Mezzanine Inspection Report (Scoping)

Date: 11/24/2014	**Station Name:** F08 Southern Avenue	**Mezzanine #:** 107	**Completed By:** Byron Williams

Summary

Video scoping was completed for the communications and power duct in the faregate array. Pull strings were installed in the communications duct for the faregate array. Video scoping of the double 6" duct run from the kiosk to the AFC panel was attempted, but both ducts were collapsed. Pull string was installed in the 1" conduit from the kiosk to the AFC panel.

Scanning is not required at this mezzanine.

Scoping of Faregate Array(s)

Task	Yes/No	Notes
Communications Duct – Faregate Array (~~6~~ 7 Gates)		
Was video scoping completed for the entire duct run?	Yes	Refer to WMATA Southern Ave 3inch Comm Duct Kiosk to Fairgates.avi and WMATA Southern Ave 6inch Comm Duct Kiosk to Fairgates.avi files.
Were pull strings installed at all faregates in the array?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct at capacity? Provide additional details about the dimensions of ducts and number of wires.	No	3" duct less than 10 wires
Power Duct - Faregate Array (~~6~~ 7 Gates)		
Was video scoping completed for the entire duct run?	Yes	Refer to WMATA Southern Ave 6inch Power Duct Kiosk to Fairgates.avi file.
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct at capacity? Provide additional details about the dimensions of ducts and number of wires.	No	6" duct less than 10 wires

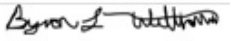
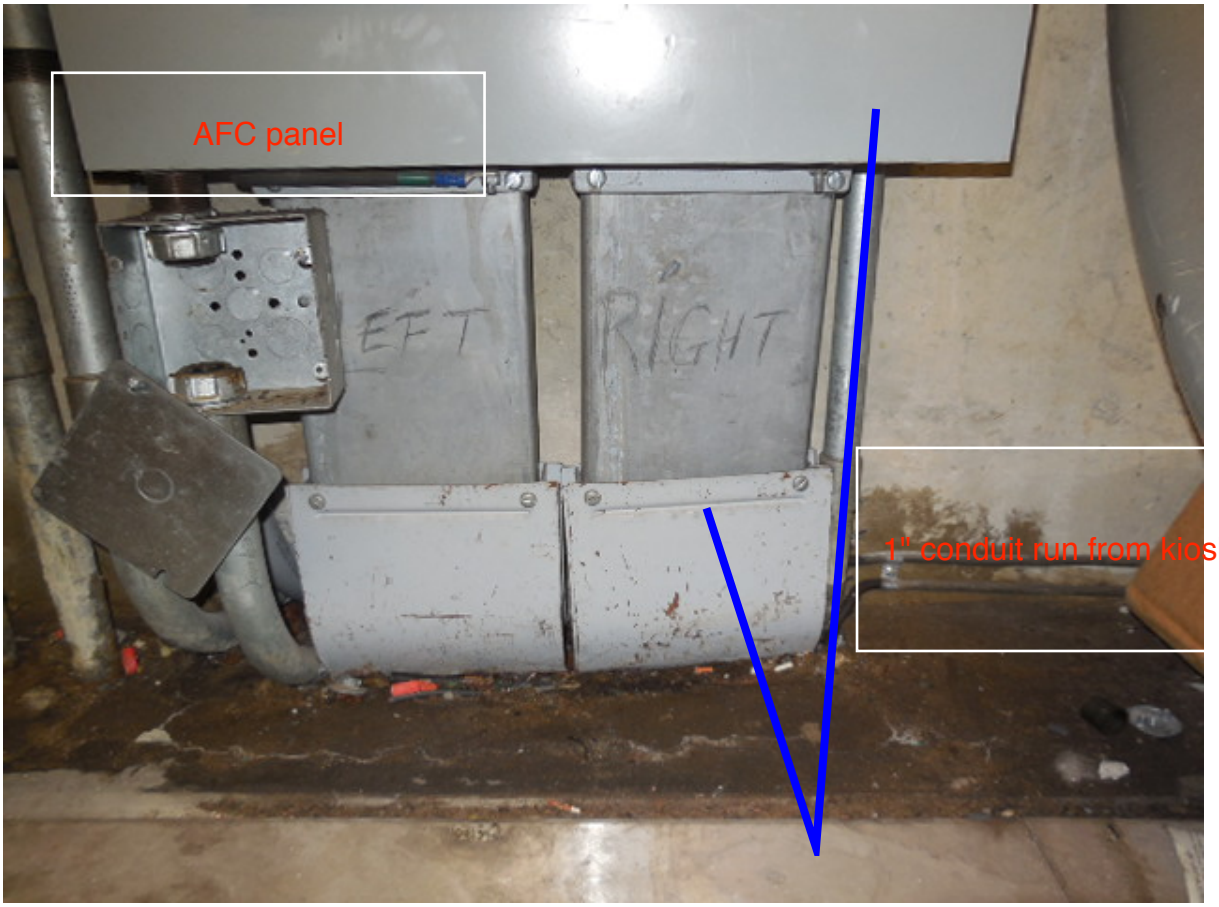
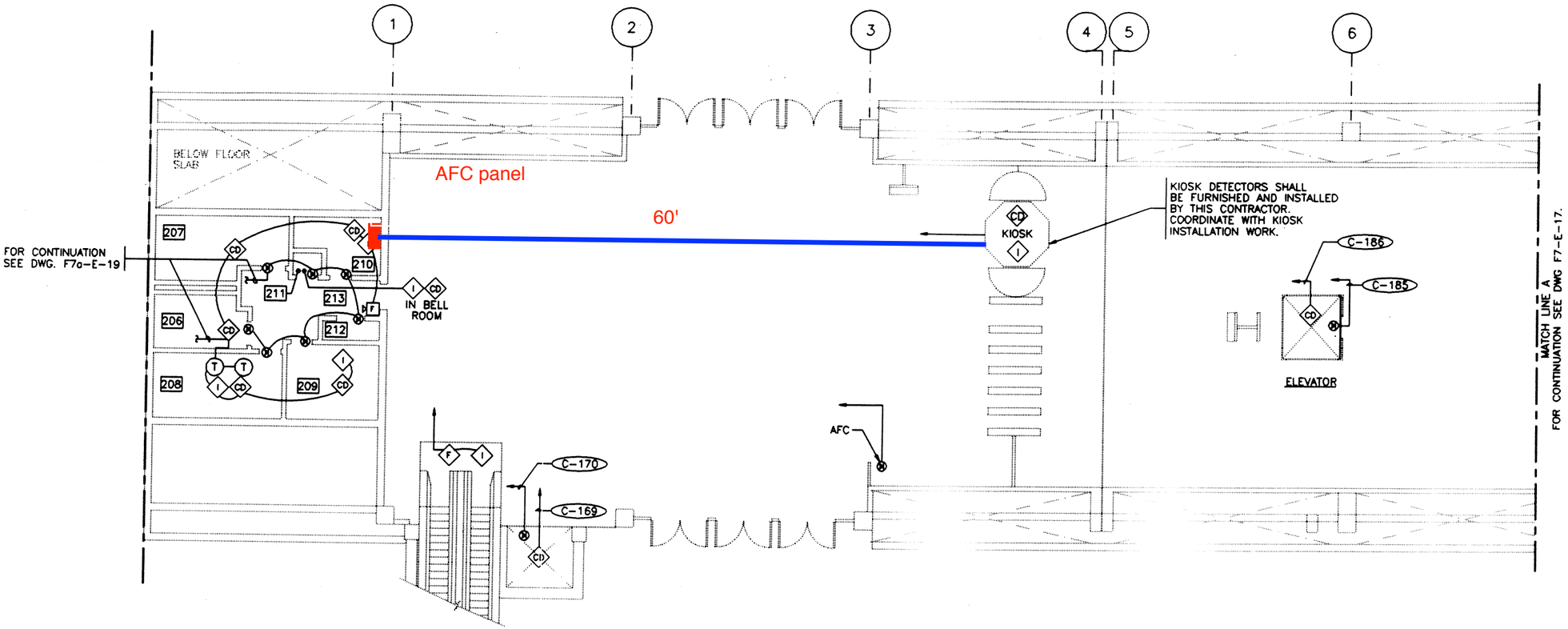
Scoping of Power Duct - Kiosk to AFC Panel		
Task	**Yes/No**	**Notes**
Kiosk to AFC Panel (60' run)		
Was video scoping completed for the entire duct / conduit run?	No	1" conduit – no scoping required. Refer to WMATA Southern Ave 6inch Power to AFC Panel Left Duct.avi and WMATA Southern Ave 6inch Power to AFC Panel Right Duct.avi files.
Was pull string installed?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	Scoping was attempted on both 6" ducts from kiosk to AFC panel but both were collapsed. 1" conduit was used
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	1" conduit is empty
Observations / Issues / Next Steps		
Sign Off		
	GFP Representative	**WMATA PRGM**
Name:	Byron Williams	
Signature:		
Date:	11/24/2015	

Photo #1 – F08 Southern Avenue: Duct run from Kiosk to AFC panel

Photo #2 – F08 Southern Avenue: Ducts and conduit from kiosk into AFC panel





PARTIAL MEZZANINE LEVEL – SHEET 1

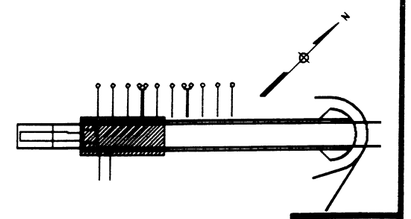
SCALE: 1/8"=1'-0"

NOTES

1. FIRE AND INTRUSION ALARM SENSOR LOCATIONS ARE SHOWN DIAGRAMATICALY, EXACT AND ACTUAL LOCATION SHALL DEPEND UPON SENSOR TYPE, ROOM SIZE AND GEOMETRY.
2. SEE ELECTRICAL PLANS AND RISER DRAWING F7a-E-5 FOR CONDUIT ASSIGNMENT.

MEZZANINE LEVEL ROOM SCHEDULE

206	MEN	210	ELECTRICAL ROOM
207	WOMEN	211	BELL SYSTEM ROOM
208	CLEANER'S AND WATER SERVICE ROOM	212	FIRE EQUIPMENT ROOM
209	ELEVATOR MACHINE ROOM	213	CORRIDOR



CONTRACT NO. 1F0071

DESIGNED REZA M. JAFARI 6-13-95 DATE
DRAWN HQN 6-13-95 DATE
CHECKED SZ 6-13-95 DATE
APPROVED S. ZAIMI 6-13-95 DATE

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION

REVISIONS		
DATE	BY	DESCRIPTION

STATE OF MARYLAND — No. 13521 — REGISTERED PROFESSIONAL ENGINEER

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

GANNETT FLEMING, INC. SECTION DESIGNER ☐
ENGINEERING DESIGN GROUP, INC. SUB-CONSULTANT ☐
SUBMITTED BY

DE LEUW, CATHER AND COMPANY GENERAL ENGINEERING CONSULTANT ☐
HARRY WEESE ASSOCIATES GENERAL ARCHITECTURAL CONSULTANT ☐
APPROVED

BRANCH ROUTE
MEZZANINE LEVEL
FIRE AND INTRUSION ALARM

SCALE 1/8" = 1'-0" 1 0 2 4 6 8 10 AND AS NOTED
DRAWING NO. F7a-E-16
M934-583

Mezzanine Inspection Report

REVISION 2

Date: 06/29/15	**Station Name:** F09 Naylor Road	**Mezzanine #:** 087	**Completed By:** Mike Butler

Summary

NEPP-01: Video scoping and pull string installation was completed for communication ducts in upper / lower faregate arrays; respective power ducts were also video scoped. Video scoping and pull string installation was completed in power duct between Kiosk and Handhole 1, and between Handhole 2, Handhole 3, Handhole 4 and AFC Panel. Pull string installation was also completed between Handhole 1 and Handhole 2, however video scoping could not be completed due to an obstruction caused by a collapsed duct at the expansion joint. The mezzanine was later scanned to identify a viable power route between Kiosk and AFC Panel.

NEPP-02: Video scoping and pull string installation was attempted in an alternate duct running parallel to existing power duct (and sharing the same handholes) between Kiosk and AFC Panel. Pull string installation was completed between Kiosk, Handhole 1, Handhole 2, Handhole 3 and Handhole 4. Video scoping was also completed for this run, except between Handhole 1 and Handhole 2 where a collapsed duct caused an obstruction in the same location as the existing power duct. Video scoping and pull string installation could not be completed betweeen Handhole 4 and AFC Panel due to an obstruction caused by the vertical 90-degree bend.

It is recommended to avoid using the existing or alternate duct between Handhole 1 and Handhole 2 due to collapses. A new duct is proposed between Handhole 1 and Handhole 3. The proposed duct will connect to the upper side of Handhole 1 and run up to a new handhole directly adjacent to Handhole 1. The duct will then run parallel to existing duct towards the back rooms. The duct will pass under the wall adjacent to the entrance to back rooms (by core drilling under wall) and then feed into Handhole 3. The proposed route will utilize the existing power duct between Kiosk and Handhole 1; and Handhole 3, Handhole 4 and AFC Panel. Handhole 1 and Handhole 3 will need to be modified to accommodate the proposed duct accordingly. Refer to photos and drawings for further information.

NEPP-01: Scoping of Faregate Arrays (01/16/15)

Task	Yes/No	Notes
Communications Duct – Upper Faregate Array (3 faregates)		
Was video scoping completed for the entire duct run?	Yes	Refer to “WMATA Naylor Station Upper Comm 3inch Duct.avi”
Were pull strings installed at all faregates in the array?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	Some wire entanglement evident.
Is the duct at capacity? Provide additional details about the dimensions of ducts and number of wires.	No	3” with less than 10 wires.
Communications Duct - Lower Faregate Array (3 faregates)		
Was video scoping completed for the entire duct run?	Yes	Refer to “WMATA Naylor Station Lower Comm 6inch Duct.avi”
Were pull strings installed at all faregates in the array?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct at capacity? Provide additional details about the dimensions of ducts and number of wires.	No	6” duct with less than 8 wires.
Power Duct - Upper Faregate Array (3 faregates)		
Was video scoping completed for the entire duct run?	Yes	Refer to “WMATA Naylor Rd 6inch Upper Power Duct.avi”
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct at capacity? Provide additional details about the dimensions of ducts and number of wires.	No	6” duct with less than 10 wires.
Power Duct - Lower Faregate Array (3 faregates)		
Was video scoping completed for the entire duct run?	Yes	Refer to “WMATA Naylor Rd 6inch Lower Power Duct.avi”
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct at capacity? Provide additional details about the dimensions of ducts and number of wires.	No	6” duct with less than 10 wires.

NEPP-01: Scoping of Existing Duct - Kiosk to AFC Panel (01/16/15)		
Task	**Yes/No**	**Notes**
Kiosk to Handhole 1 (Distance: 18')		
Was video scoping completed for the entire duct / conduit run?	Yes	Refer to "WMATA Naylor Rd 6inch Power Feed Kiosk to HH1 Duct.avi".
Was pull string installed?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	6" walker duct with less than 15 wires.
Handhole 1 to Handhole 2 (Distance: 85')		
Was video scoping completed for the entire duct / conduit run?	No	Refer to "F09_MZ087_Naylor Road_Left Primary Duct_HH1 to HH2.avi" and "F09_MZ087_Naylor Road_Left Primary Duct_HH2 to HH1.avi". **Duct re-scoped under NEPP-02.**
Was pull string installed?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	Yes	Duct is collapsed at the expansion joint located at the base of the escalator.
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	6" walker duct with less than 15 wires.
Handhole 2 to Handhole 3 (Distance: 6')		
Was video scoping completed for the entire duct / conduit run?	Yes	Refer to "WMATA Naylor Rd 6inch Power Feed HH2 to HH3 Duct.avi".
Was pull string installed?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	6" walker duct with less than 15 wires.
Handhole 3 to Handhole 4 (Distance: 25')		
Was video scoping completed for the entire duct / conduit run?	Yes	Refer to "WMATA Naylor Rd 6inch Power Feed HH3 to HH4 Duct.avi"
Was pull string installed?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	6" walker duct with less than 15 wires.
Handhole 4 to AFC Panel (Distance: 35')		
Was video scoping completed for the entire duct / conduit run?	Yes	Refer to "WMATA Naylor Rd 6inch Power Feed HH4 to AFC Panel Duct.avi".
Was pull string installed?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	6" walker duct with less than 15 wires.

NEPP-01: Scanning of Mezzanine Floor (02/27/15)

- The mezzanine floor was scanned to identify a new power route between Kiosk and AFC Panel.
- An alternate duct running parallel to existing power duct was identified.
- There is sufficient space on the mezzanine floor to run a proposed in-floor duct.
- Refer to scanning drawing for further information.

NEPP-02: Scoping of Alternate Duct - Kiosk to AFC Panel (06/29/15)		
Task	**Yes/No**	**Notes**
Kiosk to Handhole 1 (Distance: 18')		
Was video scoping completed for the entire duct / conduit run?	Yes	Refer to "F09_MZ087_Naylor Road_Right Alternate Duct_Kiosk to HH1.avi"
Was pull string installed?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	6" walker duct with less than 20 wires.
Handhole 1 to Handhole 2 (Distance: 85')		
Was video scoping completed for the entire duct / conduit run?	No	Refer to "F09_MZ087_Naylor Road_Right Alternate Duct_HH1 to HH2.avi" and "F09_MZ087_Naylor Road_Left Primary Duct_HH2 to HH1.avi"
Was pull string installed?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	Yes	Duct is collapsed at the expansion joint located at the base of the escalator.
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	6" walker duct with less than 20 wires.
Handhole 2 to Handhole 3 (Distance: 6')		
Was video scoping completed for the entire duct / conduit run?	Yes	Refer to "F09_MZ087_Naylor Road_Right Alternate Duct_HH2 to HH3.avi"
Was pull string installed?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	6" walker duct with less than 20 wires.
Handhole 3 to Handhole 4 (Distance: 25')		
Was video scoping completed for the entire duct / conduit run?	Yes	Refer to "F09_MZ087_Naylor Road_Right Alternate Duct_HH4 to HH3.avi"
Was pull string installed?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	6" walker duct with less than 20 wires.
Handhole 4 to AFC Panel (Distance: 35')		
Was video scoping completed for the entire duct / conduit run?	No	Refer to "F09_MZ087_Naylor Road_Right Alternate Duct_HH4 to 90 at AFC Panel.avi"
Was pull string installed?	No	
Were there any obstructions or blockages? Provide details of type and specific location.	Yes	It was not possible to scope or install pull string through the vertical 90-degree bend below AFC Panel.
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	No	6" walker duct with less than 20 wires.

Observations / Issues / Next Steps

- The total distance of proposed route between Kiosk and AFC Panel is 164', including 78' of existing power duct and 86' of proposed duct.
- There is not an existing AFC as-built drawing available for this mezzanine.

Sign Off

	GFP Representative	WMATA PRGM
Name:	Mike Butler	
Signature:		
Date:	07/01/15	

Photo 1 – Existing, alternate and proposed ducts on mezzanine floor

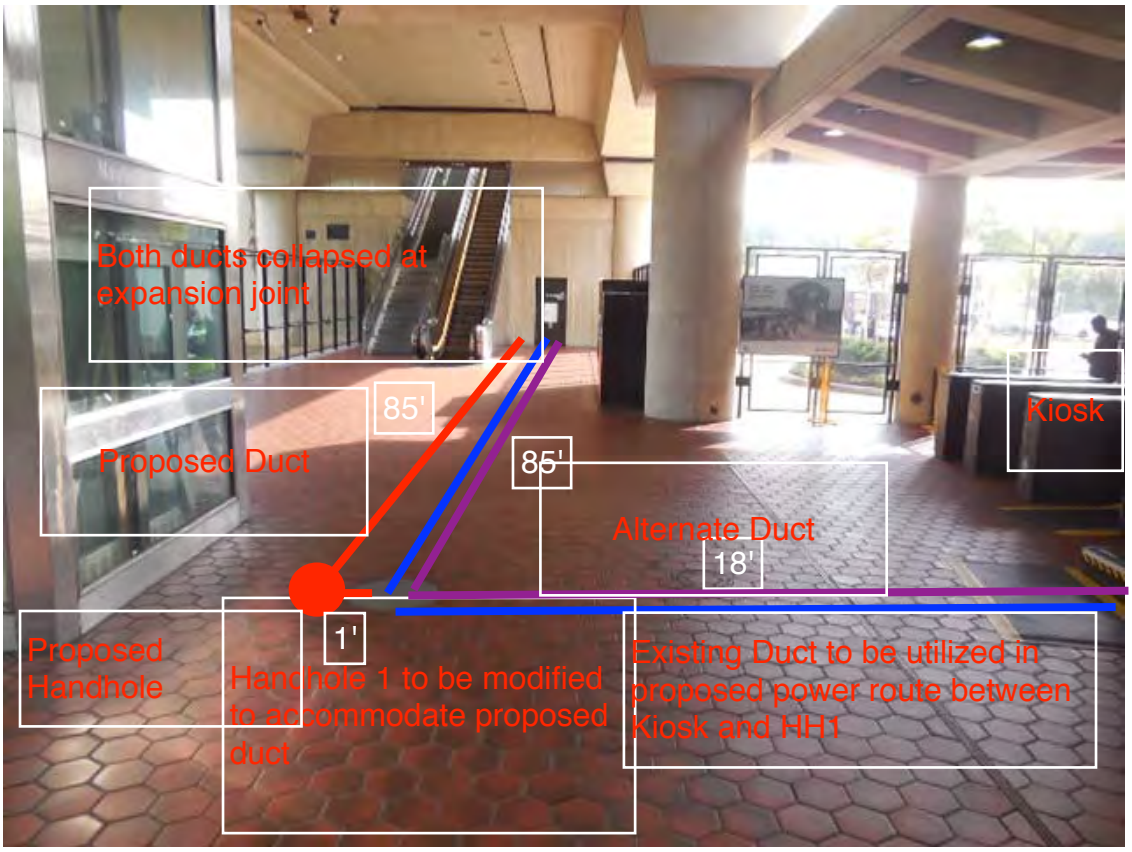


Photo 2 – Existing, alternate and proposed ducts in back room corridor.

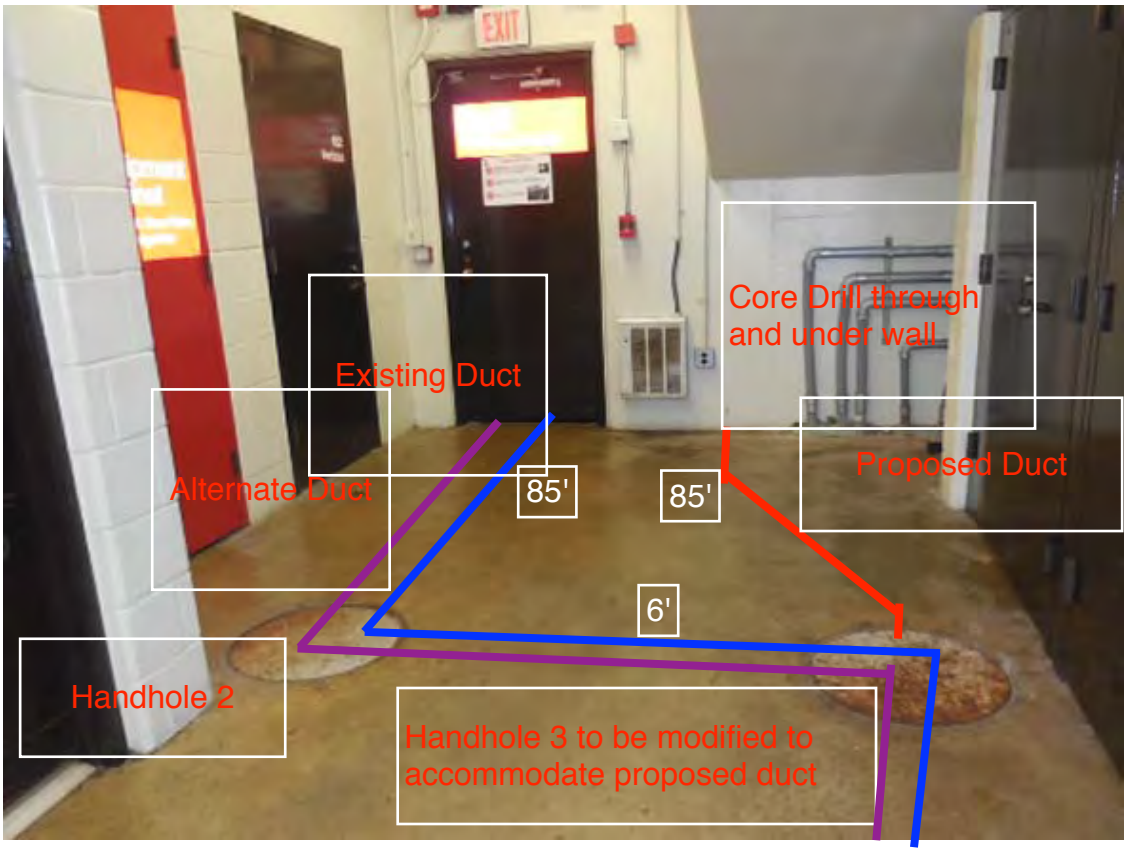


Photo 3 – Existing, alternate and proposed ducts in back room corridor.

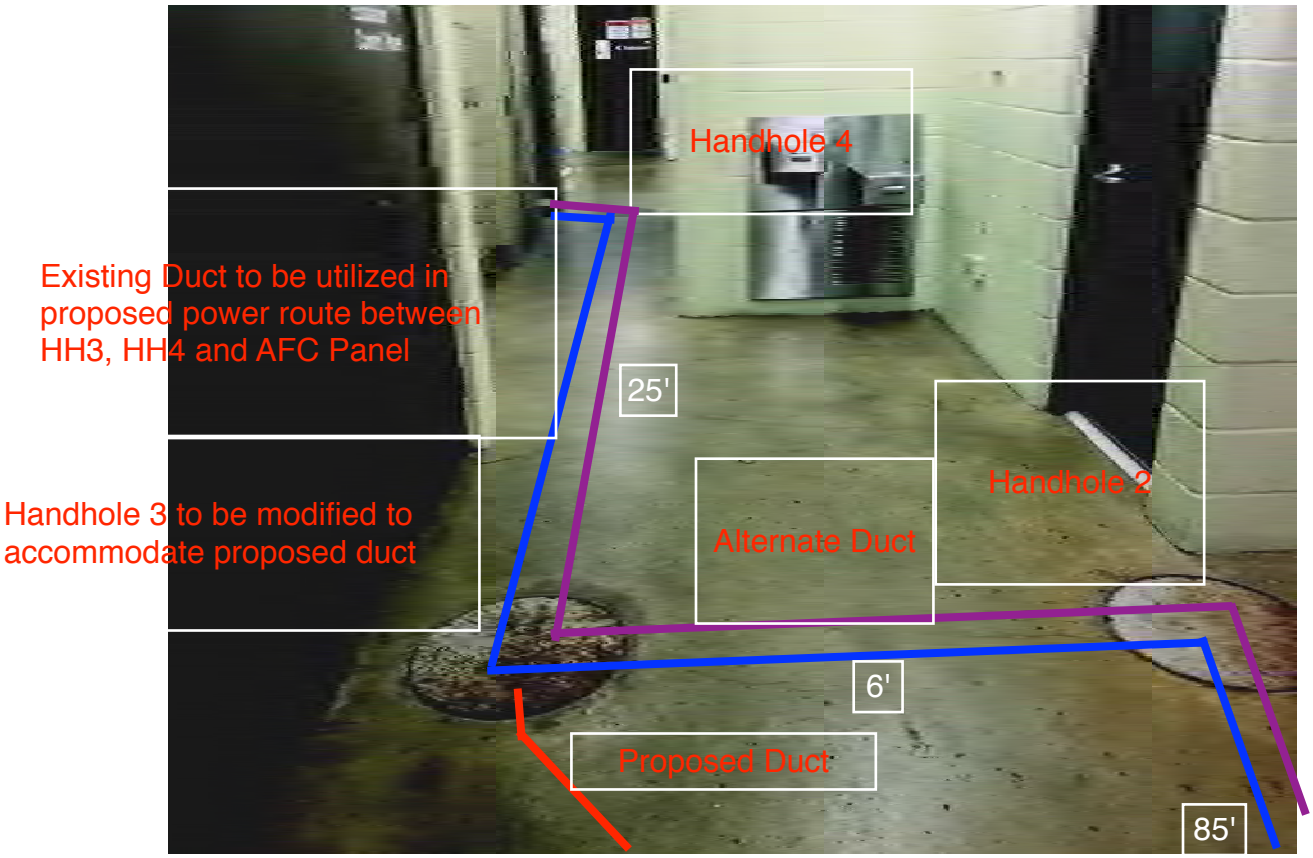
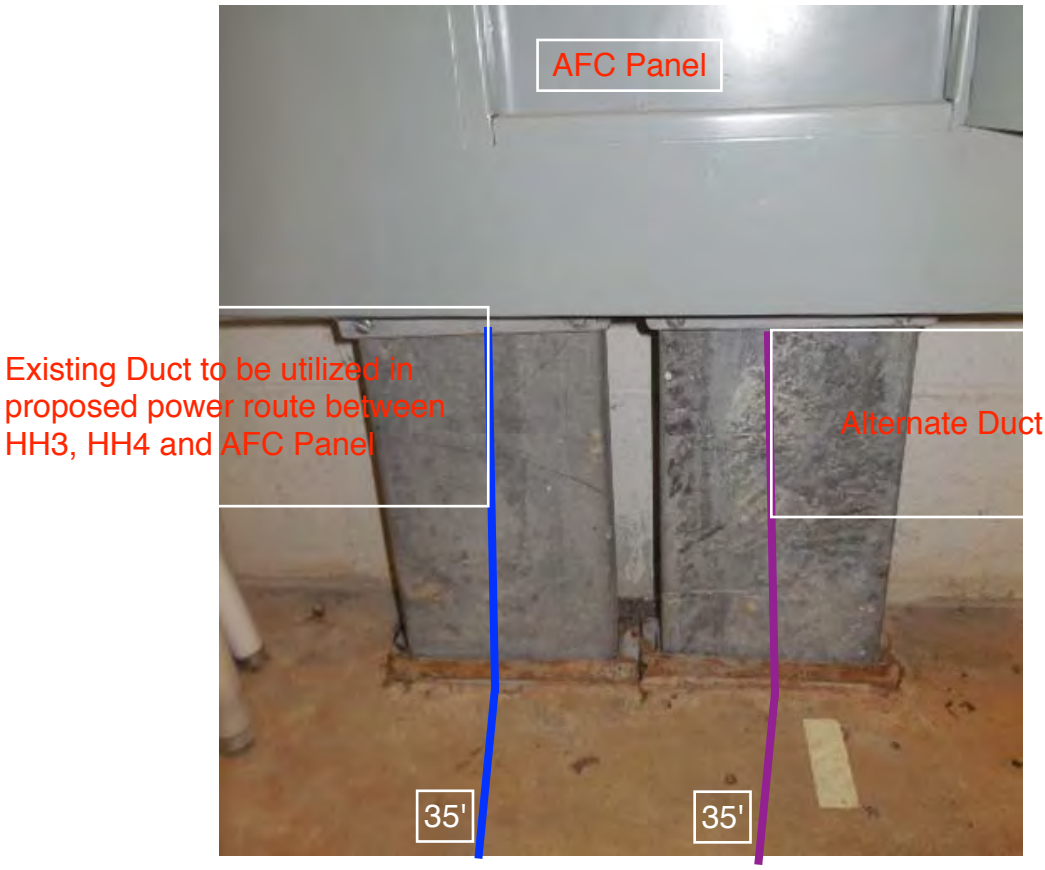


Photo 4 – Existing and alternate duct feeding AFC Panel in Room 126



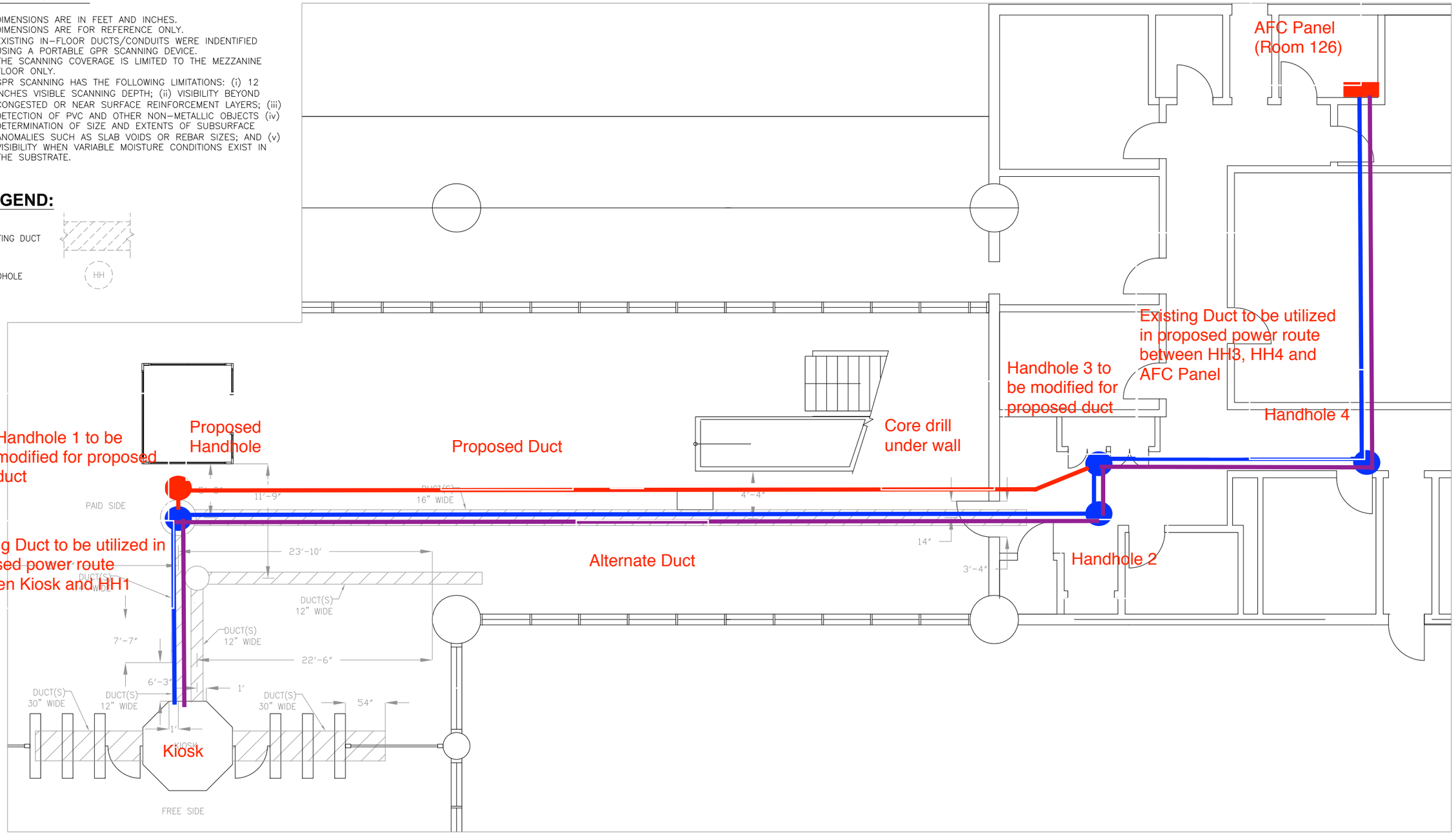
PLAN NOTES:

1. DIMENSIONS ARE IN FEET AND INCHES.
2. DIMENSIONS ARE FOR REFERENCE ONLY.
3. EXISTING IN-FLOOR DUCTS/CONDUITS WERE INDENTIFIED USING A PORTABLE GPR SCANNING DEVICE.
4. THE SCANNING COVERAGE IS LIMITED TO THE MEZZANINE FLOOR ONLY.
5. GPR SCANNING HAS THE FOLLOWING LIMITATIONS: (i) 12 INCHES VISIBLE SCANNING DEPTH; (ii) VISIBILITY BEYOND CONGESTED OR NEAR SURFACE REINFORCEMENT LAYERS; (iii) DETECTION OF PVC AND OTHER NON-METALLIC OBJECTS (iv) DETERMINATION OF SIZE AND EXTENTS OF SUBSURFACE ANOMALIES SUCH AS SLAB VOIDS OR REBAR SIZES; AND (v) VISIBILITY WHEN VARIABLE MOISTURE CONDITIONS EXIST IN THE SUBSTRATE.

LEGEND:

EXISTING DUCT

HANDHOLE HH



1 E-100 NAYLOR ROAD STATION
SCALE: NOT TO SCALE

CONTRACT NO. XXXXXX

DESIGNED C. LOOSE 03-15 DATE	REFERENCE DRAWINGS: NUMBER / DESCRIPTION	REVISIONS: DATE / BY / DESCRIPTION
DRAWN C. LOOSE 03-15 DATE		
CHECKED M. BUTLER 03-15 DATE		
APPROVED _____ 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

15-NEPP-01
IN - FLOOR DUCT INSPECTIONS
F09 Naylor Road
EXISTING / PROPOSED DUCT RUN

SCALE: NOT TO SCALE
DRAWING NO.: F09-E-100
XXX