

July 19, 2016
BOARD OF COUNTY COMMISSIONERS
ORANGE COUNTY, FLORIDA
Y16-787 / ADDENDUM #2
ORANGE COUNTY CONVENTION CENTER
NORTH/SOUTH BUILDING SHOW POWER UPGRADES

Bid Opening Date: July 26, 2016

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to and shall take precedence over the original documents. Underlining indicates additions, deletions are indicated by ~~strikethrough~~.

- A. The Bid Opening Date remains as July 26, 2016.
- B. The following are questions/responses/clarifications:
1. Can you please confirm if the bump out panels are to have meters? The detail on E701 calls for them but the riser E601-E604 does not show them.

Response: Yes, each 600A distribution panel has a customer meter. Drawings E601 – E604 will be revised to show meters at each 600A distribution panel.

2. Do the transformers need copper or aluminum windings? The transformer cat number on E701 references V48M28T7516 and V48M28T4516 which are aluminum wound, but the description and specs (262200, 2.2, C) call for copper.
Response: All transformers have copper windings. Part# on sheet E701 is a typo, drawing will be revised.
3. If metering is required on the bump out panels, will they be tying into the BMS? If so, does the contractor need to run a line? What communication protocol would be used? What type of cable?

Response: Metering is required to connect the new Main Distribution panel in each bumpout with monitoring to the existing EMS system panel within one of four IDF rooms in the general location as indicated on the attached catwalk level overall floor plan E-200. Provide communication wiring from each panel to IDF room within conduit.

4. Panelboard skirts – can we find out if these are actually going to be required as called for in 262416, 2.2, A, 4.

Response: Skirts are not required.

5. Does the SPD feeding the Mezzanine panels require an actual integral circuit breaker? The details call for this but the actual panel will have a breaker included for this SPD to be connected to.

Response: Yes, all SPD are integral of each panel as per spec on sheet E701.

6. Drawings E412, E415, E418, E422, E425, E428, E432, E435, E438, E442, E445 and E448 indicates Relay Panels "3Z1LGRA", "3Z1LIRA", "3Z2LGRA", "3Z1LBRA", "3Z1LDRA", "3Z1LCRA", "3Y1LGRA", "3Y1LIRA", "3Y2LGRA", "3Y1LBRA", "3Y1LDRA" and "3Y1LCRA" respectively but not shown on single line diagrams and specifications. Are these Relay Panels provided by owner? If not, please provide schedule and specifications.

Response: The Relay are existing in the location of the IDF rooms as identified on attached sheet E-200.

C. CHANGES TO DRAWINGS:

- 1. E-200 Catwalk Level Overall Floor Plan. Description: the revision shows the approximate location of the IDF rooms.**
- 2. E-701 Equipment Schedule. Description: Modified Specifications for main entrance device.**

D. All other term and conditions of the FBI remain the same.

E. The Proposer shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of the proposal.

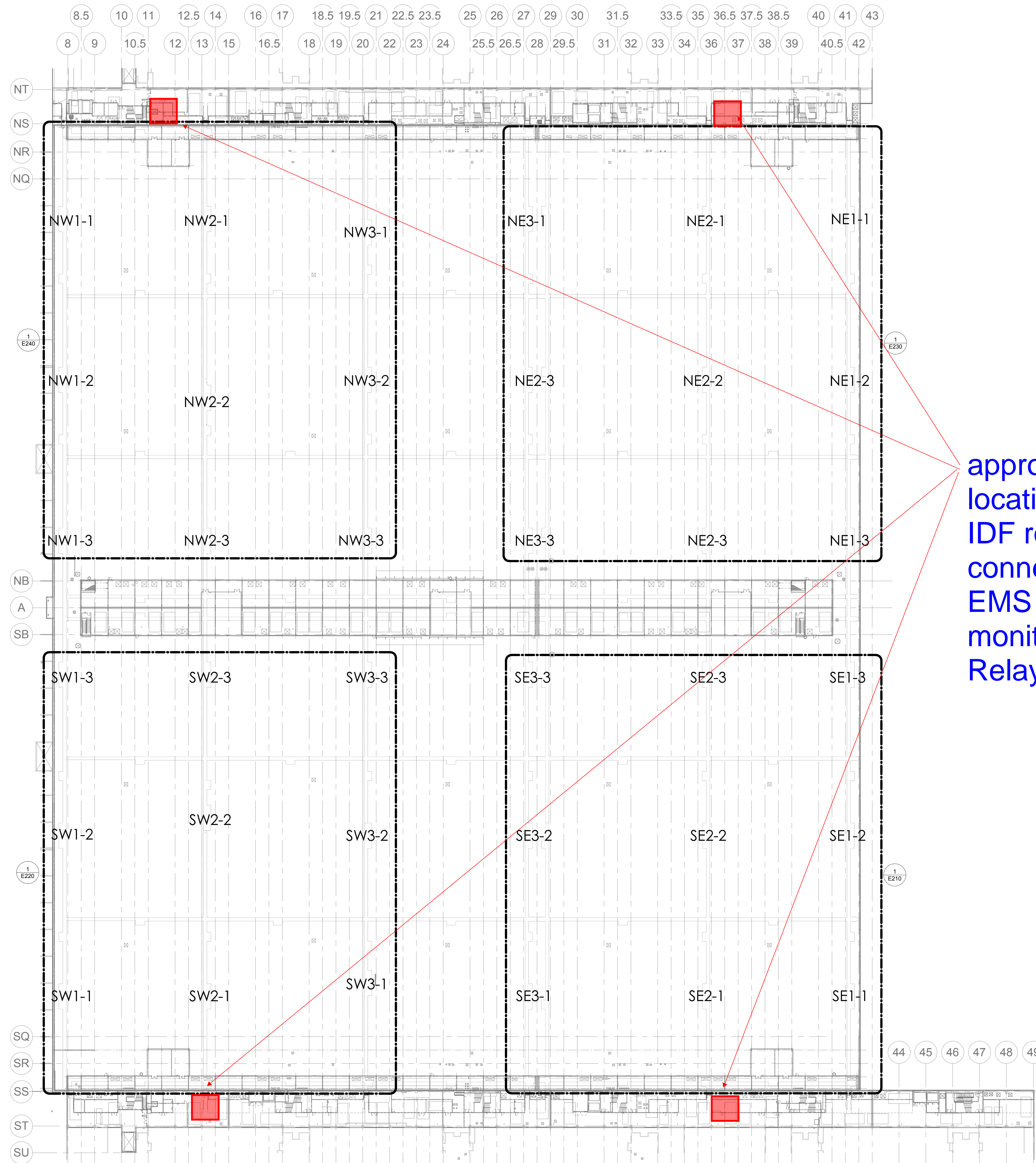
Receipt acknowledged by:

Authorized Signature

Date Signed

Title

Name of Firm



GENERAL NOTES:
 1. REFER TO CATWALK BUMP-OUT NAMING LEGEND ON SHEET E000.

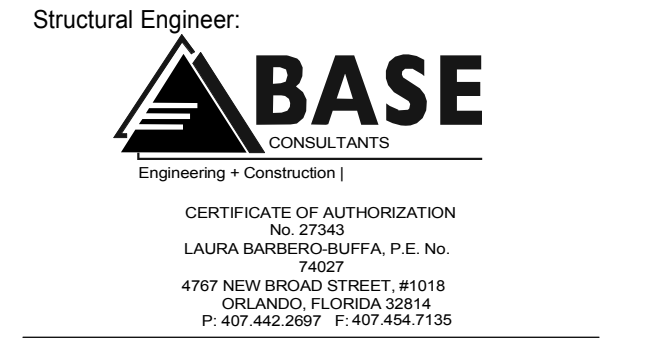
approximate
 location of existing
 IDF rooms for
 connection of
 EMS system
 monitoring and
 Relay Panels

1 THIRD FLOOR PLAN - CATWALK - OVERALL
 1" = 50'-0"

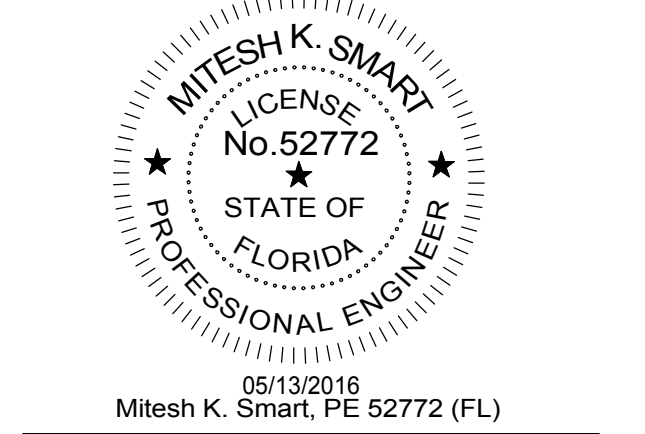


Orange County
 Convention Center
 North/South Building
 Interior Show Power
 Upgrade

Client:
 Orange County
 Convention Center
 P.O. Box 691509
 Orlando, Florida 32869



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Issuance:
BID SET

#	DATE	DESCRIPTION
0	05/13/16	PERMIT SET
1	06/10/16	BID SET

THIRD FLOOR PLAN
 - CATWALK -
 OVERALL

Job No. 16.OCCC.006
 Date 06.10.2016
 Drawn Author
 Checked Checker

E200
 Sheet No.

ELECTRICAL EQUIPMENT SCHEDULE (BASIC DESIGN)

ALL ELECTRICAL EQUIPMENT CONSTRUCTION SHALL CONFORM TO NEC AND APPLICABLE LOCAL AND STATE CODES. ALL EQUIPMENT SHALL BE UL-LISTED. SEE SPECIFICATIONS FOR FURTHER DETAILS.

ENCLOSED MOLDED SERVICE ENTRANCE 600A, 3P CIRCUIT BREAKER (TOTAL FOR 36)

EATON CATALOG NO SLDC3600FZORK1P05 OR APPROVED EQUAL
DESIGNATION: SEE PLANS AND SINGLE LINE DIAGRAMS

- LIST OF MATERIALS**
- 600A, LGH MAIN CIRCUIT BREAKER
 - 600A, THROUGH-FEED LUGS
 - CIRCUIT BREAKER LINE AND LOAD TERMINALS - 400KCMIL-500KCMIL
 - 600A 310+ ALSI TRIP UNIT W/ ARCH FLASH REDUCTION MAINT. SYS.
 - STD. BOLTED CU GROUND BAR
 - ENCLOSED NAMEPLATE WITH BLACK LETTERS
 - SERVICE ENTRANCE LABEL
 - NEMA 1 SURFACE MOUNTED ENCLOSURE:
 - ENCLOSURE NEUTRAL KIT
 - SHUNT TRIP 110-240VAC TERMINAL BLOCK

SPD SIDE MOUNTED SPD'S (TOTAL OF 36)

SPD SERIES: 160KA, 480Y, 277/480V WYE (4W+G), WITH INTEGRAL OVER CURRENT DEVICES IN NEMA 1 ENCLOSURE, STANDARD

EATON CATALOG NO SPD160480Y2K OR APPROVED EQUAL
DESIGNATION: SEE PLANS AND SINGLE LINE DIAGRAMS

- LIST OF MATERIALS**
- SPD, 160KA, 480Y, STD PKG., 1 LGH BREAKER WITH 310+ TRIP UNIT IN LIEU OF LDC

DISTRIBUTION PANEL (TOTAL OF 36)

DISTRIBUTION PANELBOARD 21 CIRCUITS, 600A, FULLY RATED, 480Y/277V 3PH 4W, ALUMINUM BUS, 65K AIC, 600A, MAIN LUG ONLY

EATON CATALOG NO P4D600LT24AH01 OR APPROVED EQUAL
DESIGNATION: SEE PLANS AND SINGLE LINE DIAGRAMS

- LIST OF MATERIALS**
- 600A, MAIN LUGS ONLY, TOP FED
 - 310+LSI ADJ. TRIP UNIT, K FRAME
 - CUSTOMER METERING CTS WITH IQ 260 WITH DISPLAY
 - LUGS 3 SETS OF - 400KCMIL-500KCMIL
 - STD. BOLTED CU GROUND BAR (AL/CU CABLE)
 - PANEL NAMEPLATE WITH BLACK LETTERS
 - NEMA 1 SURFACE MOUNTED ENCLOSURE: BX3673P
 - 1-400A/3P CIRCUIT BREAKER
 - 1-125A/3P CIRCUIT BREAKER
 - 4-3P HBD BRANCH PROVISION
 - 1-800A/3P CIRCUIT BREAKER (TYPICAL OF 4)

120/208V PANEL BOARD (TOTAL OF 12)

PANELBOARD 42CIRCUITS, 225A, FULLY RATED, 208Y/120V 3PH 4W, COPPER BUS, 22K AIC, 150A, 3P EDB MAIN BREAKER, 150A/3P MAIN CONTACTOR (TOP FED), SURFACE MOUNTED

EATON CATALOG NO P1A225BT42M01 OR APPROVED EQUAL
DESIGNATION: SEE PLANS AND SINGLE LINE DIAGRAMS

- LIST OF MATERIALS**
- 150A, 3P EDB MAIN BREAKER
 - 150A, 3P MECHANICALLY HELD MAIN CONTRACTOR, 120V COIL
 - 1P BAB BRANCH PROVISION ONLY. SEE PANEL SCHEDULE
 - 20A, 1P BAB BRANCH BREAKERS. SEE PANEL SCHEDULE
 - 30A, 3P BAB-H BRANCH BREAKERS. SEE PANEL SCHEDULE
 - STD. BOLTED CU GROUND BAR (CU CABLE)
 - PANEL NAMEPLATE - WHITE WITH BLACK LETTERS
 - TYPE 1 ENCLOSURE: EZB2048R
 - EZ TRIM, DOOR IN DOOR, CONCEALED HARDWARE: EZT2048S

400A SAFETY SWITCHES (TOTAL FOR 36)

EATON CATALOG NO DH324NGK5 OR APPROVED EQUAL
DESIGNATION: SEE PLANS AND SINGLE LINE DIAGRAMS

- LIST OF MATERIALS**
- SINGLE THROW - HEAVY DUTY - FUSIBLE, 3-POLE, 600 VAC, 400 A,
 - NEMA 1 ENCLOSURE

200A SAFETY SWITCHES (TOTAL FOR 36)

EATON CATALOG NO DH324NGK5 OR APPROVED EQUAL
DESIGNATION: SEE PLANS AND SINGLE LINE DIAGRAMS

- LIST OF MATERIALS**
- SINGLE THROW - HEAVY DUTY - FUSIBLE WITH NEUTRAL, 3-POLE, 240 VAC, 200 A,
 - NEMA 1 ENCLOSURE
 - 1 "R" FUSE CLIPS (FACTORY INSTALLED)

30A 120/208V, 5W RECEPTACLE OUTLETS (TOTAL OF 60)

NEMA TYPE, VERIFY WITH WITH OWNER

CABLE TRAY - LADDER TYPE

FURNISH AND INSTALL A COMPLETE 30" WIDTH AND 7" HIGH EXTRUDED ALUMINUM ALLOW LADDER RACK ALONG WITH ALL FITTING AND MOUNTING HARDWARE AS REQUIRED FOR AC CABLES AS PER PLANS FROM SERVICE TRANSFORMERS TO EACH 600A SERVICE DISCONNECT SWITCHES AS PER PLANS. CABLE TRAY SHALL BE RATED FOR 100 LB/FT SPAN WITH NEMA CLASS 12C AND SHALL BE MANUFACTURED BY PW INDUSTRIES INC PART #7A12C, OR APPROVED EQUAL. SUBMIT SHOP DRAWINGS FOR APPROVAL SHOWING LADDER RACK'S CONSTRUCTION AND INSTALLATION DETAILS ALONG WITH ACTUAL ROUTING AND MOUNTING, PRIOR TO INSTALLATION.

75 KVA TRANSFORMERS (TOTAL OF 36)

DRY TYPE TRANSFORMERS, GENERAL PURPOSE VENTED
3 PHASE, 1 K-FACTOR
480 PRIMARY VOLTS

208Y/120 SECONDARY VOLTS
TEMPERATURE RISE: 150C WITH 220C INSULATION SYSTEM
COPPER WINDING MATERIAL
SOUND REDUCTION : 0

NEMA ST-20 AUDIBLE SOUND LEVEL: 50
EFFICIENCY : DOE 10 CFR PART 431 (2016)
UL LISTED : Y

ENCLOSURE TYPE: NEMA 2 (N3R W/OPTL WEATHERSHIELD)
OPERATING FREQUENCY: 60 HZ

EATON CATALOG NO V48M28T7516 OR APPROVED EQUAL
DESIGNATION: SEE PLANS AND SINGLE LINE DIAGRAMS

- LIST OF MATERIALS**
- 3 PHASE, 75 KVA, 480 PRIMARY VOLTS, 208Y/120 SECONDARY VOLTS, 150C WITH 220C INSULATION

45 KVA TRANSFORMERS (TOTAL OF 12)

DRY TYPE TRANSFORMERS, GENERAL PURPOSE VENTED
3 PHASE, 1 K-FACTOR
480 PRIMARY VOLTS

208Y/120 SECONDARY VOLTS,
TEMPERATURE RISE: 150C WITH 220C INSULATION SYSTEM
COPPER WINDING MATERIAL
SOUND REDUCTION : 0

NEMA ST-20 AUDIBLE SOUND LEVEL: 45
EFFICIENCY : DOE 10 CFR PART 431 (2016)
UL LISTED : Y

ENCLOSURE TYPE: NEMA 2 (N3R W/OPTL WEATHERSHIELD)
OPERATING FREQUENCY: 60 HZ

EATON CATALOG NO V48M28T4516 OR APPROVED EQUAL
DESIGNATION:

- LIST OF MATERIALS**
- 3 PHASE, 45 KVA, 480 PRIMARY VOLTS, 208Y/120 SECONDARY VOLTS, 150C WITH 220C INSULATION SYSTEM TEMPERATURE RISE, COPPER WINDING MATERIAL, 60HZ



**Orange County
Convention Center
North/South Building
Interior Power
Upgrade**

Client:
Orange County
Convention Center
P. O. Box 891509
Orlando, Florida 32869

Engineer:



Architect:



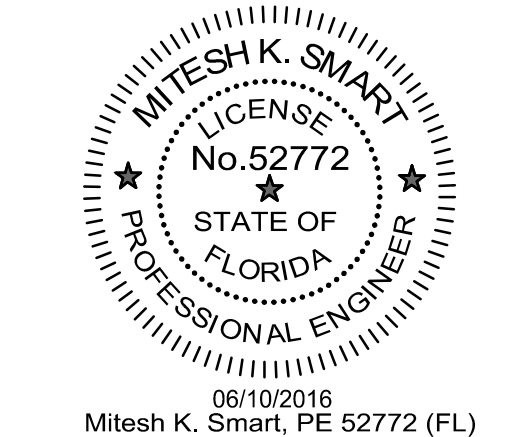
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Structural Engineer:



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**EQUIPMENT
SCHEDULE**

Sheet Title

Job No. 16.OCCC.006
Date 06.10.2016
Drawn SP
Checked AB

E701

Sheet No.