ELECTRICAL AND DATA CABLE INSTALLATION

for

Washington Metropolitan Area Transit Authority

Contract Number FQ17021

VOLUME 4

Pre-Inspection Reports
Part 2a
Orange and Blue Lines

November 13, 2016

Final Submission

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

VOLUME 4 **PAGE NO.**

PRE-INSPECTION REPORTS

PART 2A

ORANGE & BLUE LINES

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Pre-Inspection Mezzanine Walkthrough Checklist

Date: 12/11/2014	**Station Name:** McPherson Sq (East) - C02	**Mezzanine #:** 036	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: NEPOA Source Breaker Name/Number: Breaker #8,10,12 Electrical AFC Panel Name/Number: NEMM-IB	Rm 211 Rm 211 Rm 211	
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: "Trans NEMM-1B" SMNT/POWR escorts: LOW Voltage	Rm 211	
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. NO		
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? YES (see notes) Identified Conduit/Duct Transition to mezzanine level? YES		All conduit/ducts on one level. Two handholes. Power run from Kiosk to AFC Panel is approx. 87'.

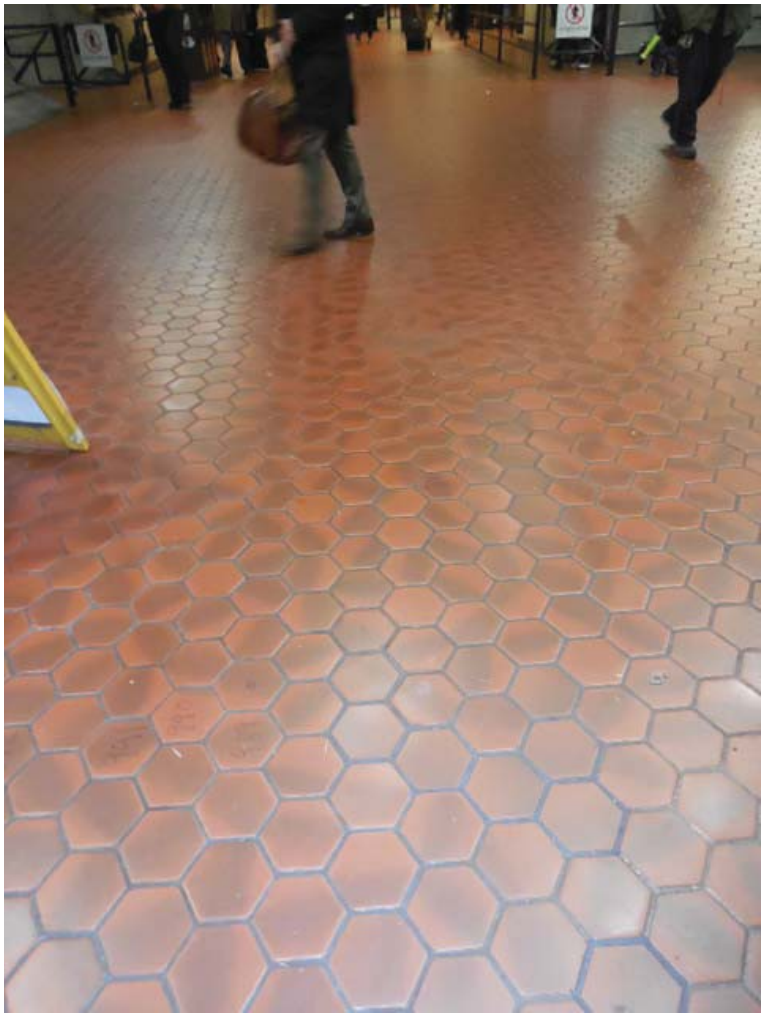
Emergency Power Verification

Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: NEME Source Breaker Name/Number: Breaker #'s 21,23 Panel Name/Number: KE (Kiosk Emergency Power)	Rm 211 Rm 211 Kiosk	

Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:	Tarmina Sahoo	
Date:	12/11/2014	

Pictures 1&2: C02 McPherson Sq (East) – Handholes in mezzanine

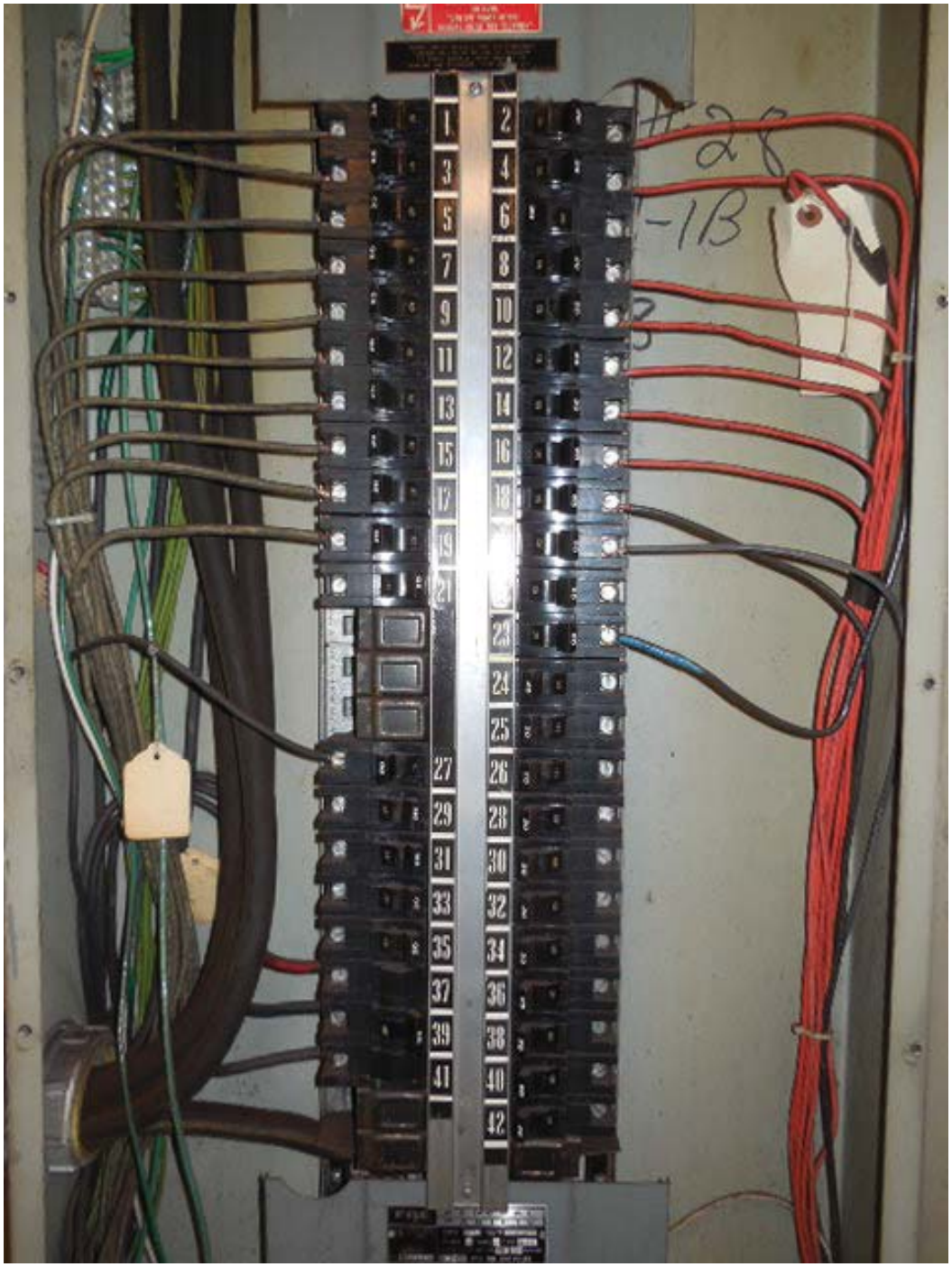


Picture 3: C02 McPherson Sq (East) – New Kiosk to be installed in mezzanine

Pictures 4&5: C02 McPherson Sq (East) – Emergency panel in Kiosk

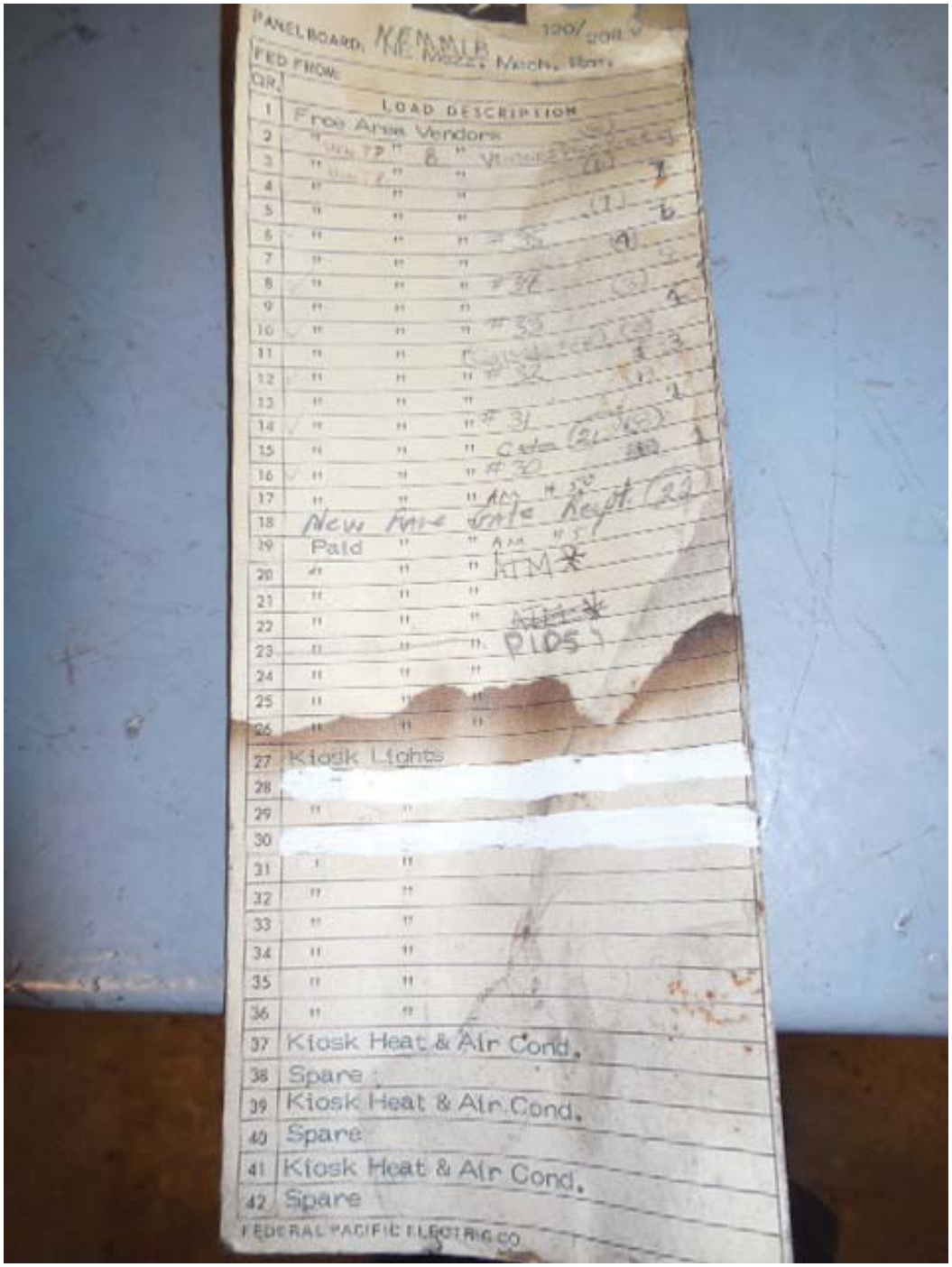
Picture 6: C02 McPherson Sq (East) – AFC Panel NEMM-IB in room 211

Picture 7: C02 McPherson Sq (East) – AFC Panel NEMM-IB in room 211



Picture 8: C02 McPherson Sq (East) – AFC Panel NEMM-IB in room 211 – Bottom duct

Picture 9: C02 McPherson Sq (East) – AFC Panel NEMM-IB in room 211 – Panel schedule

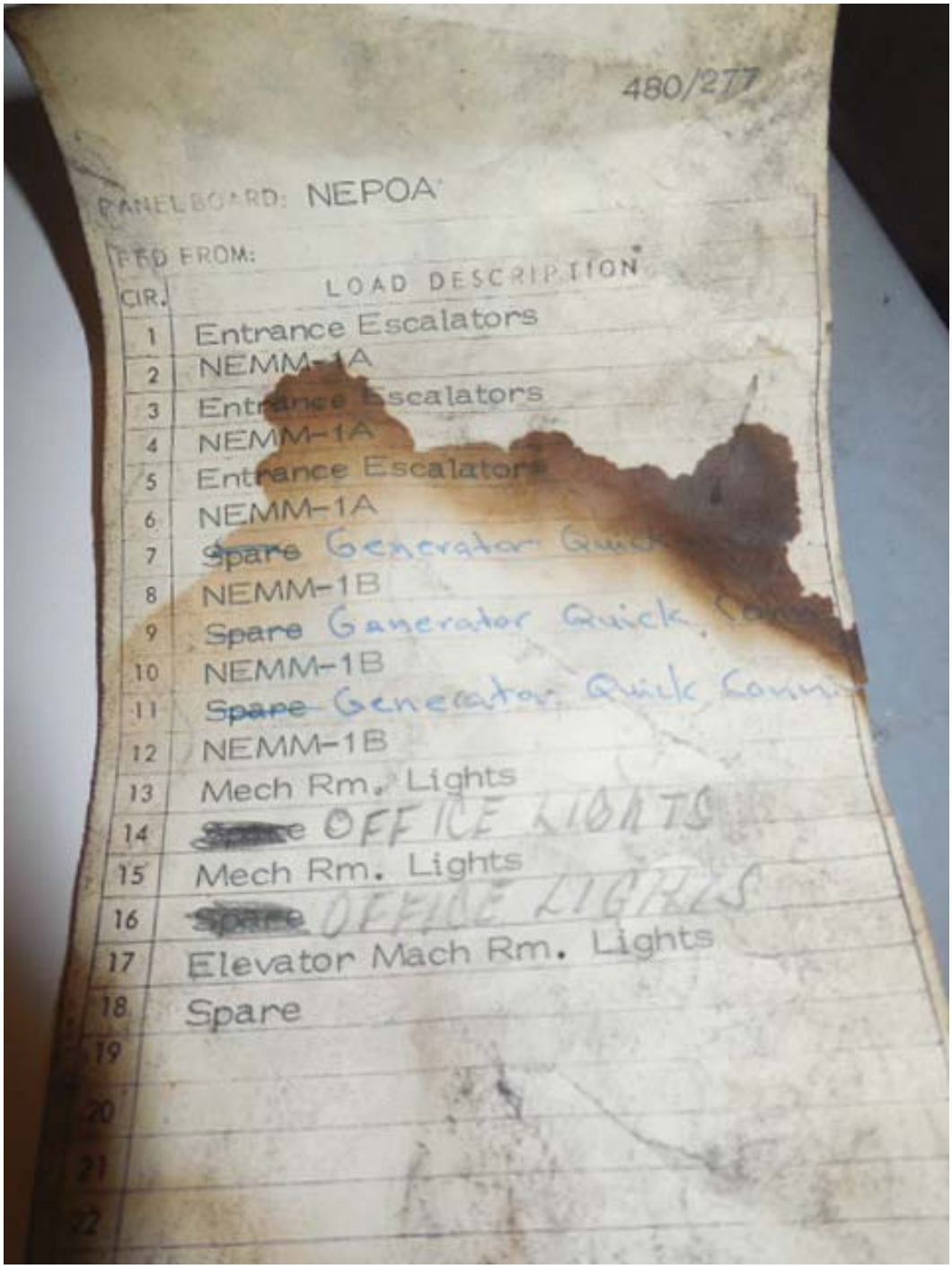


Picture 10: C02 McPherson Sq (East) – Disconnect switch for Trans NEMM-IB in room 211

Picture 11: C02 McPherson Sq (East) – Panel NEPOA in room 211

Picture 12: C02 McPherson Sq (East) – Panel NEPOA in room 211

Picture 13: C02 McPherson Sq (East) – Panel NEPOA in room 211 – Panel schedule



480/277

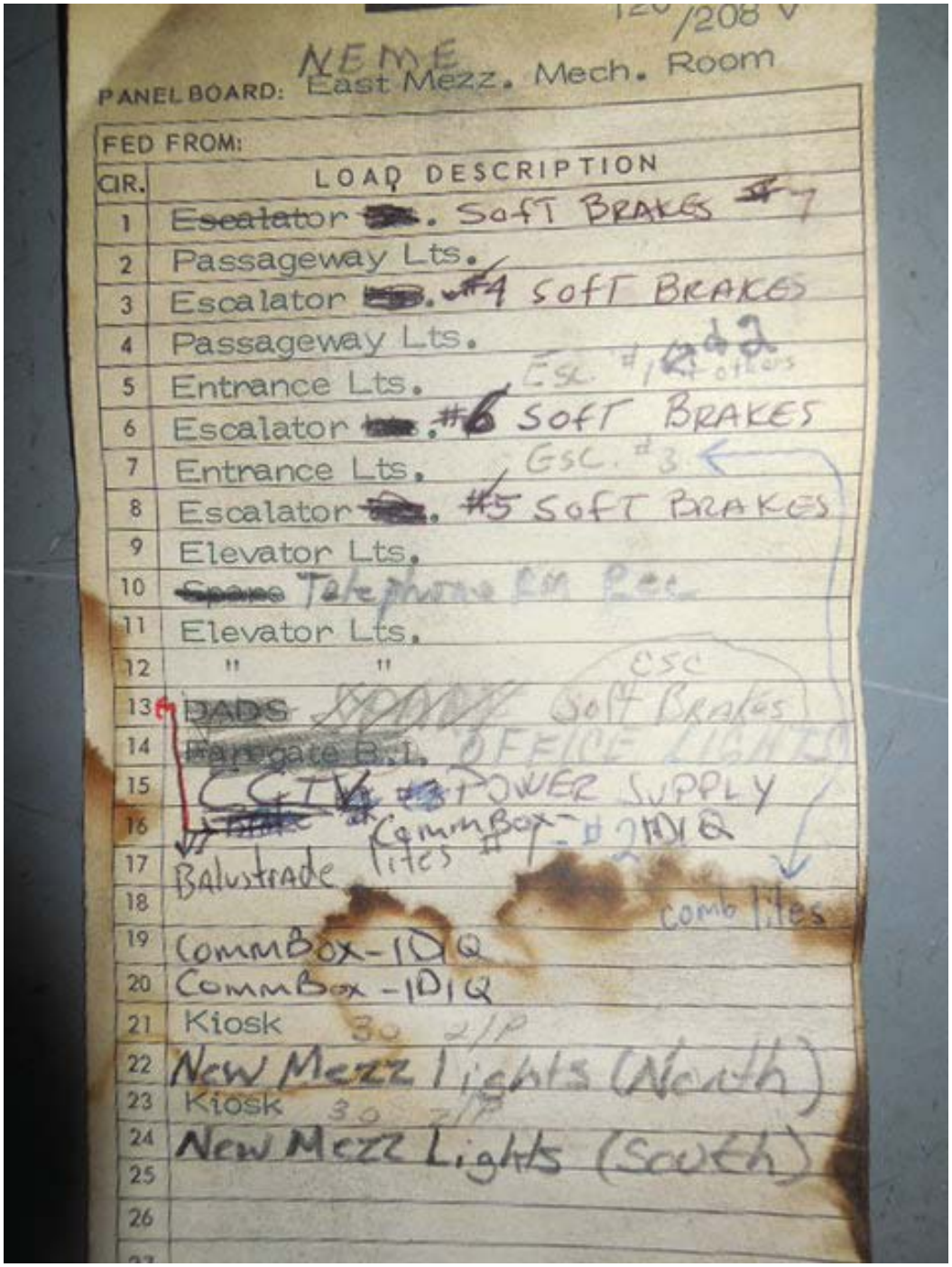
PANELBOARD: NEPOA

FED FROM:

CIR.	LOAD DESCRIPTION
1	Entrance Escalators
2	NEMM-1A
3	Entrance Escalators
4	NEMM-1A
5	Entrance Escalators
6	NEMM-1A
7	~~Spare~~ Generator Quick
8	NEMM-1B
9	Spare Generator Quick Con
10	NEMM-1B
11	~~Spare~~ Generator Quick Conn
12	NEMM-1B
13	Mech Rm. Lights
14	[redacted] OFFICE LIGHTS
15	Mech Rm. Lights
16	~~Spare~~ OFFICE LIGHTS
17	Elevator Mach Rm. Lights
18	Spare
19	
20	
21	
22	

Picture 14: C02 McPherson Sq (East) – Emergency Panel NEME in room 211

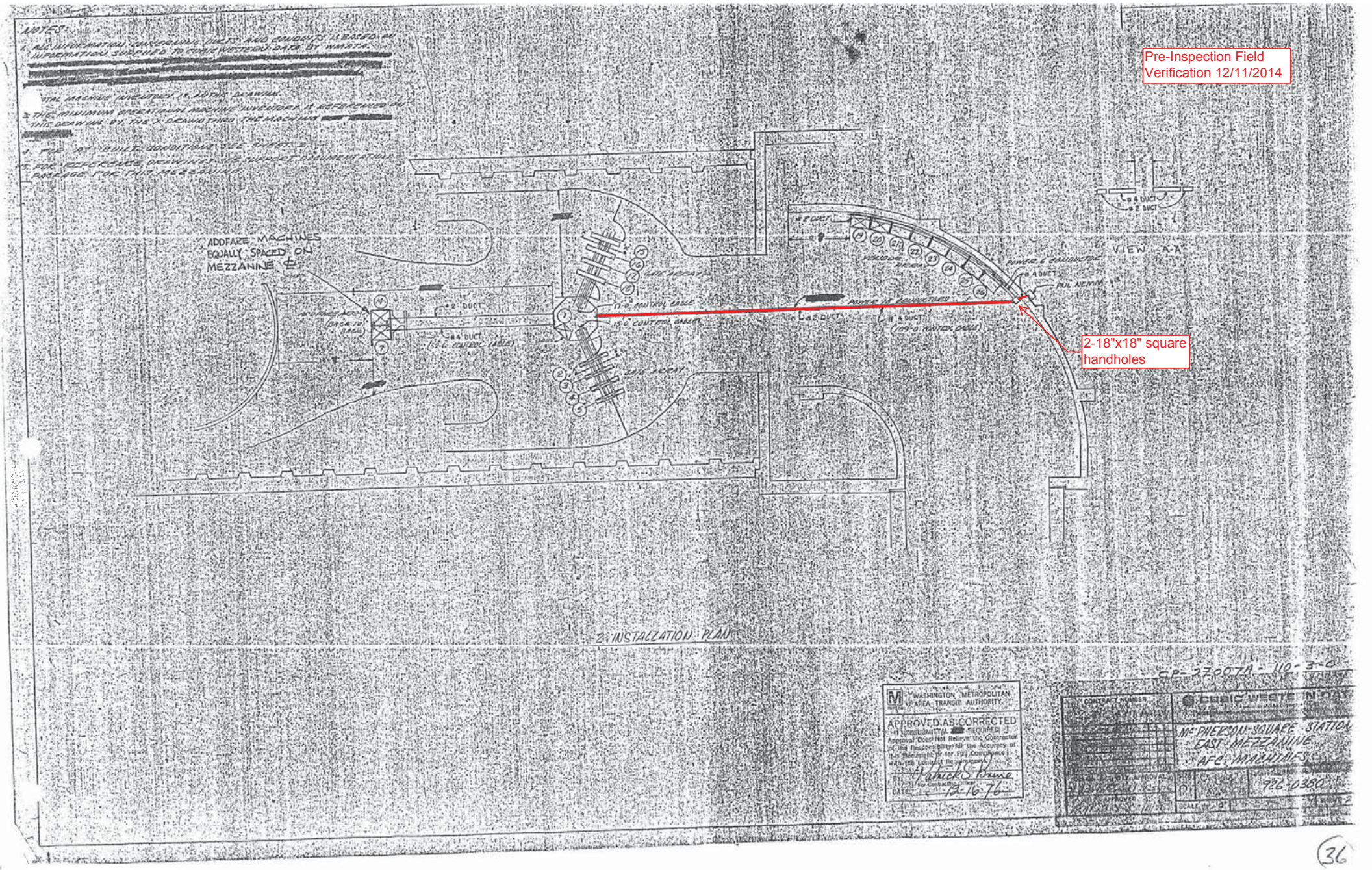
Picture 15: C02 McPherson Sq (East) – Emergency Panel NEME in room 211 – Panel schedule



PANEL BOARD: NEME East Mezz. Mech. Room 120/208 V

FED FROM:

CIR.	LOAD DESCRIPTION
1	~~Escalator~~ [redacted]. Soft BRAKES #7
2	Passageway Lts.
3	Escalator [redacted]. #4 Soft BRAKES
4	Passageway Lts.
5	Entrance Lts. Esc. #1 & 2 & others
6	Escalator [redacted]. #6 Soft BRAKES
7	Entrance Lts. Esc. #3
8	Escalator [redacted]. #5 Soft BRAKES
9	Elevator Lts.
10	~~Spare~~ Telephone EM Pac.
11	Elevator Lts.
12	" " Esc
13	~~PADS~~ [redacted] Soft Brakes
14	~~Fairgate B.L.~~ [redacted] OFFICE LIGHTS
15	~~CCTV~~ [redacted] POWER SUPPLY
16	~~[redacted]~~ CommBox #2 1D1Q
17	Balustrade Lites
18	comb lites
19	CommBox-1D1Q
20	CommBox-1D1Q
21	Kiosk 30 2/P
22	New Mezz Lights (North)
23	Kiosk 30 2/P
24	New Mezz Lights (South)
25	
26	



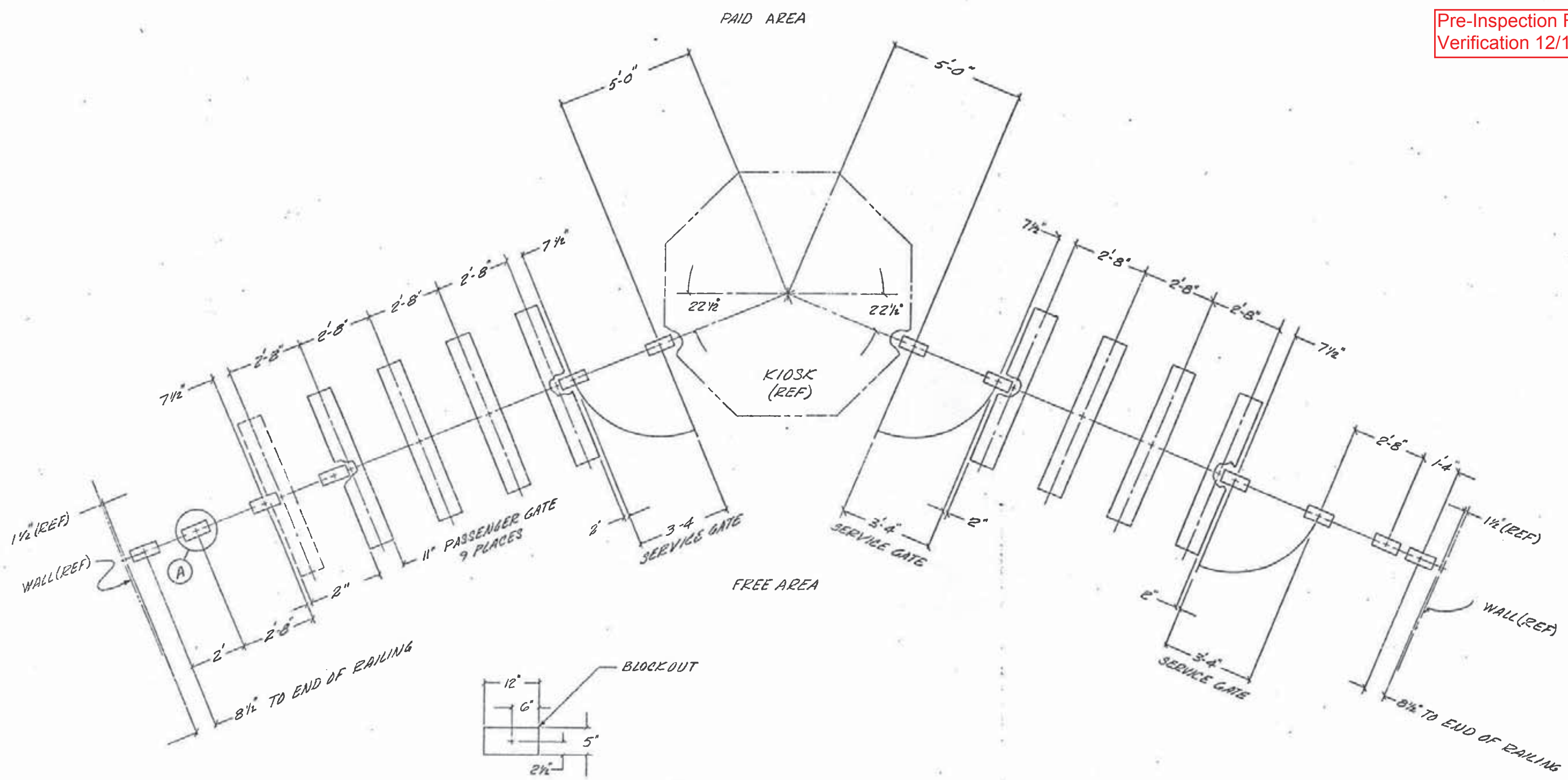
Pre-Inspection Field Verification 12/11/2014

36

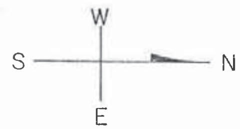
NOTES: UNLESS OTHERWISE SPECIFIED

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APVD

Pre-Inspection Field Verification 12/11/2014



DETAIL A
12 PLACES
SCALE 1"=1'-0"



-2

EAST MEZZANINE

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

UNLESS OTHERWISE SPECIFIED LINEAR DIMENSIONS ARE IN INCHES TOL ON DECIMALS .XX ± .03 .XXX ± .010	ANGLES ± 30'
UNLESS OTHERWISE SPECIFIED HOLE TOLERANCES ARE:	
HOLE DIA	TOLERANCES
.0135 THRU .125	+.004 -.001
.126 THRU .250	+.005 -.001
.256 THRU .500	+.006 -.001
.501 THRU .750	+.008 -.001
.751 THRU 1.000	+.010 -.001

CONTRACT NUMBER 2Z007A

REL / MAINT / STD / ENGRG / DESIGN / CHECK / DRAWN

DESIGN ACTIVITY APPROVAL 12-4-75

APPROVED

CUBIC-WESTERN DATA
SAN DIEGO, CALIFORNIA

M^c PHERSON SQUARE STATION
SERVICE GATE & RAILING
EAST MEZZANINE

SIZE	CODE IDENT	DRAWING NUMBER	REV
D	94987	926-0312	

SCALE ½"=1'-0" 3K-985 SHEET 2 OF 2

926-0312

(3)

EXISTING PANEL "NEMM-1B"

AMPERES: 225		VOLTS: 120/208			MOUNTING: SURFACE					
MAINS: 225 MLO		PHASE: 3			LOCATION: MECH EQUIP WATER SERVICE RM 211					
RATING 10K AIC		WIRE: 4			SECTION: 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	0.0	SPARE
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
SPARE	0.0	20	1	21	- B -	22	1	20	0.0	SPARE
SPACE	0.0	-	-	23	- - C	24	1	20	0.8	EXISTING VENDOR
SPACE	0.0	-	-	25	A - -	26	1	20	0.8	NEW KIOSK RECEPT. (IT & NEPP) 1 ✓
SPACE	0.0	-	-	27	- B -	28	1	20	0.0	SPARE (KIOSK) 1&2 ✓
EXISTING VENDOR	0.8	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	1	20	0.0	SPARE
EXIST. KIOSK LOAD CENTER	2.9	30	3	39	- B -	40	1	20	0.0	SPARE
	2.5	-	-	41	- - C	42	1	20	0.0	SPARE
	2.5	-	-	43	A - -	44	1	20	0.0	SPARE
SPACE	0.0	-	-	45	- B -	46	1	20	0.0	SPARE
SPACE	0.0	-	-	47	- - C	48	-	-	0.0	SPACE

NOTES 1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB
2. CB TO BE RESERVED FOR FUTURE AFC.

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	8.0 x 50%		4.0 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	25.5 KVA	TOTAL DEMAND KVA	22.3 KVA
		TOTAL DEMAND AMPS	61.8 AMPS
CONNECTED LOAD PHASE SUMMARY			
PHASE A:	9.7 KVA		
PHASE B:	7.7 KVA		
PHASE C:	8.1 KVA		

NOTES:
A. EXISTING PANEL "NEMM-1B" IS FED FROM 277/480V, 3ø, 4W EXISTING PANEL "NEPOA" LOCATE IN MECH. EQUIPMENT RM. 211, CIRCUIT #2,4,6-60A/3P VIA 75KVA TRANSFORMER (SEE ATTACHED DWG. MM-C-E07).
B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
- 1-6 1/2"x 1 1/2" FLOOR DUCT (WIRING FILL >40%).

EXISTING WIRING FED FROM TOP OF PANEL BY:
- 1-1/2" C. (WIRING FILL >40%).

EXISTING WIRING FED FROM LEFT SIDE OF PANEL BY:
- 1-3" C. TO TRANSFORMER (WIRING FILL >40%).

Pre-Inspection Field Verification 12/11/2014

EXISTING PANEL "NWMM-1B"

AMPERES: 225		VOLTS: 120/208			MOUNTING: SURFACE					
MAINS: 225 MLO		PHASE: 3			LOCATION: MECHANICAL EQUIP ROOM 212					
RATING: 10K AIC		WIRE 4			SECTION: 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
SPARE	0.0	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
1 NEW KIOSK RECEPT. (IT & NEPP)	0.8	20	1	19	A - -	20	1	20	0.8	EXISTING VENDOR
1&2 SPARE (KIOSK)	0.0	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	23	- - C	24	-	-	0.0	SPACE
SPARE	0.0	20	1	25	A - -	26	1	20	0.0	SPARE
SPACE	0.0	-	-	27	- B -	28	-	-	0.0	SPACE
EXISTING VENDOR	0.8	20	1	29	- - C	30	-	-	0.0	SPACE
SPARE	0.0	20	1	31	A - -	32	-	-	0.0	SPACE
SPARE	0.0	20	1	33	- B -	34	-	-	0.0	SPACE
SPARE	0.0	20	1	35	- - C	36	1	20	0.0	SPACE
SPARE	0.0	20	1	37	A - -	38	1	20	0.8	EXISTING VENDOR
EXIST. KIOSK LOAD CENTER	2.5	30	3	39	- B -	40	1	20	0.0	SPARE
	2.5	-	-	41	- - C	42	1	20	0.8	EXISTING VENDOR
	2.5	-	-	43	A - -	44	1	20	0.0	SPARE
SPACE	0.0	-	-	45	- B -	46	1	20	0.0	SPARE
SPACE	0.0	-	-	47	- - C	48	-	-	0.0	SPACE

NOTES 1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB
2. CB TO BE RESERVED FOR FUTURE AFC.

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	9.2 x 50%		4.6 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	26.7 KVA	TOTAL DEMAND KVA	22.9 KVA
		TOTAL DEMAND AMPS	63.5 AMPS
CONNECTED LOAD PHASE SUMMARY			
PHASE A:	9.7 KVA		
PHASE B:	8.1 KVA		
PHASE C:	8.9 KVA		

NOTES:
A. EXISTING PANEL "NWMM-1B" IS FED FROM 277/480V, 3ø, 4W EXISTING PANEL "NWPOA" LOCATE IN MECH. EQUIP. RM. 212, CIRCUIT #2,4,6-60A/3P VIA 75KVA TRANSFORMER (SEE ATTACHED DWG. MM-C-E07).
B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
- 1-6 1/2"x 1 1/2" FLOOR DUCT (WIRING FILL >40%).
- 3-3/4" C. (1-EMPTY & 2-WIRING FILL >40%).

EXISTING WIRING FED FROM TOP OF PANEL BY:
- 1-3/4" C. (WIRING FILL >40%).

EXISTING WIRING FED FROM LEFT SIDE OF PANEL BY:
- 1-3" C. TO TRANSFORMER (WIRING FILL >40%).
- 1-2" EMPTY CONDUIT.

CONTRACT NO 14-FQ10060-CENI-24

DESIGNED C. NGO 10-14 DATE
DRAWN C. NGO 10-14 DATE
CHECKED B. EDLIS 10-14 DATE
APPROVED N/A DATE

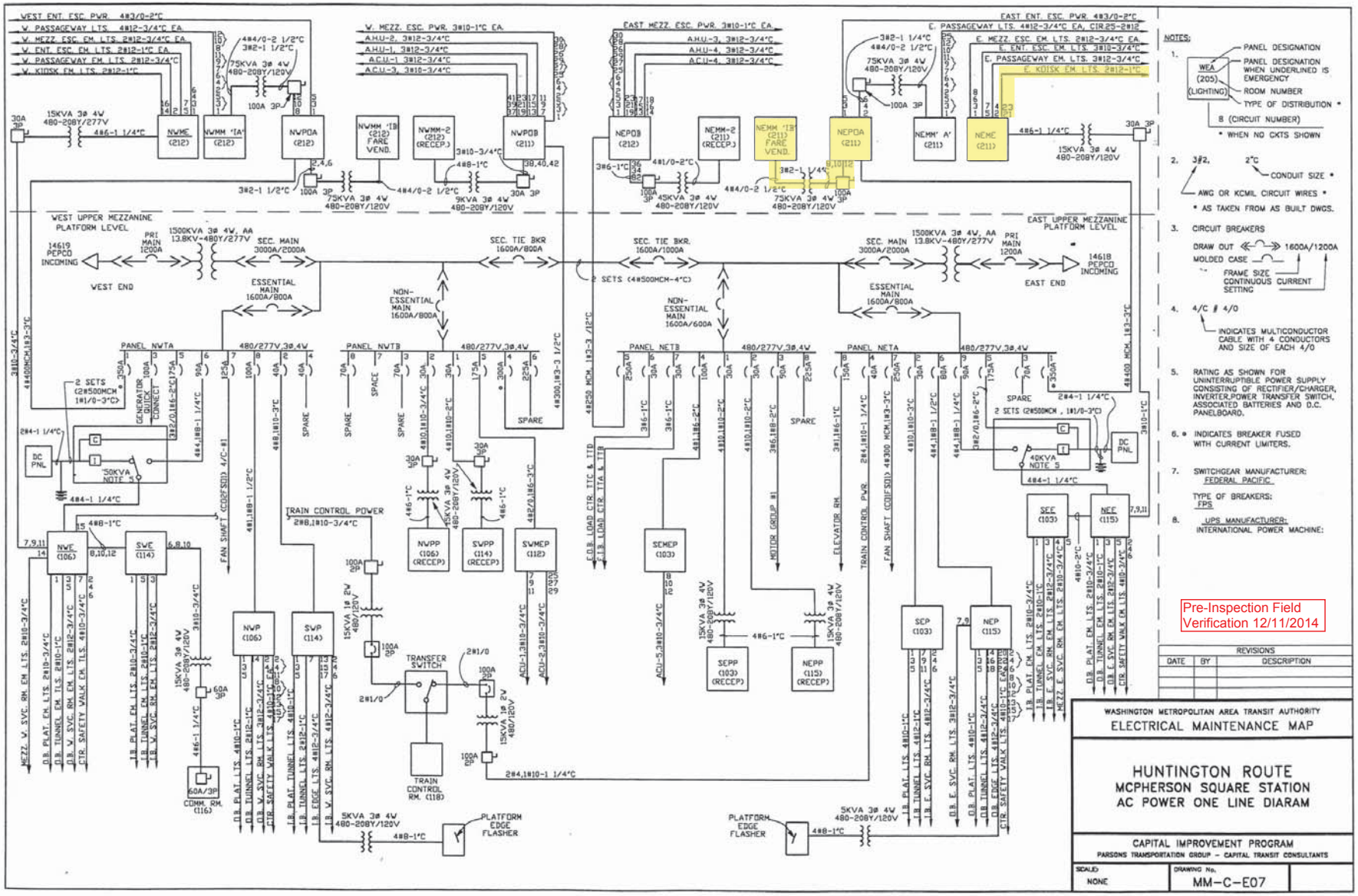
REFERENCE DRAWINGS		REVISIONS		
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM
APPROVED

GFP A Gannett Fleming/Parsons JOINT VENTURE
SUBMITTED PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP)
IN METRORAIL STATIONS
McPHERSON SQUARE - EAST & WEST
PANEL SCHEDULES

SCALE NOT TO SCALE
DRAWING NO C02-E-102



Pre-Inspection Mezzanine Walkthrough Checklist

Date: 12/11/2014	**Station Name:** McPherson Sq (West) - C02	**Mezzanine #:** 037	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: NWPOA Source Breaker Name/Number: Breaker #2,4,6 Electrical AFC Panel Name/Number: NWMM-IB	212 212 Rm 212	S.O. Request: Disconnect Switch "Trans NWMM-1B" to de-energize AFC Panel NWMM-1B; Breakers #8,10,12 on Source Panel NWPOA will de-energize Panel NWMM-1A (Shares Raceway);
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: "Trans NWMM-1B" SMNT/POWR escorts: LOW Voltage	Rm 212	Disconnect Switch "Trans-NWME" will de-energize Panel NWME to kill emergency power to faregates.
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. YES (see notes)		Panel NWMM-1A shares raceway with AFC Panel NWMM-1B. Breakers #8,10,12 on Panel NWPOA will de-energize Panel NWMM-1A.
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☐ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		Power Run from Kiosk to AFC Panel is approx 80'.
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? NO Identified Conduit/Duct Transition to mezzanine level? YES		All conduit/ducts on one level. No handholes. Straight shot from AFC panel to Kiosk with a 90 degree bend.

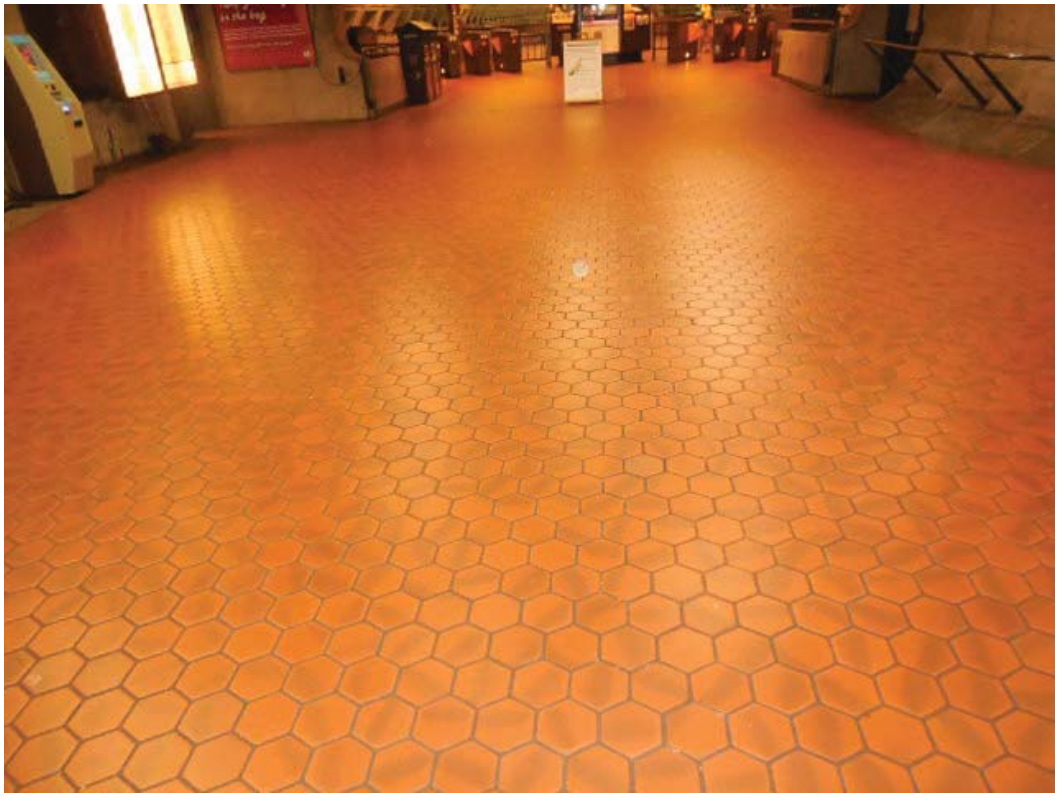
Emergency Power Verification

Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: Source Breaker Name/Number: Disconnect switch "Trans NWME" Panel Name/Number:	Rm 212	

Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:	Tanmaya Sahoo	
Date:	12/11/2014	

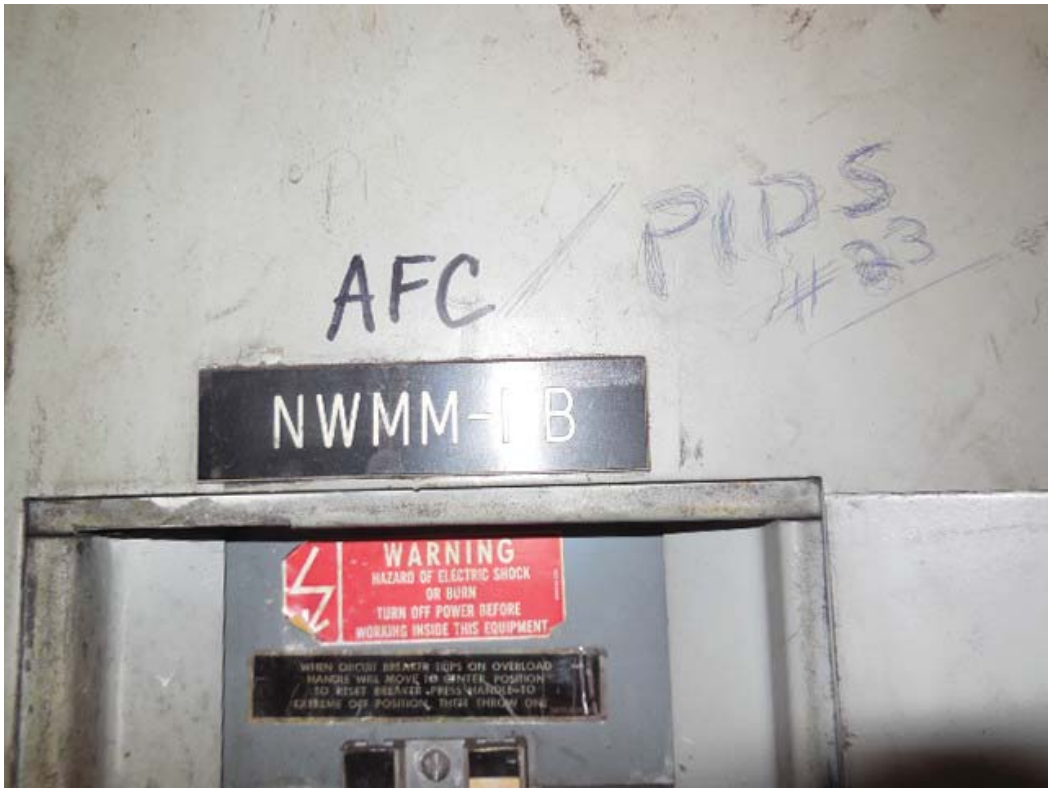
Picture 1: C02 McPherson Sq (West) – No handholes in mezzanine



Pictures 2&3: C02 McPherson Sq (West) – Current kiosk is to be replace with new one

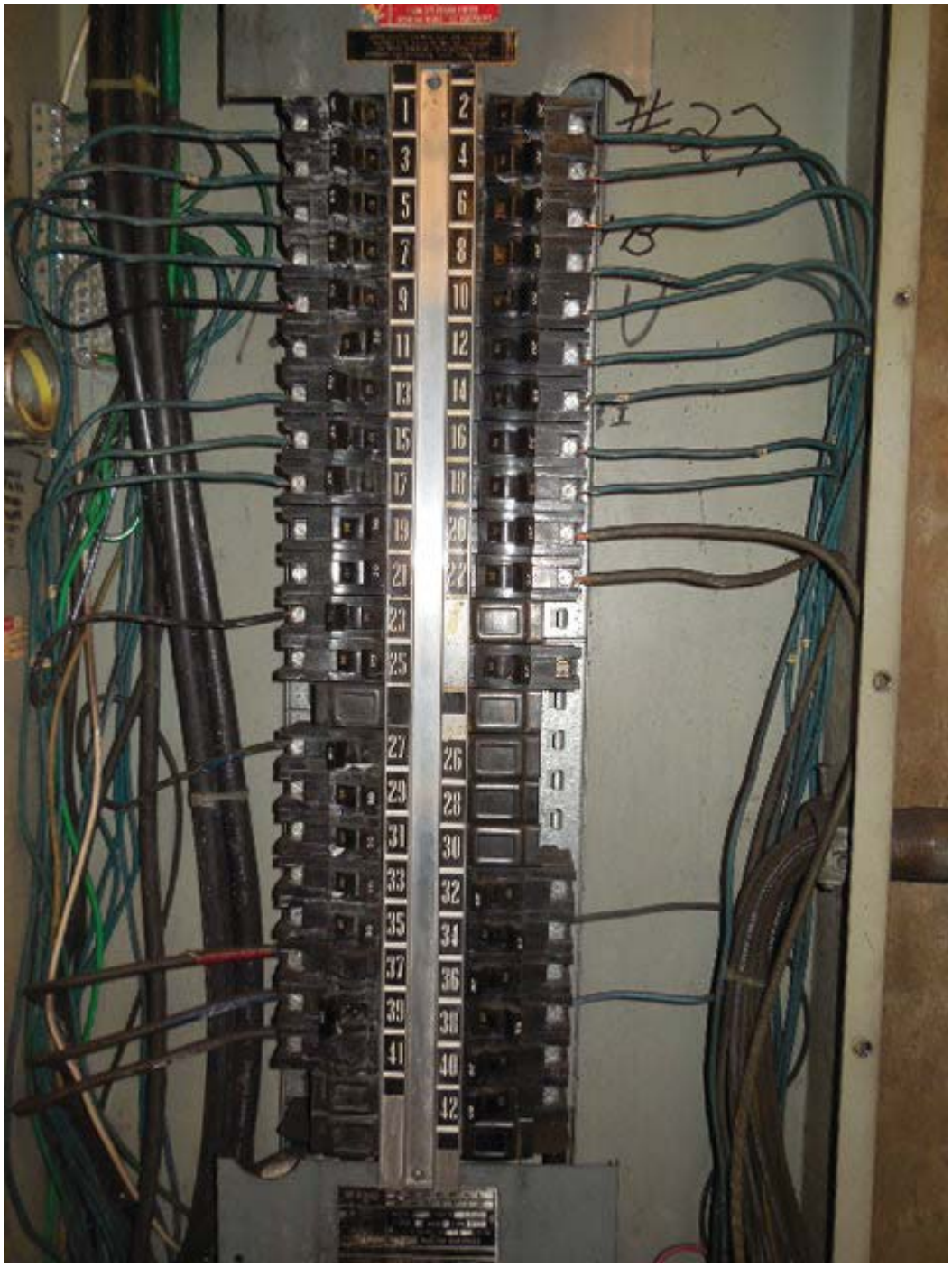
Pictures 4&5: C02 McPherson Sq (West) – Emergency panel in Kiosk

Picture 6: C02 McPherson Sq (West) – AFC Panel NWMM-1B in room 212



Picture 7: C02 McPherson Sq (West) - AFC Panel NWMM-1B in room 212

Picture 8: C02 McPherson Sq (West) - AFC Panel NWMM-1B in room 212



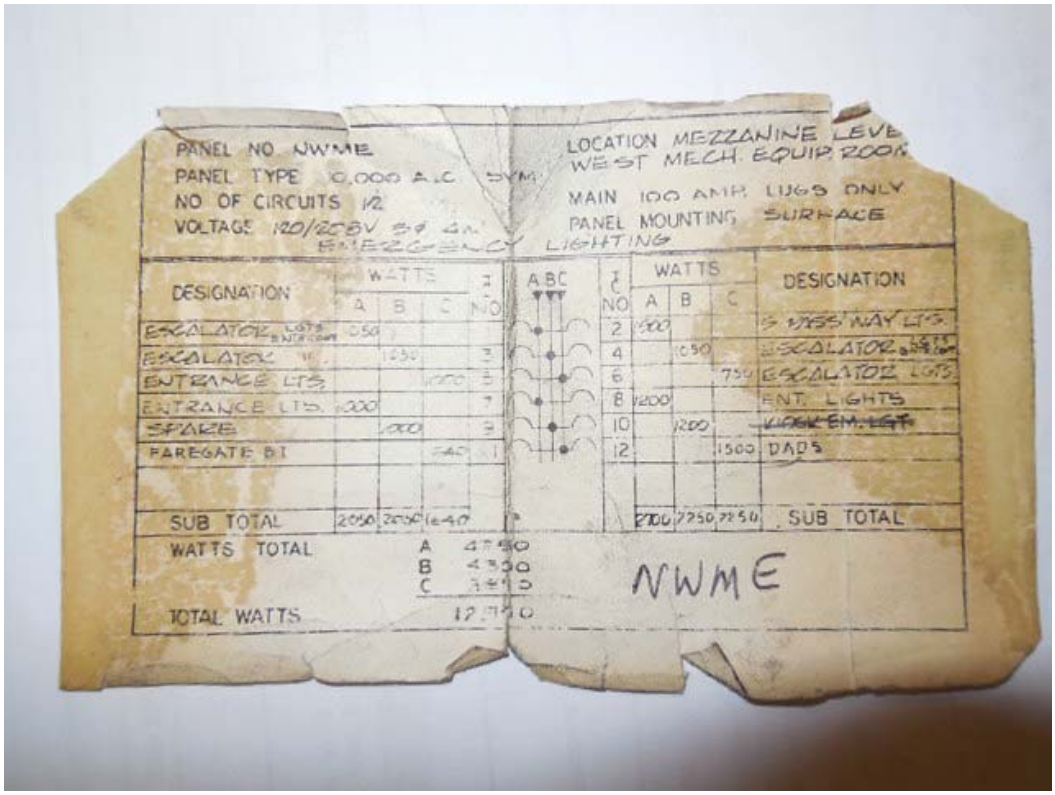
Picture 9: C02 McPherson Sq (West) - AFC Panel NWMM-1B in room 212 – Bottom duct and conduits

Picture 10: C02 McPherson Sq (West) – Transformer for AFC Panel NWMM-1B in room 212

Picture 11: C02 McPherson Sq (West) – Disconnect switch for Trans NWMM-1B in room 212

Picture 12: C02 McPherson Sq (West) – Emergency Panel NWME in room 212

Picture 13: C02 McPherson Sq (West) - Emergency Panel NWME in room 212 – Panel schedule

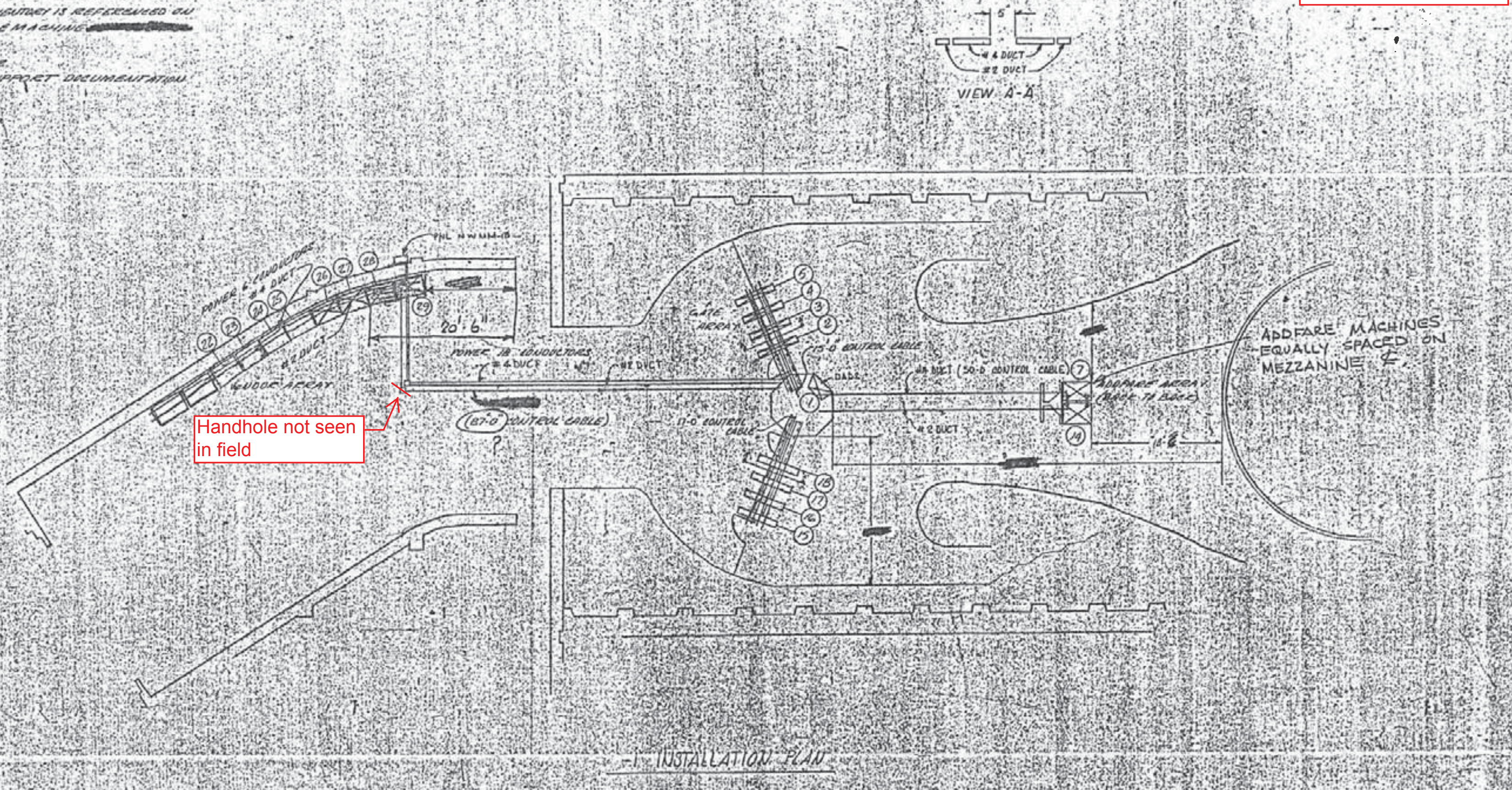


NOTES:

1. ALL INFORMATION CONCERNING DUCTS AND CONDUITS IS BASED ON INFORMATION SUPPLIED TO CUBIC WESTERN DATA BY WMATA.
[redacted]
...TAL MACHINE INVENTORY IS DEPICTED ON THIS DRAWING.
3. THE MINIMUM OPERATIONAL MACHINE INVENTORY IS REFERENCED ON THIS DRAWING BY THE "X" DRAWN THRU THE MACHINE [redacted]
4. FOR AS BUILT CONDITIONS SEE SHEET 2.
5. FOR REFERENCE DRAWINGS SEE SUPPORT DOCUMENTATION PACKAGE FOR THIS MEZZANINE.

REVISIONS		
DESCRIPTION	DATE	APVD

Pre-Inspection Field Verification 12/11/2014



INSTALLATION PLAN

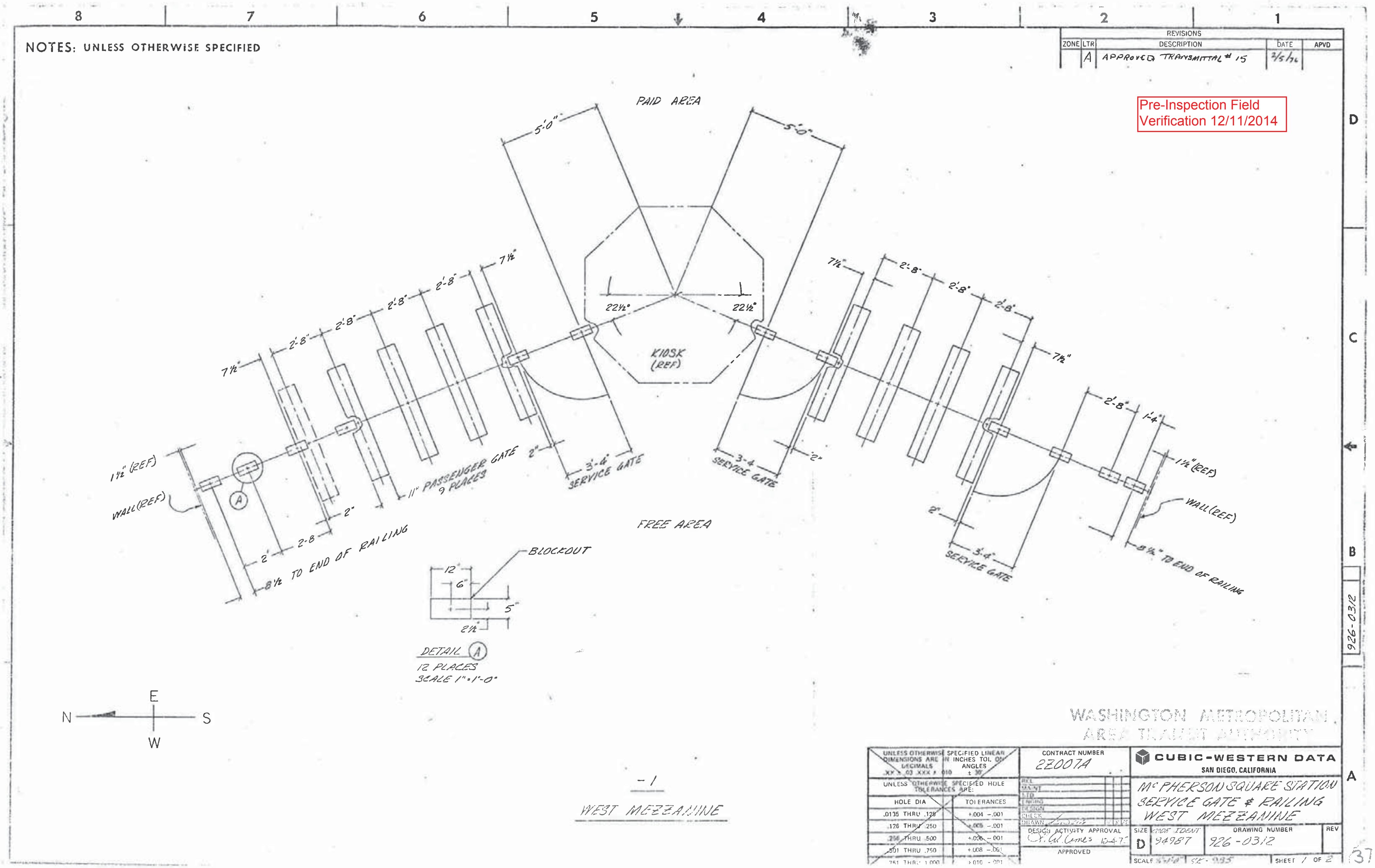
SP-22007A-110-4-0

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
APPROVED AS CORRECTED
(RESUBMITTAL [redacted] REQUIRED)
Approval Does Not Relieve the Contractor of the Responsibility for the Accuracy of this Document or for Full Compliance with the Contract Requirements
BY: Patrick S Bourne
For Contracting Officer
DATE: 12-16-76

CUBIC WESTERN DATA

McPHERSON SQUARE STATION
WEST MEZZANINE
AFC MACHINES

DESIGN ACTIVITY APPROVAL
APPROVED
SIZE D
DRAWING NUMBER 926-0380
(37)
SHEET 1


NOTES: UNLESS OTHERWISE SPECIFIED
REVISIONS
ZONE | LTR | DESCRIPTION | DATE | APVD
A | APPROVED TRANSMITTAL # 15 | 2/5/76
Pre-Inspection Field Verification 12/11/2014
PAID AREA
5'-0"
5'-0"
KIOSK (REF)
22½°
22½°
7½"
2'-8"
2'-8"
2'-8"
2'-8"
2'-8"
7½"
1½" (REF)
WALL (REF)
A
11" PASSENGER GATE 9 PLACES
3'-4" SERVICE GATE
2"
2'-8
8½ TO END OF RAILING
FREE AREA
3'-4 SERVICE GATE
1-4
1½" (REF)
WALL (REF)
8½" TO END OF RAILING
BLOCKOUT
12"
6"
5"
2½"
DETAIL A
12 PLACES
SCALE 1"=1'-0"
E
N
S
W
-1
WEST MEZZANINE
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
CONTRACT NUMBER 2Z007A
CUBIC-WESTERN DATA
SAN DIEGO, CALIFORNIA
McPHERSON SQUARE STATION
SERVICE GATE & RAILING
WEST MEZZANINE
SIZE D
CODE IDENT 94987
DRAWING NUMBER 926-0312
SHEET 1 OF 2
926-0312

EXISTING PANEL "NEMM-1B"

AMPERES: 225		VOLTS: 120/208			MOUNTING: SURFACE					
MAINS: 225 MLO		PHASE: 3			LOCATION: MECH EQUIP WATER SERVICE RM 211					
RATING 10K AIC		WIRE: 4			SECTION: 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	0.0	SPARE
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
SPARE	0.0	20	1	21	- B -	22	1	20	0.0	SPARE
SPACE	0.0	-	-	23	- - C	24	1	20	0.8	EXISTING VENDOR
SPACE	0.0	-	-	25	A - -	26	1	20	0.8	NEW KIOSK RECEPT. (IT & NEPP) 1
SPACE	0.0	-	-	27	- B -	28	1	20	0.0	SPARE (KIOSK) 1&2
EXISTING VENDOR	0.8	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	1	20	0.0	SPARE
EXIST. KIOSK LOAD CENTER	2.9	30	3	39	- B -	40	1	20	0.0	SPARE
	2.5	-	-	41	- - C	42	1	20	0.0	SPARE
	2.5	-	-	43	A - -	44	1	20	0.0	SPARE
SPACE	0.0	-	-	45	- B -	46	1	20	0.0	SPARE
SPACE	0.0	-	-	47	- - C	48	-	-	0.0	SPACE

NOTES 1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB
2. CB TO BE RESERVED FOR FUTURE AFC.

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	8.0 x 50%		4.0 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	25.5 KVA	TOTAL DEMAND KVA	22.3 KVA
		TOTAL DEMAND AMPS	61.8 AMPS

CONNECTED LOAD PHASE SUMMARY

PHASE A:	9.7 KVA
PHASE B:	7.7 KVA
PHASE C:	8.1 KVA

NOTES:
A. EXISTING PANEL "NEMM-1B" IS FED FROM 277/480V, 3ø, 4W EXISTING PANEL "NEPOA" LOCATE IN MECH. EQUIPMENT RM. 211, CIRCUIT #2,4,6-60A/3P VIA 75KVA TRANSFORMER (SEE ATTACHED DWG. MM-C-E07).
B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
* 1-6 1/2"x 1 1/2" FLOOR DUCT (WIRING FILL >40%).
EXISTING WIRING FED FROM TOP OF PANEL BY:
* 1-1/2" C. (WIRING FILL >40%).
EXISTING WIRING FED FROM LEFT SIDE OF PANEL BY:
* 1-3" C. TO TRANSFORMER (WIRING FILL >40%).

EXISTING PANEL "NWMM-1B"

AMPERES: 225		VOLTS: 120/208			MOUNTING: SURFACE					
MAINS: 225 MLO		PHASE: 3			LOCATION: MECHANICAL EQUIP ROOM 212					
RATING: 10K AIC		WIRE 4			SECTION: 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
SPARE	0.0	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
NEW KIOSK RECEPT. (IT & NEPP) 1	0.8	20	1	19	A - -	20	1	20	0.8	EXISTING VENDOR
SPARE (KIOSK) 1&2	0.0	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	23	- - C	24	-	-	0.0	SPACE
SPARE	0.0	20	1	25	A - -	26	1	20	0.0	SPARE
SPACE	0.0	-	-	27	- B -	28	-	-	0.0	SPACE
EXISTING VENDOR	0.8	20	1	29	- - C	30	-	-	0.0	SPACE
SPARE	0.0	20	1	31	A - -	32	-	-	0.0	SPACE
SPARE	0.0	20	1	33	- B -	34	-	-	0.0	SPACE
SPARE	0.0	20	1	35	- - C	36	1	20	0.0	SPACE
SPARE	0.0	20	1	37	A - -	38	1	20	0.8	EXISTING VENDOR
EXIST. KIOSK LOAD CENTER	2.5	30	3	39	- B -	40	1	20	0.0	SPARE
	2.5	-	-	41	- - C	42	1	20	0.8	EXISTING VENDOR
	2.5	-	-	43	A - -	44	1	20	0.0	SPARE
SPACE	0.0	-	-	45	- B -	46	1	20	0.0	SPARE
SPACE	0.0	-	-	47	- - C	48	-	-	0.0	SPACE

NOTES 1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB
2. CB TO BE RESERVED FOR FUTURE AFC.

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	9.2 x 50%		4.6 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	26.7 KVA	TOTAL DEMAND KVA	22.9 KVA
		TOTAL DEMAND AMPS	63.5 AMPS

CONNECTED LOAD PHASE SUMMARY

PHASE A:	9.7 KVA
PHASE B:	8.1 KVA
PHASE C:	8.9 KVA

NOTES:
A. EXISTING PANEL "NWMM-1B" IS FED FROM 277/480V, 3ø, 4W EXISTING PANEL "NWPOA" LOCATE IN MECH. EQUIP. RM. 212, CIRCUIT #2,4,6-60A/3P VIA 75KVA TRANSFORMER (SEE ATTACHED DWG. MM-C-E07).
B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
* 1-6 1/2"x 1 1/2" FLOOR DUCT (WIRING FILL >40%).
* 3-3/4" C. (1-EMPTY & 2-WIRING FILL >40%).
EXISTING WIRING FED FROM TOP OF PANEL BY:
* 1-3/4" C. (WIRING FILL >40%).
EXISTING WIRING FED FROM LEFT SIDE OF PANEL BY:
* 1-3" C. TO TRANSFORMER (WIRING FILL >40%).
* 1-2" EMPTY CONDUIT.

Pre-Inspection Field Verification 12/11/2014

CONTRACT NO 14-FQ10060-CENI-24

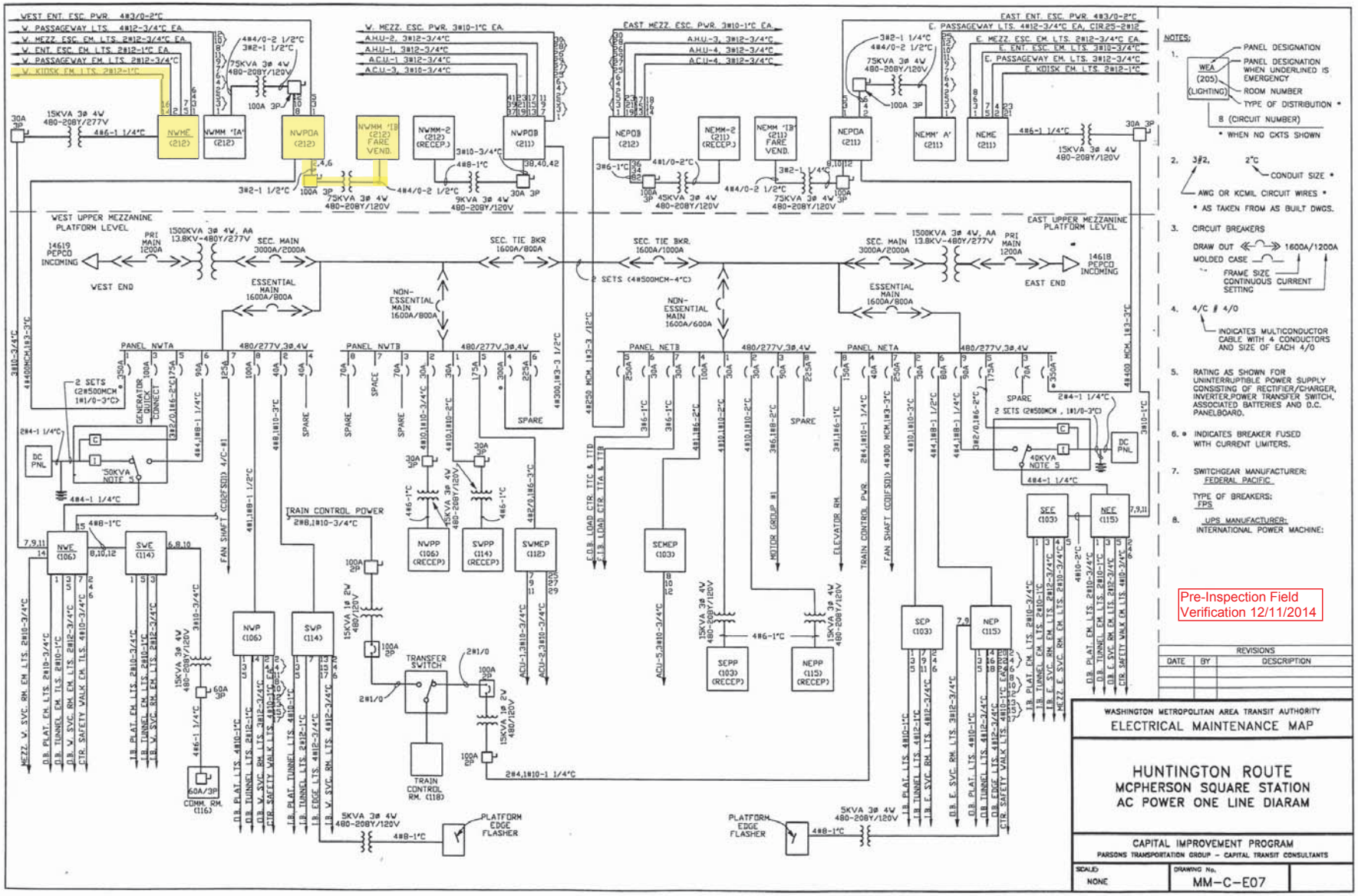
DESIGNED C. NGO	10-14 DATE	REFERENCE DRAWINGS	REVISIONS
DRAWN C. NGO	10-14 DATE	NUMBER / DESCRIPTION	DATE / BY / DESCRIPTION
CHECKED B. EDLIN	10-14 DATE		
APPROVED N/A	DATE		

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM
APPROVED _____

GFP A Gannett Fleming/Parsons JOINT VENTURE
SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP)
IN METRORAIL STATIONS
McPHERSON SQUARE - EAST & WEST
PANEL SCHEDULES

SCALE: NOT TO SCALE
DRAWING NO: C02-E-102



Pre-Inspection Mezzanine Walkthrough Checklist

Date: 11/18/2014	**Station Name:** Farragut West - C03	**Mezzanine #:** 038	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: SEPOA Source Breaker Name/Number: Breaker #3,5,7 Electrical AFC Panel Name/Number: SEMA	Rm 201 Rm 201 Rm 201	
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: SMNT/POWR escorts: HIGH Voltage		
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. NO		
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		Two handholes in entrance passageway.
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? YES (see notes) Identified Conduit/Duct Transition to mezzanine level? YES		All conduit/ducts on one level.

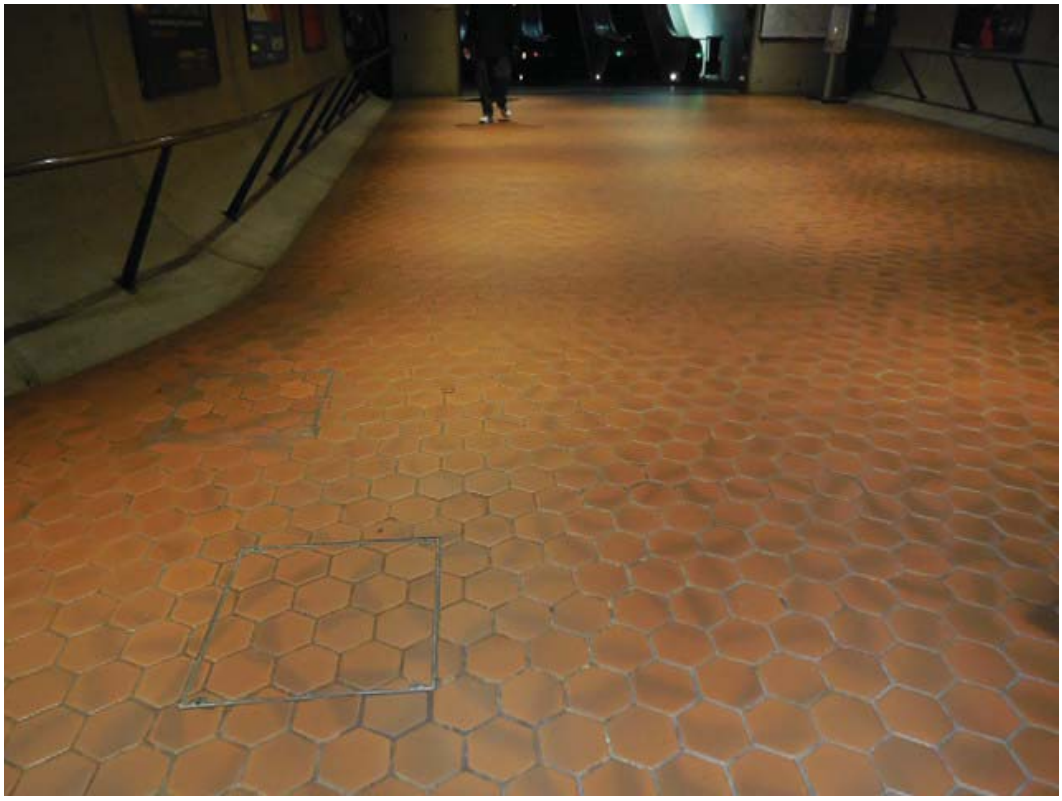
Emergency Power Verification

Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: Kiosk Panel (unlabeled) Source Breaker Name/Number: Breaker #3 Panel Name/Number: Emergency Power to Faregates	Kiosk Kiosk	

Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:	Tarmina Sahoo	
Date:	11/18/2014	

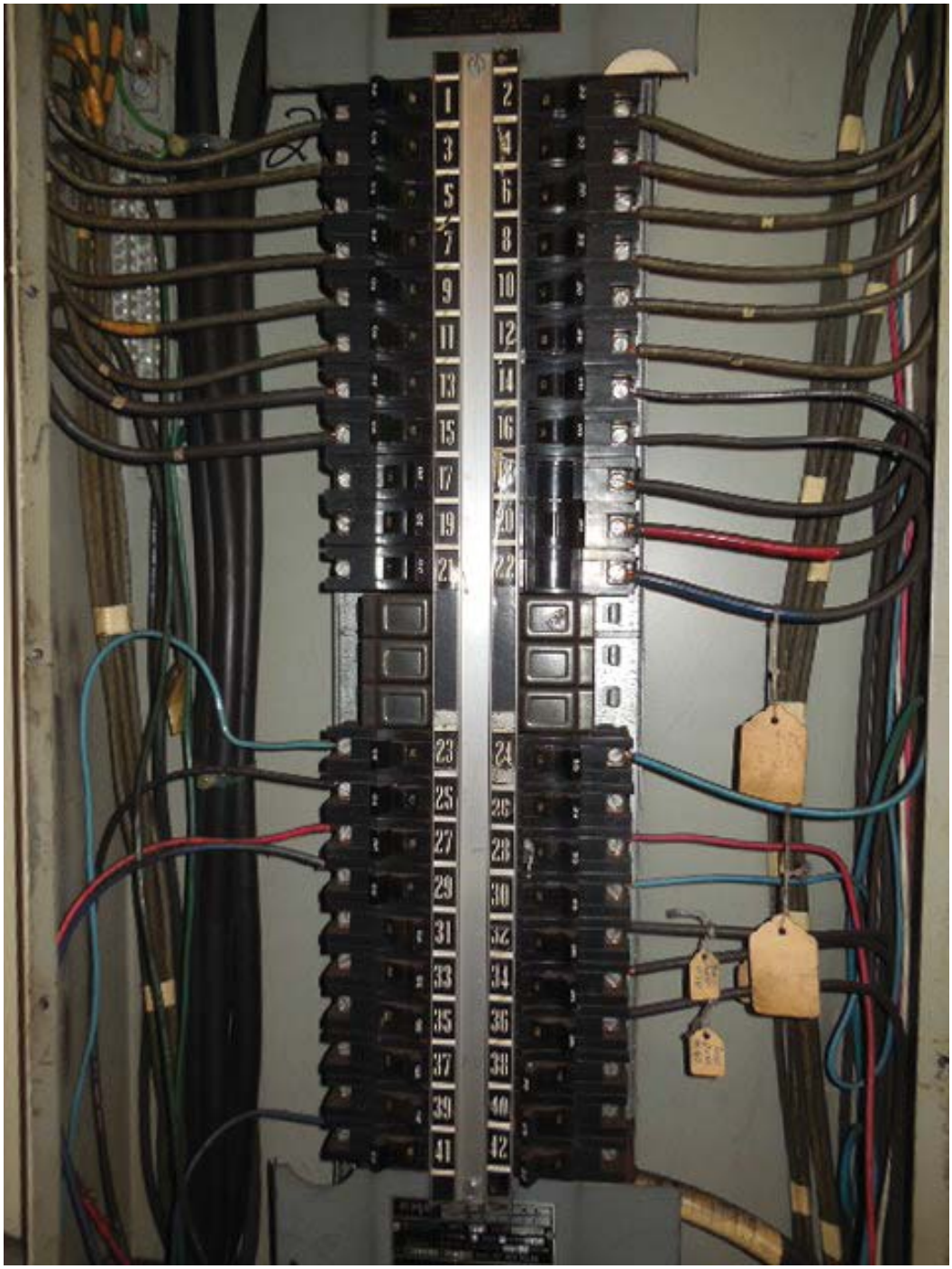
Pictures 1&2: C03 Farragut West – Handholes in mezzanine



Pictures 3&4: C03 Farragut West – Emergency panel in Kiosk

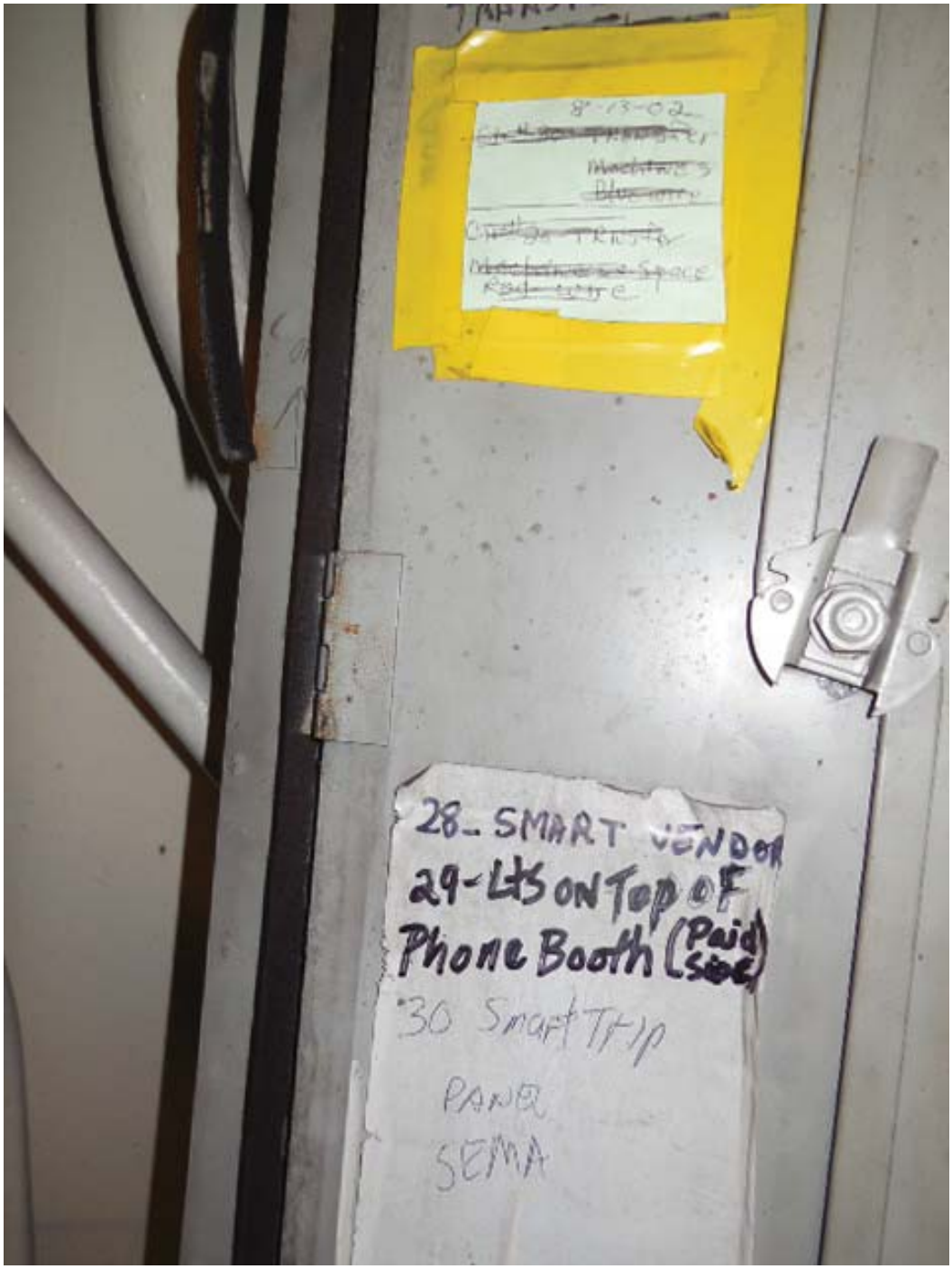
Picture 5: C03 Farragut West – AFC Panel SEMA in Rm 201

Picture 6: C03 Farragut West – AFC Panel SEMA in Rm 201



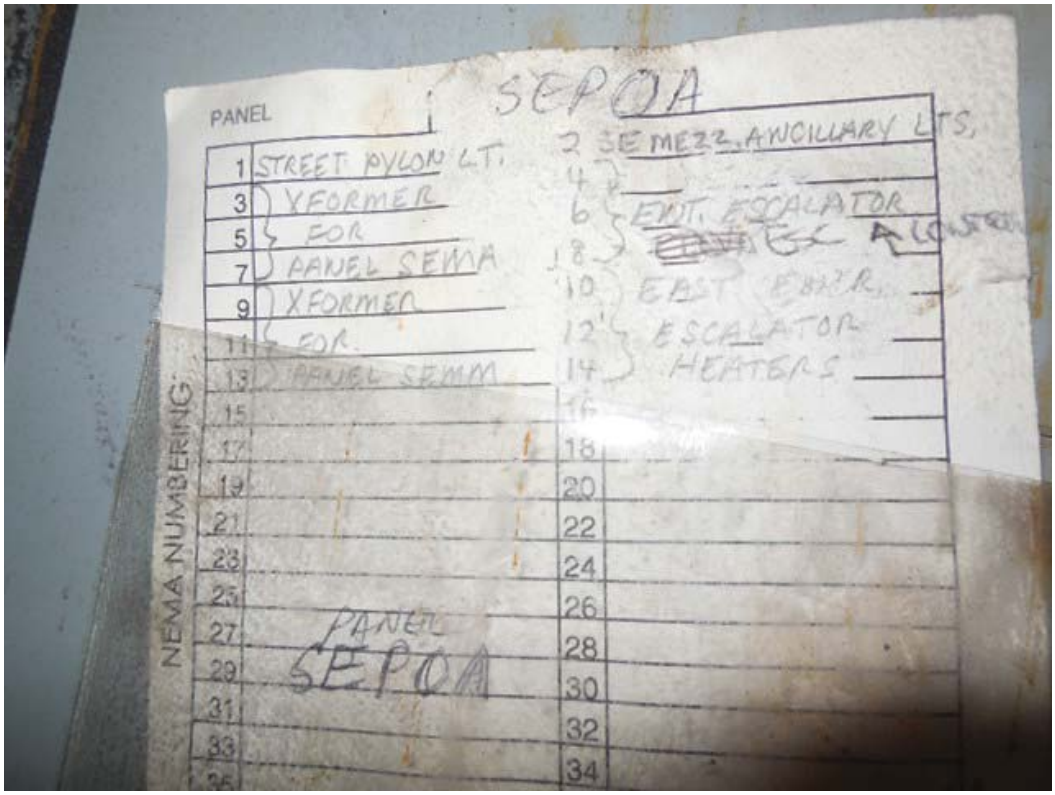
Picture 7: C03 Farragut West – AFC Panel SEMA in Rm 201, bottom ducts

Picture 8: C03 Farragut West – AFC Panel SEMA in Rm 201, panel schedule



Picture 9: C03 Farragut West – Panel SEPOA in Rm 201

Picture 10: C03 Farragut West – Panel SEPOA in Rm 201, panel schedule



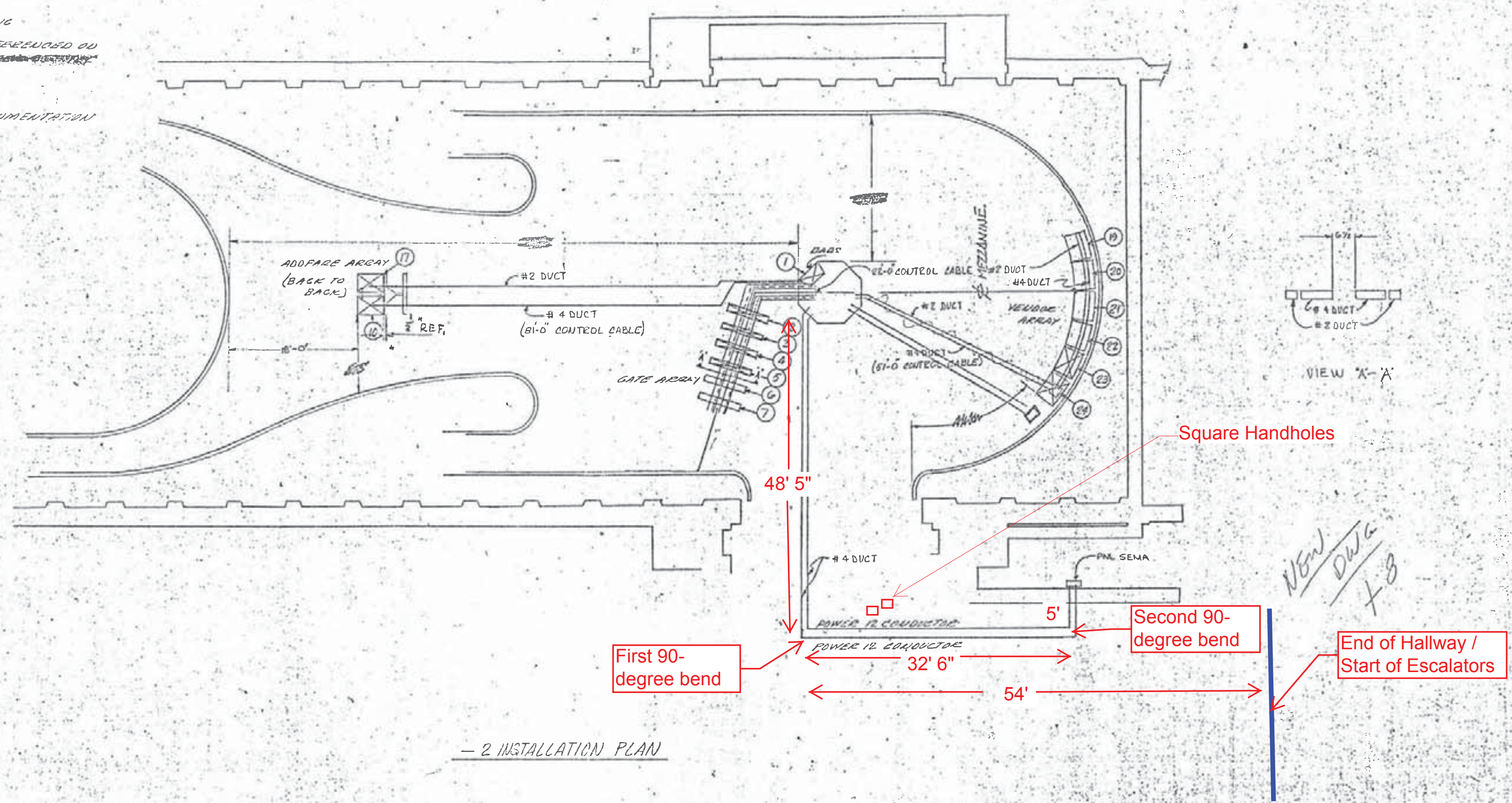
...RMATION CONCERNING DUCTS AND CONDUITS IS ... INFORMATION SUPPLIED TO CUBIC WESTERN DATA
[illegible]

...CHINE INVENTORY IS DEPICTED ON THIS DRAWING
...MUM OPERATIONAL MACHINE INVENTORY IS REFERENCED ON ...WING BY THE X DRAWN THRU THE MACHINE [illegible]

...BUILT CONDITIONS SEE SHEET 2.

...FERENCE DRAWINGS USED SEE SUPPORT DOCUMENTATION FOR THIS MEZZANINE.

REVISIONS		
DESCRIPTION	DATE	APVD



— 2 INSTALLATION PLAN

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
APPROVED AS CORRECTED (RESUBMITTAL REQUIRED)
Approval Does Not Relieve the Contractor of the Responsibility for the Accuracy of this Document or for Full Compliance with the Contract Requirements.
BY: [signature] for Contracting Officer
DATE: 12-7-76

REFERENCE DRAWINGS USED

CP-93007A-10.5 3-0

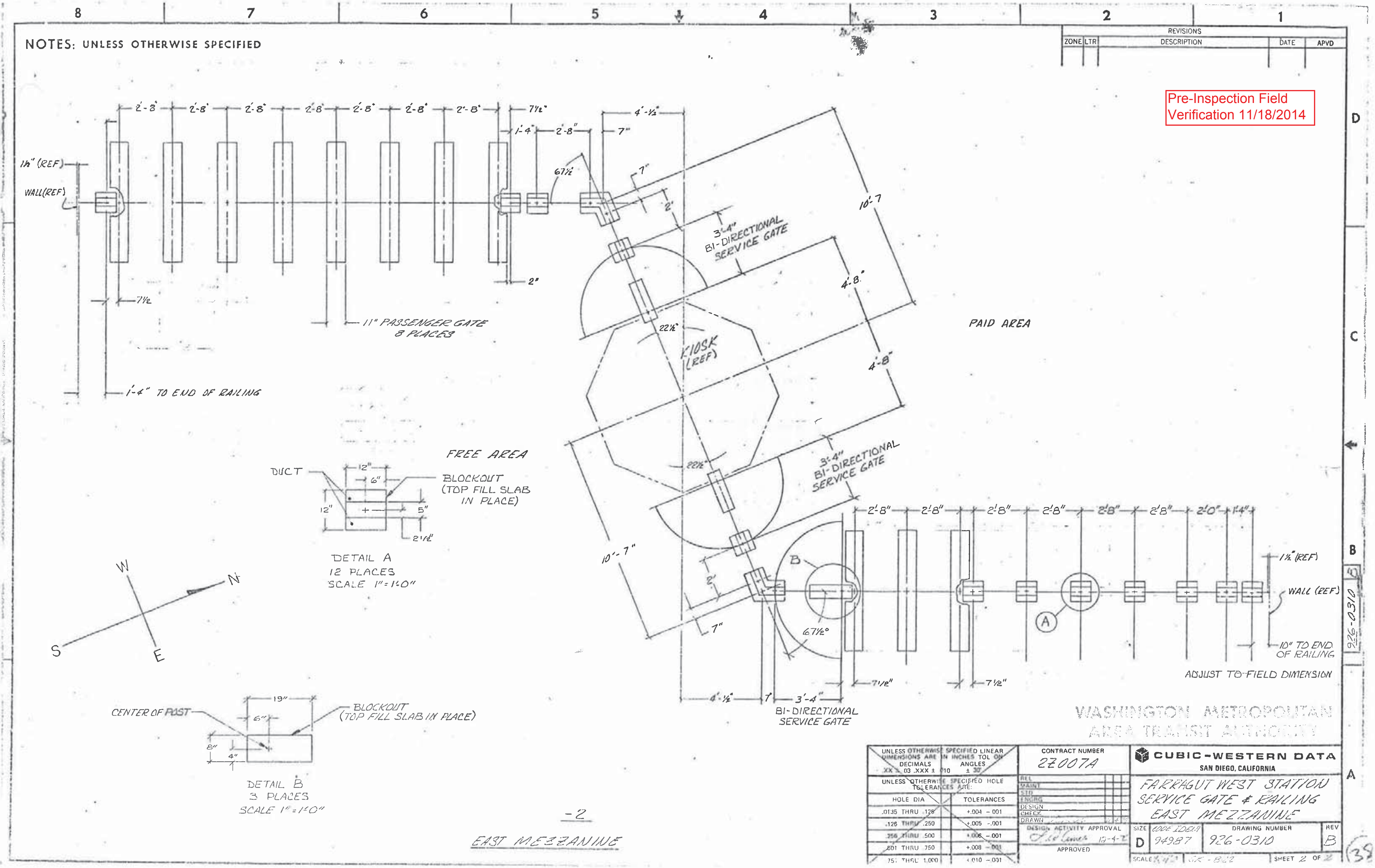
CUBIC WESTERN DATA

FARRAGUT WEST STATION
EAST MEZZANINE
AFC MACHINES

DRAWING NUMBER 926-0377

38

4303C


NOTES: UNLESS OTHERWISE SPECIFIED
REVISIONS
ZONE LTR DESCRIPTION DATE APVD
Pre-Inspection Field Verification 11/18/2014
2'-8"
7½"
1'-4"
7"
4'-½"
1½" (REF)
WALL (REF)
67½°
10'-7
3'-4" BI-DIRECTIONAL SERVICE GATE
4'-8"
2"
11" PASSENGER GATE 8 PLACES
1'-4" TO END OF RAILING
22½°
KIOSK (REF)
PAID AREA
FREE AREA
DUCT
12"
6"
5"
2½"
BLOCKOUT (TOP FILL SLAB IN PLACE)
DETAIL A
12 PLACES
SCALE 1"=1'-0"
W
N
S
E
10'-7"
2'-0"
B
A
WALL (REF)
10" TO END OF RAILING
ADJUST TO FIELD DIMENSION
3'-4" BI-DIRECTIONAL SERVICE GATE
CENTER OF POST
19"
8"
4"
BLOCKOUT (TOP FILL SLAB IN PLACE)
DETAIL B
3 PLACES
SCALE 1"=1'-0"
-2
EAST MEZZANINE
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
UNLESS OTHERWISE SPECIFIED LINEAR DIMENSIONS ARE IN INCHES TOL ON DECIMALS .XX ± .03 .XXX ± .010 ANGLES ± 30'
UNLESS OTHERWISE SPECIFIED HOLE TOLERANCES ARE:
HOLE DIA TOLERANCES
.0135 THRU .125 +.004 -.001
.126 THRU .250 +.005 -.001
.256 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001
.751 THRU 1.000 +.010 -.001
CONTRACT NUMBER 2Z007A
DESIGN ACTIVITY APPROVAL
APPROVED
CUBIC-WESTERN DATA
SAN DIEGO, CALIFORNIA
FARRAGUT WEST STATION
SERVICE GATE & RAILING
EAST MEZZANINE
SIZE D
CODE IDENT 94987
DRAWING NUMBER 926-0310
REV B
SHEET 2 OF 2
926-0310

EXISTING PANEL "SWMA"

AMPERES: 225	VOLTS: 120/208	MOUNTING:	SURFACE
MAINS: 225 MLO	PHASE: 3	LOCATION:	WATER SERVICE CLEANER RM MECH EQUIPMENT 214
RATING: 10K AIC	WIRE: 4	SECTION:	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	3	30	2.5	EXIST KIOSK LOAD CENTER	
	EXISTING VENDOR	0.8	20	1	3	- B -	4	-	-	2.5		
	EXISTING VENDOR	0.8	20	1	5	- - C	6	-	-	2.5		
	EXISTING VENDOR	0.8	20	1	7	A - -	8	1	20	0.8	EXISTING VENDOR	
1	**NEW KIOSK RECEPT. (IT & NEPP)**	**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	
1&2	**SPARE (KIOSK)**	**0.0**	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	
	SPACE	0.0	-	-	23	- - C	24	3	30	0.0	SPARE	
	SPACE	0.0	-	-	25	A - -	26	-	-	0.0		
	SPACE	0.0	-	-	27	- B -	28	-	-	0.0		
	EXISTING VENDOR	0.8	20	1	29	- - C	30	1	20	0.8	EXISTING VENDOR	
	SPACE	0.0	-	-	31	A - -	32	1	20	0.8	EXISTING VENDOR	
	SPACE	0.0	-	-	33	- B -	34	1	20	0.8	EXISTING VENDOR	
	EXISTING VENDOR	0.8	20	1	35	- - C	36	1	20	**0.0**	**SPARE (KIOSK)**	1&2
	EXISTING VENDOR	0.8	20	1	37	A - -	38	1	20	0.8	EXISTING VENDOR	
	EXISTING VENDOR	0.8	20	1	39	- B -	40	1	20	0.8	EXISTING VENDOR	
	EXISTING VENDOR	0.8	20	1	41	- - C	42	1	20	0.8	EXISTING VENDOR	
	EXISTING VENDOR	0.8	20	1	43	A - -	44	1	20	0.8	EXISTING VENDOR	
	EXISTING VENDOR	0.8	20	1	45	- B -	46	-	-	0.0	SPACE	
	SPARE	0.0	20	1	47	- - C	48	-	-	0.0	SPACE	

NOTES. 1. CONNECT NEW FEEDER TO EXISTING 20A, 1P CB
2. CB TO BE RESERVED FOR FUTURE AFC
3. BREAKER IS IN SPACE #36 BUT CIRCUIT LABEL IN ACTUAL PANEL IS #30

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	15.6 x 50%		7.8 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	**33.1 KVA**	**TOTAL DEMAND KVA**	**26.1 KVA**
		TOTAL DEMAND AMPS	**72.4 AMPS**

CONNECTED LOAD PHASE SUMMARY

PHASE A	11.3 KVA
PHASE B	11.3 KVA
PHASE C	10.5 KVA

NOTES: A. THE EXISTING PANEL "SWMA" IS FED FROM 277/480V, 3ø, 4W PANEL "SWPOA" VIA 75 KVA TRANSFORMER LOCATED IN WATER SERVICE CLEANER RM. MECH. EQUIPMENT 214, #17,19,21-90/3P (SEE ATTACHED DWG. MM-C-E08).
B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
* 2-6 1/2"x 1 1/2" FLOOR DUCTS (WIRING FILL >40%).
EXISTING WIRING FED FROM TOP OF PANEL BY:
* 1-3/4" C. (WIRING FILL >40%).
EXISTING WIRING FED FROM LEFT SIDE OF PANEL BY:
* 1-1 1/2" C. (WIRING FILL >40%).
* 1-4" C. TO TRANSFORMER (WIRING FILL >40%).

EXISTING PANEL "SEMA" ✓

AMPERES: 225	VOLTS: 120/208	MOUNTING:	SURFACE
MAINS: 225 MLO	PHASE: 3	LOCATION:	CLEANERS ROOM WATER SERVICE 201 ✓
RATING: 10K AIC	WIRE: 4	SECTION:	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
	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
✓ 1	**NEW KIOSK RECEPT. (IT & NEPP)**	**0.8**	20	1	17	- - C	18	3	30	2.5	EXIST KIOSK LOAD CENTER
✓ 1&2	**SPARE (KIOSK)**	**0.0**	20	1	19	A - -	20	-	-	2.5	
	SPARE	0.0	20	1	21	- B -	22	-	-	2.5	
	SPACE	0.0	-	-	23	- - C	24	-	-	0.0	SPACE
	SPACE	0.0	-	-	25	A - -	26	-	-	0.0	SPACE
	SPACE	0.0	-	-	27	- B -	28	-	-	0.0	SPACE
	EXISTING VENDOR	0.8	20	1	29	- - C	30	1	20	0.8	EXISTING VENDOR
	EXISTING VENDOR	0.8	20	1	31	A - -	32	1	20	0.0	SPARE
	EXISTING VENDOR	0.8	20	1	33	- B -	34	1	20	0.8	EXISTING VENDOR
	EXISTING VENDOR	0.8	20	1	35	- - C	36	1	20	0.8	EXISTING VENDOR
	SPARE	0.0	20	1	37	A - -	38	1	20	0.8	EXISTING VENDOR
	SPARE	0.0	20	1	39	- B -	40	1	20	0.8	EXISTING VENDOR
	SPARE	0.0	20	1	41	- - C	42	1	20	0.8	EXISTING VENDOR
	SPARE	0.0	20	1	43	A - -	44	1	20	0.0	SPARE
	SPARE	0.0	20	1	45	- B -	46	1	20	0.0	SPARE
	EXISTING VENDOR	0.8	-	-	47	- - C	48	1	20	0.0	SPARE

NOTES 1. CONNECT NEW FEEDER TO EXISTING 20A, 1P SPARE CB
2. CB TO BE RESERVED FOR FUTURE AFC.

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	12.4 x 50%		6.2 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	**29.9 KVA**	**TOTAL DEMAND KVA**	**24.5 KVA**
		TOTAL DEMAND AMPS	**67.9 AMPS**

CONNECTED LOAD PHASE SUMMARY

PHASE A	8.9 KVA
PHASE B	9.7 KVA
PHASE C ✓	11.3 KVA ✓

NOTES: A. THE EXISTING PANEL "SEMA" IS FED FROM 277/480V, 3ø, 4W PANEL "SEPOA" VIA 75 KVA TRANSFORMER LOCATED IN CLEANERS ROOM WATER SERVICE ~~211~~, ~~#9,11,13~~-100/3P (SEE ATTACHED DWG. MM-C-E08).
201 Breaker #3,5,7
B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
* 2-6 1/2"x 1 1/2" FLOOR DUCTS (WIRING FILL >30%).
EXISTING WIRING FED FROM TOP OF PANEL BY:
* 1-1/2" C. (WIRING FILL >40%).
EXISTING WIRING FED FROM LEFT SIDE OF PANEL BY:
* 1-4" C. TO TRANSFORMER (WIRING FILL >40%).

Pre-Inspection Field Verification 11/18/2014

CONTRACT NO 14-FQ10060-CENI-24

DESIGNED	C. NGO	11-14 DATE
DRAWN	C. NGO	11-14 DATE
CHECKED	B. IDILBI	11-14 DATE
APPROVED	N/A	DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED

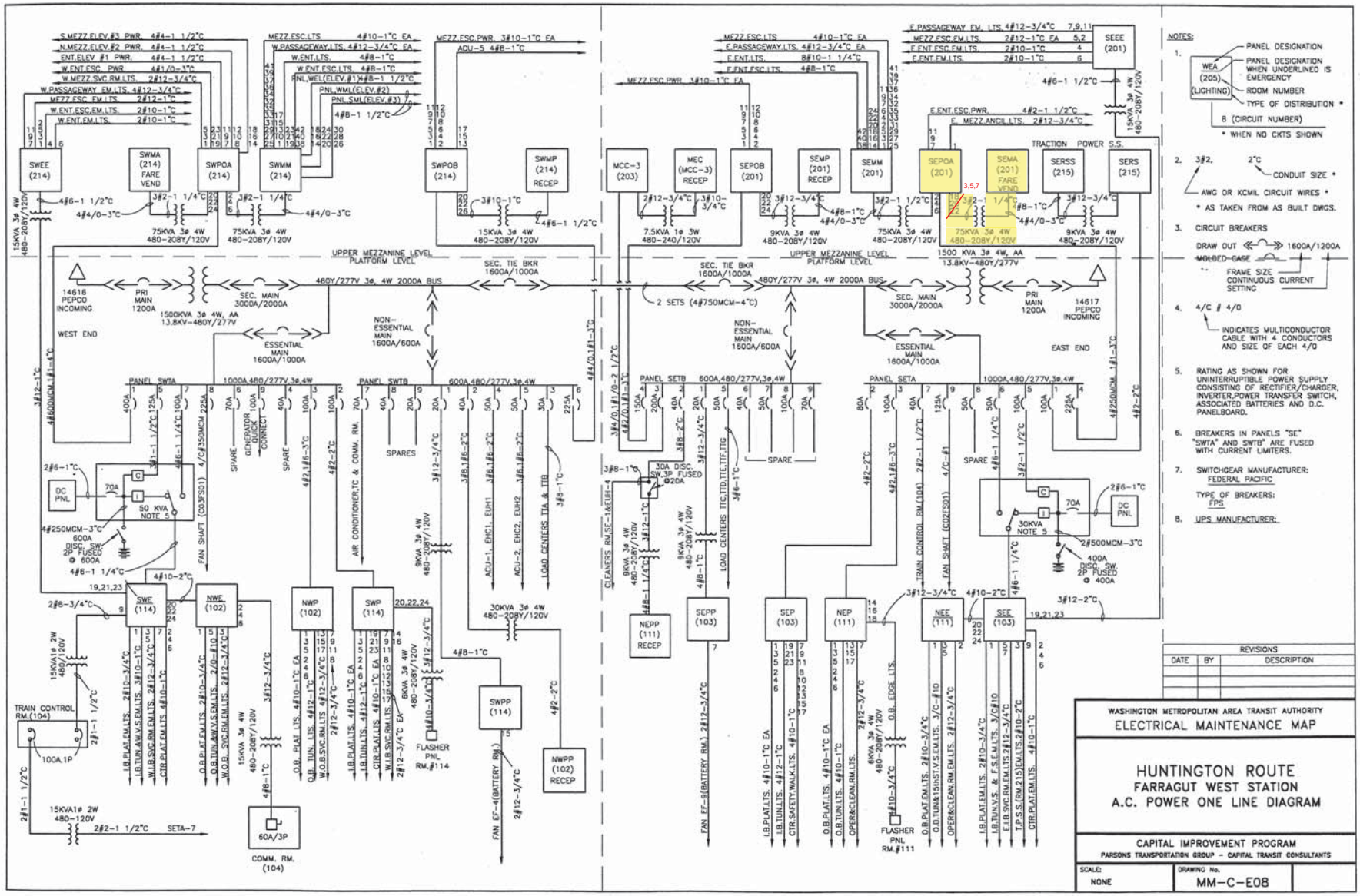
GFP A Gannett Fleming/Parsons JOINT VENTURE

SUBMITTED
PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS
FARRAGUT WEST - EAST & WEST
PANEL SCHEDULES

SCALE: NOT TO SCALE

DRAWING NO. C03-E-102



Pre-Inspection Mezzanine Walkthrough Checklist

REVISION 1

Date: 12/11/2014	**Station Name:** Foggy Bottom - C04	**Mezzanine #:** 040	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: M Source Breaker Name/Number: Breaker #15 Electrical AFC Panel Name/Number: 1MM & 2MM	Rm C204 Rm C204 Rm C204	
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: Disconnect Switch (See notes) SMNT/POWR escorts: LOW Voltage	Rm C204	Disconnect switch "Panels 1MM & 2MM fed from Panel M, Circuit #15".
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. NO		Panels 2MPO, 1MPO, M, 1MM, and 2MM share common trough.
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		Has apron skirt.
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? YES (see notes) Identified Conduit/Duct Transition to mezzanine level? YES		Overhead conduit runs. Kiosk has apron skirt. Kiosk to AFC Panel power run is walker duct from Kiosk to handhole in mezzanine area via 2-2" conduits to service area room into manhole and then under slab in walker duct to AFC Panel (2MM)

Emergency Power Verification

Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: MEE Source Breaker Name/Number: Breaker #13 Panel Name/Number: KE (Kiosk Emergency Panel)	Rm C204 Rm C204 Kiosk	Kiosk Panel (unlabeled) located in Kiosk, Breaker #5 de-energizes emergency power to faregates.

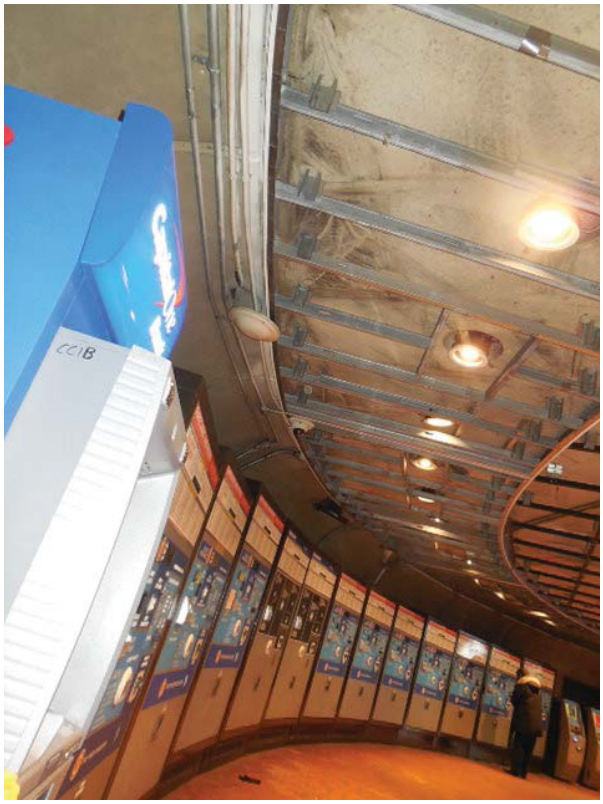
Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:	Tarmina Sahoo	
Date:	12/11/2014	

Pictures 1&2: C04 Foggy Bottom – Handholes in Mezzanine

Pictures 3&4: C04 Foggy Bottom – Apron skirt around Kiosk

Pictures 5-7: C04 Foggy Bottom – Conduits on Mezzanine ceiling and passing through drop ceiling



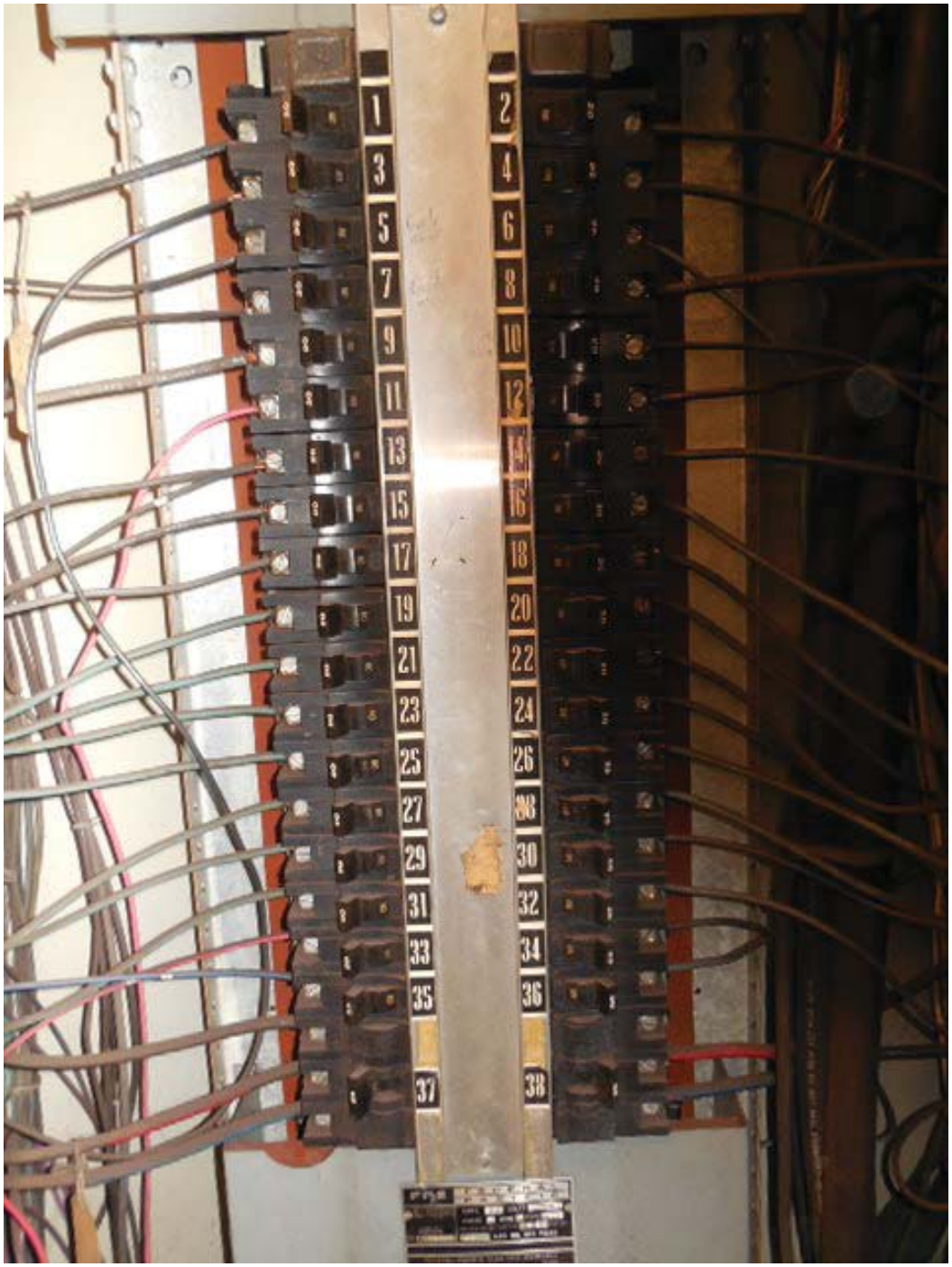
Pictures 8&9: C04 Foggy Bottom – Emergency panel in Kiosk

Picture 10: C04 Foggy Bottom – Manhole in room C204

Picture 11: C04 Foggy Bottom – AFC Panel 1MM in room C204

Picture 12: C04 Foggy Bottom – AFC Panel 1MM in room C204

Picture 13: C04 Foggy Bottom – AFC Panel 1MM in room C204

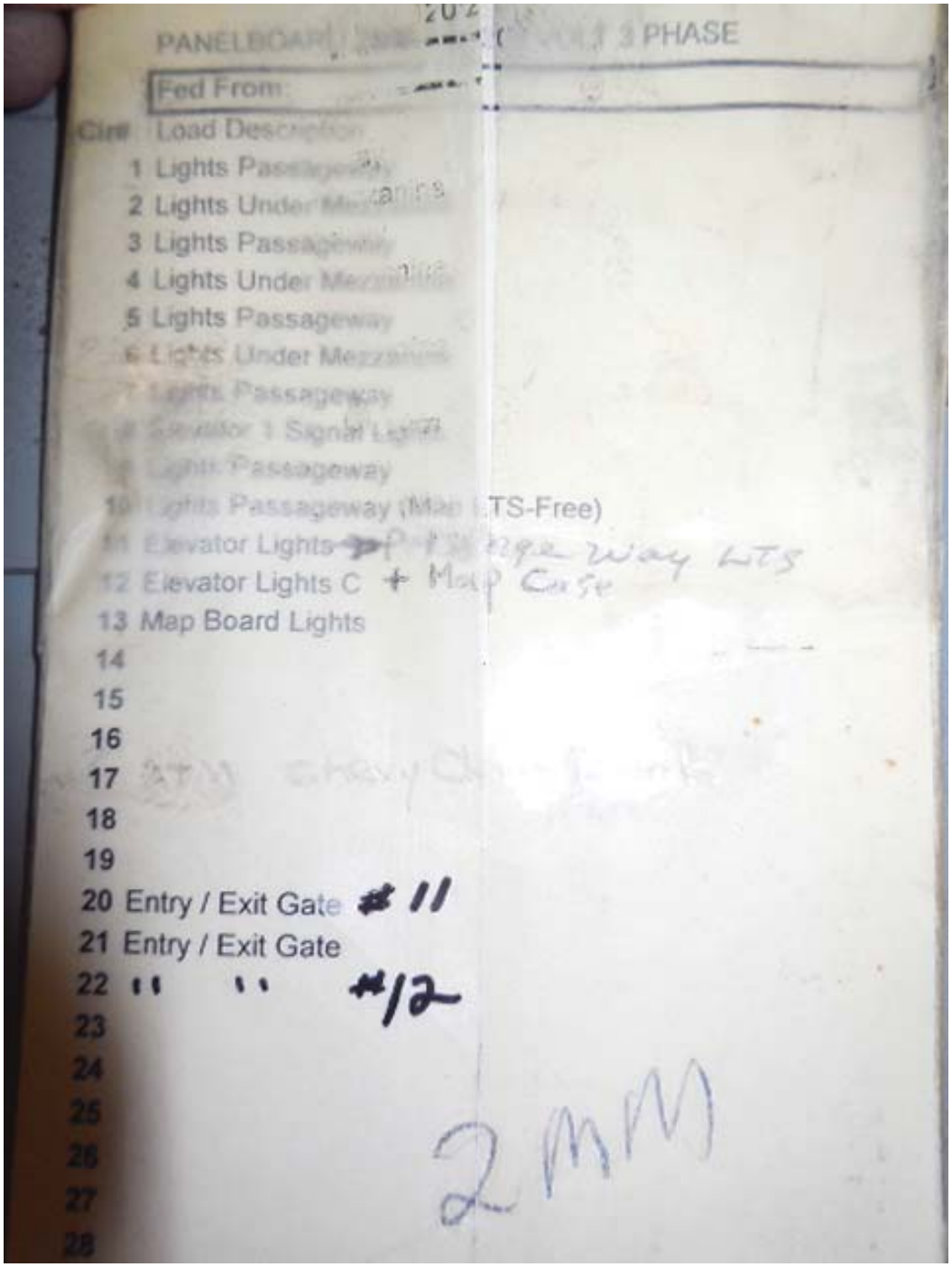


Picture 14: C04 Foggy Bottom – AFC Panel 1MM in room C204 – Bottom of panel

Picture 15: C04 Foggy Bottom – AFC Panel 2MM in room C204

Picture 16: C04 Foggy Bottom – AFC Panel 2MM in room C204

Picture 17: C04 Foggy Bottom – AFC Panel 2MM in room C204 – Panel schedule

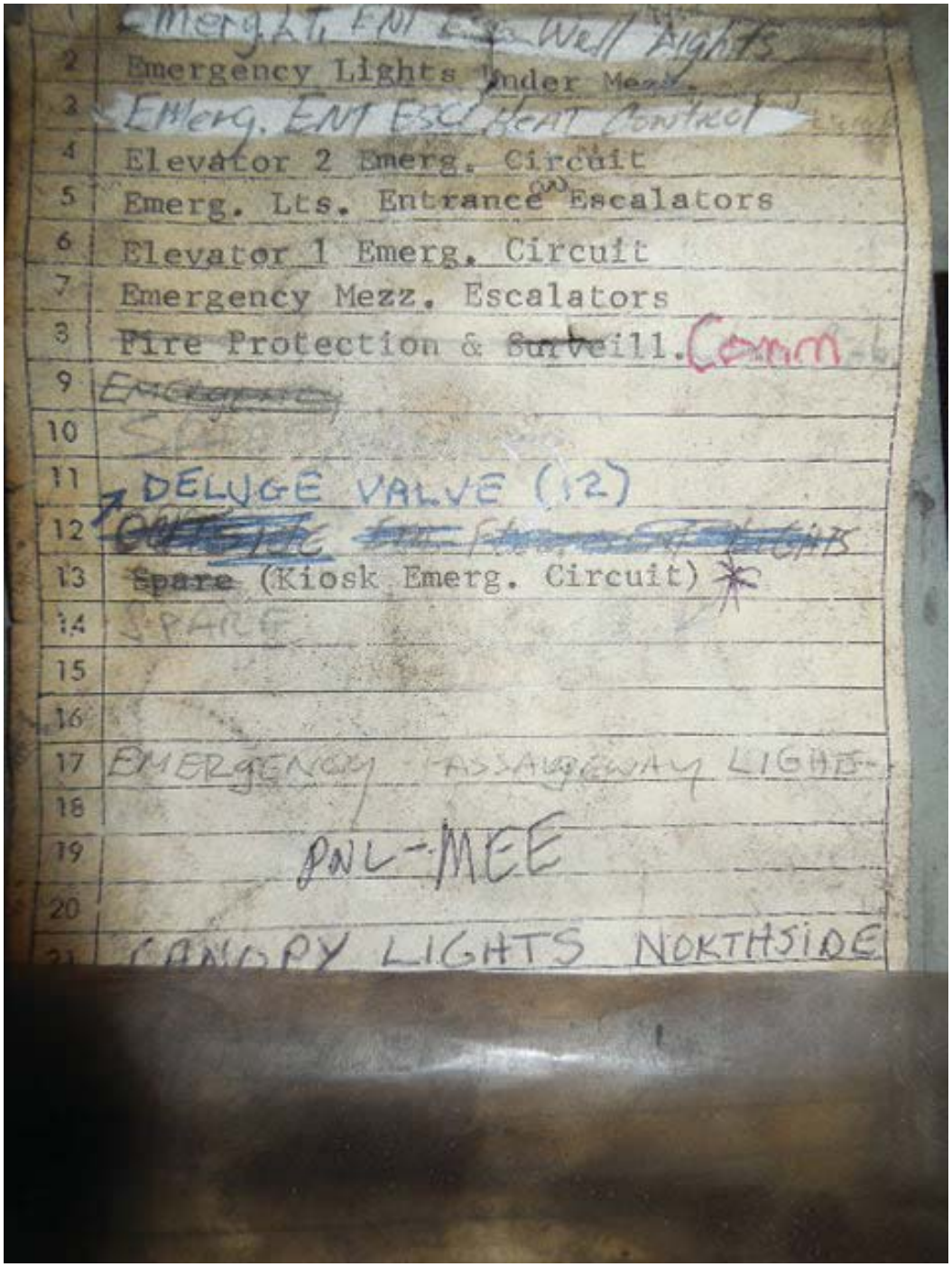


Picture 18: C04 Foggy Bottom – Disconnect Switch ‘PANELS 1MM & 2MM FED FROM PANEL M CIR.15’

Picture 19: C04 Foggy Bottom – Emergency Panel MEE in room C204

Picture 20: C04 Foggy Bottom – Emergency Panel MEE in room C204

Picture 21: C04 Foggy Bottom – Emergency Panel MEE in room C204 – Panel schedule



Picture 22: C04 Foggy Bottom – Common trough for multiple panels in room C204

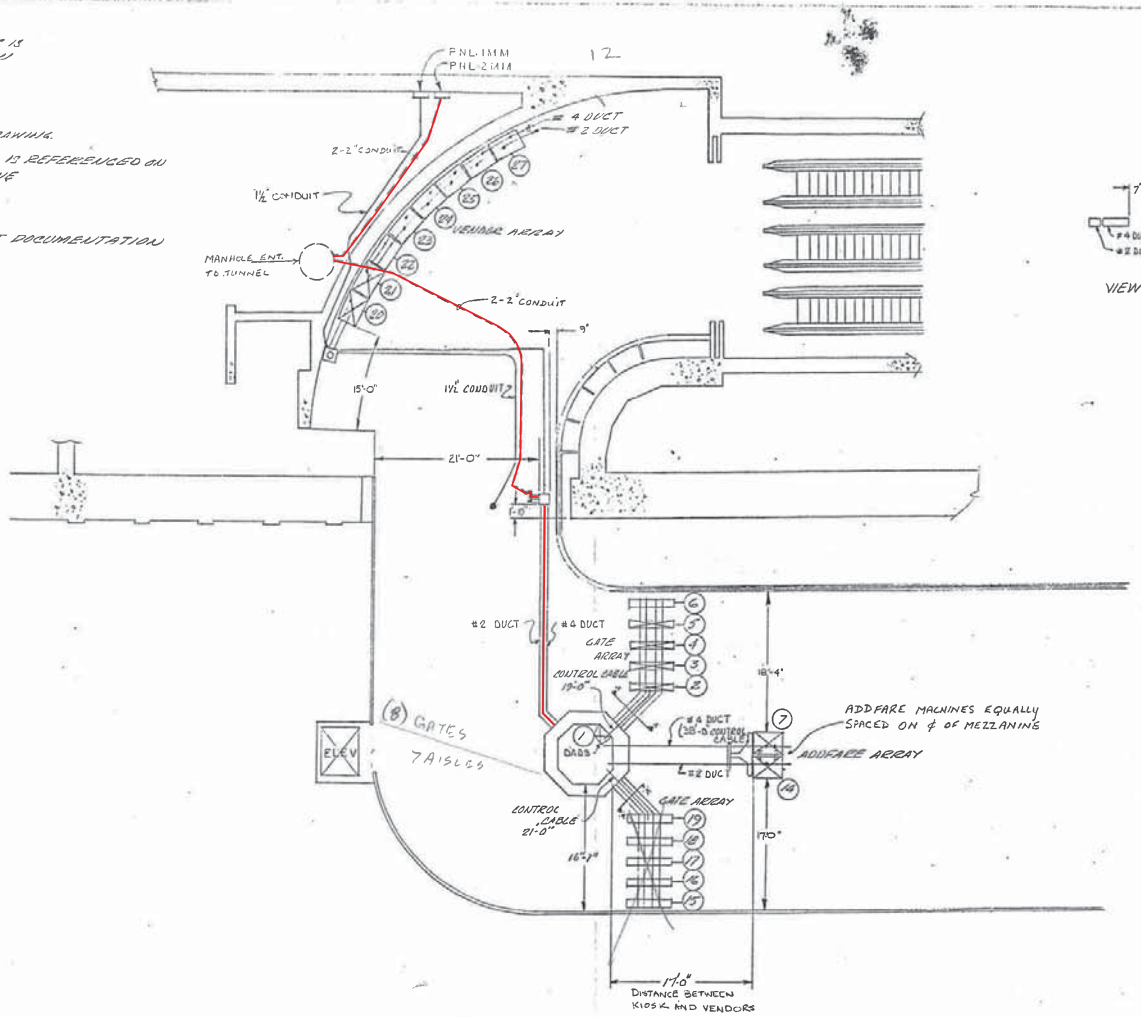
1. INFORMATION CONCERNING DUCTS AND CONDUITS IS BASED ON INFORMATION SUPPLIED TO CUBIC-WESTERN DATA BY WMATA / BECHTEL.

2. TAL MACHINE INVENTORY IS DEPICTED ON THIS DRAWING.

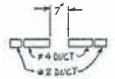
3. THE MINIMUM OPERATIONAL MACHINE INVENTORY IS REFERENCED ON THIS DRAWING BY THE X DRAWN THRU THE MACHINE

4. FOR AS BUILT CONDITIONS SEE SHEET 2.

5. FOR REFERENCE DRAWINGS USED SEE SUPPORT DOCUMENTATION PACKAGE FOR THIS MEZZANINE.



VIEW "A"-"A"



-1 INSTALLATION PLAN
(AS BUILT CONDITION)

REVISIONS		
DESCRIPTION	DATE	APVD
AS BUILT DRAWING REVISION A	7-13-77	CB

Pre-Inspection Field Verification 12/11/2014

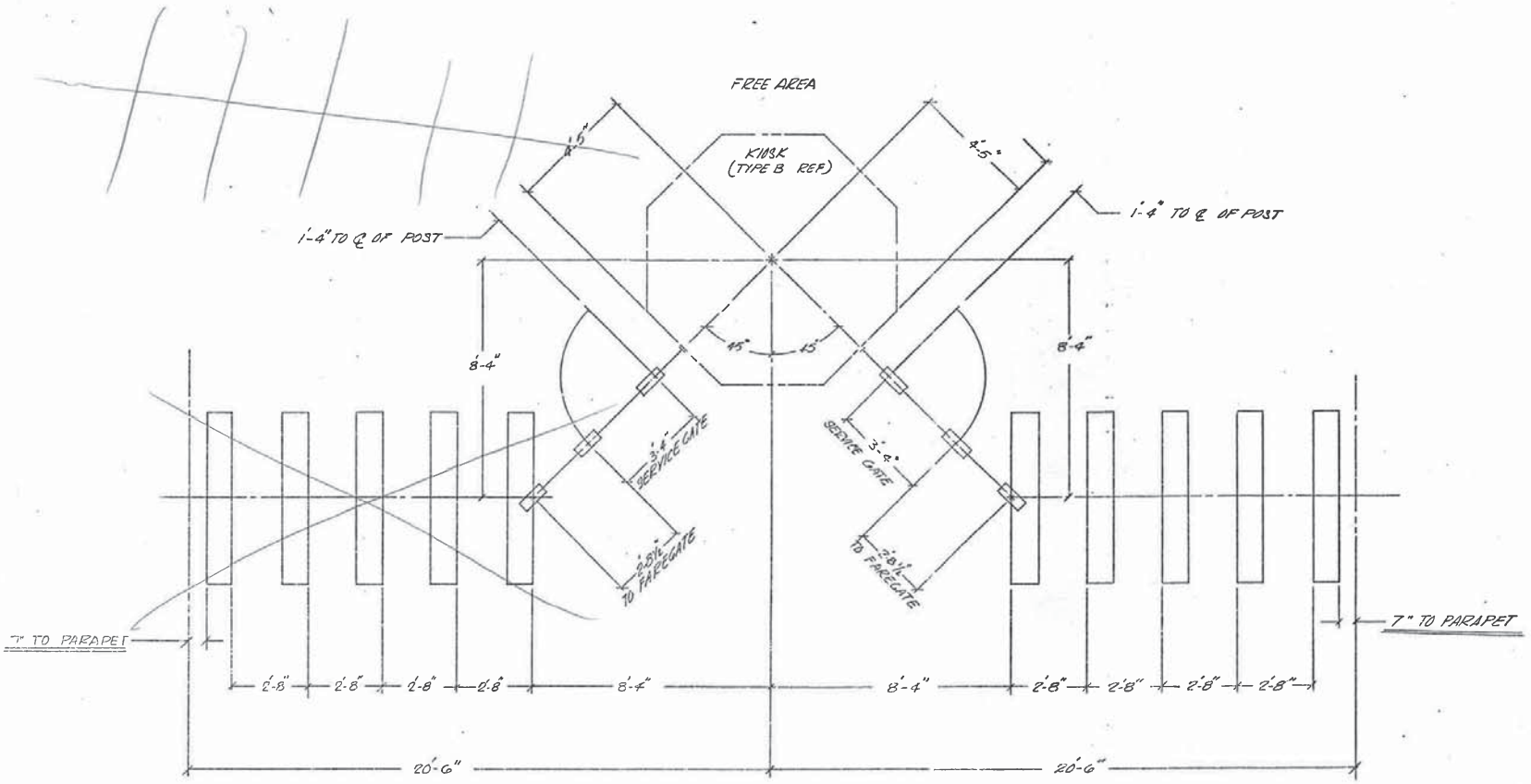
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

CONTRACT NUMBER: 2E 007A	CUBIC WESTERN DATA, A subsidiary of Cubic Corporation, 5660 KEARNY MESA ROAD • POST OFFICE BOX 80787 • SAN DIEGO, CA 92138
DESIGN ACTIVITY APPROVAL / APPROVED	FOGGY BOTTOM STATION AFC MACHINES
SIZE: D	DRAWING NUMBER: 726-0378 REV: A0
SCALE: 3/8" = 1'	SHEET 1 OF 1

NOTES: UNLESS OTHERWISE SPECIFIED

REVISIONS			
ZONE LTR	DESCRIPTION	DATE	APVD
	4		

Pre-Inspection Field Verification 12/11/2014



THESE ARE AS BUILT DIMENSIONS PER WINATA 1-28-76 DWG NO. AP-22007A-106-1-1

UNLESS OTHERWISE SPECIFIED LINEAR DIMENSIONS ARE IN INCHES TOL ON DECIMALS .XX ± .03 .XXX ± .010 ANGLES ± 30'		CONTRACT NUMBER	CUBIC WESTERN DATA A subsidiary of Cubic Corporation 1650 HEARNY MESA ROAD • POST OFFICE BOX 80787 • SAN DIEGO CA 92138
UNLESS OTHERWISE SPECIFIED HOLE TOLERANCES ARE:		MFG ENGRG DESIGN CHECK DRAWN	FOGGY BOTTOM STATION
HOLE DIA	TOLERANCES	DESIGN ACTIVITY APPROVAL	SIZE D · CODE IDENT NO. 94987 · DRAWING NUMBER 926-0311 · REV 1
.0135 THRU .125	+.004 −.001	APPROVED	SCALE · SHEET 2 OF 2
.126 THRU .250	+.005 −.001		
.256 THRU .500	+.006 −.001		
.501 THRU .750	+.009 −.001		
.751 THRU 1.000	+.010 −.001		

926-0311

Pre-Inspection Field Verification 12/11/2014

EXISTING PANEL "2MM" ✓

AMPERES: 225		VOLTS: 120/208			MOUNTING: SURFACE					
MAINS: 200A MCB		PHASE 3			LOCATION ROOM C204 ✓					
RATING: 10K AIC		WIRE 4			SECTION 1 OF 1					
		CKT BKRS		CKT.		CKT.	CKT BKRS			
LOAD DESCRIPTION	KVA	AMP	POLE	NO		NO	POLE	AMP	KVA	LOAD DESCRIPTION
SPACE	0.0	-	-	1	A - -	2	3	200	0.0	EXISTING MAIN
SPACE	0.0	-	-	3	- B -	4	-	-	0.0	
SPACE	0.0	-	-	5	- - C	6	-	-	0.0	
EXISTING LIGHTS PASSAGEWAY	0.8	20	1	7	A - -	8	1	20	0.8	EXIST. LIGHTS UNDER MEZZANINE
EXISTING LIGHTS PASSAGEWAY	0.8	20	1	9	- B -	10	1	20	0.8	EXIST. LIGHTS UNDER MEZZANINE
EXISTING LIGHTS PASSAGEWAY	0.8	20	1	11	- - C	12	1	20	0.8	EXIST. LIGHTS UNDER MEZZANINE
EXISTING LIGHTS PASSAGEWAY	0.8	20	1	13	A - -	14	1	20	0.8	ELEVATOR #1 SIGNAL LIGHTS
EXISTING LIGHTS PASSAGEWAY	0.8	20	1	15	- B -	16	1	20	0.8	EXIST. LIGHTS PASSAGEWAY (MAP)
EXISTING LIGHTS PASSAGEWAY	0.8	20	1	17	- - C	18	1	20	0.8	EXIST. LIGHTS 'C'
1 NEW KIOSK RECEPT. (IT & NEPP)	0.8	20	1	19	A - -	20	3	20	1.0	EXISTING CIRCUIT
1&2 SPARE (KIOSK)	0.0	20	1	21	- B -	22	-	-	1.0	
1&2 SPARE (KIOSK)	0.0	20	1	23	- - C	24	-	-	1.0	
EXISTING MAP BOARD LIGHTS	1.0	20	3	25	A - -	26	-	-	0.0	SPACE
	1.0	-	-	27	- B -	28	-	-	0.0	SPACE
	1.0	-	-	29	- - C	30	1	20	0.8	EXISTING ENTRY/EXIT GATE
EXISTING VENDOR	0.8	20	1	31	A - -	32	1	20	0.8	EXISTING ENTRY/EXIT GATE
EXISTING VENDOR	0.8	20	1	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

NOTES: 1. PROVIDE THREE (3) NEW 20A, 1P CB IN EXISTING SPACE #19, #21, #23 (NEW CB'S SHALL MATCH EXISTING CB'S) CONNECT NEW FEEDERS TO THESE CIRCUIT BREAKERS.
2. CB TO BE RESERVED FOR FUTURE AFC.
3. BREAKERS ARE IN SPACE 19, 21 & 23 BUT CIRCUIT LABELS IN ACTUAL PANEL ARE 13, 15 & 17.

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	9.6 x 50%		4.8 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	0.0 x 125%		0.0 KVA
AC	0.0 x 100%		0.0 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	**19.6 KVA**	**TOTAL DEMAND KVA**	**14.8 KVA**
		TOTAL DEMAND AMPS	**41.1 AMPS**

CONNECTED LOAD PHASE SUMMARY

PHASE A:	7.6 KVA
PHASE B	6.0 KVA
PHASE C:	6.0 KVA

Breaker #15 - 200/3P via Disconnect Switch "Panels 1MM and 2MM" via 112 KVA Transformer

NOTE: A. EXISTING PANEL "2MM" IS FED FROM EXISTING 277/480V, 3ø, 4W PANEL "M" LOCATE IN ROOM C204, ~~CIRCUIT #9 - 200/3P VIA 112 KVA TRANSFORMER~~ (SEE ATTACHED DWG. MM-C-E09).

B. EXISTING WIRING FED FROM BOTTOM OF PANEL: * 2-1 1/2" C. (WIRING FILL >40%).

CONTRACT NO 14-FQ10060-CENI-24

DESIGNED C. NGO 11-14 DATE
DRAWN C. NGO 11-14 DATE
CHECKED B. IDLBI 11-14 DATE
APPROVED N/A DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED _____

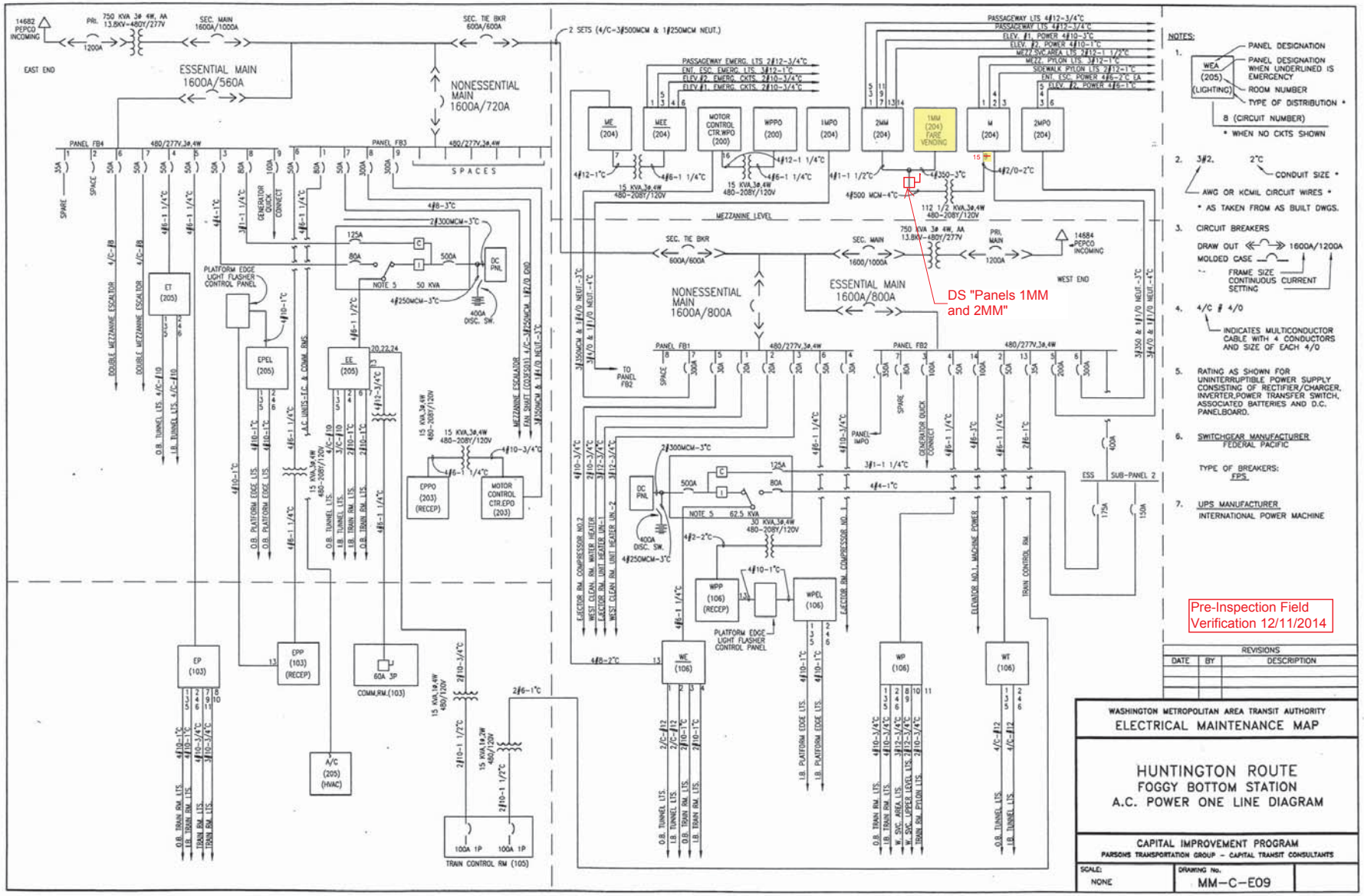
GFP A Gannett Fleming/Parsons JOINT VENTURE

SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS
FOGGY BOTTOM
PANEL SCHEDULE

SCALE NOT TO SCALE

DRAWING NO C04-E-102



Pre-Inspection Mezzanine Walkthrough Checklist

Date: 01/15/2015	**Station Name:** Rosslyn - C05	**Mezzanine #:** 041	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: SWBD Rosslyn Source Breaker Name/Number: XFMR F1-F2 Electrical AFC Panel Name/Number: F2	Rm 112 Rm 112 Rm C304	Room 112 is AC SWBD room. For LOTO Procedures, steps should be done in this order: 1) Place ATS #2 in Maintenance mode. 2) LOTO 'Enclosed MCB#2'. 3) LOTO Breaker 'XFMR F1-F2' found on 'SWBD Rosslyn'.
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: SMNT/POWR escorts: HIGH Voltage		
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. NO		
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☐ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		Straight shot. No visible handholes.
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? NO Identified Conduit/Duct Transition to mezzanine level? YES		All conduit/ducts on one level.

Emergency Power Verification

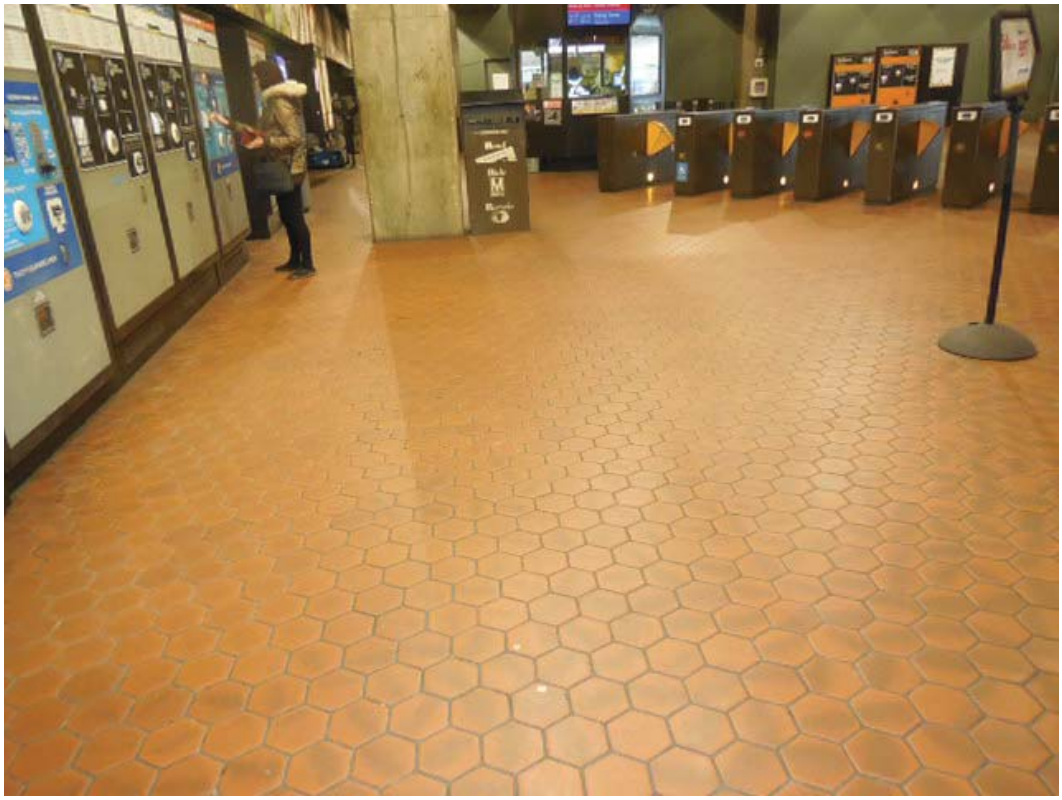
Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number: ATS #2	Rm 112	Emergency feed to ATS #2 is enclosed MCB #2.
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: Kiosk Panel (Not labeled) Source Breaker Name/Number: Breaker #2 Panel Name/Number: Emergency Power Faregates	Kiosk Kiosk	

Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:		
Date:	1/15/2015	

Picture 1: C05 Rosslyn – Handholes in mezzanine on paid side

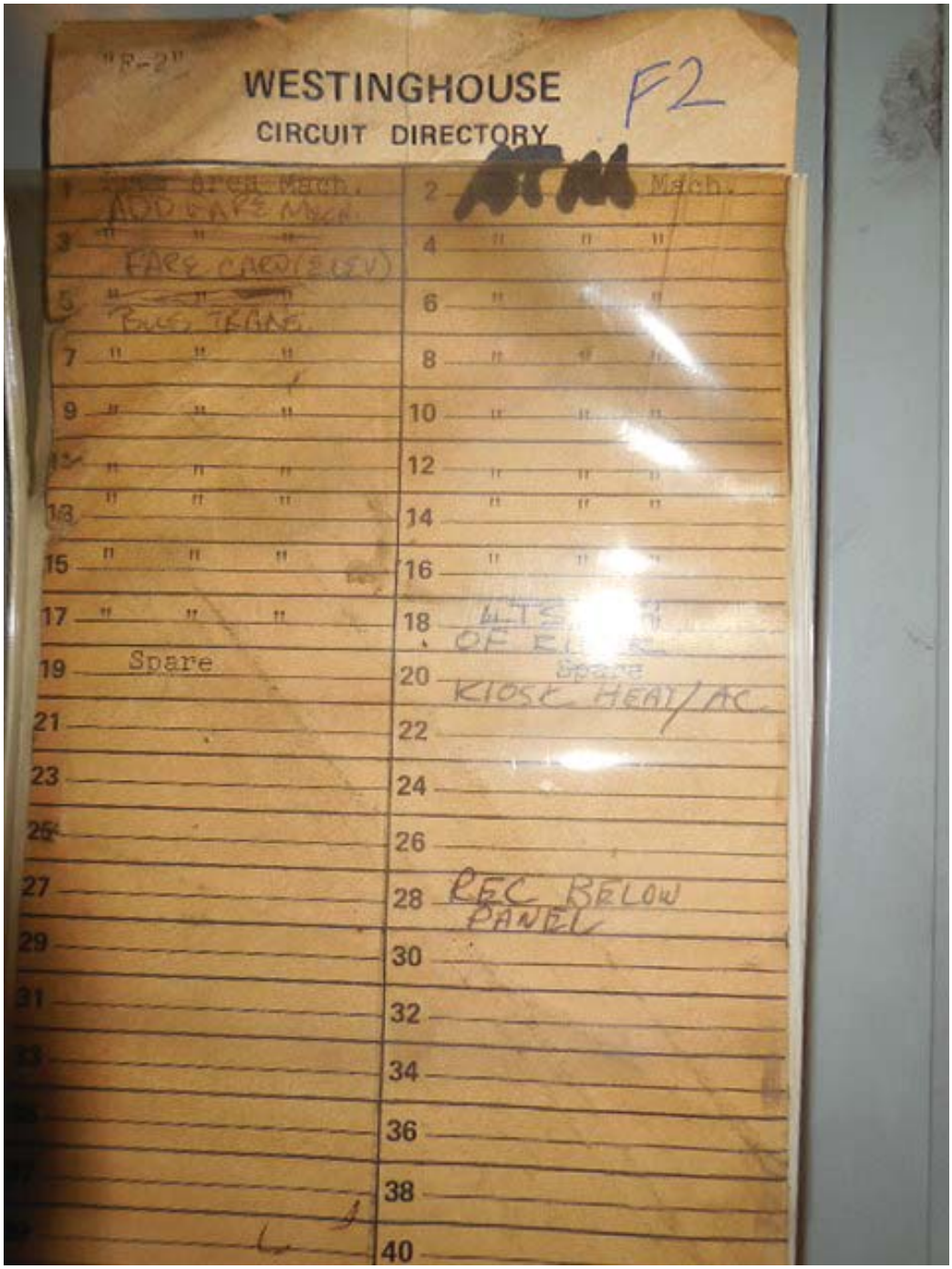
Picture 2: C05 Rosslyn – No handholes in mezzanine on free side



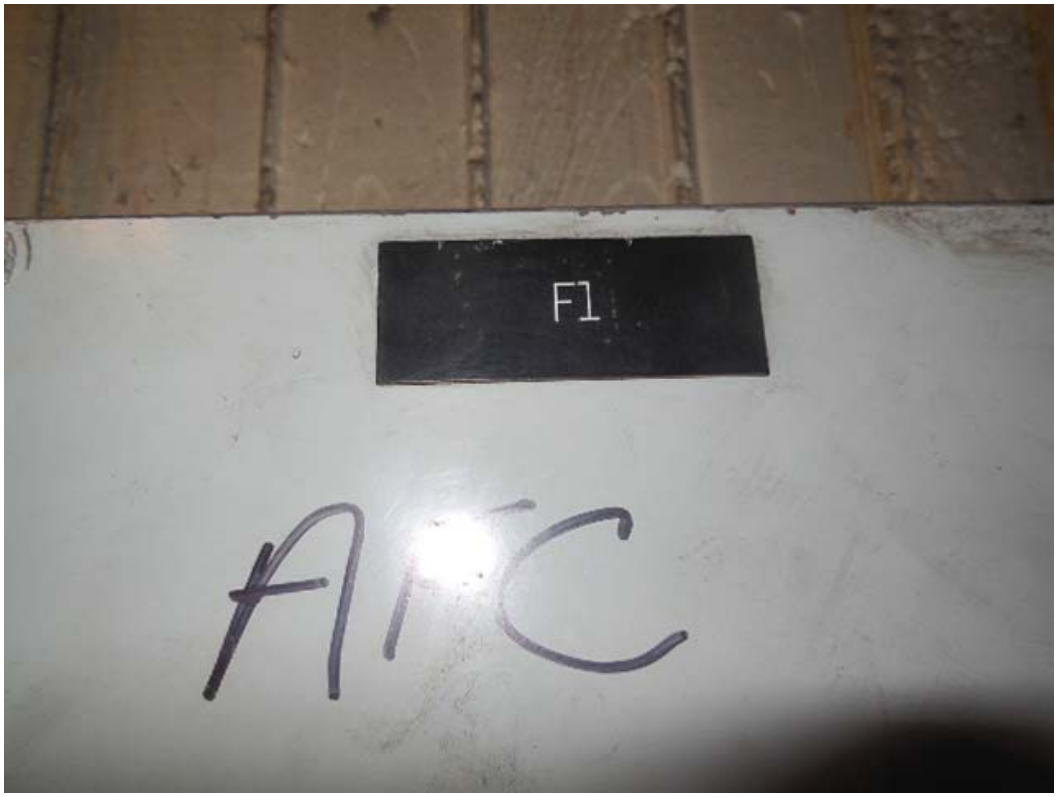
Picture 3: C05 Rosslyn – SWBD breaker for XFMR F1-F2 in room 112

Picture 4: C05 Rosslyn – AFC Panel F2 in room C304

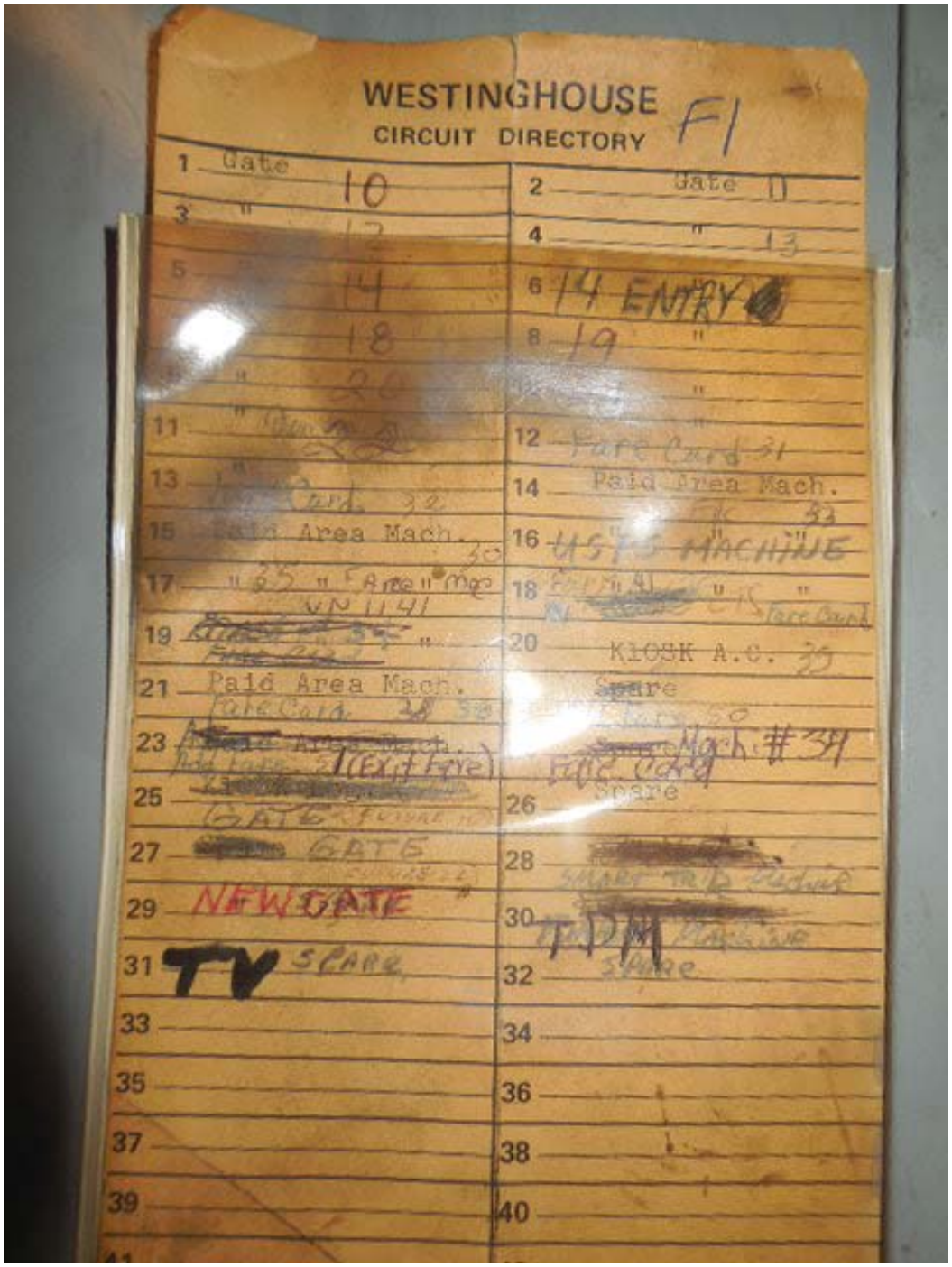
Picture 5: C05 Rosslyn – AFC Panel F2 in room C304, Panel schedule



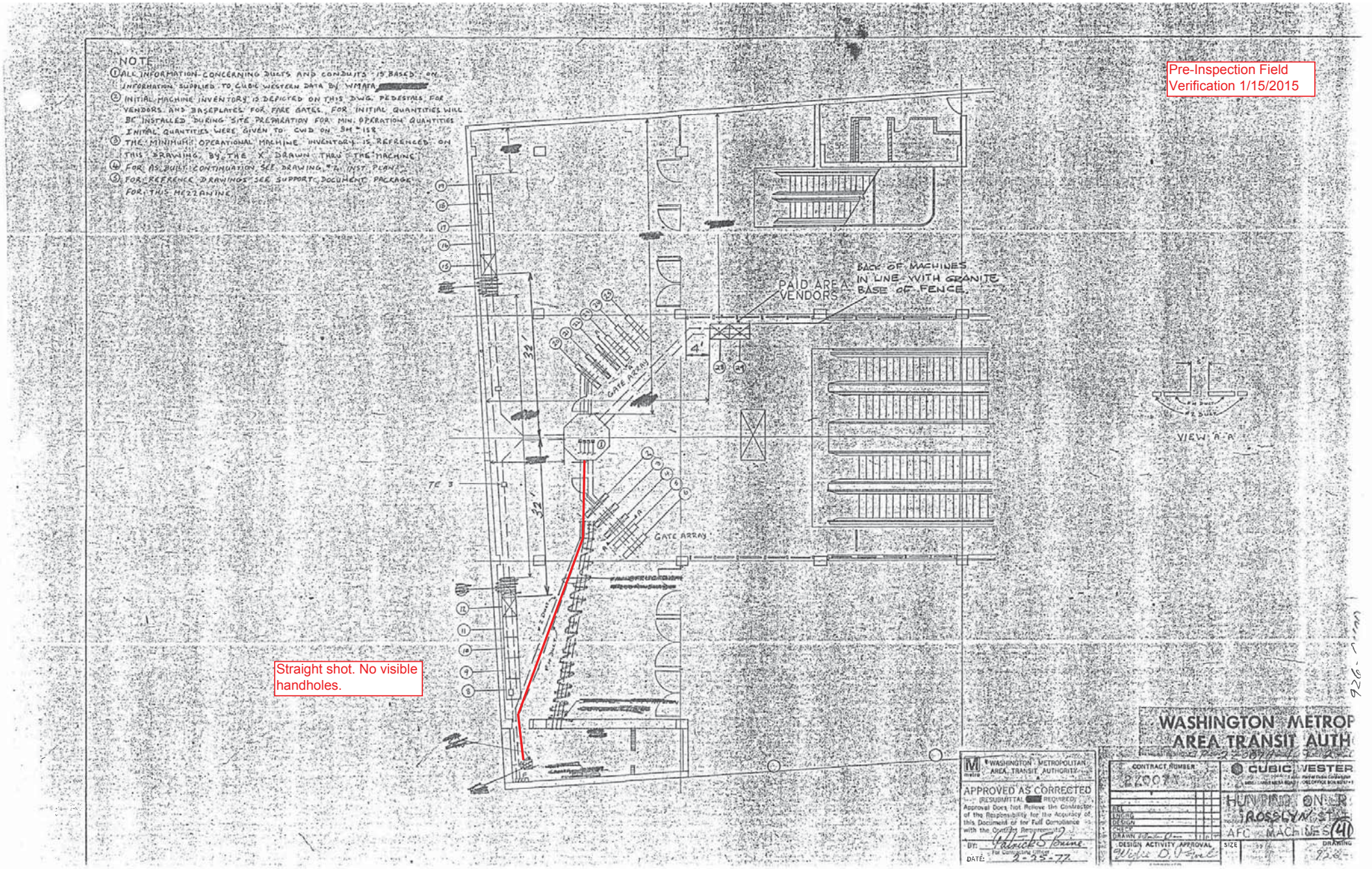
Picture 6: C05 Rosslyn – AFC Panel F1 in room C304



Picture 7: C05 Rosslyn – AFC Panel F1 in room C304, Panel schedule



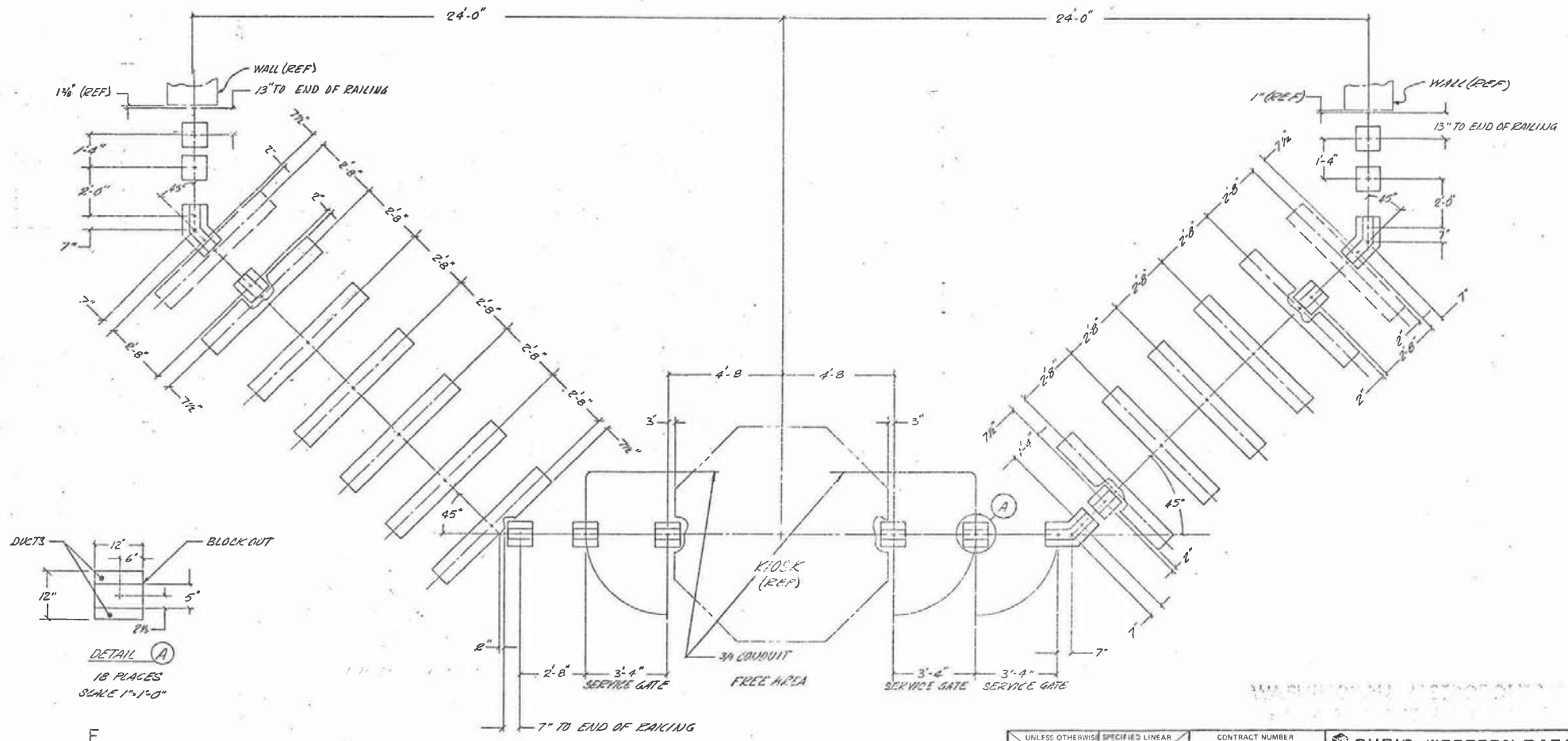
Pictures 8&9: C05 Rosslyn – Shared trough for panels F1 & F2 in room C304


NOTE
1. ALL INFORMATION CONCERNING DUCTS AND CONDUITS IS BASED ON INFORMATION SUPPLIED TO CUBIC WESTERN DATA BY WMATA
2. INITIAL MACHINE INVENTORY IS DEPICTED ON THIS DWG. PEDESTALS FOR VENDORS AND BASEPLATES FOR FARE GATES. FOR INITIAL QUANTITIES WILL BE INSTALLED DURING SITE PREPARATION FOR MIN. OPERATION QUANTITIES INITIAL QUANTITIES WERE GIVEN TO CWD ON SH "158
3. THE MINIMUM OPERATIONAL MACHINE INVENTORY IS REFERENCED ON THIS DRAWING BY THE X DRAWN THRU THE MACHINE
4. FOR AS BUILT CONTINUATION SEE DRAWING "2 INST PLAN"
5. FOR REFERENCE DRAWINGS SEE SUPPORT DOCUMENT PACKAGE FOR THIS MEZZANINE
Pre-Inspection Field Verification 1/15/2015
PAID AREA
VENDORS
BACK OF MACHINES IN LINE WITH GRANITE BASE OF FENCE
4'
32'
GATE ARRAY
TC 3
VIEW A-A
Straight shot. No visible handholes.
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
APPROVED AS CORRECTED
(RESUBMITTAL NOT REQUIRED)
Approval Does Not Relieve the Contractor of the Responsibility for the Accuracy of this Document or for Full Compliance with the Contract Requirements
BY:
For Contracting Officer
DATE: 2-25-77
CONTRACT NUMBER
CUBIC WESTERN
HUNTINGTON
ROSSLYN
AFC MACHINES
DESIGN ACTIVITY APPROVAL
SIZE
DRAWING

NOTES: UNLESS OTHERWISE SPECIFIED

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APVD
	A	AS BUILT	1/14/15	AWC

Pre-Inspection Field Verification 1/15/2015



-1

UNLESS OTHERWISE DIMENSIONS ARE IN DECIMALS .XX ±.03 .XXX ± .010	SPECIFIED LINEAR INCHES TOL ON ANGLES ± 30'
UNLESS OTHERWISE SPECIFIED HOLE TOLERANCES ARE	
HOLE DIA	TOLERANCES
.0135 THRU .125	+.004 -.001
.126 THRU .250	+.005 -.001
.256 THRU .500	+.006 -.001
.501 THRU .750	+.008 -.001
.751 THRU 1.000	+.010 -.001

CONTRACT NUMBER 270074

DESIGN ACTIVITY APPROVAL — APPROVED — DATE

CUBIC-WESTERN DATA
SAN DIEGO, CALIFORNIA

ROSELYN STATION
SERVICE GATE & RAILING

SIZE D | CAGE IDENT 91997 | DRAWING NUMBER 926-0316 | REV

SCALE 1:10 | SHEET 1 OF 1

WD-7

Pre-Inspection Field Verification 1/15/2015

EXISTING PANEL "F2"

AMPERES: **150**	VOLTS: **120/208**	MOUNTING: **SURFACE**	
MAINS: **150A MCB**	PHASE: **3**	LOCATION: **ROOM C304**	
RATING: **10K AIC**	WIRE: **4**	SECTION: **1 OF 1**	

	LOAD DESCRIPTION	KVA	CKT BKRS AMP	CKT BKRS POLE	CKT. NO.		CKT. NO.	CKT BKRS POLE	CKT BKRS AMP	KVA	LOAD DESCRIPTION
	SPARE	0.8	20	1	1	A - -	2	1	20	0.8	EXISTING VENDOR
	SPARE	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
	EXISTING CIRCUIT	2.6	60	2	7	A - -	8	1	20	0.0	SPARE
		1.0	-	-	9	- B -	10	1	20	0.0	SPARE
1	**NEW KIOSK RECEPT. (IT & NEPP)**	**0.8**	20	1	11	- - C	12	1	20	0.0	SPARE
1&2	**SPARE (KIOSK)**	**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
	SPARE	0.0	20	1	17	- - C	18	2	20	0.9	EXISTING CIRCUIT
	SPARE	0.0	20	1	19	A - -	20	-	-	0.9	
	SPACE	0.0	20	1	21	- B -	22	2	20	0.9	EXISTING CIRCUIT
	SPACE	0.0	20	1	23	- - C	24	-	-	0.9	
	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	0.8	EXISTING VENDOR
	SPACE	0.0	-	-	33	- B -	34	-	-	0.0	SPACE
	SPACE	0.0	-	-	35	- - C	36	-	-	0.0	SPACE

NOTES: **1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB**
2. CB TO BE RESERVED FOR FUTURE AFC

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	0.0 x 50%		0.0 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	2.0 x 125%		2.5 KVA
AC	0.0 x 100%		0.0 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	**12.0 KVA**	**TOTAL DEMAND KVA**	**12.5 KVA**
		TOTAL DEMAND AMPS	**34.7 AMPS**

CONNECTED LOAD PHASE SUMMARY

PHASE A:	5.9 KVA
PHASE B:	2.7 KVA
PHASE C:	3.4 KVA

NOTES:
A. EXISTING PANEL "F2" IS FED FROM 112.5KVA TRANSFORMER WHICH IS SUPPLIED FROM ATS #2. ATS #2 NORMAL FEED IS SUPPLIED FROM 277/480V, 3ø, 4W EXISTING SWBD "ROSSLYN" LOCATED IN AC SWBD RM. 112, ~~CIRCUIT (C05-BKR-S603-E)~~ 150/3P. ATS #2 EMERGENCY FEED IS SUPPLIED FROM 277/480V, 3ø, 4W EXISTING "GENERAL DISTRIBUTION SWBD" LOCATED IN SOUTH AC SWBD RM. 112, CIRCUIT #3 (SEE ATTACHED DWG. MM-C-E21).

Breaker 'XFMR F1-F2'

B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
* 6-2" C. (WIRING FILL >40%).
* 2-1 1/2" C. (WIRING FILL >40%).

EXISTING WIRING FED FROM TOP OF PANEL BY:
* 1-1/2" C. (WIRING FILL >40%).

EXISTING WIRING FED FROM RIGHT SIDE OF PANEL BY:
* 1-1 1/2" C. (WIRING FILL >40%).

CONTRACT NO. 14-FQ10060-CENI-24

DESIGNED C. NGO 11-14 DATE
DRAWN C. NGO 11-14 DATE
CHECKED B. IDILBI 11-14 DATE
APPROVED N/A DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED _____

GFP A Gannett Fleming/Parsons JOINT VENTURE

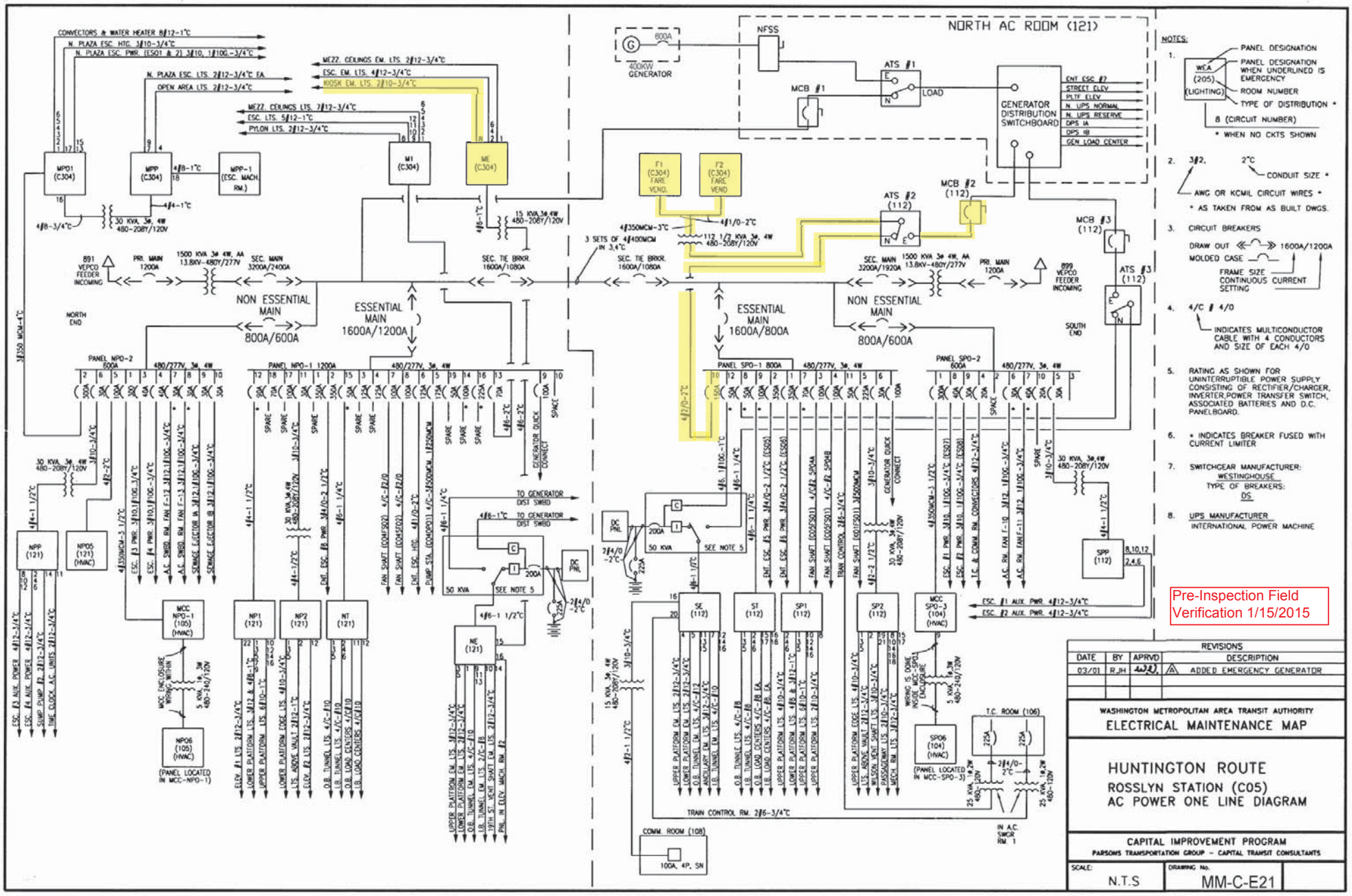
SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS

ROSSLYN
PANEL SCHEDULE

SCALE: NOT TO SCALE

DRAWING NO. C05-E-102


NORTH AC ROOM (121)
NFSS
ATS #1
MCB #1
LOAD
GENERATOR DISTRIBUTION SWITCHBOARD
400KW GENERATOR
800A
ATS #2 (112)
MCB #2 (112)
MCB #3 (112)
ATS #3 (112)
NON ESSENTIAL MAIN 800A/600A
ESSENTIAL MAIN 1600A/1200A
ESSENTIAL MAIN 1600A/800A
NON ESSENTIAL MAIN 3200A/1920A
NORTH END
SOUTH END
SEC. TIE BRKR. 1600A/1080A
1500 KVA 3ø 4W, AA 13.8KV-480Y/277V
PANEL NPO-2 600A
PANEL NPO-1 1200A
PANEL SPO-1 800A
PANEL SPO-2 600A
480/277V, 3ø, 4W
TRAIN CONTROL RM. 2#6-3/4"C
COMM. ROOM (108)
T.C. ROOM (106)
IN A.C. SWGR RM. 1
NOTES:
PANEL DESIGNATION
PANEL DESIGNATION WHEN UNDERLINED IS EMERGENCY
ROOM NUMBER
TYPE OF DISTRIBUTION *
8 (CIRCUIT NUMBER)
* WHEN NO CKTS SHOWN
CONDUIT SIZE *
AWG OR KCMIL CIRCUIT WIRES *
* AS TAKEN FROM AS BUILT DWGS.
CIRCUIT BREAKERS
DRAW OUT
MOLDED CASE
FRAME SIZE
CONTINUOUS CURRENT SETTING
INDICATES MULTICONDUCTOR CABLE WITH 4 CONDUCTORS AND SIZE OF EACH 4/0
RATING AS SHOWN FOR UNINTERRUPTIBLE POWER SUPPLY CONSISTING OF RECTIFIER/CHARGER, INVERTER, POWER TRANSFER SWITCH, ASSOCIATED BATTERIES AND D.C. PANELBOARD.
* INDICATES BREAKER FUSED WITH CURRENT LIMITER
SWITCHGEAR MANUFACTURER: WESTINGHOUSE
TYPE OF BREAKERS: DS
UPS MANUFACTURER INTERNATIONAL POWER MACHINE
Pre-Inspection Field Verification 1/15/2015
REVISIONS
DATE | BY | APRVD | DESCRIPTION
03/01 | R.JH | | ADDED EMERGENCY GENERATOR
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
ELECTRICAL MAINTENANCE MAP
HUNTINGTON ROUTE
ROSSLYN STATION (C05)
AC POWER ONE LINE DIAGRAM
CAPITAL IMPROVEMENT PROGRAM
PARSONS TRANSPORTATION GROUP – CAPITAL TRANSIT CONSULTANTS
SCALE: N.T.S
DRAWING No. MM-C-E21
DESIGNED
DRAWN
CHECKED
APPROVED
DATE

Pre-Inspection Mezzanine Walkthrough Checklist

Date: 01/15/2015	**Station Name:** Rosslyn - C05 (NEW)	**Mezzanine #:** 113	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: LM-MCC Source Breaker Name/Number: Breaker 'XFMR TF-1' Electrical AFC Panel Name/Number: F1	Rm W108 Rm W108 Rm W110	Room W108 is mechanical room. Room W110 is electrical room.
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: SMNT/POWR escorts: HIGH Voltage		
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. NO		
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? YES (see notes) Identified Conduit/Duct Transition to mezzanine level? YES		Conduit/ducts on multiple levels. Power duct run from Kiosk to AFC Panel is approx. 70'.

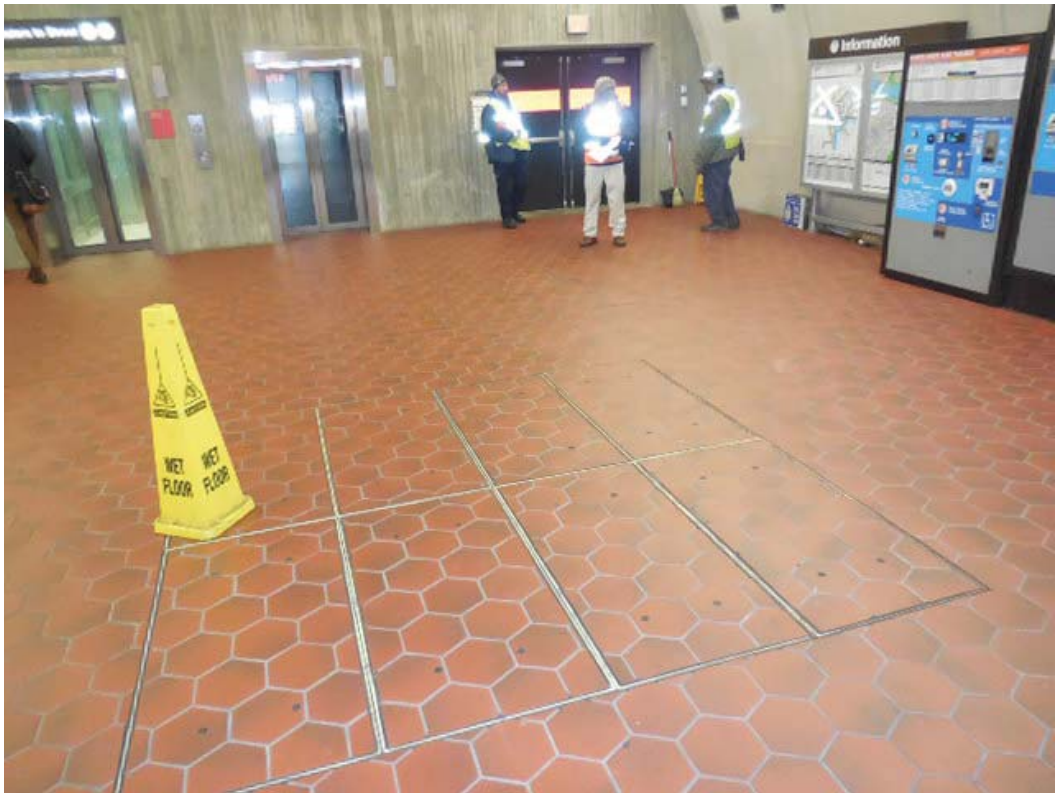
Emergency Power Verification

Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: Source Breaker Name/Number: Panel Name/Number:		

Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:	Tarmina Sahoo	
Date:	1/15/2015	

Pictures 1&2: C05 Rosslyn (NEW) – Handholes in mezzanine



Picture 3: C05 Rosslyn (NEW) – Handholes in mezzanine

Picture 4: C05 Rosslyn (NEW) – Emergency Panel KN and Panel KE in Kiosk

Pictures 5&6: C05 Rosslyn (NEW) – Emergency Panel KN and Panel KE in Kiosk, Panel schedules

PANELBOARD KN

SOURCE: PANEL F-1

DATE: 11/05/2013

VOLTAGE: 120/208

CIR	LOAD	CIR	LOAD
1	MAIN	2	SPARE
3	MAIN	4	SPARE
5	MAIN	6	SPARE
7	RECEPTACLE IN CABINET	8	SPARE
9	RECEPTACLE IN CABINET	10	RECEPTACLE IN CABINET
11A	VOICE CONTROL	12A	FLOOR RECEPTACLE
11B	RECEPTACLE IN CABINET	12B	RECEPTACLE IN CABINET
13A	VIDEO SCREEN	14A	TELEPHONE
13B	RECEPTACLE IN CABINET	14B	RECEPTACLE IN CABINET

TRULAND

PG 1

PANELBOARD KE

DATE: 11/5/2013

SOURCE: PANEL LME

VOLTAGE: 120/208

CIR	LOAD	CIR	LOAD
1	MAIN	8A	SOC
3	MAIN	8B	AC CEILING
5	MAIN	10A	AC CEILING
7A	CEILING RECEPTACLE	10B	WALL HEATER
7B	AC CONDENSER	12A	WALL HEATER
9A	AC CONDENSER	12B	COMPUTER
9B	LIGHTS		

TRULAND

PG 1

Picture 7: C05 Rosslyn (NEW) – AFC Panel F1 in room W110

Picture 8: C05 Rosslyn (NEW) – AFC Panel F1 in room W110, Conduits and troughs above panel

Picture 9: C05 Rosslyn (NEW) – AFC Panel F1 in room W110, Ducts below panel

Picture 10: C05 Rosslyn (NEW) – AFC Panel F1 in room W110, Panel schedule

PANELBOARD PANEL F1 DATE: 8/15/2013

SOURCE: PANEL LM-MCC VOLTAGE: 120/208V 3 PHASE

CIR	LOAD	CIR	LOAD
1	PANEL KIOSK NORMAL	2	AFC
3	PANEL KIOSK NORMAL	4	AFC
5	PANEL KIOSK NORMAL	6	AFC
7	AFC	8	AFC
9	AFC	10	AFC
11	AFC	12	AFC
13	AFC	14	AFC
15	AFC	16	AFC
17	AFC	18	AFC (TDM #1)
19	AFC	20	PIDS / EAS MAP CASE
21	SPARE	22	NORTH MAP CASE
23	SPARE	24	SPARE
25	SPARE	26	SPARE
27	SPARE	28	SPARE
29	SPARE	30	SPARE
31	SPARE	32	SPARE
33	SPARE	34	SPARE
35	SPARE	36	SPARE
37	SPARE	38	SPARE
39	SPARE	40	SPARE
41	SPARE	42	SPARE

TRULAND TRANSPORTATION

PG 1

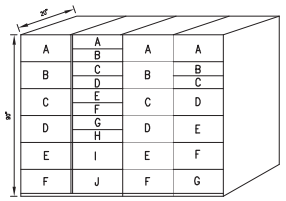
MOTOR CONTROL CENTER: LM-MCC,
600 AMPS, 480/277V, 3ø, 4W, GND BUS
BUS BRANCING: 50,000 AMPS RMS SYM.

LOCATION: MECHANICAL ROOM (LOWER MEZZAMINE)
SHORT CIRCUIT RATING: 50,000 AMPS RMS SYM
ENCLOSURE TYPE: NEMA 12

SEC. NO.	ITEM NO.	CIRCUIT BREAKER POLES	CIRCUIT BREAKER FRAMES AMP.	CIRCUIT BREAKER TRIP AMP.	MCP CONTIN. RATING AMP.	STARTER NEMA SIZE	STARTER TYPE	CON-NECTED LOAD KVA	HP OR KW	DESCRIPTION	CONTROL DIAGRAM DWG NO.
1	A	3	150	100	N/A	N/A	N/A	67.2	N/A	AIR COOLED CHILLER-1 (ACC-1)	
	B	3	150	100				N/A	N/A	SPARE	
	C	3	150	100				N/A	N/A	SPARE	
	D	3	150	50				N/A	N/A	SPARE	
	E	N/A	N/A	N/A				N/A	N/A	SPACE	
	F	N/A	N/A	N/A				N/A	N/A	SPACE	
2	A	3			30	1	FVNR		5 HP	AIR CONDITIONER UNIT-1 (ACU-1)	
	B	3			30	1	FVNR	3.0		EUH-1	
	C	3			30	1	FVNR	20.0		DM1	
	D	3			30	1	FVNR	1.33	0.75 HP	ELECTRICAL RM EXHAUST FAN-4 (EF-4)	
	E	3	150	90				34.1	30	PRESSURIZATION FANS (SPF-1 & MPF-1)	
	F	3	150	50				N/A	N/A	SPARE	
	G	3	400	250				162.1	N/A	ELEVATORS 1, 2, & 3	
	H	3	150	45				N/A	N/A	30 kVA TRANSFORMER (TN)	
	I	3	150	110				56.5	N/A	SUMP PUMP CONTROL PANEL (SPCP)	
	J	3	150	100				N/A	N/A	PANELBOARD LM1	
3	A	3			30	1	FVNR	N/A	10 HP	SPARE	
	B	3			30	1	FVNR	N/A	5 HP	SPARE	
	C	3			30	1	FVNR	N/A	5 HP	SPARE	
	D	3			30	1	FVNR	N/A	5 HP	SPARE	
	E	3			30	1	FVNR	6.3	3 HP	EXHAUST FAN (EF-2) FOR FUTURE CONNECTIONS	
	F	3			30	1	FVNR	6.3	3 HP	EXHAUST FAN (EF-3) FOR FUTURE CONNECTIONS	
4	A		N/A	N/A				N/A	N/A	MAIN LUGS	
	B	3			30	1	FVNR	1.7	1 HP	TOILETS EXHAUST FAN-1 (EF-1)	
	C	3						N/A	10 HP	SPARE	
	D	3	150	30						XFMR TF-1	
	E	3	150	30				11.6	10 HP	SEPCP	
	F									SPARE	
	G							N/A	N/A	SPACE	

ELEVATION

SECTION 1 | SECTION 2 | SECTION 3 | SECTION 4



Room W108 Mechanical room.
Room W110 Electrical room.

NOTES:

TOTAL CONNECTED LOAD 523.5 KVA-630.8 AMPS

1. PROVIDE FUSED CONTROL TRANSFORMER, APPROPRIATE CONTROL DEVICES & INDICATING LIGHTS IN EACH STARTER.
2. ADJUST DOWN INSTANTANEOUS TRIP OF MCP IN FIELD JUST ABOVE MOTORS INRUSH CURRENT TO PROVIDE MAXIMUM MOTOR & GROUND FAULT PROTECTION.

ESTIMATED DEMAND: 378 kVA

LOAD	KVA CONNECTED	DF	SUMMER	WINTER
VENTILATION	50	70%	35	35
COOLING: MOTORS	67.2	80%	53.8	
HEATING	23	70%		16.2
PUMPS	100	70%	70	70
ELEVATORS	90	50%	45	45
OTHER	193.3	90%	174	174
TOTAL DEMAND:	523.5		378	340.2

Pre-Inspection Field Verification 1/15/2015

CONTRACT NO.

DESIGNED A. FISHEL 4/08 DATE
DRAWN Y. MCAFEE 4/08 DATE
CHECKED E. GROSS 4/08 DATE
APPROVED J. RISHER 4/08 DATE

REVISIONS

DATE	BY	DESCRIPTION

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Transportation Division
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201

COMMONWEALTH OF VIRGINIA — ANTHONY M. FISHEL — LICENSED PROFESSIONAL ENGINEER

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF OPERATIONS SERVICES
OFFICE OF ENGINEERING SERVICE

APPROVED

PROJECT MANAGER

P2D

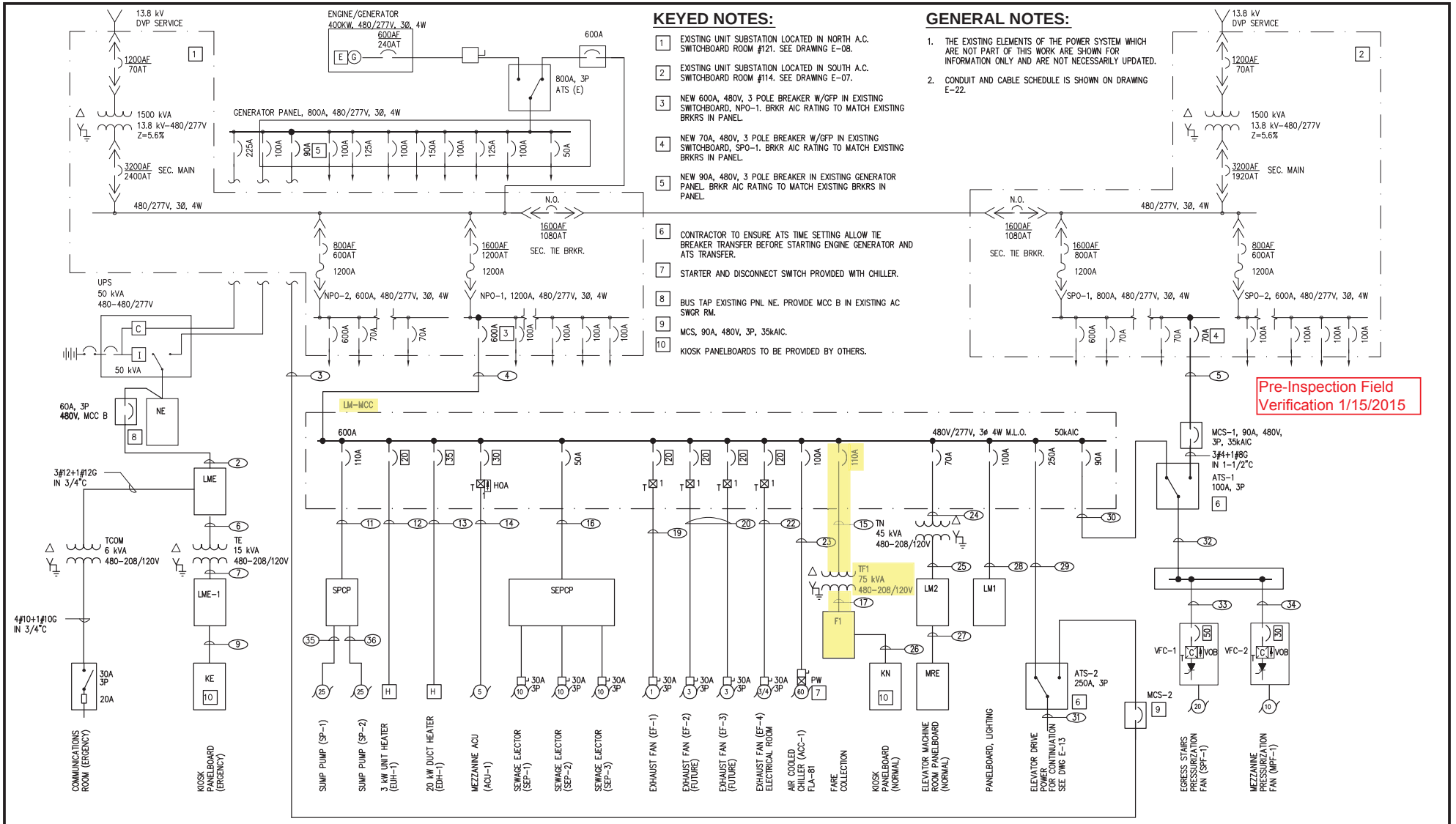
SUBMITTED

a joint venture of:
- Parsons Transportation Group Inc.
- PB Americas, Inc.
- Delon Hampton & Associates, Chartered

ROSSLYN STATION ACCESS IMPROVEMENT PROJECT
PANEL SCHEDULE

SCALE: NONE

DRAWING NO.: E-21



KEYED NOTES:

1. EXISTING UNIT SUBSTATION LOCATED IN NORTH A.C. SWITCHBOARD ROOM #121. SEE DRAWING E–08.
2. EXISTING UNIT SUBSTATION LOCATED IN SOUTH A.C. SWITCHBOARD ROOM #114. SEE DRAWING E–07.
3. NEW 600A, 480V, 3 POLE BREAKER W/GFP IN EXISTING SWITCHBOARD, NPO–1. BRKR AIC RATING TO MATCH EXISTING BRKRS IN PANEL.
4. NEW 70A, 480V, 3 POLE BREAKER W/GFP IN EXISTING SWITCHBOARD, SPO–1. BRKR AIC RATING TO MATCH EXISTING BRKRS IN PANEL.
5. NEW 90A, 480V, 3 POLE BREAKER IN EXISTING GENERATOR PANEL. BRKR AIC RATING TO MATCH EXISTING BRKRS IN PANEL.
6. CONTRACTOR TO ENSURE ATS TIME SETTING ALLOW TIE BREAKER TRANSFER BEFORE STARTING ENGINE GENERATOR AND ATS TRANSFER.
7. STARTER AND DISCONNECT SWITCH PROVIDED WITH CHILLER.
8. BUS TAP EXISTING PNL NE. PROVIDE MCC B IN EXISTING AC SWGR RM.
9. MCS, 90A, 480V, 3P, 35kAIC.
10. KIOSK PANELBOARDS TO BE PROVIDED BY OTHERS.

GENERAL NOTES:

1. THE EXISTING ELEMENTS OF THE POWER SYSTEM WHICH ARE NOT PART OF THIS WORK ARE SHOWN FOR INFORMATION ONLY AND ARE NOT NECESSARILY UPDATED.
2. CONDUIT AND CABLE SCHEDULE IS SHOWN ON DRAWING E–22.

Pre-Inspection Field Verification 1/15/2015

SINGLE LINE DIAGRAM

CONTRACT NO.

DESIGNED	A. FISHEL	3/08 DATE
DRAWN	Y. MCAFEE	3/08 DATE
CHECKED	E. GROSS	3/08 DATE
APPROVED	J. RISHER	3/08 DATE

REVISIONS

DATE	BY	DESCRIPTION

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Transportation Division
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201

COMMONWEALTH OF VIRGINIA — ANTHONY M. FISHEL — LICENSED PROFESSIONAL ENGINEER

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF OPERATIONS SERVICES
OFFICE OF ENGINEERING SERVICE

APPROVED

P2D

SUBMITTED

a joint venture of:
- Parsons Transportation Group Inc.
- PB Americas, Inc.
- Dalton Hampton & Associates, Chartered

PROJECT MANAGER

ROSSLYN STATION ACCESS IMPROVEMENT PROJECT
POWER SINGLE LINE DIAGRAM

SCALE: NONE

DRAWING NO.: E–26

Pre-Inspection Mezzanine Walkthrough Checklist

Date: 11/18/2014	**Station Name:** Arlington Cemetery - C06	**Mezzanine #:** 042	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: N. Dist. PNL; S. Dist. PNL Source Breaker Name/Number: Breaker #1; Breaker #7 Electrical AFC Panel Name/Number: F-1; F-2	Rm C206 Rm C206 Rm 100	S.O. Request: Breaker #1 on source Panel N. Dist. PNL to de-energize AFC Panel F-1. Breaker #7 on source Panel S. Dist. PNL to de-energize AFC Panel F-2.
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: SMNT/POWR escorts: HIGH and LOW Voltage		
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. NO		
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support: AFC		Exit fare machines AM2972 and AM2974 need to be opened to see if possible handholes are located inside machines.
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? YES (see notes) Identified Conduit/Duct Transition to mezzanine level? YES		PLNT requested in case there is handhole inside AFC machine. Power run from Kiosk to AFC Panel is overhead 2" conduit and is 70' long.

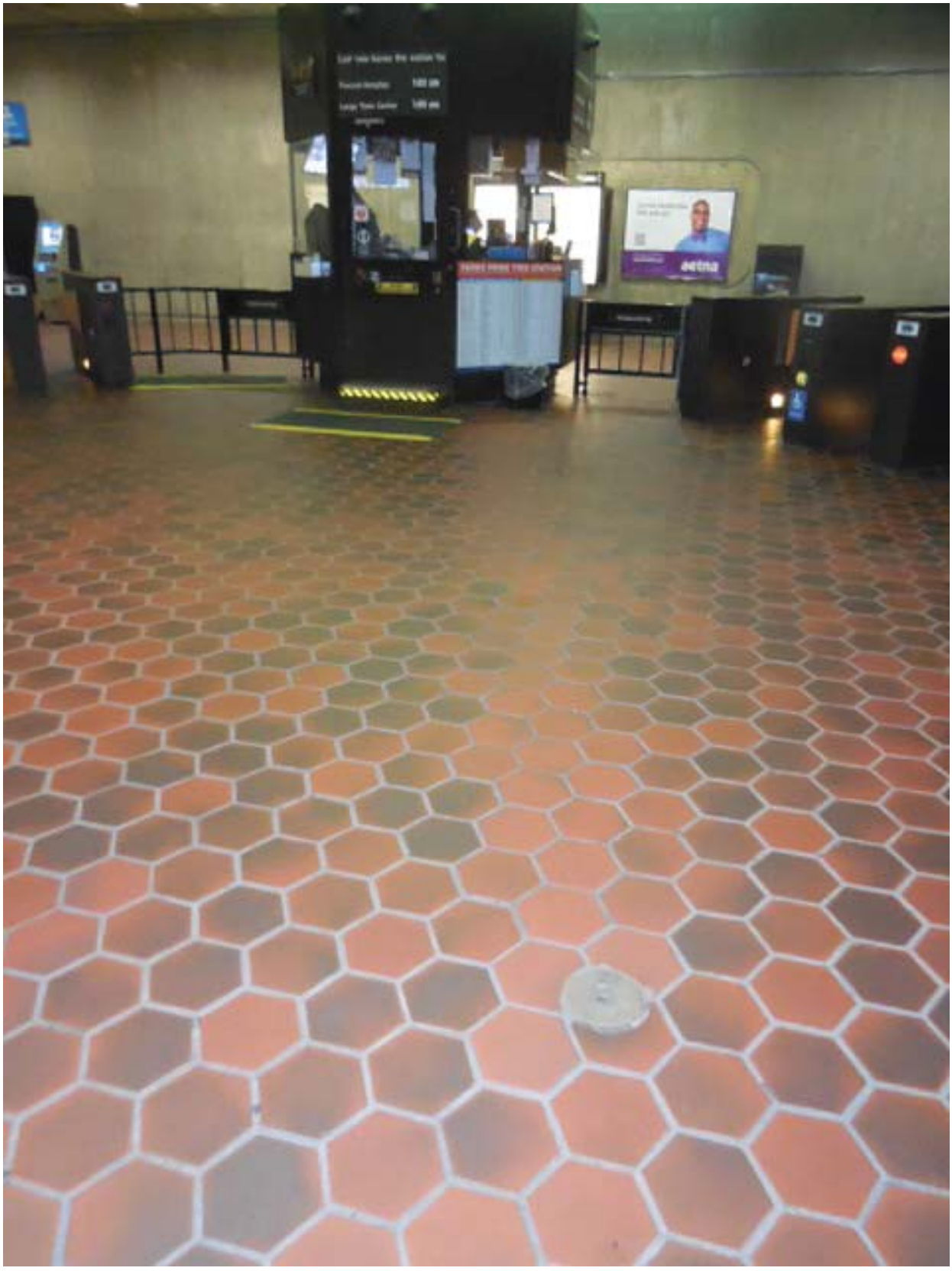
Emergency Power Verification

Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: E Source Breaker Name/Number: Breaker #5 Panel Name/Number: Kiosk Emergency Panel	Rm C206 Rm C206 Kiosk	

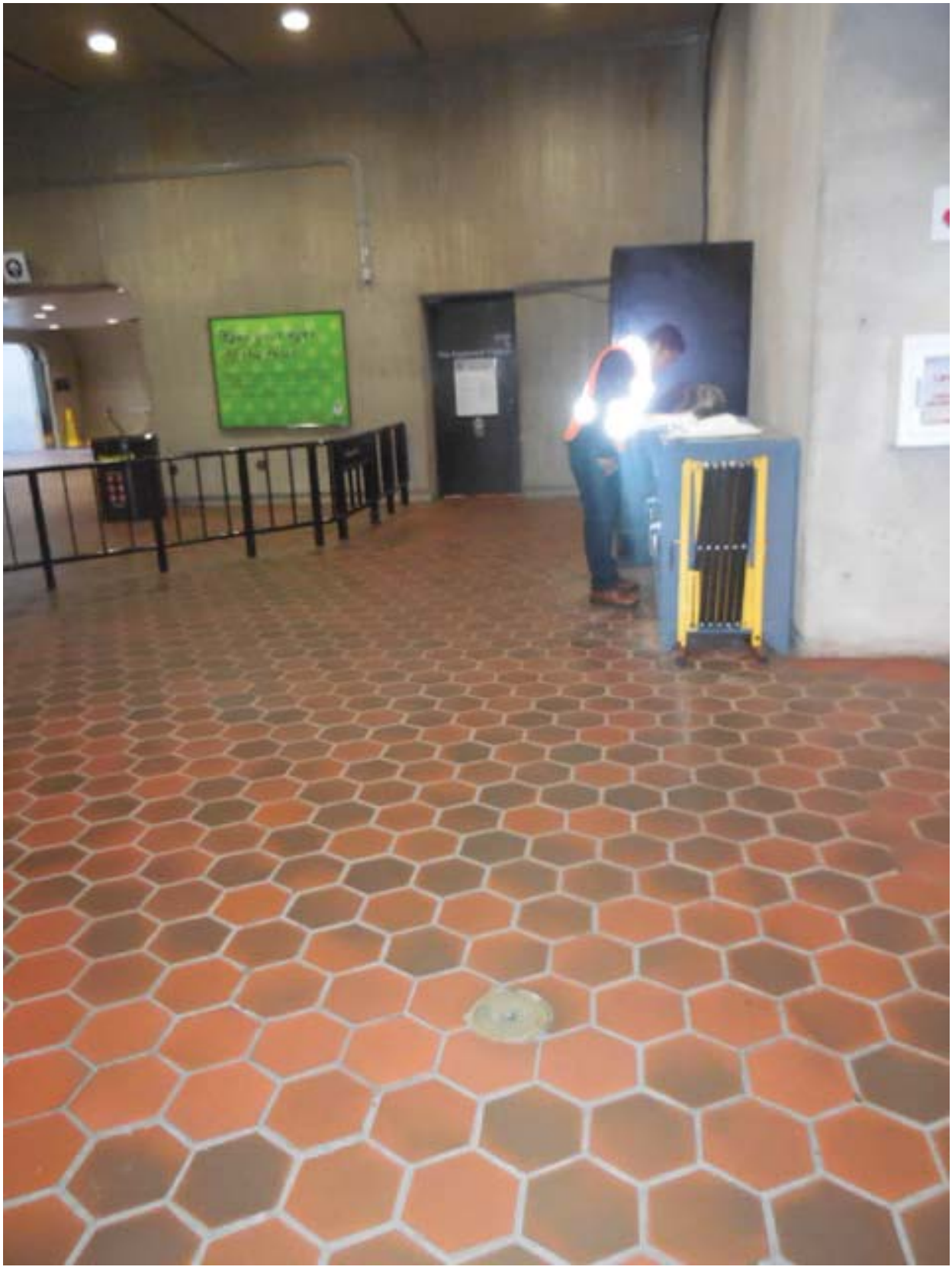
Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:	Tarmina Sahoo	
Date:	11/18/2014	

Picture 1: C06 Arlington Cemetery – Handholes in Mezzanine



Picture 2: C06 Arlington Cemetery – Handholes in Mezzanine



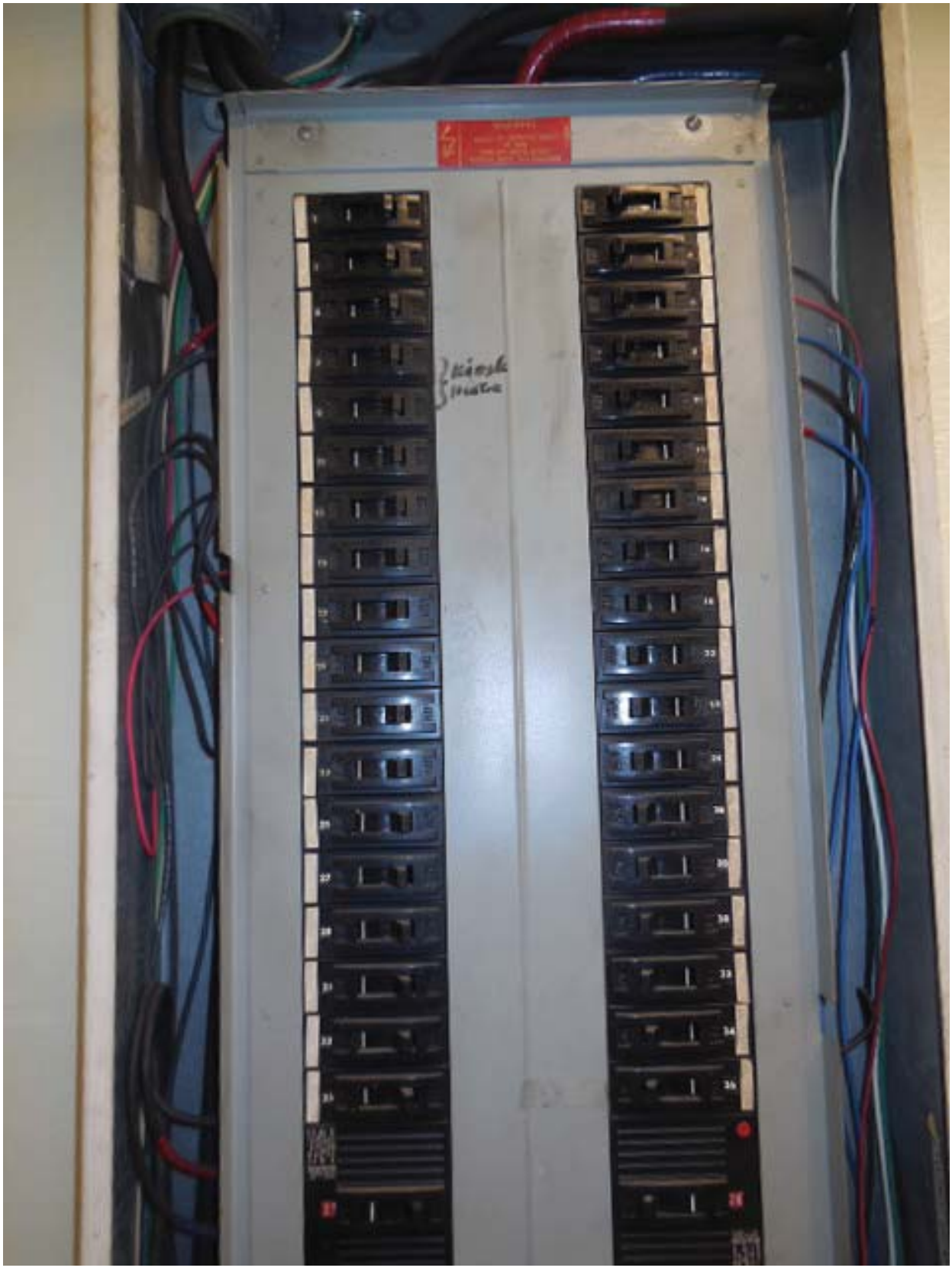
Picture 3: C06 Arlington Cemetery – Handholes possibly located under fare-card machines

Pictures 4: C06 Arlington Cemetery – Emergency panel in Kiosk

Pictures 5: C06 Arlington Cemetery – AFC Panel F-1 in Room 100

Picture 6: C06 Arlington Cemetery – AFC Panel F-1 in Room 100

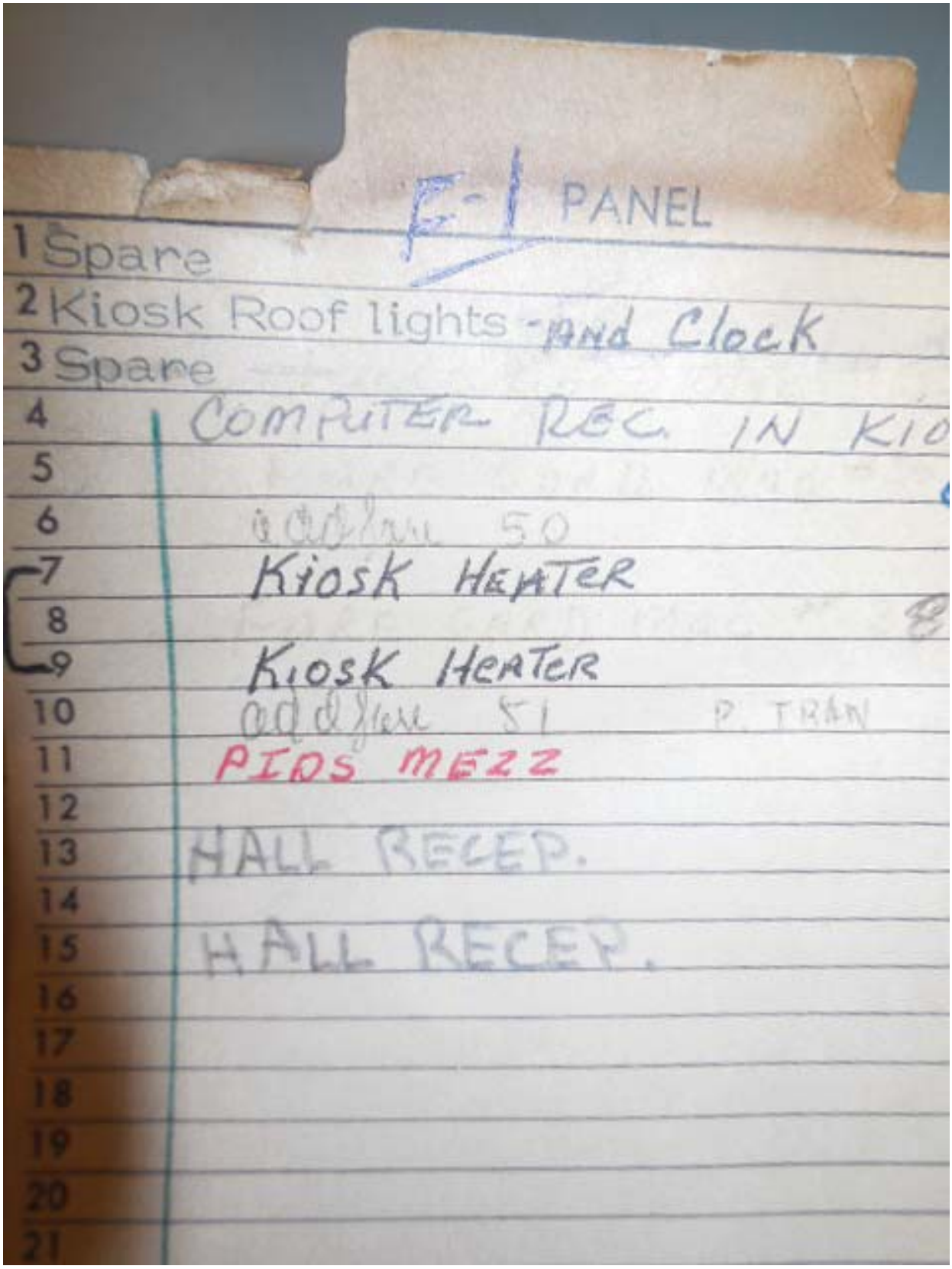
Picture 7: C06 Arlington Cemetery – AFC Panel F-1 in Room 100



Picture 8: C06 Arlington Cemetery – AFC Panel F-1 in Room 100 – Conduits above panel

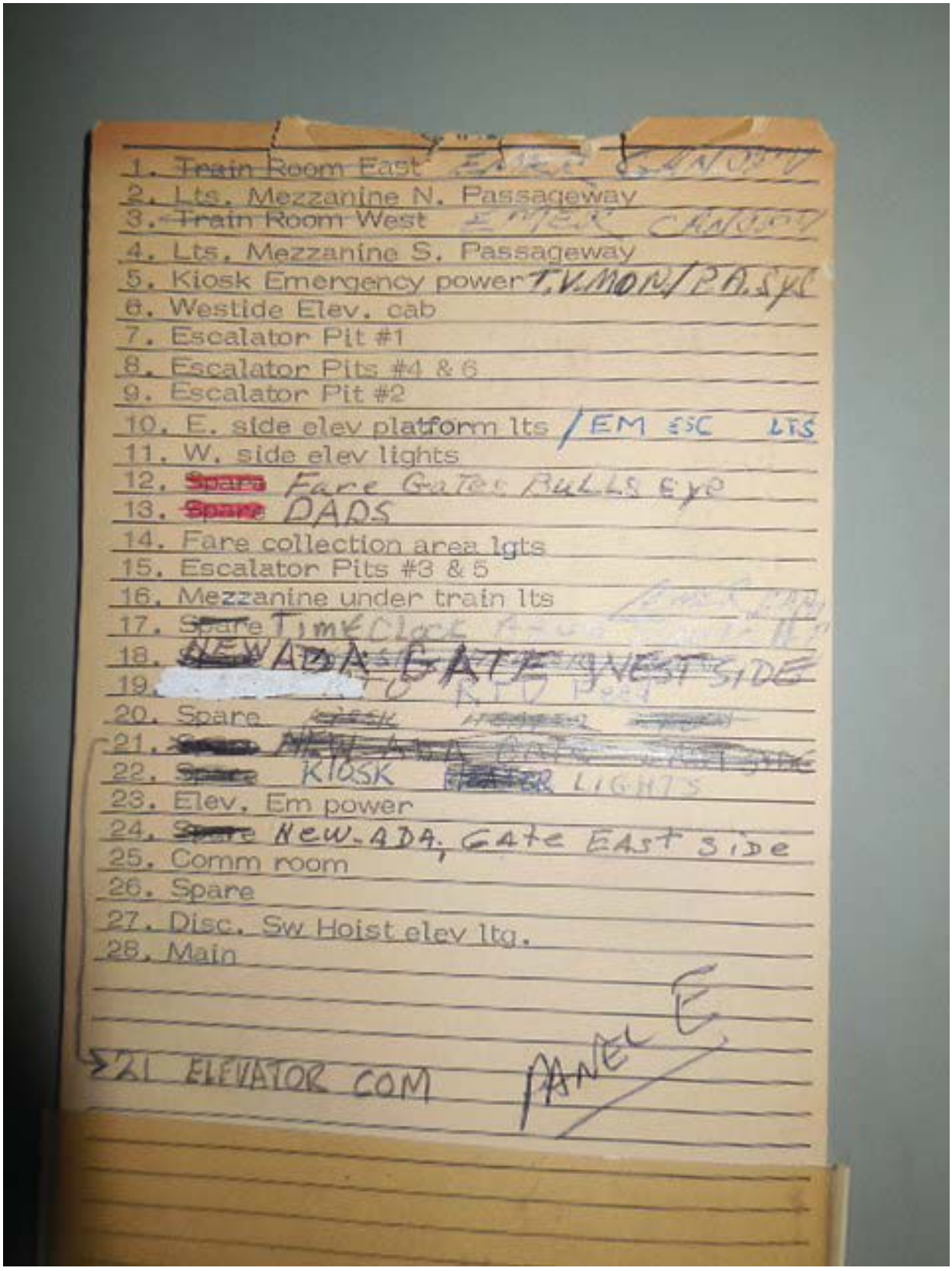
Picture 9: C06 Arlington Cemetery – AFC Panel F-1 in Room 100 – Conduits below panel

Picture 10: C06 Arlington Cemetery – AFC Panel F-1 in Room 100 – Panel schedule



Picture 11: C06 Arlington Cemetery – Emergency Panel E in Room C206

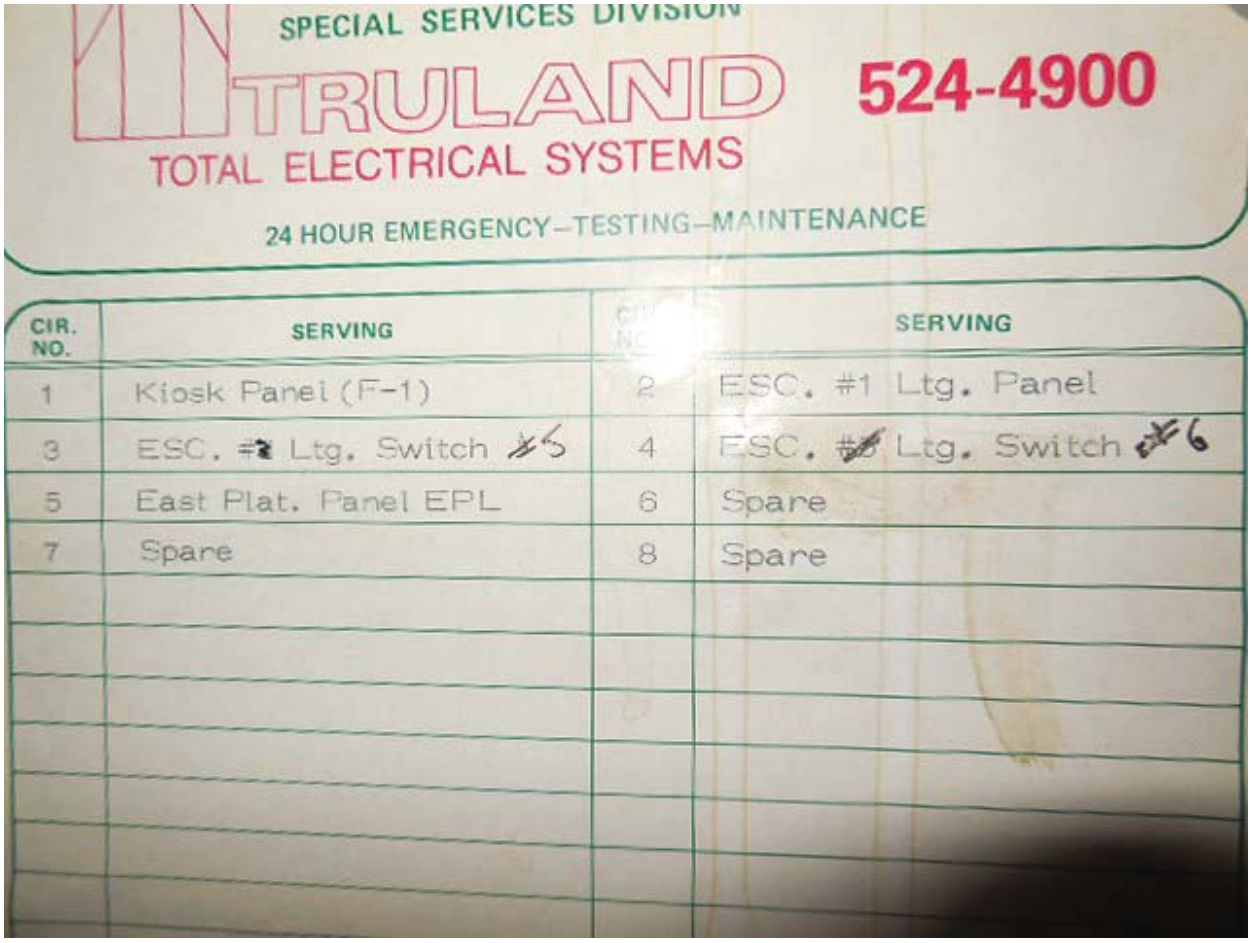
Picture 12: C06 Arlington Cemetery – Emergency Panel E in Room C206 – Panel schedule



Picture 13: C06 Arlington Cemetery – North Dist. Panel in Room C206

Picture 14: C06 Arlington Cemetery – North Dist. Panel in Room C206 – Breaker 1

Picture 15: C06 Arlington Cemetery – North Dist. Panel in Room C206 – Panel schedule



SPECIAL SERVICES DIVISION

TRULAND 524-4900

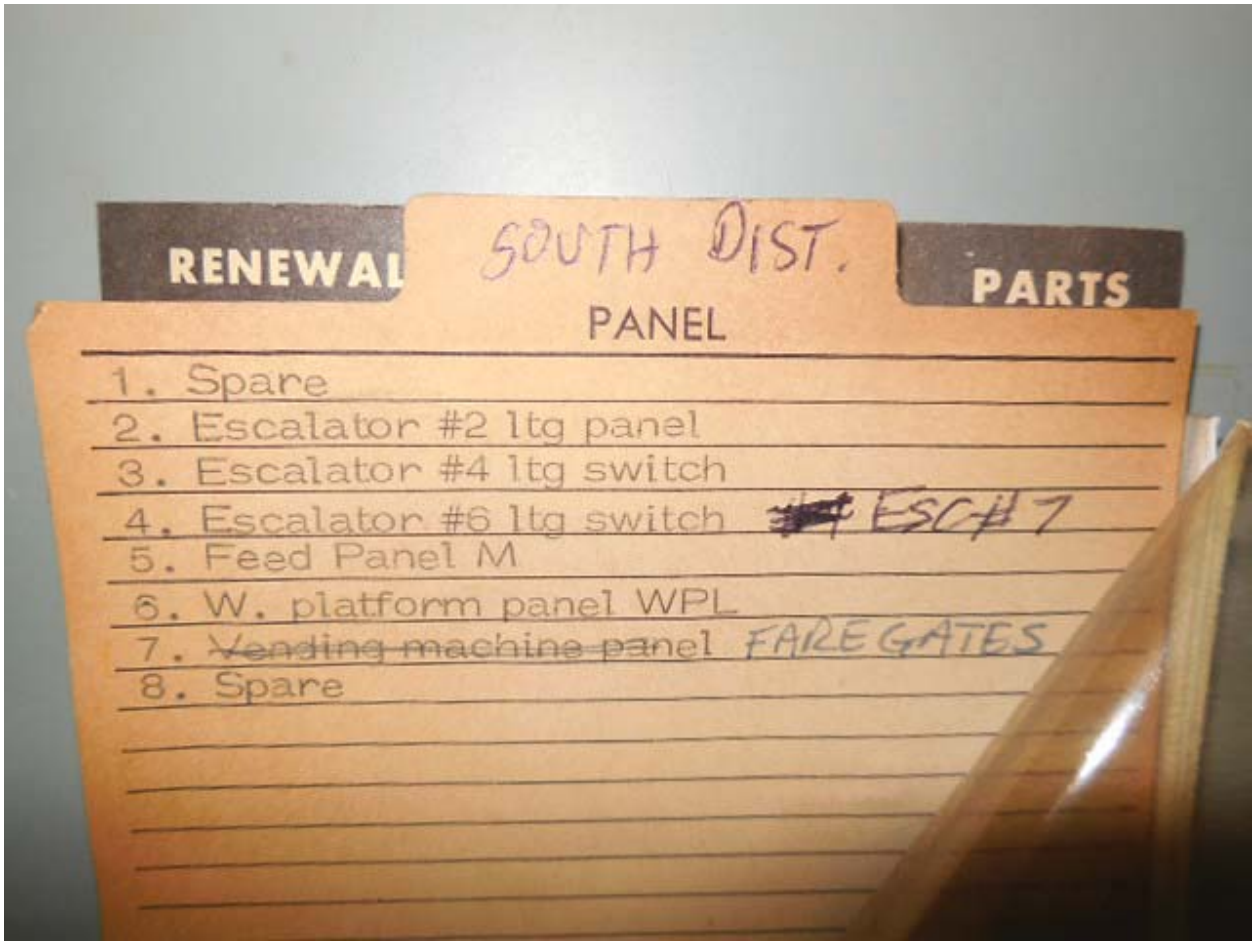
TOTAL ELECTRICAL SYSTEMS

24 HOUR EMERGENCY–TESTING–MAINTENANCE

CIR. NO.	SERVING	CIR. NO.	SERVING
1	Kiosk Panel (F-1)	2	ESC. #1 Ltg. Panel
3	ESC. #2 Ltg. Switch #5	4	ESC. #3 Ltg. Switch #6
5	East Plat. Panel EPL	6	Spare
7	Spare	8	Spare

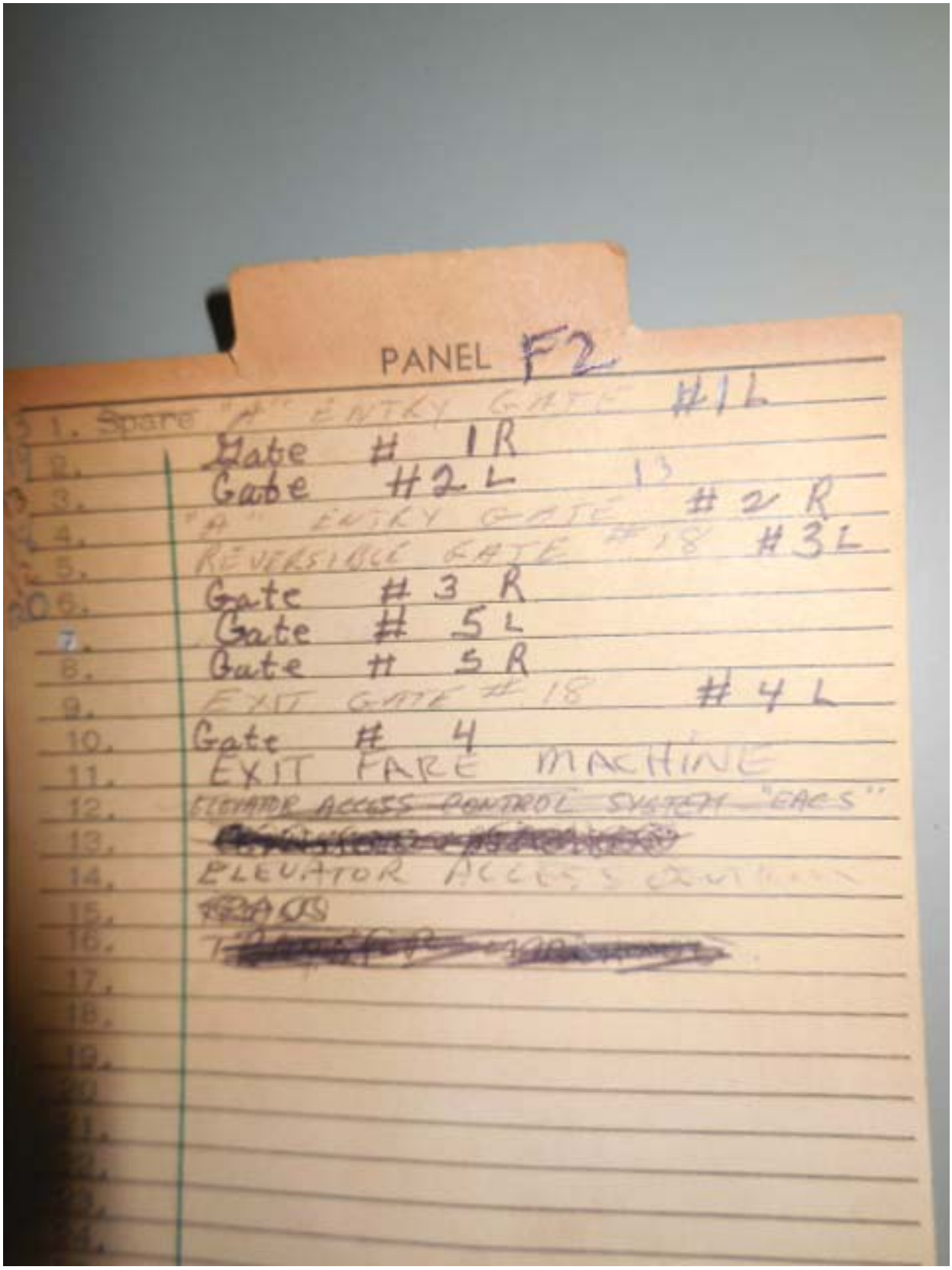
Picture 16: C06 Arlington Cemetery – South Dist. Panel in Room C206

Picture 17: C06 Arlington Cemetery – South Dist. Panel in Room C206 – Panel schedule



Picture 18: C06 Arlington Cemetery – Panel F-2 in Room C206

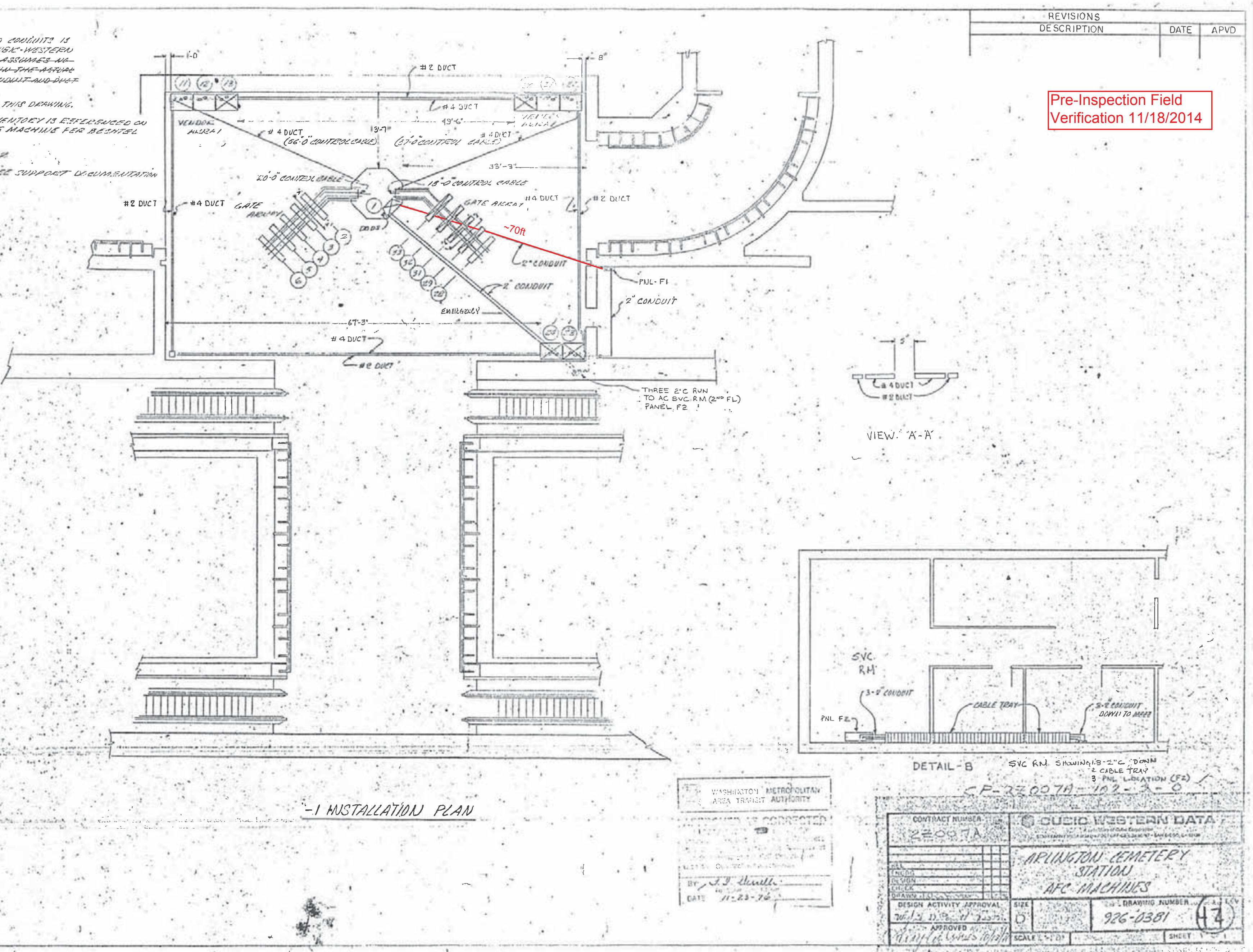
Picture 19: C06 Arlington Cemetery – Panel F-2 in Room C206 – Panel schedule

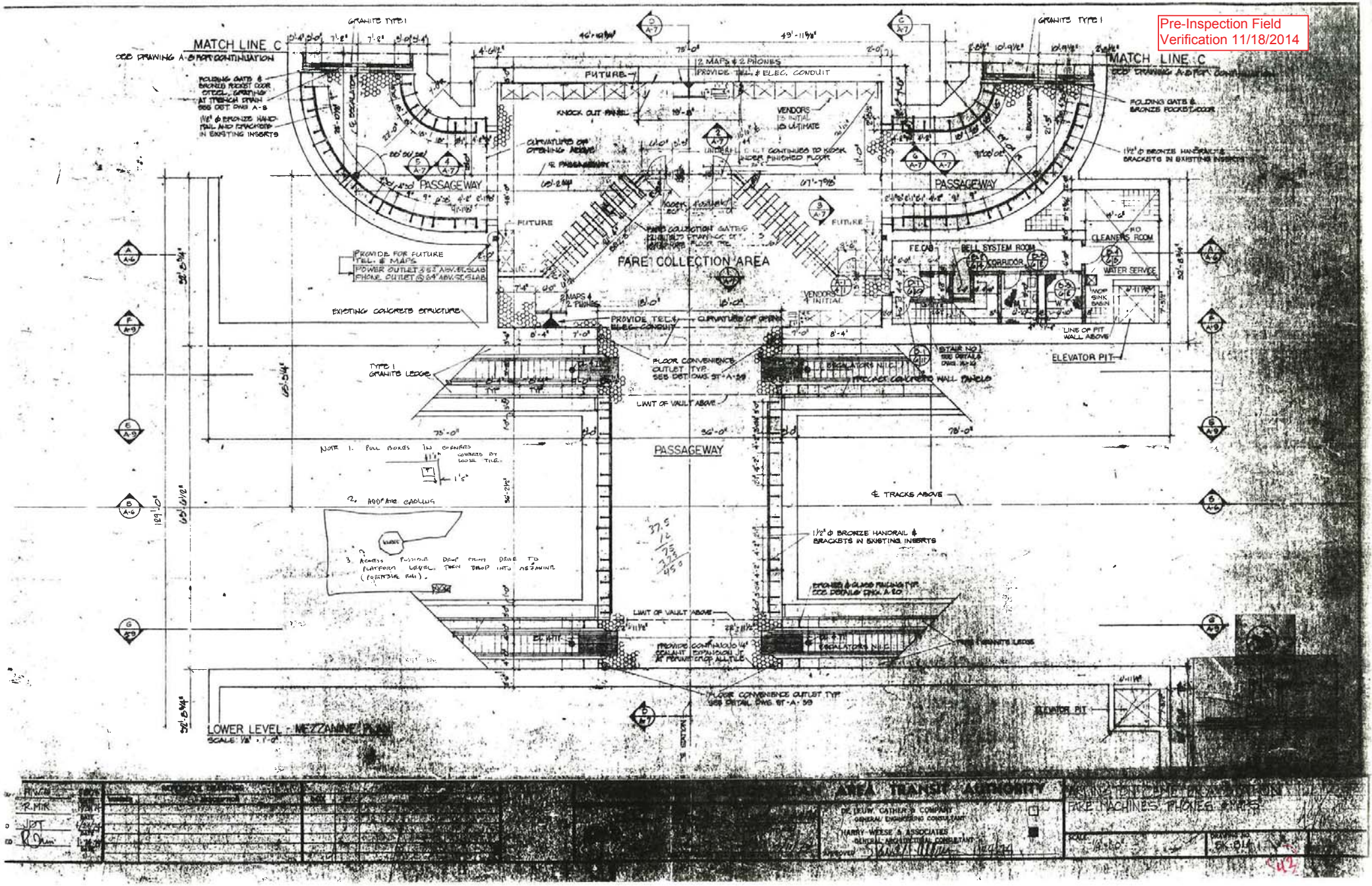


NOTES:

1. ALL INFORMATION CONCERNING DUCTS AND CONDUITS IS BASED ON INFORMATION SUPPLIED TO CUBIC-WESTERN DATA BY WMATA. ~~CUBIC WESTERN DATA ASSUMES NO RESPONSIBILITY FOR ERRORS THAT EXIST IN THE ACTUAL CONDUIT AND DUCT LOCATIONS VS THE CONDUIT AND DUCT LOCATIONS DEPICTED IN THIS DRAWING.~~
2. TOTAL MACHINE INVENTORY IS DEPICTED ON THIS DRAWING. THE MINIMUM OPERATIONAL MACHINE INVENTORY IS REFERENCED ON THIS DRAWING BY THE X DRAWN THRU THE MACHINE PER BECHTEL LETTER # 195.
3. FOR AS BUILT CONDUITIONS SEE SHEET 2.
4. FOR REFERENCE DRAWINGS USED SEE SUPPORT DOCUMENTATION PACKAGE FOR THIS MEZZANINE.

1) No of Conductors for Power
2) Note 1 Not Acceptable.
3) Fence should be depicted in Gate Area.




Pre-Inspection Field Verification 11/18/2014
MATCH LINE C
SEE DRAWING A-8 FOR CONTINUATION
GRANITE TYPE I
FUTURE
2 MAPS & 2 PHONES
PROVIDE TEL. & ELEC. CONDUIT
KNOCK OUT PANEL
VENDORS TI INITIAL 10 ULTIMATE
PASSAGEWAY
FARE COLLECTION AREA
FUTURE
PROVIDE FOR FUTURE TEL. & MAPS
POWER OUTLET @ 54" ABV. FF. SLAB
PHONE OUTLET @ 54" ABV. FF. SLAB
EXISTING CONCRETE STRUCTURE
2 MAPS & 2 PHONES
PROVIDE TEL. & ELEC. CONDUIT
FARE COLLECTION GATES
FE.CAB
BELL SYSTEM ROOM
CORRIDOR
CLEANERS ROOM
WATER SERVICE
MOP SINK BASIN
LINE OF PIT WALL ABOVE
ELEVATOR PIT
STAIR NO. 1
TYPE I GRANITE LEDGE
FLOOR CONVENIENCE OUTLET TYP. SEE DET. DWG. ST-A-59
ESCALATORS NIC
PRECAST CONCRETE WALL PANELS
LIMIT OF VAULT ABOVE
NOTE 1. PULL BOXES IN SIDEWALKS COVERED BY LOOSE TILE.
2. ADD FARE GATELINE
3. ACCESS POSITIVE DEMI-RAMP DRIVE TO PLATFORM LEVEL. THEN DROP INTO MEZZANINE (PORTABLE RAMP).
PASSAGEWAY
℄ TRACKS ABOVE
1½" ⌀ BRONZE HANDRAIL & BRACKETS IN EXISTING INSERTS
ENAMEL & GLASS FACING TYP. SEE DETAILS DWG. A-50
PROVIDE CONTINUOUS ¼" SEALANT EXPANSION JT. AT PERIMETER OF ALL TILE
FLOOR CONVENIENCE OUTLET TYP SEE DETAIL DWG. ST-A-59
LOWER LEVEL - MEZZANINE PLAN
SCALE: 1/8" = 1'-0"
MTA TRANSIT AUTHORITY
DE LEUW, CATHER & COMPANY GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES GENERAL ARCHITECTURAL CONSULTANT
APPROVED
FARE MACHINES, PHONES & MAPS
SCALE: 1/8"=1'-0"
DRAWING NO. 5K-B14

Pre-Inspection Field Verification 11/18/2014

EXISTING PANEL "F1"

AMPERES: 225	VOLTS: 120/208	MOUNTING: SURFACE	
MAINS: 225A	PHASE: 3	LOCATION: ROOM C100	
RATING: 10K AIC	WIRE: 4	SECTION: 1 OF 1	

LOAD DESCRIPTION	KVA	CKT BKRS AMP	CKT BKRS POLE	CKT NO		CKT NO.	CKT BKRS POLE	CKT BKRS AMP	KVA	LOAD DESCRIPTION
SPARE	0.0	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
SPARE	0.8	20	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	NEW KIOSK RECEPT. (IT & NEPP) 1 ✓
EXISTING VENDOR	0.8	20	1	13	A - -	14	1	20	0.0	SPARE (KIOSK) 1&2 ✓
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.0	SPARE
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
SPARE	0.0	20	1	21	- B -	22	1	20	0.0	SPARE
SPARE	0.0	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	0.8	EXISTING VENDOR
EXIST. LOAD CENTER "KES"	2.9	30	3	37	A - -	38	3	30	0.0	SPARE
	2.5	-	-	39	- B -	40	-	-	0.0	
	2.5	-	-	41	- - C	42	-	-	0.0	

NOTES 1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB
2. CB TO BE RESERVED FOR FUTURE AFC

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	2.4 x 50%		1.2 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	**19.9 KVA**	**TOTAL DEMAND KVA**	**19.5 KVA**
		TOTAL DEMAND AMPS	**54.0 AMPS**

CONNECTED LOAD PHASE SUMMARY

PHASE A:	6.9 KVA
PHASE B:	5.7 KVA
PHASE C:	7.3 KVA

NOTES:
A. EXISTING PANEL "F1" IS FED FROM 120/208V, 3Ø, 4W EXISTING PANEL "N. DIST. PANEL" LOCATED IN BATTERY AC SWBD. RM. C206, ~~circuit #1,3,5~~ Breaker #1 100A/3P (SEE ATTACHED DWG. MM-C-E13).
B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
- 2-1 1/2" C. (WIRING FILL >40%).

EXISTING WIRING FED FROM TOP OF PANEL BY:
- 1-4" C. TO DIST. PANEL (WIRING FILL >40%).
- 1-3/4" C. (WIRING FILL >40%)(1-WIRING FILL >20%).
- 1-1/2" C. (WIRING FILL >40%)(1-WIRING FILL >20%).

CONTRACT NO 14-FQ10060-CENI-24

DESIGNED	C. NGO	10-14 DATE
DRAWN	C. NGO	10-14 DATE
CHECKED	B. IDLBI	10-14 DATE
APPROVED	N/A	DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM
APPROVED _____

GFP A Gannett Fleming/Parsons JOINT VENTURE
SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS
ARLINGTON CEMETERY
PANEL SCHEDULE

SCALE: NOT TO SCALE
DRAWING NO. C06-E-102