ADDENDUM NO. 02 JUNE 29, 2023

1. INSTRUCTIONS TO ALL HOLDERS OF CONTRACT DOCUMENTS

TO ALL HOLDERS OF CONTRACT DOCUMENTS

Your attention is directed to the following interpretations of, changes and additions to the Contract Documents for the project, "Hyperspace Vending" at Syracuse Hancock International Airport (SYR) in Syracuse, New York.

This Addendum constitutes part of the Contract Documents. Should conflicts occur between the Specifications or Drawings with items in the Addendum, the Addendum shall govern. Bidders shall examine carefully all items and determine for themselves what sub-bidders are affected, and notify all bidders or sub-bidders of clarifications, interpretations, or revisions affecting their work. Work described in this Addendum shall be in accordance with specifications for like items unless stated otherwise.

2. <u>RFI Responses</u>

-Materials for both island units.

1.-Dwg. A1140 shows countertops as 1" Black Goldstone. This color is only available in $\frac{3}{4}$ " and 1-1/4" thicknesses. This Black Goldstone is a Dupont Corian product which is offered in $\frac{1}{2}$ ", and $\frac{3}{4}$ " thicknesses, both require a backing/stiffener for spanning over 2'. Minimal edge thickness shall be 1" to 1-1/4".

2.-Elevation 1 has the cabinets crossed out. Are they omitted from the project? Yes, cabinets throughout Are deleted as crossed out.

3.-Elevation 5 shows one side of the seating area wall as wood planking. What type of wood planking? Is it flooring? During walkthrough we can visually inspect all existing wood planking that this material is required to match.

RFI #1 JSS 6/20/23

Few questions in regards to the above RFP:

SVRACUSE

- Can the submission date be pushed back given the 4th of July holiday weekend / week? Yes, 7/12/23.
- 2. Will security systems be part of the work? From walkthrough, it would appear that acuse Regional Airport Authority existing security cameras will be blocked from view by partitions and ceilings. No, security work is not part of this project.
 P = 315.454.3263
 f = 315.454.3263

 $\begin{array}{l} p \; - \; 315.454.3263 \\ f \; - \; 315.454.8757 \\ info@syrairport.org \end{array}$

1000 Col. Eileen Collins Blvd. Syracuse, NY 13212

- 3. Please confirm if plans have been submitted for code review. If not, confirm first time City and County will see the drawings will be when they are submitted for permits by GC? Concern is that there may be comments from the review process that will require added work or additional details that could cause delay and/or costs to the project. City of Syracuse has reviewed drawings already.
- 4. Please confirm if additional electrical and plumbing drawings will be provided. Yes, see attached drawings.
- 5. Please confirm plumbing scope of work. Following items are not shown:
 - a. There is a floor sink indicated on plans but no plumbing drain lines shown or sized or where to connect to. Material type? This was to be reviewed at the walkthrough. Drain and Supply tie ins will be in MEP Room below est. 50lf away.
 - b. Some of the vending machines require water connections and drains. No plumbing for these connections are shown or sized or where to connect to for supply. See attached drawings and cut sheets for information.
 - c. Since water supply is needed for some vending machines, will backflow prevention be required?N/A
- 6. Please confirm electrical scope of work. Following items are not shown or are not clearly indicated:
 - a. Are there light fixtures to be provided? It was mentioned there are no light fixtures for the project but lighting and wall switch(s) would be required in the corridor area correct? Or is the corridor area open to above? It is not clear if there is to be a ceiling in the corridor area or not. Area open to above see E dwgs.
 - b. Where are data outlets to be located in seating area or bench areas. Please confirm whether duplex,

quads, etc. See E dwgs.

- c. Please confirm where power outlets are to be located. Please confirm if duplex, quad, twistlock, USB orother type of combo outlets, etc.Required outlets shown on equipment cut-sheets/drawings.
 - 7. The Costa vending machine cut sheet indicates "Dedicated circuit, No GFCI" If this is located in a wet location (i.e. water or drains) won't GFCI be a code requirement? Machine is not located within a wet location.
 - 8. Confirm Costa vending machine will not be in direct sunlight as it appears to be facing the curtainwall

façade. Spec sheet indicates "Dispenser must not be in direct sunlight because of glare, heat and consequent damage to the screen". Location is not within direct sunlight.

- 9. Confirm floor sink is located within 6' of Costa vending machine as required by vendor cut sheet. Locate sink as required.
- 10. Please confirm no sprinkler / fire protection is required. Fire Protection/sprinklers are not required.
- 11. There is an existing electrical / data pokethru in the existing floor in the seating area. Is this intended to be re- powered / wired for use? No, not part of the project.
- 12. It appears there is an existing VESDA system for fire protection in the ceiling area above the proposed construction zone. Please confirm if the existing system can / will be shutoff during construction to avoid inadvertent activation due to dust, etc.Shutdowns are required to be scheduled.

3. Drawings added to scope.

- 1. E0001 Legend and Abbreviations Rev. 0
- 2. E0002 Specifications Rev 0
- 3. E1111 Partial First Floor Plan Area A Rev. 0
- 4. E1112 Partial First Floor Lighting Plan Area A Rev. 0
- 5. U1111 Partial Utility Plan Rev. 0

4. Milestone Schedule

Wednesday, June 7 - Issuance of Request for Proposals

Wednesday, June21 - Mandatory Walkthrough

Wednesday, July 7th, 4:00PM – Questions/Clarification Submission Deadline

Wednesday, July 12, 4:00PM – Proposal Submission Deadline

July 12th–July 19th–Proposal Evaluation Period and Proposer Interviews (if applicable)

No earlier than July 21_{st} – Notice of Award by the Authority

No earlier than July 28th – Execution of Contract

- All Submittals Submitted or Approval (includes certificate of insurance, permit application, SOV) 7/21/23- 8/4/23
- Long Lead Items released for fabrication and delivery no later than 8/4/23
- Receipt of Project materials to project site
- Installation of Electrical and Plumbing (Back of House Rough In) Badging/Escort
- Installation of Project Temp Wall/Enclosure 10/15/23
- Installation of Construction Materials
- Substantial Completion
- Punchlist
- Turnover

5. Contractor Selection.

1. All as discussed at the mandatory walkthrough meeting the selection of a contractor will be based on the overall bid submission which will include but not be limited to the following:

a. Pricing for the temporary wall broken out to show both stick framing, drywall and paint (demolition) versus, a temporary re-useable wall that can be installed and removed/stored for additional projects.

b. A project schedule with the bid to show all items above plus all construction activities involved to meet the substantial completion date or sooner.

Contractor Mandatory Walkthrough Sign in sheet attached.

8/4/23-10//23

11/10/23

11/17/23

10/16/23-11/10/23

11/3/23-11/17/23

Exhibit C Pricing Proposal Form

Provide pricing information as follows:

Task	Lump Sum Price
Hyperspace Vending Project without temp	
wall	
Metal Stud painted drywall wall (Install and	
remove.	
Temporary Re-useable Wall (Set up and Tear	
Down)	

		Hypersp Sign In (ace Vending Project sheet 6/21/23 1pm	
Name	Time	Company	Email Address/Printed Name	Contact Number
Robin Watkins	1.00nm	SRAA	work incrementances and	
lason Stokes	200-1	SRAA	station woyl all policing	21F 000 0211
Tanner Dewolf		SRAA	dewolft@svrairnort.org	1470-006-CTC
Joe Mulhauser	1000	5.57	icseptmult auser 1) Value 10W	2 15-751-9444
Any town Florens	1pm	45	AFIDEENTINN @ CICOS, COM	60-207-0920
Phigail Vincent	Ma	CES	Avincent @ L3cos.co.	518-521-0769
Gordon Baker	NOI	AMC	abaker P. am contraction , cam	5/4-502-212
MARIAH SARRETT	wall	AM C	MJarre#@amcontracking, COM	518-364-1667
In Snyder	i pw.	MD22 LLC	Iane MDZZLLC. Com	715-403-1511
Brien 11 Hundes	1:pm	BMG INDUSTRIAL	hmaindustrial@ Amail. Com	315-576-3806
BORBY SZZJARTO	NQ:1	BHG INDUSTREMI	BJS 0923 @ ZCIOUD. CON	585 690-4016
PAL CARGIOUTUN	Md: I	FINSTRIN	HOU O EINSTEIN-CONSTRUCTUR. CON-	315-2100 800
MARK SEEFELDT	I PM	WHITIDG -TURNER	mark. seefeldte whit ina-turner, com	443-324 ,3808
Ching Gor	100	GNSTTEN	C	31.5 - 47.7-357B
Temmy Willman	1 pm	Enstrue	Tom With their B) a Gond com	315-569-6232
SHAWNI DAVIS	mg (LUMINARY ELECTRICAL	SDAVISE LUMINARYSYR.COM	315-210-0240
	•3	ſ		
UASON				
Linda				
matt.				

SYMBOL

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4

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POWER		LIGHTING
DESCRIPTION	SYMBO	DESCRIPTION
DUPLEX RECEPTACLE	\$	SINGLE POLE LIGHT SWITCH
TWO DUPLEX IN TWO GANG BOX (QUAD)	\$os	SINGLE POLE LIGHT SWITCH - OCCUPANCY SENSOR OPERATED
SPLIT WIRED DUPLEX RECEPTACLE	_{\$} К	SINGLE POLE LIGHT SWITCH - KEY OPERATED
GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE	\$3	THREE WAY LIGHT SWITCH
GROUND FAULT	\$4	FOUR WAY LIGHT SWITCH
ABOVE COUNTER	a,b	INDICATES MULTI-LEVEL SWITCHING
FLOOR RECEPTACLE	\$ ^D	DIMMER SWITCH
WEATHERPROOF	TC	TIME CLOCK / SWITCH
SURGE SUPPRESSION	PC	PHOTO CONTROL
FLOOR BOX		RECESSED FIXTURE, DESIGNATION REFERS TO FIXTURE SCHEDULE
SUBSCRIPT REFERS TO ELECTRIC EQUIPMENT CONTROL SCHEDULE	EM	INDICATES FIXTURE ON EMERGENCY CIRCUIT
POWER / COMMUNICATION POLE	\oslash	ROUND RECESSED DOWNLIGHT
ELECTRIC HAND DRYER		12" SQUARE RECESSED DOWNLIGHT
		WALL MOUNTED FIXTURE, DESIGNATION REFERS TO
FUSED DISCONNECT,		FIXTURE SCHEDULE
ELECTRIC EQUIPMENT CONTROL SCHEDULE.	У П	SQUARE WALL SCONCE
NONFUSED DISCONNECT, DESIGNATION REFERS TO ELECTRIC EQUIPMENT CONTROL SCHEDULE		STRIP FIXTURE
MAGNETIC MOTOR STARTER, DESIGNATION REFERS TO	<u> </u>	4 FT. TRACK LIGHT
ELECTRIC EQUIPMENT CONTROL SCHEDULE.	$\overline{\bigotimes}$	WALL MOUNTED EXIT SIGN,
MANUAL MOTOR STARTER, FRACTIONAL HORSEPOWER, TOGGLE OPERATOR	$ \bigotimes $	WALL MOUNTED EXIT SIGN, DOUBLE FACE
COMBINATION MAGNETIC MOTOR STARTER/ DISCONNECT SWITCH, DESIGNATION REFERS TO ELECTRIC EQUIPMENT	₹₩	WALL MOUNTED COMBINATION EXIT SIGN/EMERGENCY EGRESS LIGHTING, SINGLE FACE
CONTROL SCHEDULE. MOTOR CONNECTION,	$\overline{\otimes}$	CEILING MOUNTED EXIT SIGN, SINGLE FACE
DESIGNATION REFERS TO ELECTRIC EQUIPMENT CONTROL SCHEDULE.	$\left \otimes\right $	CEILING MOUNTED EXIT SIGN, DOUBLE FACE
VARIABLE FREQUENCY DRIVE, DESIGNATION REFERS TO ELECTRIC EQUIPMENT CONTROL SCHEDULE.		EMERGENCY LIGHTING FIXTURE WITH INTEGRAL BATTERY
MANUAL MOTOR STARTER, INTERGRAL HORSEPOWER, PUSH BUTTON OPERATOR	<u>A</u> D	EMERGENCY LIGHTING FIXTURE WITH REMOTE BATTERY (TWO HEADS)
ELECTRIC METER	$\overline{\nabla}$	EMERGENCY LIGHTING FIXTURE WITH REMOTE
JUNCTION BOX	LC	LIGHTING CONTACTOR
BUSPLUG	OS	WALL MOUNTED OCCUPANCY
		SENSOR
BREAKER		
SINGLE FACE PEDESTAL BOX	(vs)	CEILING MOUNTED OCCUPANCY SENSOR
DOUBLE FACE PEDESTAL BOX		
EMERGENCY POWER RECEPTACLE	<u> DWE</u>	R DISTRIBUTION
POWER CONNECTION	SYMBO	DESCRIPTION

<u>ION</u>

		BRANCH CIRCUIT PANELBOARD 208Y/120V OR 240/120V REFER TO PANELBOARD SCHEDULE
		DISTRIBUTION PANELBOARD 1200A MAX REFER TO PANELBOARD SCHEDULE
		DISTRIBUTION PANELBOARD 800A MAX REFER TO PANELBOARD SCHEDULE
		MOTOR CONTROL CENTER SECTION
	Τ	3-45 KVA TRANSFORMER
5	Т	75-225 KVA TRANSFORMER
	T	TRANSFORMER 480-208Y/ 120V, (500 KVA SIZE SHOWN) DESIGNATION REFERS TO TRANSFORMER SCHEDULE
	SWB	SWITCHBOARD SECTION (800-2000AMP SIZE SHOWN)
	SWB	2500 AMP SWITCHBOARD SECTION
	SWB	3000 AMP SWITCHBOARD SECTION
	SWB	4000 AMP SWITCHBOARD SECTION

4×	DISCONNECT SWITCH, DESIGNATION REFERS TO ELECTRIC EQUIPMENT CONTROL SCHEDULE.
M	MOTOR CONNECTION, DESIGNATION REFERS TO ELECTRIC EQUIPMENT CONTROL SCHEDULE.
VFD	VARIABLE FREQUENCY DRIVE, DESIGNATION REFERS TO ELECTRIC EQUIPMENT CONTROL SCHEDULE.
Μ	MANUAL MOTOR STARTER, INTERGRAL HORSEPOWER, PUSH BUTTON OPERATOR
	ELECTRIC METER
J	JUNCTION BOX
	BUSPLUG
PB	PULLBOX
СВ	ENCLOSED CIRCUIT BREAKER
₽ ^S	SINGLE FACE PEDESTAL BOX
\oplus^{D}	DOUBLE FACE PEDESTAL BOX
P	EMERGENCY POWER RECEPTACLE
(+)	POWER CONNECTION
ÔÔ	DROP CORD
CR	CORD REEL
PP	POWER POLE
	WIRE SIZE, WIRE COUNT, AND CONDUIT SIZE AS NOTED
	WIRE MOLD/ PLUG MOLD
<u>COM</u>	<u>MUNICATIONS</u>
SYMBOL	DESCRIPTION
\bigtriangledown	TELEPHONE OUTLET
8	TELEPHONE OUTLET IN FLUSH FLOOR BOX
▼	COMPUTER/DATA COMMUNICATION OUTLET, DESIGNATION REFERS TO DATA COMMUNICATIONS WIRING SCHEDULE
▼	COMPUTER/DATA COMMUNICATION OUTLET, IN FLUSH FLOOR BOX, DESIGNATION REFERS TO DATA COMMUNICATIONS WIRING SCHEDULE
	WALL MOUNTED CABLE TELEVISION SYSTEM OUTLET

- CEILING MOUNTED CABLE TV TELEVISION SYSTEM OUTLET
- TEL SW TELEPHONE SWITCH COMPUTER/DATA
- COMMUNICATIONS EQUIPMENT RACK
- REMOTE TELEPHONE RINGER В / BUZZER
- T CABLE TV TAP
- CABLE TV SPLITTER S
- VIDEO OUTLET \heartsuit
- RP TWO WAY COMMUNICATION STATION

© SEI design group Architects

ONE LINE SYMBOLS SYMBOL DESCRIPTION

	TRANSFORMER
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
A A	THERMAL MAGNETIC MOLDED CASE CIRCUIT BREAKER DESIGNATION INDICATES AMPERE RATING
A	THERMAL MAGNETIC MOLDED CASE CIRCUIT BREAKER DRAW-OUT TYPE, DESIGNATION INDICATES AMPERE RATING
	SOLID STATE BREAKER DESIGNATIONS INDICATE FUNCTIONS ¹

FUNCTIONS: CL - CURRENT LIMITING L - LONG TIME TRIP - SHORT TIME TRIP I - INSTANTANEOUS TRIP G - GROUND FAULT TRIP

FUSED DISCONNECT SWITCH

SHUNT TRIP TYPE CIRCUIT

FUSE

BREAKER

AF

ST ,

G

-+\$ +

BRANCH CIRCUIT DISTRIBUTION PANEL, REFER TO PANELBOARD SCHEDULES

GROUND CONNECTION

LIGHTNING ARRESTOR

SCHEMATIC MOTOR

EMERGENCY GENERATOR

ATS AUTOMATIC TRANSFER SWITCH

MANUAL TRANSFER SWITCH

METER DESIGNATION INDICATES TYPE: A - AMMETER V - VOLTMETER KWH - KILOWATT-HOUR METER AMMETER SELECTOR AS SWITCH

VOLTMETER SELECTOR VS SWITCH

GF GROUND FAULT

DRAW OUT DEVICE

MISCELLANEOUS

SYMBOL	DESCRIPTION
1 _{OR} 1	REFERENCE TO DRAWING NOTE
$\langle \mathbf{A} \rangle$	REFERENCE TO FEEDER SCHEDULE
	ROOM NUMBER
*	ARROWHEAD LINE TERMINATOR

NOTE:

1. NOT ALL SYMBOLS, ABBREVIATIONS AND LINE DESIGNATIONS ARE NECESSARILY USED ON THIS PROJECT.

LIN	IE TYPES			
SYMBOL DESCRIPTION				

------ EXISTING WORK

— — — REMOVAL WORK

----- NEW WORK

FIRE ALARM SYSTEM

SYMBOL	DESCRIPTION
F	MANUAL PULL STATION
$\langle s \rangle$	CEILING MOUNTED SMOKE DETECTOR
$\langle s \rangle_{\rm D}$	DUCT MOUNTED SMOKE DETECTOR
F	VISUAL FIRE ALARM STROBE
F	AUDIO-VISUAL FIRE ALARM LETTER REFERS TO TYPE IN DESCRIPTION
$\langle H \rangle$	CEILING MOUNTED THERMO DETECTOR LETTER REFERS TO TYPE IN SPECIFICATIONS
¢Ò	CEILING MOUNTED CARBON MONOXIDE DETECTOR
AUX	INDICATES AUXILLIARY CONTACTS ON FIRE ALARM DEVICE
	WALL MOUNTED MAGNETIC DOOR HOLDER
DH	FLOOR MOUNTED MAGNETIC DOOR HOLDER
DH	CONNECTION TO MAGNETIC DOOR HOLDER PROVIDED BY THE ARCHITECT
SH	CONNECTION TO ROOF MOUNTED SMOKE HATCH OR WALL MOUNTED LOUVER
F ⊳	CONNECTION TO SPRINKLER FLOW SWITCH
EC	CONNECTION TO ELEVATOR CAPTURE CONTROL
TS	CONNECTION TO SPRINKLER SYSTEM TAMPER SWITCH
F	FIRE ALARM SYSTEM EMERGENCY PHONE
FACP	FIRE ALARM CONTROL PANEL
RAP	FIRE ALARM REMOTE ANNUNCIATOR PANEL
VCCP	VOICE CONTROL CENTER PANEL ANNUNCIATOR PANEL
NAEP	NOTIFICATION APPLIANCE EXTENDER PANEL
ZAM	ZONE ADDRESS MODULE
IAM	INDIVIDUAL ADDRESS MODULE
CZI	COLLECTIVE ZONE INTERFACE
APS	AUXILLARY POWER SUPPLY S - SIGNAL DEVICES D - DOOR HOLD OPENS
FSD	FAN SHUTDOWN
AMM	ADDRESSABLE MONITOR MODULE
SD	SMOKE DAMPER
R	AREA OF REFUGE CALL STATION
F	CEILING MOUNTED VISUAL FIRE ALARM STROBE

- CEILING MOUNTED AUDIO-
- E
 CEILING MOONLES

 VISUAL FIRE ALARM

ABBREVIATIONS:

- NORMALLY OPEN AUXILIARY CONTACT - AC AMMETER ACA - AC VOLTMETER ACV ALM - ALARM - AUTOMATIC VOLTAGE REGULATOR AVR - AMMETER / VOLTMETER PHASE SELECTOR SWITCH AVS BACV - BUS AC VOLTMETER - BUS FREQUENCY METER BFM - INDICATING LIGHT C.B. CLOSED - CROSS COUPLED CURRENT TRANSFORMER CCCT - CIRCUIT BREAKER CONTROL SWITCH CS СТ - CURRENT TRANSFORMER - DC AMMETER DCA DCV - DC VOLTMETER DMD - DIGITAL METERING DISPLAY - EXISTING (E) - EMERGENCY SOURCE - ELECTRICAL CONTRACTOR EC - ENGINE CONTROL SWITCH ECS - EMERGENCY STOP PUSHBUTTON ESPB - EXISTING TO BE RELOCATED ERL ETR - EXISTING TO REMANI - FUSE - FLEXITEST SWITCHES FT - GENERATOR AVAILABLE LIGHT GAL GEN - GENERATOR - INCOMING AC VOLTMETER IACV IFM - INCOMING FREQUENCY METER - LAMP TEST PUSHBUTTON LTS - MECHANICAL CONTRACTOR MC MPU - MAGNETIC PICK-UP - NORMAL SOURCE - INDICATING LIGHT C.B. OPEN - PLUMBING CONTRACTOR - POTENTIAL TRANSFORMER - SOURCE 1 - SOURCE 2 - SYSTEM CONTROL SWITCH SCS - SHUNT TRIP COIL SHTC - ALARM SILENCE PUSHBUTTON SIL - SYNCHRONIZING SWITCH SS - SHORTING TERMINAL BOARD STB - SYNCHROSCOPE SYNC

- TEMPERATURE SCANNER - VOLTAGE ADJUST RHEOSTAT - WARNING RESET PUSHBUTTON

- WATT TRANSDUCER

TS

VAR

WRE

WTD





REQU	IRED 2020 IECC ENERGY CONSERVATION COMPLIANCE
CODE SECTION	COMPLIANCE
C105.2.1	REFERENCE MECHANICAL AND PLUMBING DOCUMENTS FOR DUCT AND PIPE INSULATION MATERIALS, ARCHITECTURAL DOCUMENTS FOR ALL OTHER INSULATION MATERIALS
C105.2.2	REFERENCE ARCHITECTURAL PLANS FOR FENESTRATION U-FACTORS AND SOLAR HEAT GAIN COEFFICIENTS
C105.2.3	REFERENCE ARCHITECTURAL PLANS FOR AREA-WEIGHTED U-FACTORS AND SOLAR HEAT GAIN COEFFICIENTS
C105.2.4	MECHANICAL DESIGN CONFORMS TO 2015 IECC AND IMC CODE REQUIREMENTS
C105.2.5	REFERENCE MECHANICAL AND PLUMBING DOCUMENTS FOR EQUIPMENT TYPES, SIZES AND EFFICIENCIES
C105.2.6	REFERENCE MECHANICAL DOCUMENTS FOR EQUIPMENT TYPES, SIZES AND EFFICIENCIES
C105.2.7	REFERENCE MECHANICAL DOCUMENTS FOR EQUIPMENT AND SYSTEM CONTROLS
C105.2.8	REFERENCE MECHANICAL DOCUMENTS FOR EQUIPMENT HORSEPOWER AND CONTROLS
C105.2.9	REFERENCE MECHANICAL AND PLUMBING SPECIFICATIONS FOR SEALING AND INSULATION LOCATIONS
C105.2.10	REFERENCE ELECTRICAL DOCUMENTS FOR LIGHTING FIXTURE SCHEDULE AND CONTROLS
C105.2.11	REFERENCE ELECTRICAL DRAWINGS FOR DAYLIGHTING ZONES
C105.2.12	REFERENCE MECHANICAL SPECIFICATIONS FOR AIR SEALING DETAILS
C401.2	BUILDING COMPLIES WITH THE APPLICABLE SECTIONS OF CODE BASED ON PRESCRIPTIVE COMPLIANCE (ITEM 2)
C402.5	REFERENCE ARCHITECTURAL PLANS FOR AIR LEAKAGE CRITERIA
C403.1.1	HVAC LOAD SIZING HAS BEEN PERFORMED IN THE CARRIER HAP PROGRAM, USING RTS (HEAT BALANCE) METHODOLOGY
C403.3.2	ALL HVAC EQUIPMENT MEETS OR EXCEEDS MINIMUM EFFICIENCIES, REFERENCE MECHANICAL DOCUMENTS
C403.4	REQUIRED HVAC CONTROLS SHALL BE PROVIDED, REFERENCE MECHANICAL DOCUMENTS
C403.7.7	MOTORIZED DAMPERS PROVIDED FOR EXHAUST AND OUTSIDE AIR INTAKES GREATER THAN 300 CFM OR IN BUILDINGS 3 STORIES OR LESS
C403.11.1	DUCT IS REQUIRED TO BE INSULATED TO THE INDICATED MINIMUM LEVEL, REFERENCE MECHANICAL DOCUMENTS
C403.11.1	INSTALLING CONTRACTOR SHALL ENSURE THAT ALL AIR DISTRIBUTION COMPONENTS ARE PROPERLY SEALED
C403.11.3	ALL PIPING INSULATION CRITERIA HAS BEEN MET, REFERENCE MECHANICAL / PLUMBING DOCUMENTS
C408.2	MECHANICAL SYSTEMS SHALL BE COMMISSIONED AS REQUIRED
C404.2	ALL WATER HEATING EQUIPMENT MEETS OR EXCEEDS MINIMUM EFFICIENCIES, REFERENCE PLUMBING DOCUMENTS
C404.4	ALL DOMESTIC HOT WATER PIPING INSULATION CRITERIA HAS BEEN MET, REFERENCE PLUMBING DOCUMENTS
C405.2	LIGHTING CONTROL CRITERIA HAS BEEN MET, REFERENCE ELECTRICAL DOCUMENTS
C405.3	INTERIOR LIGHTING TOTAL POWER DOES NOT EXCEED THE ALLOWANCE. REFERENCE ELECTRICAL DOCUMENTS.
C405.4	EXTERIOR LIGHTING TOTAL POWER DOES NOT EXCEED THE ALLOWANCE, REFERENCE ELECTRICAL DOCUMENTS
C405.6	FOR R-2 BUILDINGS, ELECTRICAL POWER PROVIDED PER THE CODE, REFERENCE ELECTRICAL DOCUMENTS
C408.2.2	INSTALLING CONTRACTOR SHALL TEST AND BALANCE ALL HVAC SYSTEMS AND PROVIDE REPORT TO ENGINEER

ENERGY CONSERVATION CODE COMPLIANCE STATEMENT TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE INTERNATIONAL ENERGY CODE, AS ADOPTED BY THE STATE.



SECTION 260100 - BASIC REQUIREMENTS

- A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES TO PERFORM ALL OPERATIONS REQUIRED FOR THE COMPLETE INSTALLATION AND RELATED WORK AS SHOWN ON DRAWINGS AND SPECIFIED HEREIN. ELECTRIC EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
- B. PROVIDE ALL ELECTRICAL EQUIPMENT CONNECTIONS.
- C. PROVIDE ALL REQUIRED SUPPORTS AND ACCESSORIES.
- D. INSTALL ALL WORK IN COMPLIANCE WITH LATEST EDITION OF: 1. NATIONAL ELECTRICAL CODE, NFPA-70. 2. NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE. 3. NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE. 4. OSHA REQUIREMENTS. 5. LOCAL ORDINANCES.
- E. PROVIDE CERTIFICATE OF INSPECTION FROM LOCALLY APPROVED 3RD PARTY INSPECTION AGENCY FOR ALL ELECTRICAL WORK PRIOR TO ACCEPTANCE OF EACH PHASE.
- F. REPAIR OR REPLACE ALL DEFECTS IN MATERIAL OR WORKMANSHIP WITHIN ONE YEAR OF PROJECT COMPLETION AND ACCEPTANCE BY THE OWNER, AT NO ADDITIONAL COST TO THE OWNER.
- G. PERFORM ALL OPERATIONS REQUIRED FOR COMPLETE TESTING OF SYSTEMS. PRIOR TO FINAL ACCEPTANCE, SUBMIT ALL TEST REPORTS IN WRITING.
- H. SUBMIT THREE (3) SETS OF SHOP DRAWINGS FOR REVIEW ON ALL CONTRACTOR FURNISHED ITEMS OF EQUIPMENT. I. IDENTIFICATION:
- 1. LABEL SWITCHBOARD AND SWITCHBOARD FEEDER CIRCUIT BREAKERS, ALL PANELBOARDS AND CONTROL PANELS SHOWING PANEL DESIGNATION, VOLTAGE AND FEEDER INFORMATION. PROVIDE
- BLACK PLASTIC NAMEPLATE WITH WHITE LETTERS. ATTACH TO PANELS WITH SCREWS OR POP RIVETS. 2. USING DYMO TAPE, LABEL ALL RECEPTACLES, FURNITURE SYSTEM POWER/COMMUNICATION POLES, INDIVIDUAL CIRCUIT BREAKERS,
- DISCONNECT SWITCHES, ETC. SHOWING PANEL DESIGNATION AND CIRCUIT NUMBER 3. PROVIDE NEAT TYPE-WRITTEN DIRECTORIES FOR ALL PANELBOARDS. UPDATE EXISTING PANELBOARD DIRECTORIES AFFECTED BY THIS WORK.
- J. OBSTACLES, INTERFERENCE AND COORDINATION:
- 1. DRAWINGS SHOW GENERAL DESIGN ARRANGEMENT. INSTALL WORK SUBSTANTIALLY AS INDICATED AND VERIFY EXACT LOCATIONS AND ELEVATIONS ON SITE. 2. DUE TO SMALL SCALE OF DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, CHANGES IN EQUIPMENT LOCATIONS, ETC.
- TO ACCOMMODATE OBSTACLES AND INTERFERENCES ENCOUNTERED 3. INSTALL ALL WORK SO THAT ALL ITEMS DO NOT INTERFERE WITH OTHER TRADES SUCH AS HVAC, PLUMBING, GENERAL
- CONSTRUCTION, ETC. K. CUTTING AND PATCHING:
- 1. PROVIDE ALL CUTTING AND PATCHING IN THE WORK AREA. 2. NEATLY CUT EXISTING CONSTRUCTION IN A MANNER TO AVOID

<u> </u>	
	DAMAGE TO ADJACENT WORK.
PA	TCH ALL WORK DISTURBED BY INSTALLATION

SECTION 260100 - BASIC REQUIREMENTS A. OUTLET, JUNCTION AND PULLBOXES:

- 1. GALVANIZED, STAMPED STEEL SHALL BE PROVIDED WHEN RECESSED IN CONSTRUCTION OR EXPOSED ON CEILINGS IN DRY AREAS. 2. LARGE PULLBOXES SHALL BE 14 GAUGE GALVANIZED STEEL, FOLD
- AND WELD CONSTRUCTION: WITH 14 GAUGE GALVANIZED STEEL COVER SECURED IN PLACE BY GALVANIZED SHEET METAL SCREWS ON MAXIMUM 10" CENTERS. ALL CUT EDGES TO BE FREE OF BURRS.
- 3. SIZE: PROVIDE AS REQUIRED FOR NUMBER AND SIZE OF CONDUIT AND CONDUCTORS. COORDINATE DEPTH TO SUIT WALL DEPTH AND CONSTRUCTION. USE SPECIAL FORMS AND DESIGNS AS REQUIRED
- FOR OUTLET FACILITIES. MAXIMUM NUMBER OF CONDUCTORS PERMITTED IN STANDARD BOXES SHALL BE AS LISTED IN NEC TABLE
- 370-62 4. COVERS: PROVIDE DESIGN AND STYLE TO SUIT OUTLET BOX AND OUTLET TYPE.
- 5. FLUSH RECESSED WHEREVER POSSIBLE AND SECURELY SUPPORTED FROM BUILDING CONSTRUCTION. 6. MOUNTING HEIGHT OF BOXES SHALL BE:
- a. HEIGHTS: REFER TO CENTERLINE OF BOX ABOVE b. FINISHED FLOOR, UNLESS OTHERWISE NOTED. TOGGLE SWITCHES - 46"
- d. RECEPTACLE OUTLETS 18" e. RECEPTACLE OUTLETS, ABOVE HOT WATER OR STEAM BASEBOARD HEATERS. - 30"
- DO NOT INSTALL RECEPTACLE OUTLETS ABOVE ELECTRIC BASEBOARD HEATERS. RECEPTACLE OUTLETS, HAZARDOUS AREAS - 48" RECEPTACLE OUTLETS, WEATHERPROOF, ABOVE-GRADE - 24" CLOCK OUTLETS - 90"
- **TELEPHONE OUTLETS 18"** TELEPHONE OUTLETS, WALL MOUNTED - 46" I. T.V. OUTLET - 18"
- m. FIRE ALARM MANUAL PULL STATION 46" n. FIRE ALARM AUDIO/VISUAL, TO THE BOTTOM - 80" o. BRANCH CIRCUIT PANELBOARDS, TO TOP OF BACKBOX - 72"
- DISTRIBUTION PANELBOARDS, TO TOP OF BACKBOX 72" TERMINAL CABINETS, CONTROL CABINETS - 72" DISCONNECT SWITCHES, MOTOR STARTERS, ENCLOSED CIRCUIT BREAKERS - 60"
- WHERE STRUCTURAL OR OTHER INTERFERENCE'S PREVENT COMPLIANCE WITH MOUNTING HEIGHTS LISTED ABOVE, CONSULT OWNER'S REPRESENTATIVE FOR APPROVAL TO CHANGE
- LOCATION BEFORE INSTALLATION. B. CIRCUITING:
- 1. PROVIDE ALL POWER WIRING AND MAKE ALL CONNECTIONS TO DISCONNECT SWITCHES, MOTOR CONTROLLERS, MOTORS, AND OTHER ITEMS OF ELECTRICAL EQUIPMENT SHOWN ON PLANS, DETAILS AND SCHEDULES.
- 2. PROVIDE CONTROL WIRING ONLY AS SHOWN ON ELECTRIC EQUIPMENT SCHEDULE, PLANS, AND DETAILS. MAKE CONNECTIONS TO MOTORS, MOTOR CONTROLLERS, CONTROL DEVICES, ETC.,
- INCLUDING THE MOUNTING OF ALL CONTROL DEVICES FURNISHED BY OTHERS 3. PROVIDE CONTROL DEVICES AND DISCONNECT SWITCHES AS SHOWN ON SCHEDULES AND PROVIDE DISCONNECT SWITCHES AS REQUIRED
- BY CODE. 4. VERIFY EXACT LOCATION AND RATING OF ALL MOTORS, CONTROLLERS, CONTROL DEVICES, ETC., WITH OTHER
- CONTRACTORS BEFORE ROUGHING. . POWER AND CONTROL WIRING MAY BE COMBINED IN COMMON CONDUIT BY INCREASING CONDUCTOR AND/OR CONDUIT SIZES AS
- REQUIRED BY CODE. 6. OBTAIN WIRING DIAGRAMS, CERTIFIED CORRECT FOR THE JOB, FROM
- FURNISHED BY THEM. 7. EXIT LIGHTS, FIRE ALARM AND EMERGENCY CIRCUITS INSTALLED IN SEPARATE CONDUIT SYSTEMS.

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- OF NEW WORK.

- RESPECTIVE CONTRACTOR FOR ALL EQUIPMENT AND SYSTEMS

SECTION 261100 - RACEWAYS

A. MATERIALS:

- 1. ELECTRICAL METALLIC TUBING (EMT): EXTERIOR SURFACE GALVANIZED, HAVING AN EXTRA COAT OF ZINC CHROMATE SOLUTION TO PROVIDE A BRIGHT FINISH. INTERIOR SURFACE COATED WITH BAKED PAINT OR SILICONE BASED LUBRICANT. SET SCREW FITTINGS.
- U.L. LISTED "ELECTRICAL METALLIC TUBING". GALVANIZED RIGID STEEL (GRS): HOT-DIPPED OR ELECTRO-
- GALVANIZED HEAVY WALL STEEL, U.L. LISTED "RIGID METAL CONDUIT". 3. FLEXIBLE CONDUIT: STEEL INTERLOCK TYPE, GALVANIZED, WITH GALVANIZED STEEL FITTINGS. U.L. LISTED "FLEXIBLE STEEL CONDUIT". 4. LIQUIDTIGHT FLEXIBLE METAL CONDUIT: SAME AS FLEXIBLE CONDUIT, EXCEPT WITH GRAY OIL RESISTANT THERMOPLASTIC COVER. U.L.
- LISTED "LIQUIDTIGHT FLEXIBLE METAL CONDUIT". B. CONDUIT INSTALLATION:
- 1. CONDUIT SHALL BE SECURELY SUPPORTED FROM BUILDING CONSTRUCTION SEPARATELY FROM OUTLETS AND BOXES WHICH ARE SECURED TO THE BUILDING
- 2. TERMINATING CONNECTIONS FOR MOTORS AND VIBRATING EQUIPMENT LOCATED IN DRY AREAS SHALL BE FLEXIBLE CONDUIT. 3. ALL CONDUIT INSTALLED BELOW GRADE SHALL HAVE JOINTS AND COUPLINGS TREATED WITH WATERPROOF COMPOUND; RIGID, HOT DIPPED, GALVANIZED STEEL CONDUIT SHALL BE PROVIDED AS
- FOLLOWS: a. IN OR UNDER CONCRETE POURS. b. WHEN EXPOSED TO WEATHER.
- 4. EMT SHALL BE USED IN DRY LOCATIONS FOR CONCEALED OR EXPOSED WORK
- 5. CONDUIT RUNS SHALL BE CONCEALED UNLESS OTHERWISE SPECIFIED. 6. AVOID INSTALLATION ADJACENT TO HOT SURFACES.

SECTION 261200 - CONDUCTORS AND CABLE

A. CONDUCTORS:

- 1. ANNEALED COPPER, 98% CONDUCTIVITY, STRANDED. 2. MINIMUM #12 AWG MINIMUM FOR BRANCH CIRCUITS AND #14 AWG FOR CONTROL WIRING.
- 3. PROVIDE #10 MINIMUM SIZE FOR BRANCH CIRCUIT HOMERUNS WHICH EXCEED 100 FEET.
- 4. BRANCH CIRCUITS FOR THREE PHASE MOTORS AND EQUIPMENT RATED FOR THREE PHASE, 208Y/120 VOLTS, SHALL HAVE COLOR CODED INSULATION: BLACK-PHASE "A", RED-PHASE "B", BLUE-PHASE "C". WITH WHITE NEUTRAL CONDUCTOR, I BRANCH CIRCUITS FOR THREE PHASE MOTORS AND EQUIPMENT RATED FOR THREE PHASE, 480Y/277 VOLTS, SHALL HAVE COLOR CODED INSULATION: BROWN -
- PHASE "A", ORANGE PHASE "B", YELLOW PHASE "C", WITH GRAY NEUTRAL CONDUCTOR. COLORED TAPE AT EACH TERMINAL OF ALL POWER FEEDERS (BLACK INSULATION) WILL BE ACCEPTED IN LIEU OF COLORED INSULATION AS DESCRIBED ABOVE. 5. GROUNDING CONDUCTOR SHALL HAVE GREEN COLOR CODED
- INSULATION 6. DUAL RATED THHN/THWN 600 VOLT INSULATION.
- B. INTERLOCKED CABLE TYPE MC 600 VOLT:
- 1. CONDUCTORS SAME AS ABOVE.
- 2. CONSTRUCTED IN ACCORDANCE WITH LATEST REVISION OF APPLICABLE ICEA SPECIFICATIONS FOR 600 VOLT CABLE FOR GROUNDED NEUTRAL WYE SYSTEM.
- C. MAKE: OKONITE (DESIGN MAKE), CABLEC, PIRELLI, ROME CABLE.
- D. WIRING INSTALLATION:
- 1. ALL FEEDERS AND BRANCH CIRCUIT HOMERUNS SHALL BE INSTALLED IN A RACEWAY SYSTEM. [20 AMPERE AND 30 AMPERE BRANCH CIRCUITS MAY BE TYPE MC CABLE BETWEEN HOMERUN JUNCTION BOX AND EQUIPMENT/DEVICE CONNECTIONS.] 2. SPLICES AND CONNECTIONS SHALL BE MADE IN ACCESSIBLE
- OUTLETS, PULLBOXES OR JUNCTION BOXES USING MECHANICAL CONNECTORS SIMILAR TO BUCHANAN SPLICE CAPS, IDEAL WIRE NUTS OR T&B STAKON JOINTS, FOR SIZE #10 WIRE AND SMALLER.
- 3. USE FRANKEL, DOSSERT, T&B OR BURNDY CONNECTORS FOR WIRE SIZES #8 AND LARGER; EQUAL TO BURNDY TYPE KSU. 4. INSULATE ALL SPLICES. TAPS AND CONNECTIONS WITH U.L. LABELED
- GAUGE PLASTIC TAPE OR MOLDED COMPOSITION CAPS.
- 5. USE U.L. APPROVED LUBRICANTS FOR WIRE PULLING. 6. INSTALL A MAXIMUM OF THREE PHASE AND ONE NEUTRAL
- CONDUCTOR IN ANY ONE FEEDER CONDUIT. 7. FLEXIBLE CONDUIT USED AS CONNECTION TO ANY EQUIPMENT SHALL CONTAIN SEPARATE GREEN GROUNDING WIRE RUN BACK TO GROUND BUS OF SERVING PANELBOARD.

SECTION 261300 - WIRING DEVICES

- A. TOGGLE SWITCHES:
- 1. FLUSH MOUNTED, 20 AMPERE, TOGGLE TYPE, TUMBLER SWITCHES, RATED 120/277 VOLT AC (UNLESS OTHERWISE NOTED), QUIET OPERATION, HEAVY DUTY, SPECIFICATION GRADE, SILVER ALLOY CONTACTS ON LEAF SPRING, MOLDED BASE AND COVER CAP WITH SIDE TERMINAL SCREW CONNECTIONS. THREE-WAY, FOUR-WAY, REQUIRED AS INDICATED ON THE PLANS.
- PROVIDE IVORY TOGGLE. DESIGN MAKE: P&S 20AC SERIES.
- B. DUPLEX RECEPTACLES:
- 1. GENERAL USE, INTERIOR TYPE SHALL BE DUPLEX, 20 AMPERE, TWO-POLE, THREE-WIRE, 125 VOLTS AC, GROUNDING, SPECIFICATION GRADE, WITH SIDE AND BACK TERMINAL CONNECTIONS AND SPLITWIRING LINK, U.L. LISTED. 2. MAKE: P&S G300. COLOR SHALL BE IVORY.
- C. GFI DUPLEX RECEPTACLES:
- 1. 125 VOLT, 20 AMPERE, TWO POLE, THREE WIRE, GROUNDING,
- STRAIGHT BLADE, NEMA 5-20R. 2. MATCH REQUIREMENTS OF SECTION 'B. DUPLEX RECEPTACLES. 3. DESIGNED TO TRIP AT MAXIMUM 6MA LEAKAGE CURRENT TO
- GROUND. 4. SUITABLE FOR FEED THROUGH PROTECTION.
- 5. MAKE: P&S G300. COLOR SHALL BE IVORY.
- D. OCCUPANCY SENSORS:
- 1. WALLBOX TYPE: 1800 VIEWING ANGLE, MOUNTED IN SINGLE GANG SWITCHBOX: P&S CAT. NO. OSC3000-I. 2. CEILING MOUNT: PASSIVE INFRARED: P&S CAT. NO. OSC-CEILING SENSOR WITH OSC-2000 SWITCHING MODULE AND OSC2120
- ADDITIONAL LOAD RELAYS AS REQUIRED. 3. [WALL MOUNT: PIR; WATT STOPPER CAT. NO. WI-120AW.]
- 4. HALLWAY CEILING MOUNT: ULTRASONIC; WATT STOPPER CAT. NO. W-2000H, WITH POWER PACK.]
- 5. CEILING MOUNT: ULTRASONIC; WATT STOPPER CAT. NO. W-1000A WITH POWER PACK. 6. PROVIDE LOW VOLTAGE TRANSFORMERS, CONTROL RELAYS, ETC. REQUIRED FOR AREA CONTROL INDICATED.
- E. DIMMERS:
- ARCHITECTURAL SLIDE DIMMERS TO MATCH SOURCE
- 2. MAKE a. LEVITON b. LUTRON
- c. APPROVED EQUIVALENT
- F. WALL PLATES:
- 1. FOR FLUSH DEVICES PROVIDE STAINLESS STEEL, SATIN FINISH. FOR SURFACE MOUNTED DEVICES, PROVIDE UTILITY COVERS. 3. DESIGN MAKE: P&S.
- G. SPECIAL OUTLETS:
- 1. PROVIDE SPECIAL OUTLETS FOR OWNER EQUIPMENT. 2. COORDINATE ALL SPECIAL OUTLET TYPES, LOCATIONS, RATINGS, ETC.
- WITH OWNER PRIOR TO ROUGHING.
- 3. NEMA 6-30R, 125/250 VOLT, 30 AMPERE, 4 POLE, 4 WIRE, GROUNDING. 4. NEMA 10-50R,125/250 VOLT, 50 AMPERE, 4 POLE, 4 WIRE, GROUNDING. 5. MAKE: HUBBELL
- H. INSTALLATION:
- 1. ALL DEVICES SHALL BE MOUNTED WITHIN A STEEL BOX.

SECTION 264500 - GROUNDING

- A. PROVIDE GROUNDING IN ACCORDANCE WITH NFPA 70 ARTICLE 250. B. RACEWAY AND CABLE SYSTEMS. WHICH INCLUDES ALL METAL CONDUIT. WIREWAYS, PULLBOXES, JUNCTION BOXES, BUILT-UP ENCLOSURES, ENCLOSURES, MOTOR FRAMES, ETC., SHALL BE MADE TO FORM A CONTINUOUS, CONDUCTING PERMANENT GROUND CIRCUIT OF THE LOWEST PRACTICAL IMPEDANCE TO ENHANCE THE SAFE CONDUCTION OF GROUND FAULT CURRENTS AND TO PREVENT OBJECTIONABLE DIFFERENCES IN VOLTAGE BETWEEN METAL NONLOAD CURRENT CARRYING PARTS OF THE ELECTRICAL SYSTEM.
- C. CONDUCTORS:
- 1. ALL EXPOSED GROUNDING CONDUCTORS SUCH AS BARS, STRAPS, CABLES, FLEXIBLE JUMPERS, BRAIDS, SHUNTS, ETC., SHALL BE BARE COPPER
- 2. CABLE SIZE SHALL BE AS REQUIRED BY NEC CODE, ARTICLE STRANDED, SOFT DRAWN OR SOFT ANNEALED, UNLESS OTHERWISE SHOWN ON PLANS OR SPECIFIED.
- D. GROUND RODS:

A. SERVICE SWITCHBOARD:

B. BRANCH CIRCUIT PANELBOARDS:

RUSTPROOFED STEEL HINGES.

4. CHROME PLATED CATCH AND LOCK.

. GROUNDING LUG IN PANELBOARD.

8. BRANCH CIRCUIT BREAKERS:

AND NEMA 3R OUTDOORS.

d. SCHEDULE.

C. DISCONNECT SWITCHES:

WIRE CIRCUITS.

E. DRY-TYPE TRANSFORMERS:

RATINGS

ABOVE 400 AMBIENT

1150 RISE ABOVE 400 AMBIENT

5. DESIGN MAKE: SQUARE D, SORGEL.

D. LOW VOLTAGE FUSES:

3. DESIGN MAKE: SQUARE D

1. RODS SHALL BE SOLID CYLINDRICAL. SECTIONALIZED AS REQUIRED AND 3/4" MINIMUM DIAMETER, MINIMUM 10 FT. LONG. 2. MATERIAL SHALL BE SOLID COPPER OR COPPERCLAD

SECTION 264700 - POWER DISTRIBUTION

1. U.L. LABEL FOR SERVICE ENTRANCE EQUIPMENT.

ACCESSIBLE AND FRONT CONNECTABLE.

2. SURFACE OR FLUSH MOUNTED AS SHOWN ON PLAN.

b. MECHANISM, MOLDED CASE CIRCUIT BREAKERS.

AT APPLIED VOLTAGE. DUAL ELEMENT TIME DELAY.

ISOLATION DEVICES FOR EACH TRANSFORMER.

IN NO CASE LESS THAN FOUR (4) OF EACH.

e. LUG-ON [BOLT-ON] BUS CONNECTIONS.

. ENCLOSED CIRCUIT BREAKERS.

2. SUITABLE FOR TOP AND BOTTOM CONDUIT ENTRY.

STEELAPPROVED FOR USE INTENDED.

3. COPPERWELD OR APPROVED EQUAL

3. DEAD FRONT. TOTALLY FRONT ACCESSIBLE. 24" DEPTH. 4. SINGLE WITHSTAND SHORT CIRCUIT RATING OF 42,000 AMPERES RMS SYMMETRICAL AT 240 VOLT. COPPER [OR ALUMINUM] BUSSING. 5. MAIN MOLDED CASE CIRCUIT BREAKER AND GROUP MOUNTED PLUG-ON MOLDED CASE FEEDER CIRCUIT BREAKERS TOTALLY FRONT

6. MANUFACTURER: SQUARE D POWER STYLE QED-2 (DESIGN MAKE).

1. GALVANIZED CODE GRADE SHEET STEEL CABINET 20 INCH MINIMUM

3. DEAD FRONT, WITH RUSTPROOFED TRIM AND DOOR, AND FLUSH 5. THREE MAIN AND ONE NEUTRAL COPPER [OR ALUMINUM] BUS.

. DESIGN MAKE: SQUARE "D" TYPE NOOD (DESIGN MAKE) a. QUICK-MAKE, QUICK-BREAK, THERMAL MAGNETIC, TOGGLE

c. INTERRUPTING RATING AS SHOWN ON THE PANELBOARD

f. MULTIPOLE BREAKERS SHALL HAVE COMMON TRIP. PROVIDE NEMA TYPE 1 ENCLOSURE FOR SEPARATELY

1. HEAVY DUTY, 250 [600] VOLTS, FUSIBLE TYPE, POLES AND AMPERE RATING AS NOTED AND AS REQUIRED BY CODE. LOCKABLE IN "OFF" POSITION. QUICK-MAKE, QUICK-BREAK MECHANISM. NEMA 1 INDOORS

2. PROVIDE NEUTRAL BAR IN SINGLE PHASE OR THREE PHASE, FOUR

1. 250 [600] VOLT, 200,000 AMPERES RMS SYMMETRICAL INTERRUPTING

2. FURNISH TO OWNER, 10% SPARE FUSES OF EACH SIZE AND TYPE, BUT 3. DESIGN MAKE: BUSSMAN "FUSETRON" CLASS K-5 DUAL ELEMENT

1. 25KVA AND LESS SHALL HAVE 2200 INSULATION SYSTEM, 1150 RISE 2. 30KVA AND LARGER SHALL HAVE 220oC INSULATION SYSTEM, [150o]

3. PROVIDE MASON TYPE ND, KORFUND, OR VIBREX VIBRATION 4. REFER TO TRANSFORMER SCHEDULE ON THE DRAWINGS FOR

SECTION 265000 - LIGHTING

A. LED DRIVERS 1. TEN-YEAR OPERATIONAL LIFE WHILE OPERATING WITH A CASE TEMPERATURE RANGE OF 0 DEGREES C TO 62 DEGREES C AND 90

- PERCENT NON-CONDENSING RELATIVE HUMIDITY. 2. DESIGNED AND TESTED TO WITHSTAND ELECTROSTATIC DISCHARGES UP TO 15.000 V WITHOUT IMPAIRMENT PER IEC 801-2. 3. ELECTROLYTIC CAPACITORS TO OPERATE AT LEAST 20 DEGREES C BELOW THE CAPACITOR'S MAXIMUM TEMPERATURE RATING WHEN THE DRIVER IS UNDER FULLY-LOADED CONDITIONS AND CASE
- TEMPERATURE IS 62 DEGREES C. 4. MAXIMUM INRUSH CURRENT OF 2 AMPERES FOR 120V AND 277 V DRIVERS.
- 5. WITHSTAND UP TO A 4,000 VOLT SURGE WITHOUT IMPAIRMENT OF PERFORMANCE AS DEFINED BY ANSI C62.41 CATEGORY A.
- 6. MANUFACTURED IN A FACILITY THAT EMPLOY ESD REDUCTION PRACTICES IN COMPLIANCE WITH ANSI/ESD S20.20.
- . INAUDIBLE IN A 27 DBA AMBIENT. 8. NO VISIBLE CHANGE IN LIGHT OUTPUT WITH A VARIATION OF +/- 10 PERCENT LINE VOLTAGE INPUT 9. TOTAL HARMONIC DISTORTION LESS THAN 20 PERCENT AND MEET ANSI C82.11 MAXIMUM ALLOWABLE THD REQUIREMENTS
- 10. DRIVERS TO TRACK EVENLY ACROSS a. MULTIPLE FIXTURES. b. ALL LIGHT LEVELS.
- 11. STAND BY POWER IS <1.0WATTS WHEN USING DIGITAL ECOSYSTEM CONTROLS. 12. COMPATIBILITY OF DRIVER AND LED LIGHT ENGINE MUST BE TESTED AND ENSURED BY DRIVER MANUFACTURER.

B. LENSES:

- 1. CERTIFY THAT THE PRODUCTS HAVE A SMOKE DENSITY OF LESS THAN 75 WHEN TESTED IN ACCORDANCE WITH ASTM D2843. STANDARD TEST METHOD FOR "DENSITY OF SMOKE FROM THE BURNING OR DECOMPOSITION OF PLASTICS."
- 2. FIXTURE STANDARDS: ALL EXTERIOR LIGHTING FIXTURE ASSEMBLIES INCLUDING LUMINAIRE, POLE, AND BASE SHALL BE CONSTRUCTED TO WITHSTAND THE FORCE OF 100 MPH WINDS.
- C. REFER TO LIGHTING FIXTURE SCHEDULE.
- D. LUMINAIRE INSTALLATION:
- 1. ALL LUMINAIRES SHALL BE CONNECTED WITH THREE #12 CONDUCTORS IN A FLEXIBLE CABLE WHIP, 6'-0" MAXIMUM IN LENGTH. CABLE SHALL BE INSTALLED SUCH THAT FIXTURES IN LAY-IN CEILING SYSTEM MAY BE RELOCATED ONE-TILE IN ANY DIRECTION WITHOUT REWIRING
- 2. ALL LUMINAIRE WHIPS SHALL BE CONNECTED TO A JUNCTION BOX. LUMINAIRES SHALL NOT BE CONNECTED TOGETHER IN A DAISY CHAIN MANNER 3. SECURELY SUPPORT ALL CONDUITS AND OUTLET BOXES FROM
- STRUCTURAL MEMBERS. OUTLET BOXES SHALL NOT BE SUPPORTED BY CONDUIT.
- 4. PROVIDE SEPARATE LUMINAIRE SUPPORTS CAPABLE OF SUPPORTING FOUR TIMES THE LUMINAIRE WEIGHT. 5. INDEPENDENTLY SUPPORT EACH LUMINAIRE USING #10 STEEL WIRE. DIRECTLY ATTACH STEEL WIRE TO STRUCTURAL MEMBERS. PROVIDE A MINIMUM OF TWO SUPPORTS FOR EACH LUMINAIRE. FIXTURES IN LAY-IN CEILING SHALL BE CLIPPED TO CEILING SYSTEM IN ACCORDANCE WITH NEC ARTICLE 41016.





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1 PARTIAL FIRST FLOOR LIGHTING PLAN - AREA A

	LUMINAIRE SCHEDULE								
TYPE	DESCRIPTION	LAMP	MOUNTING	VOLTAGE	MODEL	NOTES			
LA	4' LINEAR STRIP LIGHT, FROSTED ACRYLIC FLAT LENS, 3000 LUMENS, 3500K, 0-10V DIMMABLE	25W LED	Surface	120/277	LITHONIA LIGHTING ZL1N				
LB	8" APERATURE DECORATIVE PENDANT, 3500K, 1575 LUMENS, 0-10V DIMMABLE	15W LED	Pendant	120/277	SCOTT ARCH LIGHTING S2840 TRUNCATO	COORDINATE MOUNTING HEIGHT WITH ARCHITECT.			
LC	2" APERTURE, LINEAR LED, SURFACE MOUNT, FROSTED ACRYLIC LENS, 675 LUMENS/FT, 3500K, 0-10V DIMMABLE	21.5W LED	Surface	120/277	ALW LIGHTING LIGHTPLANE 2				
		•				•			

LUMINAIRE SCHEDULE NOTES:

- 2. PROVIDE APPROPRIATE FLANGE KIT FOR GRID OR HARD CEILING AS REQUIRED.

Equivalency of substitute fixtures during the bid process shall be the sole responsibility of the Electrical Contractor and their Lighting Representatives.

- conditions are met:
- Non-Compliant, the entire package will be rejected.
- d. Non-Compliant fixtures will again dictate a rejection of the entire package.
- contractor.

GENERAL NOTES:

- A. PROVIDE BLANK COVERS, CUTTING, PATCHING AND FIRE SEAL AS REQUIRED WHERE EXISTING COMMUNICATION OR ELECTRICAL WORK HAS BEEN REMOVED AND WHERE NEW WORK IS INSTALLED.
- B. PROVIDE UPDATED TYPE WRITTEN PANELBOARD SCHEDULES FOR ALL PANELS EFFECTED.
- C. FOR ALL DEVICES SHOWN ON EXISTING WALLS TO REMAIN. FISH EXISTING WALL WHERE POSSIBLE OR SURFACE MOUNT DEVICES USING V2300 RACEWAY. COORDINATE ALL RACEWAY PATHS TO AVOID EXISTING ROOM FEATURES PRIOR TO ROUGH-IN. PROVIDE ALL NECESSARY FITTINGS FOR A COMPLETE JOB.
- D. THIS INFORMATION REPRESENTS EXISTING CONDITIONS BASED ON ORIGINAL SITE DRAWINGS AND OBSERVED SITE CONDITIONS. NOT ALL WIRING, CONDUIT, AND DEVICES ARE SHOWN. THE CONTRACTOR SHALL FIELD VERIFY CIRCUITING, ROUTING, AND EXACT QUANTITIES. THE CONTRACTOR SHALL DISCONNECT, REMOVE, AND DISPOSE OF ALL EXISTING CONDUIT, WIRE, FIXTURES, AND DEVICES THAT ARE NOT SCHEDULED FOR REUSE.
- E. "ERL" ADJACENT TO A DEVICE, FIXTURE OR PIECE OF EQUIPMENT INDICATES AN EXISTING ITEM TO BE RELOCATED. DISCONNECT, REMOVE. AND STORE ITEM. REMOVE ALL UNNECESSARY RACEWAY AND WIRING. REINSTALL AND RECONNECT ITEM AS REQUIRED.
- F. "ETR" ADJACENT TO A DEVICE, FIXTURE OR PIECE OF EQUIPMENT INDICATES EXISTING ITEM TO REMAIN. MAINTAIN EXISTING CONNECTIONS TO EQUIPMENT UNLESS NOTED OTHERWISE. G. COORDINATE ALL SHUTDOWNS WITH OWNER.
- H. COORDINATE ALL CONDUIT RUNS WITH OTHER TRADES AND EXISTING
- CONDITIONS PRIOR TO STARTING WORK. I. FIRE STOP ALL PENETRATIONS THROUGH ALL WALLS REFER TO CODE COMPLIANCE DRAWINGS FOR LOCATIONS ON NEW WORK ONLY. IN

EXISTING CONSTRUCTION AREAS FIRE STOP ALL NEW PENETRATIONS.

J. REMOVE AND REINSTALL ALL EXISTING CORRIDOR CEILING TILES AS REQUIRED FOR INSTALLATION OF POWER AND DATA WIRING OR CCTV

CABLING. REPLACE ANY DAMAGED TILES WITH MATCHING TILE.

- K. REFER TO ARCHITECTURAL PLANS FOR FINAL LOCATIONS OF LIGHTS, SWITCHES AND OUTLETS PRIOR TO ROUGH-INS, REFER TO ELEVATIONS AND REFLECTED CEILING PLANS.
- L. REMOVE AND REINSTALL ALL EXISTING CORRIDOR CEILING TILES AS REQUIRED FOR INSTALLATION OF FEEDER CONDUIT AND VOICE/DATA CABLING. REPLACE ALL DAMAGED TILES WITH MATCHING TILES.

1. ELECTRICAL CONTRACTOR TO SUBMIT MODEL SHOWN OR APPROVED EQUAL

VERIFY CEILING TYPE PRIOR TO PURCHASE

3. PLEASE NOTE: EC4B submittal review process for lighting and fixture substitutions:

After bid, Electrical Contractor shall provide basis of design fixture for project unless the following

a. Substitute package shall provide all required information necessary to prove equivalency in TABLE FORMAT for expedient review of equivalency submittals.

b. Upon commencement of review, if more than two fixtures are found to be

c. All resubmissions will be handled on an hourly basis for review, with retainer

provided prior to commencement of resubmission.

Electrical Contractor has a responsibility to the involved parties (Owner/GC/Architect/Engineer) to

ensure that provided substitute packages are compliant equivalent to the specified fixtures. Lack of attention to detail and thoroughness will create delays which will be the sole responsibility of said





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FLOOR PLAN KEYNOTES

4 6 7 CVS PERSONAL CARE VENDING MACHINE YO-KAI EXPRESS TOUCHLESS VENDING MACHINE

CAKE VENDING MACHINE

COSTA SMART CAFE MERCHANT AMBIENT 6-WIDE VENDING MACHINE

BEVMAX 9-WIDE VENDING MACHINE PICOCOOLER BREEZE AUTOMATED VENDING MACHINE

