

### **ELECTRICAL AND DATA CABLE INSTALLATION**

for

Washington Metropolitan Area Transit Authority

**Contract Number FQ17021** 

**VOLUME 3** 

## Drawings Part 1b Electrical Green and Yellow Lines

November 13, 2016

January 5, 2017

**Final Submission** 

### WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

PAGE NO.

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- 10. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER THAT WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES WITH WMATA PROJECT MANAGER
- 11. IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES NECESSARY TO ACHIEVE THIS PRODUCT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS & SPECIFICATIONS THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF THE BID PRICE.
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- 15. INCREASE ALL BRANCH CIRCUIT SIZE FROM THE PANEL TO THE THE HOMERUN EXCEEDS 100FT
- AFFECTING THE WORK PRIOR TO PROCEEDING.
- OR DEVICES SERVED BY THE CIRCUITS.
- MANAGER.
- COMPLETE WATER PROOF INSTALLATION.
- 22. FOR DEVICE IDENTIFICATION, THE ELECTRICAL CONTRACTOR SHALL JUNCTION BOX.
- INCLUDE THE FINAL ROOM OR AREA NUMBERS.
- WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- AFC".
- BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY.
- NEMA 4x.

				14-FQ10060-CENI-24
DESIGNED <u>C. NGO</u> <u>09-14</u>	REFERENCE DRAWINGS       NUMBER     DESCRIPTION	REVISIONS       DATE     BY     DESCRIPTION	WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY	NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS
DRAWN C. NGO 09–14 DATE CHECKED B. IDILBI 09–14 DATE			DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM	ABBREVIATIONS DRAWING INDEX
APPROVED <u>N/A</u> DATE			APPROVED	SCALEDRAWING NO.NOT TO SCALEC09-E-001

Г	COND	UCTORS	ΤO	THE	NEXT	Γ LARGER	
Ξ	FIRST	OUTLET	W⊦	IERE	THE	LENGTH OF	
T.	ON 1	120/208	V C	IRCU	ITS.		

16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.

17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES

18. ALL PANELS IMPACTED BY THIS PROJECT SHALL BE PROVIDED WITH NEW, UPDATED TYPEWRITTEN PANEL SCHEDULES (FOR NEW AND EXISTING CIRCUITS) INDICATING THE FINAL ROOM NUMBER AND THE EQUIPMENT

19. DEMOLITION OF EXISTING WORK SHALL BE PERFORMED AFTER HOURS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WMATA PROJECT MANAGER PRIOR TO PERFORMING ALL THE WORK. THE TIME OF DAY OR EVENING SHALL BE DESIGNATED BY THE WMATA PROJECT

20. ALL WIRING SHALL BE IN CONDUIT, MINIMUM SIZE 3/4 INCH WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL THREADED COUPLING FOR

21. AT JOB COMPLETION, AND BEFORE FINAL ACCEPTANCE BY WMATA, TEST EACH RECEPTACLE AND PANELBOARD FOR PROPER OPERATION. WIRING SHALL BE TESTED FOR CONTINUITY. SHORTS. ETC ... ALL WORK AREAS, ETC., SHALL BE CLEANED AT THE COMPLETION OF THIS PROJECT.

LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE

23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO

24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY

26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13: WMATA SPECIFICATION SECTION 16120. 16130, AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH

27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR

28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.

29. The conduit utilized for this project shall be 1-1/2" min. or larger as indicated. The liquid tight utilized for the kiosk shall be 1-1/2" from the entry to the 8x8 junction box, then 1" from the junction box to the quads. All boxes used in or on the kiosk shall be

### ABBREVIATIONS

A, AMP	AMPERES	NEC	NATIONAL ELECTRIC CODE
AC	ALTERNATING CURRENT	Ρ	POLE
AF	AMPERE FRAME	PH	PHASE
AFC	AUTOMATED FARE COLLECTION SYSTEM	PNL	PANELBOARD
AFF	ABOVE FINISHED FLOOR	PRI	PRIMARY
AIC	AMPERE INTERRUPTING CAPACITY	PROP	PROPOSED
AT	AMPERE TRIP	RGS	RIGID GALVANIZED STEEL
BKR	BREAKER	SEC	SECONDARY
С	CONDUIT	SHT	SHEET
СВ	CIRCUIT BREAKER	SW	SWITCH
ССТ	CIRCUIT	SWBD	SWITCHBOARD
£.	CENTER LINE	TYP	TYPICAL
CLG	CEILING	U/G	UNDER GROUND
CONST	CONSTRUCTION	U.L.	UNDERWRITERS LABORATORI
DISC	DISCONNECT	UON	UNLESS OTHERWISE NOTED
E	ELECTRICAL	VOLT	VOLTAGE
- GND	GROUND	W	WATT
JB	JUNCTION BOX	WMATA	WASHINGTON METROPOLITIAN AREA TRANSIT AUTHORITY
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY	WP	WEATHERPROOF
KCMIL	THOUSAND CIRCULAR MILL		
KVA	KILOVOLT AMPERE		
MAX	MAXIMUM		
MCA	MINIMUM CIRCUIT AMPERE		
МСВ	MAIN CIRCUIT BREAKER		
MEZZ	MEZZANINE		
MIN	MINIMUM		

MAIN LUGS ONLY MLO

# DRAWING INDEX

C09-E-001	ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST
C09-E-101	CRYSTAL CITY – MEZZANINE KIOSK – POWER
C09-E-102	CRYSTAL CITY – PANEL SCHEDULE
C09-E-301	CRYSTAL CITY – PANELBOARD IMAGE
MM-C-E19	CRYSTAL CITY – AC POWER ONE LINE DIAGRAM

## ELECTRICAL SYMBOL LIST

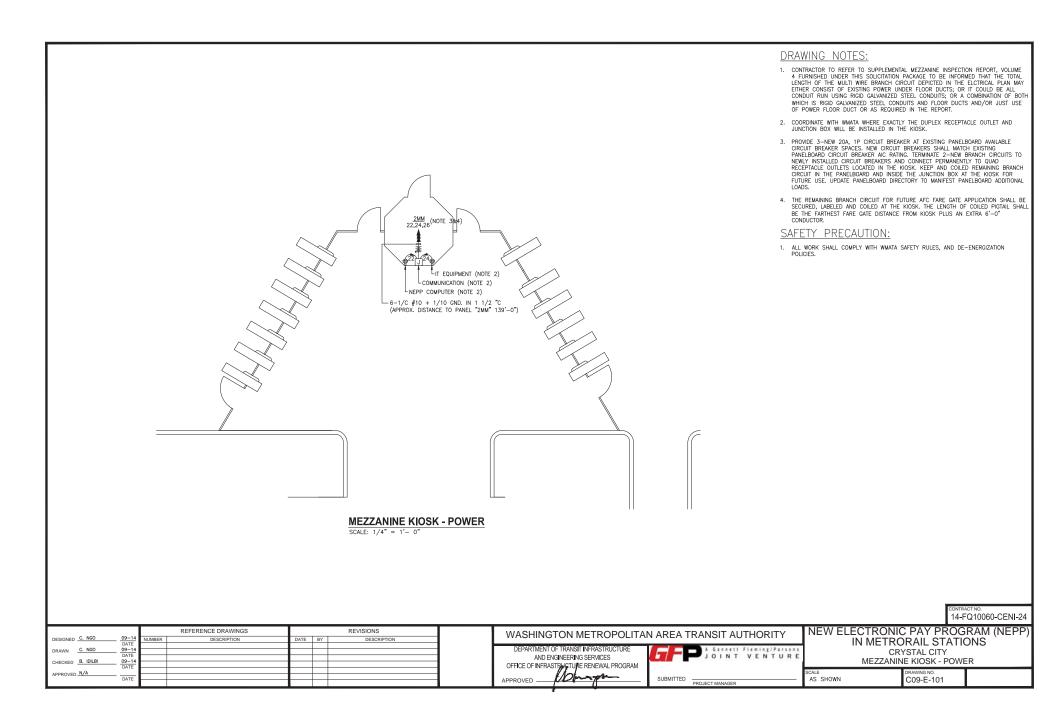
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J

QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED. JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.

<u>EF</u> 3,5

- 1 INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD
- INDICATES CIRCUIT HOME RUN PANELBOARD AND 1,3 CIRCUIT NUMBER IDENTIFICATION



		E)	CIST	ING	PAN	IEL	"2MI	M		
AMPERES: 300	VOLT S:	120/208		MOUN	IT ING:	SURFA	CE			
MAINS: 200A MCB	PHASE:	3		LOCA	TION:	ELEC.	EQUIPN	MENT RO	OM C302	2
RATING: 10K AIC	WIRE:	4		SECT	ION: 1	OF 1				
		CKT E	KRS	CKT.		CKT.	CKT	BKRS		
LOAD DESCRIPT ION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION
EXIST ING VENDOR	0.8	20	1	1	Α	2	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	5	C	6	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	7	Α	8	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	11	C	12	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	13	Α	14	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	17	C	18	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	19	A	20	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	21	- B -	22	1	20	0.8	NEW KIOSK RECEPT. (IT/NCS)
EXIST ING VENDOR	0.8	20	1	23	C	24	1	20	0.8	NEW KIOSK RECEPT. (NEPP/SOC)
EXIST ING VENDOR	0.8	20	1	25	A	26	1	20	0.0	FUTURE AFC FARE GATE
EXIST ING VENDOR	0.8	20	1	27	- B -	28	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	29	C	30	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	31	A	32	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	33	- B -	34	1	20	0.0	SPARE
SPACE	0.0	-		35	C	36	1	20	0.8	EXISTING VENDOR
SPACE	0.0	-	-	37	Α	38	3	30	2.9	EXIST. KIOSK LOAD CENTER "KES
SPARE	0.0	20	1	39	- B -	40	-	-	2.5	
SPARE	0.0	20	1	41	C	42		-	2.5	
					SUM	11/1 /	DV			
					SUN	1MA	RY			
			x 125	%	SUN	1MA	RY			) KVA
RECEPTACLES, FIRST 10 KVA		10.0	x 125 x 100	% %	SUN	1MA	RY		10.0	) KVA
RECEPT ACLES, FIRST 10 KVA RECEPT ACLES		10.0 12.8	x 125 x 100 x 50%	% %	SUN	1MA	RY		10.0 6.4	) KVA I KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES		10.0 12.8 0.0	x 125 x 100 x 50% x 100	% % %	SUN	<u>IMA</u>	RY		10.0 6.4 0.0	) KVA   KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES		10.0 12.8 0.0	x 125 x 100 x 50%	% % %	SUN	<u>IMA</u>	RY		10.0 6.4 0.0	) KVA I KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR		10.0 12.8 0.0 0.0 0.0	x 125 x 100 x 50% x 100 x 125 x 125 x 100	% % % % %	SUN	IMA	RY		10.0 6.4 0.0 0.0	) KVA   KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		10.0 12.8 0.0 0.0 0.0	x 125 x 100 x 50% x 100 x 125	% % % % %	SUN	<u>IMA</u>	RY		10.0 6.4 0.0 0.0	) KVA   KVA   KVA   KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		10.0 12.8 0.0 0.0 0.0 3.0	x 125 x 100 x 50% x 100 x 125 x 125 x 100	% % % % %	SUN	<u>IMA</u>	RY		10.0 6,4 0,0 0,0 0,0 3,8	) KVA 9 KVA 9 KVA 9 KVA 9 KVA
RECEPT ACLES, FIRST 10 KVA RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		10.0 12.8 0.0 0.0 0.0 3.0 4.5	x 125 x 100 x 50% x 100 x 125 x 100 x 125	% % % % %	SUN	<u>IMA</u>	RY		10.0 6,4 0,0 0,0 0,0 3,8 4,5	) KVA   KVA   KVA   KVA   KVA   KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		10.0 12.8 0.0 0.0 0.0 3.0 4.5 0.0	x 125 x 100 x 50% x 100 x 125 x 100 x 125 x 100 x 125	% % % % %	тотл	AL DEM	IAND K		10.0 6,4 0,0 0,0 0,0 3,8 4,5 0,0 <b>24,7</b>	0 KVA KVA 0 KVA 0 KVA 0 KVA 5 KVA 5 KVA 7 <b>KVA</b>
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIAYCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING <b>TOTAL CONNECTED LOAD</b>		10.0 12.8 0.0 0.0 0.0 3.0 4.5 0.0	x 125 x 100 x 50% x 100 x 125 x 100 x 125 x 100 x 125	% % % % %	тотл	AL DEM			10.0 6,4 0,0 0,0 0,0 3,8 4,5 0,0 <b>24,7</b>	) КVA   КVA   КVA   КVA   КVA   КVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUM	IMARY	10.0 12.8 0.0 0.0 0.0 3.0 4.5 0.0 <b>30.3</b>	x 125 x 100 x 50% x 100 x 125 x 100 x 125 x 100 x 125 x 100 x 125 <b>KVA</b>	% % % % %	тотл	AL DEM	IAND K		10.0 6,4 0,0 0,0 0,0 3,8 4,5 0,0 <b>24,7</b>	0 KVA KVA 0 KVA 0 KVA 0 KVA 5 KVA 5 KVA 7 <b>KVA</b>
WATER HEATING TOTAL CONNECTED LOAD	IMARY	10.0 12.8 0.0 0.0 0.0 3.0 3.0 3.0 30.3 11.7	x 125 x 100 x 50% x 100 x 125 x 100 x 125 x 100 x 125	% % % % %	тотл	AL DEM	IAND K		10.0 6,4 0,0 0,0 0,0 3,8 4,5 0,0 <b>24,7</b>	0 KVA KVA 0 KVA 0 KVA 0 KVA 5 KVA 5 KVA 7 <b>KVA</b>

CONTRACT NO.

								14-1	FQ10060-CENI-24
DESIGNED C. NGO 09-14	REFERENCE DR	 ATE BY	REVISIONS	WASHINGTON METROPOL	LITAN AREA TRANSIT AUTHO	RITY		NIC PAY PROG RORAIL STATI	
DRAWN C. NGO DATE				DEPARTMENT OF TRANSIT INFRASTRUCTUR AND ENGINEERING SERVICES		g/Parsons NTURE		CRYSTAL CITY	ONS
CHECKED B. IDILBI 09-14 DATE				OFFICE OF INFRASTRUCTURE RENEWAL PROG		TORE	PA	NEL SCHEDULE	
APPROVED N/A DATE				APPROVED Durgen	SUBMITTED PROJECT MANAGER		NOT TO SCALE	C09-E-102	5

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- 22. FOR DEVICE IDENTIFICATION, THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC ... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE JUNCTION BOX.
- 23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO INCLUDE THE FINAL ROOM OR AREA NUMBERS.
- 24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- 26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13: WMATA SPECIFICATION SECTION 16120. 16130, AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- 27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR AFC".
- 28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY. CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.

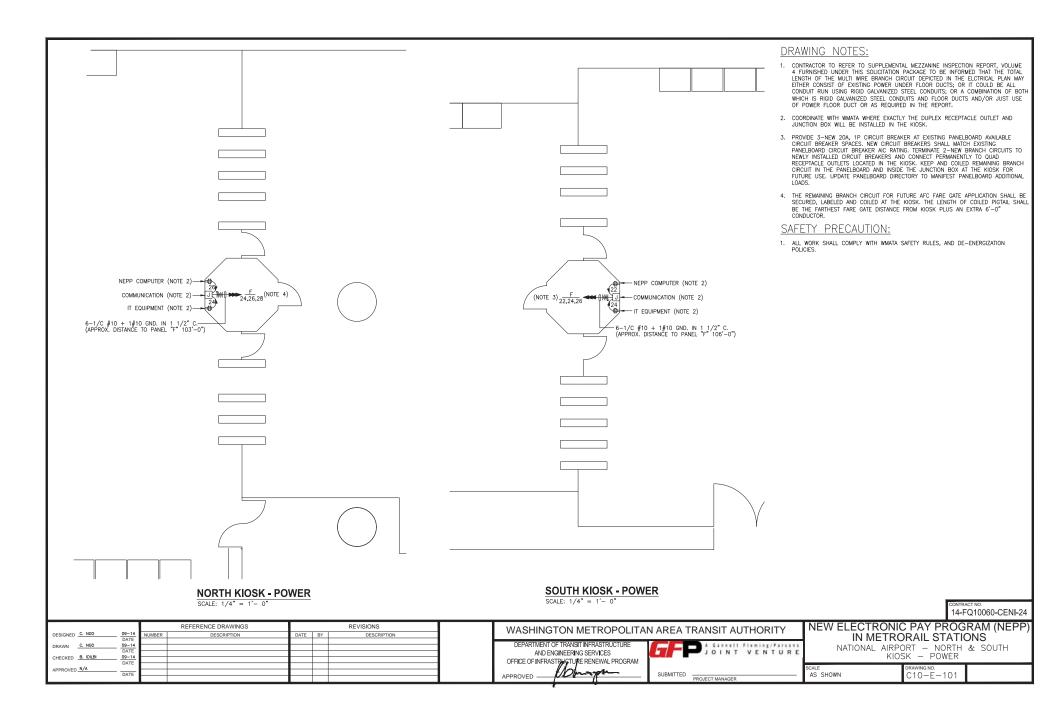
#### ABBREVIATIONS

A, AMP	AMPERES	MAX	MAXIMUM	C10-E-001	ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST
AC	ALTERNATING CURRENT	MCA	MINIMUM CIRCUIT AMPERE	C10-E-101	NATIONAL AIRPORT - NORTH & SOUTH - KIOSK - POWER
AEMS	AUTOMATED ENERGY MANAGEMENT SYSTEM	MCB	MAIN CIRCUIT BREAKER	C10-E-102	NATIONAL AIRPORT - NORTH & SOUTH - PANEL SCHEDULE
AF	AMPERE FRAME	MEZZ	MEZZANINE	C10-E-301	NATIONAL AIRPORT - NORTH & SOUTH - PANELBOARD IMAGE
AFC	AUTOMATED FARE	MIN	MINIMUM	C10-E-302	NATIONAL AIRPORT – NORTH & SOUTH – PANELBOARD IMAGE
AFC	COLLECTION SYSTEM	MLO	MAIN LUGS ONLY	MM-C-E22	NATIONAL AIRPORT - AC POWER ONE LINE DIAGRAM
AFF	ABOVE FINISHED FLOOR	MTD	MOUNTED OR MOUNTING		
AIC	AMPERE INTERRUPTING CAPACITY	NEC	NATIONAL ELECTRIC CODE		
AT	AMPERE TRIP	NEMA	NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION		
ATS	AUTOMATIC TRANSFER SWITCH				
BATT	BATTERY	Р	POLE		
BKR	BREAKER	PH	PHASE		
Æ	BASELINE	PNL	PANELBOARD	FLECTE	RICAL SYMBOL LIST
С	CONDUIT	PRI	PRIMARY		
СВ	CIRCUIT BREAKER	PROP	PROPOSED	Ŧ	QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED.
ССТ	CIRCUIT	RGS	RIGID GALVANIZED STEEL	J	JUNCTION BOX – SURFACE MOUNTED ON UNISTRUT CHANNEL
Æ	CENTER LINE	SEC	SECONDARY	$\frown$	CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.
CLG	CEILING	SHT	SHEET	<u>     </u> #10−3/	4 HOMERUN TO PANEL, NUMBER OF ARROWHEADS INDICATES
CONST	CONSTRUCTION	STA	STATION		NUMBER OF CIRCUITS. CROSS HATCHING INDICATES NUMBER OF CONDUCTORS, NUMBER INDICATES SIZE OF CONDUCTOR
DC	DIRECT CURRENT	STD	STANDARD	3,5	AND SIZE OF CONDUIT
DISC	DISCONNECT	SW	SWITCH		THE PANELBOARD
E	ELECTRICAL	SWBD	SWITCHBOARD		<u>EF</u> – INDICATES CIRCUIT HOME RUN PANELBOARD AND <sup>1,3</sup> CIRCUIT NUMBER IDENTIFICATION
FLUOR.	FLUORESCENT	TYP	TYPICAL		
GND	GROUND	U/G	UNDER GROUND		
GPR	GROUND PENETRATING RADAR	U.L.	UNDERWRITERS LABORATORIES		
IG	ISOLATED GROUND	UON	UNLESS OTHERWISE NOTED		
JB	JUNCTION BOX	VOLT	VOLTAGE		
KAIC	THOUSAND AMPERE	W	WATT		
KOM	INTERRUPTING CAPACITY	WMATA	WASHINGTON METROPOLITIAN		
KCMIL	THOUSAND CIRCULAR MILL	WP	WEATHERPROOF		
KVA	KILOVOLT AMPERE	AAL.	<b>HEATHERFROOT</b>		

					REFERENCE DRAWINGS			REVISIONS	WASHINGTON METROPOLITA		
	DESIGNED	C. NGO	09-14	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION			
	DRAWN	C. NGO	DATE 09-14						DEPARTMENT OF TRANSIT INFRASTRUCTURE		A Gannett Fleming/Parso
			DATE						AND ENGINEERING SERVICES		JOINT VENTUR
	CHECKED	B. IDILBI	09-14 DATE						OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM		
alaparates la	APPROVED	N/A									
			DATE				<u> </u>		APPROVED	SUBMITTED -	PROJECT MANAGER

### DRAWING INDEX

₽	QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED.
J	JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL
$\frown$	CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.
10-3/4 <u>EF</u> 3,5	
	CONTRACT NO.
	14-FQ10060-CENI-24
NEW	ELECTRONIC PAY PROGRAM (NEPP)
i s E	IN METRORAIL STATIONS ABBREVIATIONS, DRAWING INDEX,
SCALE	SPECIFICATIONS & SYMBOL LIST
- NOT TO SC	



		EXI	STIN	IG P	ANE	L"F	="(No	orth)		
AMPERES: 225	VOLTS:	120/208			TING:			1		
MAINS: 225A MCB	PHASE:	3		LOCA	TION:	ELEC	EQUIPM	MENT RM	. 119	
RATING: 10K AIC	WIRE:	4		SECT	ION: 1	OF 1				
		CKT	BKRS	CKT.		CKT.	CKT	BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION
SPARE	0.0	20	1	1	A	2	3	20	3.3	EXIST. LOAD CENTER *KES*
EXISTING VENDOR	0.8	20	1	3	- B -	4		(*)	3.3	
EXISTING VENDOR	0.8	20	1	5	C	6	•	10412	3.3	
EXISTING VENDOR	0.8	20	1	7	Α	8	3	20	0.8	EXISTING VENDOR
SPARE	0.0	20	1	9	- B -	10	•	-	0.8	
SPARE	0.0	20	1	11	C	12			0.8	3
EXISTING VENDOR	0.8	20	1	13	A	14	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	17	C	18	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	19	A	20	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	23	C	24	1	20	0.8	NEW KIOSK RECEPT. (IT & NEP
EXISTING VENDOR	0.8	20	1	25	A	26	1	20	0.8	NEW KIOSK RECEPT. (IT & NEP
EXISTING VENDOR	0.8	20	1	27	- B -	28	1	20	0.0	SPARE (KIOSK)
SPARE	0.0	20	1	29	C	30	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	31	A	32		-	0.0	SPARE
SPARE	0.0	20	1	33	- B -	34	1.4	3.45	0.0	SPARE
EXISTING VENDOR	0.8	20	1	35	C	36	•		0.0	SPARE
EXISTING VENDOR	0.8	20	1	37	A	38	•	0.40	0.0	SPARE
EXISTING VENDOR	0.8	20	1	39	- B -	40	•	1.e.)	0.0	SPARE
EXISTING VENDOR	0.8	20	1	41	C	42		100	0.0	SPARE
					0.11		-			
					SUN	IMA	RY			
LIGHTS			0 x 1255						0.	) KVA
RECEPTACLES, FIRST 10 KVA		10.0	0 x 1009	6					10.	) KVA
RECEPTACLES		12.	4 x 50%						6.	2 KVA
		0.0	0 x 1005	6					0.	) KVA
MISC. APPLIANCES		0.0	x 1259	6					0.	) KVA
									0.	) KVA
LARGEST MOTOR		0.0	x 1005	6					3	B KVA
LARGEST MOTOR MOTORS			0 x 1009 0 x 1259						2.	
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		3.0	_	6						5 KVA
LARGEST MOTOR MOTORS HEAT		3.0	x 1259	6					4.	5 KVA D KVA
LARGEST MOTOR MOTORS HEAT AC		3.0 4.5	0 x 1259 5 x 1009	6	тот	AL DEI	MAND K	VA	4.	
LARGEST MOTOR MOTORS HEAT AC WATER HEATING		3.0 4.5	0 x 1259 5 x 1009 0 x 1259	6			MAND K		4. 0. 24.	) KVA
LARGEST MOTOR MOTORS HEAT AC WATER HEATING	UMMARY	3.0 4.5	0 x 1259 5 x 1009 0 x 1259	6					4. 0. 24.	) KVA 5 <b>KVA</b>
LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	UMMARY	3.0 4.1 0.0 29.9	0 x 1259 5 x 1009 0 x 1259	6					4. 0. 24.	) KVA 5 <b>KVA</b>
LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE S	UMMARY	3.0 4.1 0.0 29.9	0 x 1255 5 x 1005 0 x 1255 9 KVA	6					4. 0. 24.	) KVA 5 <b>KVA</b>

		EXIS	STIN		ANE	L "F	"(So	uth)		
AMPERES: 225	VOLTS:	120/208	-	MOUN	NT ING:	SURF/	ACE .			
MAINS: 200A MCB	PHASE:	3		LOCA	TION:	ELEC.	EQUIPM	IENT RM	.C108	
RATING: 10K AC	WRE:	4		SECT	ION: 1	OF 1			_	
		CKT E	BKRS	CKT.		CKT.	CKT	BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION
EXIST ING VENDOR	0.8	20	1	1	A	2	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	5	C	6	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	7	A	8	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	13	A	14	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	17	C	18	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	19	A	20	1	20	0.8	EXISTING VENDOR
SPARE	0.0	20	1	21	- B -	22	1	20	0.8	NEW KIOSK RECEPT. (IT & NEPP)
EXISTING VENDOR	0.8	20	1	23	C	24	1	20	0.0	SPARE (KIOSK)
EXIST ING VENDOR	0.8	20	1	25	A	26	1	20	0.8	NEW KIOSK RECEPT. (IT &NEPP)
EXIST ING VENDOR	0.8	20	1	27	- B -	28	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	29	C	30	1	20	0.0	SPARE
EXISTING VENDOR	0.8	-		31	A	32	1	20	0.0	SPARE
SPARE	0.0	1.1		33	- B -	34	1	20	0.0	SPARE
SPARE	0.0	- C.	-	35	C	36	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	·		37	A	38	3	30	2.9	EXIST. LOAD CENTER *KES*
SPARE	0.0			39	- B -	40	-	-	2.5	
EXIST ING VENDOR	0.8			41	C	42	•		2.5	
	2. CB TC									
			1.0		CUIN	AB.A.A.	DV			
			-		SUN	IMA	RY			
			x 1255	6	SUN	IMA	RY		1000	) KVA
RECEPTACLES, FIRST 10 KVA		10.0	x 1255	6	SUN	IMA	RY		10.0	) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES		10.0	x 1255 x 1005 x 50%	6	SUN	IMA	RY		10.0 6.4	) KVA I KVA
RECEPT ACLES, FIRST 10 KVA RECEPT ACLES MISC. APPLIANCES		10.0 12.8 0.0	x 1255 x 1005 x 50% x 1005	6 6 6	SUN	IMA	RY		10.0 6.4 0.0	d KVA L KVA D KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR		10.0 12.8 0.0 0.0	x 1255 x 1005 x 50% x 1005 x 1255	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	SUN	IMA	RY		10.0 6.4 0.0	0 KVA 1 KVA 0 KVA 0 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR		10.0 12.8 0.0 0.0	x 1255 x 1005 x 50% x 1005	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	SUN	IMA	RY		10.0 6.4 0.0	d KVA L KVA D KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		10.0 12.8 0.0 0.0 0.0	x 1255 x 1005 x 50% x 1005 x 1255	* * * * *	SUN	IMA	RY		10.0 6,4 0.0 0.0	0 KVA 1 KVA 0 KVA 0 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		10.0 12.8 0.0 0.0 0.0 3.0	x 1255 x 1005 x 50% x 1005 x 1255 x 1005	6 6 6 6 6	SUN	IMA	RY		10.0 6,4 0,0 0,0 0,0 3,8	0 KVA 6 KVA 0 KVA 0 KVA 0 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		10.0 12.8 0.0 0.0 0.0 3.0 4.5	x 1255 x 1005 x 50% x 1005 x 1255 x 1005 x 1255	6 6 6 6 6 6 6 6	SUN	IMA	RY		10.0 6,4 0.0 0,0 0,0 3,8 4,5	0 KVA 6 KVA 0 KVA 0 KVA 8 KVA
RECEPTACLES, FIRST 10 KVP RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		10.0 12.8 0.0 0.0 0.0 3.0 4.5 0.0	x 1255 x 1005 x 50% x 1005 x 1255 x 1005 x 1255 x 1005 x 1255 x 1005	6 6 6 6 6 6 6 6	TOTA	AL DEM			10.0 6,4 0,0 0,0 3,8 4,5 0,0 24,3	) КVA   КVA   КVA   КVA   КVA   КVA
RECEPTACLES, FIRST 10 KV# RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	4	10.0 12.8 0.0 0.0 0.0 3.0 4.5 0.0	x 1259 x 1009 x 1009 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259	6 6 6 6 6 6 6 6	TOTA	AL DEM	IAND KY		10.0 6,4 0,0 0,0 3,8 4,5 0,0 24,3	р КVА КVA КVA В КVA КVA КVA КVA КVA
LIGHTS RECEPTACLES, FIRST 10 KW RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEAT ING TOTAL CONNECTED LOAD PHASE S PHASE A	4	10.0 12.8 0.0 0.0 3.0 3.0 30.3 30.3	x 1259 x 1009 x 1009 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259	6 6 6 6 6 6 6 6	TOTA	AL DEM	IAND KY		10.0 6,4 0,0 0,0 3,8 4,5 0,0 24,3	р КVА КVA КVA В КVA КVA КVA КVA КVA
RECEPTACLES, FIRST 10 KW RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE S	4	10.0 12.8 0.0 0.0 3.0 30.3 30.3 12.5	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	6 6 6 6 6 6 6 6	TOTA	AL DEM	IAND KY		10.0 6,4 0,0 0,0 3,8 4,5 0,0 24,3	р КVА КVA КVA В КVA КVA КVA КVA КVA

				-FQ10060-CENI-24
	REFERENCE DRAWINGS	REVISIONS	WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY NEW ELECTRONIC PAY PRO	GRAM (NEPP)
DESIGNED C. NGO 09-14 DATE	NUMBER DESCRIPTION	DATE BY DESCRIPTION	– IN METRORAIL STAT	IONS `
DRAWN C. NGO 09-14 DATE				& SOUTH
CHECKED B. IDILBI 09-14 DATE			AND ENGINEERING SERVICES JOINT VENTURE PANEL SCHEDULES	
APPROVED NA			SCALE DRAWING NO.	
DATE			APPROVED	
			1 ×	

- 1. ALL WORK, MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE BEING USED BY THE LOCAL JURISDICTION AND SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- 2. MATERIALS AND EQUIPMENT SHALL BE NEW EXCEPT WHERE INDICATED OTHERWISE. ALL OTHER WIRING DEVICES, CONDUIT, WIRE, ETC. SHALL BE NEW UNLESS NOTED OTHERWISE.
- 3. ALL MATERIALS AND EQUIPMENT SHALL BEAR U.L. LISTING.
- 4. MAINTAIN GROUNDING CONTINUITY TO ALL DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 5. WORK NOT SPECIFICALLY SPECIFIED OR INDICATED SHALL CONFORM WITH SPECIFICATIONS.
- 6. ALL CONDUITS SHALL BE RUN CONCEALED IN UNDER FLOOR DUCT.
- 7. ALL WIRE AND CABLE SHALL BE COPPER HAVING 600 VOLTS XHHW-2 OR RHW-2 INSULATIONS. PROVIDE #12 WIRE MINIMUM, UNLESS OTHERWISE NOTED. ALL CABLES SHALL BE LOW SMOKE ZERO HALOGEN CABLE
- 8. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE CONDITION OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS.
- 9. OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSPECTIONS, TESTS & OTHER SERVICES REQUIRED FOR THE COMPLETION OF THIS
- 10. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER THAT WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES WITH WMATA PROJECT MANAGER.
- . IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES NECESSARY TO ACHIEVE THIS PRODUCT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS & SPECIFICATIONS THAT WILL AFFECT THE WORK PRIOR TO SUBMISSION OF THE BID PRICE
- 12. IF, DURING THE COURSE OF THE WORK, THE CONTRACTOR EXPERIENCES A CONFLICT RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC OR OTHER APPLICABLE CODES AND GOVERNING DOCUMENTS, HE SHALL NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO EXECUTION OF THIS WORK. ANY WORK INSTALLED IN VIOLATION OF THE CONTRACT DOCUMENT OR APPLICABLE CODES WHICH COULD HAVE BEEN AVOIDED BY CONTACTING THE ENGINEER SHALL BE RECTIFIED AT NO ADDITIONAL COST
- 3. ELECTRICAL PLANS ARE DIAGRAMMATIC & INDICATE GENERAL ARRANCEMENT OF SYSTEMS AND WORK. CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS, ETC. MAINTAIN WORKING CLEARANCES
- 14. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANEL AND SHALL BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS. PROVIDE TYPEWRITTEN PANELBOARD DIRECTORIES. BALANCE THE PHASE LOADS TO WITHIN 20 PERCENT OF EACH OTHER.

- 15. INCREASE ALL BRANCH CIRCUIT CONDUCTORS TO THE NEXT LARGER SIZE FROM THE PANEL TO THE FIRST OUTLET WHERE THE LENGTH OF THE HOMERUN EXCEEDS 100FT. ON 120/208V CIRCUITS.
- 16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.
- 17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES AFFECTING THE WORK PRIOR TO PROCEEDING.
- 18. ALL PANELS IMPACTED BY THIS PROJECT SHALL BE PROVIDED WITH NEW, UPDATED TYPEWRITTEN PANEL SCHEDULES (FOR NEW AND EXISTING CIRCUITS) INDICATING THE FINAL ROOM NUMBER AND THE EQUIPMENT OR DEVICES SERVED BY THE CIRCUITS.
- 19. DEMOLITION OF EXISTING WORK SHALL BE PERFORMED AFTER HOURS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WMATA PROJECT MANAGER PRIOR TO PERFORMING ALL THE WORK. THE TIME OF DAY OR EVENING SHALL BE DESIGNATED BY THE WMATA PROJECT MANAGER
- 20. ALL WIRING SHALL BE IN CONDUIT, MINIMUM SIZE 3/4 INCH WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL W/SCREW IN COUPLING FOR COMPLETE WATER PROOF INSTALLATION
- 21. AT JOB COMPLETION, AND BEFORE FINAL ACCEPTANCE BY WMATA, TEST EACH RECEPTACLE AND PANELBOARD FOR PROPER OPERATION. WIRING SHALL BE TESTED FOR CONTINUITY, SHORTS, ETC ... ALL WORK AREAS, ETC.. SHALL BE CLEANED AT THE COMPLETION OF THIS PROJECT.
- 22. FOR DEVICE IDENTIFICATION, THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC ... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE JUNCTION BOX
- 23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO INCLUDE THE FINAL ROOM OR AREA NUMBERS.
- 24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- 26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13; WMATA SPECIFICATION SECTION 16120, 16130, AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- 27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR AFC"
- 28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY. CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.
- 29. The conduit utilized for this project shall be 1-1/2" min. or larger as indicated. The liquid tight utilized for the kiosk shall be 1-1/2" from the entry to the 8x8 junction box, then 1" from the junction box to the quads. All boxes used in or on the kiosk shall be NEMA 4x.

### **ABBREVIATIONS**

A, AMP	AMPERES	MAX	MAXIMUM
AC	ALTERNATING CURRENT	MCA	MINIMUM CIRCUIT AMPERE
AEMS	AUTOMATED ENERGY	MCB	MAIN CIRCUIT BREAKER
AF	MANAGEMENT SYSTEM	MEZZ	MEZZANINE
AFC	AMPERE FRAME	MIN	MINIMUM
AFC	COLLECTION SYSTEM	MLO	MAIN LUGS ONLY
AFF	ABOVE FINISHED FLOOR	MTD	MOUNTED OR MOUNTING
AIC	AMPERE INTERRUPTING CAPACITY	NEC	NATIONAL ELECTRIC CODE
AT	AMPERE TRIP	NEMA	NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION
ATS	AUTOMATIC TRANSFER SWITCH	Р	POLE
BATT	BATTERY		
BKR	BREAKER	PH	PHASE
Ð	BASELINE	PNL	PANELBOARD
С	CONDUIT	PRI	PRIMARY
СВ	CIRCUIT BREAKER	PROP	PROPOSED
CCT	CIRCUIT	RGS	RIGID GALVANIZED STEEL
Ę	CENTER LINE	SEC	SECONDARY
CLG	CEILING	SHT	SHEET
CONST	CONSTRUCTION	STA	STATION
DC	DIRECT CURRENT	STD	STANDARD
DISC	DISCONNECT	SW	SWITCH
E	ELECTRICAL	SWBD	SWITCHBOARD
FLUOR.	FLUORESCENT	TYP	TYPICAL
GND	GROUND	U/G	UNDER GROUND
GPR	GROUND PENETRATING RADAR	U.L.	UNDERWRITERS LABORATORIES
IG	ISOLATED GROUND	UON	UNLESS OTHERWISE NOTED
JB	JUNCTION BOX	VOLT	VOLTAGE
KAIC	THOUSAND AMPERE	W	WATT
	INTERRUPTING CAPACITY	WMATA	WASHINGTON METROPOLITIAN AREA TRANSIT AUTHORITY
KCMIL	THOUSAND CIRCULAR MILL		
KVA	KILOVOLT AMPERE	WP	WEATHERPROOF

					CONTR 14-F	act no. FQ10060-CENI-24
DESIGNED C. NGO 09	9-14	REFERENCE DRAWINGS			WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY NEW ELECTRONIC PAY PROG	
DRAWN C. NGO 09	ATE 9-14	NUMBER DESCRIPTION	DATE E	_	DEPARTMENT OF TRANSIT INFRASTRUCTURE	
CHECKED B. IDILBI 09	ATE 9-14 ATE					
APPROVED N/A	ATE				APPROVED	
						••

### DRAWING INDEX

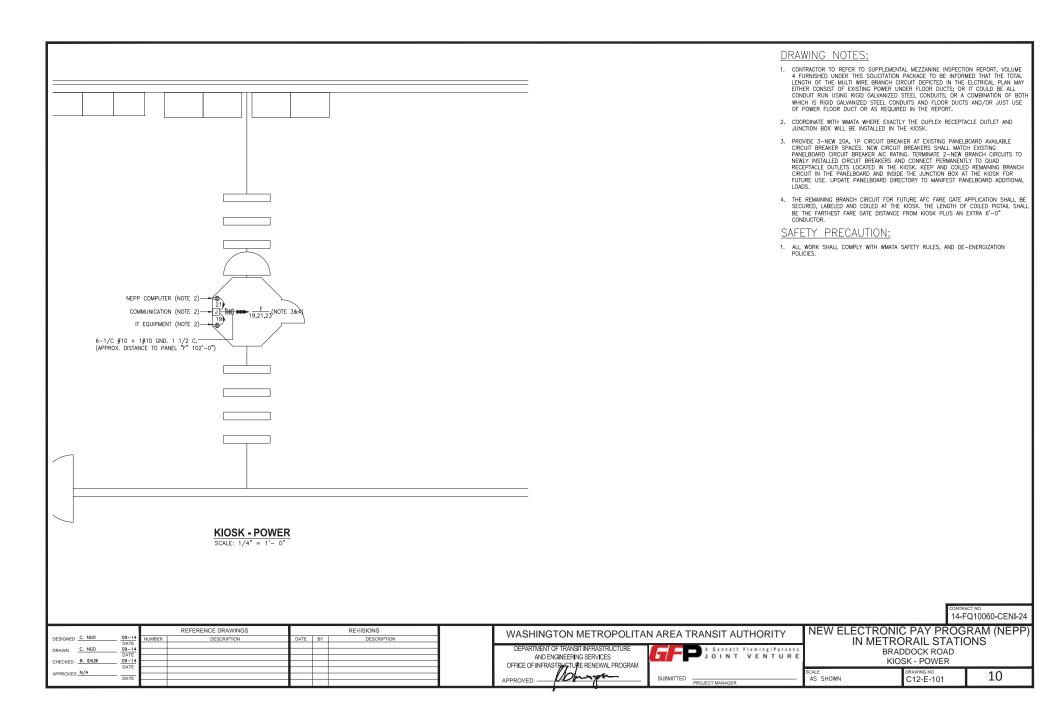
C12-E-001	ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST
C12-E-101	BRADDOCK ROAD - KIOSK - POWER
C12-E-102	BRADDOCK ROAD – PANEL SCHEDULE
C12-E-301	BRADDOCK ROAD – PANELBOARD IMAGE
MM-C-E25	BRADDOCK ROAD - AC POWER ONE LINE DIAGRAM

### ELECTRICAL SYMBOL LIST

₦	QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED
J	JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL
$\frown$	CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.

<u>EF</u> 3,5

- I INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD
- <u>EF</u> 1,3 - INDICATES CIRCUIT HOME RUN PANELBOARD AND CIRCUIT NUMBER IDENTIFICATION



AMPERES: 225		120/208		MOUN	IT ING:	SURE/	CE -			
MAINS: 225A MCB	PHASE:			LOCA			BD RM.	0111		
RATING: 10K AIC	WIRE:	4			ION: 1		DD TAM.	UIII		
	THINE.	- CKT E	NDC	CKT.		CKT.	CKT	BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPT ION
EXIST. LOAD CENTER "KES"	2.9	20	3	1	A	2	1	20	0.8	EXISTING VENDOR
EXIST. EOAD CENTER RES	2.5	- 20		3	- B -	4	1	20	0.8	EXISTING VENDOR
	2.5		-	5	C	6	1	30	0.8	SPARE
EXISTING VENDOR	0.8	30	1	7	A	8	1	20	0.8	EXISTING VENDOR
SPARE	0.0	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	13	C A	14	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	13	- B -	14	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
	0.8	20	1	17	C A	20	1	20	0.8	EXISTING VENDOR
NEW KIOSK RECEPT. (IT/NCS) NEW KIOSK RECEPT. (NEPP/SOC)		20		19	A	20		20		EXISTING VENDOR
. ,	0.8	20	1	21	- B -	22	1	20	0.8	
FUTURE AFC FARE GATE	0.0	20	1		-		1	20		EXISTING VENDOR
SPARE	0.0	20	1	25	A	26	1	20	0.8	EXISTING VENDOR
	0.0		1		- B -	28	1		0.8	EXISTING VENDOR
SPARE	0.0	20	1	29	C	30	1	20	0.0	SPARE
SPACE	0.0	•	-	31	A	32	1	20	0.8	EXISTING VENDOR
SPACE	0.0	-	-	33	- B -	34	1	20	0.8	EXISTING VENDOR
SPACE	0.0	-	-	35	C	36	-	-	0.0	SPACE
SPACE	0.0	-	-	37	A	38	-	-	0.0	SPACE
SPACE	0.0	-	-	39	- B -	40	-		0.0	SPACE
SPACE	0.0	-	-	41	C	42	-	1.1	0.0	SPACE
			LC	DAD	SUN	IMA	RY			
LIGHTS		0.0	x 125%	6					0.0	) KVA
									40.0	
		10.0	x 100%	6					10.0	) KVA
RECEPTACLES, FIRST 10 KVA			x 100%	6						) KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES		8.0	-						4.0	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES		8.0	x 50%	6					4.0 0.0	) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR		8.0 0.0 0.0	x 50% x 100% x 125%	6					4.0 0.0 0.0	) kva ) kva ) kva
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		8.0 0.0 0.0 0.0	x 50% x 100% x 125% x 120%	6					4.0 0.0 0.0 0.0	) KVA ) KVA ) KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		8.0 0.0 0.0 0.0 3.0	x 50% x 100% x 125% x 100% x 125%	6 6 6					4.0 0.0 0.0 0.0 3.8	) KVA ) KVA ) KVA ) KVA 8 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		8.0 0.0 0.0 0.0 3.0 4.5	x 50% x 100% x 125% x 100% x 125% x 125% x 100%	6 6 6 6					4.0 0.0 0.0 3.8 4.5	) KVA ) KVA ) KVA 3 KVA 5 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		8.0 0.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	6 6 6 6					4.0 0.0 0.0 3.8 4.5 0.0	) KVA ) KVA ) KVA ) KVA 3 KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		8.0 0.0 0.0 0.0 3.0 4.5 0.0	x 50% x 100% x 125% x 100% x 125% x 125% x 100%	6 6 6 6			IAND K		4.0 0.0 0.0 3.8 4.5 0.0 <b>22.3</b>	0 KVA 0 KVA 0 KVA 0 KVA 0 KVA 0 KVA 0 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING	ARY	8.0 0.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	6 6 6 6			IAND K IAND A		4.0 0.0 0.0 3.8 4.5 0.0 <b>22.3</b>	) KVA ) KVA ) KVA ) KVA 3 KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	ARY	8.0 0.0 0.0 3.0 4.5 0.0 <b>25.5</b>	x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	6 6 6 6					4.0 0.0 0.0 3.8 4.5 0.0 <b>22.3</b>	0 KVA 0 KVA 0 KVA 0 KVA 0 KVA 0 KVA 0 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM	ARY	8.0 0.0 0.0 0.0 3.0 4.5 0.0 25.5 10.1	x 50% x 1009 x 1259 x 1009 x 1259 x 1259 x 1009 x 1259 KVA	6 6 6 6					4.0 0.0 0.0 3.8 4.5 0.0 <b>22.3</b>	0 KVA 0 KVA 0 KVA 0 KVA 0 KVA 0 KVA 0 KVA

CONTRACT NO.

Reference DRAWINGS       Revisions         Description       Date       Description       Date       WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY       NEW ELECTRONIC PAY PROGRAM (NEPP)         Drawn       C. NGO       Date       Description       Description       Description       Description         Drawn       C. NGO       Date       Description       De			14-FQ10060-CENI-24
DRAWN     C. NOO     09-14       CHECKED     8. IDLBI     09-14       CHECKED     9. IDLBI     09-14       APPROVED     N/A		WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY	
APPROVED N/A SCALE DRAWING NO.	CHECKED B. IDILBI 09–14	AND ENGINEERING SERVICES	BRADDOCK ROAD
	APPROVED N/A	SUBMITTED	

- . ALL WORK, MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE BEING USED BY THE LOCAL JURISDICTION AND SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- 2. MATERIALS AND EQUIPMENT SHALL BE NEW EXCEPT WHERE INDICATED OTHERWISE. ALL OTHER WIRING DEVICES, CONDUIT, WIRE, ETC. SHALL BE NEW UNLESS NOTED OTHERWISE.
- 3. ALL MATERIALS AND EQUIPMENT SHALL BEAR U.L. LISTING.
- 4. MAINTAIN GROUNDING CONTINUITY TO ALL DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 5. WORK NOT SPECIFICALLY SPECIFIED OR INDICATED SHALL CONFORM WITH SPECIFICATIONS.
- 6. ALL CONDUITS SHALL BE RUN CONCEALED IN UNDER FLOOR DUCT.
- 7. ALL WIRE AND CABLE SHALL BE COPPER HAVING 600 VOLTS XHHW-2 OR RHW-2 INSULATIONS. PROVIDE #12 WIRE MINIMUM, UNLESS OTHERWISE NOTED. ALL CABLES SHALL BE LOW SMOKE ZERO HALOGEN CABLE.
- 8. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE CONDITION OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS.
- 9. OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSPECTIONS, TESTS & OTHER SERVICES REQUIRED FOR THE COMPLETION OF THIS WORK.
- 10. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER THAT WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES WITH WMATA PROJECT MANAGER
- 11. IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES NECESSARY TO ACHIEVE THIS PRODUCT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS & SPECIFICATIONS THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF THE BID PRICE.
- 12. IF, DURING THE COURSE OF THE WORK, THE CONTRACTOR EXPERIENCES A CONFLICT RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC OR OTHER APPLICABLE CODES AND GOVERNING DOCUMENTS. HE SHALL NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO EXECUTION OF THIS WORK. ANY WORK INSTALLED IN VIOLATION OF THE CONTRACT DOCUMENT OR APPLICABLE CODES WHICH COULD HAVE BEEN AVOIDED BY CONTACTING THE ENGINEER SHALL BE RECTIFIED AT NO ADDITIONAL COST.
- 13. ELECTRICAL PLANS ARE DIAGRAMMATIC & INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS, ETC. MAINTAIN WORKING CLEARANCES.
- 14. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANEL AND SHALL BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS. PROVIDE TYPEWRITTEN PANELBOARD DIRECTORIES. BALANCE THE PHASE LOADS TO WITHIN 20 PERCENT OF EACH OTHER.

28. The conduit utilize loand light utilize then 1° bain the

pher

- 15. INCREASE ALL BRANCH CIRCUIT SIZE FROM THE PANEL TO THE THE HOMERUN EXCEEDS 100FT
- AFFECTING THE WORK PRIOR TO PROCEEDING.
- OR DEVICES SERVED BY THE CIRCUITS.
- MANAGER.
- COMPLETE WATER PROOF INSTALLATION.
- 22. FOR DEVICE IDENTIFICATION, THE ELECTRICAL CONTRACTOR SHALL JUNCTION BOX.
- INCLUDE THE FINAL ROOM OR AREA NUMBERS.
- WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- AFC".
- BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY.

		REFERENCE DRAWINGS		REVISIONS		WASHINGTON METROPOLITAN	AREA TRANSIT ALITHORI
DESIGNED <u>C. NGO</u> <u>09-</u> DA		NUMBER DESCRIPTION	DATE BY	DESCF	RIPTION		AREA TRANSIT AUTHORI
	<u>–14</u> –					DEPARTMENT OF TRANSIT INFRASTRUCTURE	A Gannett Fleming/P
	<u> </u>					AND ENGINEERING SERVICES OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM	JOINT VENT
APPROVED N/A							
						APPROVED	SUBMITTED PROJECT MANAGER

Г	CONDUCTORS TO THE NEXT LARGER	
Ξ	FIRST OUTLET WHERE THE LENGTH OF	
T.	ON 120/208V CIRCUITS.	

16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.

17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES

18. ALL PANELS IMPACTED BY THIS PROJECT SHALL BE PROVIDED WITH NEW, UPDATED TYPEWRITTEN PANEL SCHEDULES (FOR NEW AND EXISTING CIRCUITS) INDICATING THE FINAL ROOM NUMBER AND THE EQUIPMENT

19. DEMOLITION OF EXISTING WORK SHALL BE PERFORMED AFTER HOURS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WMATA PROJECT MANAGER PRIOR TO PERFORMING ALL THE WORK. THE TIME OF DAY OR EVENING SHALL BE DESIGNATED BY THE WMATA PROJECT

20. ALL WIRING SHALL BE IN CONDUIT, MINIMUM SIZE 3/4 INCH WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL THREADED COUPLING FOR

21. AT JOB COMPLETION, AND BEFORE FINAL ACCEPTANCE BY WMATA, TEST EACH RECEPTACLE AND PANELBOARD FOR PROPER OPERATION. WIRING SHALL BE TESTED FOR CONTINUITY, SHORTS, ETC ... ALL WORK AREAS, ETC.. SHALL BE CLEANED AT THE COMPLETION OF THIS PROJECT.

LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE

23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO

24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY

26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13; WMATA SPECIFICATION SECTION 16120, 16130, AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH

MIN

MLO

MINIMUM

MAIN LUGS ONLY

27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR

28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.

### ABBREVIATIONS

A, AMP	AMPERES	NEC	NATIONAL ELECTRIC CODE
AC	ALTERNATING CURRENT	Ρ	POLE
AF	AMPERE FRAME	PH	PHASE
AFC	AUTOMATED FARE COLLECTION SYSTEM	PNL	PANELBOARD
AFF	ABOVE FINISHED FLOOR	PRI	PRIMARY
AIC	AMPERE INTERRUPTING CAPACITY	PROP	PROPOSED
AT	AMPERE TRIP	RGS	RIGID GALVANIZED STEEL
BKR	BREAKER	SEC	SECONDARY
С	CONDUIT	SHT	SHEET
СВ	CIRCUIT BREAKER	SW	SWITCH
CCT	CIRCUIT	SWBD	SWITCHBOARD
Q.	CENTER LINE	TYP	TYPICAL
L CLG	CEILING	U/G	UNDER GROUND
CONST	CONSTRUCTION	U.L.	UNDERWRITERS LABORATORI
		UON	UNLESS OTHERWISE NOTED
DISC	DISCONNECT	VOLT	VOLTAGE
E	ELECTRICAL	W	WATT
GND	GROUND	WMATA	
JB	JUNCTION BOX		AREA TRANSIT AUTHORITY
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY	WP	WEATHERPROOF
KCMIL	THOUSAND CIRCULAR MILL		
KVA	KILOVOLT AMPERE		
MAX	MAXIMUM		
МСА	MINIMUM CIRCUIT AMPERE		
МСВ	MAIN CIRCUIT BREAKER		
MEZZ	MEZZANINE		
MINI			

# DRAWING INDEX

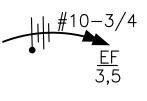
C13-E-001	ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST
C13-E-101	KING STREET NORTH & SOUTH - KIOSK - POWER
C13-E-102	KING STREET NORTH & SOUTH – PANEL SCHEDULES
C13-E-301	KING STREET NORTH & SOUTH – PANELBOARD IMAGE
C13-E-302	KING STREET NORTH & SOUTH – PANELBOARD IMAGE
MM-C-E26	KING STREET – AC POWER ONE LINE DIAGRAM

## ELECTRICAL SYMBOL LIST

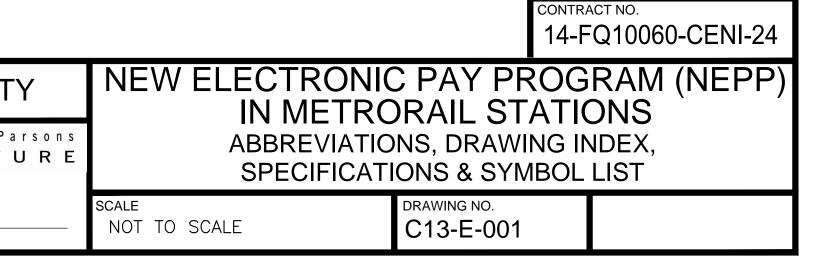
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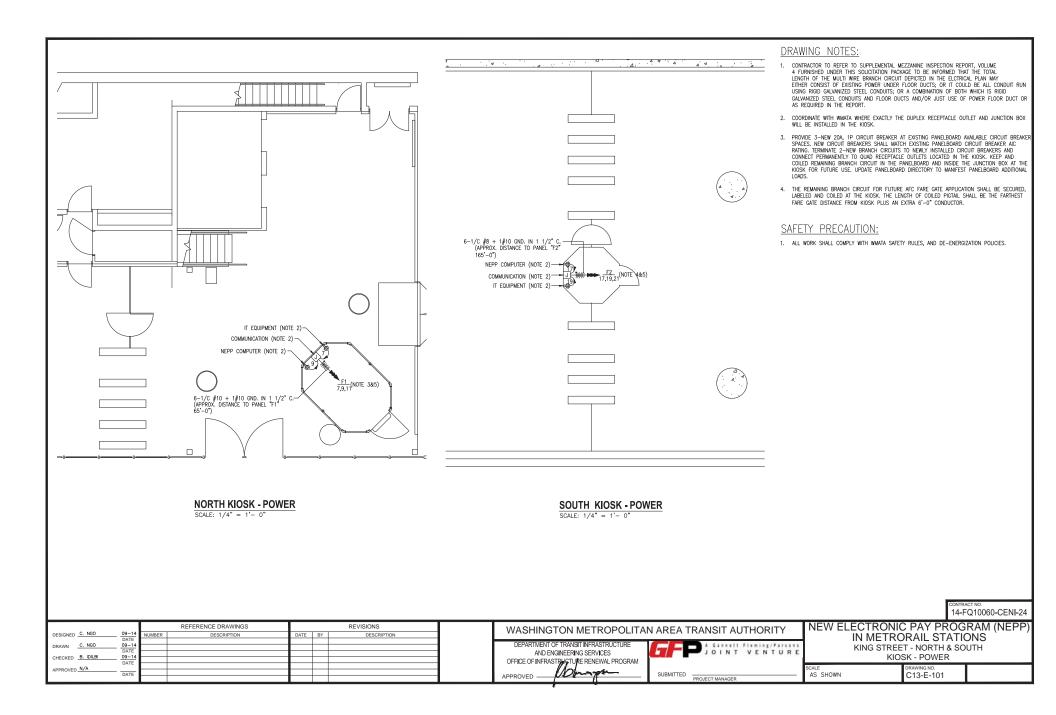
J

QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED. JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.



- 1 INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD
- INDICATES CIRCUIT HOME RUN PANELBOARD AND 1,3 CIRCUIT NUMBER IDENTIFICATION





		E	EXIS	TIN(	G PA	NEL	. "F1	"		
AMPERES: 150	VOLTS:	120/208		MOUN	ITING:	SURF/	ACE			
MAINS: 150A MCB	PHASE:	3		LOCA	TION:	AC SW	/BD BAT	TERYRM	I. C103	
RATING: 10K AIC	WIRE:	4		SECT	ION: 1	OF 1				
		CKT E	BKRS	CKT.		CKT.	CKT	BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPT
EXISTING VENDOR	0.8	20	1	1	A	2	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	3	- B -	4	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	5	C	6	1	20	0.0	SPARE
NEW KIOSK RECEPT. (IT/NCS)	0.8	20	1	7	A	8	1	20	0.8	EXISTING VENDOR
NEW KIOSK RECEPT. (NEPP/SOC)	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR
FUTURE AFC FARE GATE	0.8	20	1	11	C	12	1	20	0.8	EXISTING VENDOR
SPARE	0.0	20	1	13	A	14	1	20	0.0	SPARE
SPARE	0.0	20	1	15	- B -	16	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	17	C	18	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	19	A	20	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	23	C	24	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	25	A	26	1	20	0.8	EXISTING VENDOR
SPARE	0.0	20	1	27	- B -	28	1	20	0.8	EXISTING VENDOR
SPARE	0.0	20	1	29	C	30	1	20	0.0	SPARE
SPACE	0.0	-	-	31	A	32	-	-	0.0	SPACE
SPACE	0.0		-	33	- B -	34	-		0.0	SPACE
	0.0			35	C				0.0	SPACE
SPACE	0.0	-	-	35		36	-		0.0	GFAGE
SPACE	0.0							-	0.0	JOFAUE
SPACE	0.0				SUN				0.0	DFAGE
LIGHTS	0.0			DAD						) KVA
	0.0	0.0	L	DAD				-	0.0	1
LIGHTS		0.0	L(	DAD				-	0.0	) KVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES		0.0 0.0 10.0 5.2	L( x 1255 x 1005	DAD				-	0.0	) KVA KVA 5 KVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES	0.0	0.0 0.0 10.0 5.2 0.0	L( x 125 x 100 x 50% x 100	<b>DAD</b>				-	0.0	) KVA KVA KVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR		0.0 10.0 5.2 0.0 0.0	L( x 1259 x 1009 x 50% x 1009 x 1259	DAD				-	0.0 10.0 2.0 0.0	кvа кvа кvа кvа кvа
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		0.0 10.0 5.2 0.0 0.0 0.0	L( × 125 × 100 × 50% × 100 × 125 × 100	<b>DAD</b>					0.0 10.0 2.0 0.0 0.0	) KVA KVA KVA KVA V A
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		0.0 10.0 5.2 0.0 0.0 0.0 0.0 0.0	L( x 125 x 100 x 100 x 105 x 105 x 105 x 125	<b>DAD</b>				-	0.0 10.0 2.0 0.0 0.0 0.0	) КVА КVА КVA КVA КVA 2 КVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		0.0 10.0 5.2 0.0 0.0 0.0 0.0 0.0 0.0	L( x 1259 x 1009 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	<b>DAD</b>					0.0 10.0 2.0 0.0 0.0 0.0 0.0	і КVА КVА КVA КVA КVA КVA КVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		0.0 10.0 5.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	LC x 125 x 100 x 50% x 100 x 125 x 100 x 125 x 100 x 125 x 100 x 125 x 100 x 125	<b>DAD</b>	SUN	лма	RY		0.0 10.0 2.6 0.0 0.0 0.0 0.0 0.0 0.0	) KVA KVA KVA KVA KVA KVA KVA KVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		0.0 10.0 5.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	L( x 1259 x 1009 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	<b>DAD</b>	SUN			VA.	0.0 10.0 2.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	і КVА КVА КVA КVA КVA КVA КVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		0.0 10.0 5.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	LC × 125 × 100 × 50% × 105 × 125 × 105 × 125 × 105 × 125	<b>DAD</b>	SUN			VA.	0.0 10.0 2.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	) КVA КVA КVA КVA КVA КVA КVA КVA <b>КVA</b>
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD		0.0 10.0 5.2 0.0 0.0 0.0 0.0 0.0 0.0 15.2	LC × 125 × 100 × 50% × 105 × 125 × 105 × 125 × 105 × 125	<b>DAD</b>	SUN			VA.	0.0 10.0 2.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	) КVA КVA КVA КVA КVA КVA КVA КVA <b>КVA</b>
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES INISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM		0.0 10.0 5.2 0.0 0.0 0.0 0.0 0.0 0.0 15.2 5.6	L( x 125% x 100% x 100% x 125% x 125% x 100% x 125% x 100% x 125% x 125% x 100% x 125% x 125% x 100% x 125% x 125% x 100% x 125% x 125% x 100% x 125% x 125%	<b>DAD</b>	SUN			VA.	0.0 10.0 2.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	) КVA КVA КVA КVA КVA КVA КVA КVA <b>КVA</b>

AMPERES: 150	VOLTS:	120/208		MOUN	IT ING:	SURF/	ACE			
MAINS: 150AMCB	PHASE:			LOCA				TERYRN	I C103	
RATING: 10K AIC	WIRE:	4		SECT	ION: 1	OF 1				
		CKT E	SKRS	CKT.		CKT.	CKT	BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE			NO.	POLE	AMP	KVA	LOAD DESCRIPTION
EXIST ING VENDOR	0.8	20	1	1	A	2	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	5	C	6	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	7	A	8	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	13	A	14	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
NEW KIOSK RECEPT. (IT/NCS)	0.8	20	1	17	C	18	1	20	0.8	EXISTING VENDOR
NEW KIOSK RECEPT. (NEPP/SOC)	0.8	20	1	19	A	20	1	20	2.9	EXIST. LOAD CENTER "KES"
FUTURE AFC FARE GATE	0.0	20	1	21	- B -	20	1	20	2.5	ENGLICOND GENTER REG
SPARE	0.0	20	1	21	C	24	1	20	2.5	
SPARE	0.0	20	1	25	A	24	1	20	0.8	EXIST ING VENDOR
SPARE	0.0	20	1	25	- B -	20	1	20	0.8	EXISTING VENDOR
SPARE	0.0	20	1	27	- B -	30	1	20	0.0	SPARE
SPACE	0.0	20		31	A	32	-	20	0.0	SPACE
		-					-	-		
20405										LODAOF
	0.0	-	•	33 35	- B - C	34 36	-	-	0.0	SPACE SPACE
SPACE SPACE					-					1
			•	35	-	36	-			1
		-	•	35 )AD	C	36	-		0.0	1
SPACE LIGHTS		- 0.0	LC	35 35	C	36	-		0.0	SPACE
SPACE		0.0	- L(	35 35	C	36	-		0.0	SPACE KVA
LIGHTS RECEPT ACLES, FIRST 10 KVA		- - - - - - - - - - - - - - - - - - -	- L( x 125% x 100%	35 35	C	36	-		0.0	SPACE KVA
LIGHTS RECEPT ACLES, FIRST 10 KVA RECEPT ACLES		- - - - - - - - - - - - - - - - - - -	LC x 125% x 100% x 50%	35 35	C	36	-		0.0 0.0 10.0 2.8 0.0	SPACE KVA KVA
LIGHTS RECEPT ACLES, FIRST 10 KVA RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR		0.0 10.0 5.6 0.0	- LC x 125% x 100% x 50% x 100%	<b>DAD</b>	C	36	-		0.0 0.0 10.0 2.8 0.0 0.0 0.0	SPACE KVA KVA KVA KVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES, MISC. APPLIANCES MISC. APPLIANCES LARGEST MOTOR MOTORS			- - - - - - - - - - - - - - - - - - -	<b>DAD</b>	C	36	-		0.0 0.0 10.0 2.8 0.0 0.0 0.0 0.0	SPACE KVA KVA KVA KVA KVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT			- - - - - - - - - - - - - - - - - - -	<b>DAD</b> 6 6 6 6	C	36	-		0.0 0.0 10.0 2.8 0.0 0.0 0.0 0.0 3.8	SPACE КVА КVA КVA КVA КVA КVA
LIGHTS RECEPT ACLES, FIRST 10 KVA RECEPT ACLES, FIRST 10 KVA RECEPT ACLES MISC. APPLANCES LARGEST MOTOR MOTORS HEAT AC			LC x 1259 x 1009 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	<b>DAD</b> 6 6 6 6 6	C	36	-		0.0 0.0 10.0 2.8 0.0 0.0 0.0 3.8 4.5	SPACE КVА КVА КVA КVA КVA КVA КVA КVA
SPACE LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		0.0 10.0 5.6 0.0 0.0 3.0 4.5 0.0	LC x 125% x 100% x 100% x 125% x 100% x 100% x 125% x 100% x 125% x 10% x 10	<b>DAD</b> 6 6 6 6 6	SUN	36	RY	-	0.0 0.0 10.0 2.8 0.0 0.0 0.0 0.0 3.8 4.5 0.0	SPACE КVА КVA КVA КVA КVA КVA КVA КVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		0.0 10.0 5.6 0.0 0.0 3.0 4.5 0.0	LC x 1259 x 1009 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	<b>DAD</b> 6 6 6 6 6	C	36 IMA	- RY		0.0 0.0 10.0 2.8 0.0 0.0 0.0 0.0 3.8 4.5 0.0 <b>21.1</b>	SPACE КVА КVА КVA КVA КVA КVA КVA КVA КVA КVA КVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	0.0	0.0 10.0 5.6 0.0 0.0 3.0 4.5 0.0	LC x 125% x 100% x 100% x 125% x 100% x 100% x 125% x 100% x 125% x 10% x 10	<b>DAD</b> 6 6 6 6 6	C	36 IMA	RY		0.0 0.0 10.0 2.8 0.0 0.0 0.0 0.0 3.8 4.5 0.0 <b>21.1</b>	SPACE КVА КVA КVA КVA КVA КVA КVA КVA
SPACE LIGHTS RECEPT ACLES, FIRST 10 KVA RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMMA	0.0	0.0 10.0 5.6 0.0 0.0 3.0 4.5 0.0 <b>23.1</b>	- LC x 1259 x 1009 x 1259 x 1259	<b>DAD</b> 6 6 6 6 6	C	36 IMA	- RY		0.0 0.0 10.0 2.8 0.0 0.0 0.0 0.0 3.8 4.5 0.0 <b>21.1</b>	SPACE КVА КVА КVA КVA КVA КVA КVA КVA КVA КVA КVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	0.0		LC x 125% x 100% x 100% x 125% x 100% x 100% x 125% x 100% x 125% x 10% x 10	<b>DAD</b> 6 6 6 6 6	C	36 IMA	- RY		0.0 0.0 10.0 2.8 0.0 0.0 0.0 0.0 3.8 4.5 0.0 <b>21.1</b>	SPACE КVА КVА КVA КVA КVA КVA КVA КVA КVA КVA КVA

							CONTRACT NO. 14-FQ10060-CENI-24
DESIGNED C. NGO 09-14	NUMBER	REFERENCE DRAWINGS DESCRIPTION	DATE	REVISIONS BY DESCRIPTION	-	WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY	NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS
DRAWN C. NGO 09–14 DATE CHECKED B. IDILBI 09–14 DATE DATE DATE					1	DEPARTMENT OF TRANSIT NIFRASTRUCTURE AND ENGINEERING SERVICES OFFICE OF INFRASTBY/CIRE RENEWAL PROGRAM	KING STREET - NORTH & SOUTH
APPROVED N/A DATE						APPROVED	NOT TO SCALE DRAWING NO. C13-E-102

- ALL WORK, MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE BEING USED BY THE LOCAL JURISDICTION AND SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- 2. MATERIALS AND EQUIPMENT SHALL BE NEW EXCEPT WHERE INDICATED OTHERWISE. ALL OTHER WIRING DEVICES, CONDUIT, WIRE, ETC. SHALL BE NEW UNLESS NOTED OTHERWISE.
- 3. ALL MATERIALS AND EQUIPMENT SHALL BEAR U.L. LISTING.
- 4. MAINTAIN GROUNDING CONTINUITY TO ALL DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 5. WORK NOT SPECIFICALLY SPECIFIED OR INDICATED SHALL CONFORM WITH SPECIFICATIONS.
- 6. ALL CONDUITS SHALL BE RUN CONCEALED IN UNDER FLOOR DUCT.
- 7. ALL WIRE AND CABLE SHALL BE COPPER HAVING 600 VOLTS XHHW-2 OR RHW-2 INSULATIONS. PROVIDE #12 WIRE MINIMUM, UNLESS OTHERWISE NOTED. ALL CABLES SHALL BE LOW SMOKE ZERO HALOGEN CABLE.
- . THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE CONDITION OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS.
- 9. OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSPECTIONS. TESTS & OTHER SERVICES REQUIRED FOR THE COMPLETION OF THIS WORK
- 10. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER THAT WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPFRATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES WITH WMATA PROJECT MANAGER.
- . IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES NECESSARY TO ACHIEVE THIS PRODUCT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS & SPECIFICATIONS THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF THE BID PRICE.
- 12. IF, DURING THE COURSE OF THE WORK, THE CONTRACTOR EXPERIENCES A CONFLICT RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC OR OTHER APPLICABLE CODES AND GOVERNING DOCUMENTS, HE SHALL NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO EXECUTION OF THIS WORK. ANY WORK INSTALLED IN VIOLATION OF THE CONTRACT DOCUMENT OR APPLICABLE CODES WHICH COULD HAVE BEEN AVOIDED BY CONTACTING THE ENGINEER SHALL BE RECTIFIED AT NO ADDITIONAL 0051
- 13. ELECTRICAL PLANS ARE DIAGRAMMATIC & INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS, ETC. MAINTAIN WORKING CLEARANCES.
- 14. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANEL AND SHALL BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS. PROVIDE TYPEWRITTEN PANELBOARD DIRECTORIES. BALANCE THE PHASE LOADS TO WITHIN 20 PERCENT OF EACH OTHER.

- 15. INCREASE ALL BRANCH CIRCUIT CONDUCTORS TO THE NEXT LARGER SIZE FROM THE PANEL TO THE FIRST OUTLET WHERE THE LENGTH OF THE HOMERUN EXCEEDS 100FT. ON 120/208V CIRCUITS.
- 16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.
- 17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES AFFECTING THE WORK PRIOR TO PROCEEDING.
- 18. ALL PANELS IMPACTED BY THIS PROJECT SHALL BE PROVIDED WITH NEW. UPDATED TYPEWRITTEN PANEL SCHEDULES (FOR NEW AND EXISTING CIRCUITS) INDICATING THE FINAL ROOM NUMBER AND THE EQUIPMENT OR DEVICES SERVED BY THE CIRCUITS.
- 19. DEMOLITION OF EXISTING WORK SHALL BE PERFORMED AFTER HOURS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WMATA PROJECT MANAGER PRIOR TO PERFORMING ALL THE WORK. THE TIME OF DAY OR EVENING SHALL BE DESIGNATED BY THE WMATA PROJECT MANAGER.
- 20. ALL WIRING SHALL BE IN CONDUIT, MINIMUM SIZE 3/4 INCH WITH LARCER SIZES AS INDICATED OR REQUIRED BY NEC. ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL W/SCREW IN COUPLING FOR COMPLETE WATER PROOF INSTALLATION.
- 21. AT JOB COMPLETION, AND BEFORE FINAL ACCEPTANCE BY WMATA, TEST EACH RECEPTACLE AND PANELBOARD FOR PROPER OPERATION. WIRING SHALL BE TESTED FOR CONTINUITY, SHORTS, ETC... ALL WORK AREAS, ETC.. SHALL BE CLEANED AT THE COMPLETION OF THIS PROJECT.
- 22. FOR DEVICE IDENTIFICATION, THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC ... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE JUNCTION BOX.
- 23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO INCLUDE THE FINAL ROOM OR AREA NUMBERS.
- 24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- 26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13; WMATA SPECIFICATION SECTION 16120, 16130, AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- 27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR AFC".
- 28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY. CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.

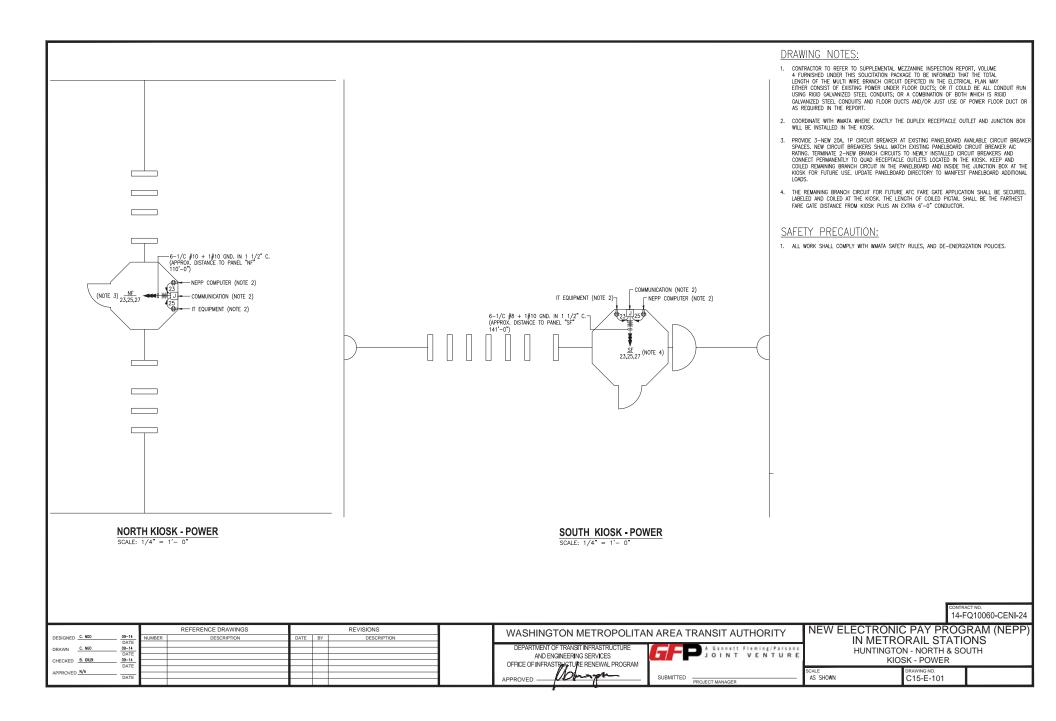
#### ABBREVIATIONS

A, AMP	AMPERES	MAX	MAXIMUM	C15-E-001	ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST
AC	ALTERNATING CURRENT	MCA	MINIMUM CIRCUIT AMPERE	C15-E-101	HUNTINGTON NORTH & SOUTH - KIOSK - POWER
AEMS	AUTOMATED ENERGY MANAGEMENT SYSTEM	MCB	MAIN CIRCUIT BREAKER	C15-E-102	HUNTINGTON NORTH & SOUTH - PANEL SCHEDULE
		MEZZ	MEZZANINE	C15-E-301	HUNTINGTON NORTH & SOUTH - PANELBOARD IMAGE
AF	AMPERE FRAME	MIN	MINIMUM	C15-E-302	HUNTINGTON NORTH & SOUTH - PANELBOARD IMAGE
AFC	AUTOMATED FARE COLLECTION SYSTEM	MLO	MAIN LUGS ONLY	MM-C-E37	HUNTINGTON NORTH & SOUTH – AC POWER ONE LINE DIAGRAM
AFF	ABOVE FINISHED FLOOR	MTD	MOUNTED OR MOUNTING		
AIC	AMPERE INTERRUPTING CAPACITY	NEC	NATIONAL ELECTRIC CODE		
AT	AMPERE TRIP	NEMA	NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION		
ATS	AUTOMATIC TRANSFER SWITCH	_			
BATT	BATTERY	Ρ	POLE		
BKR	BREAKER	PH	PHASE		
Æ	BASELINE	PNL	PANELBOARD		RICAL SYMBOL LIST
С	CONDUIT	PRI	PRIMARY		NOAL STRIDOL LIST
СВ	CIRCUIT BREAKER	PROP	PROPOSED	Ŧ	QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED.
ССТ	CIRCUIT	RGS	RIGID GALVANIZED STEEL	J	JUNCTION BOX – SURFACE MOUNTED ON UNISTRUT CHANNEL
ç	CENTER LINE	SEC	SECONDARY	$\frown$	CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.
CLG	CEILING	SHT	SHEET	I.I. #10-3/	4 HOMERUN TO PANEL, NUMBER OF ARROWHEADS INDICATES
CONST	CONSTRUCTION	STA	STATION	EF	NUMBER OF CIRCUITS. CROSS HATCHING INDICATES NUMBER OF CONDUCTORS, NUMBER INDICATES SIZE OF CONDUCTOR
DC	DIRECT CURRENT	STD	STANDARD	3,5	AND SIZE OF CONDUIT
DISC	DISCONNECT	SW	SWITCH		<ul> <li>INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD</li> </ul>
E	ELECTRICAL	SWBD	SWITCHBOARD		<u>EF</u> – INDICATES CIRCUIT HOME RUN PANELBOARD AND <sup>1,3</sup> CIRCUIT NUMBER IDENTIFICATION
FLUOR.	FLUORESCENT	TYP	TYPICAL		
GND	GROUND	U/G	UNDER GROUND		
GPR	GROUND PENETRATING RADAR	U.L.	UNDERWRITERS LABORATORIES		
IG	ISOLATED GROUND	UON	UNLESS OTHERWISE NOTED		
JB	JUNCTION BOX	VOLT	VOLTAGE		
KAIC	THOUSAND AMPERE	W	WATT		
	INTERRUPTING CAPACITY	WMATA	WASHINGTON METROPOLITIAN AREA TRANSIT AUTHORITY		
KCMIL	THOUSAND CIRCULAR MILL				
KVA	KILOVOLT AMPERE	WP	WEATHERPROOF		

			REFERENCE DRAWINGS			REVISIONS		WASHINGTON METROPOLITA	
	DESIGNED C. NGO	09-14 DATE	NUMBER DESCRIPTION	DATE	BY	DESCRIPTION			
	DRAWN <u>C. NGO</u>	09-14 DATE					-	DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES	A Gannett Fleming/Parso
	CHECKED B. IDILBI	09-14 DATE						OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM	
contrast. To: the Million of the	APPROVED N/A	DATE							SUBMITTED
		DATE						APPROVED	PROJECT MANAGER

### DRAWING INDEX

J JUNCTION BOX – SURFACE MOUNTED ON UNISTRUT CH. CONDUIT – CONCEALED IN UNDER FLOOR DUCT U.O.N. HOMERUN TO PANEL, NUMBER OF ARROWHEADS INDICA NUMBER OF CIRCUITS. CROSS HATCHING INDICATES NUM EEE 3,5 AND SIZE OF CONDUCT	TES
HI #10-3/4 HOMERUN TO PANEL, NUMBER OF ARROWHEADS INDICA	
AND SIZE OF CONDUIT I - INDICATES GROUNDING WIRE TO GROUNDING B THE PANELBOARD EF - INDICATES CIRCUIT HOME RUN PANELBOARD AI 1,3 CIRCUIT NUMBER IDENTIFICATION	TOR US AT
CONTRACT NO.	
14-FQ10060-	
NEW ELECTRONIC PAY PROGRAM (I IN METRORAIL STATIONS	NEPP)
ABBREVIATIONS, DRAWING INDEX,	
SPECIFICATIONS & SYMBOL LIST SCALE DRAWING NO.	
NOT TO SCALE C15-E-001	



		E	XIS	TIN	G PA	NEL	"NF						
AMPERES: 225	VOLTS:	120/208		MOUN	IT ING:	SURF	4CE						
MAINS: 200A MCB	PHASE:	3		LOCA	TION:	ELEC.	EQUIPA	MENT BAT	TERY1	29			
RATING: 10K AIC	WIRE:	4		SECT	ION: 10	OF 1							
		CKTE	KRS	CKT.		CKT.	CKT	BKRS					
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPT IO			
EXIST ING VENDOR	0.8	20	1	1	A	2	1	20	0.8	EXISTING VENDOR			
EXIST ING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR			
EXIST ING VENDOR	0.8	20	1	5	C	6	1	20	0.8	EXISTING VENDOR			
EXISTING VENDOR	0.8	20	1	7	A	8	1	20	0.0	SPARE			
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR			
EXIST ING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXISTING VENDOR			
EXISTING VENDOR	0.8	20	1	13	A	14	1	20	0.8	EXISTING VENDOR			
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR			
EXIST ING VENDOR	0.8	20	1	17	C	18	1	20	0.0	SPARE			
EXIST ING VENDOR	0.8	20	1	19	A	20	1	20	0.0	SPARE			
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR			
NEW KIOSK RECEPT. (IT & NEPP)	0.8	20	1	23	C	24	1	20	0.8	EXISTING VENDOR			
2 SPARE (KIOSK)	0.0	20	1	25	A	26	1	20	0.8	EXISTING VENDOR			
NEW KIOSK RECEPT. (IT & NEPP)	0.8	20	1	27	- B -	28	1	20	0.0	SPARE			
SPARE	0.0	20	1	29	C	30	1	20	0.0	SPARE			
SPARE	0.0	20	1	31	A	32	-	-	0.0	SPACE			
SPARE	0.0	20	1	33	- B -	34	-	040	0.0	SPACE			
SPARE	0.0	20	1	35	C	36	3	40	2.9	EXIST. LOAD CENTER "KE			
SPACE	0.0	- (a) (		37	A	38		2943	2.5				
SPACE	0.0	(.e.)		39	- B -	40		(0.0)	2.5				
SPACE	0.0	3.00	1.	41	C	42	•	3.00	0.0	SPACE			
			10		SUN	IMA	DV						
			_		301	IIVIA	R I						
LIGHTS			x 1259	6						) KVA			
RECEPT ACLES, FIRST 10 KVA			x 1009	6									
RECEPTACLES		8.0	x 50%							) KVA			
RECEPT ACLES MISC. APPLIANCES		8.0	x 50% x 1009	6					0.	) KVA			
RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR		8.0 0.0 0.0	x 50% x 1009 x 1259	6					0.0	) KVA ) KVA			
RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		8.0 0.0 0.0	x 50% x 1009 x 1259 x 1209	6					0.0 0.0	) KVA ) KVA ) KVA			
RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		8.0 0.0 0.0 0.0 3.0	x 50% x 1009 x 1259 x 1009 x 1259	6 6 6					0) 0) 0) 3)	) KVA ) KVA ) KVA 3 KVA			
RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		8.0 0.0 0.0 0.0 3.0 4.5	x 50% x 1009 x 1259 x 1009 x 1259 x 1259 x 1009	6 6 6 6 6					0) 0) 0) 3)	) KVA ) KVA ) KVA			
RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		8.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259	6 6 6 6 6					0/ 0/ 0/ 3/ 4/	) KVA ) KVA ) KVA 3 KVA			
RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		8.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1009 x 1259 x 1259 x 1009	6 6 6 6 6			IAND K		0/ 0/ 3/ 4/ 0/ <b>22</b> :	0 KVA 0 KVA 0 KVA 8 KVA 5 KVA			
RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEAT ING	ARY	8.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259	6 6 6 6 6					0/ 0/ 3/ 4/ 0/ <b>22</b> :	0 KVA 0 KVA 8 KVA 5 KVA 0 KVA 8 KVA			
RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEAT ING TOTAL CONNECTED LOAD PHASE A	ARY	8.0 0.0 0.0 3.0 4.5 0.0 25.5	x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259	6 6 6 6 6					0/ 0/ 3/ 4/ 0/ <b>22</b> :	0 KVA 0 KVA 8 KVA 5 KVA 0 KVA 8 KVA			
RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM	ARY	8.0 0.0 0.0 0.0 3.0 4.5 0.0 25.5 8.1	x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1259 KVA	6 6 6 6 6					0/ 0/ 3/ 4/ 0/ <b>22</b> :	0 KVA 0 KVA 8 KVA 5 KVA 0 KVA 8 KVA			

AMPERES: 225	VOLTS:	120/208		MOU	MOUNTING: SURFACE										
MAINS: 225A.MLO	PHASE:	3		LOCA	LOCATION: ELEC. EQUIPMENT 416										
RATING: 10K AIC	WIRE:	4	- 3	SECT	SECTION: 1 OF 1										
		CKT	BKRS	CKT.		CKT.	CKT	BKRS							
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA.	LOAD DESCRIPTION					
XISTING VENDOR	0.8	20	1	1	A	2	1	20	0.8	EXISTING VENDOR					
EXISTING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR					
EXISTING VENDOR	0.8	20	1	5	C	6	1	20	0.8	EXISTING VENDOR					
EXISTING VENDOR	0.8	20	1	7	A	8	1	20	0.8	EXISTING VENDOR					
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR					
XISTING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXISTING VENDOR					
SPARE	0.0	20	1	13	A	14	1	20	0.8	EXISTING VENDOR					
XISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.0	SPARE					
XISTING VENDOR	0.8	20	1	17	C	18	1	20	0.0	SPARE					
EXISTING VENDOR	0.8	20	1	19	A	20	1	20	0.0	SPARE					
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	30	0.0	SPARE					
NEW KIOSK RECEPT. (IT & NEPP)	0.8	20	1	23	· · C	24	1	20	0.8	EXISTING VENDOR					
SPARE (KIOSK)	0.0	20	1	25	A	26	1	20	0.8	EXISTING VENDOR					
WEW KIOSK RECEPT. (IT & NEPP)	0.8	20	1	27	- B -	28	1	20	0.8	EXISTING VENDOR					
SPARE	0.0	20	1	29	C	30	1	20	0.0	SPARE					
SPARE	0.0	20	1	31	A	32	1	20	0.8	EXISTING VENDOR					
SPARE	0.0	20	1	33	- B -	34	1	20	0.0	SPARE					
SPARE	0.0	20	1	35	C	36	1	20	0.0	SPARE					
SPARE	0.0	20	1	37	A	38	3	40	2.9	EXIST. LOAD CENTER "KES"					
SPARE	0.0	20	1	39	- B -	40		*	2.5						
SPARE	0.0	20	1	41	C	42			2.5						
60.599.04	2. CB TC	D BE RES					PV								
IGHTS		0.0	) x 1259		501		N1		0.0	) KVA					
				~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~											
	RECEPTACLES, FIRST 10 KVA 10.0 x 10														
RECEPTACLES, FIRST 10 KVA			-												
RECEPT ACLES, FIRST 10 KVA RECEPT ACLES		8.0	x 50%						4.0	) KVA					
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES		8.0	x 50%	К					4.0 0.0	) KVA ) KVA					
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES ARGEST MOTOR		8.0	x 50% x 1009 x 1259	% %					4.0 0.0 0.0	) kva ) kva ) kva					
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES ARGEST MOTOR MOTORS		8.0 0.0 0.0 0.0	x 50% x 1009 x 1259 x 1259 x 1009	ж ж					4.0 0.0 0.0	o KVA O KVA O KVA O KVA					
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES ARGEST MOTOR MOTORS HEAT		8.0 0.0 0.0 0.0 3.0	x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259	ж ж ж					4.0 0.0 0.0 3.0	0 KVA 0 KVA 0 KVA 0 KVA 0 KVA					
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLANCES ARGEST MOTOR MOTORS HEAT KC		8.0 0.0 0.0 0.0 3.0 4.5	x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1009	ж ж ж					4.0 0.0 0.0 3.0 4.5	KVA KVA KVA KVA KVA					
RECEPTACLES, FIRST 10 KVA RECEPTACLES INSC. APPLANCES ARGEST MOTOR NOTORS IEAT IC		8.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1009 x 1259 x 1259	ж ж ж					4.0 0.0 0.0 3.0 4.5	0 KVA 0 KVA 0 KVA 0 KVA 0 KVA					
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC, APPLANCES ARGEST MOTOR MOTORS REAT KC VATER HEATING		8.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1009	ж ж ж			IAND KI		4.0 0.0 0.0 3.1 4.5 0.0 <b>22.</b> 5	KVA KVA KVA KVA KVA					
RECEPTACLES, FIRST 10 KVA RECEPTACLES ARGEST MOTOR AGTORS HEAT KC WATER HEATING TOTAL CONNECTED LOAD	ARY	8.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1009 x 1259 x 1259	ж ж ж					4.0 0.0 0.0 3.1 4.5 0.0 <b>22.</b> 5	КVА КVА КVА КVA КVA КVA КVA					
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES ARGEST MOTOR MOTORS HEAT AC NATER HEATING FOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM	ARY	8.0 0.0 0.0 3.0 4.9 0.0 25.9	x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1009 x 1259 x 1259	ж ж ж					4.0 0.0 0.0 3.1 4.5 0.0 <b>22.</b> 5	КVА КVА КVА КVA КVA КVA КVA					
LARTER RECEPT ACLES, FIRST 10 KVA RECEPT ACLES MISC. APPL/INICES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM PHASE A: PHASE B:	ARY	8.0 0.0 0.0 3.0 4.9 0.0 25.9 9.3	x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	ж ж ж					4.0 0.0 0.0 3.1 4.5 0.0 <b>22.</b> 5	КVА КVА КVА КVA КVA КVA КVA					

			CONTRACT NO. 14-FQ10060-CENI
	REFERENCE DRAWINGS	REVISIONS	WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY NEW ELECTRONIC PAY PROGRAM (NEF
DESIGNED C. NOO 09-14 DATE	NUMBER DESCRIPTION	DATE BY DESCRIPTION	IN METRORAL STATIONS
DRAWN C. NGO 09-14 DATE			
CHECKED B. DIBI 09-14 DATE			AND ENGINEERING SERVICES JOINT VENTURE PANEL SCHEDULES
APPROVED NA			SCALE DRAWING NO.
DATE			APPROVED

- . ALL WORK, MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE BEING USED BY THE LOCAL JURISDICTION AND SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- 2. MATERIALS AND EQUIPMENT SHALL BE NEW EXCEPT WHERE INDICATED OTHERWISE. ALL OTHER WIRING DEVICES, CONDUIT, WIRE, ETC. SHALL BE NEW UNLESS NOTED OTHERWISE.
- 3. ALL MATERIALS AND EQUIPMENT SHALL BEAR U.L. LISTING.
- 4. MAINTAIN GROUNDING CONTINUITY TO ALL DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 5. WORK NOT SPECIFICALLY SPECIFIED OR INDICATED SHALL CONFORM WITH SPECIFICATIONS.
- 6. ALL CONDUITS SHALL BE RUN CONCEALED IN UNDER FLOOR DUCT.
- 7. ALL WIRE AND CABLE SHALL BE COPPER HAVING 600 VOLTS XHHW-2 OR RHW-2 INSULATIONS. PROVIDE #12 WIRE MINIMUM, UNLESS OTHERWISE NOTED. ALL CABLES SHALL BE LOW SMOKE ZERO HALOGEN CABLE.
- 8. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE CONDITION OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS.
- 9. OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSPECTIONS, TESTS & OTHER SERVICES REQUIRED FOR THE COMPLETION OF THIS WORK.
- 10. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER THAT WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES WITH WMATA PROJECT MANAGER
- 11. IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES NECESSARY TO ACHIEVE THIS PRODUCT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS & SPECIFICATIONS THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF THE BID PRICE.
- 12. IF, DURING THE COURSE OF THE WORK, THE CONTRACTOR EXPERIENCES A CONFLICT RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC OR OTHER APPLICABLE CODES AND GOVERNING DOCUMENTS, HE SHALL NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO EXECUTION OF THIS WORK. ANY WORK INSTALLED IN VIOLATION OF THE CONTRACT DOCUMENT OR APPLICABLE CODES WHICH COULD HAVE BEEN AVOIDED BY CONTACTING THE ENGINEER SHALL BE RECTIFIED AT NO ADDITIONAL COST.
- 13. ELECTRICAL PLANS ARE DIAGRAMMATIC & INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS, ETC. MAINTAIN WORKING CLEARANCES.
- 14. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANEL AND SHALL BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS. PROVIDE TYPEWRITTEN PANELBOARD DIRECTORIES. BALANCE THE PHASE LOADS TO WITHIN 20 PERCENT OF EACH OTHER.

the

- 15. INCREASE ALL BRANCH CIRCUIT SIZE FROM THE PANEL TO THE THE HOMERUN EXCEEDS 100FT
- AFFECTING THE WORK PRIOR TO PROCEEDING.
- OR DEVICES SERVED BY THE CIRCUITS.
- MANAGER.
- COMPLETE WATER PROOF INSTALLATION.
- 22. FOR DEVICE IDENTIFICATION, THE ELECTRICAL CONTRACTOR SHALL JUNCTION BOX.
- INCLUDE THE FINAL ROOM OR AREA NUMBERS.
- WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- AFC".
- BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY.

			REFERENCE DRAWINGS		REVISIONS	WASHINGTON METROPOLITAI	N AREA TRANSIT ALITHORI
			NUMBER DESCRIPTION	DATE	TE BY DESCRIPTION		
		DATE 08-14				DEPARTMENT OF TRANSIT INFRASTRUCTURE	A Gannett Fleming/F
		DATE				AND ENGINEERING SERVICES	
	CHECKED B. IDILBI	08-14					
		DATE				OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM	
Dis projec	APPROVED <u>N/A</u>	DATE					SUBMITTED
ne anna ai						APPROVED	PROJECT MANAGER

Г	CONDUCTORS TO THE NEXT LARGER	
Ξ	FIRST OUTLET WHERE THE LENGTH OF	
T.	ON 120/208V CIRCUITS.	

16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.

17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES

18. ALL PANELS IMPACTED BY THIS PROJECT SHALL BE PROVIDED WITH NEW, UPDATED TYPEWRITTEN PANEL SCHEDULES (FOR NEW AND EXISTING CIRCUITS) INDICATING THE FINAL ROOM NUMBER AND THE EQUIPMENT

19. DEMOLITION OF EXISTING WORK SHALL BE PERFORMED AFTER HOURS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WMATA PROJECT MANAGER PRIOR TO PERFORMING ALL THE WORK. THE TIME OF DAY OR EVENING SHALL BE DESIGNATED BY THE WMATA PROJECT

20. ALL WIRING SHALL BE IN CONDUIT, MINIMUM SIZE 3/4 INCH WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL THREADED COUPLING FOR

21. AT JOB COMPLETION, AND BEFORE FINAL ACCEPTANCE BY WMATA, TEST EACH RECEPTACLE AND PANELBOARD FOR PROPER OPERATION. WIRING SHALL BE TESTED FOR CONTINUITY, SHORTS, ETC ... ALL WORK AREAS, ETC.. SHALL BE CLEANED AT THE COMPLETION OF THIS PROJECT.

LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE

23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO

24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY

26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13; WMATA SPECIFICATION SECTION 16120, 16130. AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH

MIN

MLO

MINIMUM

MAIN LUGS ONLY

27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR

28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.

### **ABBREVIATIONS**

A, AMP	AMPERES	NEC	NATIONAL ELECTRIC CODE
AC	ALTERNATING CURRENT	Ρ	POLE
AF	AMPERE FRAME	PH	PHASE
AFC	AUTOMATED FARE COLLECTION SYSTEM	PNL	PANELBOARD
AFF	ABOVE FINISHED FLOOR	PRI	PRIMARY
AIC	AMPERE INTERRUPTING CAPACITY	PROP	PROPOSED
AT	AMPERE TRIP	RGS	RIGID GALVANIZED STEEL
BKR	BREAKER	SEC	SECONDARY
С	CONDUIT	SHT	SHEET
CB	CIRCUIT BREAKER	SW	SWITCH
CCT	CIRCUIT	SWBD	SWITCHBOARD
Ç.	CENTER LINE	TYP	TYPICAL
L CLG	CEILING	U/G	UNDER GROUND
CONST	CONSTRUCTION	U.L.	UNDERWRITERS LABORATORI
		UON	UNLESS OTHERWISE NOTED
DISC	DISCONNECT	VOLT	VOLTAGE
E	ELECTRICAL	W	WATT
GND JB	GROUND JUNCTION BOX	WMATA	WASHINGTON METROPOLITIAN AREA TRANSIT AUTHORITY
KAIC	THOUSAND AMPERE	WP	WEATHERPROOF
KCMIL	THOUSAND CIRCULAR MILL		
KVA	KILOVOLT AMPERE		
MAX	MAXIMUM		
МСА	MINIMUM CIRCUIT AMPERE		
МСВ	MAIN CIRCUIT BREAKER		
MEZZ	MEZZANINE		

## DRAWING INDEX E01-E-001 ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST E01-E-101 MT VERNON SQUARE - MEZZANINE KIOSK - POWER

E01-E-102	MT VERNON SQUARE – PANEL SCHEDULE
E01-E-301	MT VERNON SQUARE – PANELBOARD IMAGE
MM-E-E06	MT VERNON SQUARE – AC POWER ONE LINE DIAGRAM

## ELECTRICAL SYMBOL LIST

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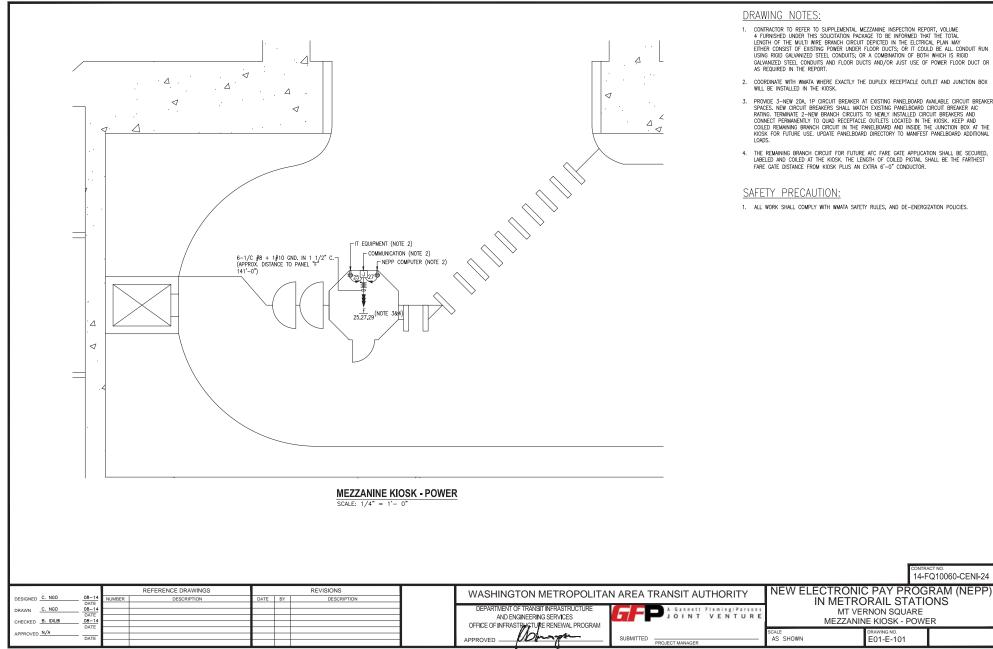
QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED. JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.

<u>EF</u> 3,5

111 #10-3/4 HOMERUN TO PANEL, NUMBER OF ARROWHEADS INDICATES NUMBER OF CIRCUITS. CROSS HATCHING INDICATES NUMBER OF CONDUCTORS, NUMBER INDICATES SIZE OF CONDUCTOR AND SIZE OF CONDUIT

- I INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD
- INDICATES CIRCUIT HOME RUN PANELBOARD AND CIRCUIT NUMBER IDENTIFICATION

ONTRACT NO. 14-FQ10060-CENI-24 NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS Parsons ABBREVIATIONS, DRAWING INDEX, URE **SPECIFICATIONS & SYMBOL LIST** DRAWING NO. SCALE NOT TO SCALE E01-E-001



- CONTRACTOR TO REFER TO SOFFEEMENTAL MEZZANING INSPECTION REFORM, VOLUME 4 FURNISHED UNDER THIS SOLUTIATION PRACMAGE TO BE INFORMED THAT THE TOTAL LENGTH OF THE MULTI WIRE BRANCH CIRCUIT DEPICTED IN THE ELCRIRCLA PLAN MAY EITHER CONSIST OF EXISTING POMER HURDER FLOOR DUCTS; OR IT COULD BE ALL COMDUIT RUN USING RIGID GALVANIZED STEEL CONDUITS; OR A COMBINATION OF BOTH WHICH IS RIGID GALVANIZED STEEL CONDUITS AND FLOOR DUCTS AND/OR JUST USE OF POWER FLOOR DUCT OR
- KIOSK FOR FUTURE USE. UPDATE PANELBOARD DIRECTORY TO MANIFEST PANELBOARD ADDITIONAL

			EXIS	5TIN	G P/	INE	- "F'	•			
AMPERES: 225	VOLT S:	120/208		MOUN	IOUNTING: SURFACE						
MAINS: 225A MCB	PHASE:	3		LOCA	DCATION: ELECTRICAL EQUIPMENT ROOM C207						
RATING: 10K AIC	WIRE:	4		SECT	ON: 1	OF 1					
		CKT E	BKRS	CKT.		CKT.	CKT	BKRS			
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION	
SPARE	0.0	20	1	1	Α	2	1	20	0.8	EXISTING VENDOR	
EXIST ING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR	
SPARE	0.0	20	1	5	C	6	1	20	0.8	EXIST ING VENDOR	
EXIST ING VENDOR	0.8	20	1	7	Α	8	1	20	0.8	EXIST ING VENDOR	
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR	
EXIST ING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXISTING VENDOR	
EXIST ING VENDOR	0.8	20	1	13	Α	14	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXIST ING VENDOR	
EXISTING VENDOR	0.8	20	1	17	C	18	1	20	0.0	SPARE	
EXISTING VENDOR	0.8	20	1	19	A	20	1	20	0.8	EXIST ING VENDOR	
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	20	0.8	EXIST ING VENDOR	
EXISTING VENDOR	0.8	20	1	23	C	24	1	20	0.8	EXIST ING VENDOR	
NEW KIOSK RECEPT. (IT/NCS)	0.8	20	1	25	Α	26	1	20	0.8	EXIST ING VENDOR	
NEW KIOSK RECEPT. (NEPP/SOC)	0.8	20	1	27	- B -	28	1	20	0.8	EXIST ING VENDOR	
FUTURE AFC FARE GATE	0.0	20	1	29	C	30	1	20	0.0	SPARE	
SPACE	0.0	20	1	31	Α	32	1	20	0.8	EXISTING VENDOR	
EXIST ING VENDOR	0.8	20	1	33	- B -	34	1	20	0.8	EXISTING VENDOR	
EXIST ING VENDOR	0.8	20	1	35	C	36	1	20	0.0	SPARE	
EXIST. KIOSK LOAD CENTER "KES"	3.3	40	3	37	Α	38	-	-	0.0	SPACE	
	2.5	-	-	39	- B -	40	-	-	0.0	SPACE	
	2.5	-	-	41	C	42	-	-	0.0	SPACE	
-	0.0	-	-	43	A	44		-	0.0	-	
			10		SUN	IMA	RY				
LIGHTS		0.0	) x 1259		001	11017-1			0.0	KVA	
RECEPTACLES, FIRST 10 KVA			x 1207								
				U							
RECEPTACLES 13.2 × 50%				6.6 KVA							
				,					0.0	1 K1/A	
MISC. APPLIANCES		0.0	x 100%							KVA	
MISC. APPLIANCES LARGEST MOTOR		0.0	) x 100% ) x 125%	6					0.0	KVA	
MISC. APPLIANCES LARGEST MOTOR MOTORS		0.0	) x 100% ) x 125% ) x 100%	6					0.0 0.0	i KVA I KVA	
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		0.0	) x 100% ) x 125% ) x 100% ) x 100%	6					0.0 0.0 3.8	i kva i kva i kva	
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		0.0 0.0 0.0 3.0 4.5	) x 1009 ) x 1259 ) x 1009 ) x 1259 ) x 1259 5 x 1009	6 6 6					0.0 0.0 3.8 4.5	i KVA I KVA I KVA I KVA	
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		0.0 0.0 0.0 3.0 4.5 0.0	x 100% x 125% x 100% x 125% x 125% x 100% x 125%	6 6 6					0.0 0.0 3.8 4.5	KVA KVA KVA KVA KVA	
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		0.0 0.0 0.0 3.0 4.5 0.0	) x 1009 ) x 1259 ) x 1009 ) x 1259 ) x 1259 5 x 1009	6 6 6			IAND K		0.0 0.0 3.8 4.5 0.0 <b>24.9</b>	КVА КVА КVА КVА КVА <b>КV</b> А	
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING	ARY	0.0 0.0 0.0 3.0 4.5 0.0	x 100% x 125% x 100% x 125% x 125% x 100% x 125%	6 6 6			IAND K		0.0 0.0 3.8 4.5 0.0 <b>24.9</b>	KVA KVA KVA KVA KVA	
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	ARY	0.0 0.0 0.0 3.0 4.5 0.0 30.7	x 100% x 125% x 100% x 125% x 125% x 100% x 125%	6 6 6					0.0 0.0 3.8 4.5 0.0 <b>24.9</b>	КVА КVА КVА КVА КVА <b>КV</b> А	
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM.	ARY	0.0 0.0 0.0 3.0 4.5 0.0 30.7	x 1009 x 1259 x 1009 x 1259 x 1259 x 1259 x 1009 x 1259 x 1259 x 1259	6 6 6					0.0 0.0 3.8 4.5 0.0 <b>24.9</b>	КVА КVА КVА КVА КVА <b>КV</b> А	

				FQ10060-CENI-24
	REFERENCE DRAWINGS	REVISIONS	WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY NEW ELECTRONIC PAY PROC	GRAM (NEPP)
DESIGNED C. NGO 08-14 DATE	NUMBER DESCRIPTION	DATE BY DESCRIPTION	- IN METRORAIL STAT	IONS ` Í
DRAWN C. NGO 08-14 DATE				
CHECKED B. IDILBI 08-14 DATE			AND ENGINEERING SERVICES DO IN T VENTURE PANEL SCHEDULE	
APPROVED N/A			SCALE DRAWING NO.	20
DATE			APPROVED	20
			r ·	

- ALL WORK, MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE LATEST NATIONAL ÉLECTRICAL CODE BEING USED BY THE LOCAL JURISDICTION AND SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- 2. MATERIALS AND EQUIPMENT SHALL BE NEW EXCEPT WHERE INDICATED OTHERWISE. ALL OTHER WIRING DEVICES, CONDUIT, WIRE, ETC. SHALL BE NEW UNLESS NOTED OTHERWISE.
- 3. ALL MATERIALS AND EQUIPMENT SHALL BEAR U.L. LISTING.
- 4. MAINTAIN GROUNDING CONTINUITY TO ALL DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 5. WORK NOT SPECIFICALLY SPECIFIED OR INDICATED SHALL CONFORM WITH SPECIFICATIONS.
- 6. ALL CONDUITS SHALL BE RUN CONCEALED IN UNDER FLOOR DUCT.
- 7. ALL WIRE AND CABLE SHALL BE COPPER HAVING 600 VOLTS XHHW-2 OR RHW-2 INSULATIONS. PROVIDE #12 WIRE MINIMUM, UNLESS OTHERWISE NOTED. ALL CABLES SHALL BE LOW SMOKE ZERO HALOGEN CABLE
- THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE CONDITION OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS.
- 9. OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSPECTIONS. TESTS & OTHER SERVICES REQUIRED FOR THE COMPLETION OF THIS WORK
- 10. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER THAT WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES WITH WMATA PROJECT MANAGER.
- . IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES NECESSARY TO ACHIEVE THIS PRODUCT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS & SPECIFICATIONS THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF THE BID PRICE.
- 12. IF, DURING THE COURSE OF THE WORK, THE CONTRACTOR EXPERIENCES A CONFLICT RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC OR OTHER APPLICABLE CODES AND GOVERNING DOCUMENTS, HE SHALL NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO EXECUTION OF THIS WORK. ANY WORK INSTALLED IN VIOLATION OF THE CONTRACT DOCUMENT OR APPLICABLE CODES WHICH COULD HAVE BEEN AVOIDED BY CONTACTING THE ENGINEER SHALL BE RECTIFIED AT NO ADDITIONAL COST
- 13. ELECTRICAL PLANS ARE DIAGRAMMATIC & INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS, ETC. MAINTAIN WORKING CLEARANCES.
- 14. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANEL AND SHALL BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS. PROVIDE TYPEWRITTEN PANELBOARD DIRECTORIES. BALANCE THE PHASE LOADS TO WITHIN 20 PERCENT OF EACH OTHER.

- 15. INCREASE ALL BRANCH CIRCUIT CONDUCTORS TO THE NEXT LARGER SIZE FROM THE PANEL TO THE FIRST OUTLET WHERE THE LENGTH OF THE HOMERUN EXCEEDS 100FT. ON 120/208V CIRCUITS.
- 16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.
- 17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES AFFECTING THE WORK PRIOR TO PROCEEDING.
- 18. ALL PANELS IMPACTED BY THIS PROJECT SHALL BE PROVIDED WITH NEW. UPDATED TYPEWRITEN PANEL SCHEDULES (FOR NEW AND EXISTING CIRCUITS) INDICATING THE FINAL ROOM NUMBER AND THE EQUIPMENT OR DEVICES SERVED BY THE CIRCUITS.
- 19. DEMOLITION OF EXISTING WORK SHALL BE PERFORMED AFTER HOURS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WMATA PROJECT MANAGER PRIOR TO PERFORMING ALL THE WORK. THE TIME OF DAY OR EVENING SHALL BE DESIGNATED BY THE WMATA PROJECT MANAGER.
- 20. ALL WIRING SHALL BE IN CONDUIT, MINIMUM SIZE 3/4 INCH WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL THREADED COUPLING FOR COMPLETE WATER PROOF INSTALLATION.
- 21. AT JOB COMPLETION, AND BEFORE FINAL ACCEPTANCE BY WMATA, TEST EACH RECEPTACLE AND PANELBOARD FOR PROPER OPERATION. WIRING SHALL BE TESTED FOR CONTINUITY, SHORTS, ETC... ALL WORK AREAS, ETC.. SHALL BE CLEANED AT THE COMPLETION OF THIS PROJECT.
- 22. FOR DEVICE IDENTIFICATION, THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC ... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE JUNCTION BOX.
- 23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO INCLUDE THE FINAL ROOM OR AREA NUMBERS.
- 24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- 26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13: WMATA SPECIFICATION SECTION 16120. 16130, AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- 27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR AFC".
- 28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY. CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.

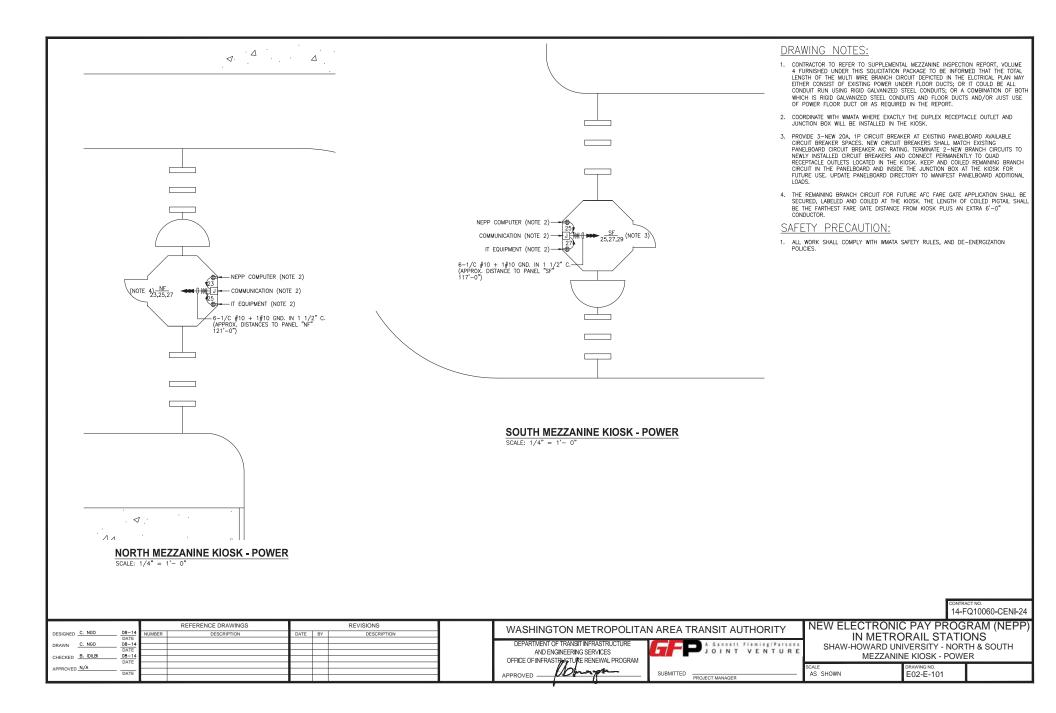
#### ABBREVIATIONS

A, AMP	AMPERES	NEC	NATIONAL ELECTRIC CODE	E
AC	ALTERNATING CURRENT	Ρ	POLE	E
AF	AMPERE FRAME	PH	PHASE	E
AFC	AUTOMATED FARE COLLECTION SYSTEM	PNL	PANELBOARD	E
AFF	ABOVE FINISHED FLOOR	PRI	PRIMARY	E
AIC	AMPERE INTERRUPTING CAPACITY	PROP	PROPOSED	N
AT	AMPERE TRIP	RGS	RIGID GALVANIZED STEEL	
BKR	BREAKER	SEC	SECONDARY	
с	CONDUIT	SHT	SHEET	
СВ	CIRCUIT BREAKER	SW	SWITCH	
ССТ	CIRCUIT	SWBD	SWITCHBOARD	
С.	CENTER LINE	TYP	TYPICAL	_
CLG	CEILING	U/G	UNDER GROUND	F
CONST	CONSTRUCTION	U.L.	UNDERWRITERS LABORATORIES	
DISC	DISCONNECT	UON	UNLESS OTHERWISE NOTED	
E	ELECTRICAL	VOLT	VOLTAGE	-
GND	GROUND	W	WATT	
JB	JUNCTION BOX	WMATA	WASHINGTON METROPOLITIAN AREA TRANSIT AUTHORITY	-
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY	WP	WEATHERPROOF	
KCMIL	THOUSAND CIRCULAR MILL			
KVA	KILOVOLT AMPERE			
MAX	MAXIMUM			
MCA	MINIMUM CIRCUIT AMPERE			
MCB	MAIN CIRCUIT BREAKER			
MEZZ	MEZZANINE			
MIN	MINIMUM			

MLO MAIN LUGS ONLY

			REFERENCE DRAWINGS			REVISIONS	WASHINGTON METROPOLITA	N AREA TRANSIT ALITHORITY
	DESIGNED C. NGO 08-14 DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION		NAREA TRANSIT AUTHORITT
	DRAWN C. NGO 08-14						DEPARTMENT OF TRANSIT INFRASTRUCTURE	A Gannett Fleming/Parson
	CHECKED B. IDILBI 08-14						AND ENGINEERING SERVICES	JOINT VENTUR
	APPROVED N/A						OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM	
853.	DATE						APPROVED	SUBMITTED
							APPROVED	PROJECT MANAGER

DRAWING INDEX	
E02-E-101 SHAW - NORTH & SOU E02-E-102 SHAW - NORTH & SOU	
ELECTRICAL SYMBO	l list
11	CLE OUTLET- 20A, 125V WALL MOUNTED.
	RFACE MOUNTED ON UNISTRUT CHANNEL
HOMERUN TO PANEL, NUMBER OF CIRCUITS S,5 AND SIZE OF CONDUI I - INDICATES G THE PANELBO	ROUNDING WIRE TO GROUNDING BUS AT DARD IRCUIT HOME RUN PANELBOARD AND
ABBREVIATIO	14-FQ10060-CENI-24 C PAY PROGRAM (NEPP) DRAIL STATIONS DNS, DRAWING INDEX, IONS & SYMBOL LIST
- NOT TO SCALE	DRAWING NO. E02-E-001



		E	XIS	TIN	G PA	NEL	"NF			
AMPERES: 400	VOLTS:	120/208		MOUN	TING:	SURF	ACE			
MAINS: 250AMCB	PHASE:	3		LOCA	TION:	ELECT	RICAL	EQUIPME	NT ROO	M 205
RATING: 10K AIC	WIRE:	4		SECT	ION: 1	OF 1				
	1	CKT	BKRS	CKT.		CKT.	CKT	BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTIO
EXIST ING VENDOR	0.8	20	1	1	A	2	1	20	0.8	EXIST ING VENDOR
EXISTING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR
SPARE	0.8	20	1	5	C	6	1	20	0.8	EXIST ING VENDOR
EXISTING VENDOR	0.8	20	1	7	A	8	1	20	0.8	EXIST ING VENDOR
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXIST ING VENDOR
EXISTING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXIST ING VENDOR
EXISTING VENDOR	0.8	20	1	13	A	14	1	20	0.8	EXIST ING VENDOR
SPARE	0.0	20	1	15	- B -	16	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	3.3	40	3	17	C	18	1	20	0.8	EXIST ING VENDOR
	2.5			19	A	20	1	20	0.8	EXIST ING VENDOR
	2.5			21	- B -	22	1	20	0.8	EXIST ING VENDOR
NEW KIOSK RECEPT. (IT/NCS)	0.8	•		23	C	24	1	20	0.8	EXIST ING VENDOR
NEW KIOSK RECEPT. (NEPP/SOC)	0.8	•		25	A	26			0.0	SPACE
FUTURE AFC FARE GATE	0.0	-	-	27	- B -	28			0.0	SPACE
SPACE	0.0	-	1	29	C	30	-	12	0.0	SPACE
SPACE	0.0			31	A	32	1	- 22	0.0	SPACE
SPACE	0.0			33	- B -	34		- 24	0.0	SPACE
SPACE	0.0			35	C	36	1.0		0.0	SPACE
SPACE	0.0			37	A	38		1.0	0.0	SPACE
SPACE	0.0			- 39	- B -	40	-		0.0	SPACE
SPACE	0.0	· •		41	C	42			0.0	SPACE
					0.11		DV			
					SUN	IMA	RY			
		0.0	) x 1259							) KVA
LIGHTS		_							10.0	) KVA
			x 1009							
RECEPTACLES, FIRST 10 KVA			x 1009						3.0	) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES		6.0								) KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES		6.0	x 50%	6					0.0	
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLANCES LARGEST MOTOR MOTORS		6.0 0.0 0.0	x 50%	% %					0.0	) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC: APPLIANCES LARGEST MOTOR		6.0 0.0 0.0	x 50%	% %					0.0	) KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		6.0 0.0 0.0 3.0	x 50% x 1009 x 1259 x 1259 x 1009	% % %					0.0 0.0 0.0 3.8	d kva d kva d kva
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		6.0 0.0 0.0 3.0 4.5	x 50% x 1009 x 1259 x 1259 x 1009 x 1259	б Ка Ка Ка					0.0 0.0 3.8 4.5	0 KVA 0 KVA 0 KVA 3 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		6.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1009	б Ка Ка Ка	тот	AL DEF	AND K	VA	0.0 0.0 3.8 4.9	0 KVA 0 KVA 0 KVA 8 KVA 5 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		6.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1259	б Ка Ка Ка			IAND K		0.0 0.0 3.8 4.5 0.0 <b>21.</b> 3	D KVA D KVA D KVA 3 KVA 5 KVA D KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING	ARY	6.0 0.0 0.0 3.0 4.5 0.0	x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1259	б Ка Ка Ка					0.0 0.0 3.8 4.5 0.0 <b>21.</b> 3	D KVA D KVA B KVA 5 KVA D KVA <b>3 KVA</b>
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	ARY	6.0 0.0 3.0 4.5 0.0 23.5	x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1009 x 1259 x 1259 x 1259	б Ка Ка Ка					0.0 0.0 3.8 4.5 0.0 <b>21.</b> 3	D KVA D KVA B KVA 5 KVA D KVA <b>3 KVA</b>
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM	ARY	6.0 0.0 0.0 3.0 4.5 0.0 23.5 8.5	) x 50% x 1009 x 1259 x 1259	б Ка Ка Ка					0.0 0.0 3.8 4.5 0.0 <b>21.</b> 3	0 KVA 0 KVA 3 KVA 5 KVA 0 KVA <b>3 KVA</b>

AMPERES: 400	VOLTS:	120/208		MOUN	TING:	SURFA	ACE .				
MAINS: 250AMCB	PHASE:	3		LOCA	CATION: ELECTRICAL EQUIPMENT ROOM 208						
RATING: 10K AIC	WRE: 4		SECT	ECTION: 1 OF 1							
		CKT	BKRS	CKT.		CKT.	CKT	BKRS			
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION	
EXISTING VENDOR	0.8	20	1	1	A	2	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	5	C	6	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	7	A	8	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXISTING VENDOR	
EXIST ING VENDOR	0.8	20	1	13	A	14	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	17	C	18	1	20	0.8	EXISTING VENDOR	
EXIST. LOAD CENTER "KES"	3.3	40	3	19	A	20	1	20	0.8	EXISTING VENDOR	
	2.5			21	- B -	22	1	20	0.8	EXISTING VENDOR	
	2.5			23	C	24	1	20	0.8	EXISTING VENDOR	
NEW KIOSK RECEPT. (IT/NCS)	0.8	20	1	25	A	26	-	-	0.0	SPACE	
NEW KIOSK RECEPT. (NEPP/SOC)	0.8	20	1	27	- B -	28	-	-	0.0	SPACE	
FUTURE AFC FARE GATE	0.0	-		29	C	30		÷	0.0	SPACE	
SPACE	0.0	-		31	A	32	1		0.0	SPACE	
SPACE	0.0			33	- B -	34	-		0.0	SPACE	
SPACE	0.0			35	C	36	•		0.0	SPACE	
SPACE	0.0			37	A	38	-		0.0	SPACE	
SPACE	0.0			39	- B -	40		-	0.0	SPACE	
SPACE	0.0			41	C	42			0.0	SPACE	
			-			22.272					
			LC	DAD	SUN	IMA	RY				
LIGHTS		0.0	LC x 1259		SUN	IMA	RY		0.0	KVA	
				6	SUN	IMA	RY			) KVA ) KVA	
RECEPTACLES, FIRST 10 KVA		10.0	x 1259	6	SUN	IMA	RY		10.0		
RECEPTACLES, FIRST 10 KVA RECEPTACLES		10.0	x 1259	6	SUN	IMA	RY		10.0	KVA.	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES		10.0 8.4 0.0	x 1259 x 1009 x 50%	6	SUN	IMA	RY		10.0 4.2 0.0	) KVA 2 KVA	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR		10.0 8.4 0.0 0.0	x 1259 x 1009 x 50% x 1009	6	SUN	IMA	RY		10.0 4.2 0.0	9 KVA 2 KVA 9 KVA	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		10.0 8.4 0.0 0.0	x 1259 x 1009 x 50% x 1009 x 1009 x 1259	6 6 6 6	SUN	IMA	RY		10.0 4.1 0.0 0.0	9 KVA 9 KVA 9 KVA 9 KVA	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		10.0 8.4 0.0 0.0 0.0 3.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1259	6 6 6 6	SUN	IMA	RY		10.0 4.2 0.0 0.0 0.0 3.8	8 KVA 2 KVA 2 KVA 2 KVA 3 KVA	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLANCES LARGEST MOTOR MOTORS HEAT AC		10.0 8.4 0.0 0.0 0.0 3.0 4.5	) x 1259 ) x 1009 ) x 50% ) x 1009 ) x 1259 ) x 1259 ) x 1009 ) x 1259 5 x 1009	6 6 6 6 6	SUN	IMA	RY		10.0 4.1 0.0 0.0 0.0 3.8 4.5	2 KVA 2 KVA 3 KVA 3 KVA 3 KVA 3 KVA	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		10.0 8.4 0.0 0.0 0.0 3.0 4.5 0.0	) x 1259 ) x 1009 ) x 50% ) x 1009 ) x 1259 ) x 1259 ) x 1259 5 x 1009 ) x 1259	6 6 6 6 6					10.0 42 0.0 0.0 3.8 4.5 0.0	КVА КVА КVА КVА КVА КVA КVA	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		10.0 8.4 0.0 0.0 0.0 3.0 4.5 0.0	) x 1259 ) x 1009 ) x 50% ) x 1009 ) x 1259 ) x 1259 ) x 1009 ) x 1259 5 x 1009	6 6 6 6 6	тот,	AL DEN	IAND K		10.0 4.2 0.0 0.0 3.8 4.5 0.0 22.5	к VA КVA КVA КVA КVA КVA КVA КVA КVA	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	ARY	10.0 8.4 0.0 0.0 0.0 3.0 4.5 0.0	) x 1259 ) x 1009 ) x 50% ) x 1009 ) x 1259 ) x 1259 ) x 1259 5 x 1009 ) x 1259	6 6 6 6 6	тот,	AL DEN			10.0 4.2 0.0 0.0 3.8 4.5 0.0 22.5	КVА КVА КVА КVА КVА КVA КVA	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM	ARY	10.0 8.4 0.0 0.0 3.0 4.5 0.0 <b>25.9</b>	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259	6 6 6 6 6	тот,	AL DEN	IAND K		10.0 4.2 0.0 0.0 3.8 4.5 0.0 22.5	к VA КVA КVA КVA КVA КVA КVA КVA КVA	
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM PHASE A PHASE B:	ARY	10.0 8.4 0.0 0.0 3.0 3.0 25.9 9.7	) x 1259 ) x 1009 ) x 50% ) x 1009 ) x 1259 ) x 1259 ) x 1259 5 x 1009 ) x 1259	6 6 6 6 6	тот,	AL DEN	IAND K		10.0 4.2 0.0 0.0 3.8 4.5 0.0 22.5	к VA КVA КVA КVA КVA КVA КVA КVA КVA	

								NTRACT NO. 4-FQ10060-CENI-24
0.100			REFERENCE DRAWINGS			REVISIONS	WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY NEW ELECTRONIC PAY PRO	
DESIGNED C. NGO	- 08-14 DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	IN METRORAIL STA	TIONS
DRAWN C. NGO	08-14 DATE						DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES SHAW-HOWARD UNIVERSITY - NO	
CHECKED B. IDILBI	08-14 DATE							6
APPROVED N/A	DATE						SCALE DRAWING NO.	
							APPROVED	

- . ALL WORK, MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE BEING USED BY THE LOCAL JURISDICTION AND SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- 2. MATERIALS AND EQUIPMENT SHALL BE NEW EXCEPT WHERE INDICATED OTHERWISE. ALL OTHER WIRING DEVICES, CONDUIT, WIRE, ETC. SHALL BE NEW UNLESS NOTED OTHERWISE.
- 3. ALL MATERIALS AND EQUIPMENT SHALL BEAR U.L. LISTING.
- 4. MAINTAIN GROUNDING CONTINUITY TO ALL DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 5. WORK NOT SPECIFICALLY SPECIFIED OR INDICATED SHALL CONFORM WITH SPECIFICATIONS.
- 6. ALL CONDUITS SHALL BE RUN CONCEALED IN UNDER FLOOR DUCT.
- 7. ALL WIRE AND CABLE SHALL BE COPPER HAVING 600 VOLTS XHHW-2 OR RHW-2 INSULATIONS. PROVIDE #12 WIRE MINIMUM, UNLESS OTHERWISE NOTED. ALL CABLES SHALL BE LOW SMOKE ZERO HALOGEN CABLE.
- 8. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE CONDITION OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS.
- 9. OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSPECTIONS, TESTS & OTHER SERVICES REQUIRED FOR THE COMPLETION OF THIS WORK.
- 10. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER THAT WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES WITH WMATA PROJECT MANAGER
- 11. IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES NECESSARY TO ACHIEVE THIS PRODUCT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS & SPECIFICATIONS THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF THE BID PRICE.
- 12. IF, DURING THE COURSE OF THE WORK, THE CONTRACTOR EXPERIENCES A CONFLICT RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC OR OTHER APPLICABLE CODES AND GOVERNING DOCUMENTS, HE SHALL NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO EXECUTION OF THIS WORK. ANY WORK INSTALLED IN VIOLATION OF THE CONTRACT DOCUMENT OR APPLICABLE CODES WHICH COULD HAVE BEEN AVOIDED BY CONTACTING THE ENGINEER SHALL BE RECTIFIED AT NO ADDITIONAL COST.
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- 15. INCREASE ALL BRANCH CIRCUIT SIZE FROM THE PANEL TO THE THE HOMERUN EXCEEDS 100FT
- AFFECTING THE WORK PRIOR TO PROCEEDING.
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- MANAGER.
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- 22. FOR DEVICE IDENTIFICATION. THE ELECTRICAL CONTRACTOR SHALL JUNCTION BOX.
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- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
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DESIGNED C. NGO 08-14 DATE DESCRIPTION DATE BY DESCRIPTION	
DEPARTMENT OF TRANSIT INFRASTRUCTUR	
AND ENGINEERING SERVICES	JOINT VENT
	AM
APPROVED	SUBMITTED PROJECT MANAGER



Γ	CONDU	JCTORS	ΤO	THE	NEX <sup>-</sup>	Γ LARGER	
Ξ	FIRST	OUTLET	W⊢	IERE	THE	LENGTH OF	
T.	ON 1	20/208	V C	IRCU	TS.		

16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.

17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES

18. ALL PANELS IMPACTED BY THIS PROJECT SHALL BE PROVIDED WITH NEW, UPDATED TYPEWRITTEN PANEL SCHEDULES (FOR NEW AND EXISTING CIRCUITS) INDICATING THE FINAL ROOM NUMBER AND THE EQUIPMENT

19. DEMOLITION OF EXISTING WORK SHALL BE PERFORMED AFTER HOURS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WMATA PROJECT MANAGER PRIOR TO PERFORMING ALL THE WORK. THE TIME OF DAY OR EVENING SHALL BE DESIGNATED BY THE WMATA PROJECT

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21. AT JOB COMPLETION, AND BEFORE FINAL ACCEPTANCE BY WMATA, TEST EACH RECEPTACLE AND PANELBOARD FOR PROPER OPERATION. WIRING SHALL BE TESTED FOR CONTINUITY, SHORTS, ETC... ALL WORK AREAS, ETC., SHALL BE CLEANED AT THE COMPLETION OF THIS PROJECT.

LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE

23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO

24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY

26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13: WMATA SPECIFICATION SECTION 16120. 16130, AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH

27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR

28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.

### ABBREVIATIONS

MINIMUM

MLO MAIN LUGS ONLY

MIN

A, AMP	AMPERES	NEC	NATIONAL ELECTRIC CODE
AC	ALTERNATING CURRENT	Ρ	POLE
AF	AMPERE FRAME	PH	PHASE
AFC	AUTOMATED FARE COLLECTION SYSTEM	PNL	PANELBOARD
AFF	ABOVE FINISHED FLOOR	PRI	PRIMARY
AIC	AMPERE INTERRUPTING CAPACITY	PROP	PROPOSED
AT	AMPERE TRIP	RGS	RIGID GALVANIZED STEEL
BKR	BREAKER	SEC	SECONDARY
C	CONDUIT	SHT	SHEET
CB	CIRCUIT BREAKER	SW	SWITCH
ССТ	CIRCUIT	SWBD	SWITCHBOARD
	CENTER LINE	TYP	TYPICAL
€ CLG	CEILING	U/G	UNDER GROUND
CONST		U.L.	UNDERWRITERS LABORATORI
	CONSTRUCTION	UON	UNLESS OTHERWISE NOTED
DISC	DISCONNECT	VOLT	VOLTAGE
E	ELECTRICAL	W	WATT
GND	GROUND	WMATA	WASHINGTON METROPOLITIAN
JB	JUNCTION BOX		AREA TRANSIT AUTHORITY
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY	WP	WEATHERPROOF
KCMIL	THOUSAND CIRCULAR MILL		
KVA	KILOVOLT AMPERE		
MAX	MAXIMUM		
MCA	MINIMUM CIRCUIT AMPERE		
МСВ	MAIN CIRCUIT BREAKER		
MEZZ	MEZZANINE		
MINI			

# DRAWING INDEX

E03-E-001	ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST
E03-E-101	U STREET – EAST & WEST – MEZZANINE KIOSK – POWER
E03-E-102	U STREET – EAST & WEST – PANEL SCHEDULES
E03-E-301	U STREET – EAST & WEST – PANELBOARD IMAGE
E03-E-302	U STREET – EAST & WEST – PANELBOARD IMAGE
MM-E-E10	U STREET – AC POWER ONE LINE DIAGRAM

## ELECTRICAL SYMBOL LIST

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J

JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.

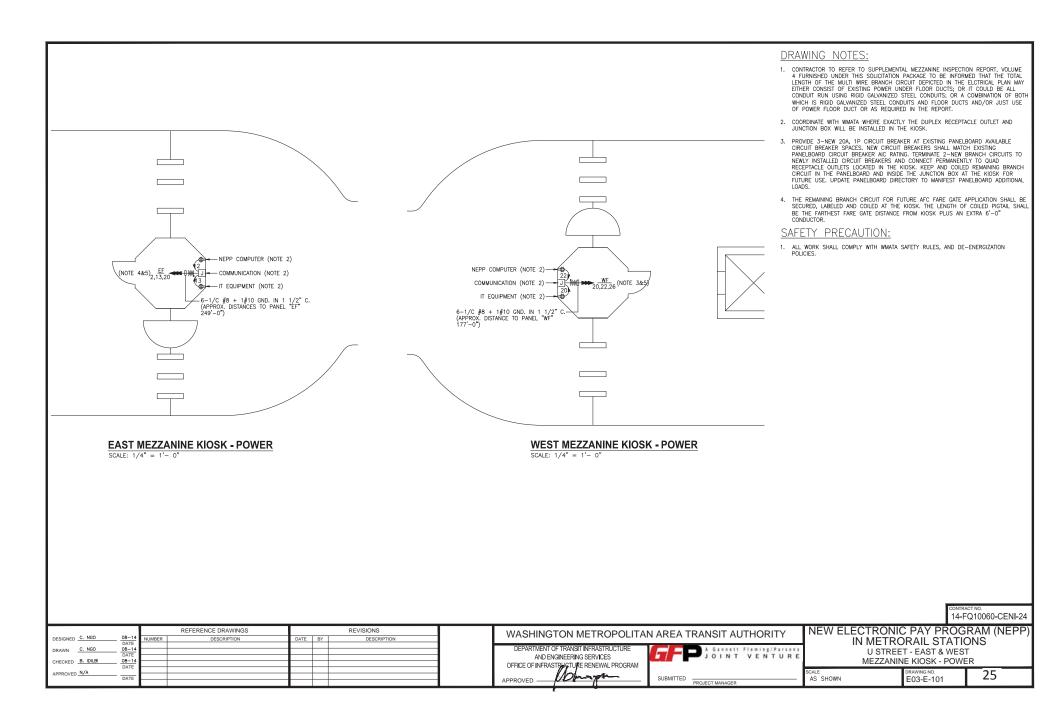
QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED.

<u>EF</u> 3,5

111 #10-3/4 HOMERUN TO PANEL, NUMBER OF ARROWHEADS INDICATES NUMBER OF CIRCUITS. CROSS HATCHING INDICATES NUMBER OF CONDUCTORS, NUMBER INDICATES SIZE OF CONDUCTOR AND SIZE OF CONDUIT

- 1 INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD
- INDICATES CIRCUIT HOME RUN PANELBOARD AND 1.3 CIRCUIT NUMBER IDENTIFICATION

ONTRACT NO. 14-FQ10060-CENI-24 NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS arsons ABBREVIATIONS, DRAWING INDEX, URE **SPECIFICATIONS & SYMBOL LIST** DRAWING NO. SCALE NOT TO SCALE E03-E-001



		E	EXIS	TIN	G PA	NEL	. "EF			
AMPERES: 400	VOLT S:	120/208		MOUN	TING:	SURF/	ACE			
MAINS: 250A MCB	PHASE:	3		LOCA	TION:	ELECT	RICAL	EQUIPME	NT ROO	M 213
RATING: 10K AIC	WIRE:	4		SECT	ION: 1	OF 1				
		CKT E	SKRS	CKT.		CKT.	CKT	BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE			NO.	POLE	AMP	KVA	LOAD DESCRIPTION
EXISTING VENDOR	0.8	20	1	1	A	2	1	20	0.8	NEW KIOSK RECEPT. (NEPF
EXISTING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20		5	C	6	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20		7	A	8	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	11	C	10	1	20	0.8	EXISTING VENDOR
NEW KIOSK RECEPT. (IT/NCS)	0.8	20	1	13	A	12	1	20	0.8	EXISTING VENDOR
EXISTING LOAD CENTER "KES"	3.3	40	3	13	- B -	14	1	20	0.8	EXISTING VENDOR
LAISTING LOAD GENTER NES	2.5	40	-	15	- в - С	18	1	20	0.8	EXISTING VENDOR
	2.5	•		17	C A	20	1	20	0.0	FUTURE AFC FARE GATE
EVICTING VENDOR	0.0	- 20		21	A	20		20	0.0	EXISTING VENDOR
EXISTING VENDOR EXISTING VENDOR		20	1			22	1		0.8	EXISTING VENDOR
EXISTING VENDOR SPACE	0.0		1	23	C		1	20		SPACE
	0.0	-	· ·	25	A	26	1	20	0.0	
SPACE	0.0	-	· ·		- B -	28	1		0.0	SPACE
SPACE	0.0	•	·	29	C	30	1	20	0.0	SPACE
SPACE	0.0	-	•	31	A	32	1	20	0.0	SPACE
SPACE	0.0	-		33	- B -	34	1	20	0.0	SPACE
SPACE	0.0	-		35	C	36	1	20	0.0	SPACE
SPACE	0.0		•	37	A	38	1	20	0.0	SPACE
SPACE	0.0		•	39	- B -	40	1	20	0.0	SPACE
SPACE	0.0	-	-	41 43	C A	42	1	20 20	0.0	SPACE
					SUN	A. A. A.				
					201	IMA	Rĭ			
LIGHTS			) x 125%							) KVA
RECEPTACLES, FIRST 10 KVA			x 1009						10.0	) KVA
RECEPTACLES		4.4	x 50%						2.2	2 KVA
MISC. APPLIANCES		0.0	x 100%	6					0.0	) KVA
LARGEST MOTOR		0.0	x 125%	6					0.0	) KVA
MOTORS		0.0	x 1009	6					0.0	) KVA
HEAT		3.0	x 1259	6					3.8	3 KVA
AC			x 1009							5 KVA
WATER HEATING			x 125%							) KVA
TOTAL CONNECTED LOAD			KVA	~	тот		IAND K	V۵		KVA
		21.5					IAND A			AMPS
CONNECTED LOAD PHASE SUM	WART									
PHASE A:			KVA							
		8.1	KVA							
PHASE B: PHASE C:			KVA							

		E	XIS	IINC	G PAI	NEL	"Wł	-"		
AMPERES: 400	VOLT S:	120/208		MOUN	NT ING:	SURF/	ACE			
MAINS: 250A MCB	PHASE:			LOCA			RICAL	EQUIPME	INT ROO	M 212
RATING: 10K AIC	WIRE:	4		SECT	ION: 1	OF 1				
		CKT E	KRS	CKT.		CKT.	CKT	BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION
EXIST ING VENDOR	0.8	20	1	1	A	2	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	5	C	6	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	7	Α	8	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXIST ING VENDOR
SPARE	0.0	20	1	13	A	14	1	20	0.0	SPARE
EXIST ING LOAD CENTER "KES"	3.3	40	3	15	- B -	16	1	20	0.8	EXIST ING VENDOR
	2.5		-	17	C	18	1	20	0.8	EXISTING VENDOR
	2.5	-	-	19	A	20	1	20	0.8	NEW KIOSK RECEPT. (IT & NEPP)
EXIST ING VENDOR	0.8	20	1	21	- B -	22	1	20	0.8	NEW KIOSK RECEPT. (IT & NEPP)
EXIST ING VENDOR	0.8	20	1	23	C	24	1	20	0.8	EXISTING VENDOR
SPACE	0.0	-	-	25	A	26		-	0.0	SPARE (KIOSK)
SPACE	0.0	-	-	27	- B -	28		-	0.0	SPACE
SPACE	0.0	-	-	29	C	30		-	0.0	SPACE
SPACE	0.0	-	-	31	A	32		-	0.0	SPACE
SPACE	0.0	-	-	33	- B -	34			0.0	SPACE
SPACE	0.0	-	-	35	C	36	· ·		0.0	SPACE
SPACE	0.0	-	-	37	A	38			0.0	SPACE
SPACE	0.0	-	-	39	- B -	40		-	0.0	SPACE
SPACE	0.0	-	-	41	C	42			0.0	SPACE
					SUN	11/1 /				
					201	IIVIA	R I			
LIGHTS			x 125%	-						KVA
RECEPTACLES, FIRST 10 KVA			x 100%	6						KVA
RECEPTACLES			x 50%						2.2	: KVA
MISC. APPLIANCES		0.0	x 100%	6					0.0	KVA
										i KVA i KVA
LARGEST MOTOR		0.0	x 100%	6					0.0	
LARGEST MOTOR MOTORS		0.0	x 100%	6					0.0 0.0	KVA
LARGEST MOTOR MOTORS HEAT		0.0	x 1009 x 1259 x 1009	6 6 6					0.0 0.0 3.8	i Kva
LARGEST MOTOR MOTORS HEAT AC		0.0 0.0 3.0 4.5	x 100% x 125% x 100% x 125%	6 6 6					0.0 0.0 3.8 4.5	i KVA I KVA I KVA
LARGEST MOTOR MOTORS HEAT AC WATER HEATING		0.0 0.0 3.0 4.5 0.0	x 1009 x 1259 x 1009 x 1259 x 1259 x 1009	6 6 6	тоти	AL DEN	IAND K	VA	0.0 0.0 3.8 4.5	KVA KVA KVA KVA
LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD		0.0 0.0 3.0 4.5 0.0	x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1259	6 6 6			IAND K		0.0 0.0 3.8 4.5 0.0 <b>20.5</b>	КVА КVА КVА КVА КVА
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM	MARY	0.0 0.0 3.0 4.5 0.0 <b>21.9</b>	x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 KVA	6 6 6					0.0 0.0 3.8 4.5 0.0 <b>20.5</b>	КVА КVА КVA КVA КVA КVA
LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM PHASE A:	MARY	0.0 0.0 3.0 4.5 0.0 21.9 5.7	x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 KVA KVA	6 6 6					0.0 0.0 3.8 4.5 0.0 <b>20.5</b>	КVА КVА КVA КVA КVA КVA
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DRAWN C. NOO 08-14 DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES DEPARTMENT OF TRANSIT INFRASTRUCTURE DATE OF THE DATE OF			WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY NEW ELECTRONIC PAY PROGRA	AM (NEPP)
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APPROVED N/A DATE	APPROVED N/A		SUBMITTED SCALE DRAWING MO.	

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	DESIGNED <u>C. NGO</u> <u>08–14</u> DATE	NUMBER DESCRIPTION	DATE	BY	DESCRIPTION		NAREA IRANSII AUTIORI
	DRAWN <u>C. NGO</u> DRAWN <u>C. NGO</u> <u>08–14</u> DATE CHECKED <u>B. IDILBI</u> <u>08–14</u> DATE					DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM	A Gannett Fleming/P JOINT VENT
ik projec biost d bios la 0	APPROVED <u>N/A</u> DATE					APPROVED	SUBMITTED

Г	CONDUCTORS TO THE NEXT LARGER	
Ξ	FIRST OUTLET WHERE THE LENGTH OF	
T.	ON 120/208V CIRCUITS.	

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LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE

23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO

24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY

26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13; WMATA SPECIFICATION SECTION 16120, 16130. AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH

MIN

MLO

MINIMUM

MAIN LUGS ONLY

27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR

28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.

### **ABBREVIATIONS**

A, AMP	AMPERES	NEC	NATIONAL ELECTRIC CODE
AC	ALTERNATING CURRENT	Ρ	POLE
AF	AMPERE FRAME	PH	PHASE
AFC	AUTOMATED FARE COLLECTION SYSTEM	PNL	PANELBOARD
AFF	ABOVE FINISHED FLOOR	PRI	PRIMARY
AIC	AMPERE INTERRUPTING CAPACITY	PROP	PROPOSED
AT	AMPERE TRIP	RGS	RIGID GALVANIZED STEEL
BKR	BREAKER	SEC	SECONDARY
С	CONDUIT	SHT	SHEET
CB	CIRCUIT BREAKER	SW	SWITCH
CCT	CIRCUIT	SWBD	SWITCHBOARD
Ç.	CENTER LINE	TYP	TYPICAL
L CLG	CEILING	U/G	UNDER GROUND
CONST	CONSTRUCTION	U.L.	UNDERWRITERS LABORATORI
		UON	UNLESS OTHERWISE NOTED
DISC	DISCONNECT	VOLT	VOLTAGE
E	ELECTRICAL	W	WATT
GND JB	GROUND JUNCTION BOX	WMATA	WASHINGTON METROPOLITIAN AREA TRANSIT AUTHORITY
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY	WP	WEATHERPROOF
KCMIL	THOUSAND CIRCULAR MILL		
KVA	KILOVOLT AMPERE		
MAX	MAXIMUM		
МСА	MINIMUM CIRCUIT AMPERE		
МСВ	MAIN CIRCUIT BREAKER		
MEZZ	MEZZANINE		

## DRAWING INDEX E05-E-001 ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST E05-E-101 GEORGIA AVENUE - MEZZANINE KIOSK - POWER E05-E-102 GEORGIA AVENUE - PANEL SCHEDULE E05-E-301 GEORGIA AVENUE - PANELBOARD IMAGE

MM-E-E18 GEORGIA AVENUE - AC POWER ONE LINE DIAGRAM

## ELECTRICAL SYMBOL LIST

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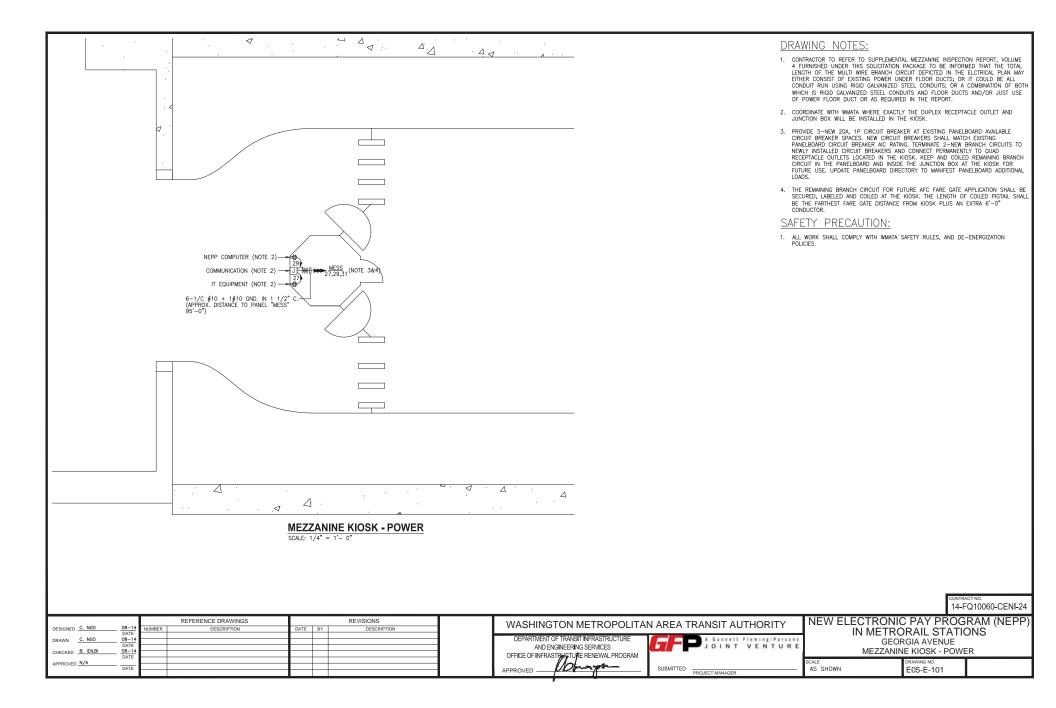
QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED. JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.

<u>EF</u> 3,5

111 #10-3/4 HOMERUN TO PANEL, NUMBER OF ARROWHEADS INDICATES NUMBER OF CIRCUITS. CROSS HATCHING INDICATES NUMBER OF CONDUCTORS, NUMBER INDICATES SIZE OF CONDUCTOR AND SIZE OF CONDUIT

- 1 INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD
- INDICATES CIRCUIT HOME RUN PANELBOARD AND CIRCUIT NUMBER IDENTIFICATION

ONTRACT NO. 14-FQ10060-CENI-24 NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS Parsons ABBREVIATIONS, DRAWING INDEX, URE **SPECIFICATIONS & SYMBOL LIST** DRAWING NO. SCALE NOT TO SCALE E05-E-001



AMPERES: 225	VOLT S:	120/208		MOUN	NT ING:	SURF/	ACE					
MAINS: 225 MCB	PHASE:	3		LOCA	LOCATION: ELECTRICAL ROOM C213							
RATING: 10K AIC	WIRE:	4		SECT	ION: 1	OF 1						
	1	CKT E	KRS	СКТ.		CKT.	СКТ	BKRS				
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION		
EXISTING VENDOR	0.8	20	1	1	A	2	1	20	0.0	SPARE		
EXISTING VENDOR	0.8	20	1	3	- B -	4	1	20	0.0	SPARE		
EXISTING VENDOR	0.8	20	1	5	C	6	1	20	0.8	EXISTING VENDOR		
EXISTING VENDOR	0.8	20	1	7	A	8	1	20	0.8	EXISTING VENDOR		
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR		
EXISTING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXISTING VENDOR		
EXISTING VENDOR	0.8	20	1	13	A	14	1	20	0.8	EXISTING VENDOR		
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR		
EXISTING VENDOR	0.8	20	1	17	C	18	1	20	0.8	EXISTING VENDOR		
EXISTING VENDOR	0.8	20	1	19	A	20	1	20	0.8	EXISTING VENDOR		
EXISTING VENDOR	0.8	20	1	21	- B -	20	1	20	0.8	EXISTING VENDOR		
EXISTING VENDOR	0.8	20	1	23	C	24	1	20	0.8	EXISTING VENDOR		
EXISTING VENDOR	0.8	20	1	25	A	24	1	20	0.0	SPARE		
NEW KIOSK RECEPT. (IT/NCS)	0.0	20	1	27	- B -	20	1	20	0.0	SPARE		
NEW KIOSK RECEPT. (NEPP/SOC)	0.0	20	1	29	C	30	1	20	0.0	SPARE		
FUTURE AFC FARE GATE	0.0	20	1	31	A	32	1	20	0.0	SPARE		
SPARE	0.0	20	1	33	- B -	34	1	20	0.0	SPARE		
SPARE	0.0	20	1	35	C	36	1	20	0.0	SPARE		
SPARE	0.0	20	3	37	A	38	3	100	3.3	EXIST, KIOSK LOAD CENTER "KES		
GIALE	0.0		-	39	- B -	40	-	-	2.5	EXIST: NOUVED DE VERTER NEG		
	0.0			41	C	42			2.5			
			10		SUM	11.1.0						
					SUN	1MA	RY					
LIGHTS			x 125%	6	SUN	1MA	RY			KVA		
RECEPT ACLES, FIRST 10 KVA		10.0	x 125% x 100%	6	SUN	1MA	RY		10.0	KVA		
RECEPTACLES, FIRST 10 KVA RECEPTACLES		10.0	x 125% x 100% x 50%	6	SUN	1MA	RY		10.0 5.0	i Kva		
RECEPT ACLES, FIRST 10 KVA		10.0 10.0 0.0	x 125% x 100% x 50% x 100%	6 6 6	SUN	<u>1MA</u>	RY		10.0 5.0	KVA		
RECEPTACLES, FIRST 10 KVA RECEPTACLES		10.0 10.0 0.0	x 125% x 100% x 50%	6 6 6	SUM	<u>IMA</u>	RY		10.0 5.0 0.0	i Kva		
RECEPT ACLES, FIRST 10 KVA RECEPT ACLES MISC. APPLIANCES		10.0 10.0 0.0 0.0	x 125% x 100% x 50% x 100%	6 6 6 6	SUN	<u>IMA</u>	RY		10.0 5.0 0.0 0.0	i KVA I KVA I KVA		
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR		10.0 10.0 0.0 0.0 0.0	x 125% x 100% x 50% x 100% x 125%	6 6 6 6	SUM	<u>1MA</u>	RY		10.0 5.0 0.0 0.0	KVA KVA KVA KVA		
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		10.0 10.0 0.0 0.0 0.0 3.0	x 125% x 100% x 50% x 100% x 125% x 100%	6 6 6 6 6	SUM	<u>IMA</u>	RY		10.0 5.0 0.0 0.0 0.0 3.8	KVA KVA KVA KVA		
RECEPT ACLES, FIRST 10 KVA RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		10.0 10.0 0.0 0.0 0.0 3.0 4.5	x 125% x 100% x 50% x 100% x 125% x 100% x 125%	6 6 6 6 6 6	SUM	<u>1MA</u>	RY		10.0 5.0 0.0 0.0 3.8 4.5	KVA KVA KVA KVA KVA		
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		10.0 10.0 0.0 0.0 0.0 3.0 4.5 0.0	x 125% x 100% x 50% x 100% x 125% x 100% x 125% x 100%	6 6 6 6 6 6	тотл	AL DEN			10.0 5.0 0.0 0.0 3.8 4.5 0.0 <b>23.</b> 3	КVА КVА КVА КVA КVA КVA		
RECEPT ACLES, FIRST 10 KVA RECEPT ACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		10.0 10.0 0.0 0.0 0.0 3.0 4.5 0.0	x 125% x 100% x 50% x 100% x 125% x 100% x 125% x 100% x 125%	6 6 6 6 6 6	тотл	AL DEN	IAND K		10.0 5.0 0.0 0.0 3.8 4.5 0.0 <b>23.</b> 3	КVА КVA КVA КVA КVA КVA КVA <b>КVA</b>		
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM	ARY	10.0 10.0 0.0 0.0 0.0 3.0 4.5 0.0 27.5	x 125% x 100% x 50% x 100% x 125% x 100% x 125% x 100% x 125% KVA	6 6 6 6 6 6	тотл	AL DEN	IAND K		10.0 5.0 0.0 0.0 3.8 4.5 0.0 <b>23.</b> 3	КVА КVA КVA КVA КVA КVA КVA <b>КVA</b>		
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	ARY	10.0 10.0 0.0 0.0 0.0 3.0 4.5 0.0 27.5 9.7	x 125% x 100% x 50% x 100% x 125% x 100% x 125% x 100% x 125%	6 6 6 6 6 6	тотл	AL DEN	IAND K		10.0 5.0 0.0 0.0 3.8 4.5 0.0 <b>23.</b> 3	КVА КVA КVA КVA КVA КVA КVA <b>КVA</b>		

						солтг. 14-F	Q10060-CENI-24
DESIGNED _C. NG008-14	NUMBER	REFERENCE DRAWINGS DESCRIPTION	DATE	BY	REVISIONS	WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY NEW ELECTRONIC PAY PROG	
DRAWN C. NGO DATE							JNS
CHECKED B. IDILBI 08-14 DATE						AND ENGINEERING SERVICES DO INT VENTURE PANEL SCHEDULE	
APPROVED N/A DATE						APPROVED	

- . ALL WORK, MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE BEING USED BY THE LOCAL JURISDICTION AND SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- 2. MATERIALS AND EQUIPMENT SHALL BE NEW EXCEPT WHERE INDICATED OTHERWISE. ALL OTHER WIRING DEVICES, CONDUIT, WIRE, ETC. SHALL BE NEW UNLESS NOTED OTHERWISE.
- 3. ALL MATERIALS AND EQUIPMENT SHALL BEAR U.L. LISTING.
- 4. MAINTAIN GROUNDING CONTINUITY TO ALL DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 5. WORK NOT SPECIFICALLY SPECIFIED OR INDICATED SHALL CONFORM WITH SPECIFICATIONS.
- 6. ALL CONDUITS SHALL BE RUN CONCEALED IN UNDER FLOOR DUCT.
- 7. ALL WIRE AND CABLE SHALL BE COPPER HAVING 600 VOLTS XHHW-2 OR RHW-2 INSULATIONS. PROVIDE #12 WIRE MINIMUM, UNLESS OTHERWISE NOTED. ALL CABLES SHALL BE LOW SMOKE ZERO HALOGEN CABLE.
- 8. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE CONDITION OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS.
- 9. OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSPECTIONS. TESTS & OTHER SERVICES REQUIRED FOR THE COMPLETION OF THIS WORK.
- 10. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER THAT WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES WITH WMATA PROJECT MANAGER
- 11. IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES NECESSARY TO ACHIEVE THIS PRODUCT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS & SPECIFICATIONS THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF THE BID PRICE.
- 12. IF, DURING THE COURSE OF THE WORK, THE CONTRACTOR EXPERIENCES A CONFLICT RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC OR OTHER APPLICABLE CODES AND GOVERNING DOCUMENTS, HE SHALL NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO EXECUTION OF THIS WORK. ANY WORK INSTALLED IN VIOLATION OF THE CONTRACT DOCUMENT OR APPLICABLE CODES WHICH COULD HAVE BEEN AVOIDED BY CONTACTING THE ENGINEER SHALL BE RECTIFIED AT NO ADDITIONAL COST.
- 13. ELECTRICAL PLANS ARE DIAGRAMMATIC & INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS, ETC. MAINTAIN WORKING CLEARANCES.
- 14. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANEL AND SHALL BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS. PROVIDE TYPEWRITTEN PANELBOARD DIRECTORIES. BALANCE THE PHASE LOADS TO WITHIN 20 PERCENT OF EACH OTHER.

the

- 15. INCREASE ALL BRANCH CIRCUIT SIZE FROM THE PANEL TO THE THE HOMERUN EXCEEDS 100FT
- AFFECTING THE WORK PRIOR TO PROCEEDING.
- OR DEVICES SERVED BY THE CIRCUITS.
- MANAGER.
- COMPLETE WATER PROOF INSTALLATION.
- 22. FOR DEVICE IDENTIFICATION, THE ELECTRICAL CONTRACTOR SHALL JUNCTION BOX.
- INCLUDE THE FINAL ROOM OR AREA NUMBERS.
- WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- AFC".
- BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY.

		REFERENCE DRAWINGS		REVISIONS		WASHINGTON METROPOLITA	AREA TRANSIT ALITHORI
	8-14 DATE	NUMBER DESCRIPTION	DATE BY	DESCRIPTION			AREA TRANSIT AUTHORI
DRAWN C. NGO 08	8-14				_	DEPARTMENT OF TRANSIT INFRASTRUCTURE	A Gannett Fleming/P
	DATE 8-14				-	AND ENGINEERING SERVICES	JOINT VENT
	DATE				-	OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM	
APPROVED <u>N/A</u>	DATE						SUBMITTED
ni ha ka ji dha qaa ga ga ah ka ka dadha 🤁 🦊 🖌						APPROVED	PROJECT MANAGER

Г	CONDUCTORS TO THE NEXT LARGER	
Ξ	FIRST OUTLET WHERE THE LENGTH OF	
T.	ON 120/208V CIRCUITS.	

16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.

17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES

18. ALL PANELS IMPACTED BY THIS PROJECT SHALL BE PROVIDED WITH NEW. UPDATED TYPEWRITTEN PANEL SCHEDULES (FOR NEW AND EXISTING CIRCUITS) INDICATING THE FINAL ROOM NUMBER AND THE EQUIPMENT

19. DEMOLITION OF EXISTING WORK SHALL BE PERFORMED AFTER HOURS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WMATA PROJECT MANAGER PRIOR TO PERFORMING ALL THE WORK. THE TIME OF DAY OR EVENING SHALL BE DESIGNATED BY THE WMATA PROJECT

20. ALL WIRING SHALL BE IN CONDUIT, MINIMUM SIZE 3/4 INCH WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL THREADED COUPLING FOR

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MAIN LUGS ONLY

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### ABBREVIATIONS

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AF	AMPERE FRAME	PH	PHASE
AFC	AUTOMATED FARE COLLECTION SYSTEM	PNL	PANELBOARD
AFF	ABOVE FINISHED FLOOR	PRI	PRIMARY
AIC	AMPERE INTERRUPTING CAPACITY	PROP	PROPOSED
AT	AMPERE TRIP	RGS	RIGID GALVANIZED STEEL
BKR	BREAKER	SEC	SECONDARY
С	CONDUIT	SHT	SHEET
СВ	CIRCUIT BREAKER	SW	SWITCH
CCT	CIRCUIT	SWBD	SWITCHBOARD
Q.	CENTER LINE	TYP	TYPICAL
L CLG	CEILING	U/G	UNDER GROUND
CONST	CONSTRUCTION	U.L.	UNDERWRITERS LABORATORI
		UON	UNLESS OTHERWISE NOTED
DISC		VOLT	VOLTAGE
E	ELECTRICAL	W	WATT
GND	GROUND	WMATA	
JB	JUNCTION BOX		AREA TRANSIT AUTHORITY
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY	WP	WEATHERPROOF
KCMIL	THOUSAND CIRCULAR MILL		
KVA	KILOVOLT AMPERE		
MAX	MAXIMUM		
МСА	MINIMUM CIRCUIT AMPERE		
МСВ	MAIN CIRCUIT BREAKER		
MEZZ	MEZZANINE		
MINI			

# DRAWING INDEX E07-E-001 ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST E07-E-101 WEST HYATTSVILLE - KIOSK - POWER E07-E-102 WEST HYATTSVILLE - PANEL SCHEDULE

- E07-E-301 WEST HYATTSVILLE PANELBOARD IMAGE
- MM-E-E24 WEST HYATTSVILLE AC POWER ONE LINE DIAGRAM

## ELECTRICAL SYMBOL LIST

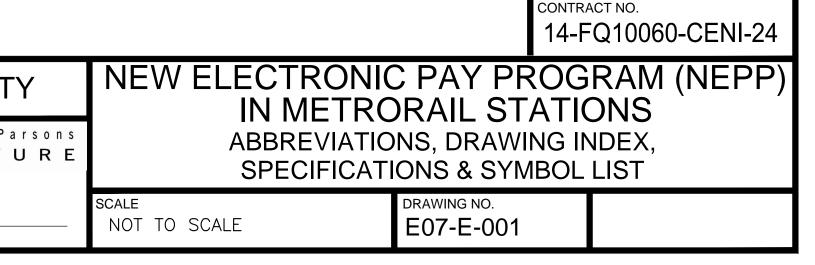
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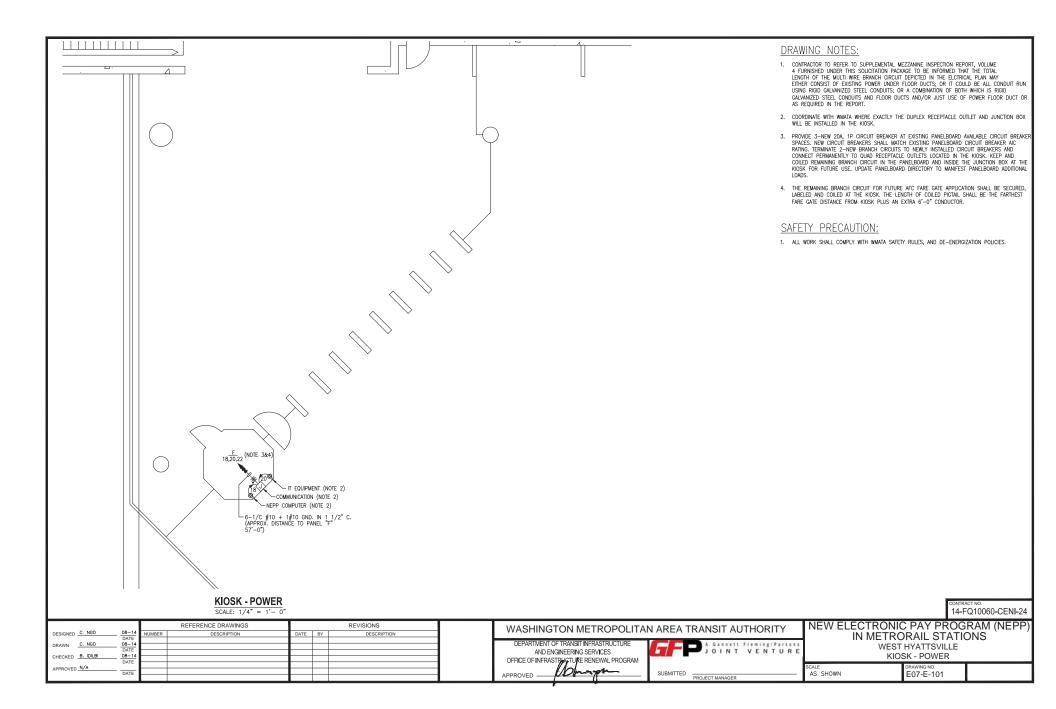
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QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED. JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.

<u>EF</u> 3,5

- 1 INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD
- INDICATES CIRCUIT HOME RUN PANELBOARD AND CIRCUIT NUMBER IDENTIFICATION





			EXIS	STIN	G PA	<b>NEI</b>	. "F'						
AMPERES: 250	VOLTS:	120/208		MOUN	IT ING:	SURF A	CE						
MAINS: 250AMCB	PHASE:	3		LOCA	LOCATION: ELECTRICAL EQUIPMENT ROOM 114								
RATING: 10K AIC	WIRE:	4		SECT	ECTION: 1 OF 1								
		CKT E	SKRS	CKT.		CKT.	СКТ	BKRS					
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION			
EXIST ING VENDOR	0.8	20	1	1	A	2	1	20	0.8	EXIST ING VENDOR			
EXIST ING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXIST ING VENDOR			
EXIST ING VENDOR	0.8	20	1	5	C	6	1	20	0.8	EXIST ING VENDOR			
EXIST ING VENDOR	0.8	20	1	7	A	8	1	20	0.8	EXIST ING VENDOR			
EXIST ING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXIST ING VENDOR			
EXIST ING VENDOR	0.8	20	1	11	C	12	1	20	0.0	SPARE			
EXIST ING VENDOR	0.8	20	1	13	A	14	1	20	0.8	EXIST ING VENDOR			
EXIST ING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXIST ING VENDOR			
EXIST ING VENDOR	0.8	20	1	17	C	18	1	20	0.8	NEW KIOSK RECEPT. (IT/NCS)			
EXISTING VENDOR	0.8	20	1	19	A	20	1	20	0.8	NEW KIOSK RECEPT. (NEPP/SOC)			
EXIST ING VENDOR	0.8	20	1	21	- B -	22	1	20	0.0	FUTURE AFC FARE GATE			
EXISTING VENDOR	0.8	20	1	23	C	24	1	20	0.0	SPARE			
SPARE	0.0	20	1	25	A	26	1	20	0.0	SPARE			
EXISTING VENDOR	0.8	20	1	27	- B -	28	1	20	0.0	SPARE			
SPARE	0.0	20	1	29	C	30	1	20	0.0	SPARE			
SPARE	0.0	20	1	31	A	32	1	20	0.0	SPARE			
SPARE	0.0	20	1	33	- B -	34	1	20	0.0	SPARE			
SPARE	0.0	20	1	35	C	36	1	20	0.0	SPARE			
SPARE	0.0	30	3	37	A	38	1	20	0.0	SPARE			
0.7742	0.0	-	-	39	- B -	40	1	20	0.0	SPARE			
	0.0		-	41	C	42	1	20	0.0	SPARE			
					SUN								
					20IV	IIVIA	RI						
LIGHTS			x 125%							) KVA			
RECEPTACLES, FIRST 10 KVA									10.0	) KVA			
	6						3.4 KVA						
RECEPTACLES		6.8	x 100% x 50%										
		6.8								i kva ) kva			
MISC. APPLIANCES LARGEST MOTOR		6.8 0.0 0.0	x 50% x 100% x 125%	6					0.0				
MISC. APPLIANCES LARGEST MOTOR		6.8 0.0 0.0	x 50% x 100%	6					0.0	) KVA			
MISC. APPLIANCES LARGEST MOTOR MOTORS		6.8 0.0 0.0 0.0	x 50% x 100% x 125%	6 6					0.0 0.0 0.0	) KVA			
MISC. APPLIANCES		6.8 0.0 0.0 0.0 0.0	x 50% x 100% x 125% x 120%	6 6 6					0.0 0.0 0.0	) KVA ) KVA ) KVA			
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		6.8 0.0 0.0 0.0 0.0 0.0	x 50% x 1009 x 1259 x 1009 x 1259	6 6 6 6					0.0 0.0 0.0 0.0 0.0	) KVA ) KVA ) KVA ) KVA			
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		6.8 0.0 0.0 0.0 0.0 0.0 0.0	x 50% x 1009 x 1259 x 1009 x 1259 x 1259 x 1009	6 6 6 6			AND K		0.0 0.0 0.0 0.0 0.0 0.0 13.4	КVА КVА КVA КVA КVA КVA <b>КVA</b>			
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING	MMARY	6.8 0.0 0.0 0.0 0.0 0.0 0.0	x 50% x 1009 x 1259 x 1009 x 1259 x 1259 x 1009 x 1259	6 6 6 6			AND K		0.0 0.0 0.0 0.0 0.0 13.4	KVA KVA 9 KVA 9 KVA 8 KVA			
MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	MMARY	6.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	x 50% x 1009 x 1259 x 1009 x 1259 x 1259 x 1009 x 1259	6 6 6 6					0.0 0.0 0.0 0.0 0.0 13.4	КVА КVА КVA КVA КVA КVA <b>КVA</b>			
MISC. APPLIANCES LARCEST MOTOR MOTORS HEAT AVATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUI	MMARY	6.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1259 KVA	6 6 6 6					0.0 0.0 0.0 0.0 0.0 13.4	КVА КVА КVA КVA КVA КVA <b>КVA</b>			

CONTRACT NO.

Reference drawings       Revisions         06-14 Drawn       06-14 Drate       06-14 Drat       06-14 Drate       06-14 Drat			14-F(	Q10060-CENI-24
DRAWN     C. NOO     09-14       Checked     B. IDILBI     08-14       Over Code     08-14       APPROVED     MA       APPROVED     MA	DESIGNED C. NGO 08-14			
APPROVED N/A DATE DATE SUBMITTED SUBMITTED SCALE FOR ANY ON CONTRACT OF A DATE OF A DA	CHECKED B. IDILBI DATE 08-14		DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES DATE OF THE O	5110
	APPROVED N/A		SCALE DRAWING NO.	

- . ALL WORK, MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE BEING USED BY THE LOCAL JURISDICTION AND SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- 2. MATERIALS AND EQUIPMENT SHALL BE NEW EXCEPT WHERE INDICATED OTHERWISE. ALL OTHER WIRING DEVICES, CONDUIT, WIRE, ETC. SHALL BE NEW UNLESS NOTED OTHERWISE.
- 3. ALL MATERIALS AND EQUIPMENT SHALL BEAR U.L. LISTING.
- 4. MAINTAIN GROUNDING CONTINUITY TO ALL DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 5. WORK NOT SPECIFICALLY SPECIFIED OR INDICATED SHALL CONFORM WITH SPECIFICATIONS.
- 6. ALL CONDUITS SHALL BE RUN CONCEALED IN UNDER FLOOR DUCT.
- 7. ALL WIRE AND CABLE SHALL BE COPPER HAVING 600 VOLTS XHHW-2 OR RHW-2 INSULATIONS. PROVIDE #12 WIRE MINIMUM, UNLESS OTHERWISE NOTED. ALL CABLES SHALL BE LOW SMOKE ZERO HALOGEN CABLE.
- 8. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE CONDITION OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS.
- 9. OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSPECTIONS, TESTS & OTHER SERVICES REQUIRED FOR THE COMPLETION OF THIS WORK.
- 10. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER THAT WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES WITH WMATA PROJECT MANAGER
- 11. IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES NECESSARY TO ACHIEVE THIS PRODUCT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS & SPECIFICATIONS THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF THE BID PRICE.
- 12. IF, DURING THE COURSE OF THE WORK, THE CONTRACTOR EXPERIENCES A CONFLICT RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC OR OTHER APPLICABLE CODES AND GOVERNING DOCUMENTS. HE SHALL NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO EXECUTION OF THIS WORK. ANY WORK INSTALLED IN VIOLATION OF THE CONTRACT DOCUMENT OR APPLICABLE CODES WHICH COULD HAVE BEEN AVOIDED BY CONTACTING THE ENGINEER SHALL BE RECTIFIED AT NO ADDITIONAL COST.
- 13. ELECTRICAL PLANS ARE DIAGRAMMATIC & INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS, ETC. MAINTAIN WORKING CLEARANCES.
- 14. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANEL AND SHALL BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS. PROVIDE TYPEWRITTEN PANELBOARD DIRECTORIES. BALANCE THE PHASE LOADS TO WITHIN 20 PERCENT OF EACH OTHER.

the

- 15. INCREASE ALL BRANCH CIRCUIT SIZE FROM THE PANEL TO THE THE HOMERUN EXCEEDS 100FT
- AFFECTING THE WORK PRIOR TO PROCEEDING.
- OR DEVICES SERVED BY THE CIRCUITS.
- MANAGER.
- COMPLETE WATER PROOF INSTALLATION.
- 22. FOR DEVICE IDENTIFICATION, THE ELECTRICAL CONTRACTOR SHALL JUNCTION BOX.
- INCLUDE THE FINAL ROOM OR AREA NUMBERS.
- WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- AFC".
- BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY.

	REFERENCE DRAWINGS	REVISIONS	WASHINGTON METROPOLITAN	
DESIGNED <u>C. NGO</u> <u>08–14</u> DATE	NUMBER DESCRIPTION	DATE BY DESCRIPTION	WASHINGTON METROPOLITAI	AREA TRANSIT AUTHORT
DRAWN C. NGO 08-14			DEPARTMENT OF TRANSIT INFRASTRUCTURE	A Gannett Fleming/P
DATE CHECKED B. IDILBI 08-14			AND ENGINEERING SERVICES	JOINT VENT
DATE			OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM	
APPROVED <u>N/A</u> DATE				SUBMITTED
			APPROVED	PROJECT MANAGER

Г	CONDUCTORS TO THE NEXT LARGER	
Ξ	FIRST OUTLET WHERE THE LENGTH OF	
T.	ON 120/208V CIRCUITS.	

16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.

17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES

18. ALL PANELS IMPACTED BY THIS PROJECT SHALL BE PROVIDED WITH NEW, UPDATED TYPEWRITTEN PANEL SCHEDULES (FOR NEW AND EXISTING CIRCUITS) INDICATING THE FINAL ROOM NUMBER AND THE EQUIPMENT

19. DEMOLITION OF EXISTING WORK SHALL BE PERFORMED AFTER HOURS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WMATA PROJECT MANAGER PRIOR TO PERFORMING ALL THE WORK. THE TIME OF DAY OR EVENING SHALL BE DESIGNATED BY THE WMATA PROJECT

20. ALL WIRING SHALL BE IN CONDUIT, MINIMUM SIZE 3/4 INCH WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL THREADED COUPLING FOR

21. AT JOB COMPLETION, AND BEFORE FINAL ACCEPTANCE BY WMATA, TEST EACH RECEPTACLE AND PANELBOARD FOR PROPER OPERATION. WIRING SHALL BE TESTED FOR CONTINUITY, SHORTS, ETC ... ALL WORK AREAS, ETC.. SHALL BE CLEANED AT THE COMPLETION OF THIS PROJECT.

LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE

23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO

24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY

26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13; WMATA SPECIFICATION SECTION 16120, 16130, AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH

MIN

MLO

MINIMUM

MAIN LUGS ONLY

27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR

28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.

### ABBREVIATIONS

A, AMP	AMPERES	NEC	NATIONAL ELECTRIC CODE
AC	ALTERNATING CURRENT	Ρ	POLE
AF	AMPERE FRAME	PH	PHASE
AFC	AUTOMATED FARE COLLECTION SYSTEM	PNL	PANELBOARD
AFF	ABOVE FINISHED FLOOR	PRI	PRIMARY
AIC	AMPERE INTERRUPTING CAPACITY	PROP	PROPOSED
AT	AMPERE TRIP	RGS	RIGID GALVANIZED STEEL
BKR	BREAKER	SEC	SECONDARY
С	CONDUIT	SHT	SHEET
СВ	CIRCUIT BREAKER	SW	SWITCH
CCT	CIRCUIT	SWBD	SWITCHBOARD
Q.	CENTER LINE	TYP	TYPICAL
L CLG	CEILING	U/G	UNDER GROUND
CONST	CONSTRUCTION	U.L.	UNDERWRITERS LABORATORI
		UON	UNLESS OTHERWISE NOTED
DISC		VOLT	VOLTAGE
E	ELECTRICAL	W	WATT
GND	GROUND	WMATA	
JB	JUNCTION BOX		AREA TRANSIT AUTHORITY
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY	WP	WEATHERPROOF
KCMIL	THOUSAND CIRCULAR MILL		
KVA	KILOVOLT AMPERE		
MAX	MAXIMUM		
МСА	MINIMUM CIRCUIT AMPERE		
МСВ	MAIN CIRCUIT BREAKER		
MEZZ	MEZZANINE		
MINI			

## DRAWING INDEX

E08-E-001	ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST
E08-E-101	PRINCE GEORGE'S PLAZA – KIOSK – POWER
E08-E-102	PRINCE GEORGE'S PLAZA – PANEL SCHEDULE
E08-E-301	PRINCE GEORGE'S PLAZA – PANELBOARD IMAGE
MM-E-E26	PRINCE GEORGE'S PLAZA – AC POWER ONE LINE DIAGRAM

## ELECTRICAL SYMBOL LIST

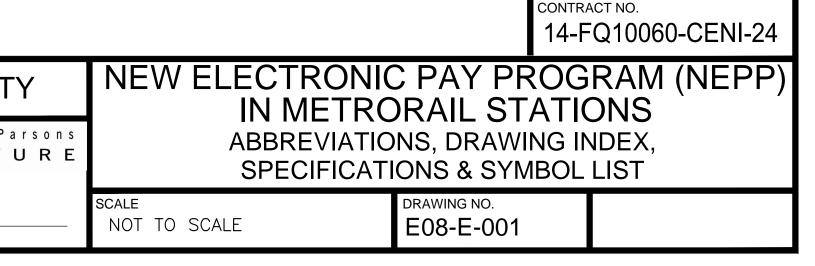
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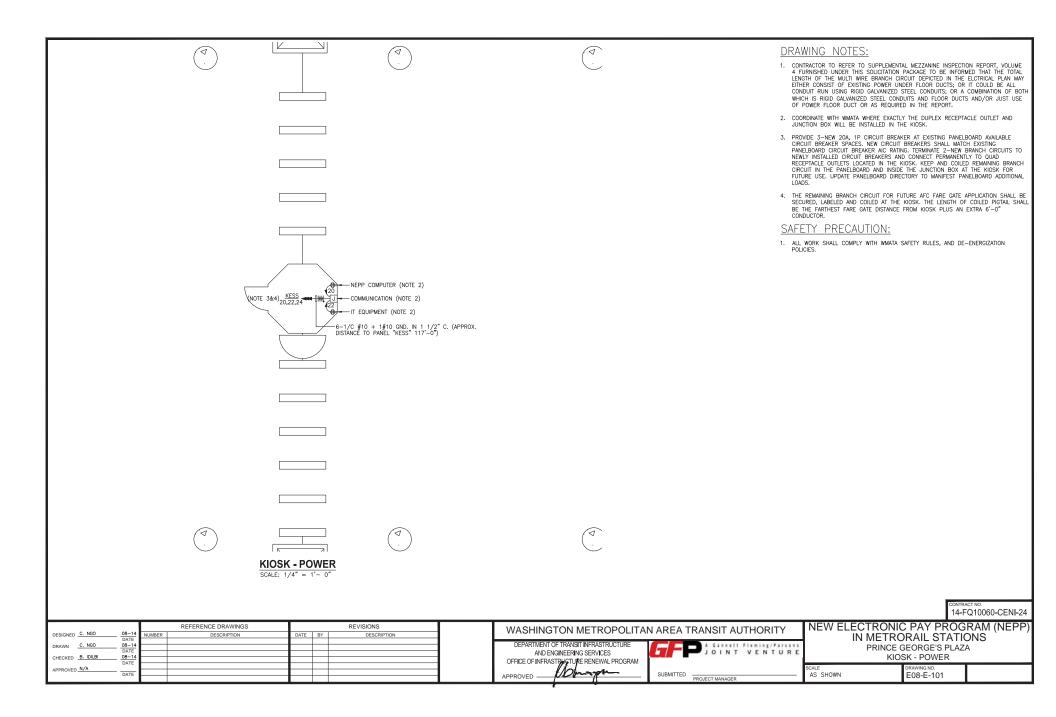
J

QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED. JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.

<u>EF</u> 3,5

- 1 INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD
- INDICATES CIRCUIT HOME RUN PANELBOARD AND 1,3 CIRCUIT NUMBER IDENTIFICATION





		EX	IST	ING	PAN	EL '	'KES	SS"		
AMPERES: 400	VOLTS:	120/208		MOUN	IT ING:	SURFA	VCE			
MAINS: 250A MCB	PHASE:	3		LOCA	TION:	ELECT	RICAL E	EQUIPME	NT ROO	M 210
RATING: 10K AIC	WRE:	4		SECT	ION: 1	OF 1				
		CKT E	KRS	CKT.		CKT.	CKT	BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION
EXIST . KIOSK LOAD CENT ER "KES"	2.9	30	3	1	A	2	1	20	0.8	EXIST ING VENDOR
	2.5			3	- B -	4	1	20	0.8	EXIST ING VENDOR
	2.5		-	5	C	6	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	7	A	8	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	13	A	14	1	20	0.8	EXIST ING VENDOR
EXIST ING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXIST ING VENDOR
EXISTING VENDOR	0.8	20	1	17	C	18	1	20	0.8	EXIST ING VENDOR
EXISTING VENDOR	0.8	20	1	19	A	20	1	20	0.8	NEW KIOSK RECEPT. (IT/NCS)
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	20	0.8	NEW KIOSK RECEPT. (NEPP/SOC
EXIST ING VENDOR	0.8	20	1	23	C	24	1	20	0.0	FUTURE AFC FARE GATE
EXISTING VENDOR	0.8	20	1	25	A	26	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	27	- B -	28	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	29	C	30	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	31	A	32	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	33	- B -	34	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	35	C	36	1	20	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	37	A	38	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	39	- B -	40	2	80	0.0	SPARE
EXIST ING VENDOR	0.8	20	1	41	C	42		-	0.0	
			10		SUIN	AW V	PV			
LIGHTS					SUN	/MA	RY		0.0	- KUA
			x 125%	6	SUN	IMA	RY			) KVA
RECEPTACLES, FIRST 10 KVA		10.0	x 1259 x 1009	6	SUN	IMA	RY		10.0	KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES		10.0	x 125% x 100% x 50%	6	SUN	IMA	RY		10.0 6.4	) KVA I KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES		10.0 12.8 0.0	x 125% x 100% x 50% x 100%	6 6	SUN	IMA	RY		10.0 6.4 0.0	I KVA I KVA I KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR		10.0 12.8 0.0 0.0	× 1259 × 1009 × 50% × 1009 × 1259	6 6 6	SUN	<u>IMA</u>	RY		10.0 6.4 0.0 0.0	) KVA   KVA   KVA   KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		10.0 12.8 0.0 0.0 0.0	x 125% x 100% x 50% x 100% x 125% x 100%	6 6 6 6	SUN	/MA	RY		10.0 6,4 0.0 0.0	KVA   KVA   KVA   KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC, APPLIANCES LARGEST MOTOR MOTORS HEAT		10.0 12.8 0.0 0.0 0.0 0.0 3.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1259 x 1259	6 6 6 6	SUN	<u>IMA</u>	<u>RY</u>		10.0 6,4 0,0 0,0 0,0 3,8	1 KVA 1 KVA 2 KVA 2 KVA 2 KVA 2 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		10.0 12.8 0.0 0.0 0.0 0.0 3.0 4.5	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1009	6 6 6 6 6	SUN	<u>IMA</u>	RY		10.0 6.4 0.0 0.0 3.8 4.5	КVА КVА КVA КVA КVA КVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		10.0 12.8 0.0 0.0 0.0 3.0 4.5 0.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1259 x 1259 x 1009 x 1259	6 6 6 6 6	SUN	<u>IMA</u>	RY		10.0 6.4 0.0 0.0 3.8 4.5	1 KVA 1 KVA 2 KVA 2 KVA 2 KVA 2 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		10.0 12.8 0.0 0.0 0.0 3.0 4.5 0.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1009	6 6 6 6 6	тоти	AL DEN	IAND K		10.0 6,4 0,0 0,0 3,8 4,5 0,0 <b>24,1</b>	КVА КVA КVA КVA КVA КVA КVA КVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC APPLIANCES LARGEST MOTOR HEAT AC WATER HEATING TOTAL CONNECTED LOAD		10.0 12.8 0.0 0.0 0.0 3.0 4.5 0.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1259 x 1259 x 1009 x 1259	6 6 6 6 6	тоти	AL DEN			10.0 6,4 0,0 0,0 3,8 4,5 0,0 <b>24,1</b>	КVА КVА КVА КVA КVA КVA КVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST INOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM	ARY	10.0 12.8 0.0 0.0 0.0 3.0 4.5 0.0 <b>30.3</b>	× 1259 × 1009 × 50% × 1009 × 1259 × 1009 × 1259 × 1009 × 1259 <b>KVA</b>	6 6 6 6 6	тоти	AL DEN	IAND K		10.0 6,4 0,0 0,0 3,8 4,5 0,0 <b>24,1</b>	КVА КVA КVA КVA КVA КVA КVA КVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC APPLIANCES LARGEST MOTOR HEAT AC WATER HEATING TOTAL CONNECTED LOAD	ARY	10.0 12.8 0.0 0.0 0.0 3.0 3.0 3.0 30.3 10.9	x 1259 x 1009 x 50% x 1009 x 1259 x 1259 x 1259 x 1009 x 1259	6 6 6 6 6	тоти	AL DEN	IAND K		10.0 6,4 0,0 0,0 3,8 4,5 0,0 <b>24,1</b>	КVА КVA КVA КVA КVA КVA КVA КVA

REFERENCE DRAWINGS       REVISIONS         DESIGNED       C. NOO       00-14       DESCRIPTION       DATE       BY       DESCRIPTION       DESCRIPTION       DATE       BY       DESCRIPTION       DESCRIPTION<				-FQ10060-CENI-24
DRAWN       C. NOD       08-14       Charles       Department of transfir NerAstructure       Depa	DESIGNED C. NGO 08-14			
APPROVED N/A DATE DRAWING NO. SIJEMUTTED NOT TO SCALE FOR ALL STATES	CHECKED B. IDILBI DATE		DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES PLA	
	APPROVED N/A		SUBMITTED SUBMITTEDSUBMITT	

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- 9. OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSPECTIONS, TESTS & OTHER SERVICES REQUIRED FOR THE COMPLETION OF THIS WORK.
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- 15. INCREASE ALL BRANCH CIRCUIT CONDUCTORS TO THE NEXT LARGER SIZE FROM THE PANEL TO THE FIRST OUTLET WHERE THE LENGTH OF THE HOMERUN EXCEEDS 100FT. ON 120/208V CIRCUITS.
- 16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.
- 17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES AFFECTING THE WORK PRIOR TO PROCEEDING.
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- 20. ALL WIRING SHALL BE IN CONDUIT, MINIMUM SIZE 3/4 INCH WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL W/SCREW IN COUPLING FOR COMPLETE WATER PROOF INSTALLATION.
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- 24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- 26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13; WMATA SPECIFICATION SECTION 16120, 16130, AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- 27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR AFC".
- 28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY. CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.
- 29. The conduit utilized for this project shall be 1-1/2" min. or larger as indicated. The liquid tight utilized for the kiosk shall be 1-1/2" from the entry to the 8x8 junction box, then 1" from the junction box to the quads. All boxes used in or on the kiosk shall be NEMA 4x.

### ABBREVIATIONS

A, AMP	AMPERES	MAX	MAXIMUM
AC	ALTERNATING CURRENT	MCA	MINIMUM CIRCUIT AMPERE
AEMS	AUTOMATED ENERGY	мсв	MAIN CIRCUIT BREAKER
AF	MANAGEMENT SYSTEM	MEZZ	MEZZANINE
AF		MIN	MINIMUM
AFC	AUTOMATED FARE COLLECTION SYSTEM	MLO	MAIN LUGS ONLY
AFF	ABOVE FINISHED FLOOR	MTD	MOUNTED OR MOUNTING
AIC	AMPERE INTERRUPTING CAPACITY	NEC	NATIONAL ELECTRIC CODE
AT	AMPERE TRIP	NEMA	NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION
ATS	AUTOMATIC TRANSFER SWITCH	Р	
BATT	BATTERY	-	POLE
BKR	BREAKER	PH	PHASE
Ð	BASELINE	PNL	PANELBOARD
с	CONDUIT	PRI	PRIMARY
СВ	CIRCUIT BREAKER	PROP	PROPOSED
сст	CIRCUIT	RGS	RIGID GALVANIZED STEEL
ç	CENTER LINE	SEC	SECONDARY
CLG	CEILING	SHT	SHEET
CONST	CONSTRUCTION	STA	STATION
DC	DIRECT CURRENT	STD	STANDARD
DISC	DISCONNECT	SW	SWITCH
E	ELECTRICAL	SWBD	SWITCHBOARD
FLUOR.	FLUORESCENT	TYP	TYPICAL
GND	GROUND	U/G	UNDER GROUND
GPR	GROUND PENETRATING RADAR	U.L.	UNDERWRITERS LABORATORIES
IG	ISOLATED GROUND	UON	UNLESS OTHERWISE NOTED
JB	JUNCTION BOX	VOLT	VOLTAGE
KAIC	THOUSAND AMPERE	w	WATT
	INTERRUPTING CAPACITY	WMATA	WASHINGTON METROPOLITIAN AREA TRANSIT AUTHORITY
KCMIL	THOUSAND CIRCULAR MILL		
KVA	KILOVOLT AMPERE	WP	WEATHERPROOF

	REFERENCE DRAWINGS	REVISIONS	WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
	NUMBER DESCRIPTION	DATE BY DESCRIPTION	WASHINGTON METROPOLITAN AREA TRANSPILATION
DATE DRAWN <b>C. NGO 08–14</b>			DEPARTMENT OF TRANSIT INFRASTRUCTURE
DATE			AND ENGINEERING SERVICES TO THE JOINT VENTU
CHECKED <b>B. IDILBI</b> 08-14 DATE			
DATE			APPROVED SUBMITTED
			PROJECT MANAGER

### DRAWING INDEX

E09-E-001	ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST
E09-E-101	COLLEGE PARK - KIOSK - POWER
E09-E-102	COLLEGE PARK - PANEL SCHEDULE
E09-E-301	COLLEGE PARK - PANELBOARD IMAGE
MM-E-E28	COLLEGE PARK - AC POWER ONE LINE DIAGRAM

### ELECTRICAL SYMBOL LIST

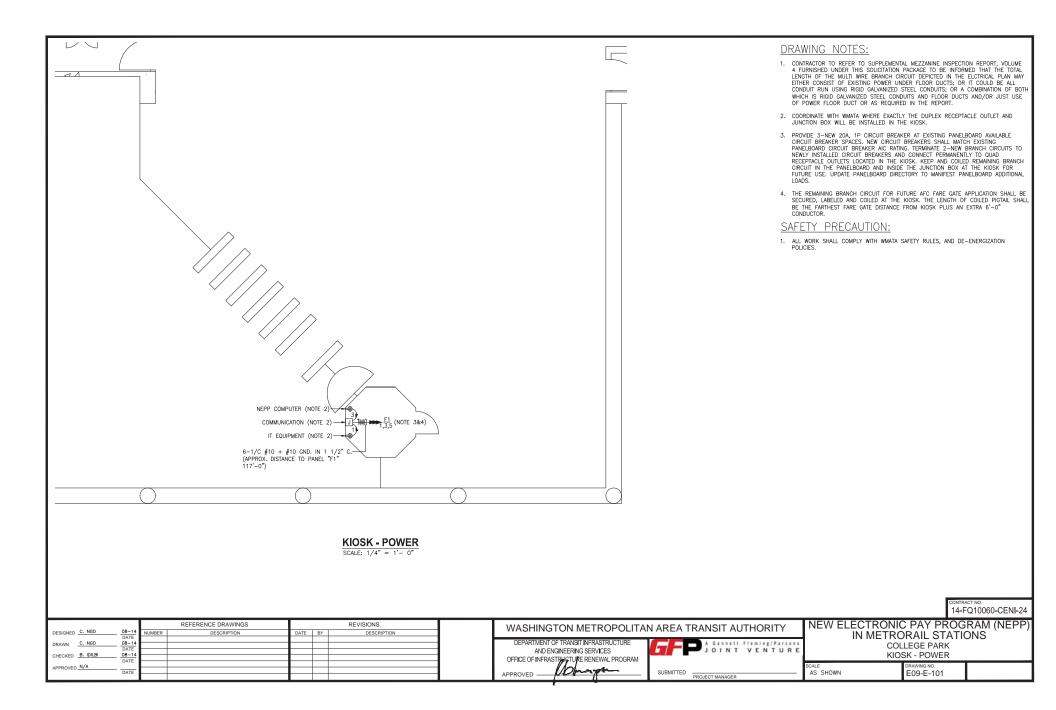
<u>EF</u> 3.5

Ŧ	QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED.
J	JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL
$\frown$	CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.
, , <b>#</b> 10−3/4	HOMERUN TO PANEL, NUMBER OF ARROWHEADS INDICATES

NUMBER OF CIRCUITS. CROSS HATCHING INDICATES NUMBER OF CONDUCTORS, NUMBER INDICATES SIZE OF CONDUCTOR AND SIZE OF CONDUIT

- I INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD
- $\frac{EE}{1,3}$  Indicates circuit home run panelboard and circuit number identification

		CONTRA 14-F	аст NO. Q10060-CENI-24
rsons IRE	ABBREVIATIO	C PAY PROG DRAIL STATIONS, DRAWING IN ONS & SYMBOL	ONS Ó
	of Eoh IoAh	ONO & OTMBOE	
	SCALE NOT TO SCALE	drawing no. E09-E-001	



AMPERES: 250	VOLTS:	120/208		MOUN	IT ING:	SURF 4	CE			
MAINS: 250A MCB	PHASE:			LOCA				IENT RO	OM C104	
RATING: 10K AIC	WIRE:	4			ION: 1					
	1	CKT	SKRS	CKT.		CKT.	СКТ	BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE			NO.	POLE	AMP	KVA	LOAD DESCRIPTION
NEW KIOSK RECEPT. (IT/NCS)	0.8	20	1	1	A	2	1	20	0.8	EXISTING VENDOR
NEW KIOSK RECEPT. (NEPP/SOC)	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR
FUTURE AFC FARE GATE	0.0	20	1	5	C	6	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	7	A	8	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	11	C	12	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	13	A	14	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	17	C	18	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	19	A	20	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	23	C	24	1	20	0.0	SPARE
SPARE	0.0	20	1	25	A	26	1	20	0.0	SPARE
SPARE	0.0	20	1	27	- B -	28	1	20	0.0	SPARE
SPARE	0.0	20	1	29	C	30	1	20	0.0	SPARE
SPARE	0.0	20	1	31	A	32	1	20	0.0	SPARE
SPARE	0.0	20	1	33	- B -	34	1	20	0.0	SPARE
SPARE	0.0	20	1	35	C	36	1	20	0.0	SPARE
SPARE	0.0	20	1	37	A	38	3	30	3.3	EXIST, KIOSK LOAD CENTER "KES
SPARE	0.0	20	1	39	- B -	40		-	2.5	
SPACE	0.0	20	1	41	C	42	-		2.5	
			10	חמו	SUM	IMΔ	RY			
UGHTS		0.0			SUN	IMA	RY		0.0	K)/A
			x 125%	6	SUN	IMA	RY			KVA
RECEPTACLES, FIRST 10 KVA		10.0	x 1259 x 1009	6	SUN	IMA	RY		10.0	KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES		10.0	x 1259 x 1009 x 50%	6 6	SUN	IMA	RY		10.0 1.8	KVA KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES		10.0 3.6 0.0	x 125% x 100% x 50% x 100%	6 6	SUN	IMA	RY		10.0 1.8 0.0	KVA KVA KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR		10.0 3.6 0.0	x 1259 x 1009 x 50% x 1009 x 1259	6 6	SUN	<u>IMA</u>	RY		10.0 1.8 0.0	KVA KVA KVA KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		10.0 3.6 0.0 0.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1259 x 1009	6 6 6	SUN	IMA	RY		10.0 1.8 0.0 0.0	KVA KVA KVA KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		10.0 3.6 0.0 0.0 0.0 3.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1259 x 1009 x 1259	6 6 6	SUN	IMA	RY		10.0 1.8 0.0 0.0 0.0 3.8	KVA KVA KVA KVA KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		10.0 3.6 0.0 0.0 3.0 4.5	x 1259 x 1009 x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1209	6 6 6 6	SUN	IMA	RY		10.0 1.8 0.0 0.0 3.8 4.5	KVA KVA KVA KVA KVA KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		10.0 3.6 0.0 0.0 3.0 4.5 0.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	6 6 6 6					10.0 1.8 0.0 0.0 3.8 4.5 0.0	KVA KVA KVA KVA KVA KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING		10.0 3.6 0.0 0.0 3.0 4.5 0.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1259 x 1009 x 1259 x 1209	6 6 6 6	TOT	AL DEM			10.0 1.8 0.0 0.0 0.0 3.8 4.5 0.0 <b>20.1</b>	KVA KVA KVA KVA KVA KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	ARY	10.0 3.6 0.0 0.0 3.0 4.5 0.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	6 6 6 6	TOT	AL DEM	AND K		10.0 1.8 0.0 0.0 0.0 3.8 4.5 0.0 <b>20.1</b>	КVА КVА КVA КVA КVA КVA КVA КVA
LIGHTS RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM PHASE A:	ARY	10.0 3.6 0.0 0.0 3.0 3.0 4.5 0.0 21.1	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009	6 6 6 6	TOT	AL DEM	AND K		10.0 1.8 0.0 0.0 0.0 3.8 4.5 0.0 <b>20.1</b>	КVА КVA КVA КVA КVA КVA КVA КVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM	ARY	10.0 3.6 0.0 0.0 3.0 4.5 0.0 21.1 8.5	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 KVA	6 6 6 6	TOT	AL DEM	AND K		10.0 1.8 0.0 0.0 0.0 3.8 4.5 0.0 <b>20.1</b>	КVА КVA КVA КVA КVA КVA КVA КVA

			14-FQ10060-CENI-24
REFERENCE DRAWINGS	REVISIONS	WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY	NEW ELECTRONIC PAY PROGRAM (NEPP)
DESIGNED <u>C. NGO 08-14</u> NUMBER DESCRIPTION DATE DRAWN C. NGO 08-14	DATE BY DESCRIPTION		IN METRORAIL STATIONS
DRAWN C. NGO 08-14 DATE		AND ENGINEERING SERVICES	
APPROVED N/A			SCALE DRAWING NO.
DATE		APPROVED	NOT TO SCALE E09-E-102

- . ALL WORK, MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE BEING USED BY THE LOCAL JURISDICTION AND SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- 2. MATERIALS AND EQUIPMENT SHALL BE NEW EXCEPT WHERE INDICATED OTHERWISE. ALL OTHER WIRING DEVICES, CONDUIT, WIRE, ETC. SHALL BE NEW UNLESS NOTED OTHERWISE.
- 3. ALL MATERIALS AND EQUIPMENT SHALL BEAR U.L. LISTING.
- 4. MAINTAIN GROUNDING CONTINUITY TO ALL DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 5. WORK NOT SPECIFICALLY SPECIFIED OR INDICATED SHALL CONFORM WITH SPECIFICATIONS.
- 6. ALL CONDUITS SHALL BE RUN CONCEALED IN UNDER FLOOR DUCT.
- 7. ALL WIRE AND CABLE SHALL BE COPPER HAVING 600 VOLTS XHHW-2 OR RHW-2 INSULATIONS. PROVIDE #12 WIRE MINIMUM, UNLESS OTHERWISE NOTED. ALL CABLES SHALL BE LOW SMOKE ZERO HALOGEN CABLE.
- 8. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE CONDITION OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS.
- 9. OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSPECTIONS, TESTS & OTHER SERVICES REQUIRED FOR THE COMPLETION OF THIS WORK.
- 10. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER THAT WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES WITH WMATA PROJECT MANAGER
- 11. IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES NECESSARY TO ACHIEVE THIS PRODUCT. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS & SPECIFICATIONS THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF THE BID PRICE.
- 12. IF, DURING THE COURSE OF THE WORK, THE CONTRACTOR EXPERIENCES A CONFLICT RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC OR OTHER APPLICABLE CODES AND GOVERNING DOCUMENTS. HE SHALL NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO EXECUTION OF THIS WORK. ANY WORK INSTALLED IN VIOLATION OF THE CONTRACT DOCUMENT OR APPLICABLE CODES WHICH COULD HAVE BEEN AVOIDED BY CONTACTING THE ENGINEER SHALL BE RECTIFIED AT NO ADDITIONAL COST.
- 13. ELECTRICAL PLANS ARE DIAGRAMMATIC & INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS, ETC. MAINTAIN WORKING CLEARANCES.
- 14. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANEL AND SHALL BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS. PROVIDE TYPEWRITTEN PANELBOARD DIRECTORIES. BALANCE THE PHASE LOADS TO WITHIN 20 PERCENT OF EACH OTHER.

- 15. INCREASE ALL BRANCH CIRCUIT SIZE FROM THE PANEL TO THE THE HOMERUN EXCEEDS 100FT
- AFFECTING THE WORK PRIOR TO PROCEEDING.
- OR DEVICES SERVED BY THE CIRCUITS.
- MANAGER.
- COMPLETE WATER PROOF INSTALLATION.
- 22. FOR DEVICE IDENTIFICATION, THE ELECTRICAL CONTRACTOR SHALL JUNCTION BOX.
- INCLUDE THE FINAL ROOM OR AREA NUMBERS.
- WALLS.
- 25. SEAL OFF ALL PENETRATIONS THRU WALLS/FLOORS.
- THE NEC, WMATA DESIGN CRITERIA, AND SPECIFICATIONS.
- AFC".
- BASED ON RECORD DRAWINGS AND CASUAL FIELD SURVEY.

		REFERENCE DRAWINGS		REVISIONS				WASHINGTON METROPOLITA	AN AREA TRANSIT ALITHORI		
	DESIGNED <u>C. NGO</u> DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	-		AREA TRANSIT AUTHOR		
	DRAWN <u>C. NGO</u> 08-1	4					-	DEPARTMENT OF TRANSIT INFRASTRUCTURE	A Gannett Fleming/P		
	DATE CHECKED <u>B. IDILBI</u> 08-1	4					-	AND ENGINEERING SERVICES	JOINT VENT		
	DATE	-					-	OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM			
This prope for block o		-					_	APPROVED	SUBMITTED		
									PROJECT MANAGER		



Г	CONDUCTORS TO THE NEXT LARGER	
Ξ	FIRST OUTLET WHERE THE LENGTH OF	
T.	ON 120/208V CIRCUITS.	

16. PROVIDE A PULLWIRE OR FISHTAPE/CORD IN ALL EMPTY CONDUIT RUNS.

17. VERIFY WIRE SIZES, CIRCUIT BREAKERS AND FUSES RATINGS FOR ALL EQUIPMENT, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES

18. ALL PANELS IMPACTED BY THIS PROJECT SHALL BE PROVIDED WITH NEW, UPDATED TYPEWRITTEN PANEL SCHEDULES (FOR NEW AND EXISTING CIRCUITS) INDICATING THE FINAL ROOM NUMBER AND THE EQUIPMENT

19. DEMOLITION OF EXISTING WORK SHALL BE PERFORMED AFTER HOURS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WMATA PROJECT MANAGER PRIOR TO PERFORMING ALL THE WORK. THE TIME OF DAY OR EVENING SHALL BE DESIGNATED BY THE WMATA PROJECT

20. ALL WIRING SHALL BE IN CONDUIT, MINIMUM SIZE 3/4 INCH WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC. ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL THREADED COUPLING FOR

21. AT JOB COMPLETION, AND BEFORE FINAL ACCEPTANCE BY WMATA, TEST EACH RECEPTACLE AND PANELBOARD FOR PROPER OPERATION. WIRING SHALL BE TESTED FOR CONTINUITY, SHORTS, ETC ... ALL WORK AREAS, ETC.. SHALL BE CLEANED AT THE COMPLETION OF THIS PROJECT.

LABEL ALL PANELBOARDS, JUNCTION BOXES, ETC..TO INDICATE THE NAME, VOLTAGE, SERVING EQUIPMENT AND ITEM SERVED ETC... LABELS FOR EMERGENCY CIRCUITS SHALL BE IN RED, NORMAL CIRCUITS SHALL BE IN BLACK. ALL DEVICES SHALL BE IDENTIFIED EITHER ON THE FACE OF THE COVERPLATE OR INSIDE PER WMATA PREFERENCE. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATE THE CIRCUITS CONTAINED BY THE

23. THE CONTRACTOR SHALL UPDATE THE SCHEDULES OF ALL PANELBOARDS AFFECTED BY THIS PROJECT TO REFLECT CHANGES DUE TO THE PROJECT WORK. PANEL SCHEDULE LOAD DESCRIPTIONS ARE TO

24. INCLUDE GPR FOR ANY CORE DRILLS OR DRILLED PENETRATIONS IN ANY

26. THE CONTRACTOR SHALL BECOME FAMILIAR WITH WMATA DESIGN CRITERIA SECTION 4 AND SECTION 13; WMATA SPECIFICATION SECTION 16120, 16130, AND 16125. ALL INSTALLATION SHALL BE IN COMPLIANCE WITH

MIN

MLO

MINIMUM

MAIN LUGS ONLY

27. THE CONTRACTOR SHALL IDENTIFY SPARE CIRCUIT WITH "RESERVED FOR

28. EXISTING SWITCHBOARDS, PANELBOARDS AND EQUIPMENT SHOWN IS CONTRACTOR SHALL VERIFY ALL ELECTRICAL EQUIPMENT IN FIELD.

### ABBREVIATIONS

A, AMP	AMPERES	NEC	NATIONAL ELECTRIC CODE
AC	ALTERNATING CURRENT	Ρ	POLE
AF	AMPERE FRAME	PH	PHASE
AFC	AUTOMATED FARE COLLECTION SYSTEM	PNL	PANELBOARD
AFF	ABOVE FINISHED FLOOR	PRI	PRIMARY
AIC	AMPERE INTERRUPTING CAPACITY	PROP	PROPOSED
AT	AMPERE TRIP	RGS	RIGID GALVANIZED STEEL
BKR	BREAKER	SEC	SECONDARY
C	CONDUIT	SHT	SHEET
CB	CIRCUIT BREAKER	SW	SWITCH
CCT	CIRCUIT	SWBD	SWITCHBOARD
СС I Ç	CENTER LINE	TYP	TYPICAL
۲ CLG	CEILING	U/G	UNDER GROUND
CONST		U.L.	UNDERWRITERS LABORATORI
		UON	UNLESS OTHERWISE NOTED
DISC	DISCONNECT	VOLT	VOLTAGE
E	ELECTRICAL	W	WATT
GND	GROUND	WMATA	WASHINGTON METROPOLITIAN
JB	JUNCTION BOX		AREA TRANSIT AUTHORITY
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY	WP	WEATHERPROOF
KCMIL	THOUSAND CIRCULAR MILL		
KVA	KILOVOLT AMPERE		
MAX	MAXIMUM		
MCA	MINIMUM CIRCUIT AMPERE		
МСВ	MAIN CIRCUIT BREAKER		
MEZZ	MEZZANINE		

# DRAWING INDEX

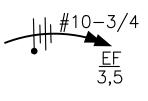
E10-E-001	ABBREVIATIONS, DRAWING INDEX, SPECIFICATIONS & SYMBOL LIST
E10-E-101	GREENBELT – KIOSK – POWER
E10-E-102	GREENBELT – PANEL SCHEDULE
E10-E-301	GREENBELT – PANELBOARD IMAGE
ММ-Е-ЕЗО	GREENBELT – AC POWER ONE LINE DIAGRAM

## ELECTRICAL SYMBOL LIST

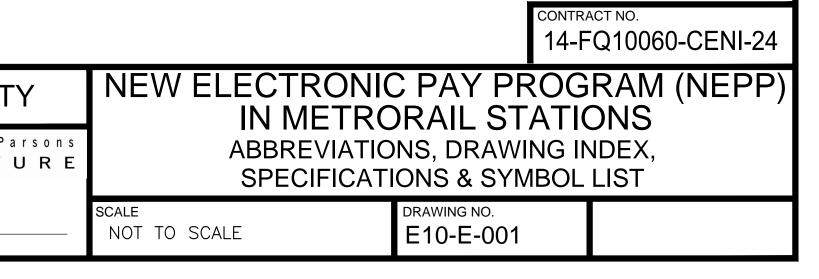
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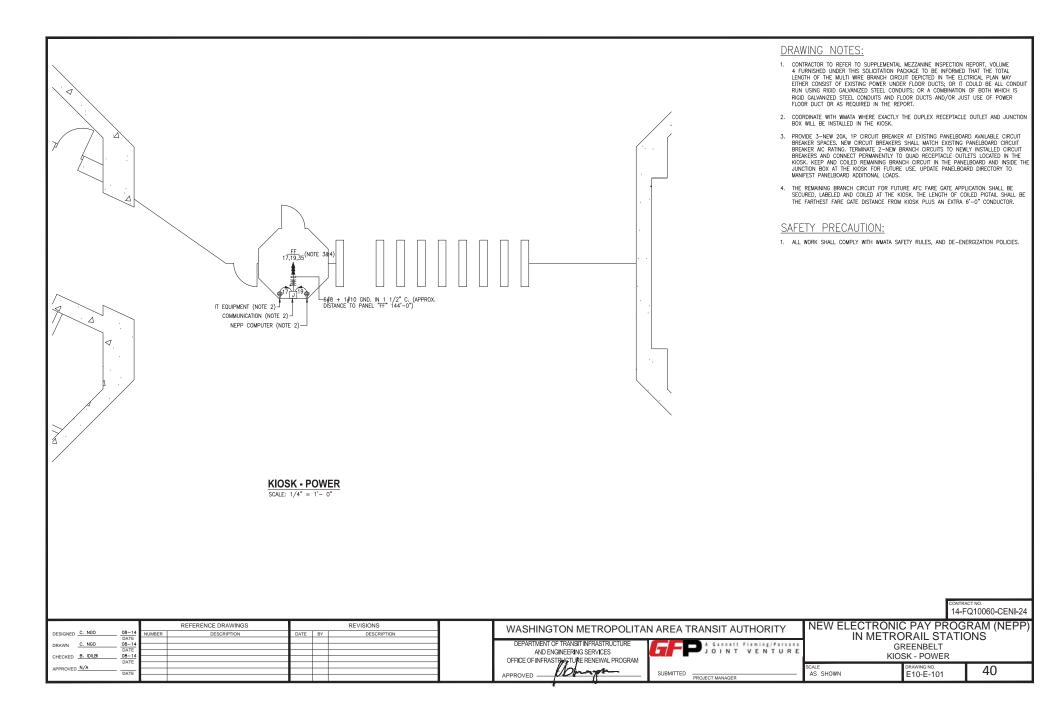
J

QUADRUPLEX RECEPTACLE OUTLET- 20A, 125V WALL MOUNTED. JUNCTION BOX - SURFACE MOUNTED ON UNISTRUT CHANNEL CONDUIT - CONCEALED IN UNDER FLOOR DUCT U.O.N.



- 1 INDICATES GROUNDING WIRE TO GROUNDING BUS AT THE PANELBOARD
- INDICATES CIRCUIT HOME RUN PANELBOARD AND 1,3 CIRCUIT NUMBER IDENTIFICATION





	lueum :		NIO		G PA					
AMPERES: 250	VOLT S:				IT ING:					
MAINS: 250AMCB	PHASE: 3 WIRE: 4			LOCATION: ELECTRICAL EQUIPMENT ROOM C106 SECTION: 1 OF 1						
RATING: 10K AIC					ION: 1					
		CKT E		CKT.		CKT.		BKRS		
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION
EXIST ING VENDOR	0.8	20	1	1	A	2	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	5	C	6	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	7	Α	8	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	11	C	12	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	13	Α	14	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
NEW KIOSK RECEPT. (IT/NCS)	0.8	20	1	17	C	18	1	20	0.8	EXISTING VENDOR
NEW KIOSK RECEPT. (NEPP/SOC)	0.8	20	1	19	Α	20	1	20	0.8	EXISTING VENDOR
FUTURE AFC FARE GATE	0.8	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	23	C	24	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	25	Α	26	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	0.8	20	1	27	- B -	28	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	29	C	30	1	20	0.8	EXISTING VENDOR
EXIST ING VENDOR	1.0	20	2	31	Α	32	1	20	0.8	EXIST ING VENDOR
	1.0	-	-	33	- B -	34	1	20	0.0	SPARE
SPACE	0.0	20	1	35	C	36	1	20	0.0	SPARE
SPACE	0.0	20	1	37	Α	38	3	30	3.3	EXIST. KIOSK LOAD CENTER "KES
SPACE	0.0	20	1	39	- B -	40	-		2.5	
SPACE	0.0	20	1	41	C	42	-		2.5	
					CUN					
					SUN	1MA	RY			
			x 1259	6	SUN	IMA	RY			) KVA
LIGHTS RECEPTACLES, FIRST 10 KVA		10.0	x 125% x 100%	6	SUN	IMA	RY		10.0	) KVA
RECEPT ACLES, FIRST 10 KVA RECEPT ACLES		10.0 16.0	x 1259 x 1009 x 50%	6	SUN	1MA	RY		10.0	
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES		10.0 16.0 0.0	x 1259 x 1009 x 50% x 1009	6 6	SUN	IMA	RY		10.0 8.0 0.0	) KVA ) KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES		10.0 16.0 0.0 0.0	x 1259 x 1009 x 50% x 1009 x 1259	6 6 6	SUN	<u>IMA</u>	RY		10.0 8.0 0.0	) KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR		10.0 16.0 0.0 0.0	x 1259 x 1009 x 50% x 1009	6 6 6	SUN	1MA	RY		10.0 8.0 0.0 0.0	) KVA ) KVA ) KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS		10.0 16.0 0.0 0.0 0.0	x 1259 x 1009 x 50% x 1009 x 1259	6 6 6	SUN	<u>IMA</u>	RY		10.0 8.0 0.0 0.0	) KVA ) KVA ) KVA ) KVA
		10.0 16.0 0.0 0.0 0.0 3.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1009	6 6 6 6 6	SUN	<u>1MA</u>	RY		10.0 8.0 0.0 0.0 0.0 3.8	0 KVA 0 KVA 0 KVA 0 KVA 0 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT		10.0 16.0 0.0 0.0 0.0 3.0 4.5	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259	6 6 6 6 6	SUN	<u>IMA</u>	RY		10.0 8.0 0.0 0.0 3.8 4.5	0 KVA 0 KVA 0 KVA 0 KVA 3 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC		10.0 16.0 0.0 0.0 0.0 3.0 4.5 0.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009	6 6 6 6 6			RY		10.0 8.0 0.0 0.0 3.8 4.5	0 KVA KVA KVA 0 KVA KVA KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING	ARY	10.0 16.0 0.0 0.0 0.0 3.0 4.5 0.0	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259	6 6 6 6 6	тоти	AL DEM			10.0 8.0 0.0 0.0 3.8 4.5 0.0 <b>26.3</b>	0 KVA 1 KVA 1 KVA 1 KVA 1 KVA 5 KVA 1 KVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD	ARY	10.0 16.0 0.0 0.0 3.0 4.5 0.0 <b>33.5</b>	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259	6 6 6 6 6	тоти	AL DEM	IAND K		10.0 8.0 0.0 0.0 3.8 4.5 0.0 <b>26.3</b>	0 КVA КVA КVA 0 КVA КVA КVA КVA КVA КVA
RECEPTACLES, FIRST 10 KVA RECEPTACLES MISC. APPLIANCES LARGEST MOTOR MOTORS HEAT AC WATER HEATING TOTAL CONNECTED LOAD CONNECTED LOAD PHASE SUMM	ARY	10.0 16.0 0.0 0.0 3.0 4.5 0.0 33.5 13.1	x 1259 x 1009 x 50% x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 x 1009 x 1259 KVA	6 6 6 6 6	тоти	AL DEM	IAND K		10.0 8.0 0.0 0.0 3.8 4.5 0.0 <b>26.3</b>	0 КVA КVA КVA 0 КVA КVA КVA КVA КVA КVA

			CONTRACT NO. 14-FQ10	0060-CENI-24
DESIGNED C. NGO 08-14 NUMBER	REFERENCE DRAWINGS DESCRIPTION	REVISIONS DATE BY DESCRIPTION	WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY NEW ELECTRONIC PAY PROGRA	
DRAWN C. NGO 08-14 DATE CHECKED B. IDILBI 08-14			DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES OFFICE OF INFRASTRUCTURE REVENUE PROGRAM	0
APPROVED N/A DATE			APPROVED	