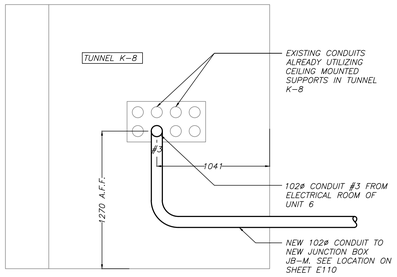
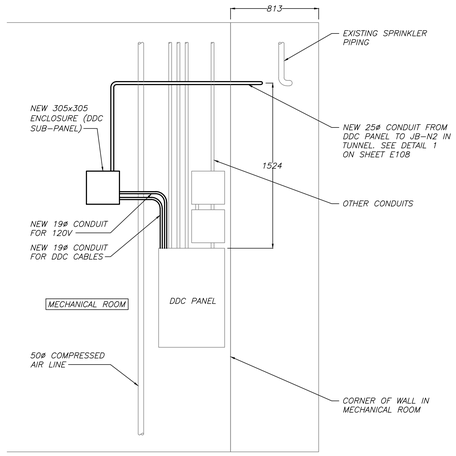


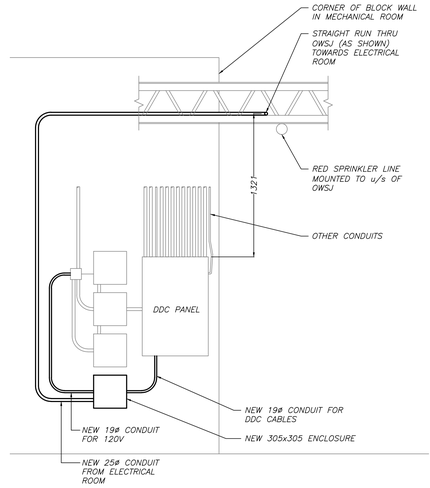
1 E109 SMI
TUNNEL K-8 - WALL ELEVATION

1:20
SHEET REF. E108



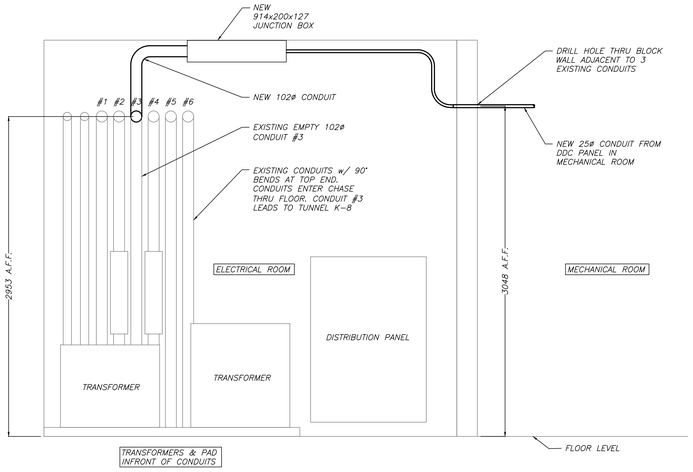
2 E109 SMI - WORKS BDLG
MECH ROOM - WALL ELEVATION

1:20
SHEET REF. E108



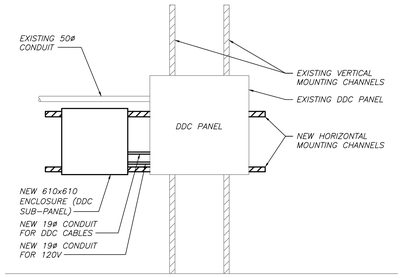
3 E109 SMI - UNIT 6
MECHANICAL ROOM - WALL ELEVATION

1:20
SHEET REF. E108



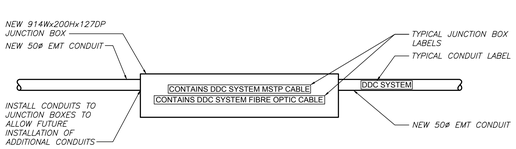
4 E109 SMI - UNIT 6
ELECTRICAL ROOM - WALL ELEVATION

1:20
SHEET REF. E108



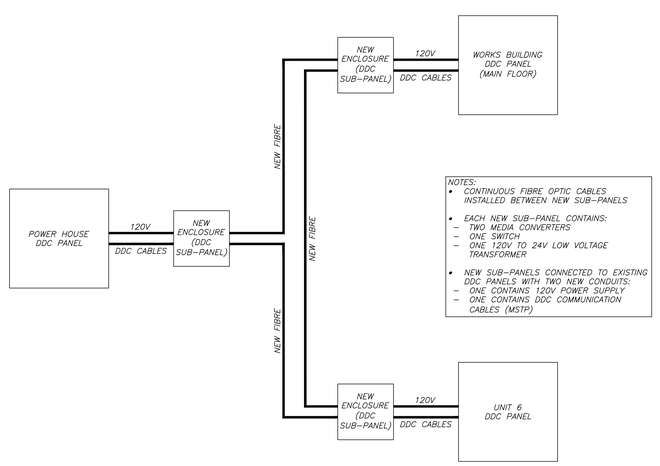
5 E109 SMI - POWER HOUSE
BASEMENT DDC PANEL - WALL ELEVATION

1:20
SHEET REF. E107



6 E109 JUNCTION BOX / CONDUIT
INSTALLATION DETAIL

1:10



7 E109 PARTIAL BLOCK DIAGRAM OF
UPGRADES TO SMI DDC NETWORK

N.T.S.

ELECTRICAL LEGEND

ITEM	SYMBOL	REMARKS
ELECTRICAL PANEL		
DDC PANEL	DDC	
NEW EMT CONDUIT FOR DDC		50Ø
NEW EMT CONDUIT FOR 120V		
EXISTING CONDUIT		50Ø
JUNCTION BOX	J	
PHOTO LOCATION	A	ARROW SHOWS VIEWING DIRECTION
FAN COIL		26W 24VDC
FAN COIL TAG	FC-##	

EXISTING JUNCTION BOX SCHEDULE

BOX TAG	SIZE (WxHxDP)	INCOMING CONDUIT (SIZE & CONTENTS)	OUTGOING CONDUIT (SIZE & CONTENTS)	ELEV. (A.F.F.)
JB-1	610x150x150	102Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	1118
JB-2	1219x200x127	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	400
JB-3	1219x200x127	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	1689
JB-4	1219x200x127	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES (1 CUT IN BOX)	50Ø CONDUIT w/ 6 FIBRE OPTIC CABLES 1 #14 AWG 50Ø CONDUIT w/ 8 FIBRE OPTIC CABLES 1 #14 AWG	787
JB-5	300x100x114	50Ø CONDUIT w/ 6 FIBRE OPTIC CABLES 1 #14 AWG	50Ø CONDUIT w/ 6 FIBRE OPTIC CABLES 1 #14 AWG	1295
JB-6	1219x200x127	50Ø CONDUIT w/ 6 FIBRE OPTIC CABLES 1 #14 AWG	50Ø CONDUIT w/ 5 FIBRE OPTIC CABLES 1 #14 AWG	1956
JB-7	400x400x150	50Ø CONDUIT w/ 5 FIBRE OPTIC CABLES 1 #14 AWG 50Ø CONDUIT w/ 2 GREY DATA CABLES 50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES 1 GREY DATA CABLE 2 #14 AWG	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES 50Ø CONDUIT w/ 1 DATA CABLE 1 #14 AWG	1295
JB-8	1219x200x150	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	1524
JB-A	914x200x127	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	
JB-B	914x200x127	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	
JB-C	914x200x127	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	533
JB-D	914x200x127	50Ø CONDUIT w/ 3 FIBRE OPTIC CABLES 13Ø CONDUIT w/ 4 #24 AWG GREY 25Ø CONDUIT w/ 2 FIBRE OPTIC CABLES 1 #24 AWG YELLOW	50Ø CONDUIT w/ 1 FIBRE OPTIC CABLE 4 #24 AWG GREY 2 #24 AWG YELLOW	1219
JB-E	914x200x127	50Ø CONDUIT w/ 1 FIBRE OPTIC CABLE 4 #24 AWG GREY 2 #24 AWG YELLOW	50Ø CONDUIT w/ 1 FIBRE OPTIC CABLE 4 #24 AWG GREY 2 #24 AWG YELLOW	1676
JB-F	914x200x127	50Ø CONDUIT w/ 1 FIBRE OPTIC CABLE 4 #24 AWG GREY 2 #24 AWG YELLOW	50Ø CONDUIT w/ 1 FIBRE OPTIC CABLE 4 #24 AWG GREY 2 #24 AWG YELLOW	1219
JB-G	914x914x300	25Ø CONDUIT w/ 2 FIBRE OPTIC CABLES 25Ø CONDUIT w/ 1 FIBRE OPTIC CABLE	38Ø CONDUIT w/ 3 FIBRE OPTIC CABLES	NOT VERIFIED
JB-H	914x914x300	NOT VERIFIED	NOT VERIFIED	NOT VERIFIED

NOTE:
"INCOMING" AND "OUTGOING" CONDUITS IN THIS SCHEDULE RELATE TO TRAVEL ALONG THE EXISTING CONDUITS FROM JB-A TO JB-F AND FROM JB-1 TO JB-8.

NEW JUNCTION BOX SCHEDULE

BOX TAG	SIZE (WxHxDP)	INCOMING CONDUIT (SIZE & CONTENTS)	OUTGOING CONDUIT (SIZE & CONTENTS)	ELEV. (A.F.F.)
JB-N1	914x200x127	102Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	610
JB-N2	914x200x127	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES 50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	1626
JB-N3	914x200x127	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	1067
JB-N4	914x200x127	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	≈1829
JB-N5	914x200x127	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	≈762
JB-N6	914x200x127	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	≈914
JB-N7	914x200x127	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	50Ø CONDUIT w/ 2 FIBRE OPTIC CABLES	≈356

NOTE:
"INCOMING" AND "OUTGOING" CONDUITS IN THIS SCHEDULE RELATE TO TRAVEL ALONG THE TUNNEL CONDUITS FROM JB-N1 TO JB-N7.

CONSTRUCTION NOTES

1. INSTALL CONDUIT IN TUNNELS, MECHANICAL CHASES, AND BUILDINGS AS SHOWN.
2. PULL THREE CONTINUOUS SECTIONS OF FIBRE OPTIC CABLE TO CONNECT BETWEEN:
   - POWER HOUSE DDC PANEL AND WORKS BUILDING DDC PANEL
   - WORKS BUILDING DDC PANEL AND UNIT 6 DDC PANEL
   - UNIT 6 DDC PANEL AND POWERHOUSE DDC PANEL
3. INTEGRATE AND CONFIGURE THE WORKS BUILDING DDC SYSTEM AND UNIT 6 DDC SYSTEM INTO THE CENTRAL DDC SYSTEM
4. PROVIDE MEANS TO MANUALLY SWITCH NETWORK CONNECTIONS BETWEEN EACH OF THE TWO FIBRE OPTIC CABLES PULLED TO EACH LOCATION SO THAT EACH BUILDING HAS 2 POSSIBLE CONNECTIONS TO THE POWER HOUSE DDC PANEL
5. APPROXIMATE DISTANCE FROM DDC PANEL IN MECHANICAL ROOM IN UNIT 6 TO START OF CONDUIT IN ELECTRICAL ROOM IS 20 METERS.
6. APPROXIMATE DISTANCE THRU EXISTING CONDUITS FROM ELECTRICAL ROOM IN UNIT 6 TO BLOCK WALL IN TUNNEL IS 30 METERS.
7. APPROXIMATE TOTAL DISTANCE THRU NEW CONDUITS FROM UNIT 6 BLOCK WALL IN TUNNEL TO EXISTING JB-D & EXISTING CONDUITS FROM JB-D TO POWER HOUSE IS 330 METERS.

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DGH ENGINEERING LTD.
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2017-07-21

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Certificate of Authorization
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No. 540 Date: 2017/07/21

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

Client / client

PUBLIC WORKS & GOVERNMENT SERVICES

100-167 LOMBARD AVENUE WINNIPEG, MB R3B 0T6

Project / Projet

CORRECTIONAL SERVICE CANADA
STONY MOUNTAIN INSTITUTION
STONY MOUNTAIN, MB

UNIT 6 MECHANICAL UPGRADE

Designed by / Conçu par: **ZHA**
Drawn by / Dessiné par: **RTD**
Approved by / Approuvé par: **KAS**
PWGSC Project Manager / Administrateur de Projets TPSGC: **TIM LODGE**

Drawing title / Titre du dessin:

UNIT 6 2ND FLOOR ELECTRICAL & MECHANICAL ROOMS, WORKS BUILDING & TUNNEL K-8 ELEVATIONS & DETAILS - NEW

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.043722.003	E109 OF 13	0