

Location A

1. Connect a new 102 mm (4 inch) conduit onto the end of the existing 102 mm conduit that enters the tunnel. Route the new conduit down and over to a point along the tunnel wall, 610 mm (24 inches) above floor level. Install the conduit along the wall for approximately 3048 mm (10 feet).
2. Install a junction box (JB-N1) at the end of the 102 mm conduit and connect a 50 mm (2 inch) conduit to the opposite end of the junction box.
3. Route the 50 mm conduit along the tunnel wall to Location B. Install the conduit 610 mm above floor level, mounting the conduit to the wall using existing channels embedded in the concrete wall.

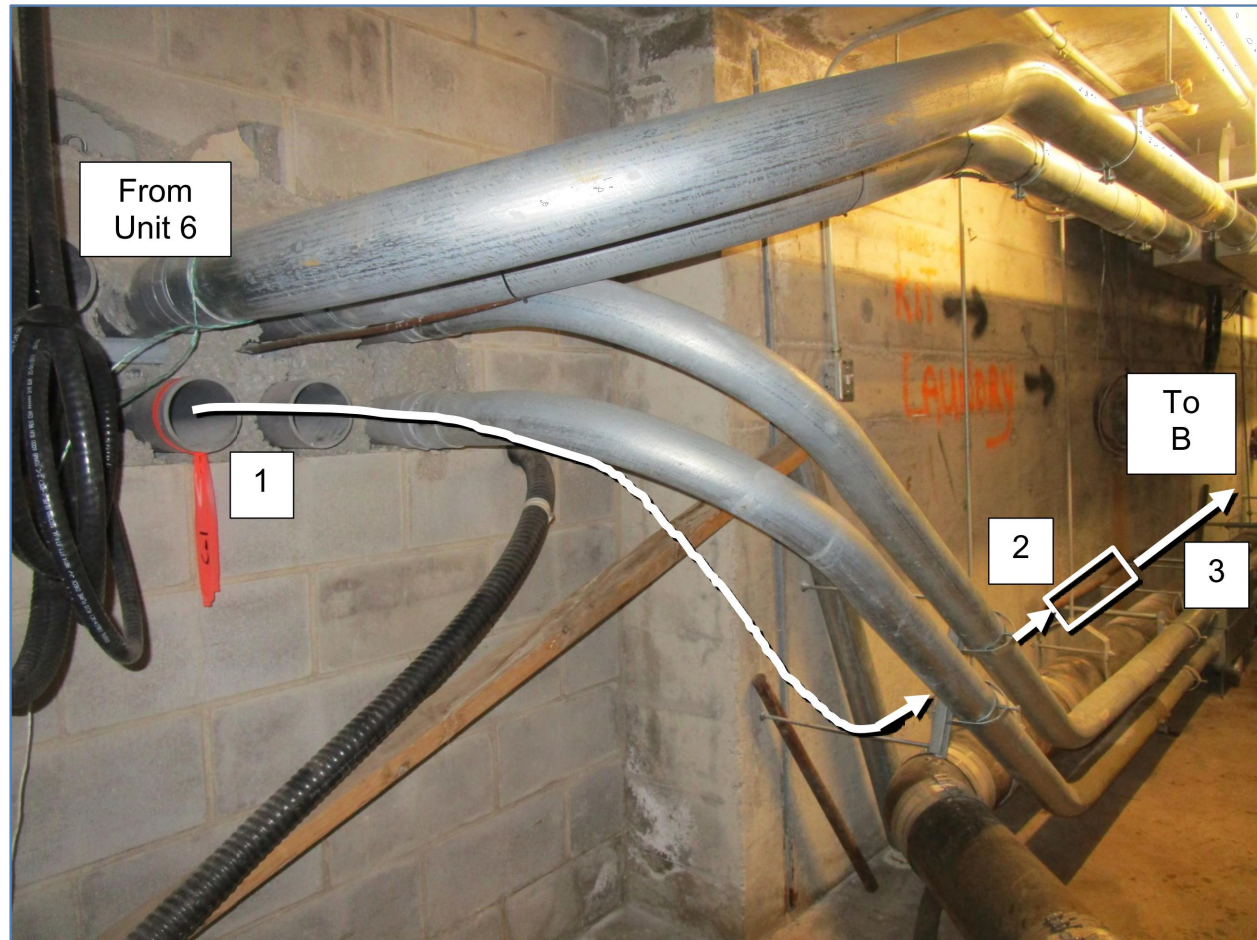


Figure 1 – Location A, transition from Unit 6 conduit to tunnel wall

Location B

1. Route the 50 mm conduit from Location A toward the corner of the wall at 610 mm above floor level. Continue to mount the conduit to the wall using existing channels that are embedded in the concrete wall. Round the conduit up and connect into a new junction box (JB-N2), installed at 1626 mm (64 inches) above floor level.
2. Connect a 50 mm conduit to the side of the junction box and route the conduit around the corner of the tunnel toward the Works Building. Mount the conduit to the wall using existing channels at 1626 mm above floor level.
3. Connect a second 50 mm conduit to the top of the junction box and follow the existing 102 mm conduit overhead across the tunnel intersection. Mount the conduit to existing channels that are suspended from the tunnel ceiling.

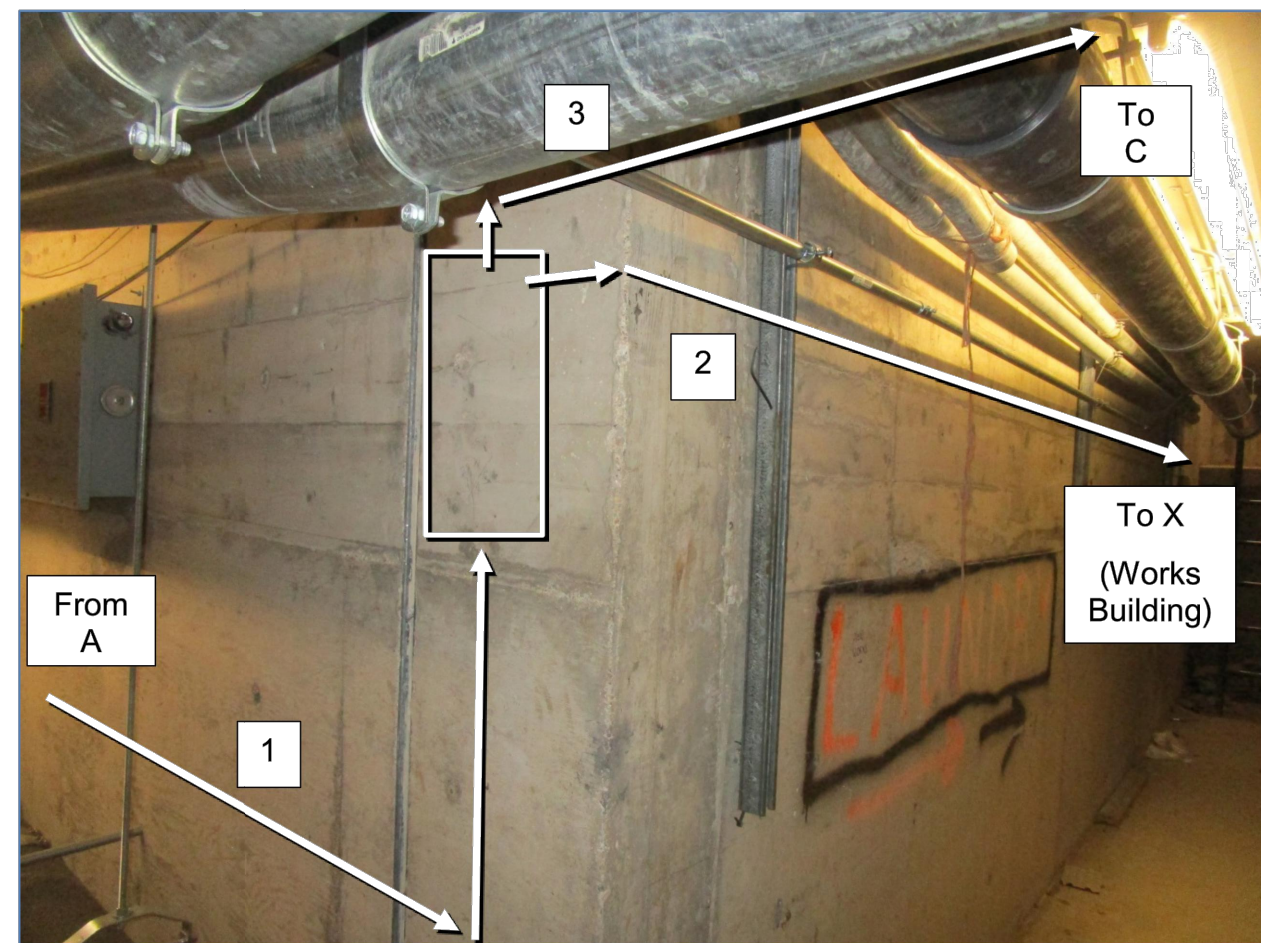


Figure 2 - Location B, junction between conduit to Unit 6 and conduit to Works Building

Note that three new fibre optic cables will be present in the new junction box. The first cable will run from Unit 6 to the Works Building via conduits 1 and 2, as labelled in Figure 2. The second cable will run from Unit 6 to the Powerhouse via conduits 1 and 3. The third cable will run from the Works Building to the Powerhouse via conduits 2 and 3.

Location C

1. Install the 50 mm conduit from Location B across the tunnel intersection at 1626 mm above floor level. Route the conduit behind the 152 mm (6 inch) black sanitary pipe and follow the tunnel wall at 1626 mm above floor level, mounted to the wall using new channels.

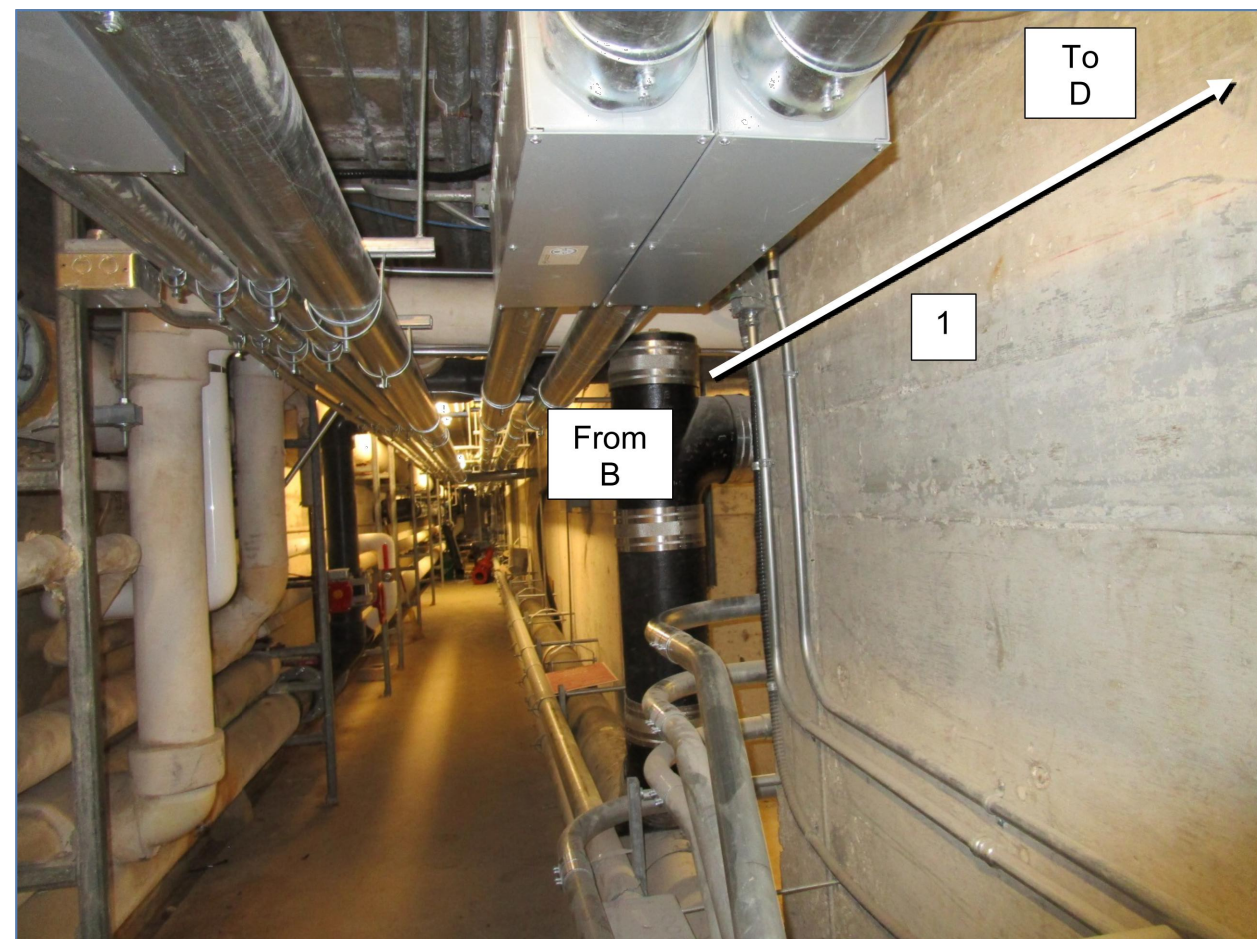


Figure 3 - Location C, attachment to wall after crossing tunnel intersection

Location D

1. Remove approximately 7600 mm (25 feet) of abandoned 50 mm conduit that spans between Location B and D. Remove this conduit to clear a path for the new conduit.
2. Route the conduit from Location C across the wall at 1626 mm above floor level and then jog up to 1829 mm (72 inches) to avoid existing conduit and equipment. Mount the new conduit to the wall using new channels.

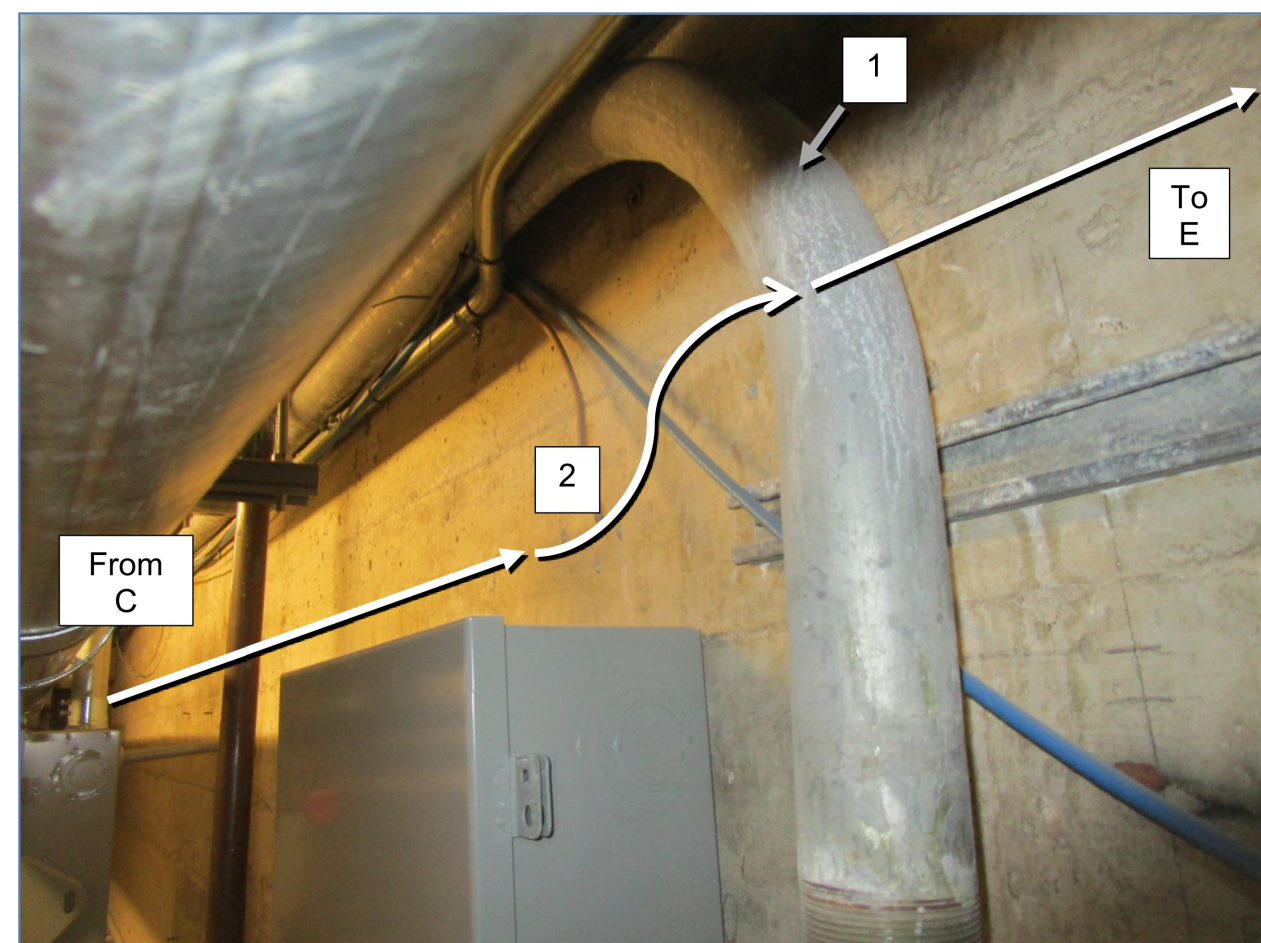


Figure 4 - Location D, jog in conduit and removal of abandoned 50 mm conduit

Location E

1. Route the conduit down from 1829 mm down to 1067 mm (42 inches) above floor level at Location E.
2. Route the conduit along the wall 1067 mm (42 inches) above floor level. Mount the conduit to new channel anchored to the concrete wall in order to cross over existing conduits, pipes, and power lines. Once the new conduit has bridged these obstacles, mount the conduit directly to the wall using existing channel embedded in the wall.

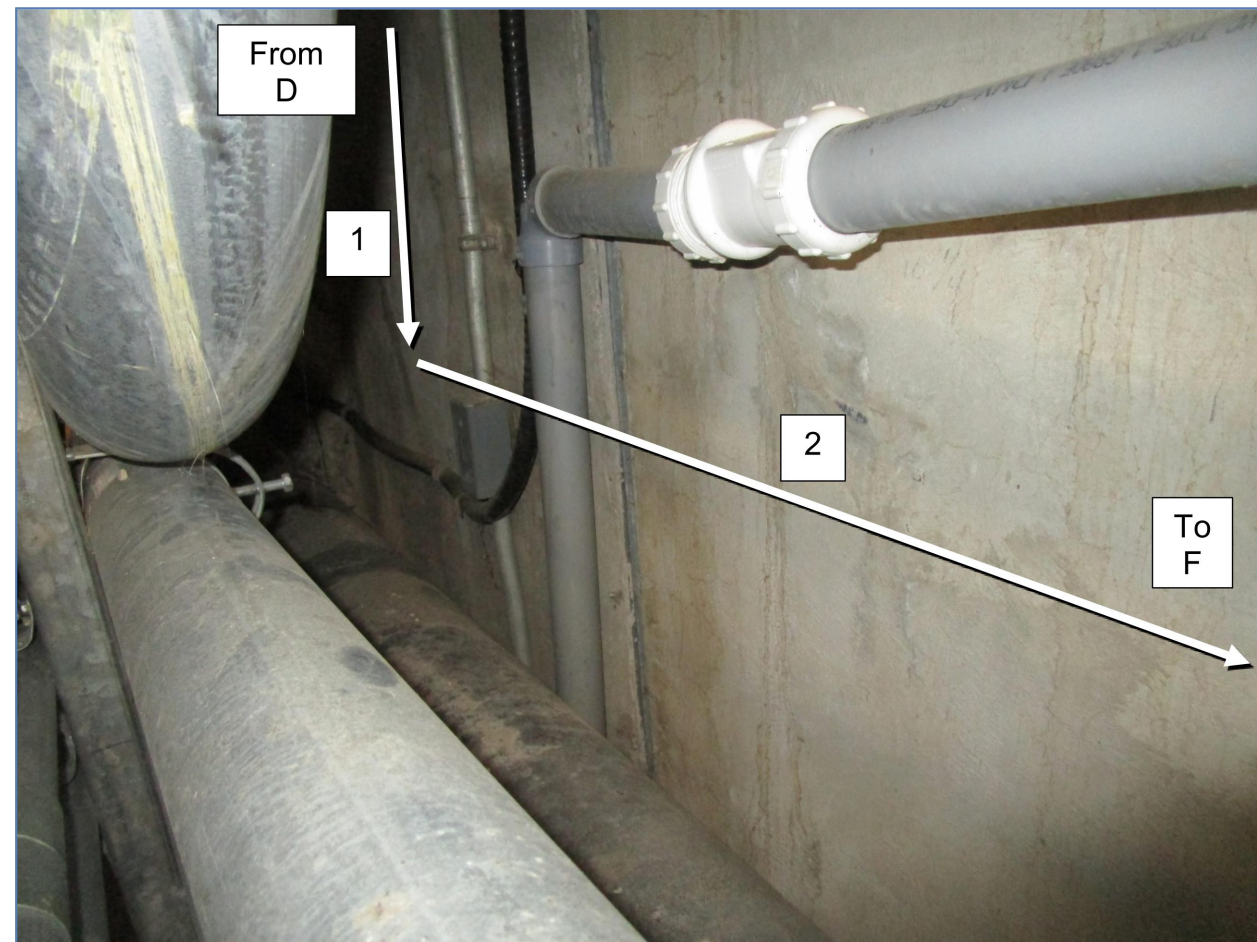


Figure 5 - Location E, drop down and then over sanitary line

Location F

1. Continue to mount the conduit travelling from Location E at 1067 mm above floor level to the tunnel wall. Bore a 76 mm (3 inch) hole in the concrete wall surrounding the tunnel gate to allow the conduit to pass through.
2. Continue to mount the conduit to the tunnel wall at 1067 mm above floor level, mounted to the wall using existing channel embedded in the tunnel wall. Small mounting offsets may be required in order to cross several 19 mm conduits that run vertically on the wall. Interrupt the conduit after the gate to install a new junction box (JB-N3). Refer to drawings for junction box location.

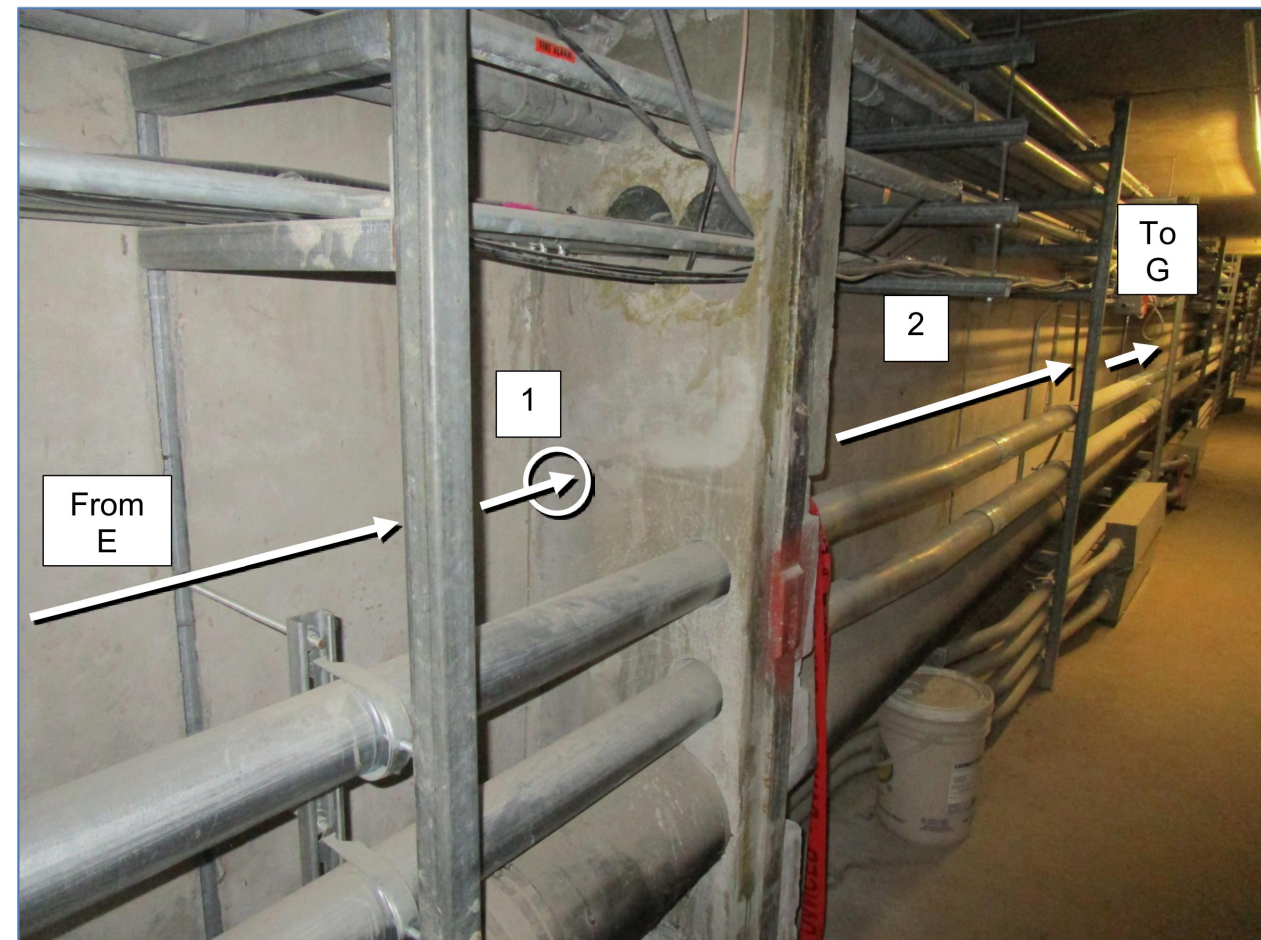


Figure 6 - Location F, pass through concrete wall next to tunnel gate

Location G

1. Transition the conduit travelling along the tunnel wall from Location F at 1067 mm above floor level up to the channel suspended from the tunnel ceiling. Route the conduit under four existing 50 mm (2 inch) conduits in its transition from the wall to the suspended channel.
2. Mount the conduit to the suspended channel beside the existing 50 mm conduits. Run the conduit down the tunnel in this position toward Location H. Interrupt the conduit between Location G and Location H to install a new junction box (JB-N4). Refer to the drawings for junction box location.

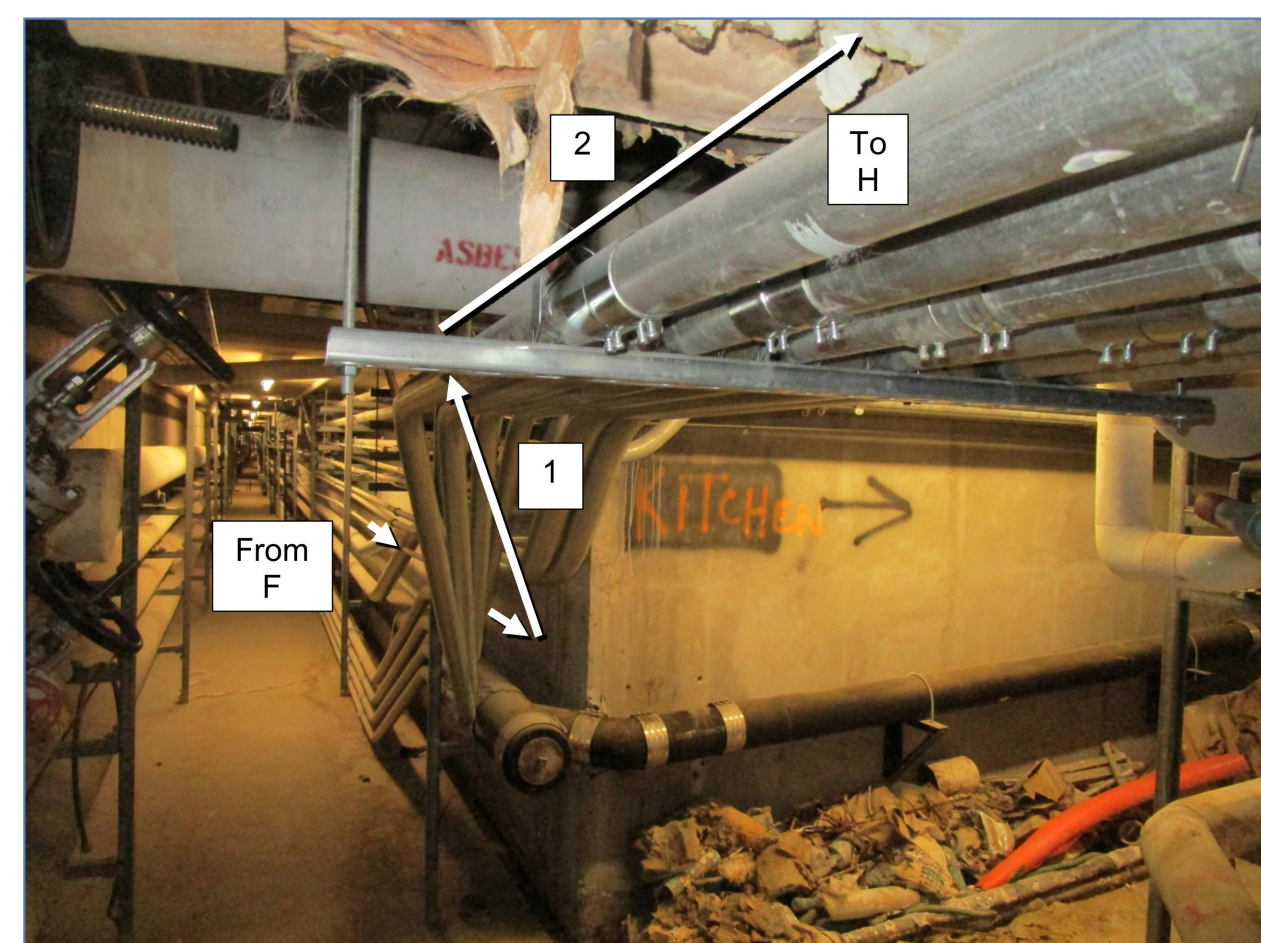


Figure 7 - Location G, transition from wall to channel suspended from tunnel ceiling

Location H

1. Continue to route the conduit from Location G along the suspended channel next to the existing 50 mm conduits. Interrupt the conduit to install a new junction box (JB-N3) in this location. Route the conduit down from the junction box to a lower suspended channel and then pass the conduit through a new hole cut in the sheet metal above the tunnel gate.



Figure 8 - Location H, drop down to lower suspended channel and pass above gate

Location I

1. After installing the conduit through the sheet metal panel above the gate, route the conduit upward and mount it to the nearby channel suspended from the tunnel ceiling. From this location route the conduit toward Location J.

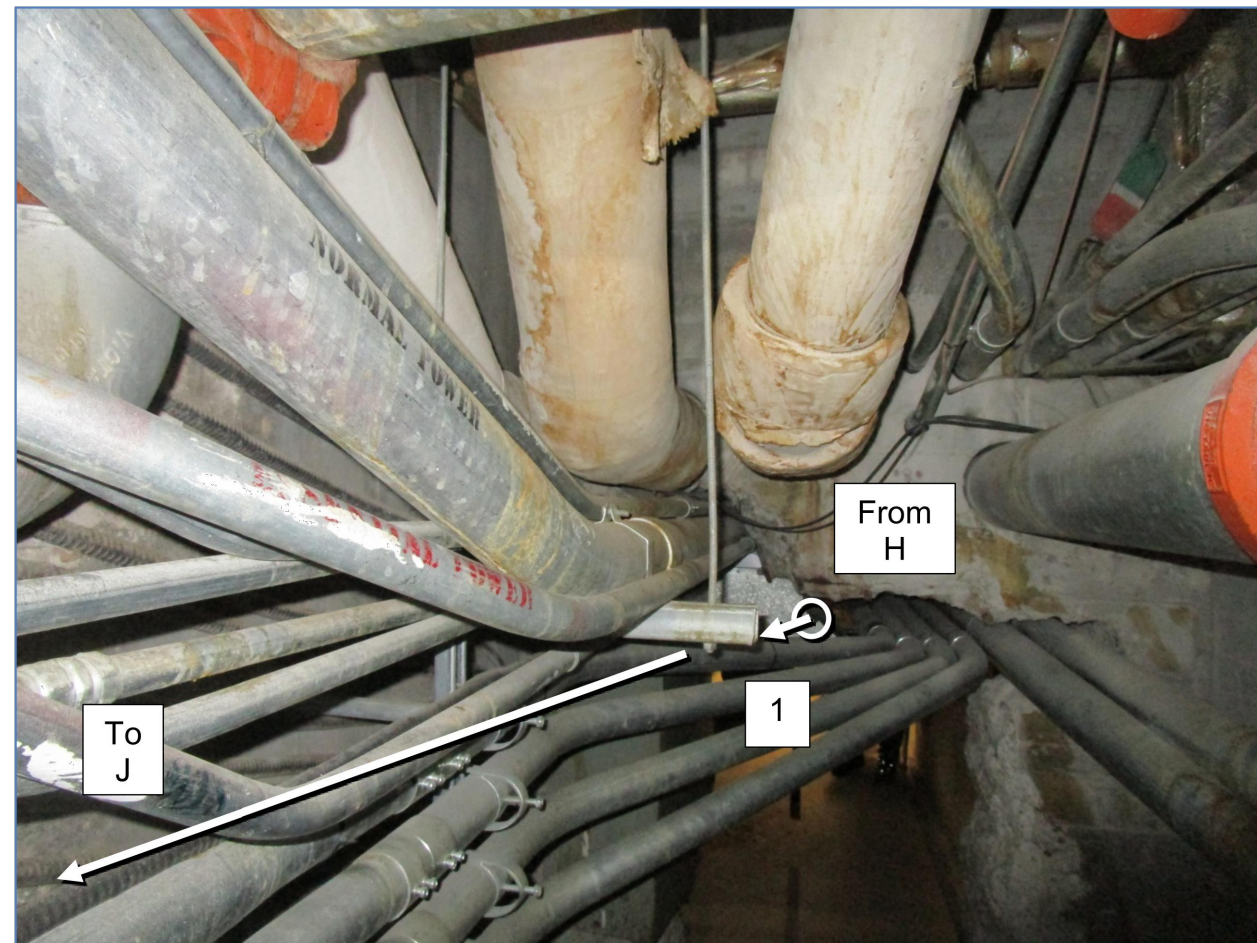


Figure 9 - Conduit passing above gate and up to suspended channel

Location J

1. Route the conduit from the channel suspended from the ceiling at Location I to the existing vertical channel at Location J.
2. Route the conduit down the tunnel in this position, mounting the conduit to these vertical channels.

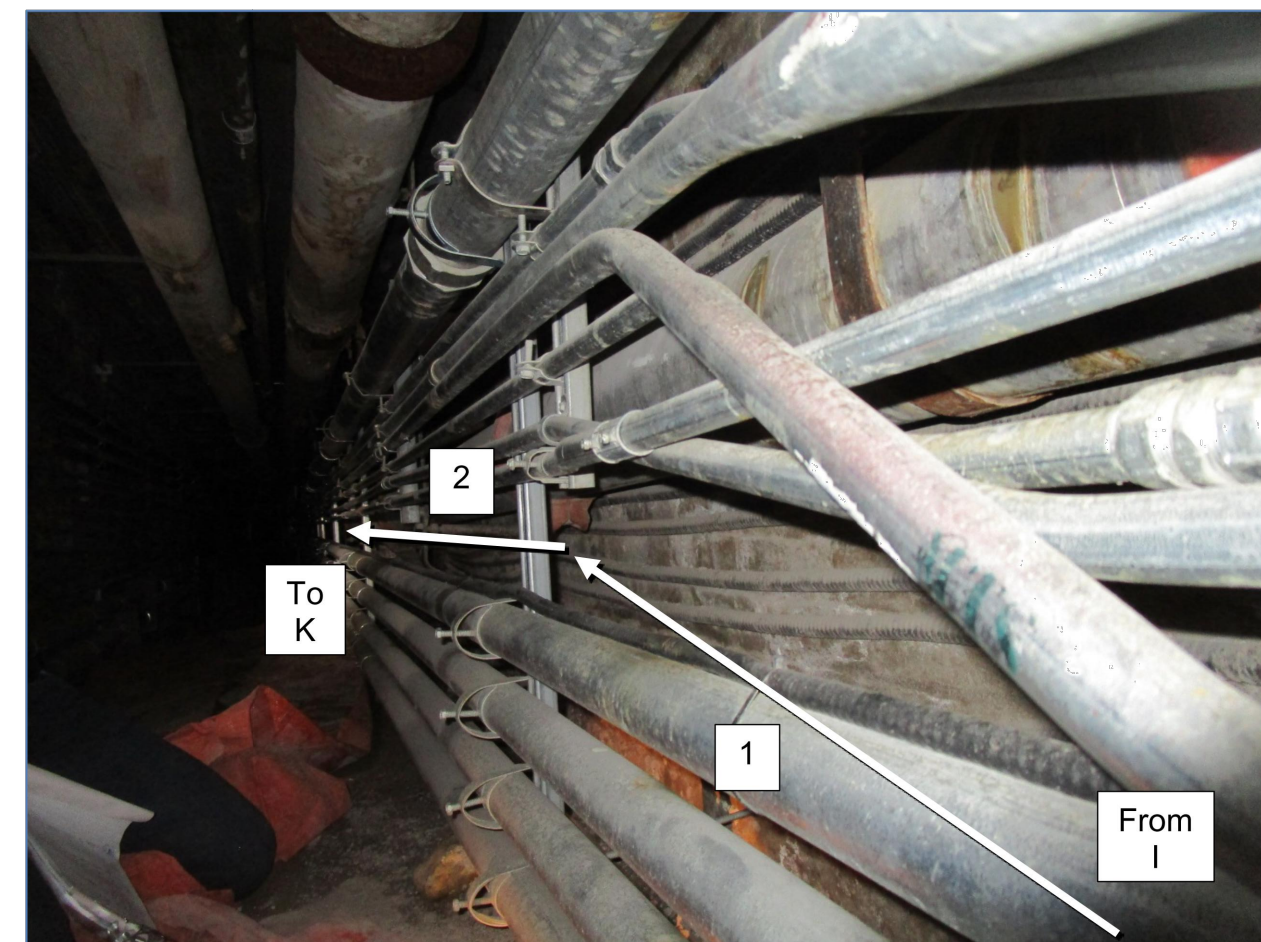


Figure 10 - Location J, transition from suspended channel to vertical channel

Location K

1. Route the conduit from Location J down the tunnel, following above the four existing 50 mm conduits. Interrupt the conduit at Location K to install a new junction box (JB-N5). After the junction box, continue to route the conduit above the existing conduits. Continue to mount the new conduit to the existing vertical channels.

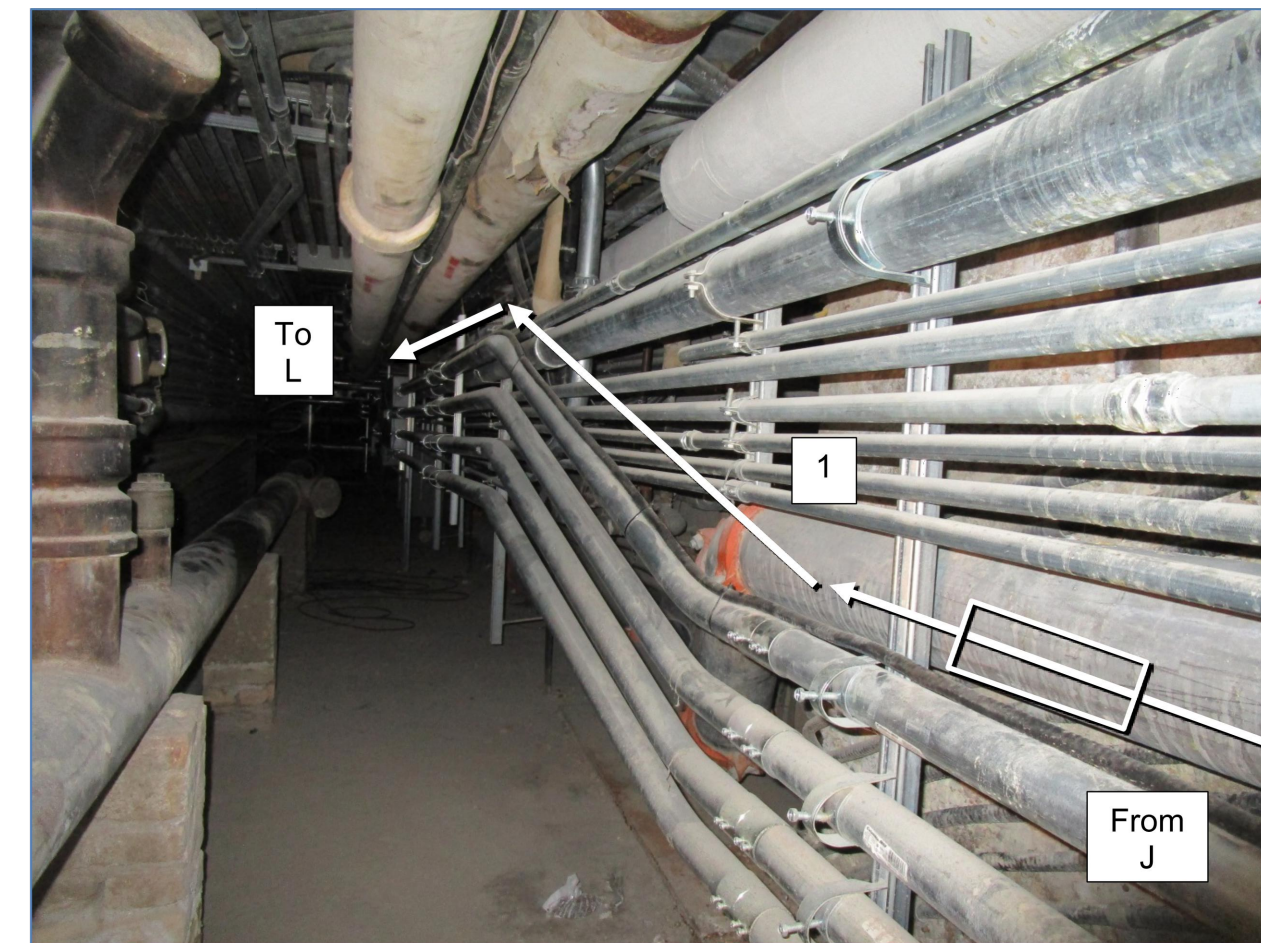


Figure 11 - Location K, rise up to another vertical channel

5		
4		
3		
2		
1		
0	ISSUED FOR TENDER	2017/07/21
Revision	Description	Date

Client client

PUBLIC WORKS & GOVERNMENT SERVICES

100-167 LOMBARD AVENUE
WINNIPEG, MB R3B 0T6

Project Project
CORRECTIONAL SERVICE CANADA
STONY MOUNTAIN INSTITUTION
STONY MOUNTAIN, MB

UNIT 6 MECHANICAL UPGRADE

Designed by ZHA	Conçu par
Drawn by JK	Dessiné par
Approved by KAS	Approuvé par
PWGSC Project Manager TIM LODGE	Administrateur de Projet TPSC

Drawing title Titre du dessin

VIEW LOCATIONS A TO K - CONDUIT ROUTE DETAILS

Project no./No. du projet R.043722.003	Drawing no./No. du dessin E110 OF 13	Revision no. 0
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