

Mezzanine Inspection Report

| | | | |
|-----------------------|--|-------------------------|----------------------------------|
| Date: 01/29/15 | Station Name: D03 L'Enfant Plaza (West) | Mezzanine #: 056 | Completed By: Mike Butler |
|-----------------------|--|-------------------------|----------------------------------|

Summary

Video scoping and pull string installation was completed for communication ducts in upper / lower faregate arrays; respective power ducts were also video scoped. Pull string installation was completed in power duct between Kiosk, Handhole and Junction Box. Pull string was also installed in conduit between Junction Box and AFC Panel. However, video scoping of power duct between Kiosk and AFC Panel could not be completed due to wire congestion; it was confirmed that the duct / conduit are at capacity and an alternate power route is needed.

Scanning of the mezzanine was conducted to identify a new power route from the Kiosk to AFC Panel. The scanning results showed that there is not a clear path for proposed duct in the mezzanine floor. There are two options for proposed power route:

Option 1: Core drill through the floor beneath Kiosk and run a proposed conduit vertically down into a proposed junction box in the ceiling plenum at platform level. The proposed conduit will then run across the ceiling plenum from the proposed junction box to the head wall at the end of the platform. The proposed conduit will then run through spare hole in head wall and continue along the ceiling of Room W101. The conduit will core drill through 3 internal walls passing Room W102 and Room W103, and feed into AFC Panel once inside Room W104.

Option 2: Same as Option 1, except the proposed conduit will not pass through the head wall and internal walls. Once the proposed conduit reaches the head wall, it will snake around the side of the head wall and run along the wall at track wayside. The proposed conduit will then core drill through wall to Room W104 and feed into AFC Panel.

Refer to photos and drawings for further information.

Scoping of Faregate Array(s)

| Task | Yes/No | Notes |
|--|--------|--|
| Communications Duct – Upper Faregate Array (4 gates) | | |
| Was video scoping completed for the entire duct run? | Yes | Refer to "WMATA L'Enfant West 3inch Upper Comm Faregate Video.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 | 3" duct with less than 8 wires |
| Communications Duct - Lower Faregate Array (4 gates) | | |
| Was video scoping completed for the entire duct run? | Yes | Refer to "WMATA L'Enfant West 3inch Lower Comm Faregate Video.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 | 3" duct with less than 8 wires |
| Power Duct - Upper Faregate Array (4 gates) | | |
| Was video scoping completed for the entire duct run? | Yes | Refer to "WMATA L'Enfant Upper Power Duct Video.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 12 wires |
| Power Duct - Lower Faregate Array (4 gates) | | |
| Was video scoping completed for the entire duct run? | Yes | Refer to "WMATA L'Enfant Lower Power Duct Video.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 12 wires |


| Scoping of Power Duct - Kiosk to AFC Panel | | |
|---|---|---|
| Task | Yes/No | Notes |
| Kiosk to Handhole 1 (Distance: 90') | | |
| Was video scoping completed for the entire duct / conduit run? | No | Wire congestion prevented video scoping. |
| 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. | Yes | 6" duct at capacity (>40% of wire fill). |
| Handhole 1 to Wall Mounted Junction Box (Distance: 10') | | |
| Was video scoping completed for the entire duct / conduit run? | No | Wire congestion and 90-degree bend prevented video scoping. |
| 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. | Yes | 6" duct at capacity (>40% of wire fill). |
| Wall Mounted Junction Box to AFC Panel (Distance: 30') | | |
| Was video scoping completed for the entire duct / conduit run? | No | Video scoping of conduit not required. |
| 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. | Yes | 2" conduit (>40% of wire fill). |
| Observations / Issues / Next Steps | | |
| <ul style="list-style-type: none"> - The distance of proposed conduit for Option 1 is 166'. - The distance of proposed conduit for Option 2 is 205'. - There was no AFC as-built drawings available for this mezzanine, however scanning drawing shows layout of existing ducts. | | |
| Sign Off | | |
| | GFP Representative | WMATA PRGM |
| Name: | Mike Butler | |
| Signature: |  | |
| Date: | 04/01/15 | |

Photo #1: Existing duct layout on mezzanine floor



Photo #2: Existing duct layout on mezzanine floor

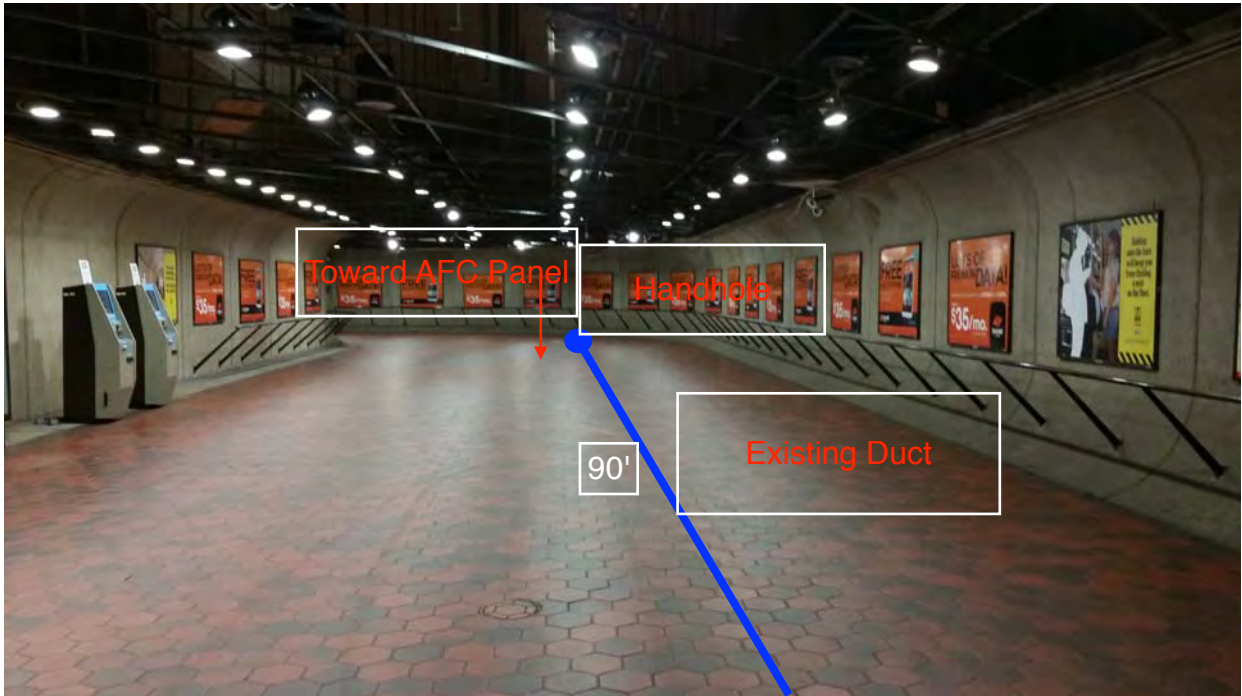


Photo #3: Proposed conduit options at platform level (Option 1 and Option 2 are the same at this location).

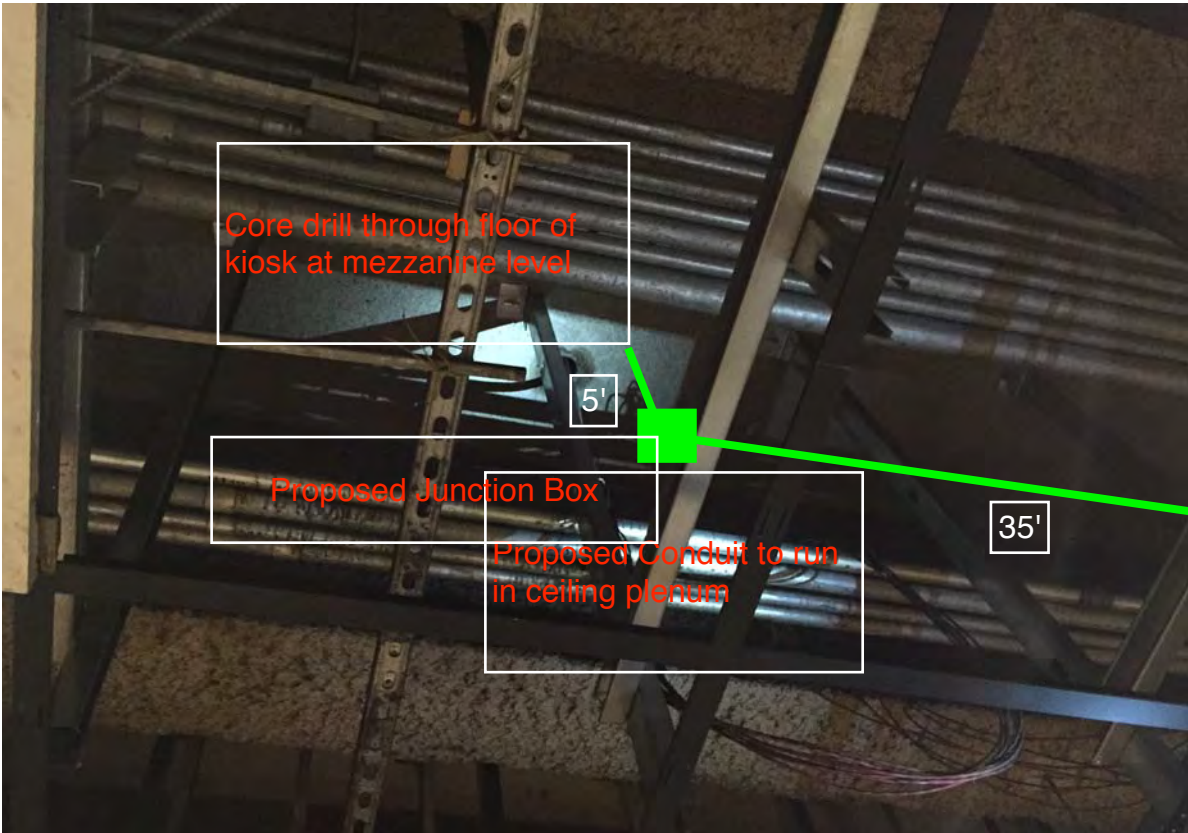


Photo #4: Proposed conduit options at platform level

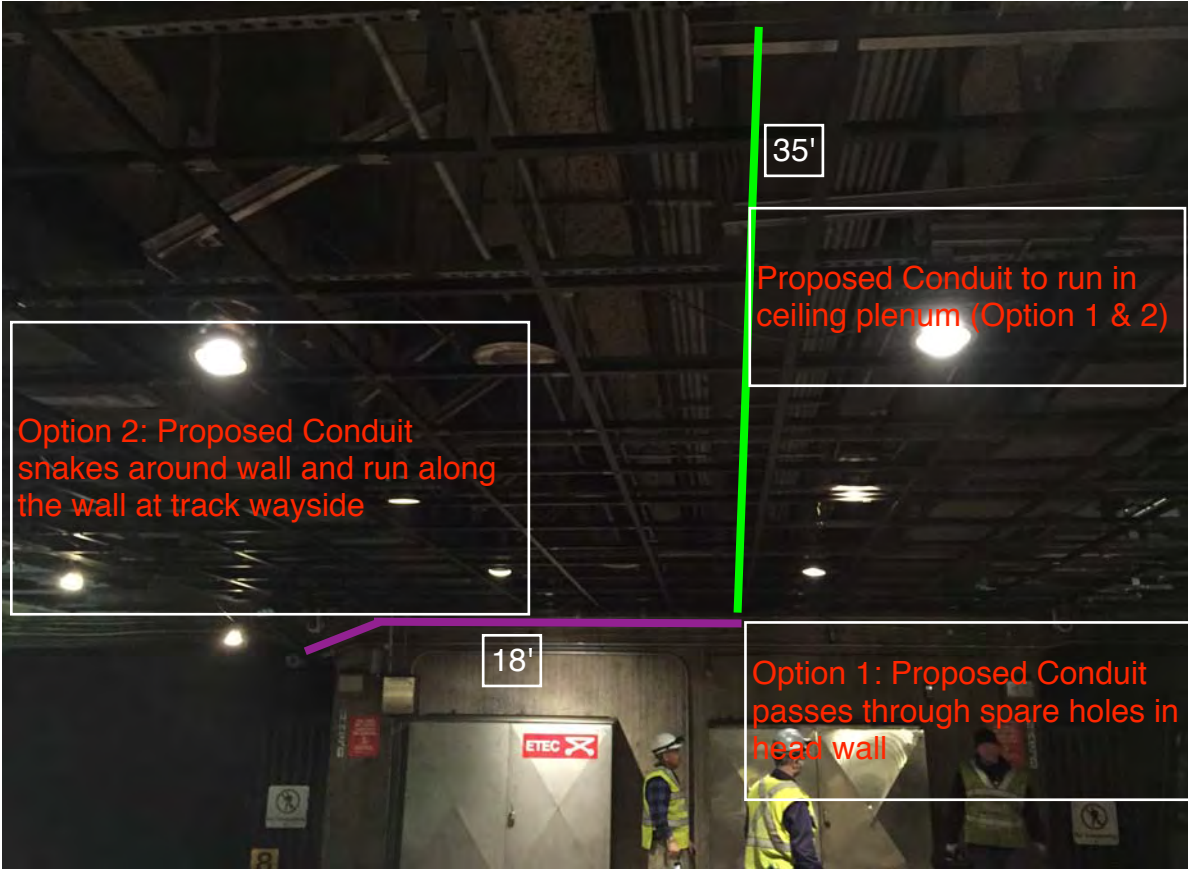


Photo #5: Proposed conduit Option 1 at platform level

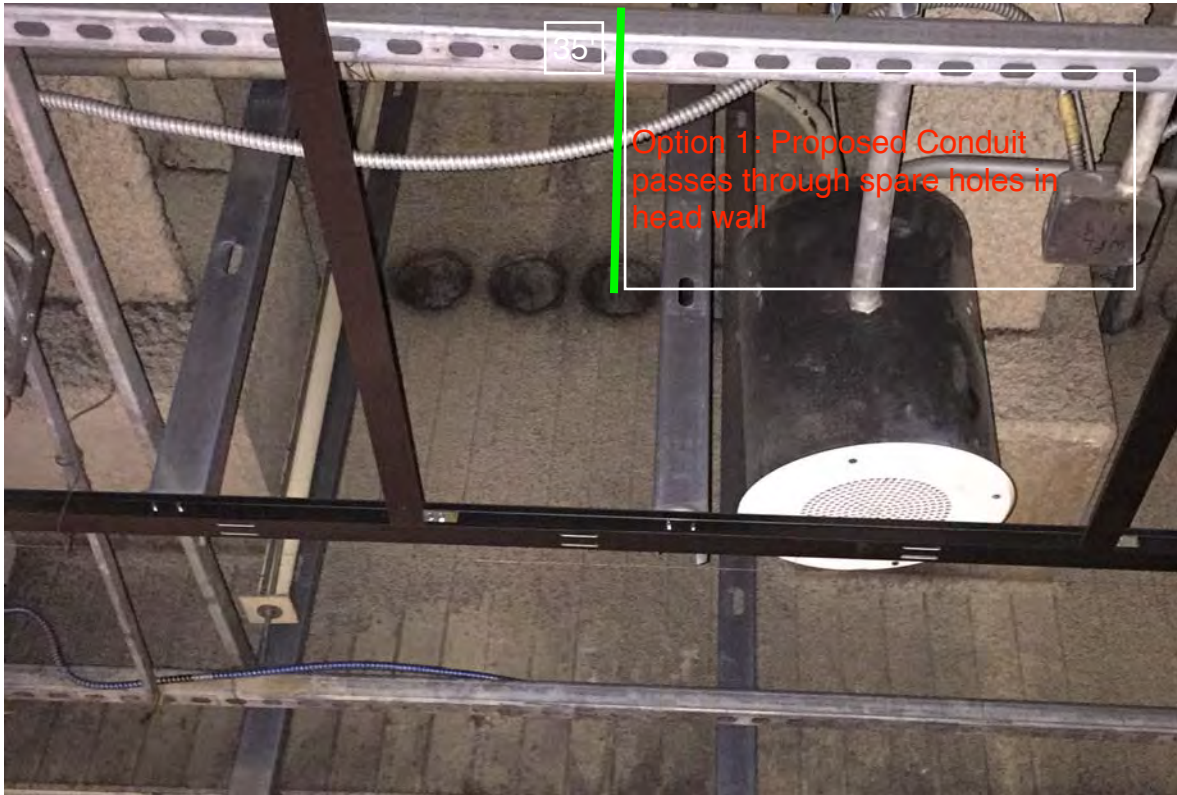


Photo #6: Proposed conduit Option 2 at platform level

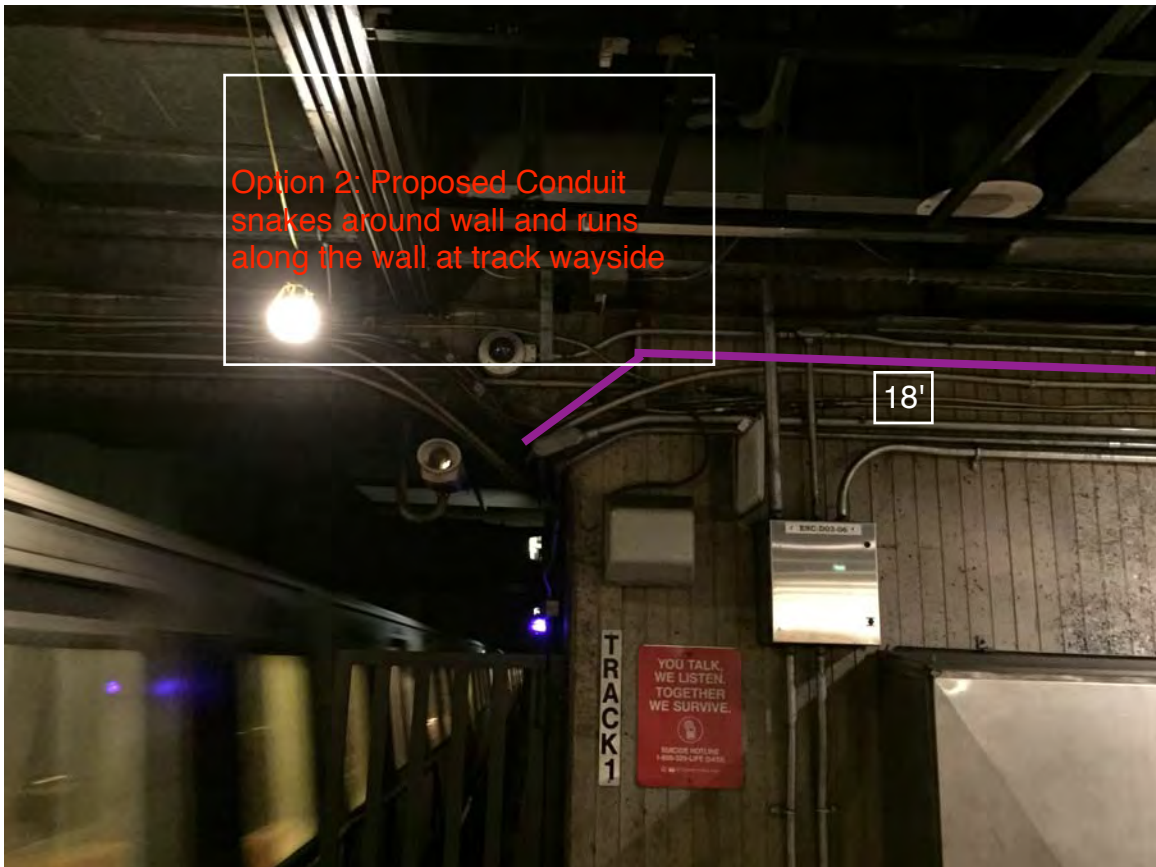


Photo #7: Existing and proposed conduit options inside Room W104

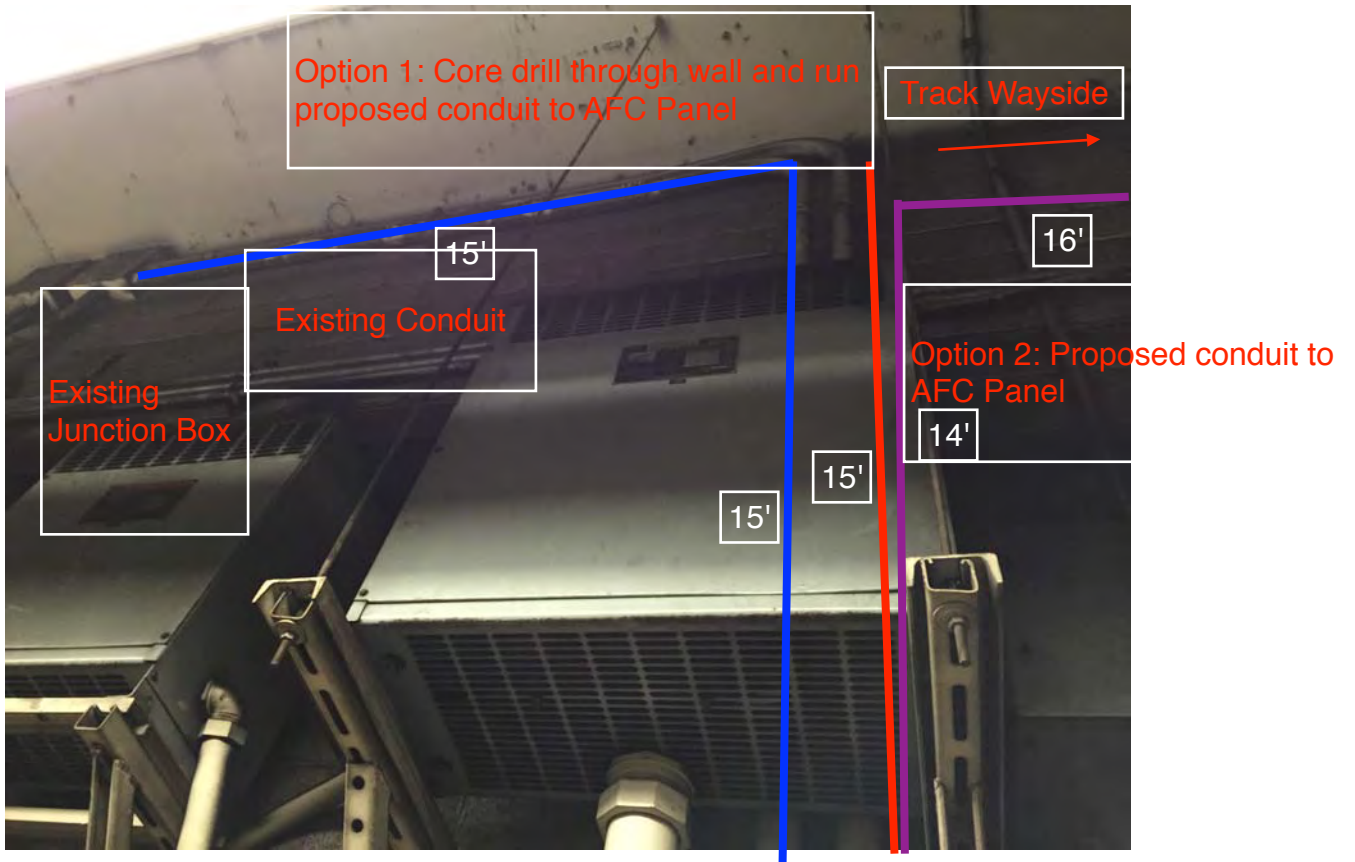
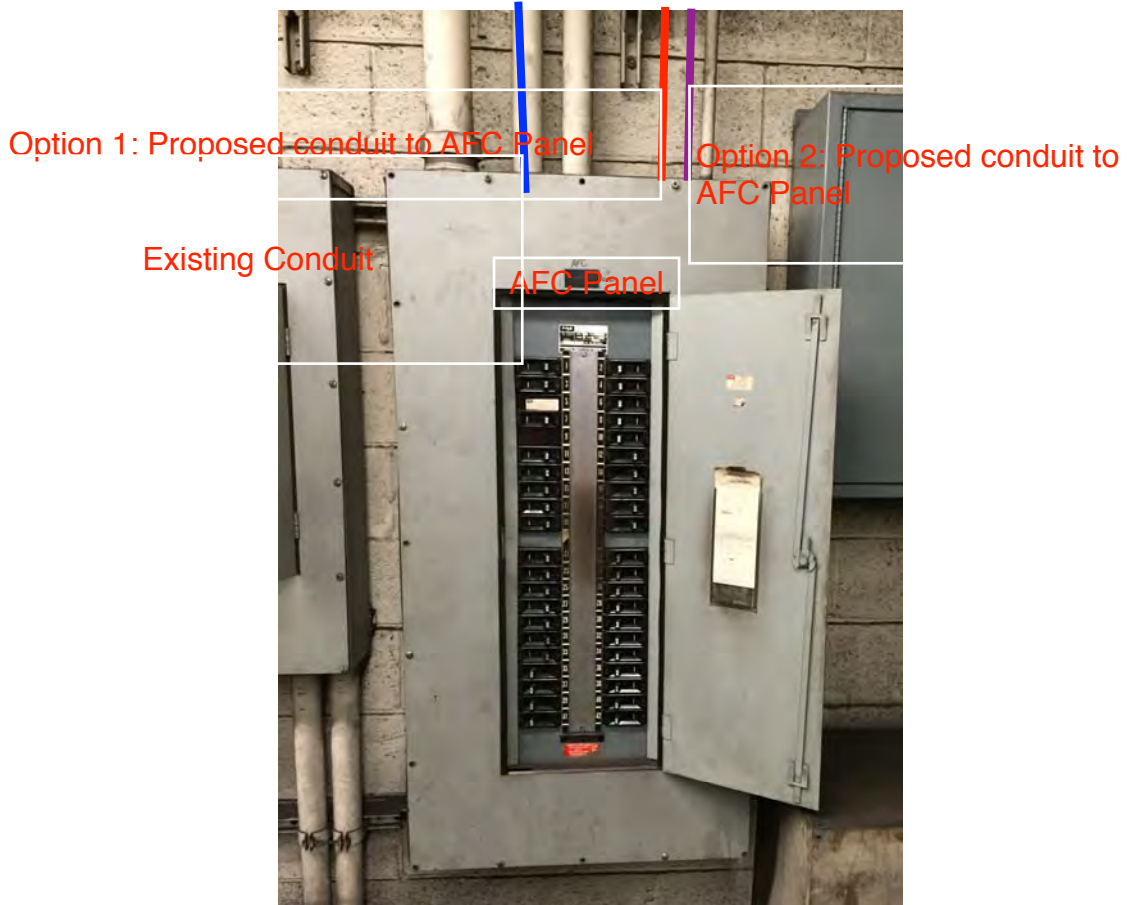


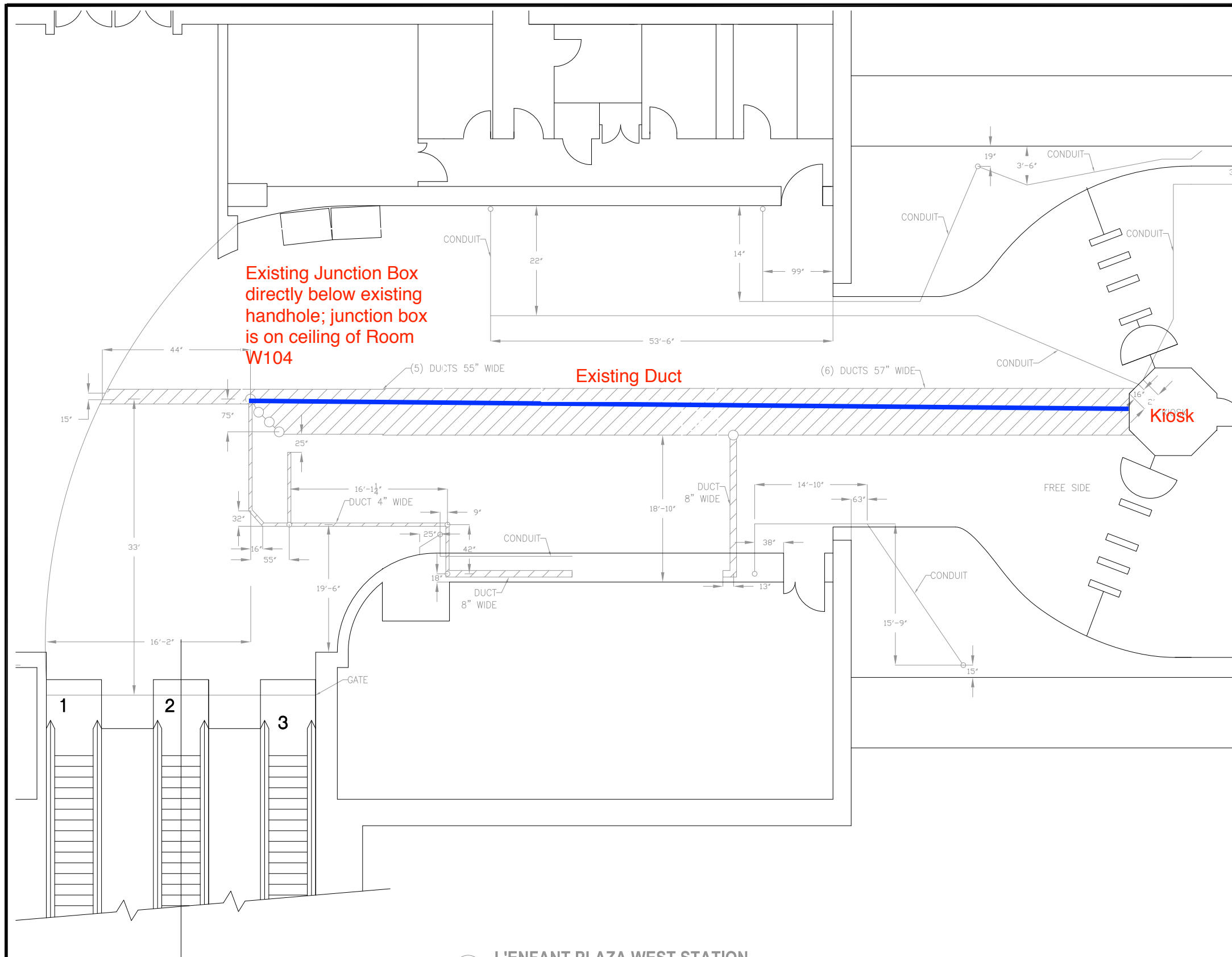
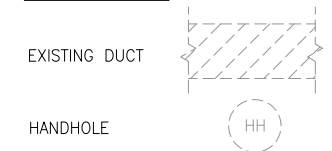
Photo #7: Existing and proposed conduit options inside Room W104



PLAN NOTES:

1. DIMENSIONS ARE IN FEET AND INCHES.
2. DIMENSIONS ARE FOR REFERENCE ONLY.
3. EXISTING IN-FLOOR DUCTS/CONDUITS WERE IDENTIFIED 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 Junction Box directly below existing handhole; junction box is on ceiling of Room W104

Existing Duct

Kiosk

FREE SIDE

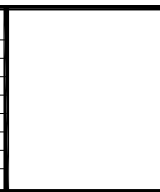
L'ENFANT PLAZA WEST STATION
SCALE: NOT TO SCALE

CONTRACT NO. XXXXXX

| | | |
|----------|-----------|-------|
| DESIGNED | C. LOOSE | 03-15 |
| | | DATE |
| DRAWN | C. LOOSE | 03-15 |
| | | DATE |
| CHECKED | M. BUTLER | 03-15 |
| | | DATE |
| APPROVED | | |
| | | 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

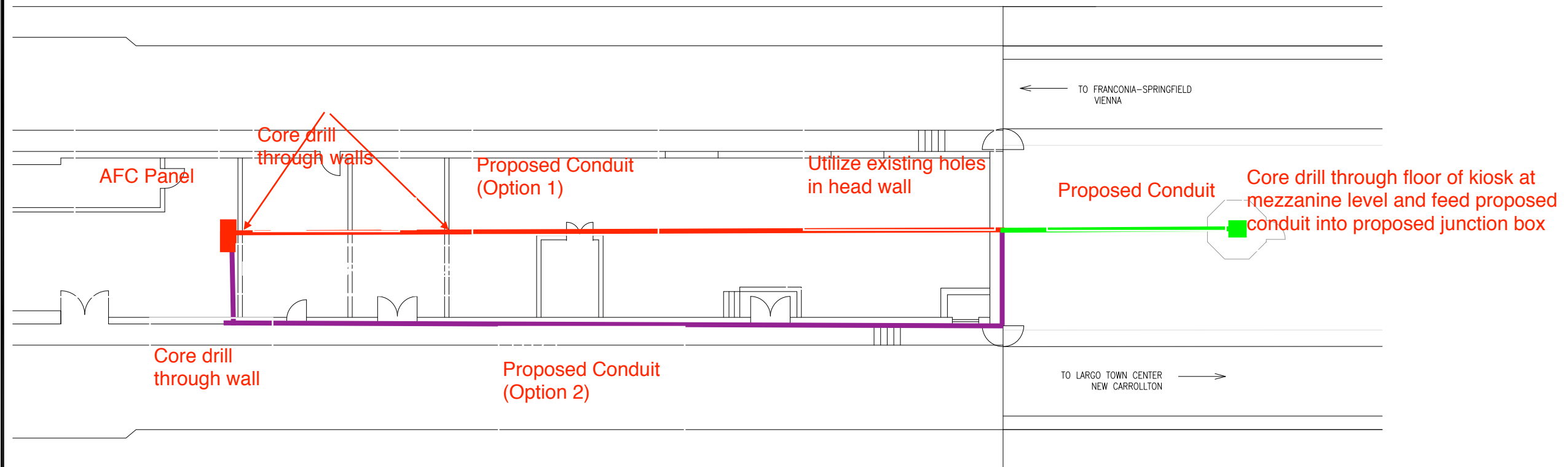
SCALE NOT TO SCALE

15-NEPP-01
IN - FLOOR DUCT INSPECTIONS
D03 L'enfant Plaza West
EXISTING DUCT RUN
DRAWING NO. D03-E-100

XXX

PLAN NOTES:

1. DIMENSIONS ARE IN FEET AND INCHES.
2. DIMENSIONS ARE FOR REFERENCE ONLY.



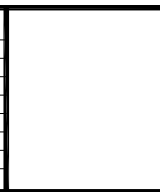
L'ENFANT PLAZA WEST STATION
SCALE: NOT TO SCALE

CONTRACT NO.
XXXXXX

| | | |
|----------|-----------|-------|
| DESIGNED | C. LOOSE | 03-15 |
| | | DATE |
| DRAWN | C. LOOSE | 03-15 |
| | | DATE |
| CHECKED | M. BUTLER | 03-15 |
| | | DATE |
| APPROVED | | |
| | | 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

SCALE
NOT TO SCALE

15-NEPP-01
IN - FLOOR DUCT INSPECTIONS
D03 L'enfant Plaza West
PROPOSED CONDUIT RUN
DRAWING NO.
D03-E-101

XXX

Mezzanine Inspection Report (Scoping)

| | | | |
|------------------|---------------------------------------|------------------|---------------------------|
| Date: 10/23/2014 | Station Name: D03 L'Enfant Plaza East | Mezzanine #: 057 | Completed By: Mike Butler |
|------------------|---------------------------------------|------------------|---------------------------|

Summary

- Scoping and pull string installation was completed in accordance with the scope of work.
- Video scoping completed for communication and power ducts in Upper and Lower faregate arrays; pull strings installed in communication ducts (ducts not at capacity).
 - Video scoping and pull string installation completed from Kiosk to hand-hole and hand-hole to AFC Panel (ducts not at capacity).
 - Scanning is not required for this mezzanine.

Scoping of Faregate Array(s)

| Task | Yes/No | Notes |
|--|--------|--|
| Communications Duct – Upper Faregate Array (3-gates) | | |
| Was video scoping completed for the entire duct run? | Yes | Refer to "WMATA L'Enfant East Upper Comm Duct Video.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 | 4" Duct with less than 10 wires |
| Communications Duct - Lower Faregate Array (3-gates) | | |
| Was video scoping completed for the entire duct run? | Yes | Refer to "WMATA L'Enfant East Lower Comm Duct Video.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 | 4" Duct with less than 10 wires |
| Power Duct - Upper Faregate Array (3-gates) | | |
| Was video scoping completed for the entire duct run? | Yes | Refer to "WMATA L'Enfant East Upper Power Duct Video.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 | 4" Duct with less than 12 wires |
| Power Duct - Lower Faregate Array (3-gates) | | |
| Was video scoping completed for the entire duct run? | Yes | Refer to "WMATA L'Enfant East Lower Power Duct Video.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 | 4" Duct with less than 12 wires |


| Scoping of Power Duct - Kiosk to AFC Panel | | |
|---|---|---|
| Task | Yes/No | Notes |
| Kiosk to Handhole (Distance: 32') | | |
| Was video scoping completed for the entire duct / conduit run? | Yes | Refer to "WMATA L'Enfant East Power Kiosk to Handhole Duct Video.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 | 4" Duct with less than 12 wires |
| Handhole to AFC Panel (Distance: 16') | | |
| Was video scoping completed for the entire duct / conduit run? | Yes | Refer to "WMATA L'Enfant East Power Handhole to AFC Duct Video.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 | 4" Duct with less than 12 wires |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Observations / Issues / Next Steps | | |
| <ul style="list-style-type: none"> - Total power duct run from Kiosk to AFC Panel is 48 feet. - An AFC Installation plan is not available for this mezzanine. | | |
| Sign Off | | |
| | GFP Representative | WMATA PRGM |
| Name: | Mike Butler | |
| Signature: |  | |
| Date: | 11/14/2014 | |

Photo #1 – Power duct run from Kiosk to Handhole on mezzanine floor.

