMI	TTALS REQUIRED BY	THE CITY OR STATE:		
						SL	JPPI	EM	ENT/	AL IS	SUE	S
						REVIS	ION	DATE		DESCRI	PTION	
		סוח			,							
						GE				JINL		110
	COMPANY NAME ADDRESS	<u></u>	THERES 1100 M/	SA M. ENGLISH AIN STREET, SUITE 220	10	GENERA 1. THE GENERA	L NOTES: F	PROJECT RE	FOR ALL CERTIFICA	ITS TES OF INSPECTION AN	ID OCCUPANCY THAT I	MAY BE REQ'D
	PHN: ###	¥.###.#####	KANSA: PHN:	8 CH Y, MO, 64105 (816) 842.7552		BY AUTHORI WORK. 2. PRIOR TO CO ALL UTILITIES	TIES HAVING JURISE DMMENCING NEW W S AND MAKE PROVIS	DICTION OVER THE WO ORK WHERE NO DEMO SIONS THAT NO INTERF	DRK, AND SHALL DEL OLITION WORK WAS F RUPTION OF SERVICE	IVER THEM TO THE OW REQUIRED, THE CONTF COCCURS	VNER UPON COMPLETION	ON OF THE
	CONTACT: NA ema	ME ail@address.com	CONTA	CT: JACK MUFFOL jmuffoletto@tka	ETTO rch.com	 IF ANY SUBS INCLUDING A CONTRACTO 	TITUTIONS ARE PRO LL AFFECTED TRAD R IS RESPONSIBLE	POSED AND APPROVE ES, HVAC, PLUMBING TO NOTIFY THE ARCHI	ED, THE CONTRACTO AND ELECTRICAL. TECT OF MATERIALS	R WILL BE RESPONSIB	LE FOR ALL COORDINA R WHICH NO QUALITY (TION, DR GRADE IS
	FRANCHISEE:		STRUC	TURAL ENGINEER:		CLEARLY SP SHOWN. 5. PROVIDE SU WHETHER FU	ECIFIED. UNDER NO FFICIENT FIRE RETA JRNISHED BY OWNE	RDANT TREATED WO	ALL THE CONTRACTO DD BLOCKING AT LOO SIGN LOCATIONS AN	CATIONS FOR SECURIN D WEIGHTS SHALL BE	G OF WALL & CEILING I	TEMS, IGN SUPPLIER
	NAME ADDRESS ADDRESS		STEVEN 1100 M/ KANSAS	N PETRACEK AINSTREET, SUITE 220 S CITY, MO, 64105	0	PRIOR TO BL SHOP DRAW 6. CONCEALED	OCKING INSTALLATI INGS. WOOD IS TO BE FIR	ION. EXACT LOCATION	IS FOR SIGN BLOCKIN	NG AND ELECTRICAL TO THERWISE.) be provided in Sigi	N COMPANY
	PHN: XX	X.XXX.XXXX	PHN:	(816) 842.7552		 GC TO PROV REPRESENT, <u>DO NOT SCA</u> 	IDE A KEY LOCK BO ATIVE AND FIRE DEF LE DRAWINGS.	X (KNOX BOX) FOR TH PARTMENT. FINISH TO	E FIRE DEPARTMENT BE BRONZE.	USE IF REQUIRED. CC	ORDINATE LOCATION	WITH OWNER'S
	CONTACT: NA ema	ME ail@address.com	CONTA	CT: STEVEN PETR spetracek@tka	ACEK, SE rch.com	9. PARKING FO 10. THE CONTRA AT THE SITE,	R CONTRACTOR'S E CTOR SHALL ASSUI INCLUDING ALL OW	MPLOYEES SHALL BE ME FULL RESPONSIBIL (NER FIXTURES & FITT	AS APPROVED BY OV ITY FOR RECEIVING & INGS ETC. CONTRAC	VNER. & PROTECTION AND SA TOR SHALL PROVIDE F	FEKEEPING OF PRODU RECYCLING OR IF NON-	ICTS STORED RECYCLABLE
	<u>CIVIL ENGINEER:</u>		MEP EN	IGINEER:		11. USE PREMIS 12. GC TO NOTIF	ES FOR EXECUTION	OF WORK AND FOR S UESTION REGARDING	TORAGE AS DIRECTE FINISH. DO NOT ASS	INGS. ED BY THE OWNER. UME ANY SURFACES T	O BE UNTREATED UNL	ESS
	HALEY WARD, INC ADDRESS		BRAD R 1100 M/	REYNOLDS AINSTREET, SUITE 220	D		i noteb.					
	ADDRESS PHN: 207	7.341.0588	KANSAS PHN:	S CITY, MO, 64105 (816) 842.7552		<u>GENERA</u>	L NOTES: (CONTRACT I	DOCUMENT	<u>S</u>		
	CONTACT: SE/ sthi	AN THIES ies@haleyward.com	CONTA	CT: BRAD REYNOL breynolds@tka	LDS, PE rch.com	1. ALL DRAWIN AS CALLED F ALL DOCUME 2. WHEN DISCF	GS AND SPECIFICAT OR BY ALL. ANY WO ENTS. REPANCIES BETWEE REPANCIES BETWEE	TION NOTES BY THE AF ORK SHOWN OR REFE IN THE DRAWINGS ANI	RCHITECT ARE COMP RRED TO ON ANY ON D THE REQUIREMENT	LIMENTARY. WHAT IS (IE DOCUMENT SHALL B S OF CODES ARISE, TH R COMPONENTS ARISE	CALLED FOR BY ONE W E PROVIDED AS THOU HE CODES SHALL TAKE	ILL BE BINDING GH SHOWN ON PRECEDENCE.
	GENERAL CONTRA	ACTOR:	FRANC			FOR A DECIS FOR THE HIG 4. THE GENERA	SION. IF IN BIDDING A SHEST QUALITY OPT	AND THE ARCHITECTS ION. IALL PROMPTLY REPO	DECISION IS NOT SO	UGHT, THE GENERAL C	CONTRACTOR SHOULD	ALWAYS PRICE
	ADDRESS CITY, STATE ZIP		AROMA 700 TEC SCARB	DUCE S FRANCHISING CHNOLOGY WAY OROUGH, ME 04074	-LU	DISCOVEREI MAY REQUIR DEFINITIO	D BY OR MADE KNON E. ONS: CONT	WN 10 THE CONTRAC	IOR AS A REQUEST F	OR INFORMATION OR	IN SUCH FORM AS THE	ARCHITECT
	PHN: ### CONTACT: NA ema	#.###.#### ME ail@address.com	PHN: CONTA	603.915.6927 CT: JESSICA BELA jbelanger@aror	NGER najoes.com	1. THE DRAWIN DIMENSIONS 2. THE SPECIFI MATERIALS,	IGS ARE THE GRAPH OF THE WORK. CATIONS ARE THAT EQUIPMENT, SYSTE	HIC AND PICTORIAL PC PORTION OF THE CON MS, STANDARDS AND	DRTIONS OF THE CON NTRACT DOCUMENTS WORKMANSHIP FOR	ITRACT DOCUMENTS S CONSISTING OF THE THE WORK, AND PERF	HOWING THE DESIGN, NRITTEN REQUIREMEN ORMANCE OF RELATE	LOCATION AND ITS FOR D SERVICES.
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	ARCHITECTURAL		
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A002	CODE PLAN		
A003	ARCHITECTURAL SITE PLAN		
A004	MATRIX OF RESPONSIBILITY		
A100	FLOOR PLAN & ROOF PLAN		
A101	REFLECTED CEILING PLAN		
A102	INTERIOR ELEVATIONS AND FINISH PLAN		
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E100	ELECTRICAL RISER, SCHEDULE, & DETAILS		
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M100 M200	FLOOR PLAN - MECHANICAL MECHANICAL SYMBOLS & SCHEDULES														
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SP100	STRUCTURAL SPECIFICATIONS														
SP101	STRUCTURAL SPECIFICATIONS														
SP200	MEP SPECIFICATIONS														
SP300	MEP SPECIFICATIONS														
SP400	MEP SPECIFICATIONS														
SP500	MEP SPECIFICATIONS														



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12 13	14 15 16 17 1	18 19	20 2	1 22	23	24	25	26	27	28	29	30	31		
	FIRE EXTINGUISERS (FE):		1. APPLICA	BLE CODE	ES			10. PLU	JMBING	FIXTURI	E REQUIF	REMENTS	6		
IT) ID ACTUAL	 <u>GENERAL:</u> GC TO FURNISH AND INSTALL ALL FIRE EXTINGUISHERS (FE) SUCH THAT TRAVANYWHERE IN THE BUILDING DOES NOT EXCEED 75'-0". ALL FIRE EXTINGUISHERS TO BE INSTALLED IN CONSPICUOUS LOCATIONS; SE GENERAL LOCATIONS. GC TO CONFIRM ONSITE ANY LAYOUT CONFLICTS WITH ADAPT PROPOSALS ACCORDINGLY. GC PLEASE NOTE: 	VEL TO ONE FROM EE CODE PLANS FOR H ARCHITECT AND	MAINE UNIFORM BUILDING C 2015 INTERNATIONAL BUILDIN 2020 NATIONAL ELECTRICAL 2015 INTERNATIONAL MECHA 2015 INTERNATIONAL FUEL G 2021 INTERNATIONAL FUEL G 2015 INTERNATIONAL FIRE C 2015 ENERGY CONSERVATIO	DDE AND UNIFORM ENERGY IG CODE CODE NICAL CODE AS CODE NG CODE DDE N CODE	Y CODE			MINIMUM NUMBE CLASSIFICATION: DESCRIPTION: TOTAL OCCUPAN	R OF REQUIRED PLU B - BUSINESS COFFEE SHOP CY LOAD = 4	JMBING FIXTURES	RES SCHEDULE	T	ABLE 2902.1		K
	GC TO COORDINATE FINAL LOCATIONS AND EXTINGUISHER COUNTS WITH THE FIRE ORDERING AS THEY MAY REQUIRE MORE STRINGENT DISTANCING ETC.	MARSHALL PRIOR TO	2. OCCUPA	NCY GROU	UP		SECTION 304.1	F WATER CLOS LAVATORY (1 MOP SINKS	IXTURE TYPE SET (1/65) /200)		QTY (FIXTURE REQUIRED) 1 1 1	QTY (FIX PROVIE	TURE DED)	RCHITECT 200 05 6-842-1302 6-842-1302 MAIN THE ONAL. COPIES RETAINED BY R THEIR USE & WHICH THEY ICTION OF ANY	J
		CAL ROOM ID	3. CONSTR		YPE			11. ENI	ERGY C	ODE REC	QUIREME	NTS		ENGLISH, A iin Street, Suite 2: City, Missouri 641 -7552 Fax: 8 PECIFICATIONS RE DESIGN PROFESSI & SPECIFICATIONS RE UTILIZED ONLY FOI THE PROJECT FOR NOT FOR CONSTRU	THER PROJECT
	BRAI	I LLE SIGN	4. BUILDIN	G SQUARE	FOOTAG	E	TABLE 601	MINIMUM ENERGY CLIMATE ZONE 4 /	<u>(VALUES</u> AND CLIMATE ZONE	5				THERESA M. 1100 Ma Kansas Phone : 816-842 DRAWINGS & SI PROPERTY OF THE OF THE DRAWINGS HE CLIENT MAY BE FOR OCCUPYING 7	
	LE CHARACTERS SHALL B		NEW BUILDING: 886 SF	BLE AREA	\S			BU	IILDING ELEME	ENERGY CODE	REQUIREMENTS	VALUE			
	TAGTI		9,000 SQUARE FEET PER STC	RY (WITHOUT INCREASES)	FOR B, V-B		TABLE 506.2	WALLS (ABC FRAMED WALLS (BEL	DVE GRADE); V _OW GRADE)	VOOD R-	13 + R-3.8ci 7.5ci			Aroma Joé	3
OFFICIALS. ROVIDED AT A DE.	MOUNTING SIGN ON WALL (WITH DOOR & FRAME)		6. ALLOWA	BLE HEIG	HTS		TABLE 504.3	- <u>Minimum Energ</u>	<u>GY VALUES</u>					OE'S AND REET	04615
	G14 SCALE ACCESSIBILITY - NOTES AND DET	SIGNAGE AILS	FACILITY IS ONE STORY, T.O.	R FINISHES)				E BUILDING ELE	ENERGY CODE	REQUIREMENTS	S VALUE		OMA Jord Strain	B G
			ALL INTERIOR WALL AND CEI BELOW ARE MINIMUM REQUI B EXIT ENCLOSURES AND PASS CORRIDORS ROOMS AND ENCLOSED SPA	LING FINISHES TO COMPLY REMENTS FOR NON SPRINK BAGEWAYS CES	WITH MINIMUM REQUIRE (LERED AREAS, B OCCUP <u>NON SPRINKLERED</u> A B C	IENTS AND TESTING ANCY.	TABLE 803.13	ROOF WALLS (ABC WALLS (BEL	DVE GRADE); V _OW GRADE)	VOOD FRAMED	R-30ci R-13 + R-7.5ci R-7.5ci			BID & PERMIT SE	F CALA
			CLASS A FLAME SPRE/ CLASS B FLAME SPRE/ CLASS C FLAME SPRE/	nd 0-25; Smoke-developed nd 26-75; Smoke-develope nd 76-200; Smoke-develop	D 0-450 ED 0-450 PED 0-450		SECTION 803.1.2								- '
	OCCUPANT EGRESS LOAD 4 REQUIRED MIN CLEAR OPENING 1" ACTUAL CLEAR OPENING (35")		8. EGRESS											2024.08.30 Revision Schedule	E
			REQUIRED CAPACITY OF EGF PER OCCUPANT: MINIMUM CLEAR DOOR WIDT MINIMUM CLEAR DOOR HEIG MAXIMUM EXIT TRAVEL DIST/	RESS COMPONENTS H @ EXIT: HT @ EXIT: NNCE:	0.2 INCHES 32" (WHEN OPEN 90 DEC 80" HEAD CLEARANCE (6 250' WITH SPRINKLER S	.) '-8") ′STEM	SECTION 1005.3 SECTION 1010.1 SECTION 1010.1 TABLE 1017.2							# Date Descripti	ion
			NUMBER OF EXITS: MAXIMUN COMMON PATH: MAXIMUM FLOOR AREA ALLC	WANCES PER OCCUPANT	1 EXIT REQUIRED		SECTION 1006.3.3 TABLE 1006.2.1 TABLE 1004.5								D
			ROOM NAME AREA		PANTS SUMM	ARY SQUARE FOOTAGE PER OCCUPANT	OCCUPANT LOAD								
			B BUSINESS KITCHEN 278 SF SUPPORT 452 SF	MECHANICAL / EQUIPM	KITCHEN (200 SF / OCC) /IENT / STORAGE (300 SF / OCC)	200 SF 300 SF	2 2 4							PROJECT # 24626	
			9. FIRE RES	SISTANCE:	TYPE V-B			-						CODE PLAN	
ООМ			FIRE	RESISTANCE F	RATING REQU RA (HO TY	IREMENTS TINGS DURS) PE VB R	EFERENCE								B
			PRIMARY STRUCTURAL FRAME BEARING WALLS AND PARTITIC EXTERIOR INTERIOR	DNS) HR) HR	TABLE 601 TABLE 601							SHEET NUMBER	
			NON BEARING WALLS AND PAP EXTERIOR INTERIOR FLOOR CONSTRUCTION AND A ROOF CONSTRUCTION AND AS	RITITIONS SSOCIATED SECONDARY ME	EMBERS MBERS) HR) HR) HR	TABLE 601 TABLE 601 TABLE 601							A002	A
12 13	14 15 16 17 1	18 19	20 2	1 22	23	24	25	26	27	28	29	30	31		



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														CONT	ACT LIST									MATF	RIX OF RESF	PONSIB	ILITY		
K									VE	NDOR		# C0	ONTACT NAME		EMAIL			PHONE	C	omments		DESCRIP	TION	VEND	OR # FURNIS	SHED Y IN	STALLER CONT	ACT #	NOTES
								AROMA J EQUIPME	JOE'S CORPORA	ATE	1	ALLISON G	OODRIDGE	allison@)aromajoes.com		(207) 553. 2975, ex	. 103 OR (207) 632.	989		MILL			10	66	<u> </u>	12		
								EQUIPME DESIGN 8	ENT & CONSTRUCTION	ON	1	ALLISON GO		allison@ jhaydon)aromajoes.com @aromajoes.com		(207) 553. 2975, ex (207) 835. 5861	t. 103 OR (207) 632.	989		CABI	INETS - FRONT BAR		13	GC GC	GC GC	13	E, F, I E, F, I E F I	
								DA OFFIC	CONSTRUCTION	UN	3	LOREN GO		Jnaydon loren@a	@aromajoes.com aromajoes.com		(207) 835, 5861 (207) 939, 6689				SOLI	ID SURFACE COUNTER	R TOPS - BARS	13	GC	GC GC	13	E, F, I E, F, I	
								DA OFFIC	CES MA CES PA		<u>4</u> 5	GREGORY	ENSKI GASPARICH & BENNETT	ljasensk subman	gg@aol.com		(518) 858. 3508 (412 628. 6756 & (8	14) 322. 6459			BACK	K BAR BACKSPLASH	AR	13	GC GC GC	GC GC GC	13	E, F, I	
								DA OFFIC	CES FL		6	MARTY MC	KENNA	marty@	aromajoes.com		(603) 817. 3110				DRIV	/E THRU CABINETS		13	GC	GC GC	13	E, F, I E, F, I	
J								BEVERAC	GE EQUIPMENT		7	DREW SER	BIN								OFFIC	ICE - DESK AND WALL	SHELVING	13	OWNER	R GC	13	E, F, I E, F I	
								BUNN - C	OFFEE	DRINKS	8			bunnser	ve.installs@bunn.	com	(800) 883 1554 ext	101			RUN	NING TRIM - WALL BAS	SE	13	GC	GC	13	E, F, I	
								TWO T'S	- ICE MACHINE	/ RUSH	10		S =v				(603) 343. 3917 (207) 776, 0044					R AND DOOR HARDW	ARE		GC	GC		н	
									002			RICK LOBE	_ !				(207) 770. 0044				INTE	RIOR DOOR HARDWA			GC	GC GC		H	
								ALPINE -	POS / MUSIC		12	DANA LAVC	DIE			((603) 673. 9435						ANDWARE		GC			Π	
											14			tulor@d	anniaan achimata a		(602) 848, 6286					L FLOOR MATERIAL			GC	GC		Н	
											14		INISON	Thermon	ennisoncadinets.c	ווע	(003) 848. 8288				SERV				GC	GC		 ⊓	
								SYSCO A SOUTH F		UTIVE	15	JASON FER		fernande	ez.jason@sef.syso	o.com	(561) 262. 1217				COFF			1	OWNER	R GC	8		
								NORTHE	RGH, PA RN NE		16	BUDDY EAS	STMAN	garing.s eastmar	1.buddy@nne.sysc	o.com	(412) 585. 1241 (800) 632. 4446 ext	6782 OR (207) 650.	5327		ICE N	MACHINE / RUSH		1	OWNER	GC R GC	9 10		
								SYSCO S	ALES DIRECTO	R	10						(504) 540, 0040				TA / 1								
								SOUTH F	RGH, PA		18 19	ALBERT SE DAN WILLO		sewell.a willow.d	ipert@set.sysco.c an@pit.sysco.com		(724) 452. 2100 ext	289	2405		TOW	P DISPENSER - BOH	STAFF SINKS		OWNER OWNER	GC GC GC		H H	
								NORTHE			20		CHER	hincher.	clark@nne.sysco.	com	(800) 632. 4446 ext	7057 OR (207) 332.	9495		SOAF	P DISPENSER - BATH	ROOM		OWNER	R GC R GC		H	
								WINDOW: PARADIG	/S GM WINDOWS		21	ANDREA RA	AYNOR	araynor	@paradigmwindov	/s.com	(207) 747. 5837		Manufacture	r (866) 210. 7131	GRAE	B BARS ET TISSUE DISPENSE	R		GC OWNER	GC R GC		H	
																					SANI BATH	ITARY NAPKIN DISPOS HROOM MIRROR	SAL		GC GC	GC GC		H	
																					BABY TRAS	Y CHANGING UNIT SH CAN - BATHROOM			GC OWNER	GC R OW	/NER	H H	
																					MISC	2							
G																					FIRE	EXTINGUISHERS	HICS	1	GC OWNER	GC R GC		H E, F, GC 3	SHALL ASSIST
G																												OWNER'S	S INSTALLER
																					SIGN ACCE	NAGE ESSIBLE SIGNAGE - B	ATHROOMS		OWNER	R GC		REFER T	O DRAWINGS
																					ACCE	ESSIBLE SIGNAGE - E U BOARD	XIT DOORS	1	GC OWNER	GC R GC		REFER T E, F	O DRAWINGS
																					FURM	NITURE							
																						RIOR FURNITURE		1	OWNER OWNER	R GC		B, F, I B, F, I	
F																					LIGH	IT FIXTURES							
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																					REM	AINING			GC	GC			
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																					OFFI	ICE						PHONE CONDUIT	CO. GC TO SUPPLY
																					TELE POS	EPHONE / DATA - INTE - EQUIPMENT	RIOR WIRING	1	GC OWNER	GC R OW	/NER		
																					POS POS	- INTERIOR ROUGH-IN - INTERIOR WIRING	N		GC GC	GC GC		GC SHAL	L PULL WIRE AND
																												LEAVE 8'	PIGTAIL COILED FOR
																					MUSI							VENDOR	
																					MUSI	IC SYSTEM - EQUIPME	IN		GC	GC		F, I	
																					MUSI				GC			Г, G	
																					<u>NOT</u>	TES: MATRIX OF	RESPONSI	BILITY		GENER	RAL NOTES:	MATRIX OF I	RESPONSIBILITY
																					A. GC B. GC	SHALL USE DESIGNATED VEN	NDOR FOR MATERIAL	& INSTALLATION LAB	BOR.	1. ANY ANI	O ALL ITEM NOT LISTED		BUT SHOWN ON THE
C																					C. VEN D. ELE	NDOR SHALL PROVIDE ALL LAI ECTRIC CONDUIT, CONTROLS	MPS. & CONNECTION TO S	IGN BY G.C.		SCOPE (ACCEPT	OF WORK AND INCLUDI	ED IN THEIR BASE BID, N ON THE CONTRACT DR	NO CHANGE ORDERS WILL BE RAWINGS OR LISTED IN THE
																					E. SUF OR	PPORT CONSTRUCTION SUCH SUPPORTS BY GC. COORDIN/	AS WALL SUBSTRAT	E BACKING, FOUNDA	ATIONS O	PROJEC	T MANUAL.		
																					PLA F. GC	ACEMENT OF SUPPORT CONS SHALL COORDINATE ALL QUA	STRUCTION. ANTITIES, DELIVERY, I	NSTALLATION, ACCE	ESS AND	2. ANY DIS BETWEE	CREPANCIES IN THE CO IN LEVEL OF FINISHES,	ONTRACT DRAWINGS A THE HIGHER QUALITY I	ND PROJECT MANUAL MATERIAL WILL BE REQUIRED.
																					G. GC PUL	TO PROVIDE SINGLE GANG VI LL STRING TO ABOVE FINISHE	OLUME CONTROL SW	/ITCH BOX, CONDUIT	AND	3. GC TO P	ROVIDE AREA/ QUANTI	TY TAKE-OFFS FOR ALL	OWNER SUPPLIED FINISHES.
																					H. GC I. GC	SHALL USE DESIGNATED VEN SHALL PROVIDE DUMPSTER F	NDOR FOR MATERIAL FOR AND DISPOSAL (OF ALL PACKING MAT	ERIALS	4. GC TO C PROJEC	OORDINATE ALL WORH T.	WITH OWNER AND OV	VNER VENDORS THROUGH
																					NOTE: (GC TO ACCEPT AND STORE A	LL OWNER DELIVERIE	ES. ALL OWNER FURM	NISHED				
B																					IIEMS (GU TU GUUKDINATE.							
																					NOT							v .	
																					ALL VEN DONE IN THE FXP	ACCORDANCE WITH THE TIM PECTATION OF OPENING ON T	IELINE AS ADDRESSE	D ON PG. 6 OF THE D	DCM WITH	OWNER: D:	FRANCHISEE DEVELOPER/ BU	JILDING OWNER	
																					*BUNN IN	NSTALL FORM CAN BE FOUND	ON FRANCONNECT	AND THEN EMAILED		DCM:	AROMA JOE'S D	ESIGN AND CONSTRUC	TION MANUAL
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	THERESA M. ENGLIS 1100 Main Street , Kansas City, Misso Phone : 816-842-7552 F DRAWINGS & SPECIFICATIC PROPERTY OF THE DESIGN PRO OF THE DRAWINGS & SPECIFIC THE CLIENT MAY BE UTILIZED OI FOR OCCUPYING THE PROJEC WERE PREPARED & NOT FOR CC	
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	REVERTING ANI ANI ANI AIS, ME 046	G
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	2024.08.30 Revision Schedule # Date Description	E
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	MATRIX OF RESPONSIBILITY	В
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Н									1" X 12"	1" X 10" I BORAL TRIM AND SC	Boral Trim												<i>ک</i>	A1
G									MEMBRA 1/2" C	ILLUMII HAI ZIP PANE SCUPP SCUPPE ANE UP PARAPET ANI C OVER BOARD ON MIN	INATED SIGN RDIE SIDING EL ON STUDS PER SLEEVE ER OPENING D OVER TOP OF PARAPET N. 5.25" R30									_ NO MEMBRANE				A310
F									INSULATIC	DN ON 3/4" EXTERIOR	OCKING BY													
E										PAINT	ABOVE FRP													
D										FR Solid Suf	RP TO 8' - 0"													
С										6" HI RETURNEI BOLLARD AT BACI	IIGH EPOXY D UP WALL K OF CURB				م م م		······································	Arr A A A A A A A	KITCHEN 101	, , , , , , , , , , , , , , , , , , ,				
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G																						MEMBRANE BOARD	DN 1/2" COVER	
F														MEMBRA PARAPET SHEET M 6" WHITE 3/4" PLYW HARDIE S SYSTEM-	NE UP OVER TOP OF Etal coping Boral trim /ood Iding on 2" zip							S.25" MIN R30	IPOLYISO	
E										BATT	INSULATION													
D										HARD SYSTI INSUL MOIS MENU	DIE SIDING ON ZIP WA Em R9 Continous Lation and Air / Ture Barrier J Board	LL 												
С										6" BLU THIN I STAIN 36" HI BOLL CONC WIND SLOP FROM	JE BORAL TRIM BRICK ON 2" ZIP SYST NLESS STEEL SHELF IGH 4" STEEL PIPE ARD CRETE SIDEWALK AT OW TO BE ACCESSIB E POSITIVELY 1/4"/FT M BUILDING. COORDIN	TEM WALK-UP BLE AND AWAY NATE WITH												
В										CIVIL	SITE PLAN 3			FILLER AND FOUNDATION FOOTING T	O SEALANT			R7. TO H0	- 5 PERIMETER INSULATION TOP OF FOOTING AND A RIZONTALLY UNDER SL	ION 24" AB				
A									A9	SCALE 1/2" = 1'-0"	SUP	PORT SE	CTION											
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	EQUIPMENT NUMBER	QUANTITY	ITEM	MANUFACTURER	MODEL #			ELECTRICAL NOTES							PLUMBING NOTES	3			
K	1002	1	DROP-IN SINK SPOUT REACH-IN UNDERCOUNTER 2 SECTION FRIDGE	(60) FISHER TRUE	3968 TUC-60-HC	(NOT LOCATED DIRECTLY I	BEHIND FRIDGE - ALSO CAN USE Q	UAD OUTLET WITH GRINDERS	6 #12 WHEN BELOW ESPRESS	SO MACHINE #15).	TO REPLACE FAUCETS	S THAT COME WITH 15	57.						
	1007 1022	2	REACH-IN UNDERCOUNTER 2 SECTION FRIDGE REACH-IN FREEZER 2 SECTION	TRUE TRUE	TUC-36-ADA TS-49F		EHIND FRIDGE												
	1023 1025	1	REACH-IN FREEZER 3 SECTION REACH-IN REFRIGERATOR 2 SECTION REACH IN UNDERCOUNTER 2 SECTION EDUCE	TRUE	TS-72F TS-49	OUTLET MOUNTED AT CEIL	ING ING REHIND EDIDCE - ALSO CAN LISE O												
	1020	1	REACHIN ONDERCOONTER 2 SECTION TRIDGE REACHIN REFRIGERATOR 3 SECTION	(46) TRUE HOSHIZAKI	TS-72 KM-901MAH	MUST HAVE A DEDICATED	20 AMP CIRCUIT FOR THE ICE MAC	HINE. IT IS SUGGESTED TO RU	UN A FOUR WIRE CIRCUIT FO	R FUTURE USE.	AN HF65-S FILTER FROI	M 3M SHOULD BE USE	ED FOR THE WATER LINE, REQUIRED W	ATER PRESSURE RANGE IS 10	-113PSIG.				
	1301 1351	1	STAINLESS STEEL ICE BIN DROP-IN ICE BIN	HOSHIZAKI GLASTENDER	B-500SF DI-IB18						FOR 1300 ICE MACHINE 1-1/2" TAILPIPE	<u>.</u>							
	1500 1501	1 2	TRIPLE SINK, 2 24" DRAINBOARDS DRYING RACK	DUKE METRO	1475 PS36K3														
	1502 1552	1 2	PRE-RINSE SINK FAUCET DROP-IN SINK FAUCET	DUKE FISHER	PR3EF 3500						FOR 1500 TRIPLE BAY S	SINK.							
	1553 1554	2	DROP-IN SINK SPOUT MOP SINK	FISHER ADVANCE TABCO	3968 9-OP-20-X						TO REPLACE FAUCETS P.C. TO VERIFY PLUMBI	S THAT COME WITH 15 NING REQUIREMEN TS	.57.						
	1555	1	WALL-MOUNTED HAND WASH SINK	ADVANCE TABCO	7-PS-70-EC-X						THE FALICETS ARE NOT		RATELY SHIPPED FISHER FALICETS ARE	TO BE LISED INSTEAD					
	1560	2	SIDE SPRAY RINSER 24" X 7" X 7/8" STAINLESS DRIVE-THRU SHELF	EPPR724 ADVANCE TABCO	ESPRESSO PAR	ITS													
	1711 1712	3	60" X 24" CENTAUR WIRE SHELF W/POSTS 54" X 24" CENTAUR WIRE SHELF W/ POSTS	METRO	2460-57 BR 2454-57 BR														
	1716 2018	1	30" TRAINING STATION H5X, ELEMENT 120V	METRO BUNN	SWOT-30 45300.0006						SUPPLIED BY A 1/4" OD) FILTERED WATERLIN	IE. REQUIRED WATER PRESSURE RANG	E IS 20-90 PSI.					
	2024 2026	1 2	MHG, 120V GRINDER W/ INTERCHANGEABLE HO INFUSION TWIN SOFT HEAT BREWER	PPERS BUNN BUNN	35600.0020 51200.0101	MUST RUN A FOUR WIRE, D	DEDICATED 40 AMP CIRCUIT. E.C.T	O VERIFY ELECTRICAL REQUIR	REMENTS		SUPPLIED BY A 1/2" FIL	TERED WATERLINE B	ROKEN DOWN TO 3/8" WATER VALVES.	(SEE SPECS). ALL COUNTER P	ENETRATION LOCATION	S MUST BE COORDINATED	WITH THE OWNER, GC	, AND MILLWORK. REC	QUIRED WATER PRESSURE RAN
	2029 2051	1	ITCB-DV; 29" W/ TRAY ESPRESSO GRINDER REGULAR ESPRESSO BEA	BUNN NS NUOVA SIMONELLI	52200.0100 MYTHOSPLUS	BOTH GRINDERS USE QUA	D OUTLET WITH FRIDGE				SUPPLIED BY A 1/4" OD ALL COUNTER PENETRA) FILTERED WATERLIN RATION LOCATIONS MU	IE. REQUIRED WATER PRESSURE RANG UST BE COORDINATED WITH ALL EQUIP	E IS 20-90 PSI. MENT INSTALLERS, OWNER, G	C, ELECTRICIAN, AND M	IILLWORK.			
	2084 2086	3	ECLIPSE FROZEN FUEL ESPRESSO GRINDER DECAF ESPRESSO BEANS	HAMILTON BEACH	HBH750 G60	E.C. TO VERIFY ELECTRICA BOTH GRINDERS USE QUA	AL REQUIREMENTS D OUTLET WITH FRIDGE				ALL COUNTER PENETR	RATION LOCATIONS MU	UST BE COORDINATED WITH ALL EQUIP	MENT INSTALLERS, OWNER, G	C, ELECTRICIAN, AND M	IILLWORK.			
	2088 2090	2	UNICORN TOWER, PC, THRU CNTR CHEST 2123, 421, 100# DROP-IN		85-3161R-21-212 85-0402	222 E.C. TO VERIFY ELECTRICA	AL REQUIREMENTS												
H	2091 2098 2200	2 1 2	AURELIA WAVE 3-GROUP ESPRESSO MACHINE	NUOVA SIMONELLI	AURELIA 3-GRO	UP NOT LOCATED DIRECTLY B	EHIND FRIDGE				SUPPLIED BY 1/2" FILTE	ERED WATERLINE WIT	TH 3/8:" WATER VALVES (SEE SPECS). AI	L COUNTER PENETRATION LC	OCATIONS MUST BE COO	ORDINATED. MINIMUM INCOI	MING WATER FLOW RA	TE OF 35GPH AND MA	XIMUM LINE PRESSURE OF 70 F
	2302 3005 3000	3 1 2			MFC7360			NTS											
	3011 3015	2	MERCURY PIN PADS POINT OF SALE TERMINAL	PHOENIX GROUP HP INGAGE	Vx805 PAR 8500		18" A F F. CAT-5 AT 48" A F F.												
	3500 7300	1 2	CASH HANDLER SAFE NEON SIGN (DRIVE THRU OPEN)	FIREKING SECURITY SOLUTI JANTEC SIGN GROUP	ONS CS2820-SRE FGZ-40-02	E.C. TO VERIFY ELECTRICA	L REQUIREMENTS												
	7301	1	NEON SIGN (OPEN)	JANTEC SIGN GROUP	OGZ-35-52	E.C. TO VERIFY ELECTRICA	L REQUIREMENTS												
													MB-1	<u>M-1</u> <u>M-</u>	1M-1]M-1	S-1		
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K							PLUM	BING EQUIP	Ment Rough-In	SCHEDULE		
J	ITEM # 1306 1308 1351 1500 1502 1552 1554 1555 1556 1557 1558 1560 2023 2026 2029 2081	STAINLESS STEEL IC ICE MACHINE DROP-IN ICE BIN TRIPLE SINK, 2 24" D PRE-RINSE SINK FAU DROP-IN SINK FAUCH MOP SINK SERVICE FAUCET FC WALL MOUNTED HAI DROP-IN SINK W/O F DROP-IN SINK W/O F SIDE SPRAY RINSER H3X, ELEMENT 120V INFUSION TWIN SOF ITCB-DV; 29" W/ TRA' BIG MAC CARBONAT	DESCRIPTION E BIN RAINBOARDS JCET ET DR MOP SINK ND SINK AUCET AUCET AUCET AUCET T HEAT BREWER Y OR	CW 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2"	PLUMBI HW 1/2" 1/2" 1/2" 1/2" 1/2" 1/2"	NG FW A 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2"	WAST .F.F. DW 15" 1 21" 1 21" 2 21" 2" 21" 2" 21" 2" 21" 2" 21" 2" 21" 2" 21" 2" 21" 2" 21" 2" 21" 2" 21" 2" 21" 2" 21" 2"	E IW 3/4" PROVI 3/4" PROVI 3/4" PROVI 2" PROVI 2" PROVI 1/2" PROVI 1/2" PROVI 1/2" PROVI 3/4" PROVI 3/4" PROVI	DE INDIRECT DRAIN PI DE INDIRECT DRAIN PI DE INDIRECT DRAIN PI DE INDIRECT DRAIN PI DE PIPE WRAP ON ALL DE INDIRECT DRAIN PI DE INDIRECT DRAIN PI DE INDIRECT DRAIN PI DE INDIRECT DRAIN PI	PING TO CLOSEST FL PING TO CLOSEST FL PING TO CLOSEST FL PING TO CLOSEST FL EXPOSED PIPING. PF PING TO CLOSEST FL PING TO CLOSEST FL PING TO CLOSEST FL PING TO CLOSEST FL	OOR SINK AND TERMIN OOR SINK AND TERMIN	REMARKS ATE WITH APPROVED AI ATE WITH APPROVED AI ATE WITH APPROVED AI ATE WITH APPROVED AI LFMMV-1 THERMOSTATI ATE WITH APPROVED AI ATE WITH APPROVED AI ATE WITH APPROVED AI
I	2088 2090 2098 NOTE: • WATE THE P	UNICORN TOWER, PO CHEST 2123, 421, 100 ESPRESSO MACHINE R FILTRATION IS OF THE ROVIDED ENVELOPE.	C, THRU CNTR 0# DROP-IN E UTMOST IMPORTANCE FOR OUR		98.5% WATER. A V	1/2" 1/2" WATER TEST W	21"	1/2" PROVI 1/2" PROVI 1/2" PROVI 1/2" PROVI	DE INDIRECT DRAIN PI DE INDIRECT DRAIN PI DE INDIRECT DRAIN PI ETERMINE THE FILTRATION	PING TO CLOSEST FL PING TO CLOSEST FL PING TO CLOSEST FL ON THAT WILL BE NEEDE	OOR SINK AND TERMIN OOR SINK AND TERMIN OOR SINK AND TERMIN D. A 3M WATER TEST WILL	ATE WITH APPROVED AI ATE WITH APPROVED AI ATE WITH APPROVED AI . BE SENT TO YOUR REQUE
	ROUGH- ALL DIMI COORDI	IN PLAN NOTE: ENSIONS SHOWN ON NATION WITH OWNER	ROUGH-IN PLANS REQUIRE RAPPROVED CASEWORK SH	FINAL OP DRAWINGS.								
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						ELEC	CTRICAL KI	TCHEN E	QUIPMENT	ROUGH-IN S	SCHEDULE	
E		TEM NO. 1002 REACH-1 1007 REACH-1 1023 REACH-1 1024 REACH-1 1025 REACH-1 1026 REACH-1 1026 REACH-1 1026 REACH-1 1026 REACH-1 1308 ICE MAC 2023 HOT WA 2024 COFFEE 2026 COFFEE	DESCRIPTION IN U.C. REFRIGERAT IN U.C. REFRIGERAT IN FREEZER IN REFRIGERATOR IN REFRIGERATOR IN U.C. REFRIGERAT CHINE TER DISPENSER BEAN DISPENSER BREWER	VOLTAG OR 120 OR 120 120 120 120 OR 120 OR 120 240 120 120 120/240	E PHASE 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LOAD 564 VA 564 VA 1680 VA 1092 VA 1092 VA 620 VA 2372 VA 1800 VA 1320 VA 6000 VA	CONNECTION CORD & PLUC CORD & PLUC	N NEMA G 5-20R G 5-20R	ELEVATION 28" 28" 120" 120" 120" 28" 90" 48" 48" 48"	OUTLET NOT OUTLET NOT REFER TO PL REFER TO PL REFER TO PL OUTLET NOT COORDINATE	LOCATED BEHIN LOCATED BEHIN AN NOTE FOR P AN NOTE FOR P AN NOTE FOR P LOCATED BEHIN WITH EQUIPME	COMI ND REFRIGERATO ND REFRIGERATO ENDANT DROP O ENDANT DROP O ENDANT DROP O ND REFRIGERATO NT TO PROVIDE EMENTS WITH EC
D		2023 TERICON 2051 ESPRES 2084 BLENDE 2086 ESPRES 2088 DISPENS 2091 CARBON 2098 ESPRES 2304 TURBO (3009 DRIVE-T	SO GRINDER R SO GRINDER SING TOWER JATOR SO MACHINE CHEF OVEN HRU MONITOR	120 120 120 120 120 120 240 240 120	1 1 1 1 1 1 1 1 1 1 1 1	950 VA 950 VA 220 VA 500 VA 780 VA 4784 VA 6240 VA 360 VA	CORD & PLUC CORD & PLUC	G 5-20R G 5-20R G 5-20R G 5-20R G 5-20R G 5-20R G 6-30R G 6-30R G 5-20R IG	48" 48" 48" 28" 28" 48" 48" 48" 74"	VERIFY ELEC VERIFY ELEC	TRICAL REQUIR TRICAL REQUIR	EMENTS WITH EC
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						200									
		SIZE				DOOR				FRAME		HARDWARE			
	WIDTH	HEIGHT	THICKNESS	MATERIAL	TYPE	FINISH - EXTERIOR	FINISH - INTERIOR	MATERIAL	TYPE	FINISH - EXTERIOR	FINISH - INTERIOR	SET NUMBER		COMM	/EN]
	3' - 6"	7' - 0"	2"	H.M.	1	PAINT	PAINT	H.M.	А	PAINT	PAINT	1	INSULA	TED CLEAR	TEN
	3' - 0"	7' - 0"	2"	H.M.	2	PAINT	PAINT	H.M.	В	PAINT	PAINT	2			
					DOO	R AND FRAM	E LEGEND								
A	IVES SCHL LCN IVES ZERO ZERO ZERO ZERO ZERO ZERO IVES	PRIVACY		7-0"	3' - 10" 2' - 8" 6"	3'-6" 6"2'-6"	6" 		3'-0"	72"	2"- "C "C "L	3' - 10" 3' - 6" -2"	7'-2"	2"	3' - 4" 3' - 0"
AC	ENT EXTERIOR W.	ALL COLOR.		*	<u>_</u>	HOLLOW METAL DO (EXTERIOR, INSULA W/ 1" INSULATED GLA TEMPERED	DOR TED) ZING,	ң нс	LLOW META (INTERIO	L DOOR R)	HOLL (EXTE	OW METAL FRAME RIOR, INSULATED)	~ *	HOLLOW M (INTI	IETAL ERIOR
EN EF	OOOR STOPS ARE ISIONS PRIOR TO RATION & HARDWA	REQUIRED ON ALL DO ORDERING DOORS & RE WITH OWNER PR	DORS WITHOUT CLOS WINDOWS. IOR TO INSTALLATION	ERS.		1			2			A			В

12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	2 2	8	29	30	31
						CONCRETE														
MPLY WITH T	HE PROVISIONS OF FOL	LOWING CODES, STA	NDARDS AND SPECIFIC	CATIONS (LATEST EDI	TIONS,	1. CAST-IN-PLACE 315, 318 AND 34	CONCRETE CONSTR 7 UNLESS OTHERWIS	RUCTION SHALL CONF	ORM TO THE LATEST	AMERICAN CONCRETE	INSTITUTE DOCUMENT	TS, ACI-301, 305, 306,								
D TO THE CON	ITRARY ON DRAWINGS	AND SPECIFICATIONS	S OR WHERE MORE ST	RINGENT REQUIREME	INIS	2. ALL CONCRETE	. UNLESS OTHERWIS	E NOTED. SHALL DEVI	ELOP A 28 DAY COMPI	RESSIVE STRENGTH A	ND HAVE MAXIMUM WA	ATER/CEMENT		A.F.F. ALT.	: ABOVE FINIS : ALTERNATE	HED FLOOK		M.U.		
IFICATIONS FO	OR TOLERANCE FOR CO		TION AND MATERIALS"	,		RATIOS AS FOL	LOWS:	,						B.O.F.	: BOTTOM OF	FOOTING		NOM. N.S.		
	RAL CONCRETE FOR BU	ILDINGS" DNCRETE"				FOOTINGS, SLABS-ON-C	PIERS, GRADE BEAM GRADE:	S: 4000 PSI (w/o 4000 PSI (w/o	c < 0.50) c < 0.44)					BLDG. BOT.	: BOILDING : BOTTOM	K		N.T.S.		
R THE DESIGN	OF COLD-FORMED STE	EL STRUCTURAL MEI	MBERS"			3. CONCRETE EXF	POSED TO WEATHER	, SHALL BE AIR-ENTRA	NNED WITH 6% (+/-) 1.5	% ENTRAINED AIR BY	VOLUME AT POINT OF I	DISCHARGE. DO		B.M. B.N.	: BOUNDARY I	nailing		U.U.		
FOR FLOOR	DECKS AND ROOF DECH	STEEL JUISTS AND J (S"	JUIST GIRDERS			NOT ALLOW AIR	CONTENT OF TROW	ELED FINISHED FLOO	RS TO EXCEED 3%.					c =	: CAMBER =			PEMBS	: PRE-ENGINEERED METAL	_ BLDG.
						 NORMAL WEIGH AGGREGATES F 	T AGGREGATES SHA	ALL COMPLY WITH AST RCE.	TM C33, CLASS 3S CO/	ARSE AGGREGATE OR	BETTER, GRADED. PR	ROVIDE		C.O.G.		GRAVITY		PL.	: PLATE	
CES. FRAMINO	G AND WALLS SHALL BE		ED BY THE CONTRACT	FOR UNTIL PERMANEN	IT =N	A. MAXIMUM C	OARSE AGGREGATE	SIZE IS 3/4 INCH NOM	INAL.					COL.	: COLUMN	-		R. R D	: RADIUS : ROOF DRAIN	
LONG, AND W					_11	B. FINE AGGRE C. COMBINED	EGATE SHALL BE FRE AGGREGATE GRADA	E OF MATERIALS WIT	h deleterious read Llows: well grade	CTIVITY TO ALKALI IN C D FROM COARSEST T	EMENT. O FINEST WITH NOT MO	ORE THAN 18		CORR.		ED TION		REINF. REI		
		ONS THROUGH THE S		HANICAL, ELECTRICAL	., AND	PERCENT A THE COARS	ND NOT LESS THAN 8 EST SIEVE AND THE	3 PERCENT RETAINED NO. 50 AND FINER SIE	ON AN INDIVIDUAL SI	EVE, EXCEPT THAT LES	SS THAN 8 PERCENT M	AY BE RETAINED ON						R.O.	: ROUGH OPENING	
IECHANICAL, I	ELECTRICAL, AND PLUM	BING DRAWINGS FOR	R OPENING LOCATIONS	S NOT SHOWN ON THE	AND E	5. ALL CONCRETE	SHALL BE PROPORT	IONED FOR A MAXIMU	IM ALLOWABLE UNIT S	HRINKAGE OF 0.055%	MEASURED AT 28 DAYS	S AFTER CURING IN		D.D.A. DET. DIM		DAIX ANOTION		S.B.		
						LIME WATER AS	DETERMINED BY AS	TM C 157 (USING AIR S	STORAGE).					DWG.	: DRAWING			S.F.	: SQUARE FEET	
						 THE CONCRETE SHALL COORDIN 	E SLAB-ON-GRADE HA	AS BEEN DESIGNED FO GN WITH CONSTRUCT	OR ITS FINAL USE AND TION NEEDS. THE SLA	NOT FOR CONSTRUC	TION CONSIDERATIONS ON THESE DRAWINGS I	S. CONTRACTOR IS TO BE		E.J.	: EXPANSION	JOINT		SIM.	SIMILAR	
SPECTION SEF	RVICES MUST BE OBTAI	NED PRIOR TO BEGIN	INING FABRICATION.			CONSIDERED A	MINUMUM. SUBMIT	CHANGES TO THE SLA	AB DESIGN TO THE EN	GINEER OF RECORD F	OR REVIEW.			ELEV. E N	: ELEVATION	IC		SLBB SPEC	: SHORT LEG BACK-TO-BA	CK
ECIFICALLY SI	HOWN OR INDICATED SH	HALL BE FRAMED SIM	IILAR TO DETAILS SHO	WN FOR THE RESPEC	TIVE	7. IT IS THE INTEN WATER IN ORDE	T OF THESE CONCRE ER TO LIMIT PLASTIC	TE SPECIFICATIONS 1 SHRINKAGE CRACKIN	THAT THE CONTRACT	DR SUPPLY CONCRETI D CONCRETE. IT IS EX	E MIXES WITH A MINIMU PECTED THAT PRODUC	JM AMOUNT OF CING WORKABILITY		EQ. EW	: EQUAL			STL.	: STEEL	
NISIRI E EOR		IONS REFORE START			ES TO	FOR CONCRETE	E MIXES WILL REQUIF	RE THE ADDITION OF V	VATER-REDUCING AN	D/OR SUPER-PLASTICI	ZING CHEMICAL ADMIX	TURES.		EXP. EXT				T.S. TOB	: TUBE STEEL	
						8. CONCRETE SLU ADMIXTURES TO	IMP SHALL BE A MAX D ATTAIN A MAXIMUN	IMUM OF 4" +/- 1" (AST 1 SLUMP OF 8" FOR W(M C-143) AS DELIVERE ORKABILITY.	D in the field. Con	FRACTOR MAY USE CHI	EMICAL		EXIST.	EXISTING			T.O.C. T.O.F.	TOP OF CONCRETE	
	N THE CONSTRUCTION I	OCUMENTS TO ANY CONSTRUCTION ME	RULE OR REGULATION	N, THE STRUCTURAL		9. NO WATER MAY	BE ADDED TO THE C	CONCRETE MIX ON SIT	E UNLESS WATER IS	WITHHELD AT THE BAT	CHING FACILITY. IF WA	ATER IS WITHHELD		F.B. FDN.	: FLANGE BRA : FOUNDATION	ACE N		T.O.G. T.O.J.	: TOP OF GIRDER : TOP OF JOIST	
UBMITTAL ITE	MS SUCH AS WOOD TR	USSES SHALL BE SUE	BMITTED AND APPROV	ED BEFORE INSTALLA	TION	AT THE BATCHI WHAT IS NOTED	NG FACILITY IT SHOU ON THE APPROVED	LD BE REFLECTED ON MIX. THIS SHALL BE N	N THE LOAD TICKET. T NOTED IN THE SPECIA	HE TOTAL AMOUNT OF LINSPECTOR'S RECO	- WATER IN THE MIX SF RDS.	HALL NOT EXCEED		F.F. F.S.	: FINISHED FL : FAR SIDE	OOR		T.O.M. T.O.P.	: TOP OF MASONRY : TOP OF PIER	
						10. FLY ASH MAY B	E USED AT A RATE N	OT TO EXCEED 25% O	F THE TOTAL CEMENT	CONTENT.				FTG.	: Footing			T.O.S. T.O.SLAB	: TOP OF STEEL : TOP OF SLAB	
00' - 0" EQUAT	ES TO XX.X PER CIVIL DI	RAWINGS				11. CHAMFER ALL E	EXPOSED CORNERS	OF CONCRETE WALLS	, BEAMS, AND COLUM	NS 3/4".				G.B.	: GRADE BEAN	М		TYP.	: TYPICAL	
						12. ALL CONTROL J CONCRETE HAS	OINTS IN CONCRETE S BEEN PLACED WITH	SLABS-ON-GRADE SHOUT DISLODGING AG	HALL BE CUT TO 1/3 OF GREGATE, BUT NO LA	THE DEPTH. CUT JO TER THAN 12 HOURS (NTS AS SOON AS POSS OR USE KEYED COLD JO	SIBLE AFTER OINT.		HT. INSUL.	: HEIGHT : INSULATION			U.N.O. VERT.	: UNLESS NOTED OTHERW : VERTICAL	ISE
. BE ASTM A61	5 GRADE 60, EXCEPT W	ELDED REINFORCING	G WHICH SHALL BE AST	TM A706 GRADE 60.		13. THE UNIT POUR OF ABOUT 150 S	FOR SLABS AND WA	LLS SHALL NOT EXCE	ED 100 LINEAL FEET II	NANY ONE DIRECTION	. CUT SLABS ON GRID L	LINES INTO AREAS		INT. JT.	: INTERIOR : JOINT			W.P. W.W.F.	: WORKING POINT : WELDED WIRE FABRIC	
L BE ASTM A	185 AND A82 COLD DRAV	WN WIRE.				14. PRIOR TO PLAC	ING CONCRETE IN A	NY LOCATION, IT IS TH		THE GENERAL CONTR	RACTOR TO HAVE THOP	ROUGHLY CHECKED		LG.	: LONG					
RTING REINFO	RCING SHALL BE GALV	ANIZED OR HAVE PLA	STIC-COATED FEET.			AND COORDINA AND MECHANIC	AL DRAWINGS. IN TH	ELEVATIONS, OPEN E EVENT ERRORS, CO	VINGS, RECESSES, AN ONFLICTS, OR OMISSI ADV CORRECTIVE AC	D BLOCKOUTS SHOWI ONS EXIST, IT SHALL B	E THE CONTRACTOR'S	RESPONSIBILITY		LLH LLV	: Long Leg H : Long Leg V	IORIZONTAL ERTICAL				
EXTERIOR F	ACE OF ALL WALL AND F	OOTING CORNERS E	QUAL TO HORIZONTAL	_ BARS.										LLBB	: LONG LEG B	ACK-TO-BACK				
AL #5 BARS A	T ALL STEPS IN FOUND	ATION WALLS, FOOTI	NGS, AND GRADE BEAI	MS.							CONGRETE.									
ED, FABRICAT	ED, PLACED, AND SUPF		NCE WITH ACI 315, LAT	EST EDITION.		IO. ANOHOI (1000)							INSPE	CTION						
FURCING, UN		WN, SHALL BE AS FOL	LLUWS:										1.	INSPECTION BY A REC THE ITEMS IN THE TAR	GISTERED BUILL BLE BELOW.	DING INSPECTOR E	EMPLOYED	D BY A TESTING L	AB SHALL BE PROVIDED FC	R
THER (FORME	D)	3 2" 2/4"				1. ALL POST INSTALL	<u>ED ANCHORS</u> ALLED ANCHORS SHA	ALL MEET THE REQUIR	REMENTS OF ACI 318, (CHAPTER 17 AND SHAI	L BE ACCEPTABLE FOR	R BOTH CRACKED AND	DL	TIES & RESPONSIBILITIES	OF THE INSPEC	CTOR ARE COVERE	ed in IBC.			
NWEATHER.	JLADJ, WALLJ	5/4 1-1/2"				UNCRACKED C	ONCRETE.							ITFM	CON	TINUOUS PERIOD	DIC	REMARKS		
ARD 90 DEGR	EES "HOOKS" AND LAPS	S SHALL BE AS LISTED	D BELOW, U.N.O.			2. EXPANSION AN ACCORDANCE	CHORS SHALL BE HIL WITH HILTI SPECIFIC/	TI KWIK BOLT TZ ANC ATIONS AND AS SHOW	HORS UNLESS NOTEE /N ON DRAWINGS.) OTHERWISE. EMBED	MENT OF ANCHOR SHA	ALL BE IN			INSPE	ECTION INSPEC				
 #9 -	54"					3. ADHESIVE ANCI EMBEDMENT O	HORS FOR CONCRET F ANCHOR SHALL BE	E SHALL BE HAS THRI IN ACCORDANCE WIT	EADED ROD WITH HIL' 'H HILTI SPECIFICATIO	TI HIT-HY200 A/R V3 AD NS FOR AND AS SHOW	HESIVE UNLESS NOTEI /N ON DRAWINGS.	D OTHERWISE.	RAL WOOD 1705.5)	FASTENERS TO DIAPHR TOP PLATES	AMS &	YE	S			
#10 · #11 ·	- 60" - 66"					4. ADHESIVE ANC NOTED OTHER	HORS INTO GROUT-F WISE. EMBEDMENT C	ILLED CONCRETE MAS	SONRY SHALL BE HILT IN ACCORDANCE WIT	I HAS THREADED ROD H HILTI SPECIFICATION	WITH HILTI HIT HY 270 IS AND AS SHOWN ON I	ADHESIVE UNLESS DRAWINGS.	STRUCTUR	WOOD DIAPHRAMS		YE	S			
						5. EMBEDMENT D	EPTH SHALL BE DEFI	NED AS THE DISTANCI		E OF THE LOAD-BEARI	NG BASE MATERIAL TO	THE DEEPEST PART		HOLD DOWNS & ANCHOR	REOLIS	YE	-5			
#9 - #10 ·	18" - 20"							EPTABLE FOR LONG.T				SED WHEN BASE	1705.6)	FOUNDATION		''				
#11 ·	- 22"					MATERIAL TEM	PERATURES ARE BEL	-OW 40 DEG F.		NON'LI UNI DAGED A			NOILC	CLASSIFICATION AND TE	STING	YE	:5 :5			
#9 -	71"					7. POST INSTALLE THE ENGINEER	D ANCHORS SHALL (PRIOR TO USING PO	ONLY BE USED WHERE	E SPECIFIED ON THE D ORS FOR ALTERNATES	RAWINGS. THE CONT	RACTOR SHALL OBTAIN ISSED. OR BROKEN AN	N APPROVAL FROM ICHORS. CARE SHALL	ILS (SE	OF COMPACTED FILL MA					ΕΝΤ ΔΝΟ COMPACTION	
#10 ·	- 78"					BE TAKEN TO A SPECIFICATION	VOID CONFLICTS WIT	TH EXISTING REINFOR	CING BARS. HOLES S	HALL BE DRILLED AND	CLEANED PER ANCHO	R MANUFACTURER'S	SO	LIFT THICKNESSES	עוור	150	-			
#11 ·	- 86"					8. EQUIVALENT AN	ICHORS MAY BE SUE	MITTED FOR THE ENG	GINEERS APPROVAL.	SUBMITTALS ARE THE	CONTRACTOR'S RESPO	ONSIBILITY AND MUST	E.	DESCRIPTION		YE	S	ANCHOR NAME, AND ANCHOR LE	NOMINAL ANCHOR AND BO NGTH	LT DIAMETERS
						INCLUDE EVALU	JATION REPORTS FR	OM THE INTERNATION	IAL CODE COUNCIL.			-	VSTALL CHOR	HOLE DESCRIPTION		YE	S	VERIFICATION OI	DRILL BIT COMPLIANCE w	/ ANSI
						9. STAINLESS STE	EL ANCHORS ARE RI	EQUIRED AT ALL EXPC	OSED WEATHER COND	ITIONS.			AN(YE	ES T	VERIFICATION OI	ANCHOR INSTALLATION A	
ON SHALL CON	IFORM TO THE APPLICA	BLE BUILDING CODE	AND THE LATEST EDIT	ION OF THE NATIONAL	L									INSTALLATION DESCRIP	PTION				ING & EDGE DISTANCE)	
													07E			YE	<u>-</u> >			U OFFICIAL,

3. ROOF DECK SHALL BE APA 32/16 SPAN RATED SHEATHING, EXPOSURE 1. ATTACH WITH 10D COMMON OR DEFORMED SHANK NAILS PER ROOF PLAN. STAGGER PANELS AS REQUIRED TO AVOID LINING UP END JOINTS.

4. WOOD PLATES, SILLS AND SLEEPERS WHICH REST ON CONCRETE SLABS, ARE IN DIRECT CONTACT WITH THE EARTH, AND SILLS WHICH REST ON CONCRETE OR MASONRY FOUNDATIONS SHALL BE CCA PRESSURE TREATED WOOD, OR SHALL HAVE APPROVED METAL

5. ALL TRUSSES MUST BE SECURELY BRACED BOTH DURING ERECTION AND PERMANENTLY AS REQUIRED BY THE TRUSS MANUFACTURER. CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY FIELD BRACING TO ASSURE ROOF TRUSSES ARE INSTALLED AT THE PROPER

. METAL PLATE CONNECTED WOOD TRUSSES SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH ANSI/TPI -1995. ENGINEERING DRAWINGS AND DESIGN CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER WHO IS LEGALLY AUTHORIZED TO PRACTICE IN THE JURISDICTION WHERE PROJECT IS LOCATED AND WHO IS EXPERIENCED IN PROVIDING ENGINEERING SERVICES OF THE KIND INDICATED AND SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO FABRICATION. THE TRUSS FABRICATOR SHALL SUPPLY ALL HARDWARE AND FASTENERS FOR JOINING MEMBERS SUPPLIED BY THE TRUSS FABRICATORS.

7. ROOF TRUSSES SHALL BE DESIGNED FOR THE STRUCTURAL LOADS INDICATED ON THE STRUCTURAL DRAWINGS.

8. ROOF TRUSSES SHALL BE DESIGNED TO LIMIT THE MAXIMUM LIVE LOAD DEFLECTION TO SPAN/360 AND MAXIMUM TOTAL LOAD DEFLECTION TO SPAN/240. MAXIMUM DEFLECTION FOR ANY LOADING TO BE NO MORE THAN 1".

9. CONTRACTOR SHALL NOT CUT, NOTCH OR BORE HOLES IN WOOD TRUSSES UNLESS APPROVED BY THE WOOD TRUSS DESIGNER.

10. TRUSS BOTTOM CHORDS SHALL BE PERMANENTLY CONNECTED BY BRIDGING. BRIDGING REQUIREMENTS SHALL BE DETERMINED BY THE TRUSS DESIGNER/MANUFACTURER, BUT SHALL CONSIST OF NOT LESS THAN 1-INCH BY 3-INCH LUMBER, DOUBLE NAILED AT EACH TRUSS LOCATION. SPACING OF BRIDGING SHALL NOT EXCEED 8'-O" O.C.

11. WEB MEMBER PLANE BRIDGING SHALL BE DETERMINED BY THE TRUSS DESIGNER/MANUFACTURER.

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12. CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY FIELD BRACING TO ASSURE ROOF TRUSSES ARE INSTALLED AT THE PROPER

13. TRUSS CHORDS SHALL BE FABRICATED OF SOUTHERN PINE OR DOUGLAS FIR LARCH NO.2 (19% MAX. MOISTURE CONTENT) OR BETTER. 14. TRUSS WEB MEMBERS SHALL BE FABRICATED OF SOUTHERN PINE OR DOUGLAS FIR LARCH NO. 2 (19% MAX. MOISTURE CONTENT) OR

15. ALL SPECIFIED FASTENERS SHOWN IN THESE DOCUMENTS MUST BE INSTALLED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS. ALL FASTENERS IN A CONNECTION MUST BE USED. ALL FASTENERS MUST BE INSTALLED PRIOR TO LOADING THE CONNECTION.

16. SUBSTITUTIONS FOR SIMPSON STRONG TIE CO., INC'S PRODUCTS MUST BE PRE-APPROVED IN WRITING BY THE ENGINEER OR ARCHITECT. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY EVALUATION REPORTS FROM THE INTERNATIONAL CODE COUNCIL.

14

SHOP DRAWINGS

1. CODE COMPLIANT STRUCTURAL DESIGN OF THE FOLLOWING ITEMS IS DEFERRED TO THE GENERAL CONTRACTOR.

- A. ROOF ACCESS LADDERS & SAFETY CAGES B. MISCELLANEOUS STAIR AND HANDRAIL FRAMING C. WOOD AND LIGHT GAGE STEEL TRUSSES
- 2. DEFERRED SUBMITTALS SHALL INCLUDE SUBSTANTIATING STRUCTURAL CALCULATIONS AND SHALL BEAR THE SIGNED WET STAMP OF A REGISTERED PROFESSIONAL ENGINEER WHO IS LEGALLY AUTHORIZED TO PRACTICE IN THE JURISDICTION WHERE PROJECT IS LOCATED AND WHO IS EXPERIENCED IN PROVIDING ENGINEERING SERVICES OF THE KIND INDICATED. DEFERRED SUBMITTALS SHALL BEAR THE APPROVAL STAMP OF THE PROJECT ENGINEER OF RECORD.
- 3. ALL SHOP DRAWINGS AND SUBMITTALS MUST BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL. ENGINEER'S REVIEW OF SHOP DRAWINGS IS LIMITED TO CHECKING FOR GENERAL CONFORMANCE WITH DESIGN DRAWINGS AND STRENGTH OF COMPONENTS AND MATERIALS. CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES FROM THE DESIGN DRAWINGS, QUANTITIES, DIMENSIONAL ERRORS OR OMISSIONS IN THE SHOP DRAWINGS.
- 4. ALL SHOP DRAWINGS MUST BE ORIGINAL DOCUMENTS AND SHALL NOT BE REPRODUCTIONS OF THESE CONTRACT DOCUMENTS.
- 5. SUBMIT SHOP DRAWINGS DETAILING FABRICATION OF EACH MEMBER AND ITS CONNECTIONS. DETAIL DRAWINGS ARE TO BE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER.
- 6. CONTRACTOR SHALL SUBMIT STRUCTURAL SHOP DRAWINGS FOR THE FOLLOWING:

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A. CONCRETE MIX DESIGN AND MATERIALS CONCRETE REINFORCING STEEL

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CONCRETE FORMWORK D. PREFABRICATED WOOD TRUSSES & CONNECTIONS

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2. A CERTIFICATE OF SATISFACTORY COMPLETION OF WORK REQUIRING SPECIAL INSPECTION MUST BE

COMPLETE & SUBMITTED TO THE FIELD INSPECTION DIVISION.

3. AN APPLICATION FOR OFF-SITE FABRICATION MUST BE SUBMITTED TO THE FIELD INSPECTION DIVISION FOR APPROVAL PRIOR TO FABRICATION.

4. A CERTIFICATE OF COMPLIANCE FOR OFF-SITE FABRICATION MUST BE COMPLETED AND SUBMITTED TO THE FIELD INSPECTION DIVISION PRIOR TO THE ERECTION OF PREFABRICATED COMPONENTS.

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	Foundation 1. Slab 12" O. 2. Maxin 3. Foot	PLAN NOTES ON GRADE SHALL BE 4 C. AT MIDSLAB ON TOP A. AS A BID ALTI LBS PER CUB /UM SPACING OF CONS	" THICK MINIMUM W/ # OF PROPERLY PREF ERNATE FOR SLAB R SIC YARD. STRUCTION / CONTR	#3 BARS EACH WAY @ PARED SUBGRADE PER EINFORCING, USE HELI OL JOINTS SHALL BE 12	SOIL REPORT. X 5-25 MICRO REBAR # ' - 0".	T A RATE OF 18			К
	4. ALL A PRIOF	NCHOR BOLTS AND HO	PLD DOWN ANCHORS PECTION.	SHALL BE TIED IN PLAC	Æ				
	5. ALL S 6. FOR I 7. SEE A 8.	ILL PLATES TO BE PRES DIMENSIONS AND DETA RCHITECTURAL DRAW 	SSURE TREATED DOI ILS NOT SHOWN, SEI INGS, FOR SLAB SLO ATES SHEAR WALL F 33.00 FOR SHEARWAI	UG.FIR. E ARCHITECTURAL DRA IPES AND FLOOR DRAIN PER SCHEDULE ON SHE LL SCHEDULE.	WINGS. S. ET S3.00.		ACEK ite 2200 i 64105 : 816-842-1302	S REMAIN THE ESSIONAL. COPIES IONS RETAINED BY Y FOR THEIR USE & FOR WHICH THEY STRUCTION OF ANY T	J
	9 PRIOF	B. PROVIDE MIN D15/ S3.00	IMUM CONCRETE ED	OGE DISTANCE FOR HOL	DDOWN ANCHOR BOI	T PER DETAIL	J PETR street , Su /, Missour 52 Fax	IFICATION SIGN PROF PECIFICAT PECIFICAT PECIFICAT PECIFICAT PECIFICAT PECIFICAT PECIFICAT PECIFICAT PECIFICAT PECIFICAT PECIFICATION	
	10. GRID 11. SEE S 12. SEE E	A. THE BUILDING A. THE BUILDING B. THE UTILITY 1 C. THE FOUNDA CHARACTERI LINES INDICATE INSIDE 31.60 FOR TYPICAL FOU 13/S1.60 FOR TYPICAL	NICAL ENGINEER SH/ PAD WAS PREPARE IRENCHES HAVE BEE TION EXCAVATIONS, ISTICS & BEARING CA FACE OF CONCRET INDATION DETAILS. REINFORCING DETA	ALL ADVISE THE BUILDII ED IN ACCORDANCE WI EN PROPERLY BACKFILI SOIL EXPANSION PACITY CONFORM TO T E FOUNDATION STEM W	NG OFFICIAL IN WRITIN TH SOILS REPORT. LED AND COMPACTED THE SOILS REPORT. YALL AND 2"X6" STUD V	IG THAT: VALL.	STEVEN 1100 Main S Kansas City Phone : 816-842-75	DRAWINGS & SPEC PROPERTY OF THE DES OF THE DRAWINGS & SI THE CLIENT MAY BE UTII FOR OCCUPYING THE WERE PREPARED & NOT OTHE	
	13. FOR (CMU FOUNDATION ALTE	ERNATE, SEE SHEET	S1.60A	BOARD ON THE INSIDE				H
	14. SW1, THE V 15. ALL W	VALL, WHILST SW4 TO F	AVE 5/8" PLYWOOD	ON THE INTERIOR.		FACE OF	Aron	a Joes	
	<u>ROOF FRA</u> 1. AL GF	MING PLAN NOTES: L ROOF SHEATHING SH OOVE W/	IALL BE 3/4" THICK (4)	0/20) CDX, TONGUE ANE			AROMA JOE'S GARFIFI D AND SOUTH	STREET CALAIS, ME 04619	G
	2. — 3 Al	AREA A1: L1 = 6' - 0" BLOCKED BN 10D @ 4" O.C. EN 10D @ 6" O.C. FIELD 10D @ 12" O.C	AREA A2: L2 = REM/ UNBLOCK BN 10D @ EN 10D @ C. FIELD 10D DICATES FRAMING D	AINDER (ED (6" O.C. 6" O.C. 9 @ 12" O.C. RECTION.	s" ο ς (ΠΝΟ)		BID AN	D PERMIT SET 4.08.30	E
	4. MII A. B. C. 5. ∠ 6. FO 7. (10 8. (F) 9. BC RE	VIMUM HEADERS, U.N.(6X6 - UP TO 4'-0" 6X8 - UP TO 6'-0" 6X10 - UP TO 8'-0 CODE SLOPES & OPE 16d NAILS EACH SIDE - INDICATES FLUSH BE OUNDARY NAILING IS RE QUIRED AT ALL SHEAR). SHALL BE: OPENING SPAN OPENING SPAN " OPENING SPAN DICATES BLOCKED D ENINGS, REFER TO A OF TOP PLATE SPLIC AMS. EQUIRED AT ALL DRA	IAPHRAGM. RCHITECTURAL ROOF F CES (TYPICAL, U.N.O.). \$ G STRUTS & EDGE NAIL	PLAN. SEE DETAIL H25/S1.70 ING IS		Revisio # Date	n Schedule Description	D
	10. SC A. 11. SH 12. AL	# INDICATES SHEAF # INDICATES SHEAF SEE SHEET S3.00 EARWALLS ARE REQUIL L NAILS ARE COMMON,	DICATES SHEAR WAL .00. WALLS AND SHEAR FOR SHEARWALL SC IRED TO BE BLOCKEI , U.N.O.	L PER SHEAR WALL TRANSFERS FOR WALL HEDULE	S BELOW ROOF FRAM	1ING.			С
	13. (1) 14. MS	2x IS REQUIRED MINIM T & CS SIMPSON STRA	UM UNDER BEAMS A PS SHALL BE LOCAT	ND HEADERS, U.N.O. ED ON TOP OF DOUBLE	TOP PLATES.		PRC	JECT #	
	15. EN A. B. C.	IGINEERED WOOD TRU EACH TRUSS SHA OTHERWISE PERI INFORMATION LOI ON THE FACE OF 1.) NAME (2.) DESIGN 3.) SPACIN 4.) DESIGN BOTTOM CHORD I TRUSS DRAWING PERMIT ISSU JANOS	ISSES: LL BE LEGIBLY BRAN MANENTLY AFFIXED V CATED WITHIN TWO I THE BOTTOM CHORE OF TRUSS MANUFAC I LOAD AS SHOWN O IG OF TRUSS VED SPAN ON THE FA BRACING IS REQUIRE S MUST BE APPROVE F	DED (MARKED) OR WITH THE FOLLOWING FEET OF THE CENTER S D: TURING COMPANY N CRITERIA BELOW. ICE OF THE BOTTOM CH ED AT 10'-0" O.C. MAXIMU ED WITHIN FIFTY (50) DA	ipan Iord. JM. Ys of		FOUN PLAN FRAIM	4626 IDATION & ROOF ING PLAN	В
	D. E. 16. RC OV DU	SUBMIT APPROVE PLAN CHECK & AI APPROVED TRUSS OOF JOISTS ARE SPACE ER STUD WALL. ADJUS CT PENETRATIONS, M/	 D Shop Drawings Proval. S Drawings Must E D At 16" O.C. Unles T Truss Spacing A AX Truss Spacing 2	& Calculations to Ci Be on Job Site For INS S Noted Otherwise. S Required in Doghc 24" o.C.	TY FOR SPECTION PURPOSES. JOIST TO BEAR DIREC USE TO ACCOMMODA	TLY TE	SHEET	NUMBER	A
	17. (RE	INDICATES LIVE LO ACTIONS IS 30" O.C., UI	DAD OF 650 LBS TO E NO.	BE CARRIED BY TRUSS.	SPACING BETWEEN		S ^r	1.10	
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	25	26	27	28	29	30	31			
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PSF RO F	: OF							ACEK te 2200 64105 : 816-842-1302	S REMAIN THE ESSIONAL. COPIES ONS RETAINED BY FOR THEIR USE & FOR WHICH THEY STRUCTION OF ANY T	J
R DI	IAGRAM							STEVEN J PETR/ 1100 Main Street , Sui Kansas City, Missouri Phone : 816-842-7552 Fax	DRAWINGS & SPECIFICATION PROPERTY OF THE DESIGN PROFI OF THE DRAWINGS & SPECIFICATI THE CLIENT MAY BE UTILIZED ONLY FOR OCCUPYING THE PROJECT WERE PREPARED & NOT FOR CON	
F								Arom	a Joes	Η
								A JOE'S AND SOUT	REET , ME 04619	G
			TOP C DOG H DEAD	HORD HOUSE LOA LOAD = 60 I	D PLF			ARDM/ GARFIFI D	CALAIS	F
			DEAD LIVE L SNOW	LOAD = 8 F OAD = 20 F / LOAD = 95	PSF PSF 5 PSF			BID AN S 2024	D PERMIT SET 4.08.30	E
			REFEI FOR D	R TO TRUSS	5 2 DIAGRA	IM S		Revisio # Date	n Schedule Description	D
		114'-1 	10" • 10" • 10"					PRC 24	DJECT # 4626	С
			BOTT(DEAD	DM CHORD LOAD = 7 P	SF			TRUSS	FRAMING GRAMS	В
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	25	26	27	28	29	30	31			

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	<u>FASTE</u>	NING SC	HEDULE	PER TA	<u>BLE ESR</u>	<u>R-1539</u>					
	CONNECTION			FA	STENING ^{a,m}		LOCATION				
	1.) JOIST TO SILL	OR GIRDER		3 - 3" X	0.131" NAILS		TOE NAIL				
•	2.) BRIDGING TO	JOIST		2 - 3" X	0.131" NAILS		TOE NAIL EAC	H END			
	3.) 1x6 SUBFLOOF	R OR LESS TO EACH JO	DIST	2-1/2" X	0.131" NAILS		FACE NAI	L			
	4.) WIDER THAN 1	1x6 SUBFLOOR OR LES	S TO EACH JOIST	2-1/2" X	0.131" NAILS		FACE NAI	L			
	5.) 2" SUBFLOOR	TO JOIST OR GRIDER		3-1/2" X	0.162" NAILS		BLIND & FACE	NAIL			
	6.) SOLE PLATE T	O JOIST OR BLOCKING	; AT BRACED WALL PAN	3" X 0.1	31 NAILS AT 12" O.C. 0 131 NAILS AT 12" O.C	2					
Н	7.) TOP PLATE TO) STUD		4 - 3" X	0.162" NAILS		END NAIL	PANELS			
	8.) STUD TO SOLE	E PLATE		4 - 3" X	0.131" NAILS		TOE NAIL				
	9.) DOUBLE STU)		4 - 3" X 3" X 0.1	0.131" NAILS 31 NAILS AT 16" O.C.		END NAIL				
	10.) DOUBLE TOP	PLATES PLATES		3" X 0.1 12-3" X	31 NAILS AT 12" O.C. 0.131" C		TYPICAL FACE	NAIL			
								-			
G	11.) BLOCKING BE	ETWEEN JOIST OR RAF	TERS TO TOP PLATE	3 - 3" X	0.131" NAILS		TOE NAIL				
	12.) RIM JOIST TO) TOP PLATE		3" X 0.1	31 NAILS AT 6" O.C.		TOE NAIL				
	13.) TOP PLATES,	LAPS AND INTERSECT	TIONS	3 - 3" X	0.131 NAILS		FACE NAIL	-			
	14.) CONTINUOU	S HEADER, TWO PIECE	ES	3" X 0.1	31"		8" O.C. ALONG	EDGE			
	15.) CEILING JOIS	T TO PLATE		4 - 3" X	0.131" NAILS		TOE NAIL				
_	16.) CONTINUOUS	S HEADER TO STUD		4 - 3" X	0.131"		TOE NAIL				
	17.) CEILING JOIS	T, LAPS OVER PARTIT	IONS	4 - 3" X	0.131" NAILS		FACE NAIL				
	18.) CEILING JOIS	T PARALLEL TO RAFTE	ERS	4 - 3" X	0.131" NAILS		FACE NAIL				
				3 - 3" 0.	131 NAILS		TOE NAIL				
				2_3" X	0 131" NAII S		FACE NAIL				
				2-3 ^	0.101 NAILS						
E	21.) 1x8 SHEATHI	NG TO EACH BEARING		2 - 3" X	0.131"						
	22.) WIDER THAN	1x8 SHEATHING TO EA	ACH BEARING	3 - 3" X	0.131"		FACE NAIL	-			
	23.) BUILT UP CO	RNER STUDS		3" X 0.1	31 NAILS		24" O.C. 16" O.C.				
	24.) BUILT UP GIR	RDERS BEAMS		3" X 0.1	31 NAILS AT 24" O.C.		FACE NAIL AT TOP AN STAGGERED ON OPPC	ID BOTTOM DSITE SIDES			
				3" X 0.1	31 NAILS		FACE NAIL AT E AND AT EACH SI	ENDS PLICE			
	25.) 2" PLANKS			3" X 0.1	31" NAILS		AT EACH BEA	ARING			
ע	26.) COLLAR TIE 1			4 - 3" X	0.131" NAILS		FACE NAIL	·			
	21.JUNON KAFIE	N IV I IIF		5-3 X 3" X 0.1	31" NAILS		FACE NAIL				
	28.) ROOF RAFTE	R TO 2X RIDGE BEAM		5 -3" X (0.131 NAILS		TOE NAIL				
	00.110107.57			4 - 3" X	0.131 NAILS		FACE NAIL			WALL PLYWO	OD E.N
	29.) JOIST TO BAN	ואטן טא IP		4 - 3" X	U.131" NAILS			L		(2) KING STUD 2X6 —	
С	A. NAILS SHOW		N.	0-0 //	J. TOT MAILO				SW4	AND SW5	
	B. NAILS SPACE MORE.	ED AT 6 INCHES ON CE	NTER AT EDGES, 12 IN		ATE SUPPORTS EXCE	PT 6 INCHES AT SUPP	ORTS WHERE SPANS A	ARE 48 INCHES OR			
	* FOR NA * NAILS F C. COMMON OR	 * FOR NAILING OF WOOD STRUCTURAL PANEL AND PAR * NAILS FOR WALL SHEATHING ARE PERMITTED TO BE C C. COMMON OR DEFORMED SHANK (6d - 2" X 0.113"; 8d - 2 1/2") 		ARTICLEBOARD DIAP E COMMON, BOX OR /2" X 0 131": 10d - 3" X	'HRAGMS AND SHEAF CASING. 0 148'')	R WALLS, REFER TO SE	CHON 2305.		KINC	G STUD POST (3) 2X6 —	
	D. COMMON OR E. DEFORMED S	R DEFORMED SHANK (6 SHANK (6d - 2" X 0.113";	6d - 2" X 0.113"; 8d - 2 1 ; 8d - 2 1/2" X 0.131"; 10d	/2" X 0.131"; 10d - 3" X I - 3 X 0.148")	0.148")				ZIP WALL	WALL SYSTEM, TYP	
	F. CORROSION- G. FASTENERS	RESISTANT SIDING (60 SPACED 3 INCHES ON	d - 1-7/8" X 0.106"; 8d - 2 I CENTER AT EXTERIOF IRAL SHEATHING SPAC	3/8" X 0.128") OR CAS REDGES AND 6 INCH NG SHALL RESINCT	ING (6d - 2" X 0.099": 8 ES ON CENTER AT EX JES ON CENTER ON T	3d - 2 1/2" X 0.113") NAIL (TERIOR EDGES AND 6 (HE EDGES AND 12 INC	INCHES ON CENTER A	AT INTERMEDIATE			
R	SUPPORTS FOR H. CORROSION	NON-STRUCTURAL AP - RESISTANT ROOFING	PPLICATIONS. S NAILS WITH 7/16 INCH	I DIAMETER HEAD AN	D 1 1/2 INCH LENGTH	FOR 1/2 INCH SHEATH	ING AND 1 3/4 INCH LEI	NGTH FOR 24/32	ם סוסו		
D	INCH SHEATHING	G. - RESISTANT STAPLES	S WITH A NORMAL 7/16	INCH CROWN AND 1	1/8" LENGTH FOR 1/2	SHEATHING AND 1 1/2	INCH LENGTH FOR 25.	32 INCH	P	ER SCHEDULE	
	J. CASING (1 1/2 K. PANEL SUPP	2" X 0.080") OR FINISH (ORTS AT 24 INCHES, C	(1 1/2" X 0.072") NAILS CASING OR FINISH NAIL	SPACED 6 INCHES ON S SPACED 6 INCHES	I PANEL EDGES, 12 IN ON PANEL EDGES. 12 IN	CHES AT INTERMEDIA	TE SUPPORTS. IATESUPPORTS.	ر ب			
	L. FOR ROOF SH	HEATHING APPLICATIO	DNS, 8d NAILS (2 1/2" X CROWN WIDTH OF 7/16	0.113") ARE THE MININ			ANELS.		SHE	AR WALL SW4	
	N. FOR ROOF S O. FASTENING S AT EDGES 6 INC	HEATHING APPLICATION SPACED 4 INCHES ON HES AT INTERMEDIATI	UNS, FASTENERS SPAC CENTER AT EDGES, 8 E SUPPORTS FOR POO	LED 4 INCHES ON CEI INCHES AT INTERMEE OF SHEATHING	NIER AT EDGES, 8 IN 01ATE SUPPORTS FOR	CHES AT INTERMEDIAT R SUB-FLOOR AND WA	E SUPPORTS. LL SHEATHING AND 3 II	NCHES ON CENTER	0405		
	P. FASTENERS	SPACED 4 INCHES ON	V CENTER AT EDGES, 8	INCHES AT INTERME	DIATE SUPPORTS.				ALO	NGSIDE HD5B-3.5	
A		[_					
	Δ1	SCALE	FAST	ENER S	CHEDUL	.E			ΔQ	SCALE	TYPICA
		3/4" = 1'-0"								1 1/2" = 1'-0"	
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										PETRAC et , Suite 2 lissouri 64 Fax : 8	ATIONS RE A PROFESS IFICATIONS FICATIONS D ONLY FC DJECT FOR R CONSTR ROJECT	
										EVEN J F Main Stre sas City, M 842-7552	& SPECIFIC R SPECIFIC IGS & SPEC IGS & SPEC IGS & SPEC IGS & THE PRC VG THE PRC OTHER P	
										STE 1100 Kans ne : 816-{	RAWINGS ERTY OF T HE DRAWIN LIENT MAY OCCUPYIN PREPAREI	
											PROP OF THE CI FOR WERE	
	<u>,</u>	1. (APP) 2. E	DSB OF COMPARA ROVED IN WRITING EDGE NAIL WALL F	BLE THIC G BY THE PLYWOOD	KNESS MAY BE PROJECT ENG TO STUDS OR	E USED IN I SINEER ANI R POSTS W	LIEU OF PLYWOOD D THE LOCAL JU 'ITH HOLD-DOWNS.	WHEN RISDICTION.		Aron	a Joés	н
Г		3. <i>1</i> 4. E	ALL PLYWOOD NAI Exterior Walls	LS SHALL NOT DES	. BE POWER DF	RIVEN. HEARWALL	_S IN THE WALL FRA	MING PLAN				
	3"	5. 5	SHALL MEET REQU SCHEDULE ABOVE SHEARWALL LENG	JIREMEN I			SHEARWALL WALLS				19	
× ,		6. S	HD REFERS TO SIN SCHEDULE 2/S3.00 PLAN FOR OTHER	/IPSON ST IPSON ST IPOST WI REQ'S.	TRONGTIE CO. DTH SHALL MA	HOLDOWN	NS. INSTALL PER HC WALL WIDTH. SEE	LDOWN FOUNDATION		N U N U N C	046	G
:		7. \ [NHERE PANELS AI LESSTHAN 4" O.C. DIFFERENT FRAMII	RE APPLIE ON EITHE NG MEMB	ED TO BOTH FA R SIDE, PANEL ERS OR FRAM	ACES OF A JOINTS SI ING SHALL	WALL AND NAIL SP HALL BE OFFSET TO BE 3x OR THICKER	ACING IS) WALL ON AND NAILS				
<u>م</u>		8. 1	ON EACH SIDE SHA The Anchor Bol ⁻ The Embedment I	ALL BE ST T LENGTH LENGTH I	AGGERED. I LISTED IN SCH NTO CONCRET	HEDULE A	Bove (example : 1 T The overall lei	0") SHALL BE NGTH OF			AIS,	
, k, , , , , , , , , , , , , , , , , , ,		9. F	THE ANCHOR. PLYWOOD IS LOCA			FACE OF	STUBS, UNO.			AR(CAL	F
EQ	8" EQ		Size of 12 gage, 5 Size of 12 gage, 5 Spacing of 4" o.C	1 3/4" LON 2.	IG, 7/16" HEAD	AND GALV	ANIZED FASTNER V	VITH MAX		UPI UPI	5	
*										BID AN	D PERMIT	
CHO 0" EMB	R BOLT EDMENT @ 48" O.C. W/	H WASHER HI	OLDDOWN D5B-3.5	A 1 1/4"	B* (MIN) 11"	ANCH	HOR BOLT** PAB5 (5/8"Ø)	-			SET	F
0" EMB 0" EMB 0" EMB	EDMENT @ 40" O.C. W/ EDMENT @ 48" O.C. W/ EDMENT @ 24" O.C. W/	WASHER HI WASHER HI WASHER HI	D5B-3.5 D5B-3.5 D9B-4.5	1 1/4" 1 1/4" 1 1/4"	11" 11" 11"	F F	PAB5 (5/8"Ø) PAB5 (5/8"Ø) PAB7 (7/8"Ø)	-		2024	4.08.30	
0" EMB	EDMENT @ 32" O.C. W/	WASHER HI	D9B-4.5	1 1/4"	11"	F	PAB7 (7/8"Ø)	-		Revisio	n Schedule	
		N	Ά	N/A	N/A		N/A					
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												C
										PRC	JECT #	
										24	4626	
											PICAL TAILS	В
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12	13 1	4 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TE OF MAIN	
				OLTAGE: 120/240	Single		PANE	LBOARD:		MOUNTING: F	Recessed		ELECTRICAL	L SYMBOLS					Trevor Robert	
				PHASE: 1	WIRE: 3			A		BUS: 2	225 A		A (CEILING, SURFA	CE, OR PENDANT F	IXTURE WITH FIXTURE	DESIGNATION.		PE 17593	
406 VA	1.25	508 VA												WALL BRACKET	FIXTURE WITH FIXT	URE DESIGNATION.			BO LICENSED	K
774 VA	1.25	968 VA	скт	Circuit D	escription	Trip Pole	e A	P	ole Trip	Circuit De	escription	скт		2'X4' OR 2'X2' TR		TH FIXTURE DESIGNAT	ION		SONAL ENGININ	
N/A	N/A FT @ 75W/LF	N/A	1 3	-WH-1		30 A 2	2250 100	2250 660	1 20 A TI 1 20 A IN	IMECLOCK NTERIOR LIGHTIN	IG	2 4		FLUORESCENT S	STRIP FIXTURE WIT	H FIXTURE DESIGNATIO	DN. SURFACE MOUNTED (OR CHAIN	8/20/24	
540 VA	12 FT @ 200W/LF	2,400 VA	5	HP-1		40 A 2	2880 114	2880 1200	1 20 A E 1 20 A M	XTERIOR BUILDI	NG LIGHTING	6 8	A '	HUNG.						
4,600 VA	1.0	4,600 VA	9 11	-HP-3		40 A 2	2880 540	2880 1200	1 20 A IN 1 20 A E	NTERIOR SIGNAG	BE GE	10 12	• A	SHOWN.	STELIGHTING FIX	IURE WITH FIXTURE DI	ESIGNATION. NUMBER OF	LAMPS AS		
N/A	0.5	N/A	13 15	EF-1 CIRC PUMP		20 A 1 20 A 1	120 174	240 174	2 20 A S	ITE LIGHTING		14	\otimes	EXIT LIGHT, CEIL	LING SURFACE OR F	PENDANT. ARROWS AS	SHOWN.			
3,600 VA	1.25	4,500 VA	17	SPACE		1	1200) 180	1 20 A S			18		EXIT LIGHT, WAL	L BRACKET. ARRO	WS AS SHOWN.				J
54,194 VA	0.65 LARGEST MOTOR @ 125%,	35,226 VA	21	-'2026' INFUSION E	BREWER (1)	40 A 2	3000 0		1 20 A S	PARE		20							HNKI 200 05 05 05 05 16-842 16	
4.500 VA	REMAINING @ 100% PER NEC 430-2 1.0	4 500 VA	23 25	- '2026' INFUSION F	BREWER (1)	40 A 2	3000 0	3000 0	1 20 A S 1 20 A S	PARE		24 26	₩	DUPLEX CONVE	NIENCE RECEPTAC	LE, 120 VOLT, 20A, 18" /	AFF TO CENTER OR AS NO)TED.	RUH Ini 641 NS RE 8, TFONS RE 100 NS	
1,000 VA	1.0	1,000 VA	27 29	SPACE		1	500	3000 780	1 20 A '2 1 20 A '2	2081' CARBONATO 2088' DISPENSING	OR G TOWER	28 30		QUADRUPLEX C	ONVENIENCE RECE	PTACLE, 120 VOLT, 204	A, 18" AFF TO CENTER OR	AS NOTED.	ERT Feet, S Feet, S Fe	
91.8 KVA		77.3 KVA	31 33	SPACE SPACE		1 1	1320	564 D	1 20 A '1 1 20 A 20	007' UC REFRIGE 024' GRINDER	ERATOR	32 34	_	QUADRUPLEX R	ECEPTACLE WITH IS	SOLATED GROUND, 120) VOLT, 20A, 18" AFF TO CE	ENTER OR AS	ROB City, N Stre City, N Stre 7552 S SPEGE S SPEGES S S SPEGES S S S S S S S S S S S S S S S S S S S	
	@240V, 1PH	322.3 A	35 37	SPACE SPACE		1 1	780	1800	1 20 A '2 1 20 A '2	2023' HOT WATER 2081' CARBONATO	DISPENSER	36 38	φ	SIMPLEX RECEP	PTACLE, 120 VOLT, 2	0A, 20" AFF TO CENTEF	R OR AS NOTED.		OR NOR NOR NOR NOR NOR NOR NOR N	
			39 41	SPACE SPACE		1 1	0	500	1 20 A '2 1 20 A S	2088' DISPENSING PARE	TOWER	40 42	$\mathbf{\nabla}$	SPECIAL OUTLE	T AS NOTED. MOUN	IT 18" AFF TO CENTER	OR AS NOTED.		TRV T110 T110 T110 T110 T110 T110 T110 T11	
			А	18858 W			тс	L 40.1 kW					\bigcirc	FLOOR MOUNTE	ED RECESSED DUPL	EX RECEPTACLE.				
			В	21308 W					EMD 3	5.2 kW				FLOOR MOUNTE	ED RECESSED QUAL	DRAPLEX RECEPTACLE				
				01 10 11		<u> </u>							J	JUNCTION OR PL	ULL BOX.					
			Load HVAC	Clasification		16380 VA	oad Demand 100.00%	Factor Estimate 16380 VA	ed	Pane				4" X 4" DATA BO) PLATE SUITABLE	X 18" AFF TO CENTE E FOR DATA CABLIN WING SPACE OR AS	G QUANTITIES. PROVID	ANS. PROVIDE MUD RING DE 1" CONDUIT STUBBED (T6 CABLE EROM DATA BO)	G, COVER OUT ABOVE		
			Kitcher Lightin	n ng		17244 VA 1122 VA	65.00% 125.00%	11209 VA 1402 VA						RELATED PATCH DIRECTED BY O	H PANEL IN IT RACK WNER.	AS DIRECTED BY OWN	ER. TERMINATE AND LAB	EL CABLES AS		∣ы∣
			Other Recep	otacle		0 VA 1720 VA	0.00%	0 VA 1720 VA					\$	SINGLE POLE SV	WITCH, 48" AFF TO C	ENTER OR AS NOTED.			Aroma João	
			Signag Notes	ge :		3600 VA	125.00%	4500 VA					\$ ₃	THREE WAY SW	ITCH, 48" AFF TO CE	ENTER OR AS NOTED.				
			(1) PR	OVIDE GFCI BREA	KER FOR EQUIPI	IENT CIRCUIT	Г.						\$ _ĸ	KEY OPERATED	SWITCH, 48" AFF TO	O CENTER OR AS NOTE	D.			
													\$ _P	SWITCH AND PIL	LOT LIGHT, 48" AFF 1	TO CENTER OR AS NOT	ED.			
										1			⊅ _D	SLIDE DIMMER S	SWITCH, 48" AFF TO	CENTER OR AS NOTED).		AND	
			V	OLTAGE: 120/240 PHASE: 1	Single WIRE: 3		PANE	LBOARD:		MOUNTING: F BUS: 2	Recessed 225 A		•	MOTOR OR EQU	MITCH.	ON.				G
				FAULT 10,000 A	NIC					MAIN: 2	225 A MCB		Т	POWER TRANSF	FORMER.				A A A	
			СКТ	Circuit D	Description		A	B	ole Trip	Circuit De	escription	скт		— CIRCUIT BREAKE	ER.				AIS AIS	
			1	-HP-2	<u> </u>	40 A 2	2880 180	2880 525	1 20 A R		Τ ΞΔΤ ΤΔΡΕ	2		GROUND.					SO GA	
			5	'1002' UC REFRIG	GERATOR	20 A 1	564 360		1 20 A R	ESTROOM RECE	PTS	6	o (C)o	CONTACTOR CO)IL.					
			9	1023 FREEZER	4700	20 A 1 20 A 1	1680 540		1 20 A S		TS	10		- CONTACTOR CO	ONTACTS.					
			11	'1024' REFRIGER/ '1025' REFRIGER/	ATOR	20 A 1 20 A 1	1092 360	1092 180	1 20 A S 1 20 A IN	TERNET SERVIC	RECEPT CE RECEPT	12	PC	TIME SWITCH.						 F
			15 17	2086/2051' COFF	EE GRINDERS	20 A 1	2392 1080	1170 720 D	1 20 A '3 1 20 A '3	8015' POS TERMIN 8009' DRIVE-THRU	NALS J MONITORS	16 18		PANELBOARD.						
			19 21	SPACE		1	3120	2392 0 0	1 20 A S		- //>	20 22		MAIN SWITCHBC	OARD OR DISTRIBUT	TION EQUIPMENT.				
			23 25	SPACE SPACE		1 1	620	3120	2 30 A 2 1 20 A 1	026' UC REERIGE	- (1) - RATOR	24	+++		IT CONCEALED IN C	EILING OR WALLS. SLA	SH MARKS INDICATE NO.	OF S #12 WIRE		
			27	2029' COFFEE BR	REWER	20 A 1	0 2120	1680 3120	2 30 A '2	2304' TURBOCHEF	= (1)	28		1/2" CONDUIT NO	OT INDICATED.		ATED. TWO CONDUCTOR	(0, #12 WINE,	2024 00 20	
			31	- '1308' ICE MACHI	NE (1)	20 A 1		1186 3120	2 30 A '2	2304' TURBOCHEF	= (1)	32		BRANCH CIRCUI	IT CONCEALED IN FL		DW.		2024.00.30	
			33	SPACE		1	1186 3120	564	1 20 A '1	007' UC REFRIGE	ERATOR	34				ard "A' with circuit i	NUMBERS INDICATED.		Revision Schedule	
			37 39	SPACE SPACE		1 1	1032	2 1032	1 20 A '2 1 20 A '2	2084' BLENDER 2084' BLENDER		38 40	(T)	THERMOSTAT - I	ELECTRIC.				# Date Description	
			41	SPACE		1	1032	2	1 20 A '2	2084' BLENDER		42	E	FIRE ALARM AUE	DIBLE/VISUAL DEVIC	CE. MOUNT 7'-6" AFF TO) CENTER OR 6" BELOW F	INISHED		
			A B	24358 W 24461 W			TC	SL 48.8 kW	EMD 35	5.1 kW				CEILING, WHICH		ΜΟΙ ΙΝΤ 7'6" ΔΕΕ ΤΟ CE	INTER OR 6" BELOW FINIS			
													E	WHICHEVER IS L	LESS.					
				Clasification		Connected Lo	oad Demand	Factor Estimat	ed	Pane	l Totals		(F)	CEILING MOUNT	ED FIRE ALARM AU	DIBLE/VISUAL DEVICE.				
			Kitcher	n		39114 VA	65.00%	25424 VA							OR (I: IONIZATION, F	P: PHOTOELECTRIC, D:	DUCT TYPE).			
			Recep	otacle		3420 VA	100.00%	3420 VA							R					
			(1) PR	OVIDE GFCI BREA	KER FOR EQUIPI	IENT CIRCUIT	г.							MANUAL PULL S	TATION					
													B	FIRE ALARM BEL	L/BUZZER					
			L]	FS	SPRINKLER SYS	TEM, FLOW SWITCH	H. RE: SPECIFICATIONS				
														SPRINKLER SYS	TEM, SUPERVISOR	Y SWITCH. RE: SPECIFI	CATIONS.			C
				PROVIDE 40 FUSED AT 40 PROVIDE ON	10A, 2P, 240V DISCONNC 100A. NEMA-3R, S.E. RATE NI X WHERE REQUIRED F	ED.		SIDE)F NFW 225A 120/240V	1PH_3W				ET - CEILING.				PROJECT #	
				JURISDICITO BREAKER IN	ON, OTHERWISE USE MA	IN CIRCUIT			42 POLE FOR NE	E PANEL 'A'. RE PANEL S W PANEL CHARACTERI	SCHEDULE ISTICS.		WP	WEATHERPROO)F.				24626	
										B PROV	VIDE NEW 225A, 120/24	0V, 1PH, 3W,	AFF	ABOVE FINISHEE	D FLOOR.					
					M	С/Т	SERVICE			FOR	NEW PANEL B. RE PAN NEW PANEL CHARACT	EL SCHEDULE IERISTICS.	NL	DENOTES FIXTU	IRE ON NIGHT LIGHT	FING CIRCUIT.			ELECTRICAL	
AWG CU1"C. AIN TELEPHONE					7	- CABINET				PROV GROU	VIDE #4 ISOLATED UND PER NEC 250		A	DEVICE HORIZO	NTALLY MOUNTED	6" ABOVE COUNTER TO) CENTER.		RISER,	ח
NAL BOARD. D BOTH ENDS OF UIT IF METALLIC)				PROVIDE 400A 1PH 3W	NEMA							WAY	XFMR	TRANSFORMER.					SCHEDULE, &	D D
				3R, CT CABINET AND ME BASE IN ACCORDANCE V	TER WITH					r with Suith	ABLE FOR TAPPING		GFCI						DETAILS	
				ALL RULES & REGULATIO	DNS OF				PR	ROVIDE 3#4/0, #4G., 2-1/2	2"C.		<u>O</u> S	OCCUPANCY SE	NSOR.	nu nu iui eu.			ļ	
					ـــــر بــــر				E (2 SETS) 3#3/0, #3	3G., 2-1/2"C.			C	SECURITY CAME	ERA.				SHEET NUMBER	
			PROV	IDE UNDERGROUND SEC		~ L	— RE: SYSTEM GROUNDING DE	TAIL					PP	PATCH PANEL - 4	48 PORT.					
			POLE	(COORDINATE W/ UTILITY	Y CO.)									SPEAKER OUTLE	ET - WALL.					
	_			NTO									_							
-			A16	6.1.N		RICAL I	RISER D	IAGRAM												
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TION.	PROVIDE	2#10, #10G., 1"C.						/			,	
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EL W MI	.ECTRICAL SERV ITH CT CABINET / ETER. RE: ELECT	ICE DISCONNECT AND UTILITY RICAL RISER FOI										
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	LIGHTING CONTACTOR SCHEDULE
CONTACTOR #	DESCRIPTION
1	LABEL "INDOOR LIGHTS & INTERIOR SIGNAGE FOR TIME CLOCK ON/OFF CONTROL.
2	LABEL "BUILDING LIGHTING & EXTERIOR SIGNAGE" FOR PHOTOCELL ON/OFF CONTROL WITH
3	LABEL "SITE LIGHTING AND SIGNAGE" FOR PHOTOCELL ON/OFF CONTROL WITH SWITCH OVE
4	SPARE

A12	SCALE 1/4" = 1'-0"	FIRS	r floor	- LIGHTI	NG							
12	13	14	15	16	17	18	19	20	21	22	23	24

	1	2	3	4		5	5	6	7	8		9	10	11
K														
J														
H														
G														
F														
	ITEM NO. 1002 REA(DESCRIPTI		OLTAGE PH	HASE	LOAD	CONNECTION	EN EQUII	PMENT SCH WIRE S 2#12, #12G., 1	EDULE SIZE /2"C.			OMMENTS	RIGERATOR
-	1007 REAC 1023 REAC 1024 REAC	CH-IN FREEZER	RATOR	120 120 120	1 1 1 1 1 1	680 VA	CORD & PL	JG 5-20R JG 5-20R	2#12, #12G., 1 2#12, #12G., 1 2#12, #12G., 1	/2"C.	REFER TO OUTLET B REFER TO) PLAN NO OX) PLAN NO	TE FOR PENDAN	NT DROP
	1025 REAC	CH-IN REFRIGER		120	1 1 1 6	092 VA	CORD & PL	JG 5-20R JG 5-20R	2#12, #12G., 1 2#12, #12G., 1	/2"C.	OUTLET E REFER TO OUTLET E	D PLAN NO OX IOT LOCAT	TE FOR PENDAN	NT DROP
	1308 ICE M 2023 HOT	ACHINE	ISER	240 120	1 2 1 1	2372 VA 800 VA	CORD & PL	JG 6-20R JG 5-20R	2#12, #12G., 1 2#12, #12G., 1	/2"C. /2"C.	COORDIN CORD & P	ATE WITH LUG	EQUIPMENT TO	PROVIDE
	2024 COFF 2026 COFF	EE BEAN DISP	ENSER 1	120	1 1 6	320 VA		JG 5-20R JG 14-50R	2#12, #12G., 1 3#8, #10G., 3/4	/2"C. 4"C.	VERIFY EI EQUIPME COORDIN CORD & P	LECTRICAL NT PRIOR ATE WITH LUG.	_ REQUIREMENT TO BEGINNING \ EQUIPMENT TO	rs with Work. Provide
	2029 TEAC 2051 ESPF 2084 BLEN 2086 ESPE	RESSO GRINDE	=K R	120 120 120 120	$ \begin{array}{c} 1 & 1 \\ 1 & 9 \\ 1 & 1 \\ 1 & 2 \end{array} $	680 VA 950 VA 032 VA	CORD & PL CORD & PL CORD & PL CORD & PL	JG 5-20R JG 5-20R JG 5-20R	2#12, #12G., 1 2#12, #12G., 1 2#12, #12G., 1 2#12, #12G., 1	/2"C. /2"C. /2"C. /2"C.				
	2088 DISP 2091 CARE 2098 ESPE	ENSING TOWEF BONATOR RESSO MACHIN	R F	120 120 120 240		500 VA 780 VA 784 VA	CORD & PL CORD & PL CORD & PL	JG 5-20R JG 5-20R JG 16-30R	2#12, #12G., 1 2#12, #12G., 1 2#12, #12G., 1 2#10, #10G., 3	/2"C. /2"C.		FCTRICAL	REQUIREMENT	IS WITH
	2304 TURE	BO CHEF OVEN		240	1 6	240 VA	CORD & PL	JG 6-30R	2#10, #10G., 3	/4"C.	EQUIPME VERIFY EI EQUIPME	NT PRIOR LECTRICAL	TO BEGINNING \ _ REQUIREMENT TO BEGINNING \	WORK. IS WITH WORK.
С	3009 DRIV 3015 POIN 7300 DRIV 7301 OPEN	E-THRU MONIT T OF SALE TER E-THRU NEON S N NEON SIGN	OR MINAL SIGN	120 120 120 120	1 3 1 3 1 3 1 3 1 3	360 VA 360 VA 360 VA 360 VA	CORD & PL CORD & PL CORD & PL CORD & PL	JG 5-20R 10 JG 5-20R 10 JG 5-20R JG 5-20R	 G 2#12, #12G #1 G 2#12, #12G #1 Q 2#12, #12G, 1 Q 2#12, #12G., 1 	2I.G., 1/2"C. 2I.G., 1/2"C. /2"C. /2"C.	INCLUDES	6 ITEM #30	05 PRINTER	
	<u>NOTES:</u> 1. REFER 2. REFER	TO KITCHEN EQUIPN TO OWNER'S DESIGN	IENT VENDOR PLANS N CONSTRUCITON M	S AND KITCHEN ANUAL EQUIPMI	equipmen Ent sche	nt vendof Dule for	R SCHEDULE FO EXACT ROUGH-	R EXACT LOCAT IN REQUIREMEN	ions and Rough-in i Ts.	REQUIREMENTS	5.			
B														
^														
A														
	1	2	3	4		5	5	6	7	8		9	10	11

\12	SCALE 1/4" = 1'-0"	FLOC	LOOR PLAN - POWER												
12	13	14	15	16	17	18	19	20	21	22	23	24			

24	25	26	27	28	29	30	31		OF MAL	
(A)		GENERAL PL 1. BRANCH CI CIRCUITS (I CURRENTS LABELED TO 2. A GROUND 3. ALL PENETI PREVENTIN	AN NOTES RCUITS ARE INDICATED MAXIMUM OF THREE PI ARE LOCATED IN THE O INDICATE WHICH CIR CONDUCTOR SIZED PE RATIONS IN THE RATED IG THE PASSAGE OF FL	D AS ONE CIRCUIT HO HASE CONDUCTORS) SAME RACEWAY, JUN CUIT THEY ARE ASSO ER N.E.C. ARTICLE 250 WALLS AND CEILING AMES AND HOT GAS	DME RUNS WITH INDIVI MAY BE GROUPED IN / NCTION BOX, OR ENCLO DCIATED WITH. D IS REQUIRED IN ALL C GS SHALL BE SEALED V SES. THE SEALANT SH	DUAL NEUTRALS. A N A SINGLE CONDUIT. V OSURE, NEUTRALS SI CONDUITS. VITH A MATERIAL CAP IALL HAVE A T-RATING	MAXIMUM OF THREE WHERE MULTIPLE HALL BE MARKED OR PABLE OF G OF ONE HOUR.	Tree P	Vor Robert Ruhnke E 17593 CENSED CHERTIN DNAL ENGINE	K
(B)		 ALL PIPING, SHALL BE C REFER TO / DISCREPAN PROVIDE FI COMPLY W MOUNT SW ALL LIGHT F NEC 410.36I WHERE KE' TYPE FIXTU SHALL APP 	, CONDUIT AND OUTLE CONSTRUCTED OF NON ARCHITECTURAL REFLINCIES WITH ARCHITECT UNCTIONAL TESTING O ITH THE ENERGY CODE ITCHES 42" AFF UNLES FIXTURES INSTALLED IN B YNOTE FOR A FIXTURE IRES OR DEVICES IN SF	I BOXES (ELECTRIC, I-COMBUSTIBLE MATI ECTED CEILING PLAN I PRIOR TO ROUGH-IN IF LIGHTING CONTRO E. S NOTED OTHERWIS N SUPSENDED CEILIN OR DEVICE IS INDICA PACE. IN EXAMPLE, V	TELEPHONE, COMPUTE ERIAL. S FOR EXACT LIGHT FI N. LS WHEN REQUIRED A E. GS MUST BE FASTENE NTED TO BE TYPICAL, T VHERE TYPICAL KENOT	ER, ETC.) IN THE WAL XTURE LOCATIONS. Y ND ALL DOCUMENTA D TO CEILING FRAMIN HE KEYNOTE SHALL / 'E APPLIES TO 2'X4' F	LS OR CEILING VERIFY ALL TION NEEDED TO NG MEMBERS PER APPLY TO ALL LIKE IXTURE, KEYNOTE	OBERT RUHNKE Street , Suite 2200 ty, Missouri 64105 552 Fax : 816-842-1302	CIFICATIONS REMAIN THE SIGN PROFESSIONAL. COPIES SPECIFICATIONS RETAINED BY ILIZED ONLY FOR THEIR. USE & E PROJECT FOR WHICH THEY T FOR CONSTRUCTION OF ANY ER PROJECT	J
		POWER PLAN 1. COORDINATE 2. REFER TO ME 3. PROVIDE PEF SHOWING WO STATING WO	N GENERAL NOTE PRECISE DEVICE MOU ECHANICAL DRAWINGS RMANENT FLOOR STRIF ORKING CLEARANCE RE	S: JNTING HEIGHTS ANE FOR PRECISE LOCA PING AROUND ELECT PER N.E.C. PROVIDE QUIREMENTS.) LOCATION WITH FUR! TIONS OF ALL MECHAN RICAL EQUIPMENT, (IE, PERMANENT PLAQUES	NITURE PLANS, OWNE IICAL UNITS. PANELS, TRANSFOR ADJACENT EQUIPME	ER, ETC. MERS, ETC.). ENT ON WALL	TREVOR R 1100 Main Kansas Ci Phone: 816-842-7	DRAWINGS & SPE PROPERTY OF THE DE OF THE DRAWINGS & (OF THE DRAWINGS & (THE CLIENT MAY BE UT FOR OCCUPYING THE WERE PREPARED & NO OTHI	
D		 REFER TO AF LOCATIONS (THE MINIMUM FOR EACH UI PROVIDED. T DISCONNECT ALL WIRING T CONNECTION 	RCHITECTURAL DRAWI DF ALL FIRE RATED WA MWIRE SIZE SHALL BE F NGROUNDED CONDUC HE MINIMUM SIZE SHAI ALL UNGROUNDED CO TO SPEAKERS AND SUE N.	NGS AND DETAILS FO LLS WITH ARCHITECT #12 AWG. THE CONTF TOR IN THE MULT-WI LL BE 10 AWG, AND M DNDUCTORS OF THE 3-WOOFERS TO BE CO	R ALL PENETRATIONS TURAL DRAWINGS. RACTOR SHALL PROVIE RE BRANCH CIRCUIT. V ULTI-POLE CIRCUIT BR MULTI-WIRE BRANCH (ONTINOUS FROM SPEA	THRU FIRE RATED W DE A DEDICATED NEU VHERE SHARED NEUT EAKERS WILL BE PRO CIRCUIT. KER ASSEMBLY TO C	ALLS. COORDINATE TRAL CONDUCTOR IRALS ARE DVIDED TO CONSOLE	Aron	na Joés	Н
E		 ALL WIRING T <u>KITCHEN GEN</u> COORDINAT CASEWORK POWER AND FINAL CASEN ALL CONDUI REQUIRED T OF SURFACE CONTRACTOR 	TO BE INSTALLED FROM IERAL NOTES E EXACT OUTLET LOCA SUPPORTS AND BRAC DATA IN FRONT COUN WORK SHOP DRAWING T SHALL BE RUN CONC TO RUN EXPOSED ON F ES.	ATION WITH FINAL CA ING. ITER CASEWORK TO S. EALED IN BUILDING O INISHED SURFACES,	ERVICE FEED WITHOU SEWORK SHOP DRAWI BE RUN IN FLEX THROI CONSTRUCTION EXCEF SUPPORT PIPING 1/2" F	T SPLICING. INGS TO AVOID CONF JGH CHASE AS COOF PT AS OTHERWISE NC ROM WALL TO ALLON	LICTS WITH RDINATED WITH DTED. WHERE W FOR CLEANING	AROMA JOE'S	GARFIELD AND SOUTH STREET CALAIS, ME 04619	G
		 CONTRACTO EQUIPMENT AND BE IN A REQUIRED A COMPLETE A ALL 120V, SII PER NEC 210 PROVIDE AL GROUND, 50 	STALL COORDINATE SUPPLIER. CONTRAC CCORDANCE WITH EQU ALL DISCONNECTS, PRO AND PROPER INSTALLA NGLE PHASE, 15A AND 0.8(B)(2). L 120V-250V RECEPTAC DA OR LESS AND ALL RE	E ROUGH IN REQUIRE FOR SHALL MAKE ALL JIPMENT MANUFACTI DVIDE APPROVED CO NTION. 20A RECEPTACLES IN CLES SUPPLIES BY SII ECEPTACLE SUPPLIEI	INENTS AND FINAL COU FINAL CONNECTIONS URER'S RECOMMENDA RD AND PLUG TO EQU N CONCESSION AND KI NGLE-PHASE BRANCH D BY THREE-PHASE BR	INSTALLATION SHAL TIONS. VERIFY AND I IPMENT AS NECESSA TCHEN AREAS TO BE CIRCUIT RATED 150V ANCH CIRCUITS RATE	OR LESS TO ED AT 150V OR LESS	BID & PI	ERMIT SET	F
	A B	10 GROUND PREPARATIO	ROVIDE 120V POV SULATED GROUN RCUIT. REFER TO ROVIDE 120V POV SULATED GROUN RCUIT. REFER TO ROVIDE 120V POV	LED IN KITCHEN OR 7 GFCI PROTETION NEG USER WITH ISOL D AND PROVIE D LOW-VOLTAG VER WITH ISOL ED GROUND AN	AREAS WITH A SINK AN C 210.8(B). ATED GROUND F DE SEPERATE NE E PLANS FOR DA ATED GROUND F ID PROVIDE SEP	ES FOR POS. PROV EUTRAL FOR EA TA REQUIREM FOR DRIVE-THR ERATE NEUTRA	VIDE CH ENTS. RU MONITOR. AL FOR	2024 Revisio # Date	4.08.30 on Schedule Description	E
TER.	C	A LO 3 PR PR NU TO 4 PR EA 5 PR SH TIM	CATIONS. REFER OVIDE 120V POV OVIDER. PROVI JETRAL FOR EAC DEGINNING WO OVIDE 120V POV OVIDE 120V POV OVIDE INSULATE CH CIRCUIT. REI OVIDE RECEPTA IALL BE WITHIN 1 MECLOCK. RE: DI	R TO LOW-VOLT VER WITH ISOL DE INSULATED CH CIRCUIT. VEF RK. VER WITH ISOL ED GROUND AN FER TO LOW-VO ACLE FLUSH IN 18" OF TOP OF V ETAIL.	ATED GROUND F GROUND AND P RIFY EXACT LOC ATED GROUND F ID PROVIDE SEP DLTAGE PLANS F CEILING OR ABC WINDOW. RECEF	FOR INTERNET ROVIDE SEPER ATION WITH OV FOR SECURITY ERATE NEUTRA FOR DATA REQU VE WINDOW. R PTACLES CONTI	EEMENTS. SERVICE ATE VNER PRIOR SYSTEM. AL FOR JIREMENTS. ECEPTACLE ROLLED BY			D
	— — D	6 RC 7 PR PC AC AR CC DR 8 PR MA AC RA AP 9 PR WE	OUTE VIA CONTA OVIDE FLUSH M WER CONNECTI CORDANCE WIT CONDANCE WIT CHITECTURAL D NSTRUCTION, C AWINGS WITH E OVIDE SELF-REC NUFACTURER'S CESSORIES FOR YCHEM SELF RE PROVED EQUAL COVIDE 120V REC EATHERPROOF V	CTOR. RE: DET. OUNTED WEAT ON TO OWNER H APPROVED S DRAWINGS FOR OORDINATE W XACT ROUGH-I GULATING HEA RECOMMENDA RECOMMENDA RECOMPLETE GULATED HEA COMPLETE CEPTACLE IN NE	AIL. HERPROOF JUN FURNISHED EX GIGNAGE SHOP D GENERAL SIGN, ITH OWNER VEN N REQUIREMEN T TAPE INSIDE D ATIONS. INCLUDE AND OPERATION TING CABLE #BT EMA 3R ENCLOS COVER. MOUNT F	CTION BOX AND TERIOR SIGNAG ORAWING. REFE AGE LOCATION DOR TO OBTAII TS. OWNSPOUTS. I E ALL COMPONE ALL SYSTEM. PI V138TV-CR/CT URE WITH RECEPTACLE IN	D MAKE 120V GE IN ER TO . DURING N SHOP INSTALL PER ENTS AND ROVIDE OR	PRC 24	DJECT # 4626	С
	— — (E) — (F)	OF AL 10 CE CC AB 11 PR AC LO SH CL 12 PR RE RF	KIEN FATION ON V L HVAC EQUIPMI EILING CASSETTE DNNECT POWER OVE. OVIDE 120V POV DASTAT SENSO CATION WITH PL IALL BE CONTRC OCK, TORK #110 COVIDE J-BOX, FL FRIGERATOR PO ELIEF SYSTEM TO	VALL. SUPPOR ENT SHALL BE I E SPLIT SYSTEM AND CONTROL VER FROM TIMI R FOR CIRCULA UMBING CONT OLLED BY ELEC 1. USH MOUNTED OWER. PROVIDI O ELEVATION AS	I CONDUIT AND LOCATED WITHIN I FAN/EVAPORA WIRING FROM H ECLOCK THROUG ATION PUMP PON RACTOR PRIOR TRICAL CONTRA D IN CEILING WIT E SO CORD DRO S COORDINATED	RECEPTACLE F N 25' OF A RECE TOR UNIT. EXTE IEAT PUMP UNI GH PLUMBER P WER. COORDIN TO ROUGH-IN. CTOR PROVIDE H 120V POWER P WITH KELLEN WITH EQUIPM	YER NEC. EPTACLE. END AND T ON ROOF ROVIDED JATE EXACT SENSOR ED TIME FOR AS STRAIN ENT	FLOO PC	R PLAN -)WER	В
		PR BC	OVIDER AND TE	RMINATE WITH	NEMA L5-20R FC	DR PENDANT D	ROPOUTLET	SHEET	r number 300	A
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С									NON-METALL	IC BUSHING	
В									CEILING 1" EMT COND WALL 4"SQ. BOX WI FLUSH MUD F	UIT WITH PULLSTRING TH RING	g, typ.
									FLOOR		
A						A6	N.T.S	DAT	ACOM OL	JTLET DE	etail
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Δ12	SCALE	FI OC)R ΡΙ ΔΝ	- I OW V	OI TAGE							
412	1/4" = 1'-0"											
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NOTES	
	OBTAIN AND COORDINATE WITH OWNER'S VENDOR TO OBTAIN SHOP DRAWINGS WITH EXACT ROUGH-IN LOCATIONS AND REQUIREMENTS FOR LOW-VOLTAGE EQU
	REFER TO OWNER'S DESIGN CONSTRUCTION MANUAL EQUIPMENT SCHEDULE FOR EXACT ROUGH-IN REQUIREMENTS.

		LOW VOLTAGE EQUI	PMENT SCHEDULE
ITEM NO.	DESCRIPTION	CABLE	COMMENTS
1715	30" TRAINING STATION	(4) CAT6	
3009	DRIVE THRU MONITOR BUNDLE	(2) CAT6	
3015	POINT OF SALE TERMINAL	(2) CAT6	INCLUDES ITEMS #3005 PRINTER, #3030 PIN PAD
С	SECURITY CAMERA	(1) CAT6	VERIFY LOCATIONS AND CABLE WITH OWNER'S VENDOR DRAW
M-1	SPEAKER	#14 STRANDED, TWISTED	
M-2	SPEAKER	#14 STRANDED, TWISTED	
M-3	SPEAKER	#14 STRANDED, TWISTED	
M-4	SPEAKER	#14 STRANDED, TWISTED	
M-5	SPEAKER	#14 STRANDED, TWISTED	
M-6	SPEAKER	#14 STRANDED, TWISTED	
NOTES.			

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K		00 Main Street , Suite 2200 ansas City, Missouri 64105 6-842-7552 Fax : 816-842-1302 6-842-7552 Fax : 816-842-1302 7-842 Fax : 816-842-1302 7-842 Fax : 816-842-1302 7-842 Fax : 816-842-1302 7-842 Fax : 816-842 Fax : 816-842 7-842 Fax : 816-842 Fax : 816-842 7-842 Fax : 816-842 Fax	K
H	1 PROVIDE FRESH-AR INTAKE NT WITH DUCT FLANGE FOR UNIT. SUIT SYSTE MULLIAGE FOR UNIT. SUIT SYSTE MULLIAGER SUIT SYSTE M	110 Ka Ka Phone : 816 Property of Property of Property of Property of Property of Property of Property	H
G	C PROUE FAW WITH SANDARD DAYS OWNER OWNER C PROUE FAW WITH SANDARD DAYS OWNER OWNER C PROUE WARKING INSCALTION RUT. C PROUE WARKING INSCALTION RUT. C PROUE WARKING IS PERFECTION. CONTRACTOR. C PROUE FAW WITH STANDARD DISCOUNCES INTEGL C PRO	AROMA JOE'S GARFIELD AND SOUTH STREET SOUTH STREET CALAIS, ME 04619	G
F	DESIGNATION PEOPLE CFM/PERSON AREA (AZ) CFM/AREA (RA) OA CFM REQUIRED VOT=VB2/EZ TOTAL OA CFM REQUIRED VOT=VB2/EZ FC 1 3 7.5 215 SF 0.12 48 0.8 60 FC 3 7.5 215 SF 0.12 48 0.8 60 NOTES 3 7.5 215 SF 0.12 48 0.8 60 1< EZ - 08 FOR CELING SUPPLY AND FLORG RETURNOR	BID & PERMIT SET 2024.08.30	F
D	H AR BALANCE SCHEDULE EDUIMPAT SUPMY VAR RELUNC 2N OUTDOOR AR EXHINIST AR PRESSURE F2-2 1030 120 00 - +16 F2-2 1030 120 00 - +16 F2-2 1030 120 00 - +16 F2-3 1020 100 - +16 F2-4 1020 100 - 100 F2-1 100 - 100 - 100 F2-1 100 - 100 - 100 - TOTALS 3060 300 100 +30 - - - NOT HASE COCENEDX FRANCE FRANCE FRANCE FRANCE FRANCE - NOT HASE COCENEDX 100 - - 100 - - - BAR CORELINE - 100 - - - - - - - - - - - - - - - - - <	Revision Schedule Date Description Image: Schedule Image: Schedule Image: Schedule Ima	D
С	STRUCTURE	PROJECT # 24626	C
В	BACK DRAFT DAMPER FOR FLASHING DETALL ROOF LINE CELLING CABINET FAN WITH GRILLE PROVIDED	SYMBOLS & SCHEDULES	B
A	A Image: Normal Nor	SHEET NUMBER	A

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						PLUMBING EQUI	PMENT SCHEDUL	E				
ĸ	ITEM #	DESCRIPTION	PLUM CW H	IBING W FW	WASTE DW IW	_		REMAF	RKS			
	1306 1308	STAINLESS STEEL ICE BIN ICE MACHINE		1/2"	3/4" 3/4"	PROVIDE INDIRECT D PROVIDE INDIRECT D	RAIN PIPING TO CLOSE RAIN PIPING TO CLOSE	ST FLOOR SINK AND ST FLOOR SINK AND	TERMINATE WITH APPR TERMINATE WITH APPR	OVED AIR GAP. OVED AIR GAP.		
	1351 1500	DROP-IN ICE BIN TRIPLE SINK, 2 24" DRAINE	BOARDS	0"	3/4"	PROVIDE INDIRECT D PROVIDE INDIRECT D	RAIN PIPING TO CLOSE RAIN PIPING TO CLOSE	ST FLOOR SINK AND ST FLOOR SINK AND	TERMINATE WITH APPR TERMINATE WITH APPR	OVED AIR GAP. OVED AIR GAP.		
	1502 1552 1554	DROP-IN SINK FAUCET	1/2 1/	2"	3"							
	1555 1556	SERVICE FAUCET FOR MC WALL MOUNTED HAND SIN	DP SINK 1/2" 1/ NK 1/2" 1/	2"	2"	PROVIDE PIPE WRAP	ON ALL EXPOSED PIPI	NG. PROVIDE WATTS S	SERIES LFMMV-1 THERI	MOSTATIC MIXING VAI	VE SET TO 110°F.	
J	1557 1558	DROP-IN SINK W/O FAUCE DROP-IN SINK W/O FAUCE	T T		2" 2"							
	2023	H3X, ELEMENT 120V	AT BREWER	1/2"	1/2"	PROVIDE INDIRECT D PROVIDE INDIRECT D PROVIDE INDIRECT D	RAIN PIPING TO CLOSE RAIN PIPING TO CLOSE RAIN PIPING TO CLOSE	EST FLOOR SINK AND EST FLOOR SINK AND EST FLOOR SINK AND	TERMINATE WITH APPR TERMINATE WITH APPR TERMINATE WITH APPR	OVED AIR GAP. OVED AIR GAP. OVED AIR GAP.		
	2029 2081	ITCB-DV; 29" W/ TRAY BIG MAC CARBONATOR		1/2"	3/4"	PROVIDE INDIRECT D	RAIN PIPING TO CLOSE	EST FLOOR SINK AND	TERMINATE WITH APPR	OVED AIR GAP.		3
	2088 2090	UNICORN TOWER, PC, THI CHEST 2123, 421, 100# DR	RU CNTR OP-IN	1/2"	1/2" 1/2"	PROVIDE INDIRECT D PROVIDE INDIRECT D	RAIN PIPING TO CLOSE RAIN PIPING TO CLOSE	ST FLOOR SINK AND	TERMINATE WITH APPR TERMINATE WITH APPR	OVED AIR GAP. OVED AIR GAP.		2
	2098	ESPRESSO MACHINE		1/2"	1/2"		RAIN PIPING TO CLOSE	est floor sink and "	TERMINATE WITH APPR	OVED AIR GAP.		
	MARK		MBING FIXTURE U	NIT SC		V REMARKS						-38
	WC-1 LAV-1	WATER CLOSET LAVATORY - ADA COMPL	1/2" IANT 1/2" 1	/2"	4" 2" 1	2"						
	FCO HB-1	FLOOR CLEAN-OUT HOSE BIBB	1/2"		4"	4/01						
	FD-1 FD-2 FS-1	2" FLOOR DRAIN 3" FLOOR DRAIN 2" FLOOR SINK			2" 1 3" 1 2" 1	1/2" 1/2" 1/2"						
	FS-2 NOTE:	3" FLOOR SINK			3" 1	1/2"						
H	FIXTURE SUBMITT	S MAY BE SUBSTITUTED B ED FOR APPROVAL.	Y AN EQUIVALENT FIX	fure. Al	L SUBSTITUT	IONS SHALL BE						
		WATER H	EATER SCHEDUL	<u> </u>								
	TAG	HEAT SIZE GAL. TYPE	TING KW VOLTS	ELECTR	RICAL Hz	_						
	WH-1 ACCESS	40 ELEC	4.5 240	1	60							
	1. N	ISF INSTALLATION KIT										
G	EX				RCEPTOR		E					
						PEAK FLOW						G11
	1500	3 COMPARTMENT S	INK			1 22.9 1 96)					
	1558 FD-1	DUMP SINK FAUCET	-			1 2.2 2 0						
E	FS-1 FS-2	2" FLOOR SINK 3" FLOOR SINK				1 0 1 0						
	GREASE	AK FLOWRATE	SED ON 2021 UNIFORM	PLUMBI	NG CODE SEC	34.7 CTION 1014.2 TABLE						
	• [OTAL FLOW RATE IS 34.7 DIAMETER OF GREASE WA	GPM STE PIPE IS 4"									
	THEREF GPM FOI SUFFICIE	ORE HYDROMECHANICAL R A ONE MINUTE DRAINAG ENT.	GREASE INTERCEPTO E PERIOD OR 75 GPM	r with t For a tv	OTAL FLOW-1	FHROUGH RATING OF T RAINAGE PERIOD IS	150					
	• 1	TION 1014.2.1 'CAPACITY': 'HE CAPACITY OF THE HYI ND ONE-HALF TIMES THE	DROMECHANICAL GRE	ASE INTE CCORDA	RCEPTOR SH	IALL NOT EXCEED TWO BLE 1014.2.1.	D					
E	THEREF	ORE THE CAPACITY SHALL	NOT EXCEED 375 GAL	LONS/18	7.5 GALLONS							
		WATER SERVICE F	IXTURE UNIT CAL	CULAT	ION		VASTE SERVICE F	IXTURE UNIT CA	LCULATION			
	FIXTURE			/ w		AL FIXTURE				_		
D	1308 1500	ICE MACHINE TRIPLE SINK, 2 24" DRAIN	IBOARDS 1			1554 1556	MOP SINK WALL MOUNTED HAN	1 D SINK 1	3 3 1 1	-		
	1554 1556	MOP SINK WALL MOUNTED HAND S	1 INK 1		3 3 1 1	1557 FD-1	DROP-IN SINK W/O FA 2" FLOOR DRAIN	UCET 1 3	1 1 0	_		
	1557 1558 1560	DROP-IN SINK W/O FAUC DROP-IN SINK W/O FAUC SIDE SERAY BINSER 24"	ET 1 ET 1 X 7" X 7/9" 2			FD-2 FS-1	3" FLOOR DRAIN 2" FLOOR SINK	1	3 3	_		
	2023	H3X, ELEMENT 120V	AT BREWER 2		1 2 1 1 1.5 3	LAV-1	LAVATORY - ADA CON WATER CLOSET	IPLIANT 1 1	1 1 4 4	-		
	2029 2081	ITCB-DV; 29" W/ TRAY BIG MAC CARBONATOR	1		1 1 1 2	TOTAL FIX	TURE UNITS		20			
С	2088 2098	UNICORN TOWER, PC, TH ESPRESSO MACHINE	IRU CNTR 2		1 2 2 2							
	LAV-1 WC-1	LAVATORY - ADA COMPL	IANT 1		2.5 2.5 1 1 2.5 2.5							
	TOTAL WS				29							
	SHOWN THOUGH	SS AND SPECIFICATIONS A DN DRAWINGS, OR SHOWI MENTIONED IN BOTH SPE	ARE TO BE CONSIDERE N ON DRAWINGS BUT 1 CIFICATIONS AND DRA	d as su Not spe(.wings.	PPLEMENTING CIFIED, SHALL IF NOT OTHEF	G EACH OTHER. WORK BE PERFORMED OR F WISE DIRECTED, INST	URNISHED BUT NOT URNISHED AS ALLATION OF ALL					
	SYSTEMS MANUFA WITH THI	S AND EQUIPMENT SHALL CTURER'S INSTALLATION E WORK SHOWN ON THE E	BE IN ACCORDANCE W INSTRUCTIONS. WHER DRAWINGS. THE CONTI	'ITH APPI E WORK RACTOR	LICABLE COD DESCRIBED I SHALL SUPPL	ES AND IN ACCORDAN IN THE SPECIFICATION LY THE GREATER QUAI	CE WITH S IS IN CONFLICT NTITY, QUALITY AND					
B	COST VIA	THE BID AND CONTACT T	HE ENGINEER FOR CL	ARIFICAT	ION ON DIRE	CTION PRIOR TO INSTA	ALLATION.					
	GENER	RAL NOTE REGARDIN	NG KITCHEN EQU	IPMEN	T AND FOO	DD SERVICE EQU	IPMENT:					
		ICAL, ELECTRICAL, AND PI		N INDICA אדורטע פי		TS THE MOST CURREN				N DURING DESIGN.		
	CONTRA	CTOR AND ELECTRICAL, AN ENT PROVIDED BY OWNER	ONTRACTOR. EACH CO	NTRACT D BY THE	OR SHALL VE	RIFY FINAL BTUH, KWI RIFY FINAL BTUH, KWI R.	H, GPM, AMPS, PHASE,	VOLTS, ETC. TYPE R/	ATINGS OF KITCHEN E	QUIPMENT AND FOOL) SERVICE	
Δ	CONTRA (NEMA T	CTOR SHALL PROVIDE, INS YPE), PIPING, CONNECTIO	STALL, COORDINATE IN NS, VALVES, AND APPL	i field, <i>f</i> Jrtenan	AND ADJUST 1 ICES AS REQI	THE BUILDING UTILITY JIRED FOR COMPLETE	RATINGS AND SIZES A AND OPERATIONAL S	S NECESSARY FOR : (YSTEMS. PROVIDE CO	CIRCUIT BREAKERS, CO DORDINATION TIME, M/	ONDUCTORS, CONDU ATERIAL COST, AND L	IIT, RECEPTICALS ABOR COST IN	
	BASE BIE). CTOR SHALL AS PART OF	HIS BASE BID. PROVIN	E A COM	PLETE SET OF	FINAL RECORD DRAV	VINGS (IN CADD FORM	AT) OF ACTUAL INSTA	LLED FIELD ITEMS FOR	r Mechanical, pi lin	ibing, and	
	ELECTRI	CAL SYSTEMS.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				(, . <u>.</u>			,	A11
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	SECTION 01 1100 SUMMARY OF WORK	SECTION 01 7700 CLOSEOUT PROCEDURES	 5.02 FLASHINGS A. Build in, as the work progresses all flashings which enter the masonry panels using material compatible with manufacturer's 	2.01 ACCESSORIES A. Anchor Bolts: ASTM F1554.	SECTION 06 1700 EXTERIOR SYNTHETIC TRIM	
	PART 1 GENERAL	PART 1 GENERAL	recommendations. Extend all flexible flashing 1" past face of wall and trim. Where metal flashing or drip edge is shown, align drip with face of panel. Edge of flashing or drip edge shall be a simple hem rolled edge and not turned down.	 B. Fasteners: 1. Type and size: As required by conditions of use. 	PART 1 GENERAL	
ĸ	1.01 SUMMARY A. Section Includes: 1 Project decomption	 1.01 SUMMARY A. Section Includes administrative and procedure requirements for contract closeout, including but not limited to the following: 	3.03 OPENINGS AND HOLES	2. Other interior locations: Galvanized. C. Metal Connectors; Joist Hangers. Galvanized steel ASTM A653/A653M coating class	1. SECTION INCLUDES	
	 Project description. Work by Others. Work sequence. 	2. Warranties. 3. Final Cleaning.	Such work shall be accurately located by the contractor requiring the work, but masonry panel work shall not be constructed without giving other contractors due notices and opportunity to lay out or install such items as may be required for their work.	 2. Size and shape: To suit framing conditions. D. Sill Gasket: 1/4-inch thick, plate width, closed cell polyethylene or urethane foam from continuous rolls. 	1. RELATED REQUIREMENTS	
	4. Contractor's use of site and premises.	1.02 SUBSTANTIAL COMPLETION	 B. Where required for installation of work of other contractors, leave openings as required to receive a later installation. C. After the work of other contractors is in place, openings shall be neatly filled with matching masonry panel of the same type as in the 	E. Termite Shield: Galvanized sheet steel, minimum 26 gage.	A. Section 09 91 00 – Painting: Painting exterior synthetic trim.	
	 PROJECT DESCRIPTION A. The work of this Project is described as the construction of a ground up free standing drive through specialty coffee shop 	A. Preliminary Procedures: Before requesting inspection for determining data of Substantial Completion, complete the following. List items that are incomplete.	adjoining surfaces.	2.02 FABRICATION	 REFERENCE STANDARDS ASTM D 570 – Standard Test Method for Water Absorption of Plastics. 	
	B. Work includes site construction shown on Civil Engineering drawings and general construction, HVAC, plumbing, and electrical as shown on TK Architects drawings.	 Prepare a list of items to be completed and corrected (punch list), the value of the items on the list and reasons why the work is not complete. Advise Owner of pending insurance changeover requirements in writing 	 3.04 SETTING AND BUILDING-IN A. Build-in materials occurring in the construction that are furnished by other contractors. All built-in work shall be accurately placed, secured, held in position, and located by the contractor requiring the work. 	A. Preservative Treatment: 1. Treat lumber and sheet products in accordance with AWPA U1: a Interior locations protected from moisture sources: Category LIC1 - Interior/Dry	 B. ASTM D 1761 – Standard Test Methods for Mechanical Fasteners in Wood. C. ASTM D 6341 – Standard Test Method for Determination of the Linear Coefficient of Thermal Expansion of Plastic Lumber and Plastic Lumber an	
	1.03 WORK BY OTHERS – SEE MATRIX OF RESPONSIBILITY SHEET A Contract:	 Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and summary of documents. 	B. Build-in recesses, flashings, receivers, slots, anchors, sleeves, and other work as required.	 a. Interior locations protected non-mostle sources of datgory 001- interior/Damp. b. Interior locations subject to sources of moisture: Category UC2 - Interior/Damp. c. Exterior locations above ground: Category UC3A - Above Ground/Protected 	Lumber and Plastic Lumber Snapes Between -30 and 140 F (-34.4 and 60 C).	
J	 The Owner may execute contracts for additional work at the site, that is excluded from the work of this Contract. Work under separate contract will be executed concurrent with the Work of this Contract. 	 Obtain and submit releases permitting Owner unrestricted use of the work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases. 	 3.05 PROTECTION A. At the end of each day's work, cover the tops of panels to keep water out of the wall. 	 d. Exterior locations in contact with ground: Category UC4A - Ground Contact/General Use. 2. Treatment process: Type MCA - Micronized Copper Azole. 	 A. Storage and Handling Requirements: 1. Store and handle materials in accordance with manufacturer's instructions. 	TTEC 1302 -1
	3. Cooperate with the Owner and separate contractors to accommodate this requirement.	 Prepare and submit Projects Record Documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlements, property surveys, and similar final record information. 	3.06 CLEANING BRICKWORK	PART 3 EXECUTION	 Keep materials in protective covering until installation. Store materials in clean, dry area. 	CHI 55 55 55 55 55 55 75 710N 711 711 7110N
	1.04 WORK OF SEQUENCE A. Coordinate construction schedule and operations with the Owner and franchisor.	 Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions. Label all keys. 	 A. After the pointing/ sealant is done and the wall is dry, clean face brick panel. B. After 3 days clean with water and mild detergent or cleaners recommended by brick manufacturer. Do not use muriatic acid. 	3.01 INSTALLATION	 Store exterior synthetic trim on flat, level surface. Keep exterior synthetic trim covered and free of dirt and debris. 	AR AR 220 6410 6410 6410 6410 S REM S REM
	B. Schedule with the Owner and separate contractors to accommodate this requirement.	 Complete startup testing of systems. Submit test/adjust/balance records. Terminate and remove temporary facilities from Project site along with construction tools, and similar elements. 	1. Protect windows, landscaping, and surrounding surfaces from cleaning solution and rinse with water.	 A. Set members level, plumb, and rigid. B. Make provisions for erection loads, and for temporary bracing to maintain structure safe, plumb, and in true alignment until completion of erection and installation of permanent bracing. 	6. Protect materials and finish during storage, handling, and installation to prevent damage	ISH, Suit Souri So
	A. Limit use of site and premises to allow for: Work by separate contractors	 Advise Owner of changeover in heat and other utilities. Complete and Submit Owner's Utility Transfer sheet. Submit changeover information related to Owner's occupancy, use, operation, and maintenance. 	END OF SECTION	C. Place beams, joists, trusses, and rafters with crown edge up. D. Construct load bearing framing members full length without splices.	2.1 MANUFACTURER	Street L Street L Street L Sign F Sign F Sig
	 Work by Owner B. Move any stored products under the Contractor's control that interfere with the operations of the Owner. 	 Complete final cleaning requirements, including touchup paint. Touch up otherwise repair and restore marred exposed finishes to eliminate visual defects. 	SECTION 06 1000	E. Sills: 1. Place full width continuous sill flashings under framed walls on cementitious foundations. Lap flashing joint 4 inches.	A. Boral Composites Inc., 200 Mansell Court East, Suite 305, Roswell, Georgia 30076. Toll Free 888-926-7259. HYPERLINK "http://www.BoralTruExterior.com/"www.BoralTruExterior.com. HYPERLINK	1. EN Main (42-75 SS & SPEC BE UTI 8 NOTHE 0THE
	 C. Assume full responsibility for protection and safekeeping of products under this Contract stored on site D. Obtain and pay for use of any additional storage or work areas needed for operations. 	1.03 FINAL COMPLETION		 Place sill gasket directly on sill flashing. Fit tight to protruding foundation anchor bolts. F. Roof Sheathing: 	"mailto:info@TruExterior.com"info@TruExterior.com.	A N 1100 1 1100 1 100 1 100 1 100 1 100 1 100 1 100 100
	 E. Confine operations to construction areas unless otherwise approved by Owner. F. If access to adjacent common or occupied spaces is required: 	A. Preliminary Procedures: Before requesting final inspection, complete the following: 1. Submit final Application for Payment.	A Section Includes:	 Place panels perpendicular to framing members with ends staggered and sheet ends over firm bearing. If tongue-and-groove panels are not used, install sheathing clips between adjacent sheets between roof framing members. 	2.2 EXTERIOR SYNTHETIC TRIM A. Exterior Synthetic (Poly-ash) Trim: Boral TruExterior® Trim.	REDRAWI DOCCL
	 Schedule with Owner in advance. Perform work after normal business hours or on weekends when directed by the Owner. Do not close or obstruct exits 	 Instruct Owner's personner in operation, adjustment, and maintenance of products, equipment, and systems. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, the Owner will either proceed with 	1. Wood blocking and furring. 2. Backing.	 Leave 1/o-incl expansion space at parter ends and euges. Secure to supports with screws spaced maximum 6 inches on center along edges and maximum 12 inches on center in field of panels. 	B. Composition: 1. Post-Industrial Recycled Content: Minimum 70 percent, by weight. 2. Post Consumer Recycled Content: Minimum 2 percent, by weight.	THI Pho Prop For For VERE
	 Bo not use or store hazardous or flammable materials on premises without the Owner's approval; follow requirements of governing authorities having jurisdiction over the work. 	inspection or notify Contractor of unfilled requirements.	3. Roof curbs.	G. Wall Sheathing: 1. Zip System R sheathing.	2. Post-consumer Recycled Content: Minimum 2 percent, by weight 3. Pigments and dyes. C Thermal Properties:	
	I. Prohibit smoking withing interiors.	 1.04 LIST OF INCOMPLETE ITEMS (PUNCH LIST) A. Organization of List: Include name and identification of each area of affected construction for incomplete items and items needing 	1.02 REFERENCES A. American Wood Protection Association (AWPA) ():	3.02 TOLERANCES	 Coefficient of Linear Expansion, ASTM D 6341, Typical: 1.40E-05 in/in/degree F, tested at minus 30 to 140 degrees F. 	
	PART 1 PRODUCTS Not used	correction including. 1. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors,	 M4 - Standard for the Care of Preservative Treated Wood Products. U1 - Use Category System - User Specification for Treated Wood. 	A. Framing Members: 1/4 inch from true position, maximum.	 Flame Spread, ASTM E 84: Between 25 and 29 Smoke Developed, ASTM E 84: Less than 450. 	
H	PART 2 EXECUTION	equipment, and building systems. 2. Organize list of space in sequential order, starting with exterior areas first.	A Standard ASTM) (). A 153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. Southern Pine Inspection Bureau (SPIB) () - Standard Grading Rules for Southern Pine Lumber		D. Trim Sizes: 1. Exposed Texture: Woodgrain.	
		a. PDF electronic file.	1.03 DELIVERY, STORAGE AND HANDLING	INSULATING SHEATHING (ZIP SYSTEM R SHEATHING)	2.3 FINISHES	Aroma Joes
	SECTION 01 3100	1.05 WARRANTIES A. Submittal Time: Submit written warranties for designated portions of the work.	A. Store materials minimum 6 inches above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation.	PART 1 - GENERAL 1.01 SUMMARY	1. Acrylic based. 2. Low VOC.	
	MANAGEMENT AND COORDINATION	 B. Organize warranty documents into an orderly sequence. 1. Bind warranties in a heavy-duty, 3ring, vinyl-covered, loose-leaf binder. 	B. Do not store seasoned or treated materials in a damp location.C. Protect edges and corners of sheet materials from damage.	A. Section includes insulating wall sheathing with integral water-resistive barrier and air barrier.	3. Factory applied on all sides.	
	PART 1 GENERAL 1.01 LAYOUT PROCEDURES	2. Scan warranties and assemble complete a package into a single electronic PDF file.	PART 2 PRODUCTS	1.02 REFERENCES A. American Society of Mechanical Engineers (ASME): www.asme.org	PART 3 EXECUTION	
	A. General: Establish markers to set lines and levels for work as needed to properly locate each element of the project. Calculate and measure required dimensions as shown within recognized tolerances. Drawings shall not be scaled to determine dimensions. Advise	PART 2 PRODUCTS	A. Lumber: 1 Grading rules: WWPA	ASME B18.6.1 - Wood Screws (Inch Series) ASTM International (ASTM): www.astm.org	 3.1 INSTALLATION A. Install exterior synthetic trim in accordance with manufacturer's instructions at locations indicated on the Drawings. Department of the synthetic trim in accordance with manufacturer's instructions at locations indicated on the Drawings. 	O R A O
G	entities performing work of marked lines and levels provided for their use. B. Procedures: Before proceeding with the layout of actual work, verify the layout information shown on the Drawings. As work	 A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer of the surface to be cleaned. Do not use cleaning agents that are potentially bazardous to health or property or that might damage finished surfaces. 	 Exterior members in contact with masonry, concrete, roofing: No. 2 Douglas Fir. Grounds, Nailers, and blocking: Stud grade Douglas Fir or better. 	 ASTM A153/A153M - Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware ASTM C1289 - Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board ASTM D2247 - Dracting for Tacting Water Resistance of Castings in 100% Relative Humidity 	 B. Do not install exterior synthetic trim in structural or load-bearing applications. C. Install exterior synthetic trim plumb, level, and square. 	I · · · · · · · · · · · · · · · · · · ·
	1 02 PROJECT COORDINATION	PART 3 EXECUTION	 Surfacing: Surfaced four sides (S4S) unless otherwise indicated. Maximum moisture content: 19 percent. 	Curtain Walls by Uniform Static Air Pressure Difference ASTM F2357 - Test Method for Determining Air Leakage of Air Barrier Assemblies	E. Install Fasteners: 1. Maximum of 24 inches at the center.	
	 A. Submit required project submittals electronically in PDF format. B. Coordinate scheduling and work of various Sections of specifications to assure efficient and orderly sequence of installation of 	 FINAL CLEANING General: Perform final cleaning. Conduct cleaning and waste -removal operations to comply with local laws and ordinances and 	B. Sheet Products: 1. Type: APA Plywood.	5. ASTM F1667 - Specification for Driven Fasteners: Nails, Spikes, and Staples	 Within 2 inches of the end of boards. Fill nail and screw holes with acrylic caulk, wood filler, or auto body filler. 	
	interdependent construction elements. C. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various	Federal and local environmental and antipollution regulations. B. Cleaning:	 Panel grade: APA Rated Sheathing. Exposure: Exterior applications: Exterior 	1.03 CLOSEOUT SUBMITTALS A. Warranty: Executed copy of manufacturer special warranties.	G. Painting:1. Apply topcoat to exterior synthetic trim over factory-applied primer.	
	subcontractors having interdependent responsibilities for installing, connecting to, and placing such equipment in service. D. Coordinate space requirements and installation of mechanical and electrical items that are indicated diagrammatically on Drawings.	 Complete the following cleaning operations : a. Clean project site yard, and grounds in areas disturbed by construction activities including landscape development areas, of rubbich worte material litter, and other foreign substances. 	b. Interior applications: Exposure 1.	1.04 QUALITY ASSURANCE		F S S A
	 Follow routing shown as closely as practical; place runs parallel with building lines. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs. 	 b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits. c. Rake grounds that are neither planted nor paved to a smooth even-textured surface. 	2.02 ACCESSORIES A. Fasteners:	A. Manufacturer Qualifications: Provide wood products from manufacturer certified by SFI, FSC, or comparable sustainable forestry program acceptable to Architect.	3.02 INSTALLATION A. Install in accordance with AWI/AWMAC/WI Architectural Woodwork Standards.	
F	E. In finished areas, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements. Coordinate completion and clean-up of work of separate subcontracts in preparation for Substantial Completion	 Remove tools construction equipment machinery and surplus material from Project site. Remove snow and ice to provide safe access to the building. 	 Type and size: As required by conditions of use. Other interior locations: Plain steel. 	 Provide wail sheathing products meeting requirements of Valer-resistive barrier in accordance with ICC-ES ACSTO. Provide wall sheathing products meeting requirements of ICC-ES AC269. DELIVERY STORAGE AND HANDLING 	C. Scribe to adjacent construction with maximum 1/8-inch gaps. D. Adhere countertops, splashes, and skirts with beads of adhesive.	F
	 G. After Owner occupancy, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents to minimize disruption of Owner's activities. 	f. Clean exposed exterior and interior hard surfaces finished to a dirt-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition.	2.03 FABRICATION	A. Comply with manufacturer's written instructions for protection of sheathing products from weather prior to installation.	 Fill joints between cabinets tops, splashes and adjacent construction with joint sealer as specified in Section 07 9200, finish flush. 	BID & PERMIT SET
	1.03 REQUESTS FOR INFORMATION (RFIs)	g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.	A. Preservative Treatment: 1. Treat lumber and sheet products in accordance with AWPA U1: . Interior leasting protected from mainture sources: October UC1 Interior/Druke	PART 2 - PRODUCTS 2.01 MANUFACTURERS	END OF SECTION	
	 A. Forward all requests for information to Aroma Joe's, the Franchisee and the Architect via email in PDF format. B. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor 	 Sweep concrete floors broom clean in unoccupied spaces. Clean transparent materials, including mirrors and glass doors, and windows. Remove glazing compounds and other poticeable, vision obscuring materials. Replace chinned or broken glass and other damaged transparent materials. Replace chinned or broken glass and other damaged transparent materials. Replace chinned or broken glass and other damaged transparent materials. 	 a. Interior locations protected from hoisture sources, Category UC1 - Interior/Day. b. Interior locations subject to sources of moisture: Category UC2 - Interior/Damp. c. Exterior locations above ground: Category UC3A - Above Ground/Protected 	A. Basis-of-Design Product: Provide Zip System R Sheathing products manufactured by Huber Engineered Woods LLC, Charlotte NC; Phone: (800) 933-9220; Website: <u>www.zipsystem.com</u> .	SECTION 06 1753	┥ ┣──
	shall prepare and submit an RFI. 1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor other than the contractor, with no	and glass, taking care not to scratch surfaces.	 d. Exterior locations in contact with ground: Category UC4A - Ground Contact/General Use. 2. Treatment process: Type MCA - Micronized Copper Azole. 	2.02 PERFORMANCE REQUIREMENTS	SHOP FABRICATED WOOD TRUSSES	-
	 Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors. Content of the REI: Include a detailed legible description of item preding information or interpretation and the following: 	m. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and other foreign substances.	PART 3 EXECUTION	 Alf-Barrier Assembly Air Leakage: Less than 0.04 cm/sq. it. at 1.57 lb/sq. it. (0.2 L/s x sq. m at 75 Pa), per ASTM E2375. B. Water-Vapor Permeance, Facer: Minimum 12 perms (689 ng/Pa x s x sq. m), ASTM E96/E96M. Weather Exposure: Manufacturer warranty applies for maximum allowable exposure period of 180 days. 	PART 1 GENERAL 1.01 SUMMARY	2024.08.30
E	 Project name. Project number. 	 Replace parts subject to operating conditions during construction that may impede operation or reduce longevity. Clean plumbing fixtures, to a sanitary condition, free stains, including stains resulting from water exposure. 	 3.01 INSTALLATION A. Provide blocking, Nailers, grounds, furring, and other similar items required to receive and support work. 	2.03 MATERIALS	A. Section Includes: 1. Shop fabricated wood trusses for roof framing, doghouse Devide and bracing	E
	 Date. Name of Contractor. 	 Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffuser, registers, and grills. Clean light fixtures, lamps, globes, and reflectors to function will full efficiency. Replace burned out bulbs, and those patience burned from hours of use. 	 B. Set members level, plumb, and rigid. C. Curb roof openings except where prefabricated curbs are provided. Form corners by alternating lapping side members. D. Install telephone and electrical page backboards and other backing page where indicated. Oversize page by 12 inches on all 	 A. Oriented Strand Board: DOC PS 2, made with binder containing no added urea formaldehyde. B. Rigid Foam Plastic Insulating Board: Rigid polyisocyanurate foam core complying with ASTM C1289 Type II, Class 2, and ICC-ES 	3. Framing for openings. B Related Sections:	Revision Schedule
	 Name of Architect. RFI number, numbered sequentially. 	r. Leave Project clean and ready for occupancy. C. General Contractor to remove trash including boxes and other shipping material with the fixtures and equipment installed by the	sides. E. Treat field cuts and holes in members providing structural support in accordance with AWPA M4.	AC12, with coated glass fiber facers on both sides, with the following characteristics: 1. Nominal Density: 2.0 pcf (32 kg/cu. m).	1. Section 06 1100 - Framing and Sheathing.	# Date Description
	 RFI Subject. Drawing number and detail references, as appropriate. Field dimensions and conditions, as appropriate. 	Owner, from the building and grounds. D. Remove all protective covers that remained in place during construction.	END OF SECTION	 Compressive Strength, ASTM D1621: Not less than 20 psi (150 kPa). Vapor Permeance, ASTM E96/E96M: Less than 1.0 perm. Edge Configuration: Square finished 	1.02 REFERENCES A. ASTM International (ASTM) () A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-	
	 Attachments: Include sketches, descriptions, measurements, photos, Product Data, coordination drawings, and other information necessary to fully describe items needing interpretation. 	END OF SECTION	SECTION 06 1100	2.04 COMPOSITE INSULATING WALL SHEATHING	Coated (Galvannealed) by the Hot-Dip Process. B. Engineered Wood Association (APA) () PRP-108 - Performance Standards and Qualification Policy for Structural-Use Panels.	
	 D. RFI Forms: Software-generated form with substantially the same content as indicated above , acceptable to Architect E. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review 	SECTION 04 2100	FRAMING AND SHEATHING	A. Composite Insulating Wall Sheathing: Oriented-strand-board Exposure 1 sheathing 7/16 inch thick, with factory-laminated water- resistive barrier exterior facer, and with rigid foam plastic insulating board laminated to interior face.	 D. Truss Plate Institute (TPI) () - Design Specifications for Metal Plate Connected Wood Trusses. 	
D	response and notify Architect within seven (7) days if Contractor disagrees with response.		PARI 1 GENERAL - 1.01 SUMMARY Δ Section Includes:	 Basis-of-Design Product: Provide Huber Engineered Woods LLC; ZIP System R Sheathing. Span Rating and Performance Category of Sheathing Layer: Not less than 24/16; 7/16 Performance Category. 	1.03 SUBMITTALS A. Submittals for Review:	
	 GENERAL INSTALL FOR PROVISIONS A. Installer's Inspection of Conditions: Require the Installer of each major unit of work to inspect the substrate to receive the work and conditions under the work to be performed. The Installer shall report all unsatisfactory conditions to the Contractor. Do not proceed with work 	1.01 RELATED DOCUMENTS A Drawings and general provisions of the Contract apply to work of this section	1. Roof and wall framing. 2. Roof sheathing.	 I NICKNESS: 2' OVERAIL Thermal Resistivity (R Value): R9 c.i. Edge Profile: Square edge 	1. Shop Drawings: Indicate framing system, sizes and spacing of trusses, loads, bearing and anchorage details, bridging and bracing, extensions, and framed openings.	
	until the unsatisfactory conditions have been corrected in a manner acceptable to the Installer B. Manufacturer's Instructions: Where installations include manufactured products, comply with the manufacturer's applicable	1.02 WORK INCLUDED	 Telephone and electrical panel backboards. B. Related Sections: 	 Exterior Facer: Medium-density, phenolic-impregnated polymer-modified sheet material meeting requirements for ASTM D779 Grade D weather-resistive barrier in accordance with ICC AC38 and AC310, with fastener spacing symbols on exterior facer 	1.04 QUALITY ASSURANCE	
	instructions and recommendations for installation to the extent that these instructions and recommendations are more explicit or more stringent than requirements indicated in the contract documents.	A. Brick panels and corners.B. Accessories	1. Division 06 1613: Zip system R sheathing	for 16-inch and 24-inch on center spacing, with the following characteristics a. Water Resistance of Coatings, ASTM D2247: Pass 14-day exposure test.	 Pablicator Qualifications, Minimum 5 years expendence in work of this Section. B. Trusses: Design in accordance with TPI requirements. Identify lumber and panel products by official grade mark 	
	 Inspect each item of materials of equipment immediately prior to installation. Reject damaged and defective items. Provide attachment and connection devices and methods of securing work. Secure work true to line and level and within 	C. Flashing D. Sealant and adhesives	A. American Wood Protection Association (AWPA) (): Ma - Standard for the Care of Preservative Treated Wood Products	 b. Moisture Vapor Transmission, ASTM E96: Not less than 12 perms. c. Water Penetration, ASTM E331: Pass at 2.86 lbf/sq. ft 	 D. Design Requirements: Design trusses under supervision of Professional Structural Engineer with experience in work of this Section, licensed in State in which project is located. 	
	exposed work to obtain the best visual effect.		 U1 - Use Category System - User Specification for Treated Wood. ASTM International (ASTM) (): 	 Wind Driven Rain, TAS-100: Pass. Accelerated Weathering, ASTM G154: Pass. 	1.05 DELIVERY, STORAGE AND HANDLING	
	 F. Install each unit of work to ensure the best possible results in coordination with the entire work. G. Isolate each unit of work from incompatible work as necessary to prevent deterioration. Coordinate enclosure of the work with 	A. Section 076200 – Flashing and Sheet Metal	 A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvaniealed) 	2.05 FASTENERS A Easteners General: Size and type complying with manufacturer's written instructions for Project conditions zip panel thickness	A. Transport and store trusses in upright position resting on bearing ends.B. Protect from moisture, warpage, and distortion.	
	required inspections and tests so as to minimize the necessity of uncovering the work for that purpose. H. Mounting Heights: Where mounting heights are not indicated, mount individual units of work at industry recognized heights for the	PART 2 – PRODUCTS 2.01 ACCEPTABLE BRICK MANUFACTURERS	by the Hot-Dip Process. 3. F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55 and 105 KSI Yield Strength.	and requirements of authorities having jurisdiction. 1. Corrosion Resistance: Hot-dip zinc coating, ASTM A153/A 153M	PART 2 PRODUCTS	PROJECT #
	particular application indicated. Refer questionable mounting height choices to the Architect for final decision. I. Progress: Contractor shall cause the work to be diligently pursued to entire completion. Should he fail to supply sufficient work	 A. Products specified are manufactured by Qora Cladding reinforced polymer panels. Brick shall match Franchise proprietary color. 2.02 BRICK PANEL SYSTEM 	 C. Engineered Wood Association (APA) () PRP-108 - Performance Standards and Qualification Policy for Structural-Use Panels. D. National Institute of Standards and Technology (NIST) () - Product Standard PS 20 - American Softwood Lumber Standard. 	 B. Nails, Brads, and Staples: ICC AC116 and ICC AC201. C. Power-Driven Fasteners: ICC-ES-1539 or NER-272. 	A. Lumber: 1 Graded in accordance with NIST PS 20	24626
	materials or fail to make timely arrangements which may be required for progress, then the Contractor shall provide evidence satisfactory to the supervising Architect that said deficiencies are due to cause s beyond the Contractors control. Unless he provides such evidence,	A. Standard Brick Panel: Shall be Traditional Brick. 1. Modular in size, 18"x48"	1.03 QUALITY ASSURANCE	D. Wood Screws: ASME B18.6.1. 2.06 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIAL	 B. Steel Connectors: ASTM A653/A653M, Structural Quality, G90 coating class, die stamped with integral teeth. C. Gussets: Plywood, APA PRP-108, species optional, grade as dictated by design, Exterior Exposure. 	
	expense. The same relationship shall exist between the General Contractor and all Subcontractors.	B. Special shape. 1. corners	B. Identify lumber and sheet products by official grade mark.	A. Self-Adhering Seam and Flashing Tape: Pressure-sensitive, self-adhering, cold-applied, seam tape consisting of polyoletin film with acrylic adhesive, meeting ICC AC148.	2.02 ACCESSORIES	ARCHITECTURAL
	1.05 PROGRESS MEETINGS A General: During handling and installation of work at the project site, clean and protect work in progress and adjoining work on the	2.03 ACCESSORIES	 1.04 DELIVERY, STORAGE AND HANDLING A. Store materials minimum 6 inches above ground on framework or blocking and cover with protective waterproof covering providing 	 Basis-oi-Design Product. Provide Huber Engineered woods, ZIP System Tape. Thickness: 0.012 inch. 	A. Fasteners: Galvanized steel, type suited to conditions.B. Wood for Blocking and Framed Openings: Specified in Section 06 1000.	SPECIFICATIONS
B	basis of continuous maintenance. Apply protective covering on installed work where it is required to ensure freedom of damage or deterioration at time of substantial completion. Clean and perform maintenance on installed work as frequently as necessary through the	 A. Minimum length required zinc coated flat head screws compatible with Zip Wall System. B. Sealants/Adhesives, manufacturer proprietary: 	for adequate air circulation. B. Do not store seasoned or treated materials in damp locations.	PART 3 - EXECUTION 3.01 EXAMINATION	2.03 FABRICATION	B
	remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects. B. Limiting Exposures to Work: To the extent possible through reasonable control and protection methods, supervise performance of	 Elastomeric Color match DAP Dynaflex 920, DAP Dynaflex Ultra 	C. Protect edges and corners of sheet materials from damage.	A. Examine framing spacing and alignment to determine if work is ready to receive sheathing. Proceed with sheathing work once conditions meet requirements.	 A. Cut members accurately to length to achieve light it. B. Jig trusses during fabrication to obtain tight joint connections. C. Press connectors into lumber to full denth 	
	the work in such a manner and by such means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable such exposure shall include but are not limited to the following:	 Loctite Power Grab or equal Manufacturer's proprietary starter strip/ vent strip/ insect barrier strip/ mounting blocks 	A. Provide manufacturer's 20-year warranty against rot and termite damage for composite wood.	3.02 SHEATHING INSTALLATION	PART 3 EXECUTION	
	1. Unprotected Storage 2. Improper Shipping or Handling	5. Flashing	PART 2 PRODUCTS 2.01 MATERIALS	A. Install sheathing panels in accordance with manufacturer's written instructions, requirements of applicable Evaluation Reports, and requirements of authorities having jurisdiction.	3.01 INSTALLATION A. Install trusses in accordance with manufacturer's instructions.	
	 Theft Vandalism 	FART 3 - EAEGUTION 3.01 SETTING PANELS A See Manufacturer's proprietary wall preparation and installation instructions	A. Dimension Lumber: 1. Grade: #1 Select	All and moisture barrier. Coordinate snearning installation with flashing and joint sealant installation and with adjacent building air and moisture barrier components to provide complete, continuous air- and moisture- barrier.	B. Place level and true to line.C. Provide temporary bracing to hold trusses in position until permanently secured.	
	PART 2 PRODUCTS	 B. Always keep air space behind panel clean of mortar. C. When flashing is to be laid on or against the panel, the surface of the panel shall be smooth and free from projections which might 	2. Maximum moisture content: 19 percent.B. Sheet Products:	 Attach sheathing panels securely to substrate with manufacturer-approved fasteners in compliance with the following: ICC-ES ESR-1539 or ICC-NES NER-272 for power-driven fasteners. 	 D. Prior to inducing loads, place permanent bridging, bracing, and anchors to maintain trusses straight and in correct position. Do not field cut trusses. 	
A	Not used	puncture the flashing material. D. Sealant:	 I ype: APA Plywood. Panel grade: Well and reaf aboothing: APA Dated Shoething: 	 IBC: Table 2304.9.1 Fastening Schedule. Apply seam tape at all panel seams, penetrations, and facer defects or cracks to form continuous weathertight surface. Apply tape 	G. Installation Tolerances: Maximum 1/2-inch variation from true position.	SP000 A
	Not used	1. See manufacturer's instructions for panel joints and top and bottom of panel.	 a. waii and nooi sheathing. APA Rated Sheathing. 3. Exposure: a. Exterior applications: Exterior 	according to manufacturer's written instructions and requirements of ICC-ES applicable to tape application.	END OF SECTION	
	END OF SECTION		 b. Interior applications: Interior 4. Cementitious backer board. 			
1	2 3 1 5 6 7	8 0 10 11 12 12	1/ 15 16 17 19 10	20 21 22 24 25	26 27 28 20 20 21	1 –
				$\angle 0 \ \angle 1 \ \angle 2 \ \angle 3 \ \angle 4 \ \angle 3$		

	1 2 3 4 5 6 7	8 9 10 11 12 13	14 15 16 17 18 19	20 21 22 23 24 25	26 27 28 29 30 31	
	SECTION 06 4100 ARCHITECTURAL WOOD CASEWORK	SECTION 07 2115 BATT AND BOARD INSULATION	2.3 RIDGE SHINGLES A. Product: Ridge 12 Ridge Cap Shingles: A high profile self-sealing ridge cap shingle matching the color of selected roof shingle.	3.03 INSTALLATION – HARDIE ARCHITECTURAL PANELS A. Install materials in strict accordance with manufacturer's installation instructions.	 2.03 FABRICATION A. Fabricate components in accordance with SMACNA Manual and CDA Handbook. B. Fabricate corners in single units with minimum 18-inch-long legs. 	
K	PART 1 GENERAL 1.01 SUMMARY A. Section Includes: 1 Special fabricated cabinet units	PART 1 GENERAL 1.01 SUMMARY A. Section Includes: 1. Batt insulation in thermal wall assemblies.	 Each bundle covers approximately 33 lineal feet (10 linear meters). B. Product: Ridge Plus: IKO Ridge Plus Shingles are precut and include pre-tapered headlaps. Each Bundle covers 29.5 linear ft (9 linear meters). Meets ASTM D3161 Class F, ASTM D3462, ASTM E108, and CSA A123.5. C. Product: Ultra HP High Profile Ridge Cap Shingles: A high profile self-sealing ridge cap shingle matching the color of selected roof 	 B. Install over braces wood. See General Fastening Requirements. Irregularities in framing and sheathing can mirror through the finished application. Correct irregularities before installing siding. C. A water-resistive barrier (WRB) is required in accordance with local building code requirements. D. When installing horizontally, a WRB with min. 90 percent drainage efficiency shall be used. 	 C. Fabricate vertical faces with bottom edge formed outward 1/4-inch and hemmed to form drip. D. Form sections accurate to size and shape, square and free from distortion and defects. E. Provide for thermal expansion and contraction in sheet metal. F. Unless otherwise indicated, provide minimum 3/4-inch-wide flat lock seams, lap in direction of water flow. 	K K
	 Plastic laminate countertops, shelves, and backsplashes. Shop finishing. Cabinet hardware. 	2. Perimeter insulation at foundation walls. 1.02 REFERENCES A STM International (ASTM) ():	 shingle. Each bundle covers approximately 20 lineal feet (6.1 linear meters). D. Product: Ultra HP IR High Profile Ridge Cap Shingles: A high profile self-sealing ridge cap shingle matching the color of selected roof shingle. Each bundle covers approximately 20 lineal feet (6.1 linear meters). Meets UL 2218 Class 4 impact resistance. F. Product: Marathon Series 3Tab: For use as a field fabricated ridge cap shingle and is to be from shingles matching the color of the 	 Adjacent finished grade must slope away from the building I accordance with local building codes- typically a minimum of 6 inches (152mm). in the first 10ft (3.048mm). F. Installed on flat vertical wall applications only. 	 G. Fabricate cleats and starter strips of same material as sheet metal. PART 3 EXECUTION 3 01 INSTALLATION 	
	 B. Related Sections: 1. Section 06 6116 - Solid Surfacing Fabrications. 2. Section 07 9200 - Joint Sealers. 	 C665 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Wood Frame and Light Construction Buildings. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials. 	selected roof shingle. Each bundle covers approximately 29.5 linear feet (9 linear meters). 2.4 ATTIC VENTILATION	 FINISHING Finish factory primed siding with a minimum of one coat of high-quality 100 percent acrylic or latex or oil base exterior grade paint within 180 days of installation. Follow paint manufacturer's written product recommendation and written application instructions. 	 A. Install flashing and sheet metal as indicated and in accordance with SMACNA Manual. B. Install cleats and starter strips before starting installation of sheet metal. Fasten at 6-inches on center maximum. C. Secure flashings with concealed fasteners where possible. 	
	1.02 REFERENCES A. Architectural Woodwork Institute/Architectural Woodwork Manufacturers of Canada/Woodwork Institute (AWI/AWMAC/WI) () - Architectural Woodwork Standards.	 E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C. C578 - Standard Specification for Rigid Cellular Polystyrene Thermal Insulation. C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board. 	 A. Ridge vent is designed to allow the passage of air out of attics. For use in conjunction with eave/ soffit intake vent. Roof ventilation shall be installed to meet building codes and as instructed from the architectural drawings. 2.5 NAILS/FASTENERS 	 3.05 PROTECTION A. Protect installed products until completion of project B. Touch-up repair or replace damaged products before Substantial Completion. 	 D. Fit flashings tight, with square corners and surfaces true and straight. E. Seam and seal field joints. F. Downspouts: Secure with straps spaced maximum 8 feet on center and within 2 feet of ends and elbows. 	⊢
J	1.03 SUBMITTALS A. Submittals for Review: 1. Shop Drawings:	 1.03 DELIVERY, STORAGE AND HANDLING A. Store insulation in clean, dry, sheltered area, off ground or floor, until used. Protect against wetting and moisture absorption. 	 A. Product: Standard round wire, zinc-coated steel, or aluminum complying with CSB B 111 and meeting local building codes. 2.6 METAL FLASHING 	END OF SECTION	 Flash scuppers into conductor heads and fasten. Flash upper sections into lower sections minimum 2 inches at joints; fasten sections together. 	HITEC 42-1302 42-1302 42. COPIE AL. COPIE ICH THE ICH THEY ION OF AN
	 a. Include dimensioned plan, sections, elevations, and details, including interface with adjacent work. b. Designate wood species and finishes. 	 PROJECT CONDITIONS A. Do not install batt insulation until the building is substantially water and weather tight. PART 2 PRODUCTS 	A. Product: Hot-dip galvanized steel sneet, complying with ASTM Ab53/Ab53M and meeting local building codes. PART 3 EXECUTION 3.1 EXAMINATION	SECTION 07 5423 TPO ROOFING SYSTEM	 3.02 CLEANING A. Clean sheet metal; remove slag, flux, stains, spots, and minor abrasions without etching surfaces. END OF SECTION 	I, ARC ni 64105 x: 816-8 vs remai vs remai rions re ror wh ression/ rons re ror wh ression/ rons re ror wh
	 A. Do not deliver materials until proper protection can be provided, and until needed for installation. PROJECT CONDITIONS 	2.01 MANUFACTURERS A. Acceptable Manufacturers: 1. Johns Manville. (www.jm.com) 2. Kerylefian (www.im.com)	 A. Do not begin installation until the roof deck has been properly prepared. B. The installation of asphalt shingles on dimensional lumber (including shiplap/board decks) is not recommended as it may potentially cause buckling problems. Buckling will not be covered by the Limited Material Warranty. C. The roof slope shall be 1:3 or steeper. For slopes 1:3 to 1:6. provide special underlayment requirements. Follow the more stringent 	PART 1 GENERAL 1.01 SUMMARY A. Furnish and install elastomeric sheet roofing system, including:	SECTION 07 9200 SEALANTS AND CAULKING	IGLISF IGLISF A, Missou 52 Fa 52 Fa 53 Fa 54 Fa 55 Fa 56 Fa 57 Fa 56 Fa 56 Fa 57 Fa 56 Fa
	 A. Environmental Requirements: Maintain following conditions in building for minimum 7 days prior to, during, and after installation of casework: Temperature: 60 to 80 degrees F. Humidity: 43 to 70 percent. 	 Owens Corning. (<u>www.khadinistitation.us</u>) Owens Corning. (<u>www.dowbuildingmaterials.com</u>) Dow Chemical Co. (<u>www.dowbuildingmaterials.com</u>) Or equal. 	of the CAN3 A 123.52 Asphalt Shingle Application on Roof Slopes 1:6 to Less than 1:3 instructions or those of the local building code. 3.2 APPLICATION	 Roofing manufacturer's requirements for the specified warranty. Preparation of roofing substrates. Wood Nailers for roofing attachment. Insulation. 	PART 1 GENERAL 1.01 SCOPE A. Provide Sealant and Caulking work as indicated by the Contract Documents.	M. EN M. EN Main S 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 6-842-75 7-75 6-842-75 6-842-75 7-
	PART 2 PRODUCTS 2.01 MANUFACTURERS A Accentable Manufacturers - Plastic Laminate or as indicated on Einish Schedule:	 2.02 MATERIALS A. Batt Insulation: 1. Type: ASTM C665, glass fiber composition. 	 A. Follow manufacturer's application instructions in conjunction with manufacturer's reference standards and in accordance with local building codes. When local codes and application instructions are in conflict, the more stringent requirements shall take precedence. 3.3 VENTILATION 	 Cover board. Elastomeric membrane roofing. Metal roof copings. Elashings 	 B. Work, items, and requirements specified elsewhere that apply and/or relate to this Section include: 1. Section 07 4646 Fiber Cement Panels 2. Section 07 6200 Sheet Metal, Flashing and Trim 3. Section 09 2900 Gypsum 	IERESA 11 11 11 11 11 11 11 11 11 11 11 11 11
	1. Wilsonart International, Inc. (<u>www.wilsonart.com</u>) B. Substitutions: Not permitted.	 2-3 PCF density. Facing: Unfaced. Stapling flanges: Stapling flanges on both edges. Thermal resistance: 	 A. General: Ventilation shall meet or exceed current F.H.A., H.U.D. and local code requirements. B. Ridge / Soffit Ventilation: Install ridge vent material along the full length of the ridge, including uncut areas. 	 9. Other roofing-related items specified or indicated on the drawings or otherwise necessary to provide a complete weatherproof roofing system. B. Comply with the published recommendations and instructions of the roofing membrane manufacturer. 	4. Section 09 9100 Painting C. Interior latex caulking shall be performed by painting subcontractor. D. Joint back-up material. E loint Sealer	
	 2.02 MATERIALS A. Sheet Products: Graded in accordance with AWI/AWMAC/WI Architectural Woodwork Standards, Section 4 requirements for quality grade specified. 	a. 3-5/8 inches thick: R-value of 13.00. b. 6-1/4 inches thick: R-value of 19.00. c. 8-1/2 inches thick: R-value of 25.0.	 Butt the ends of ridge vent material and join using roofing cement. Install eaves vents in sufficient quantity to equal or exceed the ridge vent area. 	 1.02 RELATED SECTIONS A. Section 06 1000 - Rough Carpentry: Wood Nailers associated with roofing and roof insulation. B. Section 07 6200 - Sheet Metal Flashing and Trim: Formed metal flashing and trim items associated with roofing. 	F. Joint Primer. 1.02 STANDARDS AND QUALITY	
H	 2. Exposed and semi-exposed veneers: Close grain hardwood, of quality suitable for opaque finish. 3. Sheet core: medium density fiberboard, Combination type. B. Lumber: 1. Graded in accordance with AW//AWMACAWI Architectural Woodwork Standards. Section 3 requirements for quality grade 	 B. Perimeter Installation 1. Extend downward from top of slab and extend horizontally 24" below slab. 	SECTION 07 4646	 1.03 REFERENCES A. Referenced Standards: These standards form part of this specification only to the extent they are referenced as specification requirements. 	 A. Meet requirements and recommendations of applicable portions of Standards listed. 1. American Society for Testing and Materials 2. Federal Specifications B. Products of the following manufacturers are considered to be of the guality required. 	Н
	 Specified, average moisture content of 6 percent. Exposed and semi-exposed locations: Close grain hardwood, of quality suitable for opaque finish. Hardboard: Pressed wood fiber with resin binder; standard grade, 1/4-inch thick, smooth both sides as needed.] 	 2.03 ACCESSORIES A. Tape: Minimum 2-inches wide, pressure sensitive, waterproof. B. Fasteners: Hot-dip galvanized steel staples, type best suited to application, minimum 5/8-inch penetration into framing. C. Wire Mesh: Hexagonal steel wire, galvanized 	FIBER-CEMENT SIDING PART 1 GENERAL	 ASTM C 1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2013. ASTM D6878/D6878M - Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing; 2011a. FM 1-28 - Design Wind Loads; Factory Mutual System; 2007. 	 Dow Corning Pecora Grace Construction Materials Someborn Building Product Inc. 	Aroma Joes
	 D. Plastic Laminate: NEMA LD-3. 1. Color Finish: Designer White #354-60 2.03 ACCESSORIES 	 D. Impale Fasteners: Steel impaling fasteners on metal base with lock washers, length to suit insulation thickness. Adhesive: Type recommended by fastener manufacturer. 	 1.01 SECTION INCLUDES A. Fiber cement lap siding, panels, trim, and accessories; James Hardie HZIOEngineered for Climate Siding, James Hardie HZ5Engineered for Climate Siding, HardieArchitectural Panels, HardieArtisan Lap, and HardieArtisan Lap with Lock Joint 	 FM 1-29 - Root Deck Securement and Above Deck Root Components; Factory Mutual System; 2006. SPRI ES-1 - Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems; 2007. (ANSI/SPRI ES-1). DELIVERY, STORAGE AND HANDLING 	 5. Tremco Manufacturing Co. 6. Or equal. 	
	 A. Solid Surfacing Countertops: Specified in Section 06 6116. B. Fasteners: Type and size as required by conditions of use. C. Adhesives: Waterproof water-based type compatible with backing and laminate materials 	 Metal Clips and channels: Galvanized steel. F. Fasteners: Type best suited to application, hot dip galvanized, or fluoropolymer coated steel. G. Manufacturer recommended. 	1.02 RELATED SECTIONS A. Section 06 1000 - Rough Carpentry. B. Section 06 1613 Zip System Insulating Sheathing	 A. Deliver products in manufacturer's original containers, dry and undamaged, with seals and labels intact and legible. B. Store materials clear of ground and moisture with weather protective covering. 1 05 WARRANTY 	 1.03 DELIVERY AND STORAGE A. Deliver and store materials in their original unopened containers bearing the manufacturer's label. PART 2 PRODUCTS 	
G	 D. Finish Hardware: Locks, latches, pulls, magnetic catches, silencers, hinges. E. Joint Sealers: Specified in Section 07 9200. 	PART 3 EXECUTION 3.01 INSTALLATION BATTS A. Friction fit between framing members. B. Staple or nail in place at maximum 12-inches on center.	 1.03 REFERENCES A. ASTM D3359 - Standard Test Method for Measuring Adhesion by Tape Test, Tool, and Tape. B. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C. 	 A. Comply with all warranty procedures required by manufacturer, including notifications, scheduling, and inspections. B. Warranty: Basis of design Firestone <u>20-year</u> Red Shield Limited Warranty covering membrane, roof insulation, and membrane accessories. 	 2.01 MATERIALS A. Elastomeric Sealants: B. Single Component Low Modulus Silicone Sealant: ASTM C920 Type S, Class 25, Grade- NS; minimum 50% expansion	
	 A. Cabinets, Shelving and Backsplash - Plastic Laminate Finish: 1. Quality: AWI/AWMAC/WI Architectural Woodwork Standards, Section 10, Premium Grade. 2. Construction type: Face frame. 	 C. Retain in place with wire mesh secured to framing. D. Butt insulation to adjacent construction. Butt ends and edges. E. Carry insulation around pipes, wiring, boxes, and other components. E. Ensure complete analysis of space without voide in walls and including voids inside PTU ourbe. 	1.04 QUALITY ASSURANCE A. Installer Qualifications: Minimum of 2 years' experience with installation of similar products.	PART 2 PRODUCTS 2.01 MANUFACTURERS A. Acceptable Manufacturer - Roofing System as base of design: Firestone Building Products Co., Carmel, IN. HYPERLINK	 a. Provide at exterior locations not exposed to traffic. C. Multi-Component Polyurethane Sealant: ASTM C920, Type M, Grade P, Class 25, self-leveling; minimum 25% expansion and compaction capability. 	
	 Interface style: Overlay. Semi-exposed surfaces: High pressure decorative laminate. Fit exposed and semi-exposed sheet edges with matching laminate edging. Fabricate drawer bodies to full depth of drawer fronts less 1/2-inch. 	 G. Ensure complete enclosure of spaces without voids in valis and including voids inside KTO curbs. H. Tape seal lapped flanges, butt ends, and tears and holes in facings. 	 1.05 DELIVERY, STORAGE, AND HANDLING A. Store products in manufacturer's unopened packaging until ready for installation. B. Store siding on edge or lay flat on a smooth level surface. Protect edges and corners from chipping. Store sheets under cover and keep dry prior to installing. 	 "http://www.firestonebpco.com"<u>www.firestonebpco.com</u>. B. Roofing systems manufactured by others may be acceptable provided the roofing system is completely equivalent in materials and warranty conditions 	 Provide at trainic dealing locations. Mildew-Resistant Silicone Rubber Sealant: ASTM C920, Type S, Grade NS, Class 25, compounded with fungicide, specifically for mildew resistance and recommended for interior joints in wet areas. Provide at interior joints in wet areas and at fiberglass reinforced panels. 	AR SOI
F	 B. Shop assemble for delivery to project site in units easily handled. C. Prior to fabrication, field verify dimensions to ensure the correct fit. D. Apply plastic laminate in full uninterrupted sheets, fit corners, and joints to hairline. Slightly bevel edges. Apply laminate backing sheet to reverse side of laminate faced surfaces. 	3.02 INSTALLATION PERIMETER BOARD A. Apply adhesive in continuous beads 4 inch thick. B. Install boards on foundation wall perimeter, vertically. C. Place boards in a method to maximize contact bedding.	C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.	2.02 ROOFING SYSTEM DESCRIPTION A. Roofing System: 1. Membrane: Thermoplastic Polyolefin (TPO). 2 Thickness: 60 mils. Color: White	 B. Non-Elastomeric Sealants: 1. Acrylic-Emulsion Sealant: ASTM C834 acrylic or latex-rubber-modified acrylic sealant, permanently flexible, non-staining, and non-bleeding; recommended for general interior exposure; compatible with paints specified in Section 09 9100. a. Provide at general interior applications. 	
	 E. Where field fitting is required, provide ample allowance for cutting. Provide trim for scribing and site conditions. F. Provide cutouts and reinforcement for plumbing, electrical, appliances and accessories. Prime paint surfaces of cut edges. 	 D. Stagger side and end joints. E. Butt edges and ends to adjacent boards and at perimeter. F. Extend boards over control and expansion joints, unbonded to foundation 4 inches on one side of joint. G. Cut and fit insulation tight to protrusions or interruptions to the insulation plane. 	A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside the manufacturer's absolute limits.	 Cover board: ½" Densglass or equal Membrane Attachment: Mechanically attached. Type and size as required by roof manufacturer. Slope: Deck is sloped at 1/4" per foot; provide additional slope of 1/4 inch per foot (1:48) by means of tapered insulation at 	C. Miscellaneous Materials: 1. Primers/Sealers: Non-staining types recommended by joint sealer manufacturer for joint surfaces to be primed or sealed for paintability. 2. Joint Cleaners: Non-corrosive types recommended by joint sealer manufacturer: compatible with joint forming	
	 3.01 PREPARATION A. Prior to installation, condition cabinets to average humidity that will prevail after installation. 	H. No insulation visible above grade. END OF SECTION	 1.07 WARRAN I Y A. Product Warranty: Limited, non-pro-rated product warranty. 1. Hardie Architectural Panels for 30 years. 2. Hardie Artisan Lap Siding for 30 years. 	 corners, crickets, obstructions, and root mounted equipment so as to maintain positive drainage to root drains per manufactures recommendations. Comply with applicable local building code requirements. Provide assembly having Underwriters Laboratories, Inc. (UL) Class <u>A</u>, Fire Hazard Classification. 	 Sealant Backer Rod: Compressible polyethylene foam rod or other flexible, permanent, durable non-absorptive material as recommended by joint sealer manufacturer for compatibility with joint sealer. Outarian backer and minimum 2000 of leint analizer. 	
	SECTION 06 6116	SECTION 07 3113	 B. Finish Warranty: Limited product warranty against manufacturing finish defects. 1. When used for its intended purpose, properly installed and maintained according to Hardie's published installation instructions, James Hardie's ColorPlus finish with ColorPlus Technology, for a period of 15 years from the date of purchase: will not peel: will not crack: and will not chip. Finish warranty includes the coverage for labor and material. 	B. Insulation:	PART 3 EXECUTION 3.01 PRECAUTIONS	2024.08.30
E	SOLID SURFACE FABRICATIONS PART 1 GENERAL 1.01 SUMMARY	ASPHALT SHINGLES PART 1 GENERAL 1.1 SECTION INCLUDES	C. Workmanship Warranty: Application limited warranty for 2 years.	 Total System R Value: <u>30</u>, minimum, based on climate zone. Maximum Board Thickness: 2 inches (50 mm); use as many layers as necessary; stagger joints in adjacent layers. System Total Iso Insulation B Value Thickness: nominal 	 A. Fresh concrete shall be cured 30 days before sealants are applied. B. Application of sealants shall be performed when temperature is 40°F and rising. C. Do all sealing on the exterior before applying damp proofing. D. Test adhesion to materials in the field prior to application. 	Revision Schedule
	 A. Section Includes: 1. Solid surfacing countertops. B. Related Sections: 1. Social of 2020 Sociality and Coulking 	A. Asphalt shingles and accessories for structures with attic spaces. RELATED SECTIONS A. Outline 07 0000 - Object Model Electricity	 A. Acceptable Manufacturer: James Hardie Building Products, Inc., which is located at: 303 E. Wacker Dr.; Chicago, IL 60601 ; Toll Free Tel: 877-236-7526; Email: HYPERLINK "mailto:request%20info%20(info@jameshardie.com)"request info_ 	 30 R 5.25 inches 3. Base Layer: Polyisocyanurate foam board, non-composite. a. Attachment: Mechanical through fastening. 	 3.02 PREPARATION A. Building joints shall be examined prior to application and any conditions detrimental to achieving a positive, weather-tight a contractor and the Architect 	# Date Description
	PART 1 PRODUCTS	 A. Section 07 6200 - Sheet Metal Flashing and Trim. 1.3 REFERENCES A. Reference Standards are latest editions, unless noted otherwise. 	(info@jameshardie.com); https://www.jameshardiepros.com https://www.jameshardie.com B. Substitutions: Not permitted. 2.02 SIDING AND TRIM	 I op Layer: Polyisocyanurate toam board, non-composite. a. Attachment: Mechanical through fastening. C. Curb and Parapet Flashing: Same material as membrane, with encapsulated edge. 	 B. All openings, joints, or channels to be sealed shall be thoroughly clean, dry and free from dust, oil, grease, loose mortar, or any other foreign matter. C. Surfaces with protective coatings with which the sealant will come in contact, such as new aluminum or bronze, shall be 	
D	 A. Acceptable Manufacturers: Wilsonart International, Inc. (www.wilsonart.com) B. Substitutions: Not permitted. 	 B. Flashing, ASTM International (ASTM): 1. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process. C. Roofing Cement, ASTM International (ASTM): 	 A. Hardie Artisan HZ10 and HZ5 lap siding requirement for Materials: 1. Fiber-cement siding - complies with ASTM C 1186 Type A Grade II. 2. Fiber-cement siding - complies with ASTM E 136 as a noncombustible material. 3. Eiber-cement siding - complies with ASTM E 84 Elame Stread Index = 0. Smoke Developed Index = 5. 	PART 3 INSTALLATION 3.01 GENERAL A. Install roofing, insulation, flashings, and accessories in accordance with roofing manufacturer's published instructions and recommendations for the specified roofing system. Where manufacturers provide no instructions or recommendations, follow good	 wiped with xylol, or a methyl ethyl ketone solvent to remove the protective coating and any oil deposit that may be left on the metal surfaces. D. Prepare joint surfaces in accordance with ASTM C1193 and as recommended by joint sealer manufacturer. E. Prime and seal joint surfaces where recommended by joint sealer manufacturer; do not allow primer sealer to spill or 	
	 2.02 MATERIALS A. Solid Surfacing: 1 Material: Homogenous sheet material composed of acrylic resins, and coloring agents 	ASTM D4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free. Fasteners, ASTM International (ASTM): ASTM F1667 - Specification for Driven Fasteners, Nails, Spikes and Staples, Type I, Style 20. CSA B 111 - Wire Nails Spikes and Staples	 ICC-ES evaluation report ESR-2290 Intertek Product Listing. Florida State Product Approval FL-13192 Miseri Del County Florida Nation of Acceptores 20,0720,07 	 roofing practices and industry standards. Comply with federal, state, and local regulations. 3.02 PROTECTION Where construction traffic must continue over finished reaf membrane, provide durable protection, and replace or repair demaged 	 migrate onto adjoining surfaces. F. Ensure protective coatings on surfaces in contact with joint sealers have been completely stripped. G. Concrete or masonry joint surfaces shall be wire brushed, then air blown clean. 	
	 Thickness: 1/2-inch. Color: Lapis Blue #D417-60 	 E. Shingles, ASTM International (ASTM): 1. ASTM D226 / D226M - 09 Standard Specification for Asphalt Saturated Organic Felt Used in Roofing and Waterproofing. 2. ASTM D3018 - Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules. 2. ASTM D3161 - Standard Text Mathed for Wind Besidtance of Asphalt Shingles (Ear Induced Mathed) 	 8. Manufacturer's Technical Data Sheet B. Lap Siding: Hardie Artisan HZ10 and HZ5 lap siding as manufactured by James Hardie Building Products, Inc. C. Trim Accessories: 	 END OF SECTION 	 3.03 APPLICATION OF SEALANTS A. Location of different types of sealants shall be as follows:	
	 A. Adhesive: 1. Type recommended by solid surfacing manufacturer. B. Joint Sealer: Specified in Section 07 9200. 	 F. Asphalt Roofing Manufacturers Association (ARMA). G. International Building Code (IBC). H. National Roofing Contractors Association (NRCA). 	 J Trim: Aluminum extrusion to be used as a trim at abutments; softits, masonry, etc. Not recommended for windows and doors. 2-pc. J-Trim: Aluminum extrusion to be used as a trim at abutments; softits, masonry, windows, etc. Low-Profile Inside Corner Trim: Aluminum extrusion to be used to inside corners. 	SECTION 07 6200 SHEET METAL FLASHING AND TRIM	 <u>Sanitary Sealant</u> - Seal perimeter of concession casework, lavatory countertops, sinks and plumbing fixtures with sanitary sealant. Use white color at plumbing fixtures. Use clear color elsewhere. 	
C	 2.04 FABRICATION A. Fabricate components in shop to sizes and shapes indicated, in accordance with manufacturer's instructions and approved Shop Drawings. 	I. Underwriters Laboratories (UL): 1. UL 2218 - Standard for Impact Resistance of Prepared Roof Covering Materials. 1.4 WARRANTY A. The manufacturer's standard warranty.	 Inside Corner Trim: Aluminum extrusion to be sued for inside corners. Low-Profile Inside Corner Transition Trim: Aluminum Extrusion to be used for transitions at the inside corners. Low Profile Outside Corner Trim: Aluminum Extrusion to be used for outside corners. Low-Profile Outside Corner Transition Trim: Aluminum Extrusion to be used for transitions at outside corners. 	PART 1 GENERAL 1.01 SUMMARY A. Section Includes:	 Accusical Sealant: Install accusical Sealants and accessories in accordance with ASTM C919 and as noted on drawings. B. Mix materials in strict accordance with the manufacturer's instructions. C. Insert joint backing materials in all excessively deep joints to within the joint width of the surface of the joint. 	PROJECT #
	 B. Fabricate splashes and skirts from solid surfacing in color to match countertops. C. Form joints to be inconspicuous in appearance and without voids. Join pieces with adhesive. D. Provide holes and cutouts for mounting sinks and controls. E. Finish exposed edges to smooth, uniform bullnose profile. 	PART 2 PRODUCTS 2.1 MANUFACTURERS A Accentable Manufacturer: Basis of design IKO	 Low Profile Vertical Transition Trim: Aluminum Extrusion to be used for transitions at mid-wall. Base Trim: Aluminum extrusion to be used as a base edge solution. Hardie Trim Boards: Fiber cement trim for corners and windows. Can be mounted horizontally or vertically. 	 Metal flashings at dissimilar materials and trims. Copings. Scuppers and Conductor Heads. Downsports 	 D. Prime surfaces to be sealed with sealant primer in accordance with the sealant manufacturer's instructions. E. Materials must not be changed in any way and shall be used as they come from the manufacturer's containers. F. Apply materials with gun nozzle of sufficient size to render a neat, smooth joint. G. Apply compound with sufficient pressure to completely fill all voids. Leave joint slightly convex. Seal joints to be weather tight. 	24626
	 F. Allowable Tolerances: 1. Maximum variation in size: 1/8-inch. 2. Maximum variation in location of openings: 1/8-inch from indicated location. 	Technical inquiries for USA 1-888-456-7663 or https://www.iko.com/na/residential-product-concerns-us/ Web: www.iko.com. Substitutions: Not permitted.	 2.03 FINISHES A. Factory Primer: Provide factory applied universal primer. 1. Primer: Factory primed by James Hardie. 	1.02 REFERENCES	 H. Finish joints in inside corners with finger, using soapy water. I. Remove excess sealant and clean sealant from adjacent surfaces. J. Prevent damage or discoloration to any adjacent surfaces. K. Complete sealing before finish painting is started 	ARCHITECTURAL
В	PART 3 EXECUTION 3.01 INSTALLATION A. Install in accordance with manufacturer's instructions and approved Shop Drawings.	2.2 SHINGLES A. Shingles: Cambridge installed in the United States of America as manufactured by IKO. 1. Type: Architectural	PART 3 EXECUTION 3.01 EXAMINATION	 AS IM International (AS IM) (): 1. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process. B. Sheet Metal and Air Conditioning Manufacturer's Association International (SMACNA) () - Architectural Sheet Metal Manual. 	 Where horizontal joints are between a horizontal surface and vertical surface, fill joint to form a slight cove, so that joint will not trap moisture or dirt. Install joint sealers to depths recommended by joint sealer manufacturer but within the following general limitations, measured at explane (this) seating of head. 	SPECIFICATIONS
	 B. Set plumb, level, and rigid. C. Adhere countertops, splashes, and skirts with beads of adhesive. D. Seal perimeter with joint sealer as specified in Section 07 9200. Finish smooth and flush. E. Allowable Tolerances: 	 Exposure: 5-7/8 inches (149 mm). IKO Iron Clad Protection Period: 10 years on SFD/MFD/Commercial Steep Slope. Limited 10-Year Algae Resistant Warranty. Limited wind warranty coverage up to: 110 mph (177 kph). 	 A. Do not begin installation until the substrates have been properly prepared. B. If framing preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding. C. Nominal 2 inch by 4-inch (51 mm by 102 mm) wood framing was selected for minimal shrinkage and complying with local building codes, including the use of water-resistive barriers or vapor barriers where required. Minimum 1-1/2 inches (38 mm) face and 	 1.03 QUALITY ASSURANCE A. Design, fabricate, and install metal copings, edge flashings in accordance with ANSI/SPRI ES-1. B. Conform to SMACNA Manual for nominal sizing, fabrication and installation of scuppers, and downspouts for rainfall intensity 	 Horizontal Joints: 75% width with minimum depth of 318. Elastomeric Joints: 50% width with minimum depth of 114". Non-Elastomeric Joints: 75% to 125% of joint width. 	
	 Maximum variation from level and plumb: 1/8-inch in 10 feet, noncumulative. Maximum variation in plane between adjacent pieces at joint: Plus, or minus 1/32-inch. ADJUSTING 	 6. High Wind warranty upgrade to 130 mph (210 kph). 7. ICC ER - 3532 Listed. (Sumas only). 8. Color: Charcoal Gray B. Required Accessories 	 straight, true, of uniform dimensions and properly aligned. Install water-resistive barriers and claddings to dry surfaces. Repair any punctures or tears in the water-resistive barrier prior to the installation of the siding. Protect siding from other trades. 	determined by a storm occurrence of 1 in 100. PART 2 PRODUCTS 2.01 MATERIALS	 B. Clean adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage. C. Cure joint sealers in compliance with manufacturer's instructions and recommendations to obtain high early bond strength, 	
	 A. Buff out minor scratches and abrasions. 3.03 PROTECTION A. Protect surfaces from damage with non-staining coverings 	 Underlayment 15# felt Ridge caps Roofing Cement Flashings- base, eave 	 3.02 PREPARATION A. Clean surfaces thoroughly prior to installation. B. Prepare surfaces using the methods recommended by the methods are binding for activity for the best work for the second se	 A. Precoated Galvanized Steel Sheet: 1. ASTM A755/A755M, Structural Quality, G60 galvanized coating class, 24 gage core steel unless noted otherwise. 2.02 ACCESSORIES 	Internal cohesive strength and surface durability. D. Maintain finished joints free of embedded matter, ridges and sags 3.04 CLEAN-UP	
A	END OF SECTION	 Eave protection Vent pipe seal, flashing 	 Departs surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions. Installing a water-resistive barrier is required in accordance with local building code requirements. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building redenance with local building 	 A. Solder: ASTM B32. B. Fasteners: Same material and finish as sheet metal with neoprene gasketed washers where exposed. C. Joint Sealers. 	 A. Clean adjacent materials, which have been soiled, immediately after sealing the joint, and leave in a neat, clean, unsoiled condition. B. Remove all excess materials and debris from the job site. C. Refer to Section 01 7700 – Close-out documents. 	SP001 ^A
			code requirements.		END OF SECTION	
	1 2 3 4 5 6 7	8 9 10 11 12 13	14 15 16 17 18 19	20 21 22 23 24 25	26 27 28 29 30 31	

			•		0 0	4.0					4	4.0	4.0	00	04 00	00	0.4	05	00	07 0		00	00	04		
		5	6	1	8 9	10	11 12	2 13	14	15 16	1/	18	19	20	21 22	23	24	25	26		28	29	30	31		
	 3.02 PREPARATION A. Building joints shall be examined prior to appli seal shall be reported to the Contractor and the All examined is into an example, to be evaluated to be evaluated to be evaluated. 	cation and any conditions detrimental to e Architect.	achieving a positive, we	ather-tight 2. B	 FABRICATION Tolerances: Fabricate hollow metal v Door Frames:	vork to tolerances indicated th corners, molds, returns, e	in SDI 117. tc., neatly and accurately, notched, r	nitered and welded to presen	PART 2 PRODUCTS 2.01 MANUFACTURERS A. Acceptable Manufac Phone: 207-878-9197; Fax: 2 B. Substitutions: Not pe	5 cturers: Paradigm Window Solutions; 5 207-797-6465; Web: HYPERLINK "htt _i ermitted.	i6 Milliken St., Portland, p://www.Paradigmwindo	, ME 04103. ASD. Toll Free bws.com" <u>www.Paradigmwir</u>	e Tel: 877-9-WINDOW; ndows.com.	3.02 INSTALLATION A. Install in accord B. Apply ½" thick C. Cut panels to D. Mechanically	N OF CEMENTITIOUS PANEL dance with ANSI A108.11 and manufactiness panels horizontally, for 12" high abo it around openings and projections. asten panels to framing at maximum 12	rer's instructions. re floor. iches on center.			G. Install H. Susper fixtures I. Erect s J. Cuttinc	I angle moldings at all points where ce ension system for ceilings shall be ere es in a true and level plane. suspension system level, straight, an ng and splicing shall be done in a neat	ceiling abuts a dissim rected strong and rig and parallel to walls. at workmanlike manr	milar material. gid enough to carry the ner.	ne acoustical tile and support	the light		
K	 All openings, joints, or channels to be sealed s any other foreign matter. C. Surfaces with protective coatings with which t wiped with xylol, or a methyl ethyl ketone solv the metal surfaces. 	nail be thoroughly clean, dry and free inc ne sealant will come in contact, such as ent to remove the protective coating and	m dust, oil, grease, loos new aluminum or bronze any oil deposit that may	e mortar, or , shall be be left on	 Frame reinforcement for hing surface applied hardware - 1 Removable Angle Spreaders to the floor slab. 	ges shall be 9-gauge, closer 2 gauge. s shall be provided for all doo	and lock reinforcements - 12 gauge, orframes for shipment. Remove spre	and reinforcements for other eader after frame is anchored	2.02 SLIDER VINYL WIN A. Basis of Design: Slic 1. Product De	IDOWS der Windows as manufactured by Para	idigm Window Solutions	S.		3.03 INSTALLATC A. Insta B. Wall	N OF CEILINGS: the gypsum wallboard to ceilings with th oard may be installed with the long dime	long dimension of the wallbo sion parallel to supporting me	pard at right angles to the support embers that are spaced 16" on c	rting members. enters when	K. Expos L. Cut ho accon M. Measu	se no acoustic tile edges. oles in acoustic units as required for I mmodate fixtures. ure each ceiling area and establish lay	lighting fixtures, air o	conditioning outlets, e iles to balance border	etc. Do not split into two pieco r widths at opposite edges of	ees to each ceiling.		K
	 D. Prepare joint surfaces in accordance with AS^T E. Prime and seal joint surfaces where recomme migrate onto adjoining surfaces. F. Ensure protective coatings on surfaces in con C. Comparete or group with surfaces chall be up 	M C1193 and as recommended by joint nded by joint sealer manufacturer; do no act with joint sealers have been comple	sealer manufacturer. t allow primer sealer to s ely stripped.	spill or C	 Doorframes shall be cut, reir with approved hardware sch hardware is to be applied, fra Hollow Metal Doors: Exterior Doors: Provide wee 	forced, drilled and tapped a edule on the drawings and to ames shall have reinforcing p ap-hole openings in bottom c	t the factory for fully templated cylind emplates provided by hardware supp plates only; all drilling and tapping sh of exterior doors. Seal joints in top ec	er hardware, in accordance lier. Where surface-mounted all be done in the field loes of doors against water	a. nc 2 High S b. White Mate c. Factory Mu d. ¾ Interior R e SGD Trans	GD Series rial. Il Receiver om:				attac C. Apply and e	Iment members are provided at end joint gypsum wallboard of maximum practica dges closely but not forced together.	length with long dimensions p	perpendicular to framing membe	ers. Fit ends 3.	Avoid u N. Ensure 3.03 CLEANING A A. Upon	using less-than-half-width tiles at bord e all ceiling panels are set flush in the AND PROTECTION n completion of the work, remove all c	rders. e grid system. damaœed and soiled	d acoustical boards ar	and replace with new matchin	ng material.		
	3.03 APPLICATION OF SEALANTS A. Location of different types of sealants shall be 1. Silicone Sealant - To be used at all M	as follows: anufactures recommended locations.			 penetration. Glazed Lites: Factory cut op Exterior doors shall have pol Door faces shall be joined at 	enings in doors. yurethane foam cores and th their vertical edges by a cor	hermal break. ntinuous weld extending the full heigi	nt of the door. All such welds	1.) Lov 2.) Fla 2. Panel SGD a. Tempered I	wE with Argon Glass at 5 with Ih GBG OX (used as service window): LowE with Argon Glass left and right				A. Install in acco B. Install corner C. Install casings	dance with manufacturer's instructions. einforcement at outside corners. Use sin where indicated and where gypsum boa	le lengths where length of co d abuts dissimilar materials or	rner does not exceed standard l r stops with edge exposed.	length.						.		- ∞ ≻
J	 <u>Acrylic Latex Caulk</u> - At all interior join caulk interior trim prior to painting. <u>Sanitary Sealant</u> - Seal perimeter of c sanitary sealant. Use white color at p 	ts except around exterior door and wind oncession casework, lavatory counterto lumbing fixtures. Use clear color elsewf	bw frames, use elastom bs, sinks and plumbing fi ere.	eric. Use to xtures with	 shall be ground, filled, and di Size and thickness: Doors sl Top and bottom edges of all extending the full width of the channel at their top edges. 	ressed smooth to make then nall be of sizes and design ir doors shall be closed with a e door and spot welded to be nd where required for attach	n invisible and provide a smooth flus ndicated and shall be 1-3/4" thick unlu continuous recessed steel channel i oth faces. Exterior doors shall have a	h surface. ess otherwise indicated. not less than 16-gauge, an additional flush closing sure also at their bottom	b. No Grid left c. White, no K 3. Notes: Con a. Exterior Ha	or right (ey Handle. tractor to perform on site ndle must be removed must be separated by approx 1"				3.05 JOINT TREA A. General: Trea B. Levels of Fini 1. Surface	MENT joints and fasteners in gypsum board in h: ces in plenums: Level 1 finish. ces to receive EPP papels: Level 2 finish.	accordance with GA-214 and	ASTM C840.	P/	PART 1 GENERAL						CHITEC 200 05 6-842-1302 MAIN THE MAIN THE DNAL. COPII RETAINED I	
	 <u>Acoustical Sealant</u>: Install acoustical drawings. B. Mix materials in strict accordance with the manufacture. C. Insert joint backing materials in all excessively deep jo D. Prime surfaces to be sealed with sealant primer in account of the sealed with sealed with sealant primer in account of the sealed with sealed	sealants and accessories in accordance r's instructions. nts to within the joint width of the surface ordance with the sealant manufacturer's	of the joint.	s noted on	 chaine at their top euges, a edge. Openings shall be pro 7. All hardware furnished by the 8. Hardware reinforcements: 9. Minimum gauges for hardware 	wided in the bottom closure e hardware contractor for sin re reinforcing plates shall be	of exterior doors to permit the escap ngle-acting doors shall be designed for e as follows: Hinge reinforcements 9	e of entrapped moisture. or beveled edges as specified gauge. Reinforcements for	2.03 GEOMETRIC VINY A. Basis of Design: Ge 1. NC2 High C	L PICTURE WINDOWS ometric Picture Windows as manufact Geo- Picture: White Material, Factory N	ured by Paradigm Windo Iull, ¾ Interior receiver v	low Solutions. with spacer blocks. Geo-Pi	icture Transom: LowE	2. Surfa 3. Surfa C. General: 1. Inspe 2. In are	tareas to be joint treated, verifying that as where joint treatent and compound	ne gypsum wallboard fits snu nishing will be performed, ma	gly against supporting framewor intain a temperature of not less	rk. than 55 P /	A. Section Includ 1. Resili PART 2 PRODUCTS	des: llient base for millwork cabinets					JSH, AF t, Suite 22 ssouri 6410 Fax : 811 ATIONS REM PROFESSIONS	
	 Materials must not be changed in any way and shall be Apply materials with gun nozzle of sufficient size to rer Apply compound with sufficient pressure to completely Finish joints in inside corners with finger, using soapy 	used as they come from the manufacture der a neat, smooth joint. fill all voids. Leave joint slightly convex. vater.	rer's containers. Seal joints to be weath	er tight.	lock face, surface mounted o 9. Reinforce and frame opening removable stops for glazing on "inner 10. Design doors for 3/8" clearat	closures – 12-gauge. Reinfo gs required for glazing. Prov " or room side of doors. Ince at sills, unless greater un ere fabilisted in sections.	rcements for all other surface-mount ride glazing stops with counter-sunk in ndercut indicated, 1/8" at head and lo	ed hardware - 15 gauge. flat head screws. Place ock jamb.	Argon glass, Flat 5 v 2. NC Geo-Pic 3. See drawing	w/h GBG. Geo-Picture: LowE Argon gl cture: White material, ¾" interior receiv gs for windows that require transom and gs for windows transom and gs for windows transom and gs for windows transom and gs for windows transom and gs for wi	ass, No Grid. rer with space blocks, Lo nd which have no transo	.owE with Argon lass, No gr om.	rid.	degre 3. Apply 4. Provi D. Embedding co	es for 24 hours prior to commencing the the joint treatment and finishing compou de a minimum drying time of 24 hours be mpounds:	reatment and until joint and fir d by machine or hand tool. veen coats, with additional dr	nishing compounds have dried. ying time in poorly ventilated are	eas.	2.01 MANUFACTU A. Roppe B. Or equal 2.02 MATERIALS	URERS					A. ENGI Main Stree sas City, Mi 842-7552 & SPECIFIC & SPECIFIC GS & SPECIFIC	00 UT
	 Remove excess sealant and clean sealant from adjace Prevent damage or discoloration to any adjacent surfa K. Complete sealing before finish painting is started. L. Where horizontal joints are between a horizontal surfa 	nt surfaces. ces. re and vertical surface, fill joint to form a	slight cove, so that joint	th will not trap	ickness metal as frames. 1. Welded Frames: Weld flush 2. Frames: Provide closed tub frame. Fasten members at c	face joints continuously; gri ular members with no visible crossings and to jambs by bu	nd, fill, dress, and make smooth, flus e face seams or joints, fabricated fror utt welding.	h, and invisible. n same material as door	 PART 3 EXECUTION 3.01 INSTALLATION A. Install in accordance recommended by manufactu B. Coordinate with inst. 	e with manufacturer's instructions and irer. allation of flashing, specified in Sectior	in proper relationship wit	ith adjacent construction. T	est for leaks as	1. Apply 2. Spre comp 3. After thin u	to gypsum wallboard joints and rastener d the compound not less than 3" wide at bound. Then spread a thin layer of compo his treatment has dried, apply a second niform coat to not less than 6" wide at joi	leads in a trin uniform layer. pints, center the reinforcing ta und over the tape. pat of embedding compound ts, and feather edged.	ape in the joint, and embed the t to joints and fastener heads, sp	ape in the A.	A. Resilient Base 1. Type: 2. Thick 3. Profile	e: e: ASTM F1861, thermoset vulcanized kness: 0.125 inch. ile: Coved.	ed rubber.				ERESA N 1100 Kans one : 816-6 DRAWINGS	
	M. Install joint sealers to depths recommended by joint se center (thin) section of bead. 1. Horizontal Joints: 75% width with min 2. Elastomeric Joints: 50% width with min	aler manufacturer but within the following mum depth of 318. nimum depth of 114".	general limitations, me	asured at	 Provide countersunk, flat- or Jamb Anchors: Provide nun Stud-Wall Type: Locate anc inches o.c. and as follows: 	oval-head exposed screws her and spacing of anchors hors not more than 18 inche	and bolts for exposed fasteners unle as follows: s from top and bottom of frame. Spa	ss otherwise indicated. ace anchors not more than 32	C. Coordinate with inst 3.02 ADJUSTING A. Adjust operating har	allation of joint sealers, specified in Se	ction 07 9200 - Joint Pro	s installation instructions.		4. Sand 5. Whe E. Finishing corr 1. After	paper between coats as required. thoroughly dry, sandpaper to eliminate r pounds: embedding compound is thoroughly dry a	lges and high points. Id has been completely sand	ed, apply a coat of finishing corr	npound to joints	4. Heigh 5. Color 6. End u	ht: 4". r: Black 100 units and outside corners: Preformed	d; profile, size, and c	color to match base.		_	Pho Pho	
	 Non-Elastomeric Joints: 75% to 125% A. Spillage: Do not allow sealants or compounds adjoining surfaces. B. Clean adjoining surfaces by whatever means 	of joint width. to overflow or spill onto adjoining surfac may be necessary to eliminate evidence	es, or to migrate into voi of spillage.	ds of	Three anchors per ja E. Four anchors per ja Compression Type: Not less C. Post-installed Expansion Typ more than 26 inches o c	amb up to 60 inches high. mb from 60 to 90 inches higl s than two anchors in each ja be: Locate anchors not more	h. amb. e than 6 inches from top and bottom	of frame. Space anchors not	END OF SECTION SECTION 09 2900 GYPSIJM WALL BOARD					and f 2. Featt 3. Whe wallb	Istener heads. er the finishing compound to not less tha thoroughly dry, sandpaper to obtain a ur pard.	12" wide. formly smooth surface, taking	g care to not scuff the paper sur	face of the	2.03 ACCESSORIE A. Adhesive: 1. Water	IES er based, waterproof, recommended b	by base manufactur	irer.				
H	C. Cure joint sealers in compliance with manufac internal cohesive strength and surface durabil D. Maintain finished joints free of embedded mat	turer's instructions and recommendation ty. er, ridges and sags	s to obtain high early bo	nd strength, E S	5. Door Silencers: Except on v a. Single-Door Frames: Three Hardware Preparation: Factory prepa- chedule on the drawings and templates furni	veather-stripped doors, drill s door silencers. (Per Strike J are hollow metal work to rec shed.	stops to receive door silencers. lamb) eive templated cylinder hardware ac	cording to the Door Hardware	PART 1 GENERAL 1.01 SUMMARY A. Section Includes:					3.06 CORNER TR	EATMENT A. External corners: Ins the same type faster	all the specified corner bead, ers used for installing the wall	fitting neatly over the corner and	d securing with	3.01 PREPARATIO A. Prepare surfac 1. Remo 2. Fill Ion	ON aces to receive base: nove materials that could interfere with pw spots with patching compound, fini	th adhesion. nish flush with adjace	cent surface.			Aroma J	Ice's H
	 A. Clean adjacent materials, which have been so condition. B. Remove all excess materials and debris from C. Refer to Section 01 7700 – Close-out docume 	iled, immediately after sealing the joint, a the job site. nts.	nd leave in a neat, clea	n, unsoiled	Locate hard Locate hard Comply with preparation Stops and Moldings: Provide stops a	ware as indicated, or if not i loors and frames to receive h applicable requirements in of hollow metal work for har und molding around plazed	indicated, according to ANSI/SDI A23 non-templated, mortised and surface ANSI/SDI A250.6 and ANSI/DHI A1 rdware.	50.8. -mounted door hardware. 15 Series specifications for	1. Gypsum bo 2. Cementition 3. Taping and B. Related Sections: 1. Section 27	oard. us panels. bedding of gypsum board.					 B. Space the fasteners framing or furring me C. After the corner beau reinforcing tape as s 	pproximately 6" on centers, a nber. has been secured into positio ecified for joints, feathering th	and drive through the wallboard on, treat the corner with joint cor ne joint compound out from 8" to	into the mpound and 3. 0 10" on each A.	3. Remo 3.02 INSTALLATIO A. Apply adhesiv Maintain tan a	nove high spots, ridges and nibs. I ON ve continuously to back of base.	continuous contest.	with floor Dutticisto	tight, hutt have tight to adjace	ont		- 0
	END OF SECTION SECTION 08 1113			bi	 atted or mitered hairline joints. 1. Single Glazed Lites: Provide 2. Provide loose stops and mol 	e fixed stops and moldings w dings on inside of hollow me	velded on secure side of hollow meta	l work.	2. Section 07 3. Section 09 1.02 REFERENCES	9200: Sealants and Caulking 9100: Painting				3.07 GALVANIZEI A. Galv. acce	MATERIALS nized material shall be used at all locatio sories at these areas shall also be galva	s subject to moisture. These ized.	e include interior framing at toilet	ts. All D.	construction. C. Do not install p D. Miter and butt E. At outside corr	pieces less than 6 inches long. t inside corners. rners install preformed corner pieces.	s. "V" cut back of bas	use to 2/3 of its thickne	ess and bend around corner.		OE"	
G	HOLLOW METAL DOORS AND FRAMES PART 1 - GENERAL 1.01 SUMMARY	hu the Contract Decuments		2. A B	08 STEEL FINISHES Prime Finish: Apply manufacturer's s 1. Shop Prime Factory-Applied Paint Finish: ANSI/S	tandard primer immediately er: ANSI/SDI A250.10. SDI A250.3. drawings	after cleaning and pretreating.		A. American National S 1. A108.11 - Ii 2. A118.9 - Te B. ASTM International	Standards Institute (ANSI) (): nterior Installation of Cementitious Bac est Methods and Specifications for Cer (ASTM) ():	ker Units. nentitious Backer Units.	Jiching Cuncum Board		3.08 CLEAN UP A. In ad and t	lition to other requirements for cleaning, prevent tracking gypsum and joint finish	se necessary care to prevent ng compound onto floor surfa	i scattering gypsum wallboard so ices.	craps and dust,	F. At exposed en G. Scribe to door END OF SECTION	ends, install pre-molded units. or frames and other interruptions.						
	 A. Provide Metal Dools and Metal Dool work as indicate 1.01 STANDARDS AND QUALITY A. Meet requirements and recommendations of applicab 1. American Society for Testing and Materials (<i>i</i>) 	e portions of Standards listed.		Р 3. А	ART 3 - EXECUTION 01 INSTALLATION Hollow Metal Frames: Comply with A	NSI/SDI A250.11.			2. C514 - Star 3. C1002 - Star 4. C1178 - Star 5. C1396 - Sta	ndard Specification for Solin Compound andard Specification for Nails for the Ap andard Specification for Glass Mat Wa andard Specification for Gypsum Boar	plication of Gypsum Wa ews for the Application o ter-Resistant Gypsum B d.	allboard. of Gypsum Board. Backing Panel.		END OF SECTION	debris, and surplus material of this Sect	a room or space, promptly pr on.	ick up and remove nom the wor	SI El	SECTION 09 6723 EPOXY FLOORING PART 1 – GENERAL						RON ARFI	
	 A653/A653M - Standard Specification for Ste by the Hot-Dip Process. A924 - Standard Specification for General Re A100Steel Door Institute (SDI) 	el Sheet, Zinc-Coated (Galvanized) or Zi quirements for Steel Sheet, Metallic-Coa	nc-Iron Alloy Coated (Ga ted by the Hot-Dip Proc	alvannealed) ess.	Set frames After wall c a. Install frames with removable b. Install door silencers in frame	accurately in position, pluml onstruction is complete, rem e glazing stops located on se es.	bed, aligned, and braced securely un love temporary braces, leaving surfa ecure side of opening.	til permanent anchors are se ces smooth and undamaged.	6. C1629 - Sta Cement Panels. C. Gypsum Association 1. GA-214 - L	andard Classification for Abuse-Resist n (GA) (): evels of Gypsum Board Finish.	ant Nondecorated Interio	ior Gypsum Panel Products	s and Fiber-Reinforced	SECTION 09 5100 ACOUSTICAL CEILIN PART 1 GENERAL	GS			1. A. B.	1.01 SUMMARY A. This section in 1. Epoxy B. Related section	includes the following: xy flooring system on floor and returne ions include the following:	ned 6" up walls.				A 90	CAL
F	 American National Standards Institute (ANSI) a. A250.3 - Test Procedure and Acceptance Cri b. A250.4 - Test Procedure and Acceptance Cri Hardware Re-enforcing's. c. A250.8 - Recommended Specifications for St 	/ Steel Door Institute (SDI)): eria for Factory Applied Finished Painter eria for Physical Endurance for Steel Do andard Steel Doors and Frames.	l Steel for Steel Doors a ors, Frames, Frame And	nd Frames. chors and	 c. Remove temporary braces n d. Check plumbness, squarene installation tolerances. 2. Floor Anchors: Provide floor anchors. 	ecessary for installation only ss, and twist of frames as w anchors for each jamb that	y after frames have been property se valls are constructed. Shim as neces extends to floor, and secure with pos	t and secured. sary to comply with st-installed expansion	2. GA-216 - R 1.03 PROJECT CONDIT A. Do not install gypsu B. Maintain temperatur	Commended Specifications for the A TONS m board until building is substantially v	pplication and Finishing veathertight. formed above 50 degree	of Gypsum Board.	llation	A. Provi 1.02 STANDARDS	de Acoustical Ceiling work as indicated b AND QUALITY requirements and recommendations of a	the Contract Documents.	lards listed.	1. A.	1. Cast- 1.02 SYSTEM DES A. The work shal applied flooring	FIN-Place Concrete, section 03 30 00 SCRIPTION all consist of preparation of the substra	u trate, floor and wall, th rative chips and ureth	the furnishing and app hane topcoat. The sy	plication of an epoxy based n	multi roller	BID & PERMI	IT SET F
	 d. A250.10 - Test Procedure and Acceptance C e. A250.11 - Recommended Erection Instruction 1.02 DELIVERY, STORAGE AND HANDLING 	iteria for Prime Painted Steel Surfaces f s for Steel Frames.	or Steel Doors and Fram	ies.	 a. Floor anchors may be set wi approved on Shop Drawings 3. In-Place Gypsum Board Par each jamb. Countersink anchors, an 	th powder-actuated fastener itions: Secure frames in pla d fill and make smooth, flush	is instead of post-installed expansion ace with post-installed expansion and n, and invisible on exposed faces.	anchors if so indicated and hors through floor anchors at	PART 2 PRODUCTS 2.01 MANUFACTURERS A. Acceptable Manufac	S $-\frac{1}{2}$ " Gypsum Panels and wate	r resistant panels:		indion.	1. Unde 2. Acou 3. Susp 4. Ame	writers Laboratories, Inc. stical and Insulation Materials Assoc. ended Ceiling Manufacturers Assoc. can Society for Testing and Materials.	,	UL AIMA SCMA ASTM	B	specified by th in accordance B. Vinyl cove bas	the Owner with a nominal thickness of e with the Manufacturer's recommend ase to be applied on casework.	of 40 mils. It shall be adations.	e applied to the prepa	ared area(s) as defined in the	e plans strictly		
	 A. It shall be the responsibility of the Contractor to see the cleaned and touched up with a rust-inhibitive primer, a covered to protect them from damage due to any cause. B. Doors shall have their wrappings or coverings removes a proceed by blocking to parent is circulation between the proceed. 	at any scratches or disfigurement cause nd that materials are properly stored on e. d upon arrival at the building site and sh	l in shipping or handling olanks, or dunnage, out all be stored in a vertical	are promptly of water, and position,	 Installation Tolerances: Adjutolerances: a. Squareness: Plus or minus head. Alignment: Plus or minus 1/ 	ist hollow metal door frames 1/16 inch, measured at door 16 inch, measured at iambs	for squareness, alignment, twist, an rabbet on a line 90 degrees from jar	d plumb to the following nb perpendicular to frame	1. CertainTee 2. GP Gypsur 3. National Gy 4. USG Corpo	d Gypsum, Inc. (<u>www.certainteed.com</u> m Corporation. (<u>www.gp.com</u>) ypsum Co. (<u>www.nationalgypsum.com</u> pration. (<u>www.usg.com</u>) //"Compatitions Danala:)			1.03 QUALITY AS A. <u>Desi</u> ç	SURANCE n <u>Criteria:</u> 1. Deflection: Suspension syste	n components, hangers and fa	astening devices shall support li	1. ight fixtures,	1.03 PRODUCT DE A. Packi 1. All co product type a	DELIVERY, STORAGE, AND HANDL king and Shipping omponents of the system shall be del and batch number.	LING elivered to the site in	n the Manufacturer's p	oackaging, clearly identified w	vith the	2024.08.3	30
E	PART 2 - PRODUCTS 2.01 ACCEPTABLE MANUFACTURERS A. Ceco Door Products	ciii.		В	c. Twist: Plus or minus 1/16 in wall. d. Plumbness: Plus or minus 1 Hollow Metal Doors: Fit hollow metal	ch, measured at opposite fail /16 inch, measured at jambs doors accurately in frames,	ce corners of jambs on parallel lines, s at floor. within clearances specified below.	and perpendicular to plane c Shim as necessary.	C. Or equal. 2.02 MATERIALS - GYP	die Building Products, Inc. (www.jame: SUM PANELS	shardie.com)				 Test for deflection in accorda revisions. Reduce hanger spacing as re Increase hanger sizes as req 	uired to satisfy design criteria.	a.	with latest 1.	1.04 PROJECT CC A. Site R 1.	ONDITIONS Requirements Application may proceed while air substrate temperature is above th	air, material and subs the dew point. Outsi	strate temperatures a side of this range, the l	are between 60 F and 90 F pr Manufacturer shall be consul	roviding the	Revision Sche	edule
	 B. Curries C. Fenestra Corp. D. Pioneer Industries, Inc. E. Republic Builders Products F. Steel Craft Manufacturing Co. 			с	1. Non-Fire-R a. Jambs and Head: 1/8 inch p b. Between Bottom of Door and c. Between Bottom of Door and Glazing: Comply with hollow metal m	ated Standard Steel Doors: Jus or minus 1/16 inch. I Top of Threshold: Maximu I Top of Finish Floor (No Thr nanufacturer's written instruc	ım 3/8 inch. reshold): Maximum 3/4 inch. tions.		A. Regular Gypsum Bo B. Water Resistant Gy walls in toilet room.	oard: ASTM C1396; 48 inches wide x 3 psum Board: ASTM C1396; 48 inches	2" thickness, maximum wide x ½" thickness, ma	practical length, tapered eo aximum practical length, w	dge. /ater resistant; apply to	B. Allow C. Acce	5. Increase members and comp able tolerance of finished acoustical ceilin table Manufacturers 1. USG 2. Armstrong	ments of system, as required, g system: Level within 1/8" in	, to satisfy design criteria. 12'.	B.	2. B. Conditions of r 1. Conci accordance wi	The relative humidity in the specif shall be at least 5 F above the de f new concrete to be coated with epox crete shall be moisture cured for a min with ACL-308 prior to the application of	cific locat ⁱ on of the ap lew point. xyy material. ninimum of 7 days an of the coating system	pplication shall be less nd have fully cured a r	ss than 85 % and the surface minimum of twenty-eight day	e temperature /s in	# Date De	escription
	 G. Or equal. 2.02 MATERIALS A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, CS 	, Type B; suitable for exposed applicatio	ns.	3.	1. Secure stop inches o.c. ADJUSTING AND CLEANING Einel Adjustments: Check and readjust	os with countersunk flat- or o and not more than 2 inches	oval-head machine screws spaced un o.c. from each corner.	hiformly not more than 9	 A. Fasteners: ASTM C B. Adhesive: Type recon C. Trim Accessories: A 	1002, Type S screws, minimum 5/8-in mended by gypsum panel manufactu ISTM C1047.	ch penetration into frami rer.	ning.		D. Seisr 1. Stan 2. CISC	3. Or equal. hic Standard: Comply with the following: ard for Ceiling Suspension Systems Req A's Recommendations for Acoustical Cei and Lavin Panel Ceilings Seismic Zonge	iiring Seismic Restraint: Com ngs: Comply with CISCA's "R	ply with ASTM E 580. Recommendations for Direct-Hu	ng Acoustical	2. Conci desirable). 3. Seale 4. Conci	crete shall have a flat rubbed finish, flu lers and curing agents should not be u crete surfaces on grade shall have be	float or light steel trov used. been constructed with	bwel finish (a hard stee th a vapor barrier to pr	el trowel finish is neither nece rotect against the effects of v	essary or /apor		
	 B. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, CS, C. Frame Anchors: ASTM A 591/A 591M, Commercial S 1. For anchors built into exterior walls, steel she galvanized according to ASTM A 153/A 153M D. Inserts. Bolts. and Fasteners: Hot-dip galvanized acc 	Type B. teel (CS), 40Z coating designation; mill j et complying with ASTM A 1008/A 1008/ , Class B. prding to ASTM A 153/A 153M.	hosphatized. / or ASTM A 1011/A 10	11M, hot-dip B	proper operating condition. Remove unacceptable. Prime-Coat Touchup: Immediately a compatible air-drying, rust-inhibitive p	and replace defective work, fter erection, sand smooth ru rimer.	including hollow metal work that is w usted or damaged areas of prime coa	rarped, bowed, or otherwise	1. Material: FC 2. Corner rein 3. Casing: GA D. Joint Treatment Mat 1. Reinforcing	forcement: GA-216, Type CB-100 x 10 -216, Type LC. terials: I tape and joint compound: ASTM C47	eel, not dip galvanized ti 10. 5.	inish, expanded lianges.		3. CISC Direc 4. UBC 5. ASC	A's Guidelines for Systems Requiring Se -Hung Suspended Ceiling AssembliesS Standard 25-2, "Metal Suspension Syste 7, "Minimum Design Loads for Buildings	rric Restraint: Comply with (eismic Zones 3 & 4." is for Acoustical Tile and for I and Other Structures": Sectic	CISCA's "Guidelines for Seismic Lay-in Panel Ceilings." on 9, "Earthquake Loads."	c Restraint of P/ 2. A	PART 2 – PRODUCTS 2.01 FLOORING A. Dur-A-Flex. In	and possible delamination of the syst 'S nc. Dur-A-Chip. Epoxy-Based seamle	stem. less flooring system.	. color Micro Shale.				
	 E. Glazing: See drawings 2.03 STANDARD HOLLOW METAL DOORS A. General: Comply with ANSI/SDI A250.8. 			C	Metallic-Coated Surfaces: Clean abr instructions. ND OF SECTION	aded areas and repair with ç	galvanizing repair paint according to	nanufacturer's written	A. For fastening gypsu with ASTM C514 and of the	CES m wallboard in place on wood, use 1-1 length required by governmental agen	/4' type W bugle-head s cies having jurisdiction.	screws, or use annular ring	y type nails complying	1.04 DELIVERY A A. Deliv B. Deliv	ID STORAGE or and store materials in their original unc or materials with manufacturer's labels in a and intact	ened protective containers. icating brand name, pattern, s	size, thickness, and fire rating, a	as applicable,	1. Syste a. Prime b. First F	em Materials: ler: Dur-A-Flex, Inc, Dur-A-Glaze #4 Broadcast Coat: Dur-A-Flex, Inc, Du Chips: Dur-A-Flex, Inc. Macro De Pard Broadcast and Court Court	WB resin and harde bur-A-Gard OPF resin becorative Colored Cl	lener. in and hardener. Chips.	ntor Close bard-see			
	 Lesign: Flush panel. Core Construction: Manufacturer's standard Vertical Edges for Single-Acting Doors: Beve Top and Bottom Edges: Closed with flush or sheets. 	rraft-paper honeycomb, for interior, polys led edge, 1/8 inch in 2 inches. inverted 0.042-inch thick, end closures c	tyrene exterior. r channels of same mat	erial as face	ECTION 08 5313 NYL WINDOWS AND DOORS ART 1 GENERAL				2.01 JOINTING SYSTEM A. Provide a jo recommend	// pinting system, including reinforcing taj ded for this use by the manufacturer of	be and compound, desig the gypsum wallboard a	gned as a system to be use approved for use on this W	ed together and as /ork.	C. Store PART 2 PRODUCTS 2.01 SUSPENSIO	materials off the floor to assure proper p	otection from water, and cove	er if necessary.		c. Secor ii. d. Grout e. Topco 2. Patch	Chips: Dur-A-Flex, Inc. Macro De Chips: Dur-A-Flex, Inc. Macro De ut coat: Dur-A-Flex, Inc. Dur-A-Glaze coat: Dur-A-Flex, Inc. Armor Top resi th Materials	A-FIEX, INC. DUR-A-G Decorative Colored Cl #4 resin and Water sin, hardener and grit	Diaze #4 resin and Wa Chips. r Clear hardener. it.	ater Urear nardener.			
	 B. Exterior Doors: Face sheets fabricated from metallic- ANSI/SDI A250.4 for physical performance level. Door face w C. Interior Doors: Face sheets fabricated from cold-rolle referencing ANSI/SDI A250.8 for level and model and ANSI/SDI 	coated steel sheet. Comply with ANSI/S Il be minimum 16-gauge zinc coated. I steel sheet. Provide doors complying v Il A250.4 for physical performance level.	DI A250.8 for level and i vith requirements indica Interior door face shee	nodel and 1. A red below by ts to be	O1 SECTION INCLUDES Vinyl windows of the following types. 1. Slider. (8341)(83411 2. Fixed casement. (83	EP) 361)			PART 3 EXECUTION 3.01 INSTALLATION OF A. Install panels and ad B. Accurately cut panel	GYPSUM PANELS ccessories in accordance with ASTM (ls to fit around openings and projection	C754, GA-216, the Draw	vings and manufacturer's in per or break gypsum core.	nstructions.	A. USG	Donn intermediate Main runner beams: DX/DXL 2. Cross Tees: DX/DXL424, 4 for tees, 5/16" grid, hot-dipped grid, hot-dipped grid, hot-dipped grid, hot-dipped grid	4, 12 foot tees, 5/16" grid, hot ot tees, 5/16" grid hot-dipped lvanized, double web.	t-dipped galvanized, double web galvanized, double-web; and D)	o. X/DXL2 16 foot	a. Shallo b. Deep	low Fill and Patching: Use Dur-A-Fle p Fill and Sloping Material (over ¼ inc	ex, Inc. Dur-A-Glaze nch): Use Dur-A-Flex	e #4 Cove Rez. ex, Inc. Dur-A-Crete.			PROJECT	#
	D. Hardware Reinforcement: ANSI/SDI A250.6. STANDARD HOLLOW METAL FRAMES A. General: Comply with ANSI/SDI A250.8.			1. A B	02 RELATED SECTIONS Section 06 1000 - Rough Carpentry. Section 07 9200 - Joint Fillers.				C. Apply panels in mos D. Mechanically fasten Stagger fasteners a E. At deflection compe F. Treat cut edges and	a economical manner, with ends and e panels to framing. Place fasteners mi t abutting edges. Insating head tracks, cut panels 1 inch I holes in moisture resistant dynsum ho	nimum 3/8 inch from edg short of structure at hea bard with joint sealer	ipports. Iges of panels; drive heads ad; do not secure panels to	slightly below surface.	B. USG	A. <u>Hanger wire</u> : 12-gauge galva Donn intermediate. A. <u>Main runner beams</u> : DX/DXL 2. <u>Cross Tees</u> : DX422, 4 foot te	4, 12 foot tees, 5/16" grid, hot s, 5/16" grid hot-dipped galva	t-dipped galvanized, double web anized, double-web; and #S02, 2	2. A. B. 2 foot tees, 2.	A. Dur-A-Flex, In B. Manufacturer 2.03 PRODUCT R	nc., 95 Goodwin Street, East Hartford r of Approved System shall be single s	rd, CT 06108, Phone: e source and made in	e: (860) 528-9838, Fa) n the USA.	ıx: (860) 528-2802	_	ARCHITECT	URAL
B	 B. Interior Frames: Fabricated from cold-rolled steel she C. Hardware Reinforcement: ANSI/SDI A250.6. D. Verify wall thicknesses for required frame widths. Fra E. Fabricate from 14-gauge sheets. 	et. nes should be wider than walls with no g	ypsum board return.	1. A	03 SUBMITTALS Product Data: 1. Manufacturer's standard det manufacturer's standard installation i 2. Manufactured are duct to	ails and catalog data demon nstructions.	strating compliance with referenced	standards; include	G. Stagger the boards H. Coordinate the insta items and provide a items to be secured	so that corners of any four boards will allation of backing for shelving at 3 con II necessary blocking, double studs or to or hung from the partitions.	not meet at a common p partment sink and anch studs spaced at normal	point except in vertical corr hors furnished by suppliers I spacing to adequately sup	ners. of the abovementioned oport the weight of all	2.02 ACOUSTICS	5/16" grid, hot-dipped galvani 3. <u>Color and finishes</u> : Match col 4. <u>Hanger wire</u> : 12-gauge galva	ed, double web. r of ceiling tile. ized annealed.			A. Prime 1. Perce 2. VOC 3. Bond	ter Sent Solids C d Strength to Concrete ASTM D 4541	5 2 1 5	Dur-A-Glaze 56 % 2 g/L 550 psi, substrates fai	#4 WB ails		SPECIFICAT	
	2.05 FRAME ANCHORS A. Jamb Anchors: 1. Stud-Wall Type: Designed to engage stud, w 2. Compression Type for Drywall Slip-on Frame	elded to back of frames; not less than 0. s: Adjustable compression anchors.	042 inch thick.	B in	accessories, and related items. Shop Drawings: Manufacturer's wind stallation details for owner review.	ow and door schedules inclu	iding all dimensions, finishes, access	sories, and site-specific	Provide necessary a anchors to two or m J. The completed dryw the partitions in addi K. Install the dvpsum w	ancinus for items mentioned above that ore studs before applying board. vall partitions shall be constructed and ition to all loads to be superimposed of vallboard to studs at right angles to the	adequately braced to wi adequately braced to wi n that equipment. framing members.	viteu with those items and a vithstand the weight of all ec	auequatery secure all quipment to be hung on	A. Vinyl	coated lay in ceiling panels in 2' x 2" grid				4. Hardr 5. Elong 6. Flexik 7. Impac 8. Abras	ineso, ASTM D 3303 igation, ASTM D 2370 ibility (1/4: Cylindrical mandrel), ASTM act Resistance, MIL D-2794 ision Resistance ASTM D 4060.	3 M D 1737 F >	9 % Pass >160				
	 B. Floor Anchors: Formed from same material as frame: 1. Monolithic Concrete Slabs: Clip-type anchors 2.06 STOPS AND MOLDINGS Molding for Clipse this is Down this Down this is Down this Down this is Down this is Down this is Down this is Down this Down	, not less than 0.042 inch thick, and as f , with two holes to receive fasteners.	bllows:	1. A B	QUALITY ASSURANCE Manufacturer Qualifications: AAMA c Installer Qualifications: Minimum 2 ye	ertified fabricator. ars' experience and accepta	able to the manufacturer.		L. Position studs vertic positive attachment and existing constru M. Anchor studs adjace	cally, engaging floor, ceiling runners, sp per stud flange. Place studs in direct iction elements unless acoustic isolation ent to door frames, partition intersection id door frames, but t	paced 16 inches o.c. who contact with all door fran on is called for on drawin ns, and corners, to ceilin	nen necessary, splice studs me jambs, abutting partitior ngs. ng, and floor. Securely ancl	s with 8" nested lap, one ns, partition corners, shor studs to jamb head	3.01 PREPARATIO A. Exan B. Lay o	N ine spaces, walls and soffits and correct ut spaces and arrange suspension syste	lefects that could interfere wit i in regular pattern as shown	th proper installation. on the drawings.		CS 17 B. Broad 1. Perce 2. VOC	17 wheel, 1,000 g Load adcast Coat sent Solids	1 5	30 mg loss Dur-A-Gard C 100 % 59 g/L	OPF	-	SHEET NUME	BER
A	 A. INDURINGS FOR GIAZED LITES IN DOORS: MINIMUM 0.032-II B. Fixed Frame Moldings: Formed integral with hollow m C. Loose Stops for Glazed Lites in Frames: Minimum 0. D. Terminated Stops: Where indicated, terminate stops stop with steel sheet closure. Cover opening in extended of the stop o	etal frames, a minimum of 5/8 inch high 32-inch thick, same material as frames. 5 inches above finish floor with a 90-deg sion of frame with welded-steel filler plate	ee. unless otherwise indicat ee angle cut, and close s, with welds ground smo	ed. A open end of both and 1.	Deliver windows to project sites in un Store windows out of contact with gro WARRANTY	damaged condition; handle bund; protect windows from t	windows to prevent damage to comp weather and construction traffic in we	onents and to finishes. Il-ventilated areas.	ancnor clips at meta N. Fit wallboard ends a O. For single layer para P. Cut wallboard neatly Q. Install corner beads	an auou marnes by bolt or screw attachn and edges closely, but not forced toget allel application of gypsum panels, spa y around all electrical outlets and scrib on all exterior corners, attached with s	ieni. her. ce screws 16" o.c. in fiel e to abutting surfaces. suitable fasteners space	eld of panels and along vert	tical abutting edges. unless application	A. Performance B. Insta C. Secu	m all installation according to ASTM C 6 mendations. hanger wires not over 48" apart above t ely anchor hanger wires to structure abo	6 and CISCA's "Ceiling Syste e main beam, unless otherwis e.	ems Handbook" and manufactur se indicated or approved.	rer's	5. Comp 4. Tensi 5. Flexu 6. Abras C-10	sile Strength, ASTM D 695 sile Strength, ASTM D 638 ural Strength, ASTM D 790 usion Resistance, ASTM D 4060) Wheel, 1,000 gm load, 1,000 cycles	3 4 s 3	3,800 psi 4,000 psi 35 mg loss			CDUU,	2 A
	flush with frame.			A	Furnish manufacturer's standard limit 1. Window 20 Year Commercia	ed warranty against deficien I Warranty.	cies in materials or fabrication.		length exceeds stanR.Apply caulk at eachS.Install water resistarT.Fire tape behind FR	ndard stock lengths. control joint prior to paint application. nt gypsum wallboard in restrooms. P; finish tape above FRP for paint finis	Caulk to be flush with ac	idjacent wall surfaces.		D. Secu interl walls E. Insta F. Insta	e lower ends of hanger wires to main tee ck. At perimeter areas, columns, etc., so columns, etc. Provide hanger wires at a main runner beams at 4'-0" on center in cross tees perpendicular to the main run	by three twists around itself. cure angle molding to vertical four corners of all light fixture 2'x2' grid. her beams on both sides of lice	. Join cross tees to main tee wit I surfaces. Rest tees on angle r es. ght fixtures and ceiling diffusers.	th a positive noldings at	 Flame Impace Wate Potlife 	ne Spread/NFPA-101, ASTM E 84 act Resistance MIL D-3134 er Absorption. MIL D-3134 fe @ 70 F	0 F 2	Class A 0.025 inch Max Pass 20-25 minutes				
1	2 3 4	5	6	7	8 9	10	11 12	2 13	14	15 16	17	18	19	20	21 22	23	24	25	26	27 2	28	29	30	31		

1	2 3 4 5 6 7	8 9 10 11 12 13	14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	
	C. Broadcast Coat and Grout Coat Dur-A-Glaze #4 Water Clear	1.04 PROJECT CONDITIONS	PART 2 PRODUCTS	
	2. VOC 3.8 g/L 3. Compressive Strength, ASTM D 695 11.200 psi	 A. Environmental Eminators. Building is to be runy enclosed pror to installation with sufficient near (70) and ventilation consistent with good working conditions for finish work B. During installation and for not less than 48 hours before, maintain an ambient temperature and relative humidity within limits 	A. Acceptable Manufacturers: 1. Ansul Incorporated. (HYPERLINK "http://www.ansul.com"	
	4.Tensile Strength, ASTM D 6382,100 psi5.Flexural Strength, ASTM D 7905,100 psi	required by type of adhesive used and recommendation of adhesive manufacturer. 1. Provide ventilation to disperse fumes during application of adhesive as recommended by the adhesive manufacturer.	 JL Industries. (HYPERLINK "http://www.jlindustries.com" www.ilindustries.com Larsen's Mfg. Co. (HYPERLINK "http://www.larsensmfg.com) 	
	6. Abrasion Resistance, ASTM D 4060 C-10 Wheel, 1,000 gm load, 1,000 cycles 29 mg loss Z Elame Spread/NEPA-101_ASTM E 84 Class A	1.05 WARRANTY	 Potter Roemer. (HYPERLINK "http://www.potterroemer.com"<u>www.potterroemer.com</u>) Or equal. 	
	 Impact Resistance MIL D-24613 Water Absorption. MIL D-24613 Nil 	PART 2 PRODUCTS	 2.02 COMPONENTS A. Fire Extinguishers: Type, size, and capacity for each indicated. 	
	10. Potlife @ 70 F 20 minutes D. Topcoat Armor Top	2.01 MANUFACTURERS A. Acceptable Manufacturers:	1. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B and bar coding for documenting fire extinguisher location, inspections, maintenance, and recharging.	
	1. Percent Solids 95 % 2. VOC 0 g/L 3. Tensile Strength ASTM D 2370 7 000 psi	 Marlite. (HYPERLINK "http://www.marlite.com"<u>www.marlite.com</u>) Crane Composites. (HYPERLINK "http://www.kemlite.com/"<u>www.cranecomposites.com</u>) Or could 	 B. <u>Fire Extinguisher</u>: Basis of Design: J. L. Industries' Cosmic 5E multi purpose dry chemical ABC. C. Wall Bracket MB 800 	
	4. Adhesion, ASTM 4541 Substrate Failure 5. Hardness, ASTM D 3363 4H	2.02 MATERIALS	2.03 ACCESSORIES	
J	6. 60º Gloss ASTM D 523 70 7. Abrasion Resistance, ASTM D4060 Gloss Satin 0.0 47.00 a (4.000 a mala) 4.000 a mala (4.000 a mala)	 A. Sanitary Wall Panels: 1. Type: Glass fiber reinforced plastic, USDA approved for incidental food contact. 	A. Mounting Hardware: Type best suited to application.	LTEC
	CS 17 Wheel (1,000 g load) 1,000 cycles 4 8 mg loss with grit 10 12 mg loss without grit 8 Pot Life 70 F 50% RH 2 Hours	 Size: 3/32-inch-thick x 48 inches wide maximum practical length. Color: indicated on drawings. 	PART 3 EXECUTION 3.01 INSTALLATION	CHI 05 05 05 05 05 6-842 6-842 NAIN T NAIN T CTION
	9. Full Chemical Resistance 7 days	2.03 ACCESSORIES	 B. Set plumb, level, and rigid. 	I, AJ ni 641 NS REI 6414 NS REI FSSIG FSSIG FSSIG VSTRU
	PART 3 – EXECUTION 3.01 EXAMINATION	 A. Trim: 1. One-piece extruded PVC, manufacturer's standard profile. 	END OF SECTION	LISH et, Su lissou Sation Sation Liprofi Ricon Rification Ricon
	 Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for maximum moisture content, installation tolerances and other conditions affecting flooring performance. Verify that substrates and conditions are satisfactory for flooring installation and comply with requirements specified 	 Inside and outside corners, division bar, and J-molding. Color: S100 S2S White 	SECTION 31 3116	NG Sity, NG Sity, NG 7552 7552 7552 7552 7552 7552 7552 755
	3.02 PREPARATION	Compatible with panels and substrate; recommended by panel manufacturer. Joint Sealer:	PART 1 GENERAL	M. H. M. H. M. H. M. H. M. H. M. D. Mair Nasas (J. M. Barthern, 1942-1942-1942) NGS 88 SP NGS 88
	 A. General 1. New and existing concrete surfaces shall be free of oil, grease, curing compounds, loose particles, moss, algae growth, 	PART 3 EXECUTION	1.01 SUMMARY A. Section Includes:	ESA 1100 1100 1100 1100 1100 1100 1100 11
	 Iaitance, triable matter, dirt, and bituminous products. Moisture Testing: Perform tests recommended by manufacturer and as follows. Perform relative humidity test using is situ probes. ASTM E 2170. Proceed with installation only after substrates have a 	 3.01 PREPARATION A. Examine backup surfaces to determine that corners are plumb and straight, surfaces are smooth, uniform, clean and free from foreign matter, pails equations, in the and eracle filled fluck and eracts with the adjacement w	1. Below grade soil treatment for termite control.	H E R DRA OPER OPER CLIET C CLIET C CLIET C C CLET
	maximum 75% relative humidity level measurement. b. If the relative humidity exceeds 75% then Dur-A-Flex, Inc Dur-A-Glaze MVP Primer moisture mitigation system must be	3.02 INSTALLATION	A. Quality Control Submittals: 1. Current EPA approval listing.	
	installed prior to resinous flooring installation. Slab-on grade substrates without a vapor barrier may also require a moisture mitigation system.	 A. Comply with manufacturer's recommended procedures and installation sequence. B. Apply panels to board substrate, above epoxy base, vertically oriented with seams plumb and pattern aligned with adjoining panels. 	2. Certificates of Compliance: Applicator's certification that termiticide was applied at specified concentrations and using specified methods and materials.	
	 There shall be no visible moisture present on the surface at the time of application of the system. Compressed oil-free air and/or the light passing of a propane torch may be used to dry the substrate. Mechanical surface preparation 	 Install panels with manufacturer's recommended gap for panel field and corner joints. Adhesive trowel and application method to conform to adhesive manufacturer's recommendations. Drive fasteners for a spire fit. Do not overtighten 	1.03 QUALITY ASSURANCE A Applicator Qualifications: Licensed for termite control by authorities baying invisidiction	
н	a. Shot blast all surfaces to receive flooring system with a mobile steel shot, dust recycling machine (Blastrac or equal). All surface and embedded accumulations of paint, toppings hardened concrete	 C. Apply panel moldings to all panel edges using silicone sealant providing for required clearances. 1. All moldings must provide for a minimum 1/8 inch (3.18mm) of panel expansion at joints and edges, to insure proper 	1.04 DELIVERY, STORAGE AND HANDLING	ц
	layers, laitance, power trowel finishes and other similar surface characteristics shall be completely removed leaving a bare concrete surface having a minimum profile of CSP 3-4 as described by the International Constant Papair leating	installation. 2. Apply sealant to all moldings, channels and joints between the system and different materials to assure watertight	A. Protect containers from accidental opening and use.	Aroma Tooe
	 Floor areas inaccessible to the mobile blast machines shall be mechanically abraded to the same degree of cleanliness, soundness and profile using diamond grinders, needle guns, bush hammers, or other suitable equipment. 	Installation.	1.05 PROJECT CONDITIONS A. Do not apply termiticide when surface water is present.	
	c. Where the perimeter of the substrate to be coated is not adjacent to a wall or curb, a minimum 1/4 inch key cut shall be made to properly seat the system, providing a smooth transition between areas. The detail cut shall also	 A. Remove excess sealant from panels and moldings. Wipe panel down using a damp cloth and mild soap solution or cleaner. B. Refer to manufacturer's specific cleaning recommendations Do not use abrasive cleaners. 	 1.06 WARRANTIES A. Provide manufacturer's 5-year warranty against invasion or propagation of subterranean termites and damage to building or 	
	be applied to drain perimeters and expansion joint edges. d. Cracks and joints (non-moving) greater than 1/8-inch wide are to be chiseled or chipped-out and repaired per manufacturer's recommendations	END OF SECTION	building contents caused by termites, including repairs to building contents.	N N N N N N N N N N N N N N N N N N N
	 At spalled or worn areas, mechanically remove loose or delaminated concrete to a sound concrete and patch per manufactures recommendations. 	SECTION 09 9100 PAINTING	PART 2 PRODUCTS 2.01 MANUFACTURERS	
G	3.03 APPLICATION	PART 1 GENERAL	A. Acceptable Manufacturers: 1. AgrEvo Environmental Health 2. American Cvanide Company	
	 A. General 1. The system shall be applied in six distinct steps as listed below: a. Substrate propagation 	1.01 SUMMARY A. Section Includes:	 Bayer Corporation Dow Elanco 	
	 b. Priming c. First broadcast coat application with first chip broadcast 	 Surface preparation and field application of paints. Branded colors as described in the Aroma Joe's Design and Construction Manual. 	5. Or equal	
	 d. Second broadcast coat with second chip broadcast e. Grout coat application, 	 1.02 DELIVERY, STORAGE AND HANDLING A. Container Labels: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage rates, surface 	 A. Termiticide: 1. Approved for termite treatment by Environmental Protection Agency and other authorities having jurisdiction. 	
	 f. Topcoat application 2. Immediately prior to the application of any component of the system, the surface shall be dry and any remaining dust or loose particles shall be removed using a vacuum or clean dry oil free compressed air. 	preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing. B. Paint Materials: Store at ambient temperature from 45 to 90 degrees F in ventilated area, or as required by manufacturer's	2. Water based solution, uniform in composition, synthetically dyed to permit visual identification of treated soil.	A D S E
_	 The handling, mixing and addition of components shall be performed in a safe manner to achieve the desired results in accordance with the Manufacturer's recommendations. 		PART 3 EXECUTION 3.01 APPLICATION	
	4. The system shall follow the contour of the substrate unless pitching or other leveling work has been specified by the Architect.	A. Do not apply materials when surface and ambient temperatures or relative humidity are outside ranges required by paint manufacturer.	 A. Apply materials in accordance with manufacturer's instructions. B. Apply treatment to following areas: 1. Slabs-on-Grade: Linderground-supported slab construction, including footings, building slabs, and attached slabs as an 	
	5. A neat finish with well-defined boundaries and straight edges shall be provided by the Applicator.	B. Maintain ambient and substrate temperatures above manufacturer's minimum requirements for 24 hours before, during. and after paint application.	 overall treatment. Treat soil materials before concrete footings and slabs are placed. Foundations: Adjacent soil including soil along entire inside perimeter of foundation walls, plumbing pipes and electric 	
	 B. Primer 1. The primer shall be Dur-A-Glaze #4 WB Primer that is mixed at the ratio of 1 part resin to 4 parts hardener per the 	C. Do not apply materials when relative humidity is above 85 percent or when dew point is less than 5 degrees F different than ambient or surface temperature.	conduit penetrating slab; and along entire outside perimeter, from grade to bottom of footing. Avoid soil washout around footings.	
	manufacturer's instructions. 2. The primer shall be applied by 1/8-inch notched squeegee and back rolled at the rate of 200 sf/gal to yield a dry film	PART 1 PRODUCTS	 3. Under floor slabs on grade: Apply treatment uniformly over prepared subgrade just prior to placement of vapor retarder. C. Prevent spillage and runoff onto adjacent non treated areas. D. Ensure complete coverage of treated areas 	
	thickness of 4 mils. C. Broadcast Coats	2.01 MANUFACTURERS A. Acceptable Manufacturers:	 E. Extend treatment onto adjacent construction and floor slab penetrations. F. Reapply termiticide to treated soils that are disturbed after treatment. 	2024 08 30
F	 The broadcast coat shall be comprised of two components, a resin, and hardener as supplied by the Manufacturer and mixed in the ratio of 2 parts resin to 1 part hardener. 	Sherwin Williams. (<u>www.sherwin-williams.com</u>) B. Substitutions: Not permitted. C. Einich: Sotin	G. Install signage as required by authorities having jurisdiction.	——————————————————————————————————————
	 The resin shall be added to the hardener and thoroughly mixed by suitably approved mechanical means. The first broadcast coat shall be applied over horizontal surfaces using the dip and roll, and back roll method at the 	PART 3 EXECUTION		Revision Schedule
	 Chips shall be broadcast to excess into the wet material, Macro chips at the rate of 0.1 lbs./sf. Allow material to fully cure. Vacuum, sweep and/or blow to remove all loose aggregate 	3.01 PREPARATION A. General:		# Date Description
	 Scrape the floor with a trowel or floor scraper. Sweep and vacuum the floor again. Apply a second broadcast coat of resin shall be applied by flat squeegee then back rolled with a coverage rate of 150 sf/gal 	 Protect adjacent and underlying surfaces. Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing 		
	with the Dur-A-Glaze #4 Water Clear epoxy. 9. Chips shall be broadcast to excess, Macro chips at the rate of 0.1 lbs./sf.	 3. Correct defects and clean surfaces capable of affecting work of this section. B. Gypsum Board: 		
	 Allow material to fully cure. Vacuum, sweep and/of blow to remove all house chips. Scrape the floor with a trowel or floor scraper. Sweep and vacuum the floor again. Grout Coat 	 Fill minor defects with filler compound. Spot prime defects after repair. Wash and neutralize high alkali surfaces. 		
D	1. The grout coat shall be comprised of a Dur-A-Glaze # 4 Water Clear epoxy that is mixed in the ratio of 1 part hardener to 2 parts resin and installed per the manufacturer's recommendations.	C. Interior Wood: 1. Wipe off dust and grit. 2. Fill nail holes and cracks after primer has dried, sand between coats.		
	 I he grout coat shall be squeegee applied and back rolled with a coverage rate of 100 st/gal. A. Topcoat The topcoat of Armor Top shall be roller applied at the rate of 500 st/gal to yield a dry film thickness of 3 mils 	 D. Exterior Wood, Hardie Panels, Boral trims 1. Remove dust, grit and foreign matter. 		
	 The finish floor will have a nominal thickness of 60 mils. 	2. Fill nail holes, seams and between dissimilar materials.		
	 3.04 FIELD QUALITY CONTROL A. Tests, Inspection 1. The following tests shall be conducted by the Acclustor 	 A. Apply paints in accordance with manufacturer's instructions and grade finish requirements. B. Do not apply finishes to surfaces that are not drv. 		
	 a. Temperature 1.) Air, substrate temperatures and. if applicable. dew point. 	 C. Mechanical and Electrical Components: 1. Exterior piping shall be primed and painted to match adjacent surfaces or as otherwise required by local authorities. 		
	 b. Coverage Rates 1). Rates for all layers shall be monitored by checking the quantity of material used against the area covered. 	3.03 ADJUSTING A. Touch up or refinish disfigured surfaces		
	3.05 CLEANING AND PROTECTION A Cure flooring material in compliance with manufacturar's directions, taking care to provent their contamination during starses of	3.04 CLEANING		PROJECT #
	 application and prior to completion of the curing process. Remove masking. Perform detail cleaning at floor termination, to leave cleanable surface for subsequent work of other sections. 	A. Remove paint from adjacent surfaces.		24626
	END OF SECTION	END OF SECTION		
	SECTION 09 7733	SECTION 10 4413 FIRE EXTINGUISHERS AND CABINETS		ARCHITECTURAL
	PART 1 GENERAL	PART 1 GENERAL		SPECIFICATIONS
B	1.01 SUMMARY A. Section Includes:	1.01 SUMMARY A. Section Includes: 1 Portable fire extinguishers and brackets		B
	 Prefinished sanitary wall panels, FRP. Trims. 	1.02 REFERENCES		
	 1.02 DELIVERY, STORAGE AND HANDLING A. Deliver materials factory backaged on strong pallets. 	 A. National Fire Protection Association (NFPA) () 10 - Portable Fire Extinguishers. B. Underwriters Laboratories (UL) (): 		
	 B. Store panels and trim lying flat, under cover and protected from the elements. Allow panels to acclimate to room temperature (70°) for 48 hours prior to installation. 	 1. 154 - Carbon Dioxide Fire Extinguishers. 2. 299 - Dry Chemical Fire Extinguishers. 		
	1.03 QUALITY ASSURANCE	1.03 QUALITY ASSURANCE A. Provide fire extinguishers complying with UL 711. NFPA 10 and applicable code		
	 A. Sanitary Standards: System components and tinishes to comply with: United States Department of Agriculture (USDA) requirements for food preparation facilities, incidental contact. Event and Drug Administration (FDA) 1999 Food Code 6-101 11 	B. Conform to applicable accessibility code for locating extinguishers.		
A		1.04 PROJECT CONDITIONS A. Do not install extinguishers when ambient temperature may cause freezing of extinguisher ingredients.		SP003 A
1	2 3 4 5 6 7	8 9 10 11 12 13	14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	
I				

CONCR	IN 03 1000 IETE FORMING	3.02 INSTALLATION A. Install reinforcing in accordance with A	ACI 301, and CRSI Manual and Publications 63 and 65.		E. Use accelerating admix placement requirements F. Flv Ash Content: Maving	kture in cold weather only when approvis. S. num 25 percent by weight of composition	ived by Architect. Use of admixtures v ious material in mix	s will not reduce cold weather	r PART 3 EXECUTIO 3.01 FINISHING A Finish concrete	N INTERIOR FLOOR SURFACES	and ACI 302 1		SECTION 04 05 MASONRY GRO	516 OUTING					
PART 1 1.01	GENERAL SUMMARY	 B. Accurately position reinforcing; secure C. Welding: AWS D1.4/D1.4M. D. Do not displace or damage vapor reta 	ely tie at intersections.		PART 3 EXECUTION				B. Steel trowel sur C. Steel trowel and D. Steel trowel and	aces to receive carpeting, resilient flooring fine broom finish surfaces to receive thin s	j. set tile.	de instructione	PART 1 GENER	RAL ARY					
A.	 Forms for cast-in-place concrete, with shoring, bracing, and anchorage. Form accessories. 	E. Locate splices not indicated on Drawii F. Clean and re-protect galvanized surfa	ngs at points of minimum stress. ices cut or damaged during installation.		A. Notify Testing Laborator B. Accurately position and	ry minimum 24 hours prior to placing o hor bolts, sleeves, conduit, inserts, an	concrete. nd accessories. Do not cut reinforcing	ng steel to facilitate installation	E. In areas with flo F. Tolerances:	or drains, maintain design floor elevation a	at walls; slope surfaces uniformly to	o drains at 1/4 inch per foot.	A. Section 1. B. Related	n Includes: Grout for masonry. d Sections:					
В.	Stripping of forms. Related Sections: Division 01: Administrative procedural and temporary work requirements	END OF SECTION			C. Remove water and deb	oris from forms and excavations.			1. Maximum v 2. Maximum v 3. Maximum v	ariation of surface flatness for exposed col ariation of surface flatness under seamless ariation of surface flatness under resilient f	ncrete floors: Floor Flatness of F _F 2 is resilient flooring: Floor Flatness o flooring, carpeting: Floor Flatness o	25 and Floor Levelness of F_L 20. of F_F 25 and Floor Levelness of F_L 20. of F_E 25 and Floor Levelness of F_L 20.	1. 2.	Division 01: Administrative, proce Section 04 2000 - Unit Masonry.	dural, and temporary work requirement	5.			
1.02	REFERENCES	SECTION 03 3000 CAST-IN-PLACE CONCRETE			E. Prepare previously plac manufacturer's instructi	ced concrete surfaces by cleaning with ions.	h steel wire brush and applying bondi	ding agent in accordance with	h 4. Correct def	cts by grinding or removal and replaceme	ent of defective work. Re-measure of	corrected areas by same process.	1.02 REFER A. ASTM I	RENCES International (ASTM) ():					
A.	American Concrete Institute (ACI) (<u>)</u> : 1. 301 - Specifications for Structural Concrete for Buildings. 2. 347 - Recommended Practice for Concrete Formwork.	PART 1 GENERAL 1.01 SUMMARY			grout.	aoweiea to existing, ariii noies in exist	sting concrete, insert steel dowels, and	ng pack noies solid with non s	A. Finish concrete B. Steel trowel and	EXTERIOR SLAB SURFACES slab surfaces in accordance with ACI 301. broom finish surfaces.			1. 2. 3	C91 - Standard Specification for N C150 - Standard Specification for C207 - Standard Specification for	lasonry Cement. Portland Cement. Hydrated Lime for Masonry Purposes				
B.	Engineered Wood Association (APA) () PRP-108 - Performance Standards and Qualification Policy for Structural-Use Panels.	A. Section Includes: 1. Cast-in-place concrete for four Cast-in-place concrete for four Equipment pads including tra	undations, paving, slabs on grade, and supported slabs.		3.02 PLACEMENT OF CON A. Place concrete in accor B. Ensure reinforcement in accor	ICRETE rdance with ACI 301 and ACI 318.	disturbed during concrete placement	+	C. Steel trowel and D. Steel trowel and 1 Apply stein	crossrake ramp surfaces. stain surfaces where scheduled. accordance with manufacturer's instruct	tions to uniform coverage		4. 5.	C404 - Standard Specification for C476 - Standard Specification for	Aggregates for Masonry Grout. Mortar and Grout for Reinforced Masor	ıry.		5	IES BY SE & ANY
A.	Submittals for Review: 1. Shop Drawings: Diagram of proposed construction joints not indicated on Drawings.	B. Related Sections: 1. Division 01: Administrative, p	procedural, and temporary work requirements.		C. Deposit concrete as nea D. Place concrete continue	arly as possible in its final position to r ously between predetermined expansi	minimize handling and flowing. sion, control, and construction joints.	L.	2. Work stain 3. Prevent over	nto surface voids. rlaps, application patterns, and streaks.	aono, to annorm covolage.		B. The Ma 1. 402 - Bu 2. 602 - St	asonry Society (TMS) (): Building Code for Masonry Structure Specification for Masonry Structures	5.			42-130 v THE	CH THE ON OF
1.04	QUALITY ASSURANCE Design formwork in accordance with ACI 301 and 347 under supervision of Professional Structural Engineer licensed in State in	1.02 REFERENCES A. American Concrete Institute (ACI) (H)	YPERLINK "http://www.aci-int.org");		E. Do not place partially ha F. Do not allow concrete to G. Consolidate concrete w	ardened, contaminated, or retempered o free fall over 8 feet; provide tremies, <i>v</i> ith mechanical vibrating equipment. H	d concrete. ;, chutes, or other means of conveyan Hand compact in corners and angles o	ance. s of forms.	4. Apply color END OF SECTION	curing compound in accordance with mani	utacturer's instructions, to uniform (coverage.	1.03 SUBMI	ITTALS				CEK 2200 4105 816-8 REMAII	NS RE- SSIONA SS
	which project is located.	 301 - Structural Concrete for 305R - Hot Weather Concreti 200D - Cold Weather Concreti 	Buildings.		H. Screed slabs level, to o I. Do not disturb surface p	overall floor flatness of FF 25 and over paste covering Twisted Steel Micro Re	rall floor levelness of FL 20. ebar (TSMR) reinforcement during fin	inish operations.					A. Quality 1.	Test reports: Indicating grout com	pliance with ASTM C476.			:TRA(, Suite souri 6 Fax : TIONS	ROFES ICATIO ONLY I CONST
2.01	PRODUCTS MATERIALS	4. 308 - Standard Practice for C 5. 318 - Building Code Requirer	ung. Curing Concrete. nents for Structural Concrete.		3.03 PLACEMENT OF SEP	ARATE FLOOR TOPPINGS							1.04 QUALIT A. Perform	ITY ASSURANCE m Work in accordance with TMS 40.	2 and 602.			I J PE Street ty, Mis 552 CIFICA	CULT IC SPECIF SPECIF ILIZED T FOR
А.	Forms: 1. Wood, metal, glass fiber, or other approved material that will not adversely affect surface of concrete and will provide or facilitate obtaining specified surface finish	B. ASTM International (ASTM) (HYPERL 1. C31 - Standard Test Method 2. C33 - Standard Specification	LINK "http://www.astm.org"): for Method of Making and Curing Concrete Test Specime for Concrete Aggregates.	s in the Field.	 A. Prior to placing toppings B. Apply bonding agent to C. Place divider strips and 	s, remove deleterious material from co concrete substrate; follow manufactur I reinforcing.	concrete substrates; broom surfaces c irer's instructions.	clean.	SECTION 04 0513				A. Deliver	ERY, STORAGE AND HANDLING	original, unopened packages or contail	ners.		EVEN Main Sas Ci -842-7	Y BE UT VGS & C NG THIE DE NG THI
	 a. Concealed surfaces: 	 C39 - Standard Test Method C94 - Standard Specification C94 - Standard Specification 	for Test Method for Compressive Strength of Cylindrical for Ready-Mixed Concrete.	oncrete Specimens.	D. Place toppings to requir	red lines and elevations; screed level,	, to tolerance of 1/4 inch in 10 feet.		PART 1 GENERAL	RING			B. Protect C. Store aç	t materials from moisture absorption aggregate to prevent inclusion of for	and damage; reject damaged containe eign matter.	rs.		ST 1100 Kan 816.	TY OF TY OF NT MAN CUPYI
	 Lumber, No. 2 Common or better, dressed to smooth contact surfaces, or: APA Rated Plyform Class I. Exposed surfaces: Non absorptive medium density overlay plywood. 	6. C150 - Standard Test Method 6. C150 - Standard Specification 7. C171 - Standard Specification	n for Portland Cement. n for Sheet Materials for Curing Concrete.		A. Remove loose and fore B. Just prior to grouting, th	ign matter from concrete; lightly rough noroughly wet concrete surfaces; remo	hen bonding surface. ove excess water.		1.01 SUMMARY A. Section Inc	udes:			PART 2 PRODU	UCTS FACTURERS				Phone	F THE I F THE I E CLIE FOR OC
	3. Metal: Minimum 16 gage steel, tight fitting, stiffened to support concrete.	C172 - Standard Test Method C231 - Standard Test Method C260 - Standard Specification C260 - Standard Specification	d for Method of Sampling Freshly Mixed Concrete. d for Air Content of Freshly Mixed Concrete by the Pressu n for Air-Entraining Admixtures for Concrete	e Method.	C. Mix grout in accordance D. Place grout continuous	e with manufacturer's instructions. Do ly, by most practical means; avoid enti	o not retemper. trapped air. Do not vibrate grout.		B. Related Se 1. Div	tar for masonry. tions: ision 01: Administrative, procedural, and te	emporary work requirements.		A. Accepta 1. 2.	Essroc Cement Corp. (<u>www.essro</u> LaFarge North America, Inc. (<u>www</u>	<u>c.com)</u> γ.lafarge-na.com)				
2.02 A.	Form Ties: Snap off type, adjustable length, 1 inch back break dimension, free of defects that could leave holes larger than 1 inch in concrete.	11. C309 - Standard Specification 12. C494 - Standard Specification	n for Liquid Membrane-Forming Compounds for Curing C n for Chemical Admixtures for Concrete.	ncrete.	3.05PROTECTIONA.Immediately after place	ement, protect concrete from premature	re drying, excessively hot or cold temp	nperatures, and mechanical ir	2. Se	tion 04 2000 - Unit Masonry.			3. 4. B Accepta	Lehigh Cement Co. (<u>www.lehighc</u> Texas Industries, Inc. (<u>www.txi.co</u> table Manufacturers - Lime:	ement.com) m)				
B.	Form Release Agent: Non-staining, colorless mineral oil that will not absorb moisture, stain concrete, or impair adhesion of coatings to be applied to concrete.	13. C618 - Standard Specification Portland Cement Concrete. 14. C1116/1116M - Standard Sp	n tor Hy Ash and Raw or Calcined Natural Pozzolans for Decification for Fiber-Reinforced Concrete and Shoter	se as a Mineral Admixture in le.	 B. Maintain concrete with r hardening of concrete. C. Provide artificial boot to 	minimal moisture loss at relatively con	nstant temperature for period necessa	sary for hydration of cement a	and A. ASTM Inter	national (ASTM) (): - Standard Specification for Masonry Cer	ment.		1. Chemic 2. Graymo	cal Lime Co. (<u>www.chemicallime.co</u> ont Dolime (OH) Inc. (<u>www.graymo</u>	<u>m)</u> it-oh.com)				
D.	Anchors and Fasteners: Size as required, sufficient strength to maintain forms in place while concrete is placed.	15. D1752 - Standard Specifica Paving and Structural Cons	tion for Preformed Sponge Rubber and Cork Expansi struction.	n Joint Fillers for Concrete	D. Keep forms sufficiently	wet to prevent cracking of concrete or	or loosening of form joints.	, or adragon or ourning period.		14 - Standard Specification for Aggregate f 50 - Standard Specification for Portland Ce 99 - Standard Test Method for Pior Test for	for Masonry Mortar. ement. or Refractory Morter		C. Substitu	utions: Under provisions of Division	U1.			Angere	. 7
PART 3	EXECUTION	1.03 SUBMITTALS A. Submittals for Review			3.06 CURING A. Cure concrete in accord 1. Horizontal surface	dance with ACI 308: aces:			4. C1 5. C2 6. C2	 Normal and the state of the sta	ime for Masonry Purposes. Jnit Masonry.		2.02 MATER A. Portland	RIALS nd Cement: ASTM C150, Type I.				rroma	1 100
A. B.	Construct formwork, shoring, and bracing to produce concrete of required shape, line, and dimension. Arrange and assemble formwork with minimum joints, located to allow dismantling without damage to concrete.	1. Concrete Mix Designs: Includ a. Proportions of cemer	te: nt, fine and coarse aggregates, fibrous reinforcing, and w	er.	a. Surfaces to rec b. Other surfaces	ceive additional toppings or setting bec s: Use either curing paper or curing col	eds: Use curing paper method. ompound method.		7. C1 B. The Mason 1. 40	329 - Standard Specification for Mortar Ce y Society (TMS) (): - Building Code for Masonry Structures	ement.		B. Aggrega C. Lime: A	ate: ASTM C404. ASTM C207, Type S. Clean and free from oils, coids, cll.	lies organic matter and other substan	ices in amounte deleterieue te	o mortar or metals in	<u> </u>	
C. D. E.	Make joints watertight. Provide chamfer strips in corners of forms to produce beveled external corners. Adjust supports to take up settlement caused by concrete placement.	b. Combined aggregate c. Water/cement ratio, d. Type of cement and	e graαauon. design strength, slump, and air content. aggregates.		2. Vertical surface B. Curing Compound Meth 1. Spray compound	es: use enner wet curing or curing cor hod: ind on surfaces in two coats, applying	second at right angle to first, at minin	imum rate recommended bv	2. 60	- Specification for Masonry Structures.			ی water: (masonr	ry.	anoo, organio maitor, anti utilei SUDSIAF	ueleteniounto deletenious IC	e montar of metals III		C
F. G.	Clean contact and screed surfaces prior to concrete placement. Construction Joints:	e. Air dry density and s f. Type and proportion	plit cylinder ratio for lightweight concrete. of admixtures. of Steel Micro Rehar (TSMR) reinforcement manufacture	s standard product description and	2. Restrict traffic of Curing Depart Method	on surfaces during curing.	- · · · · · · · · · · · · · · · · · · ·	,	1.03 SUBMITTA A. Submittals 1. Sa	Lo or Review: nples: 1/2 x 1/2-inch x 3-inch long colored	l mortar samples.		2.03 MIXES A. Grout M 1	i Mix: ASTM C476. fine grout				J O	Č
	 Unless otherwise indicated on drawings, each unit of construction is a single unit; place concrete continuously to provide monolithic construction. Obtain Architect's approval of construction joint locations not indicated on Drawings. 	g. Product Data: TWISte dosage and mixing ir 2. Informational Submittals:	nstructions.	ร รังสามสาน prouuct น ย รังที่มีเเอก and	Curring Paper Method: 1. Spread curring 2. Remove paper	paper over surfaces, lapping ends and r after curing.	nd sides minimum 4 inches; maintain i	n in place by use of weights.	B. Quality Cor 1. Te	trol Submittals: t reports: Indicating mortar compliance wit	th ASTM C270.	any tickets indicating quantity and the	2. 3.	Compressive strength: Minimum 2 Slump: 8 to 11 inches.	2000 psi at 28 days.			S S	
	 Provide keys and dowels in joints. Use construction joint form for joints in floor slabs. Set screed edge at required elevation. Secure to prevent movement. 	a. Test Reports: Unifori reinforcement. b. Batch Tickets: When	m Evaluation Service (UES) certified test results for Twis	d Steel Micro Rebar (TSMR) d at a ready-mix plant_furnish	D. Wet Curing Method: Sp	pray water over surfaces and maintain	n wet for 7 days.		2. De an	date of manufacture.	ary and pre-biended, furnish deliver	ay tickets indicating quantity, montar type,	2.04 MIXING A. Mix grou	G but in accordance with ASTM C476.				ΒЧ	ي بيز
11.	 Apply form release agent to formwork prior to placing reinforcing, anchoring devices, and embedded items; follow manufacturer's instructions. 	batch tickets indicating: 1) Information	required by ASTM C94.		A. Remove efflorescence,	, stains, oil, grease, and foreign materi	ials from exposed surfaces.		1.04QUALITY AA.Perform We	SSURANCE rk in accordance with TMS 402 and 602.			B. Thoroug C. Mix dry	ighly mix ingredients in quantities ne y ingredients mechanically until unifo	eded for immediate use. rmly distributed; add water to achieve v	workable consistency.		AA	R R
I.	 Do not allow agent to puddle in forms or to contact hardened concrete against which fresh concrete is to be placed. Inserts and Embedded Parts: Before concrete is placed, install inserts, anchor slots, and embedded parts required for attachment of work. 	2) Type and ar	nount of Twisted Steel Micro Rebar (TSMR) reinforceme	added to concrete mix.	3.08 FIELD QUALITY CONT A. Testing and Inspection 1 1. Certify each de	T ROL Services: elivery ticket.			1.05DELIVERYA.Deliver cent	STORAGE AND HANDLING ent and lime in manufacturer's original, un	opened packages or containers.		D. Discard E. Use gro mixing a	o unipy, caked, frozen, and harden out within 2-1/2 hours after initial mi at ambient temperatures over 80 do	eu mixes. king at ambient temperatures below 80 egrees F.	degrees F and within 1-1/2 ho	ours after initial		E
	 Provide formed openings where required for pipes, conduits, sleeves, and other work passing through concrete members. Maintain in position during concrete placement. 	1.04 QUALITY ASSURANCE A. Concrete Mix Design: In accordance with the second	with ACI 301, Method 1 or 2.		2. Record time at 3. Monitor and rec	t which concrete was discharged from cord amount of water and water reduc	n truck. cing admixture added to concrete at p	project site.	B. Protect mai C. Store aggre	erials from moisture absorption and damag gate to prevent inclusion of foreign matter.	ge; reject damaged containers.		F. Do not a	add accelerators, retarders, water	epellents, antifreeze compounds, or oth	ner additives without Architect	t's approval.	С Ш	
J.	Form Removal: 1. Do not remove formwork until concrete has attained sufficient strength to resist dead loads plus applied live loads. 2. Remove formwork in manner that will not damage surfaces of concrete: patch work damaged during form removal	1.05 DELIVERY, STORAGE AND HANDL A. Mix and deliver concrete to project real	.ING ady mixed in accordance with ASTM C94		4. Determine amb 5. Test cylinders: a. Make test cylin	bient temperature and temperature of the sin accordance with ASTM C172	concrete sample for each set of test of the set of 3 cylinders for each 100 c	t cylinders.	PART 2 PRODUCT 2.01 MANUFAC	S TURERS			ART 3 EXECU 3.01 INSTAL A. Follow r	LLATION requirements specified in reference	d sections.			AR Y	-
17	 operations. Provide shoring, reshoring, and bracing as required. 	 B. Schedule delivery so that pours will no C. Place concrete on site within 90 minut 	ot be interrupted for over 15 minutes. tes after proportioning materials at batch plant.	and an interval of the state	b. Mold and cure	one day, for each different class of con cylinders in accordance with ASTM C	ncrete. C31; test cylinders in accordance with	th ASTM C39; one at 7 days a	and A. Acceptable	Manufacturers - Cement: roc Cement Corp. (<u>www.essroc.com</u>) arge North America, Inc. (<u>www.lafarge.co</u>	a.com)		END OF SECTION	ION				AF (
К.	 Installation Lolerances: Construct formwork to maintain tolerances required by ACI 301. Construct formwork for elevator hoist-ways in accordance with ASME A17.1. 	u. Store I wisted Steel Micro Rebar (TSM materials.	viк) reinforcement in protected, dry location until used; pr	vent contamination by other	two at 28 days. 6. Slump tests: M ASTM C143.	ake slump tests at beginning of each	day's placement and for each set of t	f test cylinders in accordance	e with 2. La 3. Le _ 4. Te	igh Cement Co. (<u>www.lehighcement.com</u>) as Industries, Inc. (<u>www.txi.com</u>))		SECTION 04 20	000 RY				ڭ	
END OF	SECTION	1.06 PROJECT CONDITIONS A. Cold Weather Placement - Protect conditions	ncrete work from physical damage or reduced strength th	t could be caused by frost, freezing	7. Air content: De	etermine total air content of air entraine	ed concrete for each strength test in a	accordance with ASTM C23	B. Acceptable 1. Gr 2 Lb	Manufacturers - Lime: ymont Dolime (OH) Inc. (<u>www.graymont-c</u> ist North America. (www.lhoist.us)	oh.com)		PART 1 GENER	RAL				ו חוא חוק	
SECTIO	N 03 2000	actions, or low temperatures. Comply 1. Air temperature at or expecte concrete mixture temperature	with AGI SUGK and following requirements: ed to fall below 40 degrees F, uniformly heat water and ag e of not less than 50 degrees F and not more than 80 deg	regates before mixing to obtain a ees F at point of placement.	END OF SECTION				C. Acceptable 1. Qu	Manufacturers - Preblended Mortars and (krete Companies. (<u>www.quikrete.com</u>)	Grouts:		1.01SUMMAA.Section1	IARY n Includes: Concrete unit masonry				ן עאא עוט כבי	т стум :Т
	GENERAL	 Do not use frozen materials. Do not use oplating frozen materials. Do not use oplating oblatidation 	or materials containing ice or snow. Do not place concrete	on frozen subgrade or on subgrade					D. Acceptable 1. Ca 2. Da	manuracturers - Colorants: hay Pigments. <u>(www.cathaypigments.com</u> ris Colors. (<u>www.davi</u> scolors.com)	<u>n</u>)		2. B. Related	Integral flashings. d Sections:					I
1.01 A.	SUMMARY Section Includes:	B. Hot Weather Placement - Place concr	esigns. rete in accordance with ACI 305R and following requirem						3. So E. Substitution	omon Colors. (<u>www.solomoncolors.com</u>) s: Under provisions of Division 01.			1. 2. 3	Division 01: Administrative, proce Section 04 0513 - Masonry Morta Section 04 0516 - Masonry Grout	ural, and temporary work requirement ing. ng.	5.		2024.0)8.30
B.	 Reintorcing bars, wire tabric, and accessories for cast-in-place concrete. Related Sections: Division 01: Administrative, procedural, and temporary work requirements. 	Cool ingredients before mixin mixing water or chopped ice i If required cover reinforcing a	ing to maintain concrete temperature at time of placement if water equivalent of ice is calculated in total amount of n steel with water-soaked hurlan so that steel temperature of	elow 90 degrees F. Use chilled king water. Ill not exceed ambient air	SECTION 03 3500 CONCRETE FINISHING				2.02 MATERIAL A. Portland Ce	S ment:			4.	Section 07 9200 - Joint Sealers.	v				
1.02	REFERENCES	temperature. 3. Fog spray forms, reinforcing s	steel, and subgrade just before concrete is placed.		PART 1 GENERAL 1.01 SUMMARY				1. AS 2. Fo B Motor Con	TM C150, Type I. exposed surfaces, provide cement from c ent: ASTM C1320 Types M S M	one source throughout project.		1.02 REFER A. ASTM I 1.	TENCES International (ASTM) (): A153/A153M - Standard Specifica	tion for Zinc-Coating (Hot Dip) on Iron a	and Steel Hardware.		Revision S	chedule
н. В.	American Concrete institute (ACI) (<u>1</u> 301 - Specifications for Structural Concrete for Buildings. ASTM International (ASTM) (): 1. A615/A 615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.	 Use water-reducing retarding conditions. 	admixture when required by high temperatures, low hum	nty, or other adverse placing	A. Section Includes: 1. Finishing concr	rete slabs and formed surfaces.			C. Aggregate: 1. AS	TM C144, standard masonry type.			2. 3.	A615/A615M - Standard Specifica A653/A653M - Standard Specifica	tion for Deformed and Plain Billet-Steel tion for Steel Sheet, Zinc-Coated (Galv	Bars for Concrete Reinforcer anized) or Zinc-Iron Alloy Coa	ment. ated (Galvannealed)	# Date	Descri
C. D.	American Welding Society (AWS) () D1.4/D1.4M - Structural Welding Code - Reinforcing Steel. Concrete Reinforcing Steel Institute (CRSI) ():	PART 2 PRODUCTS 2.01 MANUFACTURERS	Chamicala		2. Floor sealer. B. Related Sections: 1. Division 01: Ad	dministrative, procedural. and tempora	ary work requirements.		2. Fo D. Lime: ASTM E. Colorant [,] P	exposed surfaces, provide aggregate from I C207, Type S. Ire mineral oxide type manufactured by an	m one source throughout project.	e selected from manufacturer's full range of	4. 5.	A951 - Standard Specification for B370 - Standard Specification for	Masonry Joint Reinforcement. Copper Sheet and Strip for Building Co	nstruction.			
	 Publication 63 - Recommended Practice for Placing Reinforcing Bars. Publication 65 - Recommended Practice for Placing Bar Supports, Specifications and Nomenclature. 	A. Acceptable Manufacturers - Concrete 1. BASF Corporation. (HYPERL 2. Dayton Superior. HYPERLINI	- Chemicals: .INK "http://www.buildingsystems.basf.com" <u>www.building</u> K "http://www.daytonsuperior.com"(www.daytonsuperior.	γstems.basf.com) om)	2. Section 03 300)0 - Cast-In-Place Concrete.	, ,		colors. F. Water: Clea	n and free from oils, acids, alkalies, organi	ic matter, and other substances in a	amounts deleterious to mortar or metals in	6. 7. 8	C90 - Standard Specification for H C652 - Standard Specification for C744 - Standard Specification for	ollow Loadbearing Concrete Masonry I Hollow Brick (Hollow Masonry Units Ma Prefaced Concrete and Calcium Silicot	Jnits. ade From Clay or Shale). e Masonry I Inits			
1.03 A	SUBMITTALS Submittals for Review	W. R. Meadows, Inc. (HYPEF Meadow Burke, HYPERLINK Nov Crate Bredicts Council	RLINK "http://www.wrmeadows.com" <u>www.wrmeadows.com</u> "http://www.meadowburke.com" <u>(www.meadowburke.com</u> HYPERI INK "http://www.porto.com"	<u>n)</u>))	A. American Concrete Inst 1. 301 - Structura	titute (ACI) (<u>)</u> : al Concrete for Buildings.			2.03 MIXES				9.	C780 - Standard Test Method for Concrete.	Preconstruction and Construction Evalu	uation of Mortars for Plain and	d Reinforced		
<i></i>	 Shop Drawings: a. Include bar sizes, spacings, laps, locations, and quantities of reinforcing bars, wire fabric, and accessories. 	B. Substitutions: Under provisions of Div	ision 01.	<u>"""</u> ,	2. 302.1 - Guide f B. ASTM Internati	for Concrete Floor and Slab Construct ional (ASTM) (): rd Specification for Liquid Mombers 1	tion.	ncrete	A. Mortar Mixe 1. Co	s: To ASTM C270 using the Proportion Menorete unit masonry: Type N, S, M. Refer	ethod. to Drawings for colors.		10. B. The Ma 1	C1019 - Standard Test Method fo asonry Society (TMS) (): 402 - Building Code for Masonry S	sampling and Testing Grout.				
	b. Provide bending and cutting schedules.c. Show complete layout plan for each layer of reinforcing.	2.02 MATERIALS A. Portland Cement: ASTM C150, Type B. Aggregates:	l or III, gray color.		2. E1155 - Standa Units).	ard Test Method for Determining Floor	or Flatness and Levelness Using the F	F-Number System (Inch-Pou	und 2.04 MIXING A. Mix mortar	n accordance with ASTM C270.			2. C. NCMA	602 - Specification for Masonry S		4			<u> </u>
1.04 A.	DELIVERY, STORAGE AND HANDLING Deliver reinforcing to project site in bundles marked with tags indicating bar size, length, and mark.	1. Fine: ASTM C33, clean, hard 2. Coarse: ASTM C33, clean, hard	l, durable, uncoated natural sand, free from silt, loam, and ard, durable, uncoated crushed stone, maximum size No	clay. 5, Table No. 2.	1.03 SUBMITTALS A. Submittals for Review				B. Jobsite Pro 1. Mi	ortioning of Mortar: using mechanical mixer. Hand mixing not approximately three-guarters of required to	t permitted. water all of coment and line, and d	one-half of anaragata for minimum of 2	1. 2.	TEK 10-2C Control Joins for Cond TEK 10-3 Control Joints for Cond	a ete masonry vvalis – Empirical Metho ete Masonry Walls – Alternative Engine	a eered Method			
^{в.} PART 2	Store reinforcing above ground in dry, well drained area; protect from corrosion. PRODUCTS	C. Fly Ash: ASTM C618, maximum 2 per D. Twisted Steel Micro Rebar (TSMR) R 1. Source: Helix 5-25 by Helix 9	rcent loss on ignition. einforcement: Steel (HYPERLINK "http://www.helixsteel.com"www.helixs	eel.com)	1. Product Data: I	Descriptive data for sealer.			2. Mi mi 3. Ad	utes. I remainder of water and aggregate; mix for	or minimum of 3 minutes.	. ono nan or ayyrcyato ivi i iiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	1.03 SUBMI A. Submitt	ITTALS ttals for Review: Product Data: Provide information	on reinforcing and anabara inclusion	izas nrafilas materials cont	inishes		
2.01 A.	MATERIALS Reinforcing Bars:	 Description: High-carbon, gal its axis, free from surface cor 	lvanized, cold-drawn steel wire conforming to ASTM A820 ntaminants.	Type 1, continuously twisted about	1.04 QUALITY ASSURANCE A. Installer Qualifications: B. Concrete Mix Design: F	Hinimum 5 years documented experies	ience in work of this Section. ot specifically approved by manufacture	turer.	C. Dry Prebler 1. Mi 2 Sec	ded Mortar: using continuous, self-cleaning mixer more water flow valve to provide workable cons	unted at apex of silo cone. sistencv.		1. 2.	Samples: Concrete masonry sam	on removing and anchors including s oles in quantities showing full color and	دعم, با ماللغة, materials, and fi texture range.	แมงเรื่อ.		<u> </u>
	 AS I VI AS I VI AS I DIAD I DIVI, deformed billet steel, Grade 60 and as indicated on Drawings. Finish: Plain. 	3. I ensile strength: 268.3 KSI (4. Galvanized coating thickness 5. Equivalent diameter: Maximu	เชอบ เทเศa). s: Minimum 3 grams per square meter. ım 0.02 inch (0.50 mm).		PART 2 PRODUCTS		,,,		D. Provide uni E. Colorant m	ormity of color in exposed mortar in design y not exceed 9 pounds per 94-pound bag	nated areas. of cement for mineral oxides.		1.04QUALITA.InstallerB.Porform	ITY ASSURANCE er Qualifications: Minimum 5 years o n Work in accordance with TMS 40	ocumented experience in work of this S 2 and 602	Section.		PROJE	ECT #
2.02 A.	ACCESSORIES Spacers, Chairs, Bolsters, and Bar Supports:	E. Sealer.	· · /		2.01 MANUFACTURERS A. Acceptable Manufacture 1. BASE Corporation	rers - Concrete Sealers: ition. (www.buildingsystems.basf.com)	1)		F. Thoroughly G. Discard lun H. Do not add	mix ingredients in quantities needed for im py, caked, frozen, and hardened mixes. accelerators, retarders, water renellents	nmediate use. antifreeze compounds. or other add	ditives without Architect's approval	1.05 DELIVE	ERY, STORAGE AND HANDLING				2462	26
8.	Sized and shaped for strength and support of reinforcement during concrete placement. Galvanized or plastic-coated steel for surfaces exposed to weather. Tie Wire: Annealed steel, minimum 16 gage.	A. ACCESSORIES A. Water: Clean and potable. B. Admixtures:			2. Dayton Superio 3. W. R. Meadow	or Corporation. (www.daytonsuperior.c vs, Inc. (www.wrmeadows.com)	<u>com</u>)		PART 3 EXECUTIO	,, , , , , , , , , , , , , , , , ,	position of ouror add		A. Store m B. Protect	nasonry off ground; prevent contact t reinforcement and anchors from co	with materials that could cause staining rrosion.	g or damage.			
2.03 A	FABRICATION Fabricate in accordance with ACI 301 and CRSI Manual	Water reducing or water redu Air entraining: ASTM C260. Expansion Loint Fillor: ASTM D4750	icing/set retarding: ASTM C494, Type A or D.		4. NOX-Crete Proc B. Substitutions: Under pro	ovisions of Division 01.			3.01 INSTALLA A. Follow requ	rements specified in referenced sections.			1.06 PROJE A. Wall Pro	ECT CONDITIONS rotection:	5.0				ιυκα νατις
В. С.	Bend bars cold; do not heat or bend by makeshift methods. Discard damaged bars. Welding: AWS D1.4/D1.4M.	 D. Non-Shrink Grout: Premixed, consistin psi compressive strength at 28 days. 	ng of non-metallic aggregate, cement, water reducing and	plasticizing agents; minimum 7,000	2.02 MATERIALS A. Concrete Materials: Spectrum B Electr Society	ecified in Section 03 3000.			END OF SECTION				1. 2	During erection, cover tops of par stoppage. Extend cover minimum of 24 inch	any completed walls with strong water	proot membrane at end of eac ace.	cn day or work	JTEUITIU	AIIU
D.	Fabrication Tolerances: 1. Sheared length: Plus or minus 1 inch. 2. Bends in stirrups and ties: Plus or minus 1/2 inch	E. Bonding Agent: Two component modi F. Curing Compound: ASTM C309, wate G. Curing Paper: ASTM C171, waterpress	ified epoxy resin. er-based type. of paper or polyethylene film		b. Floor Sealer: 1. Type: ASTM C	309, water based, acrylic copolymer r	resin.						B. Load Ap 1.	pplication: Do not apply uniform loads for at l	east 12 hours after building masonry co	lumns or walls.			
	 All other bends: Plus or minus 1 inch. 	2.04 MIXES	o paper or poryeurigiene min.		2.03MIXESA.Patching Mortar:1Patching Mortar:	nortions as constate success and "	rea anaranata						2. C. Environ 1	Do not apply concentrated loads f nmental Requirements: Hot weather requirements: If amb	or at least 3 days after building masonr	y columns or walls. r relative humidity is less than	n 50 percent, protect		
PART 3	EXECUTION PREPARATION Before placing in work, thoroughly clean reinforcing of loose rust, mill scale, dirt, oil, and other materials that could reduce heading	A. Proportions: In accordance with ACI 3 B. Design concrete to yield characteristic Air Entrained Concrete: Where indicated	801. cs scheduled at end of Section. ted, provide air entraining admixture to produce 4 to 6 acc	ent air by volume of concrete	1. Use same prop 2. Add minimum v B. Mortar Slurry: 1-part Po	water required for handling and placing water required for handling and placing prtland cement and 1-1/2-part damp, lo	se aggregate. ng. oose sand, by volume.						2.	from direct sun and wind exposur Cold weather requirements: Do no	e for minimum 48 hours after installation t use frozen materials or build on froze	n work.		SHEET NI	UMBFF
3.01 A.	Inspect reinforcing left protruding for future bonding or following delay in work, and clean if necessary.	D. Fibrous Reinforced Concrete:	, p	nds of reinforcing per cubic vard									a. b.	ii ampient temperature is between weather-resistive membrane for 2 If ampient temperature is below 2	∠o uegrees ⊢ and 40 degrees F, prote 4 hours after being completed. 5 degrees F, maintain newly constructe	d masonry temperature above	y by covering with a e 32 degrees F for at		
а. В.		1. Add fibrous reinforcing to c	concrete at time concrete is batched to provide 4.0 po	nde er reinierenig per edele Jara					-							a masoni y temperature abow		-	
а. В.		Add fibrous reinforcing to c of concrete. Ensure complete distribution	concrete at time concrete is batched to provide 4.0 po on.	ndo or ronnor ong por ouslo yara										least 24 hours. Extend time to 48	hours for grouted masonry.		Ū	CD1	

1		2	3 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
	PART 2		I		I	5	SECTION 06 1753 SHOP FABRICATED WOO	OD TRUSSES										1				1					1				
ĸ	A.	Acceptable Manufacture 1. Oldcastle Build 2. Featherlite Build 3. Spectro Double	ers - Concrete Masonry Units: ing Products. (HYPERLINK "http ding Products. (HYPERLINK "http inment Corp. (HYPERLINK "http:	tp://www.oldcastle.com" <u>www.old</u> http://www.featherlitetexas.com"	Icastle.com) www.featherlitetexas.com)	F 1 /	PART 1 GENERAL 1.01 SUMMARY A. Section Includes:	ripoted wood 4	for post framine at a																						ĸ
	В.	4. Trenwyth Indus Acceptable Manufacture 1. Blok-Lok Ltd. (H 2. Heckmann Buil	tries. (HYPERLINK "http://www.t ers - Masonry Accessories: HYPERLINK "http://www.blok-lok ding Products. (HYPERLINK "htt	v.trenwyth.com" <u>www.trenwyth.co</u> ok.com" <u>www.blok-lok.com</u>) http://www.heckmannbuildinapro	ds.com"www.heckmannbuildi	lingprods.com)	2. Bridging a 3. Framing fi B. Related Sections: 1 Section 0	for openings.	d Sheathing	JUSC																					
	C.	3. Hohmann and I Substitutions: Under pro	Barnard, Inc. (HYPERLINK "http: visions of Division 01.	p://www.h-b.com" <u>www.h-b.com</u>)	1 	1.02 REFERENCES A. ASTM Internationa	al (ASTM) () A653/A6	653M - Standard Speci	fication for Steel Sheet, Zi	inc-Coated (Galvanized)	or Zinc-Iron Alloy-																			
	2.02 A.	Concrete Masonry Units 1. ASTM C90, hol 2. Size: Nominally	s: low load bearing type, normal we 8 inches high x 16 inches long x	weight. g x 12 inches thick.		E ([Coated (Galvannealed) by Engineered Wood National Institute o Truss Plate Institut	the Hot-Dip Process Association (APA) (of Standards and Tec tte (TPI) () - Design S	:.) PRP-108 - Performan chnology (NIST) () - Pro pecifications for Metal	nce Standards and Qualific oduct Standard PS 20 - Ar Plate Connected Wood T	cation Policy for Structur merican Softwood Lumb russes.	ral-Use Panels. er Standard.																			ANY ANY ANY ANY ANY ANY
J	2.03	Special shapes Surface finish: ACCESSORIES	: See drawings. Smooth Face. See drawings.			1	1.03 SUBMITTALS A. Submittals for Rev 1. Shop Drav	view: wings: Indicate frami	ing system, sizes and s	spacing of trusses, loads, l	bearing and anchorage	details, bridging and																			20 5- 3-842-130 3-842-130 3-842-130 Allin THE NAL. COPI RETAINED THEIR US VHICH THE CTION OF J
	А. В. С.	Mortar: Specified in Sec Grout: Specified in Sect Joint Reinforcement: 1. Truss, Ladder t	tion 04 0513. ion 04 0516. ype; ASTM A951, hot-dip stainle:	less steel wire, 9 gage side rods	with 9 gage cross ties.		bracing, extension 1.04 QUALITY ASSUR A. Fabricator Qualific	ns, and framed openin RANCE cations: Minimum 5 y	ngs. ears' experience in wor	rk of this Section.																					TRACEI Suite 220 Suite 220 Fax: 816 Fax: 816 Fax
	D.	 Width: Nominal Corner and tee Flashings: Rubberized asp 	wall thickness less 1-1/2 inches fittings: Type to match reinforcer shalt laminated to plastic film, rele	es. vement. elease paper facing, self-adherir	ig, by approved manufacturer	E ([r.	 B. Trusses: Design in C. Identify lumber and D. Design Requirement icensed in State in which p 	n accordance with TF d panel products by o ents: Design trusses proiect is located.	PI requirements. official grade mark. under supervision of P	Professional Structural Eng	jineer with experience in	work of this Section,																			EN J PE in Street, City, Miss -7552 -7552 -7552 -7552 -7552 & SPECIFICAT & SPECIFICAT & SPECIFICAT CUTILIZED 0 HE PROJE VOT FOR 0 FHER PROJE
	E. F.	2. Termination ma Joint Sealer: Specified in Cleaner: Type recomme	astic: Type recommended by flas n Section 07 9200. ended by masonry manufacturer.	ashing manufacturer. er.		1	1.05 DELIVERY, STOR A. Transport and stor B. Protect from moist	RAGE AND HANDLI re trusses in upright j	NG position resting on bear istortion	ring ends.																					STEVE 1100 Ma Kansas 816-842 916-842 916-916 9
	PART 3 3.01 A.	3 EXECUTION PREPARATION Wet unit having an absorption rate when lai	rption rate in excess of 20g per 3 d does not exceed this amount.	r 30 square inches per minute a t.	s determined by ASTM C67 s	so that	PART 2 PRODUCTS 2.01 MATERIALS																								Phone : DRAV DFROPERT FOR OCC
	B. 3.02	Remove dirt, loose rust, INSTALLATION	and other foreign matter from re	reinforcement and anchors.		Ē	1. Graded in Steel Connectors: Gussets: Plywood	n accordance with NI ASTM A653/A653M I, APA PRP-108, spe	ST PS 20. , Structural Quality, G9 cies optional, grade as	00 coating class, die stamp dictated by design, Exteri	ped with integral teeth. ior Exposure.																				
	В. С. D.	Maintain masonry cours Lay concrete masonry in Lay masonry plumb and	es to uniform dimensions. Form n running bond. Course one mas I level. Do not adjust masonry un	m horizontal and vertical joints o asonry unit and one mortar joint units after mortar has set.	f uniform thickness. to equal 8 inches.	2 // E	A.ACCESSORIESA.Fasteners: GalvanB.Wood for Blocking	nized steel, type suite g and Framed Openir	ed to conditions. ngs: Specified in Sectio	on 06 1000.																					
	F. G.	joints. Do not butter corners or Machine cut masonry w	excessively furrow joints. ith straight cuts and clean edges	es; prevent oversized or undersi	zed joints. Discard damaged u	units. Do not	2.03 FABRICATION A. Cut members accurate B. Jig trusses during	urately to length to a fabrication to obtain	chieve tight fit. tight joint connections.																						Aroma Joes
	H. set I.	When joining fresh mas masonry. Stop horizontal runs by	onry to partially set masonry, ren racking back normal bond unit in	emove loose masonry and morta	ar, clean and lightly wet expos mitted.	sed surface of	C. Press connectors P PART 3 EXECUTION 3.01 INSTALLATION	into lumber to full de	pth.																						- 프 -
	J.	1. Place reinforce below openings 2. Extend minimul	nt: ment at maximum 16 inches on 6 5. m 24 inches each side of opening	n center vertically, at topmost co ings.	urse, and at first two courses	above and E	 A. Install trusses in a B. Place level and tru C. Provide temporary D. Prior to inducing lo 	ccordance with manu ue to line. y bracing to hold trus: pads, place permane	ufacturer's instructions. ses in position until per nt bridging, bracing, an	manently secured. Id anchors to maintain trus	sses straight and in corre	ect position.																			619 0U
G	К.	Center reinforce Lap ends 6 inch Secure masonry to struc Exposed location	ng in wall. hes minimum; use fabricated tee ctural members with wall ties spa ons: Tool joints to concave profile	e and corner fittings at corners a paced maximum 16 inches on c file.	and intersections. enter.	E F (Do not field cut tru Place headers and Installation Tolerar 	isses. d supports to frame c nces: Maximum 1/2-i	openings. Frame openir inch variation from true	ngs between trusses with position.	lumber as specified in S	Section 06 1100.																			
	L.	2. Concealed loca Reinforcing Bars: 1. Position reinfor- between mason	tions: Cut joints flush. cing accurately and hold securely ry and reinforcing.	ely in place to prevent displacen	nent. Maintain minimum 1-inch	h space	END OF SECTION																								NA HA
		 Grout at interva Vibrate grout du Stop grout 1-1/2 finished wall. 	Is of not more than 4'-8" inches i uring and after placement to ensu 2 inch below top of masonry if gro	s in. Isure complete filling. grouting is stopped for 1 hour or	more, except where completin	ing grouting of																									AIS, STI
F	М.	Installation Tolerances; 1. Alignment face 2. Vertical alignment 3. True plane of w	Maximum variation from: to face of adjacent units: Plus or ent of head joints: Plus or minus rall: Plus or minus 1/4-inch in 10	or minus 1/8-inch. s 1/2-inch in 10 feet. 0 feet and 1/2-inch in 20 feet or	more.																										ARO ALA IAL
		 Plumb: Plus or Level coursing: Joint thickness: Cross sectional 	minus 1/4-inch in 10 feet noncun Plus or minus 1/8-inch in 3 feet; Plus or minus 1/8-inch. thickness of walls: Plus or minu	umulative; 1/2-inch in 20 feet or et; 1/4-inch in 10 feet; 1/2-inch in nus 1/4-inch	more. 30 feet.																										AR O.
	3.03 A	8. Provide control FIELD QUALITY CONT Testing and Inspection 5	joints per industry standards. Ro ROL Services:	Refer to drawings for locations.																											
	7.	 Mortar: Mold ar wall area. Grout: Mold an wall area 	d test one set of compressive st	strength cubes in accordance w strength cubes in accordance wi	ith ASTM C780 for each 5,00 th ASTM C1019 for each 5,00	00 square feet of 00 square feet of																									SET
E	B.	Testing and Inspection S 1. Masonry units: 2. Masonry assen a Determine com	Services: Inspect masonry units prior to an nblies: pressive strength of masonry by	and during installation for compl	ance with specified requireme	ents.																									2024.08.30
		 b. Verify dimensio just prior to clos c. Verify type, qua d. Inspect placem 	ns and condition of grout spaces sing of cleanouts. Intity, and installation of reinforce ent of grout	es and type, quantity, and place cement, anchors, and ties.	nent of reinforcement during i	installation and																									Revision Schedule
	3 04	 Grout: Mold and masonry wall a CLEANING 	d test one set of compressive str rea or fraction thereof.	strength cubes in accordance wi	th ASTM C1019 for each 5,00	00 square feet of																									# Date Description
D	A. B. C.	Protect adjacent and un Apply masonry cleaner Thoroughly rinse surfac	derlying surfaces. in accordance with manufacturer es with clean water after complet	er's instructions. letion of cleaning; remove all tra	ces of cleaning solution.																										
	END OI	F SECTION																													
C																															С
																															PROJECT #
В																															SPECIFICATIONS
																															SHEFT NUMBER
A																															
																															SP101
1		2	3 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

	1	2	3	4	5	6	7	8	9	10	11 12	13	14	1	15 16	17	18	19	20	21	22	23	24	25	26	6 2	27 28	29	30	31
K											SECTION 20000 - BASIC MECH PART 1 - GENERAL 1.01 RELATED DOCUMENT A. The general provisions of the this Section. B. This Section applies to all Se 1.02 DESCRIPTION A. Mechanical work includes co B. Division 22 23 of the Specific	ANICAL REQUIREMENTS S Contract, including the Contract, including the Contract, including the Contract, and Division 21, 22 an	<u>S</u> onditions of the Contract a nd 23. ng, heating, ventilating, ai	t and Division 1	1 - General Requirements, apply t ng, exhaust, and fire protection.	the work specified in	 1.19 WARRANT A. Warranties shal prorated for one yea prorated period. B. Acceptance of the work shall operate and perform C. Acceptance of the damage therefrom rwork without cost to D. Upon written no 	ES AND GUARANTEE be provided for all equip , and hermetic and sem e work under this Divisi e and perform as design without producing object e work shall also be sul sulting from the supply he Owner. ce from the Architect or	ment in accordance wit -hermetic reciprocating on shall be subject to the ed, including code clear tionable noise within oc ject to the conditions th of faulty workmanship of Owner, the Contractor	th the requirements of th type air conditioning co e conditions that all inst rances, and as selected cupied areas of the buil that any time within one y r material shall be imme shall promptly remedy y	e General Conditions, ex pressors shall be warra lled systems, equipment with respect to efficiency ng, leaks or condensatic ar after date of final payr liately amended, repaired thout cost to the Owner	cept that all warranties sha nted a minimum of 5 years apparatus, and appliance capacity and quietness ar n. nent, any defective part of l or replaced as part of the any defects occurring withi	all be non- s non- es included in ind shall f the work or e contract in a period of	2.07 PIPE HANGE A. Provide and in all State and Local jurisdiction, Contra approval by the au B. Unless specifit thick. Hangers in of required or shown suitable steel supp and evenly spaceo C. Steel supports	ERS AND SUPPOR Install hangers, sup al Codes. In additionactor shall provide uthorities. fied otherwise, pipe contact with coppent to allow for mover ports fastened to ov d. s and steel wall bra	RTS oports, clamps and a on, sprinkler piping sl details of hangers, s es shall be hung with er pipe shall be copp ment of pipes by exp overhead construction ackets shall be prefa	attachments to support piping p shall be supported in accordanc supports, clamps and attachme n malleable iron, split ring hang per plated. Strap type hangers pansion. Hangers shall have ro on or steel wall brackets. Hang abricated units as manufactured	operly from building structu e with NFPA 13. Where re nts along with supporting d ers or with heavy steel band shall not be acceptable. Ro ds and turnbuckles of requ ers and supports shall be in	res in compliance with MSS-SF juired by local authorities havin ata sheets of materials used for or clevis hangers not less than ller type hangers shall be used red length. Suspension shall b stalled so that pipes are run par b. Fee and Mason. Anchors in	IP-58, ng or in 1/8" d where be from arallel
J											 includes all such work indicated i Supplementary General Conditio C. This Division requires the fur reasonably inferred; including evi system's functioning as indicated equipment, transportation and uti 1.03 RELATED WORK SPEC A. Check all other specifications and equipment for which he shall 1.04 DRAWINGS AND SPEC 	n all of the Contract Docum ns, Architectural, Structural, nishing and installing of con ery article, device or access by the design and the equi lities. CIFIED ELSEWHERE is and the drawings for mech rough-in for and connect-u	In the provide of the second s	mited to Instruct rical Drawings a ems and each e ecifically called r elements of th ire protection ea	equipment which this contractor sh	dicated on Drawings or to facilitate each upervision, supplies,	one year from the da 1.20 OPERATIO A. The Contractor and maintenance of the Certificate of Oc B. In addition to ele project in accordance systems specified un manufacturers' warr maintenance manua 1. INSTRUCT programming pr	e of final acceptance. AND MAINTENANCE hall furnish all services all equipment and syste upancy. stronic data copy, one c with the General Cond der this Division, all app nties shall be furnished DNS - Furnish printed ir cedures and recomme	MANUALS as required for adequate ns installed under Divisi complete copy of operatii tions of the Specificatio roved shop drawings ar and bound in the manual structions for operation ided set points, along w	e printed instructions to ion 21,22,23. All Docurn ng and maintenance manus. The manual shall in nd all manufacturers' pr al. One copy of approv and maintenance of all vith information necessa	ne Owner's operating an ents shall be provided to nual in hard back binder s ude printed operating an ted instructions for equip d report on motors and c quipment and systems in to help Owner apply the	I maintenance personnel f he Owner within 90 days of hall be furnished at the en d maintenance instructions ment operation and mainte ontrols shall be bound in o installed under this Division maintenance manual.	for operation of the date of nd of the s for enance. All operating and n including	concrete construct on masonry walls s expansion due to s prevent vibration a D. Where pipes at the joists but shall Where pipes are s reinforcing steel ar prefabricated supp at locations as her E. Maximum spa	tion shall be Star o shall have bolts thi short hanger rods, and the transmissic are supported or hu l be supported from supported or hung f ind shall not be and port channels shall reinbefore specified acing of hangers sh Ferrous Copper Pipe Rod Size	or A-J threaded comp rrough wall fastened , pipes shall rest on r ion of noise and later nung from steel bar jo n and fastened to the from concrete pan jo chored into the bottoo I be installed to span ad. hall be in accordance Pipe Pipe	pound type or Phillips self-drilli to suitable steel plate on back rollers and covering protection ral movement. oists, the pipe supports or hange e top member of the joists with oists, the supports or hangers s om of the joists. Where runs of h between the joists for support with the following schedule for	Ing type of sufficient size to a of wall. Where required to saddles. All piping shall be ers shall not be hung from supports, clamps, or fasten hall be anchored into the si piping are parallel to the joi of hangers and the channe r size of pipe:	dequately support the load. Su allow for movement of pipe by supported and secured as requ or fastened to the bottom memb ers manufactured for this purpo des of the joists to clear the supports shall be anchored to j	Supports uired to bers of ose. e joists, p joists
I											 A. The contract drawings for marrangement. The Contractor shother drawings for this project to verify spaces in which the mecha B. Where specific details and d as required for the proper installat the specifications that have not b difference in costs) is included in determined and approved by the 1.05 QUALITY ASSURANCE A. Manufacturer's Qualifications and material specified for this product of the processing of the proces of the processing of the processing of the processing of the pr	conanical work are in part so all follow these drawings in determine all conditions affe inical work is to be installed mensions for mechanical w tion of the work and coordir een clarified by addendum the contract price, and the Architect, at no addition to to the manufacturer shall re- ject, and shall have manufacturer	schematic, intended to co the layout of his work an fecting the mechanical wo d. work are not shown on the ination with all other work prior to bidding, it shall b Contractor shall perform the Contract price.	onvey the scop and shall consul vork. The contr he drawings, th k on the projec be assumed by n the work in ac produce, as one east five years.	ope of work and indicate the general sult general construction drawings, ntract drawings are not to be scaled the Contractor shall take measurer ect. In case of any discrepancies b by the signing of the Contract that t accordance with the drawings or w one of the manufacturer's principal p 's.	electrical drawings and all and the Contractor shall ents and make layouts etween the drawings and he higher cost (if any th the specifications, as	2. SERVICE - 3. MAINTENA operation and m 4. ACCESSOI manufacturer of a. FILTER b. FAN BE 5. TEST AND 6. SHOP DRA 7. RECORD D 8. WARRANT C. ASSEMBLY OF 1 Assemble M	Name and address of n ICE – A complete list o intenance manual for e IES - A complete equip he following items: S LTS BALANCE REPORTS - VINGS - Furnish one (1 RAWINGS - Furnish on ES - Furnish all warrant MANUALS anuals in 3-ring loose le	ot less than one service regular maintenance ac ach particular model an nent accessory schedu Furnish a copy of the ap) set of all approved sho e (1) set of Record Drav es for all items of equip	e agency for installed eq ctions for equipment an id type of product. Ile listing each piece of o oproved testing and bala op drawings and product wings in each manual. ment furnished on this p	ipment. systems. Include the titl quipment and the related ncing reports and the equ data. oject.	e or publication number for size, type, number require ipment identification list. Material shall be in like.n	ed, and	1/2" 8 1" & 1 1-1/2" 2" & 2 3" 4" & L Hang 2.08 SLEEVES AN A. The Contracto B. Sleeves shall downspout pipes ti masonry shall be s	& 3/4" 1/4" 8'-0" 1-1/4" 3/8" 9'-0" 2" 3/8" 9'-0" 2-1/2" 3/8" 10'-0" 10'-0" 5'-0" Larger 10'-0" ger rod shall be 1/2" VD OPENINGS or shall set all boxe be installed for all through slab on graster	4'-6" 4'-6" 6'-0" 2" for pipes 3" through es and sleeves for we pipes passing through ade floors unless ind st through pon-basing	yh 5" 5/8" for pipes 6" and 8" in vork to be installed under this D ugh floors, walls and partitions, dicated otherwise on drawings.	size. vision. except sleeves are not requ Sleeves through concrete nalvanized metal with form	ired for soil, waste, vent, and slabs, concrete walls, or bearing	1g arrae
Н											 B. Product Qualification: Manu approximately three years. C. Service Qualifications: Ther on major equipment items within of shop drawing submittal. 1.06 EXISTING CONDITION: A. Each bidder shall inspect the bidder of the responsibility to merilider of the responsibility to merilider of the scheduled sequence in A. The scheduled sequence in A. 	facturer's product shall have e shall be a permanent serv eight hours of receipt of not S site as required for knowle et existing conditions in perf ENCE IN PERFORMING W performing the work shall be	re been in satisfactory op vice organization maintai tification that service is n edge of existing condition forming the work under the VORK re such to insure the safe	peration on thre ained or trained needed. Subm ns and failure to the contract. ety and comfor	nree installations of similar size and ed by the manufacturer which will re omit name and address of service of e to obtain such knowledge shall no fort of all workers and occupants.	type, as this project, for nder satisfactory service ganizations at the time relieve the successful	 Assemble in condition. Copie Small or lar Furnish eac a. INSTRI b. SERVIO c. MAINT d. ACCES e. TESTIN f. SHOP g. RECOF h. WARR. 	s soiled during construct e literature not easily in binder with plastic enc CTIONS E NANCE (including equi SORIES G AND BALANCING R RAWINGS D DRAWINGS NTIES	en binders with chlorine- tion will not be accepted serted in binders shall b osed tabs on reinforced oment label and system EPORTS	d. e put individually in hea d paper neatly arranged ns clearly labeled)	y manila envelopes, inse Type each of the followin	rted in binders. g on a separate tab:	IGW	enough to allow fre tight in construction C. Sleeves in wal D. The annular sp fiber to within 1/2" not less than 350 of be equivalent to U. with ASTM Standa E. The annular sp transmission of so pipe penetrations to F. Sleeves throug	ree movement of pi on, without space b alls or partitions sha space around pipes of each end of the degrees F. The se J.S. Gypsum "Therr ard C24. Seals sha space between pipe bound and air to perr through sound part ugh outside walls, for	ipes, and insulation v between sleeve and o all finish flush with w s passing through sle e sleeve and shall be ealant shall be level v rmafiber Safing", non hall comply with NFP/ e and sleeve passing rmit movement of pip rtitions. foundation walls, wat	where applicable, without dam construction. vall surfaces and sleeves throu eeves in all floor slabs above g e sealed off at each end with si with the end of the sleeve and noombustible and with melting A requirements and with U.L. r g through non-fire rated interior be and insulation without dama terproofed slabs and slabs on g	garvanized metar with form ige to construction, finish o rade and through fire rated cone elastomeric sealant ra- finished off smoothly and w point of not less than 2000 o equirements for fire stops a walls shall be packed with ge. Refer to drawings for ar- grade shall be steel pipe an-	e floor. valls shall be packed with mine ted to withstand temperatures thout voids. The mineral fiber s egrees F. when tested in accor ad fire resistance. iberglass insulation to prevent ditional requirements for duct a the annular space shall be sea	eral eral sup to shall ordance t and ealed
G											 1.08 LABOR, WORKMANSH A. All labor for the installation of and all workmanship shall be firs B. All material and equipment for necessary, this shall include the standard states and shall be necessary, this shall include the standard states and shall be necessary, this shall include the standard states and states and	IP AND SUPERVISION i material and equipment fur i class and in compliance to or the mechanical work shal services of special erection S performed in compliance w lights, signs and guards rec ES	urnished under the mecha o the specific requiremen all be installed under com n and operation personne with all applicable and gov equired for performance of authorities for the perform	nanical work sh ints of drawings npetent supervi el. overning safety of mechanical	shall be done by experienced mech gs and specifications. rvisory service furnished by the Co ety regulations including the regulati al work shall be provided by the Co	anics of the proper trade tractor. Where ons of the Occupational tractor.	 PART 2 - PRODUC 2.01 MATERIAL A. All materials imperfections an capacity. As po and quietly at th the condition or 2.02 SUBSTITU A. Reference i number shall be 	S AND MANUFACTURE and equipment shall be d shall have markings c sible, all materials and required capacity without eplace the equipment a IONS the specifications to ar interpreted as establish	new except as stated o r a nameplate identifying equipment of the same t ut producing objectiona no cost to the Owner. y article, device, produc ng a standard of quality	otherwise; shall be the b g the manufacturer and type shall be of the sam ble noise within the occ ct, material, fixture, equi	st quality and design; sh roviding sufficient refere manufacturer. Equipme pied areas of the building ment, form or type of cor ed as limiting competition	all be free from defects and nce to establish quality, siz nt shall function and perfo y; if not, the Contractor sha struction by name, make o n. Any article, device, proc	d ze and orm efficiently all remedy or catalog duct,	with Thunderline C below ground insta to 200 degrees F. : recommendations instructions. Sleev the sealing of cons are not required fo 2.09 PIPES THRO A. All pipes throu installation shall be B. Single un-insu	Corp. "Link-Seal" m allations. Seals sh and shall be resist s for each size pipe eves shall be flush v struction around the or soil, waste, vent, DUGH ROOF ugh roof shall be in: e coordinated with ulated pipes throug	nodular wall seals to hall be synthetic rubb tant to aging, ozone, e and the seals shall with wall at each end he outside of the slee t, and downspout pipe installed with sleeves the roofing installer gh roof shall be instal	p provide airtight and moisture t ber links and zinc phosphate pl , water and chemical action. S be sized and installed in accor d. Sleeves through floor slabs eves. The seal shall be waterti bes through slab on grade floors and openings, and with roof fla- and shall be watertight and we alled with Stoneman model S-1:	ght seal in above ground in ted steel bolts and links sh eeve size shall be in accorr dance with the manufacture shall finish 2" above floor. of and shall match adjacer unless indicated otherwise shing/counterflash assemb athertight. 100-4, or approved equal, fl	stallations and a hydrostatic sea all remain flexible from -40 degr lance with the seal manufacture r's recommendations and printe 'he installer shall be responsible t surface finish. Sleeves and so on drawings. y as herein specified. The corr ashing/counterflashing assembl	eal in grees F. ted ole for seals mplete
F											 A. All permiss and neerses that Contractor. 1.11 CODES AND ORDINAN A. All mechanical work shall co the National Electrical Code, the Code, O.S.H.A. and all State and B. Laws, codes, ordinances and the quality and/or quantity. 1.12 JOB CONDITIONS A. Inspect all existing conditions 	ICES nform to the requirements o National Fire Protection Ass local laws, codes and ordir d regulations shall take prec s affecting work before subn	of all applicable codes, or sociation, the Standard E inances. cedent excepting only wh	ordinances and Building Code, /here the work o	nd regulations including the current le, the Standard Plumbing Code, th k called for by the drawings and sp	ules and regulations of Standard Mechanical cifications exceeds by	material, fixture: respect to that s B. Any piece of code clearances installation for c Manufacturer or approval. Any in Contractor and s 2.03 IDENTIFIC/ A. All mechani core and shall b	equipment, form or typ becified. Refer to Gene equipment, article, prod and working space for nvenient inspection, se his representative to ch upact substituted equipr Il cost associated const TION OF EQUIPMENT al equipment shall be in securely attached to e	e of construction other t al Conditions, Division ' uct, or fixture shall fit th connections of piping, du vicing and maintenance ack the available space nent may make on other uction revisions shall be entified with engraved p	than those specified ma 1 for substitution proceed the available space allotts uctwork, electrical, etc., e without causing undue allotted to assure that ti r trades including struct e assumed by the Cont phenolic nameplates with Wording of plates shall	be substituted, if in opini res before and after bidd d and shall allow adequat nardship. It shall be the e proposed item will mee ral framing and supports ictor.	on of the Architect, it is equing. e space around the item for space upon completion of esponsibility of the Contra t these conditions before s shall be coordinated by Me	ual in every for proper the actor, and the submittal for echanical ck with white as approved	four pound seamle assembly; and cas for anchoring in pla installed. Flashing Stoneman "Perma compound. C. All piping throu manufacturer. 2.10 COVER PLAT A. Wherever exp coiling and floor ou	ess lead flashing as st iron counterflash lace, and top annul g assembly shall be aseal" before install bugh single ply roofs TES posed pipes pass th	assembly with 5" high hing fitting with rust-r lar space for sealant be designed to fit prop lling counterflash fitti fs shall be installed a through floor, walls c	h boot and not less than 10" sk resistant prime coat, of the cau t fill. Assemblies shall be furnis perly on roofs from level up to 1 ing. Annular space in top of co as detailed by roofing manufact ceilings and partitions, cover pla	rt; conical shaped steel reir king type to fit over all type hed in sizes to properly fit s 0-degree pitch. Top of flas unterflash fitting shall be co urer and in strict accordanc tes shall be installed aroun	forcing boot underneath lead fla s of piping, vandal-proof set scru ize of pipe with which they are hing cone shall be sealed with npletely filled with epoxy sealin e with recommendations of roof	lashing rews ng pfing all,
E											 B. Maintain a superintendent or Superintendent and foreman sha C. Take all measurements for N affected and make any necessar D. Protect all work, materials ar in perfect condition. Keep areas E. Furnish and maintain signal I F. Contractor is responsible for G. Schedule and perform work in 1.13 COORDINATION AND A. The Mechanical Trades shal equipment before erecting the work Contractor shall relocate his work 	foreman on the job when N II be familiar with the Contra lechanical Work and be res y offsets required to concea d equipment from damage. clear of debris. Promptly re ights and barricades as req all Mechanical Work until a o assure mechanical servic COOPERATION I cooperate and confer with rk so as to avoid interferen x as approved by the Archite	Mechanical Work is perfo act documents. Employ sponsible for same. Coo al conduit or equipment a e. Cap or plug temporary emove waste material fro quired for human safety fr accepted by the Owner. ce for other buildings at a n each other and with all of nce and delay in progress tect, to depart from such	ormed and whe y qualified and e ordinate Mecha and to clear oth y openings and rom premises. for all Mechani all times. other trades or ss of construction interferences	when required for coordination with of d experienced mechanics of proper shanical Work and shop drawings we other equipment, structural membe nd ends of conduit. Deliver all work s. anical Work.	ther Contractors. trades. th all other Contractors s or other obstructions. to the Owner clean and it materials and the may develop, the price. Where it is	 by Architects. 2.04 ELECTRIC. A. Unless spering the Mechanic overload protection equipment or sy switches shall b B. Thermal overlatest edition of furnished for all C. The Electric substitutions an equipment and light the state of the stat	L fically specified or show I work. Unless specifie on on all phases and sh tems. Starters for moto furnished under Divisio rload protection units fu he National Electrical Co equipment under the Me al circuits and compone or equivalent are used e responsible for any in	n otherwise, the Contra d or shown otherwise, n all have auxiliary contac rs operating above 120 n 16 of specifications. nished in the motor sta ide. The Contractor sha chanical Work and shal its for mechanical equip it is the responsibility of crease in electrical cost	actor shall furnish requir notors shall be NEMA d cts, push-button or cont volts shall be furnished all be responsible for ve l change out the overloa oment are selected and the Contractor furnishin due to the difference in	d motors and starters wil sign 'B', drip-proof type. I selector switch as spec with control transformer i fication of thermal overlo d units if not sized as spec ized based on the mecha g such equipment to veril equipment.	h controls and for equipme All motor starters shall hav ified and required for contr or 120 volt operation. Disc ot to exceed the values sp ad trip current ratings in m cified above. anical equipment specified y the electrical characteris	ent furnished ve thermal trolled connect becified in the notor starters I. If stics for same	 All excavations shared in the second s	N & BACKFILLING nall do all excavatin trenches for all und ls, foundations, and nall be properly prot ving, the sides of th l has reached the p ng, the braces shall ous supports to be	G ng and backfilling ner Jerground work and t d columns shall not h tected by the necess the trenches shall be point where such rem ill be left in place to p e used by the Contract	so that they will not pull away f ecessary for the construction an there shall be no variation from be excavated without prior con sary bracing and timbers to pre e securely held by bracing or sh moval can be safely carried out prevent such damage. The thic ctor shall be as required and of	d installation of the work ind the drawings except upon sultation with the Architect of vent any cave-ins or injury eathing, which bracing or s Where adjacent improven kness of the sheathing and type to properly protect the	expands and contracts. luded under this Division. Line: written order from the Architect. or his Representatives. o adjacent improvements. Wh heathing shall not be removed u ients might be damaged by the the dimensions of the cross bra sides of the trench to prevent	es shall t. here until e races,
D											 necessary to make adjustments other installed work, the Contract 1.14 CUTTING AND PATCH A. The responsibility for any cut openings made for the work unde B. Cutting shall be done with exconcrete or masonry construction installation of the work. Adequat 1.15 CONTRACTOR'S EQUI A. All hoists, scaffolds, staging, 	n the locations or routing of or shall be responsible for n ING ting of construction which is er this Division, shall be inclu- treme care and in such a m a shall be by concrete saw of e protection shall be provide PMENT runways, tools, machinery	If piping, ductwork, or oth making these adjustment is required for the installa luded in each Section of nanner that the strength or rotary core drill. Open led to prevent damage to	ner installations nts as a part of ation of work ur f this Division. I of the structure enings in any co o adjacent area d for the perforr	Ins (from that shown on drawings) to of the contract work. under this Division, and for the path n. ure will not be endangered. Where construction shall be cut the minimi eas and to prevent dust from sprea	hing and finishing of rer possible, openings in m size required for the ling to adjacent areas.	 2.05 FIXTURES A. Where the ormechanical system install all necessilocations shall b B. Contractor side the responsil 2.06 ACCESS P A. Where valv 	& EQUIPMENT FURNIS rawings and specifications rawings and specifications rawings, the Contractor shat ary traps, stops, and su e determined from the e hall be responsible for s lity of this Contractor to INELS s, traps, fire dampers, of	HED BY OWNER ns indicated fixtures and I furnish and install all ropplies, and shall make fi quipment itself or from th toring and protecting Ov replace or repair.	d equipment which are ough-in of piping, and u inal connections to the f he equipment manufact wner-furnished equipment and other equipment a	be furnished by Owner, less shown otherwise or tures and equipment and rer's shop drawings. t and fixtures prior to ins	and which require connec specified otherwise, shall f I make fully operational. R allation. Damage to equip	tions to the furnish and Rough-in pment shall vable ceiling	injurious cave-ins or er C. The Contractor sha water adjacent to the lii structure of the soil. D. The Contractor sha dangers caused by exc E. The backfilling of ti trench shall be backfilling frozen earth and rubbis F. After backfilling, all	prosions. The second se	and bailing necessa the progress of work porary bridges, barric er obstructions. carried out as rapidly exceed 6" with good able for backfilling. ed material shall be re	ary to keep all excavations free k. The Contractor shall inspect icades, lanterns and such other y as the testing and acceptance d selected dry earth thoroughly removed from the grounds.	of water and shall provide f the ground where excavati signs and signals as shall of the finished sections of t tamped with pneumatic tan	or the uninterrupted flow of the s on is required to ascertain the be necessary to warn the public he piping installation will permit per. NOTE: Broken stones, ci	surface ic of the it. The cinders,
											Contractor. 1.16 CONCRETE WORK A. All concrete work, including or reinforcing and construction shall 1.17 SUBMITTALS A. Provide submittals in accord drawings cannot be obtained witt B. Before submitting, the Contra all equipment will fit the available	concrete bases, pads, suppr comply with Division 3 of th ance with the General Conc in thirty days, the contracto actor shall verify that all prop space and allow ample roo	borts, etc., required for the Specifications. ditions and as specified hor shall notify the Archited	he mechanical herein within thect upon receiv tually compatibute size of equil	al work shall be provided by the Co thirty days after award of the Contr eiving notice of that fact. tible and suitable for the intended u	tractor. Concrete, act. If any shop se. He shall verify that (any change in location	tiles, access par on the valve, tra centerline of the B. Access pan equal by Itsiu, L hinges and scre recessed type fi unless access r C. Access pan Each panel asse continuous stee	els shall be installed to b, or other device for wh device. els in non-fire rated cons uco, Zurn or Wade, flus <i>y</i> -driver coin type lock a ed with insert to match quires them to larger. els in fire rated construc mbly shall bear the U.L hunges with stainless st	provide for operation, see ich the access is require truction shall be Milcor, h type steel units with fr nd finished with prime of ceiling material. Panels ion shall be Underwriter label. Each assembly seel pin; automatic closin	ervice, inspection and m ed, where possible. In r style K, M, DW or AT a rames. Construction sh oat of paint. Access pa s shall have minimum si r's Laboratories rated an shall have steel frame a ng mechanism on door;	Intenance. The center of case shall the access p required for wall or ceilin ll be of not less than 16 g els in acoustical tile or g e of 12" X 12" for hand-h d labeled assemblies (fra d anchors designed for t elf-latching latch-bolt ass	t the access panel shall be anel be located more than age construction materials, of auge leveled stock and fitt psum board ceilings shall ples and 24" X 12" for man me and door) for 1-1/2 hou he type construction steel embly with knob operator of	e centered 12" from the or approved ted with pivot l be style AT nholes, ur, "B" Label. door; on outside	A. Material and equip the work. This shall ind damaged shall be repla construction. 3.03 NOISE AND V A. Contractor shall be installed equipment or objectionable noise in a	VIBRATION e responsible for the system, so the sou any occupied area	hanical work shall be rotection from the we o an acceptable cond he installation of all e ound level shall not e a due to improperly ir	e protected from dirt and damage eather if storage is outside. All dition as approved by the Arch equipment in such a manner as exceed NC30, in any occupied s installed equipment and any au	e and maintained in a clea parts of material and equipi tect. This shall include fact to control the transmission pace. Contractor shall be lible diffuser noise in any a	a condition during the performar nent that have become rusted c ory finishes damaged during of noise and vibration from any esponsible for the correction of ditorium area.	ance of or y yf any
											or configuration, the Contractor s C. All submittals prepared by m and date, and must indicate Spec Contractor which shall signify tha D. Submittals shall include the r the specific item of equipment to project will not be accepted. Per E. Coordination Drawings shall drawings shall indicate bottom of resolved prior to fabricating ducty	hall submit a shop drawing anufacturers must be prech ification paragraph under w the has checked the submi nanufacturer's model numb be furnished on this project formance data shown or ma be at 1/4" = 1'-0" scale dem duct elevations as well as o vork.	showing a revised layou hecked by the Contractor which submitted and the nittals. ber, capacity, performanc t. General catalog data t arked on the submittals s monstrating coordination ceiling heights. Major str	but before common or, must bear the project name. Ince data, electri that does not in shall be at the of mechanical structural eleme	nmencing work in the area included the manufacturer's stamp of certific e. No submittals will be reviewed v strical characteristics, etc., all clearly t indicate the specifics for the item te actual specified operating conditi cal work with all other trades of the nents shall be indicated and all clear pressed with the deviations from Des-	in that layout. ation for construction ithout signature of shown and marked for b be furnished for this ons for this project. roject. Ductwork rance conflict shall be	and with latch-b accordance with D. Accessible	It release on inside; and the instructions furnishe eilings with removable :	shall be phosphate trea d by the manufacturer f ype ceiling tiles do not r	ated and have factory p for the U.L. labeling. require access panels to	me coat of baked white f	nish. Assemblies shall be	e installed in	A. The contractor sha driven equipment shall adjusted for uniform an as required to make pro- clearance for service, r B. All equipment indic equipment is not noted accordance with manu accommodate roof slop	all properly set and ll be accurately alig nd proper tension a roper adjustments a maintenance, inspe- icated to be roof mo d on curbs including ufacturers recomme ope where noted, al	d properly adjust all s gned and properly ad and even wear on be and obtain satisfacto bection, and to compl iounted shall be prov ing equipment furnishe iendations and local all level curbs shall be	systems and all material and en djusted to prevent vibration and elts. All equipment shall be ma tory operation for approval. All oly with all applicable codes. <i>v</i> ided with equipment manufact ted by Vendor, Contractor shall authorities having jurisdiction. e shimmed to assure equipment	uipment included under the excessive wear. Sheaves intained during the contract equipment and materials sh irrer's factory curb unless of provide curb or rails to prop Equipment shall be set level t is set level and plumb.	mechanical work. Drives on m on V-belt drives shall be aligne period. All systems shall be op all be arranged to provide prope nerwise noted on plans. Were erly install equipment and secu I, factory curbs shall be sloped	motor ed and perated per e ured in d to
В	-										 F. The Checking and subseque unless he has, in writing, called a for errors in dimensions, details, adjacent work. G. Any corrections or modificati received prior to the performance H. Refer to individual sections of 1.18 RECORD DRAWINGS A. The contractor shall keep a of ACAD files of the original contract 	in approval of submittals shittention to such deviations a size of members, or omission on made on the submittal storad of any work incorporating storad provide the submittal storad st	an not relieve the Contra at the time of submissior ions of components or fitt shall be deemed accepta such corrections or modi r itemized submittal requi	actor from resp on and secured ittings, or for co table to the Col difications. uirements.	esponsionity for deviations from Dra ed written approval, nor shall it relie coordinating items with actual build Contractor at no change in price unlu ntract drawings and at the end of th original plans made during the jest	e project shall obtain								 3.05 PAINTING A. The Mechanical Composition B. Surfaces that have brawings. 3.06 CLEANING A. Dirt and refuse resistal cooperate in the r B. Immediately prior t and damaged finishes 	Contractor shall touc e been cut, patched sulting from the per maintaining of reas to the final inspecti restored to origina	uch up or refinish min ed and finished, shall erformance of the wor sonably clean premis tion, Contractor shall al condition.	nor damage to items of equipm I be painted in accordance with ork shall be removed from the p ises at all times. I clean all material and equipmo	ent with manufacturer's star requirements as called for remises as required to prev ent. Dirt, refuse and stains	dard finish. n the Architectural Specification ent accumulations and the Coni shall be removed from all surfac	ons and ntractor aces
A											reference to Addendum and Cha 1. The correct location of p 2. The location of all valves 3. Any other information of 4. Any change order items 5. Public utilities shall be di B. All notations shall be made in C. The complete set of Record Drawings are received.	a pertinent or useful nature, not previously incorporated mensioned where they enter a neat and legible manner Drawings files shall be deliv	d. Drawings shall indicat where it differs from the l inels, etc. e. d into the Drawing files. er building and located or r, with any additional exp vered to the Architect at t	on site. planatory drawi the completior	wings or sketches necessary.	ot be made until Record								END OF SECTION 20	0 0000					
	1	2	3	4	5	6	7	8	9	10	11 12	13	14	1	15 16	17	18	19	20	21	22	23	24	25	26	6 2	27 28	29	30	31

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	1	2	3	4	5	6	7	8	9	10)	11 12	13	14	4 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	INTE OF M		
К											SEC PAR 1.01 A. B. 1.02 A. Jurisc	TION 220000 - PLUMBING T 1 - GENERAL RELATED DOCUMENTS The general provisions of the Contr The requirements of Section 20 000 DESCRIPTION Provide complete installations to m diction. Provide plumbing as shown on Dra	tract, including the Condition 100 Basic Mechanical Requir neet or exceed highest stand awings and specified herein	ns of the Contract irements apply to dard of plumbing	t and Division 1 - General Rec o this Section. practice and comply with all L ce. tested and operating, inclu	quirements apply to the work Local, State and Federal auth	rk specified. thorities having	2.06 DRAINS A. Provide Zur drains including clamping device Schedule' on sh material as pipir 1. Type "A Provide Sur 2. Type "E recessed fla 3. Type "C preassembl	n drains as specified, or equ floor sinks installed in floors es. Size and type of drains s neet P100. Drains shall be ir ng systems in which they are A": Zurn series Z415SZ floor re Seal preassembled inline 3": Wade series Z415SZ floo at strainer in adjustable nicke ". Wade series Z415SZ floo led inline floor drain trap sea	ivalent Josam, Wade or Sn or basins with water proof r hall be as indicated by syml stalled with P-traps unless installed. Drains shall be a drain with drainage flange a loor drain trap sealer. Drai r drain with drainage flange I bronze top. r drain with anchor flange a er. Drains shall be set squa	h. All drains shall be embrane or lead pans of on drawings adjacen nown otherwise on dra follows: d 6" square nickel-bro shall be set square v clamping device, and d 7" tractor style heav e with walls in rooms	e carefully installed and se s shall be equipped with o ent to drain and/or as state rawings or specified other ronze alloy strainer in adju with walls in rooms in whi I type "ER", 7" round exter vy duty grate in adjustable s in which they are installe	t level at proper elevation. A ouble drainage flanges and d on 'Plumbing Fixture Unite vise and traps shall be of sa stable nickel-bronze top. ch they are installed. Ided nickel bronze rim and collar. Provide Sure Seal d.	PART 3 – EXE 3.01 INSTA A. All pipe, fitt closed during th B. All pipes sh where required C. Final conne without cutting D. Piping in fin fittings, offsets, conduit. All cha	CUTION LLATION OF PIPINO ings, valves, etc. sha he performance of the hall be cut accurately to make a true conne ections to all equipme oipe lines. hished rooms shall be etc., as required for th nges in direction of pi	G all be cleaned of grease e work. The ends of al to measurements take ection and to provide for ent and fixtures shall be e installed concealed b the installation of piping pipe shall be made with	e, dirt, scale and foreign m Il pipe shall be reamed sm en on job. Offset connection for expansion. Bent or spru e made in a manner that w pehind wall furring or above ng to meet all construction of n fittings; bending of pipe w	materials before installat mooth and all burrs remo tions shall be installed fo orung pipe shall not be a will permit the complete ve suspended ceiling wh n conditions and allow fo will not be allowed. Rec	ation. All temporary pipe of noved before installation. for alignment of vertical to acceptable. e removal of any fixtures o vherever possible. Work si for the installation of other vertical to the section of the sec	penings shall be kept horizontal piping and r any piece of equipment hall include all pipe, work including ducts and ed where pipe changes		Trevor Rob Ruhnke PE 1759 SS/ONAL	23 33 11111111111111111111111111111111	K
J											follov C. 3 A. 1 B. 1	 wing: Sanitary waste and vent system; do SUBMITTALS: In accordance Manufacturer's Literature and Data Valves Drains Water Heaters and Pump Water Pressure Regulating Va Backflow Preventers Pipe Insulation Plumbing fixtures in an assembled 	lomestic water system, and i e with Section 20 0000, Basi a: alve l brochure, showing cuts and	installation of plur ic Mechanical Re d full detailed des	umbing fixtures, drains and equencies of the follow equirements, furnish the follow scription.	uipment. ving:		 Type "F Provide with connection. 2.07 PLUMBING A. The followin Equivalent fixtur 1. WC-1 V pressure as 2. LAV-1 I install comp supplies with screw. Fun 	FS" (Floor Sink): Zurn series h Anchor flange and clampin of FIXTURES ng fixtures and fittings, unless res and fittings as manufactu Nater Closet (floor mounted) ssisted, floor mounted with B Lavatory (wall mounted): Zur blete with Zurn faucet Z7440- th loose key angle stops and nish and install carriers with	HFD2375-NH4 cast iron bo g collar foFlange mount flus s specified otherwise, are ta red by Kohler will be accep ; Handicapped: American S emis #1055 white open fron n #5340, 20" X 18" white vi XL, G-neck faucet, lever ha escutcheons with set-screy concealed arms, leveling sc	y, acid resistant enam with finished floor, do en from the American ble. andard 2467.016 "Cac seat less cover, bolt c eous china with back a dles, and Zurn #Z874 and 1-1/4" chrome pl ews. steel pipe upridh	nel interior, nickaloy rim a o not slope floor. Zurn ser n Standard Co.'s catalog a det", elongated, vitreous o covers. Rim 17-1/4" abov and arranged for concea 46-PC grid strainer with 1 blated cast brass P-trap w hts, and block-bases. Sec	nd half grate, and dome strai ies HFD2375-NH3 for 3" and their numbers are used. whina with Everclean, tank ty e floor. Color shall be white. ed arms carrier. Furnish and 1/4" tailpiece; chrome plated ith cleanout and escutcheon uurely anchor block bases in	ner. size. The use a installed to cen E. Threaded j Teflon joint tap acid-resisting p F. "Dualtite" o manufacturer's be G. Water pipir H. Branch cor sanitary tees of possible. In no where necessa bipe I. Undergrou	or reducing busnings is ter accurately in sleev pints shall be full and a manufactured and a aint after piping has b r "Tyseal" type neopr instructions. Ig shall be pitched to inections and change short sweep ells may case shall piping be ry for easy cleaning c and pipe shall be instal	Will not be allowed. All ves through floors, wal d clean cut with not more approved for use with of been tested and prove- rene gasketed joints ar of drain at low points. Si es in direction in soil, w ay be used in vertical si pitched less than 1/8" of piping and as require alled with barrel of pipe	all piping shall be installed v ills and partitions. ore than three threads expo contents to flow within the ed tight. No caulking, lamp nd "No-Hub" joints in soil, v steel to copper connections waste and downspout lines stacks and closet connectio per foot. Cleanouts shall l red by Codes. Cleanouts s e on firm, solid earth for ent	with ample clearance to bosed beyond fitting. Joi e pipe and exposed thre pwick, or other material , waste and vent piping s has shall be made with die es shall be made with 45 tions. Piping shall be gra Il be installed where sho shall be full size of pipe ntire length and holes sh	tor installation of covering. bints shall be made up tigh eads of ferrous pipe shall b il shall be used for correction shall be made in strict acc lielectric unions. 5 degree "Y" fittings or long raded to a uniform fall of 1, own on drawings, at chang e up to 4" in size. shall be excavated for bells	All piping shall be t with joint compound or be painted with on of defective joints. cordance with the g sweep ells, except that 4" per foot where es in direction of piping, or sockets. Piping shall		RT RUHNKE , Suite 2200 souri 64105 Fax : 816-842-1302 TIONS REMAIN THE	CALESSIONAL COTIES ICATIONS RETAINED BY ONLY FOR THEIR USE & ECT FOR WHICH THEY CONSTRUCTION OF ANY DJECT	J
I											PAR 2.01 /	T 2 - PRODUCTS SANITARY WASTE SYSTEM A. Soil, waste and vent piping abo 1. Provide Schedule 40 polyv 2. Provide schedule 40, type solvent cement as recommend 3. Provide factory-fabricated 4. Note to Contractor: Genera flame/smoke) insulation or cass B. Soil, waste and vent piping abo 1. Provide service weight "No	ove and below ground inside vinylchloride (PVC) pipe, typ DWV polyvinylchloride (PV ded by manufacturer and in s fittings for connections betw rally ceiling spaces are utilize st iron per paragraph below in ove ground inside building a lo Hub" cast iron pipe and fitt	le building except pe 1, grade 1, con /C) fittings with so strict accordance ween PVC piping ted as return air pl in plenum space. as otherwise requi ttings meeting AN	t as required by local authoritie nforming to ASTM Standard D ocket ends for solvent cement e with procedures as recomme and other types of piping or e lenums; provide schedule 40 uired by local authorities havin VSI Spec. A112.5.1, ASTM Sp	es having jurisdiction: D-1785. It welding. All joints shall be i rended by manufacturer. equipment materials. I PVC piping with plenum rate ng jurisdiction. pec. A74, asphaltum coated i	e made with ted (25/50 l inside and out.	chase. Set hot water su 2.08 WATER HE A. Furnish and electric, 40-gallo anodes for elect insulation to con operation at 240 accordance with 2.09 DOMESTIC	with rim at standard height of upply below the lavatory sha EATERS d install electric water heater on storage type with glass lin trolytic protection. Provide a mply with ASHRAE 90A for e D-volt, single phase and ASM n local authorities having juri	with a second se	dicated on architectur dications. EL-40 or approved equisigned for 150 PSI with the where noted on Dra heater shall be UL list ef valve. Provide with year warranty for com	ural drawings. The expos qual by Lochinvar or State vorking pressure and shal rawings. The heater shall ted with tin coated, coppe th drain cock and run type mmercial use.	ed waste pipe and trap and t Water heater shall be 4.5 h have two or more magnesit have high-density fiberglass r sheathed heating elements "L" copper relief line to drair	be laid in straig laying is not in J. Welded joi pipe manufactu of work and cou m damage piping K. Solvent ce for recommendation in 3.02 INSTA A. Plumbing f install fixtures s	ht lines and grade un progress. Its shall be by the ele rer. Joints shall be b unecting valved lines, Welds shall pass th ment welded joints in ns. LLATION OF PLUM xtures and fittings as hall be furnished und	hiformly to line with bath ectric or oxy-acetylene butt-welded, single V ty , each welded joint sha his test without showing PVC soil, waste and w BING FIXTURES is herein before specifie der the Contract, and w	ter boards set not over 25 ¹ e process using welding roo ype. Elbows and fittings fo all be hammered with a 3 p g leaks or defects. vent piping systems shall b ed shall be furnished and ir where noted on drawings sl	5'-0" apart. Open ends of ods of characteristics sir formed of welded cut pip pound hammer with suf be made in strict accord installed under the Cont shall include rough-in ar	s of pipe shall be closed wi imilar to pipe material and ipe section will not be acce ufficient force to jar pipe an rdance with the pipe and c ntract. All work required to and connections for plumbi	th a stopper when pipe as recommended by the ptable. After completion d joint but not to ement manufacturer's rough-in, connect and ng fixtures and fittings		TREVOR ROBE 1100 Main Street Kansas City, Mis Phone : 816-842-7552 DRAWINGS & SPECIFICA PROPERTY OF THE DESIGN F	OF THE DRAWINGS & SPECIE THE CLIENT MAY BE UTILIZED FOR OCCUPYING THE PROJ WERE PREPARED & NOT FOR OTHER PRO	Ι
Н											2.02	 Connectors for "No Hub" c Neoprene gaskets shall meet A Horizontal waste piping se Soil, waste and vent piping und Provide service weight bel and out. Provide "Dualtite" or "Tyse DOMESTIC WATER SYSTEM Domestic cold and hot water al 	cast fron soil pipe and fittings ASTM Spec. C-564. erving drains or receptors rec derground as otherwise requ ill and spigot cast iron soil pip eal" type push-on neoprene (above ground inside building:	is snall be IAPMO ecceiving condensa juired by local auth ipe and fittings me gasketed joints m g:	D approved neoprene and star ate or from ice bins. thorities having jurisdiction. neeting ANSI Spec. A112.5.1, meeting ASTM Spec. C-564.	ASTM Spec. A74, asphaltun	nectors. Im coated inside	A. Pump shall machined bronz with thermal ove B. Pump shall piping and supp without damage Provide time sw 2.10 BACKFLOV A. Furnish and inst	be Faco series 110B, equiva- ec one-piece impeller, stainle- erload protection. be installed with adequate s iorts is eliminated. Furnish v e to switching contacts for "A vitch to be installed and wired W PREVENTERS tall reduced pressure backflo	alent Bell & Gossett, Armstr ss steel shaft, leak-proof m upports so that strain and v ith "Hand-Off-Auto" switch to" operation by time clock by electrical contractor.	ng, I nrush or approve chanical seals, flexible ration of connection p ith current rating capa nd aquastat. Provide as required by local a	ed equal, in the line type, le coupling drive; drive gu piping is eliminated and so pacity as required for starti e and install aquastat to b authorities having jurisdic	all-bronze construction with ard; and 120 volt, 60 Hz mot that noise transmission thro ng and running current of mo e wired by electrical contract ion. Valves shall be Watts	furnished unde pr B. All fixtures have ground ba ugh holes or blemis tor shall be acid-re period. C. Air chambe same material D. Neatly sea to make waterti	other sections for the shall be set true and icks. All exposed cor hes and all surfaces s sisting white unless s ars not less than 15" la and size as branch pi between the floor an ght between edge of	ne building and equipm level. All necessary sinnections and fittings sishall be reasonably strissecified otherwise. The long shall be installed of iping connections. Ind floor outlet water cloof fixture and wall or fixture and wall or fixture.	nent or by the Owner. supports for fixtures shall be shall be chromium plated b rraight and true. The Archit The Contractor shall be resp on all water supply branch osets and between floor/wa ure and floor. Bead of seal	be installed before walls l brass. China fixtures sl nitect may reject any pie esponsible for the protect ch connection piping to fi walls and floor mounted j ealant shall be applied to	Is are finished. Fixtures m shall be of the best grade v eces which, in his opinion, ction of all fixtures and trim fixtures. Air chambers sha I janitors sink with a bead o o have a smooth and neat	ounted against wall shall vitreous ware, without pit are faulty. All fixtures during the construction Il be constructed of of white silicone sealant appearance.		Aroma	Joés.	Н
G												 Provide type `L' hard draw Provide joints made with 5 Provide dielectric unions for Domestic cold-water piping bel Provide type 'K' soft annea Provide joints made with 9 Insulate non-circulating hot and glass fiber molded pipe insulation. rating of .02 or less, for temperature pressure sealing lap adhesive. Use including jackets and adhesives shi contributed rating of 50, as determi Underwriter's Laboratories Standar with glass fiber inserts to provide sa pipe requiring vapor barrier jackets 	vn rigid copper tubing conform 50-50 no-lead solder. for connections to steel pipe aled copper tubing conformin 95-5 tin antimony solder outs d cold-water piping with 1/2" Circulating hot water piping re range of -60 degrees F. to see of staples is prohibited. In nall have a fire hazard classif ined by the Method of Test of rds. Fittings, valves and accoss same insulating values as the shall be installed vapor tigh	rming to ASTM Spectron or equipment. ing to ASTM Spectron iside building only " thick Owens-Co g shall be 1" thick. o 450 degrees F., nstallation shall be ification not to exc of Surface Burnin iccessories shall be ne pipe insulation i ht using adhesive	Spec. B-88 with wrought copper ec B-88 with wrought copper so y. No joints are permitted belo orning #25ASJ, equivalent Cer (. Insulation shall have factory ., and with longitudinal flap, bu be in strict accordance with the cceed flame-spread rating of 2 ng Characteristics of Building I be insulated with Zeston, Ceel- in locations where piping is ev e and "Z"-tape applied to the c	er sweat fittings. sweat fittings. ow slab on grade. ertainTeed, or Johns-Manville y applied vapor barrier jacket utt joint end strips and factory e manufacturer's instructions 25, smoke developed rating o Materials, NFPA No. 255, AS -Co, or approved equal, PVC exposed to view. Fitting cove circumferential joints, overlap	le heavy density et having a perm y applied s. Insulation, of 50 and fuel ASTM E84, and 'C fitting covers ers on "cold" pping the fitting	series LF009, equiva strainer on inlet, full galvanized cast iron B. Furnish and inst where required to co 2.11 DOMESTIC A. Expansion t duty elastomeric pressure and su B. Each expan on drawings. Cl 2.12 GREASE IN A. Concrete F	alent Hersey-Sparling, or Be size of piping in which it is in air-gap drip fitting at each b tall Watts Series 007-M2-QT omply with local codes and a CWATER EXPANSION TAN tank shall be Amtrol, Inc. Se c diaphragm (bladder), piping uitable for operating tempera ision tank shall be model nu harge each tank with air as n NTERCEPTOR Furnish and install pre-cast co	eco, 3-chamber reduced pr stalled, and not less than 1 ackflow preventer to catch p dual check backflow preve uthorities having jurisdiction KS ies ST, "Ex-Trol", equivaler connections, air charging o ure to 240 degrees F. nber as indicated on drawir equired for initial fill pressur	ssure type with test co PSI W.P. Furnish ar essure drip. Extend 3 er in connections to n Taco, or approved eq nnection and ASME r s and shall have tank of each system. terceptor with sealed,	ock on each chamber, sh and install Josam #88914- 3/4" drain line from drip fit non-potable systems whe qual, captive type expans rated and labeled for not k volume and expansion a d, traffic duty covers, baffle	ut-off valve on inlet and outle 40, or approved equal, 3/4": ing and end over drain. re indicated on drawings and on tank with steel shell, heav ess than 125 psi working cceptance volume as sched e walls and reinforcing to con	t, E. All fixtures support arms o required to fit fi any plumbing fi repairs to the b 3.03 INSTA A. Insulation r equal, and shal cleaned. All ins insulation joints pasted in place and finished. B. Systems si maintenance.	and trim shall be sub r rods as required for tures furnished. The xture or trim and any uilding, shall replace of LLATION OF INSUL naterials, except as of be specific type as h sulation work shall pre- shall be carefully fitte . All seams and joints hall be completely cov Jnless specified othe ish and install coveri	pstantially supported in r wall hung fixtures. Ar e Contractor shall be re o subsequent damage t or repair fixture carrier LATION otherwise specified, sh herein before specified esent a neat appearan ted and tightly butted. A ts shall be located so the wered throughout, inclu- erwise, insulation shall ing protector cups faste	an approved manner. Fur nchor carriers to floor and l esponsible, for a period of to the building, caused by f rs as deemed necessary b nall be as manufactured by d. Insulation shall not be ap nee with smooth and uniforn All jacket materials shall be they are as inconspicuous a uding valves, fittings and a extend continuous through tened to covering. Cup sha	urnish and install adjust d brace to wall construct of one year following fina y fixture or as a result fro by the Architect and at r by Owens-Corning, John applied until all piping ha orm surfaces. Work don be neatly applied with sr s as possible. Exposed accessories. Strainer c gh sleeves. Where pipe hall be Zeston polyvinylo	stable carriers with legs, flo ction for substantial suppor al acceptance of the buildi rom leaks in piping, and sh no additional cost to the c ns-Manville, CertainTeed, nas been tested and appro- ne in a slovenly manner w smooth surfaces and shall d edges and ends of all ins covers and valve bonnets the covering terminates at fluichloride (PVC), or approve	or bases, bearing plates, t. Carriers shall be as ng, for the loosening of all promptly make ontract. Armstrong, or approved ved and thoroughly ill not be acceptable. All be securely adhered or ulation shall be sealed shall be accessible for pors, ceilings, walls and ed equal.		OMA JOE'S	OUTH STREET LAIS, ME 04619	G
F											2.03	cover and adjacent insulation jacke ight may be tacked in the throat on shall be flexible foamed plastic U.L DRAIN PIPE AND FITTINGS A. Drain lines for condensate drai and installed in accordance with ma disassembling piping. Insulate all in B. Drain lines for indirect drain pip view and as approved by local auth Permanently support and secure in 1/8"/ft slope to 1" air gap to closest	et. No tacks shall be used or nly and the circumferential jo listed for direct burial and in in pans shall be type `M' or t ranufacturer's recommendati interior condensate drain pip ping shall be type 'M' or type horities having jurisdiction in ndirect piping with coupling to t approved drain.	on vapor tight fittin oints shall be tape installed continuo type `L' rigid copp tions. Provide plu ping as for domes e 'L' rigid copper t ndirect piping may to allow easy rem	ng covers. Fitting covers on " ed as specified for vapor tight ous without joints under floor. oper tubing with sweat solder fi ugged cleanouts in piping to a stic water piping. tubing with sweat solder fitting y be schedule 40 PVC piping noval of equipment as needed	"hot" piping systems not requ t covers. Insulation on piping fittings and joints. Traps shal allow for trap maintenance wi gs and joints. Where concea with solvent wielded or screw J. Provide 1/4"/ft slope with r	all be constructed vithout ealed for public ewed fittings. minimum of	A. Watts LFMI cap with locking and tempered w be factory preas	Nues naving junsuiction. D WATER MIXING VALVE MV-M1 series, equivalent Po feature set for 90 degrees F vater outlet as shown on drave ssembled and tested and shares	wers, Lawler or approved e ., integral check stops at inl vings and shall have minim Il be installed in accordance	ual thermostatic three ts of each mixing valv n flow of 0.5 gpm and with manufacturer's d	e-way mixing, solid by-me ve. Valve assembly shall d capacity of 6 gpm at 10 details and recommendati	tal thermostat with adjustme have hot and cold-water inle PSIG pressure drop. Unit sh ons.	C. All adhesiv application, me installation. D. Failure, du stated or implie at no additional any other mech 3.04 TESTI A. All piping s develop, tests s that arrangeme B. No part of 1 C. All aquinm	es, tape and any othe thod of application, te to faulty workmansh d, for a period of one cost to the Owner. T anical or thermal failu NG OF PIPING SYST systems shall be press shall be repeated afte nts can be made for the piping system sha	er material used for se emperature limits for ap hip or material, of any p (1) year after accepta This shall include the lo ure, which affects eithe TEMS sure tested for leaks ar er leaks are corrected. the Architect or anothe all be covered or conce	ealing shall be applied in str pplication of said materials portion of the installed insu ance of the project by the O oosening of any jacket mat er appearance or efficiency as herein specified. Test pr The Architect shall be not er representative of the Ow ealed until it has been teste protections by proceed and insu	strict accordance with m ils, or any other condition sulation to perform the fu Owner, shall be the resp aterial, the appearance of cy of the installation. pressure shall remain or otified at least 48 hours Owner to observe the tes sted, tests observed and	nanufacturer's instructions on affecting efficiency or per- function as intended by the sponsibility of the Contract of condensation on the ou- on each system for not less prior to the scheduled tes ists. d system approved by the	pertaining to rate of ermanence of the ese specifications, either or and shall be rectified itside of the insulation, or s than 8 hours. If leaks t of piping systems so Architect.		BID & PERM	JIT SET	F
E											2.04 inspe shov conr Grini grini	VALVES AND SPECIAL HES: action, maintenance and repair or even on on drawings. Each valve shall be tection shall be installed within two nel, Hammond, Centerline, Milwauk A. General: Shut-off valves used B. Ball valves shall be Conbraco I working temperature range of at least stem to provide for insulating, lever type "memory" stop. C. Butterfly valves shall have cast bubble-tight duty. Seats shall be To NL-082 (EDPM) or approved equal	: Valves shall be installed will each piece of equipment and be installed so as to be easill of feet of each screw end valv ikee, Rockwell or Watts. d shall be ball valves for 2" si Industries "Apollo" series 70 ast 0 degrees F. to 300 degr r type handle with vinyl grip a st lug body, bronze or bronze reflon or EPDM for not less t al.	Althin each system id each main and ily accessible for of ve. Valves shall b size and smaller a 0, or approved eq grees F., and with and 90 degrees s e alloy or stainless than 250 degrees	n to provide the required flow of I branch service loop. The for operation and visual inspectic be Crane, Conbraco, Nibco, J and shall be butterfly valves for qual, all bronze for not less that n replaceable Teflon seats, blo stop on the extended stem. V ss-steel disc, replaceable seat s F. working temperature. Val	control and to provide isolating regoing shall apply whether of on after construction is comp Jenkins, Stockham, Powell, V or 2-1/2" size and larger. an 400 PSI non-shock W.O.Co w-out proof stem, 1-1/4" hig valves used for balancing shall t rated for not less than 150 F alves shall be Nibco NL-081 (tion for or not valves are plete. A union Walworth, .G. pressure; gh extended hall have locking PSI continuous (Buna-N) or							Contractor. Aff materials and c D. Test press 1. All dor 2. All soil 3.05 STER A. Before turr flushed of all di PPM of chlorin allowed to rema residual chlorin water until chlo	er testing has been c onnections.\ ure shall be as follows nestic water piping: 1: waste, and vent pipi LIZATION OF WATE ing the project over to t and foreign matter, b. During the filling pr ain in the system for r e is less than 10 PPM rine content is not greater	completed and the syst is: I30 PSI hydrostatic pre ing above and below g ER SYSTEM to the Owner, Contract , then sterilized by mea rocess, valves and fau not less than 24 hours M, the disinfection proc eater than 0.1 PPM.	tern has been approved by essure. ground, inside and outside tor shall thoroughly disinfed ans of liquid chlorine. Syste ucets shall be opened seve after which the system ma cedure shall be repeated.	e of building: 10 ft. water ect the entire hot and co stems shall be slowly fille veral times to insure ster nay be flushed if the resi . After Sterilization, the s	old water systems. Syster led with a solution contain erilization of complete syst sidual chlorine is not less ti systems shall be thorough	ns shall be thoroughly ing not less than 50 em. Solution shall be han 10 PPM. If the ily flushed with clean		2024.08 Revision Sch # Date	3.30 hedule Description	E
D												D. Check valves, except as othen ends for not less than 300 PSI non- disc and flanged ends for not less t degrees F. E. Wall hosebibb shall be Zurn #Z draining wall faucet complete with e free-floating compression closure v and 3/4" male hose connection. To s left attached, the frost-proof sillco F. Unions for use in ferrous pipe s biping shall be cast brass or cast bi nstalled wherever necessary for re approved equal dielectric unions si	wise specified, shall be Crar h-shock cold water pressure than 200 PSI non-shock cold Z1345-08 exterior, equivalen exterior chrome finish, brass valve, wall support, replacea b assure drainage, turn sillco ock cannot drain properly an shall be malleable iron with t pronze with ground joint sphe eplacement or repair of equip shall be designed and rated f	ane #137, or appro through 3" size a ld water pressure nt Wade, Josam, s casing, all brozr able seat washer, ock handle to clos nd trapped water brass to iron grou erical seat and wi ipment, valves, st for the contents o	roved equal, all bronze swing of and Crane #373, or approved e for sizes larger than 3". Valv s, Smith, or approved equal, ex- rne interior parts, anthisiphon i r, combination 1/2" female solo sed position and detach hose may freeze and damage sillco ound joint spherical seat and so vith cast brass or bronze or wro- strainers, etc. Right and left-ha of the piping system in which t	check with renewable disc at equal, iron body, bronze trim ves shall be rated for tempera kposed non-freeze anti-sipho integral vacuum breaker, ope der inlet and 1/2" male IP inle from spout during freezing w cock. crewed ends. Unions for use rought copper sweat ends. U and couplings are not accept they are used and for not les	and screwed m with renewable rature to 250 on automatic berating rod with let connection, weather. if hose se with copper Unions shall be btable. EPCO, or iss than the							END OF SECT	ION 22 0000									D
С												System maximum working pressure G. Shock Absorbers: Furnish and to each bank of plumbing fixtures in sized and rated for number of fixtur H. Strainers, unless specified or n or iron body, direction of flow arrow screen on 2-1/2" and larger, for tota and blow-down. I. Pressure and temperature relie capacity at pressure indicated on d full size and end over drain.	e and temperature. d install Wade series W "Sho n main toilet rooms and in m res in each bank in accordar noted otherwise shall be of a v cast in body, and removabl tal net free area opening equ ef valves shall be Watts, Mc drawings, in Btu's/hr. of not le	okstop", or equiva nake-up water col ance with the Plurr above listed manu ole 20 mesh stainl ual to four times th cDonnell or Cash, less than capacity	alent Zurn or Josam, sealed b onnections where solenoid val- mbing and Drainage Institute (nufacturer, shall be "Y" type of nless steel screen on 2" and sr the area of pipe. Strainers sha n, designed, constructed and ra by of units which they protect a	pellows shock absorbers in the lives are installed. Shock absorbers (PDI) Standard PDI-WH201. same size as pipe line and v maller, and 3/64" perforated all have bodies drilled and ta rated to ASME Code. Valves and shall have test levers. Ex	the water supply osorbers shall be with cast brass d stainless steel apped for drain es shall have a Extend relief line															PROJEC 2462	ст # 6	С
В											2.05	CLEANOUTS A. General: 1. In horizontal runs above gr 2. Head shall be aligned and cleanouts shall be 4" for pipe la 3. Provide Zurn cleanouts as spe counter-sunk seal plug, cast iron ac 1. Cleanouts set in finished c 2. Cleanouts set in finished ti 3. Cleanouts set in floors with 4. Cleanouts set in floors with 5. Wall cleanouts shall be Wa	rade, cleanouts shall consist I set at proper elevation. Cle arger than 4". Cleanouts sha ecified, or Wade, Josam, or S idjustable head, nickel bronz concrete floor shall be Zurn s ille floor shall be Zurn series h resilient floor covering shall h carpet floor covering shall lade series W-8470-R with c	st of cast brass so eanouts shall be so hall be easily acce Smith of the same ze top with seriate series ZN1400 with s ZN1400 with rou all be Zurn series I be Zurn series Z cast brass counte	crew plug in fitting or incaulked same size as pipe, which they essible with minimum 24 inche ne design and construction. Fi ed cover secured with screws with round nickel bronze top and und nickel bronze top and flusl s ZN1400-TX with recessed so ZN1400-CM with carpet cleand er-sunk cleanout plug and rou	ed cast iron ferrule. y are connected for 4" and sr les clearance to obstructions. Floor cleanouts shall have bra s, and serrated ferrule with cu nd flush round cover. sh round cover. quare top for floor covering. nout marker. und stainless-steel cover plat	smaller pipe; s. rass cut-off sections. ate secured to															MEP SPECIFICA	ATIONS	В
												plug with counter-sunk screw. x 7" nickel bronze wall frame a 6. Flush grade cleanouts sha anchoring flange and with scrie	Cleanouts in ceramic tile wa and cover. Install with cast ir all be Wade series W-8300-I es W-8530-A cleanout pipe	ralls shall have ca iron cleanout ferru -MF, or approved e of cut-off ferrule	ast brass counter-sunk cleano ule to mate with type of pipe u d equal, heavy cast iron acces type with cleanout plug. Set i	but plug, and a Wade series a used. ss box with secured, scoriate in reinforced concrete pad 18	#W-8480-S, 7" ed cover and 18" sq. X 6" thick.															SHEET NUI	MBER	
A												top flush with finished grade. S Regulations, cleanouts shall be	Set cleanout plug 3" below a e 4" size.	access box cover	r. Unless noted otherwise or r	required otherwise by Local	Codes and															SP30	00	A
	1	2	3	4	5	6	7	8	9	10)	11 12	13	14	4 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			

	1	2	3	4	5 6	7	8	9	10	11	12	13		14	15 16	6 1	7	18 19	20	21 22	2 23	24	25	26	27	28	29	30	31	THUN TE OF A		
				<u>SEC</u> PAR	TION 230000 - HEATING, VENTILATION T 1 - GENERAL	, AND AIR CONDITIONING				F. Round 1. Th	Flexible Insulated e duct shall be fle	l Ducts: xible round, insulated o	duct, factory fa	fabricated of a spring stee	l wire helix or flat steel spiral o	covered by and bonde	d to a	2.06 ELETRIC RADIANT HEAT A. Provide equipment manufactur	E RS d by QMark as indicated on	drawings or approved equal.			3.06 EQUIPME A. HVAC Equipm	NT COMMISSIONING ent Commissioning						Trevor Ro Ruhnk PE 175	93	1
K				1.01 A	RELATED DOCUMENTS	luding the Conditions of the C	Contract and Division 1	- General Requiremen	ts apply to the work specifie	polyme punctu 90A J	ric or vinyl-coate e-resistant and s	d fiberglass fabric for le cuff-resistant vapor ba round duct shall be lim	eak-tight air se arrier jacket. [nited to maxim	eal, covered with 1" thick Duct shall be U.L. listed, num six (6) feet in any br	glass fiber insulation and an c Class I, and shall conform to re anch connection: round sheet	outside flexible, equirements of NFPA metal duct shall be us	Standard ed for	B. Units shall be wall mounted; prC. Units shall be controlled autom1. Set thermostat for operation	vide manufacturer's bracket tically by line-voltage thermo upon a fall of room tempera	as required for wall mounting. stat. Provide manufacturer's line-voltag ture below 65 degrees Fahrenheit.	e thermostat.		 Unit start-u vacuum inside Provide co 	ip shall be performed by fa and outside coils, comb c mplete installation and sta	factory authorized service r coils as required, lubricate l art-up checks according to	e representative. After e bearings, adjust belt o manufacturer's writt	er start-up and performance It tension, and inspect opera itten instruction, including bu	e testing is complete, change ration of all dampers. out not limited to the following:	filters,	A CENSE	9	K
				B. 1	The requirements of Section 20 0000 - Ba	sic Mechanical Requirements	s apply to this section.		is, apply to the work specifie	remain 2. Du	der of branch run cts shall be Thern citize up to 2500	naflex type "G-KM", ec	quivalent Wire	emold, Atco, or approved	equal, rated for not less than	4" W.G. static pressur	e and for	2.07 SEQUENCE OF OPERAT A. Sequence of operations an	DN designed to illustrate the ba	sic control function only.			a. Inspec b. Clean c. Adjust	t for visible damage to uni unit of all packaging, debr vibration isolators, barom	nit casing, coils, fans, comp ris, and verify filters are ins netric dampers, fan belts ar	npressor, and piping. Istalled. and lubricate bearings	js.			SIONAL	EN	1
				1.02 A. 1 and 1	DESCRIPTION Provide complete installation to meet or ex federal authorities having jurisdiction.	ceed highest standards of He	eating, Ventilating and <i>I</i>	Air Conditioning practic	e and comply with all local, s	air veid state, 3. Fle differer	cities up to 2500 xible duct conne t size than duct s	FPM. ctions shall be installed ize as shown on drawi	d where showr ings, the Cont	n and the sizes shall be a tractor shall provide adap	s shown on drawings. Where ter fitting on terminal unit as re	e connection on termin equired to match duct	al units is a size to	 B. Provide controls to perform requirements. C. Sequence of Operation of Sequence of Operation	the function as described he	rein and indicated on the drawings. Rei	er to Air Balance Schedule fo	or additional interlock	d. Inspec e. Inspec f Start u	t wheel for proper rotation t unit controls and power of unit according to manufactu	n and clearance. connection to verify installaturer's written instructions	llation.	, art-up report			8/	21/21	
				B. follov 1.	Provide HVAC as shown on Drawings and wing: Split-Type Air Conditioning Units; Exhaust	specified herein, complete in Fans; grilles and diffusers; su	n place, tested and open upply, exhaust and retu	rating, including but not	t necessarily limited to the sories.	termina inner li insulat	I unit size. Flexil her shall be secui on and outer vap	le duct connections to ed in place to the spin- or barrier iacket shall b	e rectangular d -in fitting and t be drawn up to	ducts or plenum housings terminal fitting with steel completely cover the co	shall be made with spin-in fitt or nylon draw-bands for an air nnection and shall be secured	tings equipped as spectings equipped as specting tight connection, and the light connection and	cified. The hen the nvlon	Occupied Cycle: Fans Unoccupied Cycle: Un control of the maintain income	un continuously and based cycles fans and heating col	n space sensor, cycles refrigeration eq trols to maintain reduced space heating	ipment, and energizes heating temperature. Unit cycles far	ng controls. ns and refrigeration	g. Inspec dampers fo	t and record performance or proper stroke and interlo	e of interlocks and verify se lock with return air dampers	equences. Calibrate ers. er's written instruction	e thermostats, humidistats,	and CO2 sensors. Inspect o	utside air			1
				1.03 A	SUBMITTALS: In accordance with Se	ction 20 0000 GENERAL CO	ONDITIONS - MECHAN	NICAL, furnish the follow	ving:	draw-b G. Flexibl	and for a vapor-ti Connections to	ght connection. Rooftop Units:		·				 Occupied/unoccupied Drawings and as approved 	hangeover time and set point by owner.	ts shall be programmable at controls. I	stall room sensors for each	unit as shown on	outside coi i. Simula	Is (in heating and cooling late maximum cooling dem	nand and record suction an	and hot gas pressure a	and temperature.			5	ES SE & ANY ANY	1
J					 Split-Type Air Conditioning Units. Fans. Duct Liner and Insulation 					nildew each e	-resistant double nd and shall be m	polychloroprene coate ade with not less than	e made with v ed glass fabric. 1" slack in ma	 Connections shall be n aterial to prevent transmi 	ot less than 4" long, shall have ssion of vibration.	e suitable metal collar	frame at	shall modulate open to set posi Damper shall remain closed du	on upon call from CO2 mon ing unoccupied mode.	toring sensor (as applicable, see Unit S	chedule) to provide schedule	d ventilation rate.	heating co k. In occ	ils operate and new setpoi upied mode, introduce air	pints are reached. r with elevated CO2 concer	entration above setpo	pectively) associated space	outside air damper modulates	s and	842-130	AL. COF FTAINED HEIR UC IICH THI ION OF	J
					 Duct Lifer and insulation. Sheet Metal Accessories. Diffusers, Registers, Grilles and Access Control System Broducts and Discourse 	ssories.				H. Access 1. All dampe	Doors in Ducts a ducts and housir rs, damper motor	nd Housings: g shall have hinged ac s, air filters and all othe	ccess doors fo er items within	or access to all automatic n the ductwork or housing	dampers, temperature sensin which require inspection, service	ng or control devices, f vice or adjustment. D	ire oors with	2.08 CONTROLS SYSTEM A. Provide controls system as	manufactured by Mitsubishi	or approved equal. Furnish and install a	Il equipment and accessorie	s as required to provide	I. In uno heating coi	ccupied mode, raise and lo sils. Verify outside air dam	lower decreased heating son per remains closed.	setpoint and increase	ed cooling setpoint (respec	ctively) to verify operation of c	ooling and	CUHN te 2200 64105 : 816-6	ESSION ONS RE OR TI OR WH STRUCT	1
				В.	Coordination Drawings: 1. Roof, Wall, and Floor Penetrations.	13.				height shown dimensi	and width dimens on Figure 2-14, [ion greater than '	ions of 24" or less, in lo loors A, B and C, of SM 24" shall be constructed	ow velocity du MACNA Manu d and installed	ucts or housing, shall be ual "Low Pressure Duct (d as per details for hinge	constructed and installed as per onstruction Standards". Door	er details for hinged a rs with either the heigh on Figure 3-17 of SM	cess doors t or width ACNA	a functioning system as set for B. Controls system shall be c Installation of controls system s	n the documents. pable of web-based connec nall include all additional acc	vity to remotely control and monitor ind essories required for operation that are	oor units with a mobile app or not addressed or provided su	r desktop computer. ıch as additional	type, date com	missioned and the name o	of the technician.	air dalance and lestin	ng report. Report snall inclu	Jae completed check list for e	quipment	ERT F ERT F et , Sui fissouri Fax	N PROFI CIFICATI OJECT I OJECT I ROJECT	
				PAR	Z. Ductwork.					Manua installe	Low Pressure I d as per details for	Duct Construction Stan	idards". Doors s doors show	rs with either the height of rn in Figure 3-17 of SMA(width dimension greater than CNA Manual "Low Pressure Di	24" shall be construction Stan	ed and dards".	adapters, controllers, receivers C. Controls system shall be c Type units shall have controllat	interfaces, extendors, senso pable of communicating with e points as follows:	rs, and wiring. and controlling the provided Split-Type	units as coordinated with act	tual equipment. Split-	3.08 IECC REQ A. Section 403 Me 1. The Gener	UIRED MECHANICAL S echanical Systems al Contractor shall include	e all fees associated with C	IG Commissioning inclu	uding procurement of the C	Certified Commissioning Prof	essional.	ROB ain Stre City, N 2-7552	DESIGN & SPEG UTILIZE THE PR NOT FO THER P	1
				2.01 A. 3	SPLIT TYPE AIR CONDITIONING SY Split type air conditioning system.	'STEM				for the 2. Ha	final location of a rdware shall be \	with neoprene or spon I doors to suite adequa entfabrics, Inc. "Ventlo	nge rubber gas ate access for ok", or approve	skets. Foam plastic gas service and inspection, ed equal. At the Contrac	ets will not be accepted. The egardless of notations on drav tor's option, doors 24" X 24" o	vings. r smaller may be Air E	alance,	 "Occupied" heating an "Unoccupied" heating a CO2 setpoint (adj.) for 	cooling setpoints (adj.) nd cooling setpoints (adj.) controlling CO2 based outsio	e air damper modulation (where applica	ble)		Additional commiss separated documer	ioning as specified in para ntation and may be perforr	ragraph 230000.03.06 of th rmed by Mechanical Contra	he Project Manual tha ractor.	hat is outside of the IECC sh	hall also be performed but, wi	ith	EVOR 100 Má Kansas 816-842	OF THE AWINGS MAY BE JPYING ARED & O	
•				coil s	 Provide equipment manufactured by N section, and remote outdoor condensing of 2. Indoor fan coil unit shall have characte 	Aitsubishi as scheduled on Dr. r heat pump unit as scheduled eristics as scheduled on Draw	rawings. Split systems s d. vings. Unit shall be pro	shall consist of an indo	or fan coil unit with fan, filter, lation for suspended installat	and Inc. "Fi latches tion. 3. Ac	reseal", equivaler cess doors in duo	t Ventfabrics, Inc., Ces	sco, or approv shown on drav	ved equal, sandwich con wings and where size is	struction panel door with contin not shown shall be 12" X 18" n	nuous hinge and caml ninimum, except wher	ock e ductwork	 Fan on/off operation Fan Speed set point (a "Occupied" and "Unoc 	lj.) upied" scheduling				END OF SECTION	23 0000						TRE 1 one: {	PERTY THE DR/ CLIENT CLIENT R OCCL	•
				Unit	shall have primary and secondary conden 3. Condensing unit (or heat pump) shall I pology with Hyper Heat canable of guarant	sate piping, trapped per manunave characteristics as sched	ufacturer's recommend duled on Drawings. Unit	lations. it shall have variable sp	eed inverter compressor	dimens I. Instrun 1. Ma	ions will not acce ent Test Fittings: nufactured type v	pt this size, the door sh vith a minimum two-inc	hall be as larg ch length for ir	ge as the ductwork dimer nsulated duct, and a mini	sions will accept. num one-inch length for duct i	not insulated. Test ho	le shall	 D. Controls system shall be a 1. Exhaust fans interlock 2. Split-Type unit dischart 	ditionally capable of graphic tatus e air temperature	ally indicating non-adjustable control poi	nts as follows:										PRO OF T THE O FOI	1
				mou	nted on equipment rails on roof, or wall mo 4. Furnish units with manufacturer's disc	ounted with approved wall bra onnect.	acket and platform as in	ndicated on drawings.		have a 2. Pr heating	flat gasket for recovide instrument	tangular ducts and a c est holes at each duct and heat recovery unit	concave gaske t or casing mo t.	et for round ducts at the lounted temperature sense	ase, and a screw cap to preve r or transmitter, and at enterin	ent air leakage. Ig and leaving side of	each	 Split-Type unit debumi Split-Type unit debumi Split-Type unit Outside Space CO2 concentral 	ification mode activation Air Damper position (percer	age) 2 sensor (where applicable)												
				Refri build	c) Provide reingerant line set (suction an igerant lines shall be insulated with flexible ling envelope penetrations shall be sealed	foam plastic insulation and p weathertight.	painted with (2) coats of	f UV resistant paint w	here exposed to UV rays. A	All J. Fire Da	impers: Ivanized Steel, in	terlocking blade type, F	 Ruskin 1BD2,	, U.L. listing and label, 1-	/2 hour rating, 160 degrees F	fusible link, type B or	C for 100	 Space CO2 concentra Space temperature as Space humidity as pro 	provided by space temperati ided by humidity sensor	re sensor												1
H				-	 Outdoor unit shall be foot mounted wit Indoor unit shall be furnished with con System shall have R-410A refrigerant 	n single point electrical conne densate pump as indicated or with five-year limited warranty	ection with capacities a n drawings. y. Compressor shall ha	as indicated on drawing: ave an extended warrar	s. ity of seven-years.	90A ar 2. W	d shall be installe here ducts or fire	d in accordance with ir damper frames of dissi	nstructions to imilar metal a	be provided by the manu re connected, provide a	facturer describing the U.L. ap coupling consisting of flanges,	pproved installation pr neoprene gaskets, fal	ocedure. Dric, and	E. Installation of control syste control dampers, sensors, over	and numicity n shall include all additional ide timers, valves, switches	ccessories required for operation that a relays, actuators, and wiring.	re not addressed or provided	l such as additional									9.5	H
				2.02	FANS A. Ceiling Mounted Exhaust Fans: Green	heck model number schedule	ed on drawings, or equi	ivalent CaptiveAire, Pe	nn, Loren Cook, Acme, or	nuts ar K. Motor 1. Da	d bolts. Dperated Control mpers shall be R	Dampers: uskin Mfg. Co., of mod	lel numbers he	ereinafter specified, equi	valent Tuttle & Bailey, Air Cont	trol Products, or appro	ved equal.	F. Systems operation training 1. Review of manuals an a. Submittal data ind	Training of the maintenance permanent certificate. ating all selected options fo	staff for equipment included in the man each piece of equipment	uals required shall include at	a minimum:								Aroma	Joes.	1
				i	approved equal. Fan sizes, capacities, co less than shown and selected for non-over 1 Belt driven units shall be construct	nditions, and motor voltage ch loading. Sound level shall no ted and rated according to AN	haracteristics shall be a ot exceed the rating of t MCA_with resilient mou	as scheduled on drawir the fan scheduled. unted, statically and dyr	igs. Motor horsepower shall	be not Dampe 2. Da alumin	rs shall be "Low mpers shall have um channel frame	_eakage" type as herei opposed blades, unles of not less than .125"	inafter specifie ss otherwise s ' thickness or g	ed. specified or unless noted galvanized steel channel	otherwise on drawings. Dam and shall have corner bracing	per frames shall be ex to prevent racking an	truded d to keep	 Manufacturer's op maintenance. Requirer c. Name, address, ar 	ration manuals and mainter routine maintenance action d phone number of at least	ance manuals for each device, piece of , cleaning and recommended care shal ne service agency.	equipment, and system requi be clearly identified.	iring									-	
					non-overloading centrifugal wheel; alu V-belt drive with cast iron fan sheave	minum housing; hinged alumi and adjustable cast iron moto	inum mounting base; b or sheave. Motors shall	bird screen guard on dis Il be isolated from the a	icharge outlet; disconnect sw ir stream.	vitch; frames bearing	square. All dam is and shall be fu	pers shall have blades nished with all required	positively sec d linkages with	cured to corrosion-resistant th low-resistant, non-corr	nt steel axles, operating in not psive connections. Dampers	n-corrosive, non-ferro shall operate smoothly	us, long-life on	 Controls system ir sequence descriptions or, for digital control sy 	spection schedule, maintena Desired or field determined tems, on the graphic where	nce, and calibration information, wiring of setpoints shall be permanently recorded settings may be changed.	liagrams, schematics, and co on control drawings at contro	ontrol ol devices									519 519	1
					 Direct drive units shall be the sam Fans shall be installed with motori Furnish and install exhaust fan roo 	e as for belt drive units excep zed or counterbalanced gravi of jack with birdscreen.	pt motor shall be mount ity dampers (backdraft)	ted directly to fan shaft.) as scheduled.		other v accept	ithout gap. Dam able. Dampers s	pers with warped or be nall be furnished with c	ent blades or w control shaft fo	with blades that do not clo pr operating motor (actua	se against each other or again or) connection.	nst the damper frame	shall not be	2. Hands-on demonstrati procedures.	ort including who attended t	procedures, normal operating modes, a	nd all emergency shutdown a	and start-up								AN OL	REE 04(
G					Securely anchor duct penetration watertight and weatherproof installatio	to roof structure. Coordinate n.	flashing and counter fla	ashing with roofing mar	nufacturer and installer for a	3. Da polyes 4. Da	mpers shall be R er fabric blade ec mper motors sha	uskin type CD-36 with ge seals; and flexible o II be for 120-Volt supply	interlocking e compressible ly with 24 VAC	edge blades constructed of blade to jamb seals. C operation installed for n	f not less than 16-gauge galva ormally closed, two position co	anized steel; with PVC ontrol. Contractor inst	coated alling sheet	PART 3 - EXECUTION		e daning and a printed oopy of materia	o oovoloo in no dalling.									A A	ME	G
				2.03	DUCTWORK A. General:	nered to an angle not to ever	and 15 degrees unless	specifically shown or a	proved otherwise All vertic	metal s frames M Roof C	hall set dampers of multiple damp urb Supports:	and adjust linkages for er sections with sealan	r smooth oper nt. Any audible	ration. Seal airtight betwee le air leakage occurring w	en damper frames and the du ith normally closed operation	uct or housing, and be will not be accepted.	ween	3.01 INSTALLATIONA. Handle and install equipment inB. Fabricate and install ductwork a	accordance with manufactu nd accessories in accordanc	er's written instructions. e with reference SMACNA Standards:										RFII A	UTH AIS,	
					ducts shall be adequately braced to w. 2. Furnish and install all manually op	all and shall be supported by a erated volume dampers, extra	angle frames where the ractors, deflectors, split	ey pass through floors tters and devices as rec	or roof. quired to insure proper balance	1. Cu cing shall b	rbs and equipme as manufacture	nt supports for roof mo d by Pate Manufacturir	ounted equipm	nent as indicated on draw whose catalog numbers	ings and where not specified t are specified or equivalent Thy	to be furnished with ec ycurb, or approved eq	uipment, ual, of	 Fabricate ductwork based to accommodate liner or as app characteristics where necessar 	n field measurements of spa icable. Dimensions shall be to avoid interferences and	ce available. Duct sizes on the drawing altered by the Contractor to other dimer learance difficulties	s are airside dimensions and sion producing the same air	l need to be increased handling								GA RO	SOI	
					and control of air systems. Install extr extractors shall be equipped with prop concealed by walls or non-accessible	actors at branch takeoff conne er type operators for adjustme ceilings, provide a Young Ree	ections to main supply ent. Controllers shall b gulator Company #315	air ducts or trunk ducts be as hereinafter specifi 5, or approved equal, ad	 Volume controllers and ed. Where splitter operators ljustable cover, concealed re 	s are cant of egulator 2. Cu	nic construction, height as require rbs shall be mode	not less than 18 gauge d for thickness of roof i el PC-5A and shall be i	e gaivanized s insulation, and internally insul	d base as required for att alted with 1-1/2" thick, 3	aed corner seams, factory insi aching to the roof structure. b. density rigid glass fiber boa	tailed wood naller, bui ard and shall have galv	t-in raised vanized	2. Provide duct transitions, of C. Flexible duct installation: Contin	sets and connections, and e uous, single pieces not over	juipment in accordance with LPDS, Figures for the straight and straigh	res 2-7 and 2-9. d short as feasible. Duct sha	all be supported with										
F					with matte white cover flush in wall or 3. Changes in direction of rectangula	ceiling, or install an access pa ar ductwork shall be made wit	anel in the wall or ceilin th square elbows, exce	ng for access to operato pt where radiused elbo	or, as required. ws or take-offs are indicated	sheet r on 3. Ec	netal liner. uipment supports	shall be model ES-5A	A, with integral	l base plate, wood nailer,	and 18-gauge galvanized stee	el flashing cap.	igned and	of bends shall be not less than two Flexible ducts shall not penetrate flo	ate sags and avoid kinking a uct diameters. Make conne ors, or any chase or partitior	bends. Ductwork laying on ceilings, lig tions with adhesive and clamps or scre designated as a fire or smoke barrier, ii	nt fixtures, etc. is unacceptat ws as recommended by the icluding corridor partitions fire	duct manufacturer. e rated one hour or										F
					 drawings. All square elbows shall be l vanes. Radiused elbows and take-off 4. The interior of all ducts and boots 	nstalled with turning vanes as s shall be fabricated with radii that can be seen through grill	s nereinatter specified. ius, construction and sh les, registers and diffus	Radiused elbows and hall install in accordanc sers shall be coated wit	take-oπs do not require turn e with SMACNA Manual. h flat black paint, except whe	ing 4. CC constru ere deck if	icted to safely supports sha not shown.	oport the weight of the	equipment. T	The height shall be as ind	cated on drawings, but not les	ss than 12" high above	the roof	two-hour. D. Install duct hangers and suppor E. Install fire dampers in accordar	s in accordance with SMAC e with the manufacturer's ir	VA, LPDS, Chapter 5, and HPDS, Chap structions to conform to the installation (ter 6. Ised for the rating test.									BID & PERI	MIT SET	•
					duct is lined with black coated insulation 5. Spin-in sheet metal fittings shall be	on. e installed in supply air ducts	for connections of flexi	ible round insulated du	cts to rectangular ducts or ple	enum coordir	e curb supports s unted equipment ated with the roo	nail be securely attach by wind velocities up to fing manufacturer and i	o 100 MPH. 1 installer.	The complete installation	nd pressures on the vertical s shall be made weatherproof a	und watertight and sha	l be	F. Seal openings around duct pen G. Painting of ducts at Grilles and to clean surfaces	trations of floors and fire rat Registers: The interior of all	ed partitions with fire stop material as re ucts without liner that can be seen throu	quired by NFPA 90A. Igh the grilles shall be coated	d with flat black applied										
					operator lever. Where spin-in fittings extractor built into the fitting. Connect	are located in sides, top or bo ions shall be made airtight by	ottom of supply ducts, the sealing around the ent	he spin-in fitting shall b tire perimeter of the joir	e furnished with scoop type to the tween the rectangular du	King N. Lining 1. Linu uctand bave t	or Rectangular S ing shall be Certa ermal conductan	heet Metal Ductwork: iinteed #150 "Ultralite" ce not to exceed 0.23 I	or Owens-Co	orning "Aero-Flex", duct l	ner with 1-1/2 lb. density and v	with black coating. Li	er shall	 H. Low Pressure Duct Liner: Insta I. Protection and Cleaning: Adequeration of supply for repairs 	in accordance with SMACN ately protect equipment and	A, Duct Liner Application Standard. materials against physical damage. Pla	ce equipment in first class op	perating condition or									-	
					the spin-in fitting with semi-elastomeri transition adapter as required for conn 6. All supply ductwork shall be seale	c, thermoplastic duct sealant. ection. d to be made airtight against :	. Where rectangular du 2" W.G. air pressure, e	uct dimension is less th except where higher pre	an flexible duct diameter, ins	stall a exceed 90B. F	.021, noise redu lame spread ratir	ction co-efficient of not g shall not exceed 25	t less than 0.7 and smoke de	75 for 1" thickness and sh eveloped rating shall not	all comply with all requirement exceed 50 when tested in acc	ts of NFPA Bulletins 9 ordance with ASTM E	0A and 84.	of foreign matter to the inside and c both new and existing ductwork by	ean both inside and outside hopping and vacuum cleanir	before operation and painting. When ne ginside and outside before operation.	w ducts are connected to exi	isting ductwork, clean								2024.08	8.30	1
E					the supply ductor appear to leak exces ductwork. All other ductwork shall be	sively, then the Contractor will made practically airtight. All c	Il be required to apply a openings, corners, and	an air pressure test to d I joints shall be sealed o	letermine the tightness of the or soldered to prevent air leal	kage. b.	less noted otherv All auditorium re All auditorium s	vise on drawings, ducts eturn air ducts and plen upply ducts shall be lin	s, and housing nums shall be ned with 1" thic	gs to be lined and thickne lined with 1" thickness. ckness, Lobby supply due	ss of lining shall be as follows ts may be lined with a minimu	: ım 1/2" thickness.		3.02 DUCT LEAKAGE TESTS A. Seal visible openings and seal	ND REPAIR ir leaks audible at operating	conditions. Duct systems with leakage	rates higher than 5% of spec	ified airflow will not be										ιE
					ends and the slips before installation of 7. The sheet metal trades shall coop	of the slips. erate with all other trades so	that all ducts clear pipe	es, conduit hangers, su	pports, beams and other	d. e.	All Lobby supply All auditorium tr Exhaust, non-a	/ ducts shall be lined w ansfer air ducts shall b uditorium return, and tra	vith ½" thickne be lined with 1' ransfer air duc	ess. " thickness. cts are not to be lined unl	ess otherwise specified or indi	cated on drawings to l	be lined.	accepted. Contractor shall take new 3.03 INSTALLATION OF DUCT	essary corrective action to s	eal ductwork to comply.										Revision Sc		1
					 Obstructions. 8. Where ducts pass through walls, the space between the space	floors or ceilings, and the duci the duct and the opening thr	ts are exposed to view rough which it passes s	r (not concealed by con shall be packed with fibe	struction) and are not require erglass insulation and a shee	ed to Q. Louver et metal drainal	s: skin Mfg. Co., se le. galvanized ste	ries L375, equivalent D eel stationary louver. F	Dowco, Industi Frame and bla	rial Louvers, Greenheck, ades shall be constructed	American Warming & Ventilat	ting, or approved equa	l 4" deep, aint grip	A. All external surface of ductwork circumferential joints butted and all of insulation adhesive equivalent to	shall be wiped clean before ongitudinal seams overlappe Benjamin Foster 85-15, apr	nstallation of insulation. Insulation shall d not less than 2". Insulation shall be ad ied to ductwork at not greater than 8" or	be wrapped on exterior of du hered to metal ductwork with recenter. On ducts wider that	uctwork with all not less than 4" strips n 18", the insulation on								# Date	Description	
					collar of not less than 20 gauge paint- shall be sealed around duct and open sealed as required to comply with the	grip type galvanized sheet ste ng with silicone elastomeric s U.L. Standards for installation	eel shall be installed arc sealant. The opening a n of the fire dampers. F	ound the duct on each s around all ducts with fire Refer to additional Draw	side of the opening. The coll a dampers shall be closed off ving notes for sound wall	ars surface f and to 90 N	that shall be suit BH without dama	able for field painting if ige.	f so desired. I	Frames and blades shall	be constructed and reinforced	I to withstand wind vel	ocities up	bottom of ductwork shall be addition circumferential joints overlap flap sh	ally secured with Omark or (all be fastened with 9/16" fla	raham welding pins secured to ductwor e-door staples at 3" on-center. and the	k at not greater than 18" on-congitudinal seam overlap sha	center. The all be fastened with										1
					penetrations. 9. Noise Control: Selection and insta related accessories shall be such that	Ilation of air handling equipme	ent, ductwork, control d	devices, terminal units, nd shall not exceed NC	grilles, registers, diffusers, a	intermo	ediate mullions. L d to back side of	ouvers shall be furnish louvers.	hed with frame	es removable bird screer	of $\frac{1}{2}$ mesh and not less than	19-gauge galvanized	wire,	9/16" flare-door staples at 6" on-cer foil reinforced draft tape so that the is not less than 1".	ter. All circumferential joints exterior of the installation is v	all longitudinal seams, all welding pins, apor tight. Insulation shall be applied so	and all penetrations shall be that compressed thickness	e covered with 5" wide at corners of ductwork										
D					installed work that generates or transm corrected, by the Contractor, to the sa	hits excessive noise in or into tisfaction of the Architect.	the occupancy areas,	in the opinion of the Ar	chitect, shall be immediately	Y R. Gas V 1. W double	ents: here metal flue ga pipe gas vent sy	s vents are shown on stems. Systems shall l	drawings, furr be U.L. listed	nish and install Metalbes and shall conform to NF	os model "RV" or "QC" or app PA Standards #54 and #211 fc	roved equal, type "B" or installation in multi-s	ound tory	3.04 INSTALLATION OF EQUI	MENT	erified and/or as required to make com	sletely operational and function	onal as intended: shall										D
					 Low Pressure Sneet Metal Ductwork: Rectangular transfer ductwork, su steel. Ducts shall be of rectangular co 	pply duct within eight feet of finant feet of finant feet of finant feet of finant feet of the feet of	finished floor and exhau ts are shown on drawir	ust ductwork shall be connected by the second strain of the second strain of the second strains strains of the second strains of the	onstructed from galvanized s f round construction. Sheet	sheet recomi metal 2. Sy	Js. Arrangement nendations and s stems shall be in:	and size of systems sh hall be gas tight after ir stalled complete, incluc	hall be as sho nstallation. ding all require	own on drawings. System	s shall be installed in accorda	nce with the manufac	urer's	set straight and true; and shall be si permanently affixed.	curely anchored and suppor	ed; and shall have all accessories, con	ections, attachments control	ls, etc. firmly and										
					shall be best grade, prime, open heart with SMACNA Manual "Low Pressure are air side and must be increased ac	h galvanized steel, ASTM A5 Duct Construction Standards cordingly to accommodate lini	25, Coating G90. Gau s", unless specified othe ing, where applicable, a	ige, reinforcing and con erwise. Sizes shown o as specified hereinafter	struction shall be in accorda n drawings for rectangular du . Longitudinal and corner se	nce dimens ucts collars eams galvan	ions; adjustable of roof flashing con zed steel and inn	elbows; tees; tee caps; e; storm collar; bird-pro er pipe shall be alumin	; draft hood co oof flue top fitt hum. A roof fla	onnector; reducer as requ tings; and all required su ashing cone and storm c	ired to fit gas fired equipment ports and anchors. Outer pip Ilar shall be installed above ro	flue outlet; ceiling thin be of vent system shal bof and installation at r	bles; pipe be oof shall be	 B. ROOTOP equipment shall be ins code required separations. Where to provide guard rails in accordance 	quipment is installed within with Building Code requirem	maintain required and manufacturer's re 0' of roof elevation change, verify paraj ents.	commended clearances for live heights and coordinate wi	maintenance as well as ith General Contractor										
					shall be types L1, L3, or L6 in accorda sides of ducts shall be Drive Slip type	nce with Figure 1-10 of SMA0 T-1, T-2 or T-3; Joints in the	CNA Manual and of the top and bottom of ducts	e following types shown ts shall be Drive Slip typ	in Figure 1-5: Joints in the pe as specified for sides, or s	two made v shall be 3. Pr	vatertight. Install ovide flue gas ver	thimble in ceilings with tts for gas fired equipm	n collar tight ag nent as shown	gainst ceiling. n on drawings. Terminate	vents above roof with birdpro	oof flue top fitting at he	ight above	3.05 ADJUSTING AND BALAN A. Balancing shall be performed b	CING OF AIR SYSTEMS an independent test and ba	ance agency AABC or NEBB certified a	nd approved by Owner.											1
					"S" Slip types I-6, I-10, I-11, or I-14 galvanized steel straps in accordance 2. Round sheet metal ductwork and	Ducts shall be supported w with Table 5-1 of SMACNA M fittings shall be United Sheet	vith steel rods of not les Manual. metal round "Spiral Un	i-Seal" ducts and "Unif	r with not less than 16-gauge orm" fittings, equivalent Sem	weathe	rproof, watertight	installation.		n 54. Coordinate foor pe			1	 B. TAB agency shall examine Cor 1. Review approved submitta 2. Review HVAC system and 	ract Documents to become data of HVAC systems and equipment installations to ve	amiliar with Project requirements. Addit equipment. ify balancing devices are installed, and	onally, TAB agency shall: locations are accessible and	appropriate for										
					Manufacturing Co., or approved equal assembly of the joints, the outside of the	. Duct and fittings shall be ins he joint slips shall be painted	stalled with beaded slip with duct adhesive/sea	p-joints fabricated on th alant, then slipped into t	e fittings and couplings. Before the mating duct and securely	ore 2.04 DUCT	INSULATION e all round sheet 1-1/2" thick, with	netal ducts with Owen: 'k" factor of not greater	ns-Corning Typ r than .29 at 7	pe FRK-25, Series ED-1 /5 degrees F, mean temp	0, equivalent Certainteed, or erature. Insulation shall have	Johns-Manville, faced	glass fiber	effective balancing and for effic 3. Examine systems for funct	ent system and equipment c onal deficiencies that cannot	peration. be corrected by adjusting and balancing										PROJEC	CT #	
					fastened in place with sneet metal scr screws. Where coupling is used betw After fastening with screws, all excess	ews spaced at not more than een two pieces of duct or fittir adhesive shall be wiped clea	6 inches o.c. around the fastening as st an from the outside of the fastening as st an from the outside of the	he circumference of the tated shall apply for eac he ductwork.	ch piece joined by the couplir	ng. ASTM-84 v	ig and 2" wide ov vith flame spread	erlap flap on one side. not to exceed 25, fuel	Insulation, fa	acing and all installation n ot to exceed 50 and smo	aterials shall have fire hazard te developed not to exceed 50	l rating in accordance).	with	 C. Work shall include the adjustment NEBB Standards. Fan speeds shall 	nt and balancing of air supp be adjusted for proper air d	/ systems and exhaust air systems and livery in accordance with ratings furnish	shall be performed in accord ed by the fan manufacturer, i	lance with AABC or motor amperage and								2462	26	1
					 Housings: Housings shall be constructed of i angles spaced at 4'-0" or less on centil 	not less than 18 gauge galvar	nized sheet steel with 1 ucts less than 15" in de	I-1/2" X 1-1/2" X 3/16" a apph may be reinforced	and 2" X 2" X 3/16" galvanize with angles on top and botto	ed steel 2.05 AIR O I	JTLETS & INLET nance Test Data:	S In accordance with Air	r Diffusion Cou	uncil code 1062R4.				to multiple air delivery and tempera conditions.	, and air quantities indicated ire readings throughout air d	on drawings. Following the adjustment onditioned and ventilated spaces so as	of ran speeds, air supply sys to provide reasonably uniform	n temperature										
					The aforegoing reinforcing for ducts an excessive vibration and movement, an floors and coilings shall be made airling	nd housings is minimum and a nd where in the opinion of the	additional reinforcing sh Architect additional rei	hall be installed where inforcement is necessa	necessary for elimination of ry. Housing connections to v	walls, Eire da Balance, G installation	mpers in grilles a reenheck or appr shall conform to l	nd diffusers installed in oved equal, hinged fold J.L. approved instruction	n rated ceilings ding blade type ons furnished	s as shown on Architectu e with 160 degrees fusib by manufacturer. Furnis	ral Drawings shall be Ruskin (e links. Construction shall cor h dampers with radiation shiel	CFD Series, Cesco, P mply with NFPA Bullet lds where required ove	refco, Air in 90A and er diffuser	D. Following first adjustment, if air circulation as required and shall rea throughout. Exhaust systems shall	supply is not sufficient to ma ljust air systems, including o be adjusted for exhaust of ai	ntain uniform conditions, then the Contr ampers and replacement of sheaves, as quantity as shown on plans.	actor shall increase fan spee required for uniform temper	ds to provide air ature conditions										1
В					construction. D. Turning Vanes for Square Elbows:	Int with angles and sincone-ba	aseu sealani. Angles s	Shah de secureu lo the I	iousing and the building	pan. C. Provid D. Provid	e 3/4" hardware c e grilles, registers	oth grille with angle fra	ame at duct op Ictured by Titu	penings not indicated on us. Anemostat. Carnes. B	plans to receive grille. arbour Coleman. Price. Airquid	de. J & J Register or k	írueger as	 E. After final adjustments mark eq F. Space air balance shall also be be balanced to redistribute enough 	ipment and balancing devic provided to prevent audible upply air to eliminate audible	e settings with paint or other suitable penoise for any reason. Where audible no noise.	manent identification materia se is detected in one or more	al to show final settings. e diffusers, system shall									ATIONS	B
					 Square elbows shall have turning Blades shall be tightly locked to vane i Radiused elbows and takeoffs sha 	vanes assembled with Elgen runner and securely installed i all be installed where shown o	Mfg. Co.'s Duro-Dyne, in ductwork for a rattle- on drawings and do not	, equivalent Aero-Dyne -proof installation. t require turning vanes.	, or approved equal, vane ru	Inner. scheduled 1. Ce	on drawings as fo iling Supply Diffu	llows: sers (SD1) - Titus OMI site finish and point to t	NI steel diffuse	er with 4-way directional	flow. Provide with border type	e 3 for 2' x 2' lay-in cei	ing.	 G. After all systems are balanced, 1. Total actual cfm supplied b 2. Total actual cfm exhausted 	he Contractor shall furnish s Split-Type units.	ix (6) copies of a tabulated report of all f	an systems showing the follo	wing information:										
				I	 E. Volume Controllers: 1. Furnish and install Tuttle & Bailey. controllers on follower Ture VI Out 1 	, as specified, or equivalent A	gitair, Anemostat, Kreu	uger, Carnes, or Titus, a	adjustable multi-blade volum	rurnisi e 2. Ce Furnisi with	iling Supply Diffu	sers (SD2) - Titus OM hite finish and paint to r	Match ceiling. NI steel diffuse match ceiling.	er with 4-way directional Provide Titus TRM flan	low. Provide with border type ged frame for installation in gy	psum board cellings. 3 for 1' x 1' lay-in cei psum board ceilings.	ing.	Total actual ofm exhlauster Total actual ofm of system Total actual outside air and Statia processes of system	y outlets and inlets. return air of Split-Type unit s	ystems.												L
					locking quadrant operator for branch c grilles where it is accessible thru face	onnection to main duct above of grille; type 970 "Santrol" be	en auci connection to n e accessible ceiling and ehind supply grilles mot	d exposed ducts; Type unted on side of expose	VLK in duct collars serving s ed ducts.	supply 9. Du blade (ct mounted supp adjustable) spaci rd finish and field	y register (SR1) – Titus ng with front blades par paint to match duct col	is S300FS dou rallel to short o lor. Coordination	uble deflection duct mour dimension. Provide with ate final color with archite	ted steel diffuser with radiuse optional ASD-air scoop damp t.	d endcaps to match d er extractor. Furnish	uct. 3/4" vith	 Static pressure of systems Fan RPM. Motor nameplate HP, Amp 	res, and Voltage.	ann external and total static pressure.										SHEET NU	IMBER	
					 Where grilles or branch duct conn to properly direct air thru the controller Operators shall be Ventfabrics, In 	ections are smaller in height t c. "Ventlok", or approved equa	tnan main duct, install s Ial, heavy duty type.	sneet metal baffles on t	op and bottom of air turning	device 10. Re paint to	turn Grilles (RG1 match ceiling.) - Titus 50F aluminum	n grille with 1"	X 1" X 1" grid to set in 2'	x 2' lay-in ceiling grid. Furnish	n with standard white f	inish and	 8. Motor actual amperes and 9. Include copies of report in H. Acceptance Criteria – Systems 	orage (each phase and pha peration and Maintenance I shall be considered balance	se to pnase). lanuals. accordance with standards with follov	ing conditions are satisfied.											1
A										10. Re paint to 12. Ex	um Grilles (RG2 match ceiling. haust Register (E	ן - דונטs טשר aluminum R1) - Titus 355FL 35-c	i grille with 1" degree fixed d	A L A T grid to set in 2'	Furnish with standard white	i with standard white f	ade	 All measured airflow quant Deficiencies shall be noted in T There is at least on direct r 	ies are withing ±10 percent \B report. ath with fully open dampers	f design quantities unless there are rea rom the fan to an air inlet or outlet. Add	sons beyond the control of T/ tionally, if a system contains	AB agency. branch dampers. there								SP4	00	Α
										dampe E. Coordi	r and paint to main to main to main the main term of term	ch ceiling. Contractor for painting	g of all air outle	lets and inlets.				will be at least one wide-open p	ath downstream of every adj	isted branch damper.	_ ,											1
			•	_			-	-															• -		~ -				• •	_	-	
	1	2	3	4	5 6	7	8	9	10	11	12	13		14	15 16) 1	1	18 19	20	21 22	2 23	24	25	26	27	28	29	30	31			L

	1 2 3 4	4 5 6 7 8 9 10	11 12 13 14 15 16 17	18 19 20 21 22 23 2
		<u>SECTION 26 0000 - BASIC ELECTRICAL REQUIREMENTS</u> PART 1 - GENERAL	PART 2 - PRODUCTS	<u>SECTION 265000 - ELECTRICAL WIRING AND LIGHTING</u> PART 1 - GENERAL
K		 1.01 RELATED DOCUMENTS A. The general provisions of the Contract, including the Conditions of the Contract and Division 1 - General Requirements, apply to the work specified. B. This section applies to all sections of Division 26 and 28. 	 A. All materials and equipment of the same type shall be of the same manufacturer and shall be new, of best quality and design and free from defects. Manufacturers and model numbers used herein and on the drawings establish type and quality required. B. All identical devices shall be by the same manufacturer and the same model number. Similar devices shall be by the same manufacturer. 	 1.01 RELATED DOCUMENTS A. The general provisions of the Contract, including the Conditions of the Contract and Division 1 - General Requirements apply to the work specific B. The requirements of Section: Basic Electrical Requirements apply to this section. C. The requirements of all other Division 26 sections apply to this section.
		 1.02 DESCRIPTION A. Furnish and install all labor, electrical wiring, systems, equipment and accessories in accordance with the specifications and drawings. B. Service entrance equipment shall conform to the power company's requirements. Coordinate fuses, circuit breakers and relays with the power company's system, and obtain power company approval. Contractor shall make all necessary arrangements with the Power Company for electrical service and shall pay all cost relating to the service. C. All ampacities herein specified or indicated on the drawings are based on copper conductors, with the conduit and raceways accordingly sized. D. Where any device or part of equipment is referred to in these specifications in the singular number, such reference shall apply to as many such devices as are required to complete the installation as shown on the drawings. All identical devices shall be by the same manufacturer and the same model number. 	 2.02 IDENTIFICATION OF EQUIPMENT A. All electrical equipment including transformers, switchgear and panelboards, disconnect switches, starters, contactors, relays, and capacitors shall be labeled with drawing designations. All open front breakers shall also be labeled. Labels shall also designate the voltage phase and number of wires applied to the equipment if this information is not on the nameplate of the equipment. Labels shall be made of laminated black phenolic resin with a white core with white lettering a minimum of 1/2" high. Labels shall be permanently attached to the equipment. B. Breakers within closed panels shall be identified by circuit number matching directory cards. C. All equipment shall be equipped with warning and information signs in accordance with ANSI Z35.1. 2.03 EQUIPMENT SUPPORTS AND CONNECTIONS 	 Increased of the required in the order of th
J		 1.03 RELATED WORK SPECIFIED ELSEWHERE A. Check all other specifications and the drawings for electrical equipment which this contractor shall receive and install, and equipment for which he shall rough-in for and connect-up. 	 A. Furnish and install galvanized steel supports and frames with wood back panels for mounting all electrical equipment including panelboards, switches, starters, contactors, and controls as required and as approved by the Architect. B. Furnish and install galvanized angle iron frames bolted to floor or wall for mounting electrical equipment furnished under other Sections where necessary. Motor connections shall be terminated with flexible conduit on motor with suitable condulets and covers. Motor frames and electrical equipment shall be grounded in accordance with the National Electrical Code. 	2.01 DISCONNECT SWITCHES A. Furnish and install externally operated, quick-make, quick-break, safety, fused and non-fused disconnect switches where shown on the drav and where required by NEC. Switches shall be safety type as manufactured by Square "D", I-T-E, Challenger, G.E., Federal Pacific, or approve B. Switches shall be rated for horsepower of motors controlled. Indoor switches shall be mounted in NEMA I enclosures, except as indicated. Switches located exterior to building shall be mounted in NEMA 3R enclosures except as indicated. Switches utilized as service entrance equip shall be so rated and labeled
		 1.04 DRAWINGS AND SPECIFICATIONS A. The contract drawings for electrical work are in part schematic, intended to convey the scope of work and indicate the general layout, design and arrangement. The Contractor shall follow these drawings in the layout of his work and shall consult general construction drawings, mechanical drawings and all other drawings for this project to determine all conditions affecting the mechanical work. The contract drawings are not to be scaled and the Contractor shall verify spaces in which the electrical work is to be installed. B. Where specific details and dimensions for electrical work are not shown on the drawings, the Contractor shall take measurements and make layouts as required for the proper installation of the work and coordination with all other work on the project. In case of any discrepancies between the drawings and the specifications that have not been clarified by addendum prior to bidding, it shall be assumed by the signing of the Contract the higher cost (if any efforts of the proper installation of the work and the other provide the one clarified by addendum prior to bidding, it shall be for the provential take measurements and make layouts as required to the proper clarified by addendum prior to bidding, it shall be assumed by the signing of the Contract the higher cost (if any efforts of the proper clarified by addendum prior to bidding, it shall be assumed by the signing of the contract the measurement. 	 STANDARDS A. All material and equipment shall be listed, labeled or certified by Underwriters Laboratories, Inc., where such standards have been established. Equipment and material which are not covered by U.L. Standards will be accepted provided equipment and material is listed, labeled, certified or otherwise determined to meet safety requirements of a nationally recognized testing laboratory. Equipment of a class which no nationally recognized testing laboratory accepts, certifies, lists, labels, or determines to be safe, will be considered if inspected or tested in accordance with national industrial standards, such as NEMA, or ANSI. Evidence of compliance shall include certified test reports and definitive shop drawings. 2.05 EQUIPMENT REQUIREMENTS 	 C. This Contractor shall furnish and install all disconnect switches that are required for line power disconnection of equipment, except where sw are furnished on the job as integral equipment components and shall be wired by this Contractor. Check all other specifications for this condition D. Switches in dome type roof exhausters shall be NEMA 3R and shall be located in accordance with local authorities having jurisdiction. 2.02 CONDUIT A. Rigid conduit shall be used for main service above ground, to disconnect switches, exposed conduit to motors, exterior conduit, exposed co larger than 2", stub-ups to 12" above concrete floor, and all conduit in concrete. Rigid conduit shall be steel, coated with zinc exterior and interior bot din galvanizing process. Conduit shall be produced to ANSI Specification C80.1. Ecderal Specification WW-C-581 and shall be listed with the steel.
I		 difference in costs) is included in the contract price, and the Contractor shall perform the work in accordance with the drawings or with the specifications, as determined and approved by the Architect, at no addition to the Contract price. 1.05 QUALITY ASSURANCE A. Manufacturers Qualifications: The manufacturer shall regularly and presently produce, as one of the manufacturer's principal products, the equipment and material specified for this project, and shall have manufactured the item for at least five years. B. Product Qualification: Manufacturer's product shall have been in satisfactory operation on three installations of similar size and type as this project for 	 A. Equipment voltage ratings shall be in accordance with the requirements indicated on the drawings or as specified. B. Prior to construction, written approval shall be obtained by the Contractor for any equipment that differs from the requirements of the drawings and specifications. The Contractor shall furnish drawings showing all installation details, shop drawings, technical data and other pertinent information as required. Approval of the equal equipment does not relieve the Contractor of the responsibility of furnishing and installing the equipment at no additional cost to the Owner. 	 Underwriters' Laboratories. All couplings, fittings, etc., shall be threaded type. Slip type fittings with set screws will not be acceptable. All thread be coated with zinc by hot metallizing. B. At the Contractor's option, intermediate weight conduit may be utilized in lieu of rigid conduit subject to requirements and limitations of NEC / 345 and local codes. Conduit shall be constructed as specified for rigid conduit. C. Underground conduit shall be rigid or in accordance with local authorities having jurisdiction may be polyvinylchloride with a deflection temper under load at 264 psi degree C. of 78 degrees C., tensile strength of 5,200 psi. Joints shall be flush solvent welded in accordance with the
		 B. Product Qualification: Manufacturer's product shall have been in satisfactory operation on three installations of similar size and type as this project, for approximately three years. C. Service Qualifications: There shall be a permanent service organization maintained or trained by the manufacturer which will render satisfactory service on major equipment items within eight hours of receipt of notification that service is needed. Submit name and address of service organizations at the time of shop drawing submittal. 	 Any other items required for the satisfactory installation of the equal equipment shall be furnished and installed at no additional cost to the Owner. This includes but shall not be limited to additions or changes to branch circuits, circuit protective devices, conduits, wire, feeders, controls, panels and correlation with other work, subject to the jurisdiction and approval of the Architect. PART 3 - EXECUTION 	 manufacturer's instructions. Conduit shall be equal to Carlton Power and Communications Duct Type DB (direct burial) for 600-volt secondary s branch circuits, and telephone service. Conduit and fittings shall be produced by the same manufacturer, who shall have a minimum of five-year experience producing the material. Minimum burial shall be 30" except as indicated. Conduit for medium voltage (5,15KV) service shall be Carlton Type EB (encased burial). Conduit shall be concrete encased with a mini thickness of 3". Concrete shall be dyed red. EMT intermediate weight or rigid conduit shall be used for the remainder of the wiring. EMT shall be mild steel, electrically welded.
Н		 1.06 EXISTING CONDITIONS A. Each bidder shall inspect the site as required for knowledge of existing conditions and failure to obtain such knowledge shall not relieve the successful bidder of the responsibility to meet existing conditions in performing the work under the contract. 1.07 CONDUCT AND SEQUENCE IN PERFORMING WORK	 3.01 EXCAVATION AND BACKFILLING A. Excavate and backfill for all work under this Section. Brace trenches and crib excavation to prevent caving. B. Excavation is unclassified. No additional consideration will be given for unfavorable conditions, rock, stone, shale or dewatering. C. Trenches shall be true to line and grade. Trench bottoms shall be firm and clean. Provide sand bedding material for rock trenches or mucky trench bottoms as approved by the Architect. D. Use selected backfill to 12 inches above the top of the conduit. Compact backfill in 12-inch lifts to the density of the adjacent undisturbed earth. E. Saw cut paving, walks, curbs, etc., and replace to match existing adjacent surfaces. Tunnel or bore where cutting is not permitted. 	 Even, intermediate weight of rigid conduit shall be used for the remainder of the winng. EVEN shall be mild steel, electrically weight of rigid conduit shall be used for the remainder of the winng. EVEN shall be light shall be labeled with Underwriters' Laboratories seal of inspection. E. Galvanized flexible conduit or flexible liquid tight conduit shall be used for connection of motors and recessed fixtures, subject to NEC limitat Flexible conduits shall not be used where subject to mechanical damage. Ground conductor shall be carried through conduits. F. Contractor may use metal clad (MC) in lieu of EMT on branch circuits of #8, #10, or #12 wire size only where concealed above ceilings or wir construction. Conductors shall be solid copper per UL standard for metal clad cables and ASTM B-3. All conductors to be insulated with polyvinylchloride composite meeting the requirements specified in UL. A continuous seamless aluminum alloy sheath that meets ASTM B-221 specifications shall be applied. Metal clad cable shall meet all requirements of the latest NEC. Article 224. Coble must be current of end or e
		 A. All labor for the installation of material and equipment furnished under the electrical work shall be done by experienced mechanics of the proper trade and all workmanship shall be first class and in compliance to the specific requirements of drawings and specifications. B. All material and equipment for the mechanical work shall be installed under competent supervisory service furnished by the Contractor. Where necessary, this shall include the services of special erection and operation personnel. 1.09 SAFETY REGULATIONS A. All electrical work shall be performed in compliance with all applicable and governing safety regulations including the regulations of the Occupational and 	 3.02 INSTALLATION A. Coordinate location of all equipment, boards, lights, outlets, switches, boxes, conduits, electrical trays with other services and utilities. Locate all equipment, fixtures and conduits to clear windows, door openings and other services and utilities. Follow manufacturer's published recommendations for installation methods not otherwise specified. B. Equipment location shall be as close as practical to locations shown on the drawings. C. Working spaces and accessibility shall not be less than specified in the National Electrical Code for all voltages and equipment specified. 	Specifications shall be applied. Metal clad cable shall need an requirements of the latest N.E.C. Anticle 334. Cable must be supported and second maximum intervals of 6'-0". G. Contractor may use Non-Metalic (NM-B) sheathed cable in lieu of EMT on branch circuits of #8, #10, or #12 wire size only where concealed ceilings or within wall construction for the allowed Contruction Types V-B for unprotected wood framing permitted in the latest N.E.C. Article 334 approved by Local Authorities Having Jurisdiciton. All conductors to be solid copper per UL standards for non-metalic sheathed cables and ASTI and B-8. All conductors to be insulated with polyvinylchloride composite meeting the requirements specified in UL. Cable must be supported and secured at maximum intervals of of 4'-6".
G		Safety Health Act. All safety lights, signs and guards required for performance of electrical work shall be provided by the Contractor. 1.10 PERMITS AND LICENSES A. All permits and licenses that are required by governing authorities for the performance of electrical work shall be procured and paid for by the Contractor.	 3.03 EQUIPMENT PROTECTION A. Equipment and material shall be protected during shipment storage and installation against physical damage, dirt, moisture, cold and rain. B. Damaged equipment shall be, as determined by the Architect, placed in like new condition or be returned to the source of supply for repair or 	 2.03 CONDUCTORS A. Conductors for lighting and power shall be copper, minimum #12 gauge. All conductor sizes shown on the drawings are A.W.G. or MCM for conductors and shall be insulated for 600 volts unless otherwise shown or specified.
		 1.11 CUTTING AND PATCHING A. The responsibility for any cutting of construction which is required for the installation of work under this Division, and for the patching and finishing of openings made for the work under this Division, shall be included in each Section of this Division. B. Cutting shall be done with extreme care and in such a manner that the strength of the structure will not be endangered. Wherever possible, openings in according to an according to an according to an according to an according to a structure will not be endangered. Wherever possible, openings in according to an according to an according to an according to an according to accordi	replacement. C. Painted surfaces shall be protected with factory installed removable heavy craft paper, sheet vinyl or equal. D. Damaged paint or equipment and materials shall be refinished with the same quality of paint and workmanship as used by the manufacturer such that repaired areas are not obvious.	 B. Each roll of conductors shall bear the U.L. label. Each conductor shall be continuous throughout its length and of uniform cross section. Conductors shall be as manufactured by Allied, Carol or approved equal. 1. Conductors in conduit shall be Type THHN/THWN or THW. 2. All conductors in lighting fixture housings and lighting fixture raceways shall be approved lighting fixture conductors. C. All conductors shall be color coded in accordance with Article 210-5 of the National Electrical Code.
F		 Concrete or masonry construction shall be by concrete saw or rotary core drill. Openings in any construction shall be cut the minimum size required for the installation of the work. Adequate protection shall be provided to prevent damage to adjacent areas and to prevent dust from spreading to adjacent areas. 1.12 CONTRACTOR'S EQUIPMENT A. All hoists, scaffolds, staging, runways, tools, machinery and equipment required for the performance of the electrical work shall be furnished by the Contractor. 	 3.04 ELECTRICAL SERVICE A. Utility Company will furnish underground conductors to transformer and metering. This Contractor shall furnish and install the conduit and conductors for service, grounding, and metering equipment as required by the Utility Company. B. All work shall be in accordance with the Utility Company's requirements. This Contractor shall pay all costs associated with this work and new service. 3.05 TELECOMMUNICATIONS SERVICE A. This Contractor shall furnish and install underground conductifies to talecommunications. 	 2.04 BOXES A. Boxes shall be code gauge galvanized steel with screwed or bolted metal covers. Pull boxes shall be sized in accordance with NEC require All junction and pull boxes shall be installed so that the conductors in them are accessible without removing any part of the building. Boxes insta back-to-back shall be insulated against sound transmission. Conduit connecting boxes back-to-back shall be sealed. B. Sectional boxes shall be provided only in locations where necessary to fit into tile, block or brick walls. Boxes shall be set plumb and square circles and the provided only in locations where necessary to fit into tile, block or brick walls. Boxes shall be set plumb and square circles are shall be provided only in locations.
		 1.13 CONCRETE WORK A. All concrete work, including concrete bases, pads, supports, etc., required for the electrical work shall be provided by the Contractor. Concrete, reinforcing and construction shall comply with Division 3 of the Specifications. 1.14 SUBMITTALS 	 A. This Contractor shall furnish and install underground conduit for telecommunications service generally from 5 outside building to telecommunications board as verified in the field prior to beginning work. B. All work shall be in accordance with the Telecommunications Company's requirements. This Contractor shall pay all costs associated with this work and new service. END OF SECTION 26 0000 	rigidly secured, flush with finished surfaces. C. Provide code gauge galvanized plaster rings for boxes in plastered surfaces. Provide beveled-edge flat steel blank covers on boxes not equ with fixture, switch or receptacle. Boxes shall be provided with barriers to separate low voltage, telephone, high voltage, etc., as required. D. For exterior work and for exposed locations in finished rooms, boxes shall be threaded cast alloy iron or malleable iron, galvanized, cadmiur aluminum plated. E. Surface mounted wiring device boxes in unfinished rooms shall be pressed steel cadmium plated utility boxes with appropriate covers of sai
E		 A. Approval shall be obtained for all equipment and material before delivery to the job site. Delivery, storage or installation of equipment or material which is not approved will not be permitted at the job site. B. Submittals shall include adequate descriptive literature, catalog cuts, shop drawings and other data necessary to ascertain that all equipment, materials, dimmers, fixtures and specialty items comply with specification requirements. Catalog cuts submitted for approval shall be legible and clearly identify equipment being submitted and shall bear the Contractor's signature and stamp of approval. C. Submittals for individual systems and equipment assemblies which consist of more than one item or component shall be made for the system or assembly as a whole. Partial submittals will not be considered for approval. D. At project close-out: Submit three bound copies of all approved shop drawings together with a complete parts list, operating and maintenance manuals for all equipment 	SECTION 26100 - ELECTRICAL DISTRIBUTION EQUIPMENT PART 1 - GENERAL 1.01 RELATED DOCUMENTS A. The general provisions of the Contract, including the Conditions of the Contract and Division 1 - General Requirements, apply to the work specified. B. The requirements of Section: Basic Electrical Requirements apply to this section. C. The requirements of all other Division 26 sections apply to this section.	 2.05 WALL SWITCHES A. Switches shall be specification grade, quiet type, white, flush toggle switches rated for 20 amperes at 120 or 277 volts, as manufactured by I Seymour/Legrand or by Arrow, Leviton, Bryant, Hubbell, G.E., or approved equal. Provide insulating barriers between adjacent 277-volt switche installed in the same box. Single Pole PS20AC1W Three Way PS20AC3W Four Way PS20AC4W
		 furnished under this Section. Manuals shall be assembled in 3-ring, loose-leaf binders with black hard coated cover. Material shall be in like-new condition. Copies soiled during construction will not be accepted. Furnish one set of record drawings. One set of electrical drawings shall be kept on the job and marked legibly with colored pencil to show all changes in construction from that shown on the contract documents. At the end of the project, Contractor shall obtain ACAD files of the original contract drawings for electrical work and make all changes from the original plans made during the installation of his work. Drawings shall also indicate location of all exterior conduit, feeders and any other information of a pertinent or useful nature. Record Drawing files shall be delivered to the Architect before final acceptance of the building by the Owner. 	 1.02 DESCRIPTION A. Work Included in This Section: Furnish all labor, services, materials and equipment and perform all work as necessary and required to construct the Electrical Work complete as shown on the drawings and herein specified. PART 2 - PRODUCTS 	Single Pole with Pilot Light Toggle PS20AC1RPL B. Wall plates in finished areas shall be white, Pass & Seymour/Legrand TP1W, or approved equal, as required for groups of switches under or gangplate and in unfinished areas shall be pressed plated steel. Plates shall be set plumb and parallel with wall. C. Keyed switches shall be provided where shown and shall be Pass & Seymour/Legrand PS20AC1WL series as hereinbefore specified with n of poles as indicated. Provide to Owner <u>at Close-Out</u> , minimum of one (1) key for each switch installed. D. In locations where more than one switch is installed, Contractor shall permanently label switch with Drawing designations or as approved by Architect.
D		 1.15 CODES AND ORDINANCES A. The entire electrical installation shall comply fully with requirements of all applicable State and local laws, codes and ordinances. B. The work shall also comply with all applicable requirements of the National Electrical Code NFPA 70 (NEC), other National Fire Protection Association (NFPA) requirements, Americans with Disabilities Act Minimum Construction Standards and the Occupational Safety and Health Acts (OSHA). C. The Contractor shall obtain and pay for all permits, fees and licenses. 	 2.01 MATERIALS AND EQUIPMENT All materials and equipment of the same type shall be of the same manufacture and shall be new of best quality and design and free from defects. Manufacturers and model numbers used herein and on the drawings establish type and quality required. 2.02 PANELBOARDS A. Furnish and install circuit breaker panelboards as shown on the drawings. Panelboards shall be listed by Underwriters' Laboratories, Inc. and so 	 2.06 CONVENIENCE OUTLETS A. Receptacles shall be specification grade, duplex, white, grounding, three-wire type with parallel slots rated 20 amperes at 125 volts, Pass & Seymour/Legrand TR5352W or equal by Arrow, Leviton, Bryant, Hubbell, G.E. or approved equal. Device plates in finished areas shall be Pass Seymour/Legrand TP8W or as hereinafter specified. In unfinished areas shall be pressed plated steel. B. Computer receptacles shall be specification grade, duplex, orange with isolated ground, ratted at 20 amperes at 125 volts, Pass & Seymour/Legrand TP8W or as hereinafter specified. In unfinished areas shall be pressed plated steel.
		 1.16 JOB CONDITIONS A. Inspect all existing conditions affecting work before submitting bid. B. Maintain a superintendent or foreman on the job when Electrical Work is performed and when required for coordination with other Contractors. Superintendent and foreman shall be familiar with the Contract documents. Employ qualified and experienced mechanics of proper trades. C. Take all measurements for Electrical Work and be responsible for same. Coordinate Electrical Work and shop drawings with all other Contractors 	Iabeled, and shall be fully rated for the voltage and current capacity shown on panel schedule. Panelboards shall be General Electric with panel type and circuit breaker type as indicated below, or approved equal by Siemens, Square "D", Westinghouse, or I.T.E. TYPE MAX. TYPE MINIMUM I.C. PANEL VOLTAGE AMPS. BREAKER AMPS RMS SYM. AL* 240 600A. Q, E, F, J 10,000 (800A. Bolt-In Bolt-In	 Seynour/Legrand GSS62 of approved equal by Arrow, Bryant, Hubbell of Levitori. Provide Pass & Seynour/Legrand TPolG isolated ground cov with each receptacle. C. Receptacles outside building and where noted as weatherproof, shall be as hereinbefore specified except shall be provided with Pass & Seymour/Legrand 2097TRWRW or equal by Arrow, Leviton, Bryant, Hubbell, G.E. or approved equal. Provide Pass and Seymour CA1U2681G weatherproof coverplate or approved equal by Arrow, Leviton, Bryant, Hubbell, G.E. or approved equal. D. Ground Fault Circuit Interrupter receptacles (GFCI) shall be Pass & Seymour/Legrand 2097W or approved equal by Hubbell, Arrow, Leviton
С		 D. Protect all work, materials and equipment from damage. Cap or plug temporary openings and ends of conduit. Deliver all work to the Owner clean and in perfect condition. Keep areas clear of debris. Promptly remove waste material from premises. E. Furnish and maintain signal lights and barricades as required for human safety for all Electrical Work. F. Contractor is responsible for all Electrical Work until accepted by the Owner. G. Schedule and perform work to assure electrical service for other buildings at all times. 	AE* 600 600A. Q, E, F, J 14,000 (800A. Bolt-In M.L.O.) CCB* 600 1200A. Q, E, F, J 25,000	 E. Device plates in hinshed areas shall be Pass & Seymour/Legrand RWP26WCC to or as hereinalter specified. E. Where denoted on plan with a 'U', provide combination USB/Outlet similar to Pass & Seymour/Legrand TR20USBACW, 20A with one Type and one Type C USB charger receptacle or approved equal by Arrow, Leviton, Bryant, Hubbell, or G.E F. Receptacles and covers plates color in public areas shall be as selected by Architect to match surrounding wall finishes. Submit manufactur standard colors to Architect for final selection. G. Flush floor receptacles shall be similar to Hubbell #S1PFB with #S1CFC coverplate or approved equal by Arrow, Leviton, Bryant, Pass & Seymour/Legrand Type I and the public areas shall be as selected by Architect to match surrounding wall finishes. Submit manufactur standard colors to Architect for final selection. G. Flush floor receptacles shall be similar to Hubbell #S1PFB with #S1CFC coverplate or approved equal by Arrow, Leviton, Bryant, Pass & Seymour/Legrand Type I and the public areas shall be as the public areas and public areas and the public areas areas and the public areas area
		 1.17 RECORD DRAWINGS A. The contractor shall keep a day-to-day record of all changes or variations made from the contract drawings and at the end of the project shall obtain ACAD files of the original contract drawings for mechanical work and make all changes from the original plans made during the installation of his work. Any reference to Addendum and Change Orders shall be deleted. Drawings shall indicate the following: The correct location of panels and other equipment where it differs from the location shown on the drawings. The location of all access panels, etc. Any other information of a pertinent or useful nature. 	 Circuit breaker interrupting capacities shall meet or exceed the available RMS symmetrical fault currents indicated for each panelboard. B. Circuit breakers shall meet applicable portions of U.L. Standard 489 and NEMA AB-I. Circuit breakers shall be bolt-on, group mounted, ambient magnetic, with common trip, U.L. rated to carry 100% of nameplate rating continuously in free air at 25%. Circuit breakers shall be trip indicating and fully interchangeable without disturbing adjacent units. Wire terminals shall be rated 75 degrees C. The operating mechanism shall be trip-free so that contacts cannot be held closed against any abnormal over-current or short circuit condition. C. Panelboard boxes shall be galvanized sheet steel providing ample wiring gutter space in accordance with the National Electrical Code. Fronts shall be of sheet steel painted light grey over a suitable rust inhibitor primer. Panelboards shall be equipped with one piece door, semi-concealed hinges, 	 Seymour/Legrand, or G.E Coordinate finishes with Architect prior to beginning work. 2.07 SPECIAL OUTLETS A. Special outlets shall be U.L. approved, NEMA Standard as manufactured by Hubbell, Pass & Seymour/Legrand, Leviton, or approved equal amperage, NEMA configuration and number of poles as indicated on the drawings and coordinated with provided equipment. Each outlet shall b provided with a white device cover plate and matching male cap. 2.08 FUSES A. Euses shall be Bussman, or equal by Cefco or Gould Shawmut and shall all be of the same manufacturer.
В		 All orbities shall be dimensioned where they enter building and located on site. Public utilities shall be made in a neat and legible manner, with any additional explanatory drawings or sketches necessary. The complete set of Record Drawings files shall be delivered to the Architect at the completion of the work. Final payment will not be made until Record Drawings are received. 	cylinder tumbler type lock, directory card-holder and quarter-turn adjustable trim clamps. Doors over 48" high shall be equipped with a combination three point latch and lock. All locks shall be keyed alike. Where shown, panelboards shall be two section, column mounted or feed-through type. D. Panelboard interiors shall consist of reinforced galvanized sheet steel frames with bus bars and circuit breakers, properly supported to prevent vibrations and breakage in handling. Bus bars shall be sequence phased. Panelboard shall have a full sized solid neutral and ground bus. Wire terminals shall be solderless type suitable for copper or aluminum cable of the sizes indicated. E. Bus bar bracing shall be U.L. listed at 65,000 symmetrical amperes minimum. Additional bracing shall be provided as required to meet or exceed	 B. Fuses 601 amperes and larger shall be bolt-on Underwriters' Laboratories Class L, current limiting with 200,000 amperes RMS sym. interrup capacity and shall have 45 seconds time-delay at 300% rating. Fusing elements shall be silver. C. Fuses, except as otherwise specified, shall be Underwriters' Laboratories Class RK-5, dual-element with a minimum time-delay of 10 secon 500% rating. They shall be thermally self-protecting, incorporating a 280 degrees F., or less melting alloy. They shall also have current-limiting short-circuit links and have 200,000 amperes RMS sym. interrupting capacity. Fusing elements shall be copper.
		 A. Warranties shall be provided for all equipment in accordance with the requirements of the General Conditions, except that all warranties shall be non-prorated for one year. B. Acceptance of the work under this Division shall be subject to the conditions that all installed systems, equipment, apparatus, and appliances included in the work shall operate and perform as designed, including code clearances, and as selected with respect to efficiency, capacity and quietness and shall operate and perform without producing objectionable noise within occupied areas of the building, leaks or condensation. C. Acceptance of the work shall also be subject to the conditions that any time within one year after date of final payment, any defective part of the work or produced and perform and effective part of the work or produced areas of the building. 	 indicated available fault currents. F. Directory cards shall be completely filled in by typewriter, listing circuit numbers and load served. Circuit breakers shall be identified by circuit number labels as hereinbefore specified. G. Where work within existing panelboards is indicated on plans, Contractor shall provide new Directory cards clearly indicating all new or reused circuit loads served including existing loads at least to the extent known. 	 D. Individual motor circuit running protection fuses, not sized on the drawings, shall be sized at not in excess of 125% of motor nameplate rating Where excessive temperature, special motors or loads require larger size fuses, approval is required. E. Where fuses are shown protecting circuit breaker panels, they shall be current limiting Underwriters' Laboratories Class RK-1 fuses with 200 amperes RMS sym interrupting capacity. Fusing elements shall be silver for ratings above 60 amperes. F. Furnish and install Type CLR rejection style fuse holders in all equipment utilizing Type R fuses. G. Three spare fuses of each size shall be given to the Owner
A		 Acceptance of the work shall also be subject to the conducting that any time within one year and of that payment, any defective part of the work of damage therefrom resulting from the supply of faulty workmanship or material shall be immediately amended, repaired or replaced as part of the contract work without cost to the Owner. D. Upon written notice from the Architect or Owner, the Contractor shall promptly remedy without cost to the Owner any defects occurring within a period of one year from the date of final acceptance. 	PART 3 - EXECUTION 3.01 INSTALLATION OF EQUIPMENT A. All equipment shall be installed as shown on drawings as specified in accordance with manufacturers printed instructions and as required to make completely operational and functional as intended as intended. Equipment shall be set straight and true, securely anchored and supported and shall have all accessories and connections firmly affixed. Contractor shall verify all clearances of installation are in accordance with NEC and modify layout as required to maintain clearance compliance.	
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