

PACIFIC FORESTRY CENTRE MAIN BREAKER REPLACEMENT



KEYPLAN



5		
4		
3		
2	ISSUED FOR TENDER	2015/06/02
1	ISSUED FOR 100% TENDER	2015/03/31
0	ISSUED FOR 66% REVIEW	2015/02/26

Revision/	Description/Description	Date/Date
-----------	-------------------------	-----------

Client/client

**PUBLIC WORKS AND
GOVERNMENT SERVICES
CANADA**

506 BURNSIDE ROAD
VICTORIA, BC, V8Z 1M5

Project title/Titre du projet
**PACIFIC FORESTRY CENTRE
506 WEST BURNSIDE MAIN
BREAKER REPLACEMENT**

**PACIFIC FORESTRY
CENTRE MAIN BREAKER
REPLACEMENT**

Consultant Signature Box Only

Designed by/Concept par
I.A.B.

Drawn by/Dessiné par
J.B. / S.S.

PWGSC Project Manager/Administrateur de Projets TPSCG
Ken Nielson

PWGSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSCG
Preetipal Paul

Drawing title/Titre du dessin

**COVER SHEET, LEGEND AND
DRAWING LIST**

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.075164.001	E100	2

LEGEND - SINGLE LINE & SCHEMATIC DIAGRAMS			
NOT ALL SYMBOLS MAY APPEAR ON DRAWINGS			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	H.V. CABLE STRESS CONE TERMINATION CABLE SIDE		PANEL A
	INCOMING UTILITY CONNECTION		GROUND
	ULTIMATE AVAILABLE FAULT LEVEL (RMS SYM)		1 CONDUCTOR
	PRESENT AVAILABLE FAULT LEVEL (RMS SYM)		1 CONDUCTOR + NEUTRAL
	SHORT CIRCUIT RATING OF EQUIPMENT		1 NEUTRAL
	LV CIRCUIT BREAKER (MOLDED CASE)		2 CONDUCTORS
	LV CIRCUIT BREAKER (DRAWOUT)		2 CONDUCTORS + NEUTRAL
	INSULATED CASE CIRCUIT BREAKER (ELECTRICALLY OPERATED FOR REMOTE OR LOCAL (MANUAL) TRIP AND CLOSE)		3 CONDUCTORS
	BREAKER AUX CONTACTS		3 CONDUCTORS + NEUTRAL
	BREAKER KEY INTERLOCK (IF INDICATES KEY MATCH)		STUB-OUT FOR CONDUIT, OR INSULATED END FOR SPARE CABLE OR CONTROL WIRING
	DRAWOUT CELL		TRANSFORMER
	HV CIRCUIT BREAKER LETTER DESIGNATIONS IF USED: VAC, VACUUM		POTENTIAL TRANSFORMER
	LIGHTNING ARRESTOR/SURGE ARRESTOR		CURRENT TRANSFORMER
	POWER DISCONNECT SWITCH		ZERO SEQUENCE CURRENT TRANSFORMER
	LOAD BREAK SWITCH		PRIMARY SYSTEM/H.V. BUS/CABLE
	FUSED CUTOUT (POLE MOUNTED)		INTERMEDIATE SYSTEM/H.V./M.V. BUS/CABLE
	FUSED SWITCH		SECONDARY SYSTEM 600V AND LOWER BUS/CABLE
	EARTHING/SAFETY GROUNDING SWITCH		600V BUSDUCT
	LIVE LINE INDICATOR		MECHANICAL INTERLOCK
	AUTOMATIC TRANSFER SWITCH		ELECTRICAL AND/OR MECHANICAL INTERLOCK
	CONTROL FUSE		CABLE LABELS 6T12.5MS-78KR OR 62A-7
	INDICATING INSTRUMENT: V = VOLTMETER A = AMMETER Hz = FREQUENCY METER kW = KILOWATT METER SS = SYNCHROSCOPE		
	VS = VOLT METER SWITCH AS = AMMETER SWITCH		
	MFPRL RELAY		
	UTILITY POWER METER		

NOTES:
1. FOR DETAILED DESCRIPTION OF DEVICE AND SUFFIX LETTERS TO BE
USED WITH FUNCTION NUMBERS, SEE ANSI/IEEE C37.2.

ABBREVIATIONS:
GRS - GALVANIZED RIGID STEEL CONDUIT.
RPVC - RIGID POLYVINYL CHLORIDE CONDUIT.

DRAWING LIST

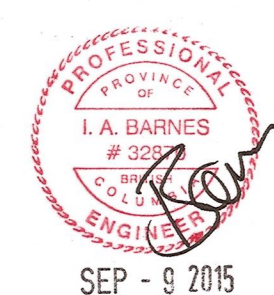
E100	COVER SHEET, LEGEND AND DRAWING LIST
E200	SITE PLAN, DUCT BANK, AND KIOSK DETAILS
E300	LEVEL 0 ELECTRICAL WORK DETAILS
E400	PACIFIC FORESTRY CENTRE EXISTING AND REVISED ELECTRICAL ROOM
E500	EXISTING SINGLE LINE DIAGRAM
E600	REVISED SINGLE LINE DIAGRAM



KEYPLAN



PROJECT
NORTH



5		
4		
3		
2	ISSUED FOR TENDER	2015/06/02
1	ISSUED FOR 100% TENDER	2015/03/31
0	ISSUED FOR 66% REVIEW	2015/02/26
Revision/Revision	Description/Description	Date/Date

Client/client
**PUBLIC WORKS AND
GOVERNMENT SERVICES
CANADA**

506 BURNSIDE ROAD
VICTORIA, BC, V8Z 1M5

Project title/Titre du projet
**PACIFIC FORESTRY CENTRE
506 WEST BURNSIDE MAIN
BREAKER REPLACEMENT**

**PACIFIC FORESTRY
CENTRE MAIN BREAKER
REPLACEMENT**

Consultant Signature Box Only

Designed by/Concept par
I.A.B.

Drawn by/Dessiné par
J.B. / S.S.

PWGSC Project Manager/Administrateur de Projets TPSCG
Ken Nielson

PWGSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régional, Services d'architecture et de génie, TPSCG
Prestipal Paul

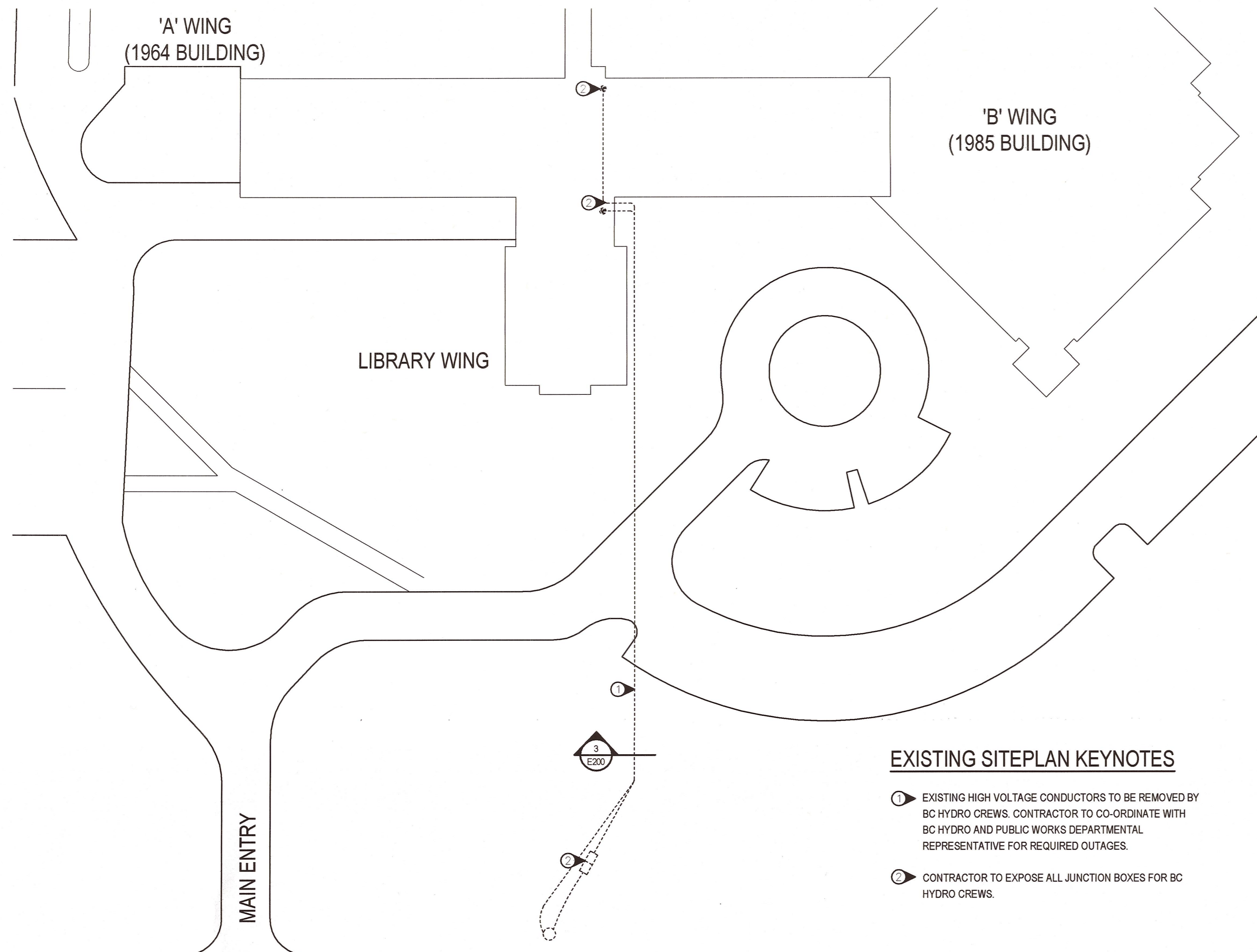
Drawing title/Titre du dessin

**SITE PLAN, DUCT BANK,
AND KIOSK DETAILS**

Project No./No. du projet
R.075164.001

Sheet/Feuille
E200

Revision no./
La Révision
no.
2

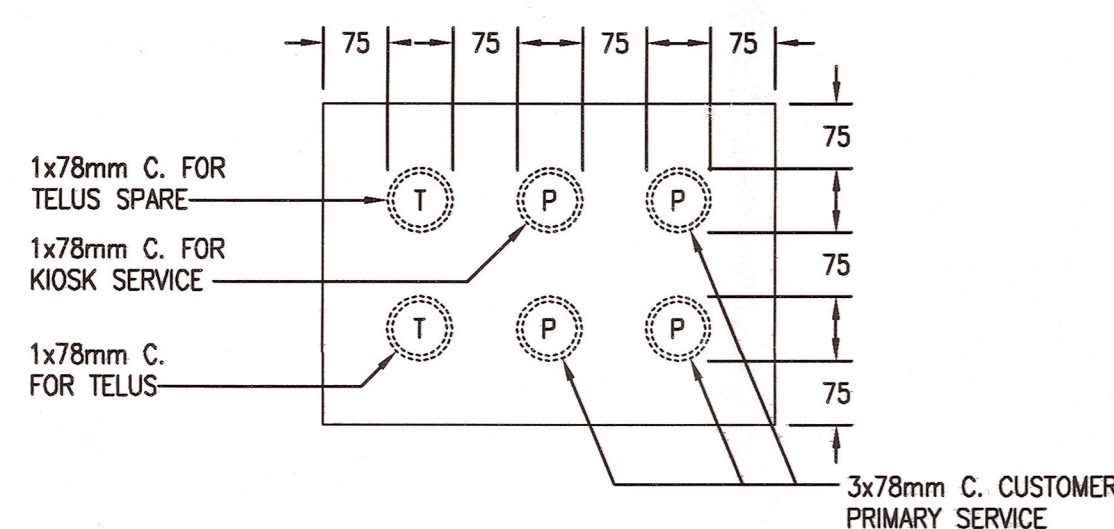


EXISTING SITEPLAN KEYNOTES

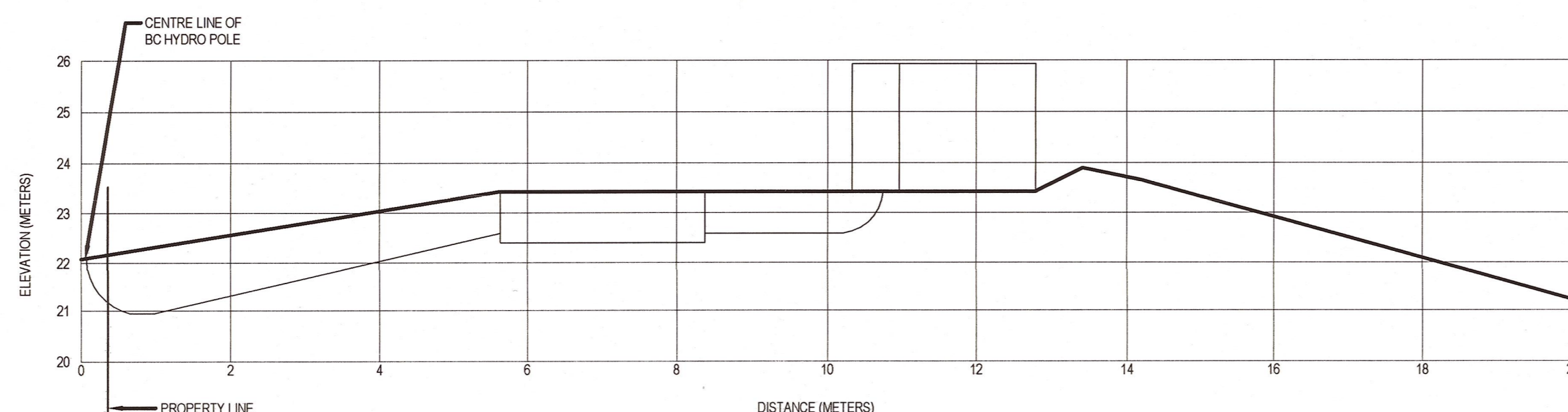
- EXISTING HIGH VOLTAGE CONDUCTORS TO BE REMOVED BY BC HYDRO CREWS. CONTRACTOR TO CO-ORDINATE WITH BC HYDRO AND PUBLIC WORKS DEPARTMENTAL REPRESENTATIVE FOR REQUIRED OUTAGES.
- CONTRACTOR TO EXPOSE ALL JUNCTION BOXES FOR BC HYDRO CREWS.

NOTES:

- DUCT BANK ROUTE AND SECTION ARE BASED ON EXISTING AS-BUILT DRAWINGS AND HAVE NOT BEEN CONFIRMED BY SITE INSPECTION.



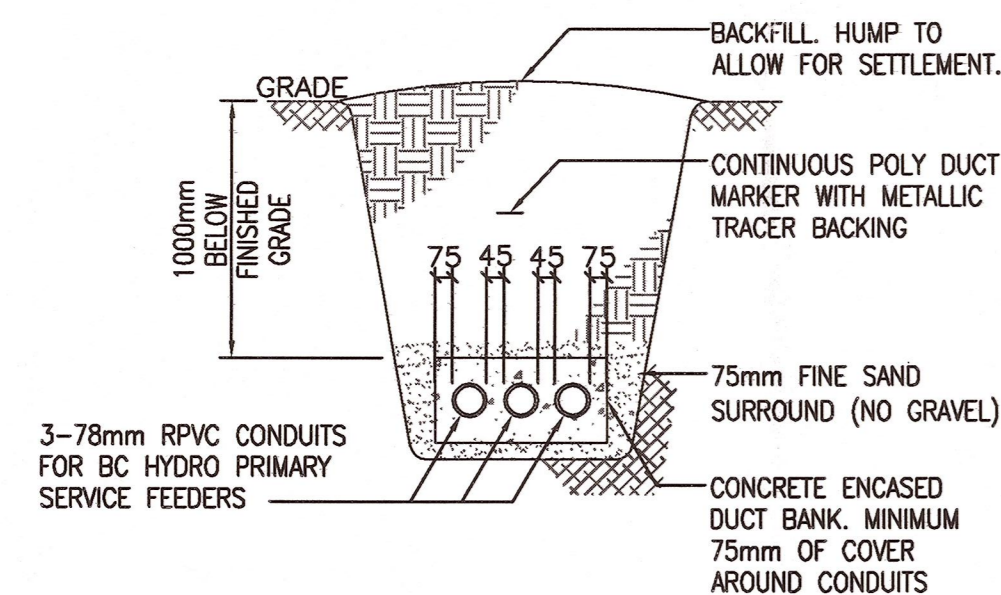
1 EXISTING SITEPLAN E200



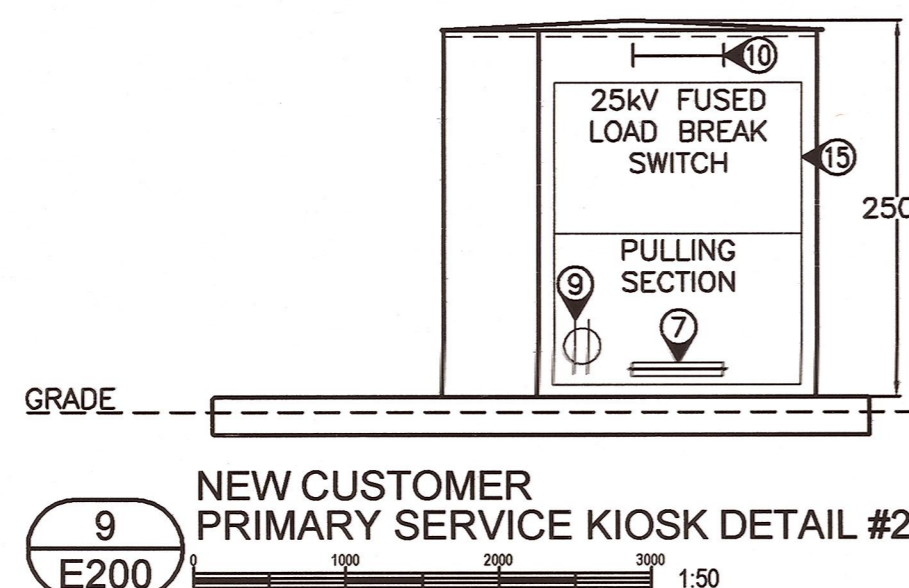
5 NEW DUCT PROFILE E200

KEYNOTES FOR 8-11/E200

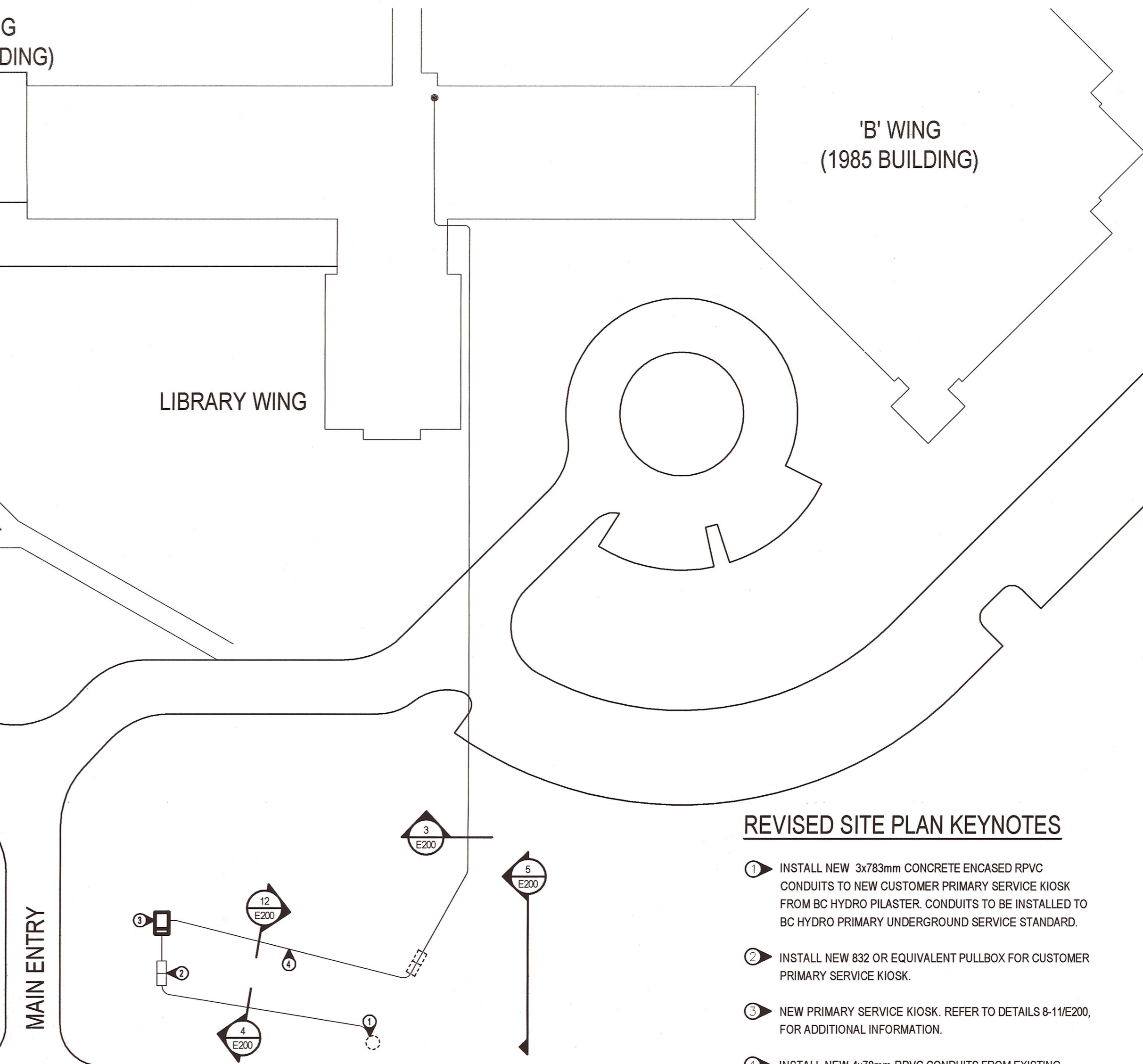
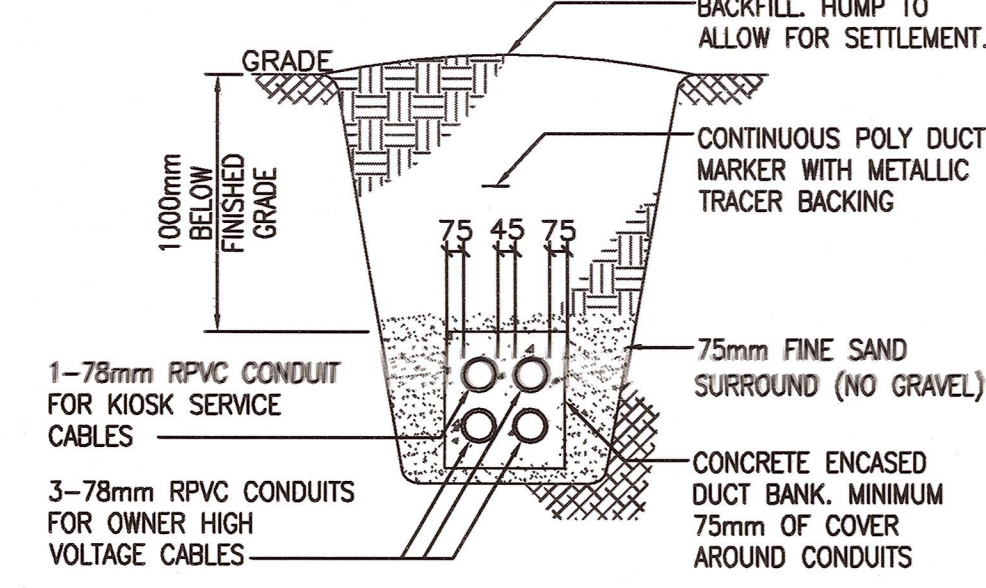
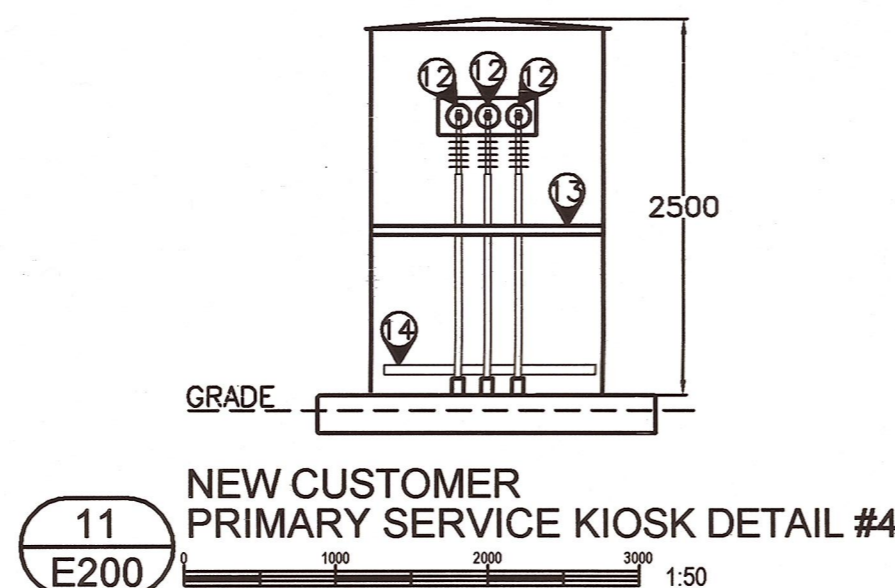
- PROVIDE PEAKED ROOF, SLOPED TO PREVENT WATER POOLING ON SWITCHGEAR ROOF.
- 250mm SPACE BETWEEN EDGE OF SWITCHGEAR AND END OF SLAB.
- SLAB TO BE 300mm THICK CONCRETE REINFORCED WITH 15M REBAR AT 5000C TOP AND BOTTOM BOTH WAYS. BOTTOM MAT TO BE CHAIRED 75mm ABOVE GRADE AND TOP MAT 50mm FROM TOP. CONCRETE TO HAVE 28 DAY COMPRESSIVE STRENGTH OF 32 MPa AND C-2 EXPOSURE CLASS.
- 19mm CHAMFER AROUND EDGE OF SLAB.
- SLAB TO EXTEND 100mm ABOVE GRADE.
- 100mm OVERHANG AND UPTURNED LIP TO DIVERT WATER TO ENDS OF SWITCHBOARD.
- SUPPLY AND INSTALL ANTI-CONDENSATION HEATER IN THE FUSED LOAD BREAK SWITCH COMPARTMENT. 500W HEATER TO CONTAIN DUAL TEMPERATURE AND HUMIDITY DETECTOR. HEATERS TO BE FED FROM SPARE 78mm CONDUIT.
- ANALOG AMMETER IN SERIES WITH BASE BOARD HEATER TO ALLOW CONFIRMATION OF OPERATIONS. INSTALL EXTERIOR T-STAT TO ALLOW TO ADJUSTMENT WITHOUT ENTERING KIOSK. AMMETER AND T-STAT TO BE INSTALLED IN TYPE 3R BOX WITH LOCKABLE LATCHES. POWER FROM WAG2N CCT#60.52
- 120V DUPLEX KIOSK POWER RECEPTACLE, TO BE FED VIA SAME CIRCUITS AS HEATER, WAG2N CCT#60.52
- KIOSK LIGHTING CIRCUIT CONNECTED, TO BE CONNECTED TO SWITCH WHICH TURNS LIGHT ON WHEN KIOSK OUTER DOOR IS OPEN. TO BE FED VIA SAME CIRCUIT AS HEATER, POWER FROM WAG2N CCT#60.52
- LOCKABLE HANDLE FOR UTILITY LOCK.
- HIGH VOLTAGE TERMINATIONS ONTO 25KV RATED BUS. TO BE TERMINATED TO BC HYDRO STANDARD REQUIREMENTS.
- HARDWOOD HIGH VOLTAGE CABLE BLOCKING.
- KIOSK GROUND BUS.
- SWITCH AND FUSE COMPARTMENTS TO BE BARRIRED FROM EACH OTHER TO ALLOW FOR SEPARATE ACCESS. SWITCH COMPARTMENT TO HAVE QUARTZ VIEWING WINDOW FOR SWITCH POSITION VERIFICATION. SWITCHES TO OPEN 90° TO THE GLASS. SWITCHES TO BE CONFIGURED TO ALLOW FOR LOAD SIDE ISOLATION OF SWITCH TO REPLACE FUSING.
- INTERIOR HINGED METAL EXTERIOR DOORS FOR ACCESS TO LOAD BREAK SWITCH, MOUNT THERMOSTAT AND METER TO THE DOOR.



8 NEW CUSTOMER PRIMARY SERVICE KIOSK DETAIL #1 E200



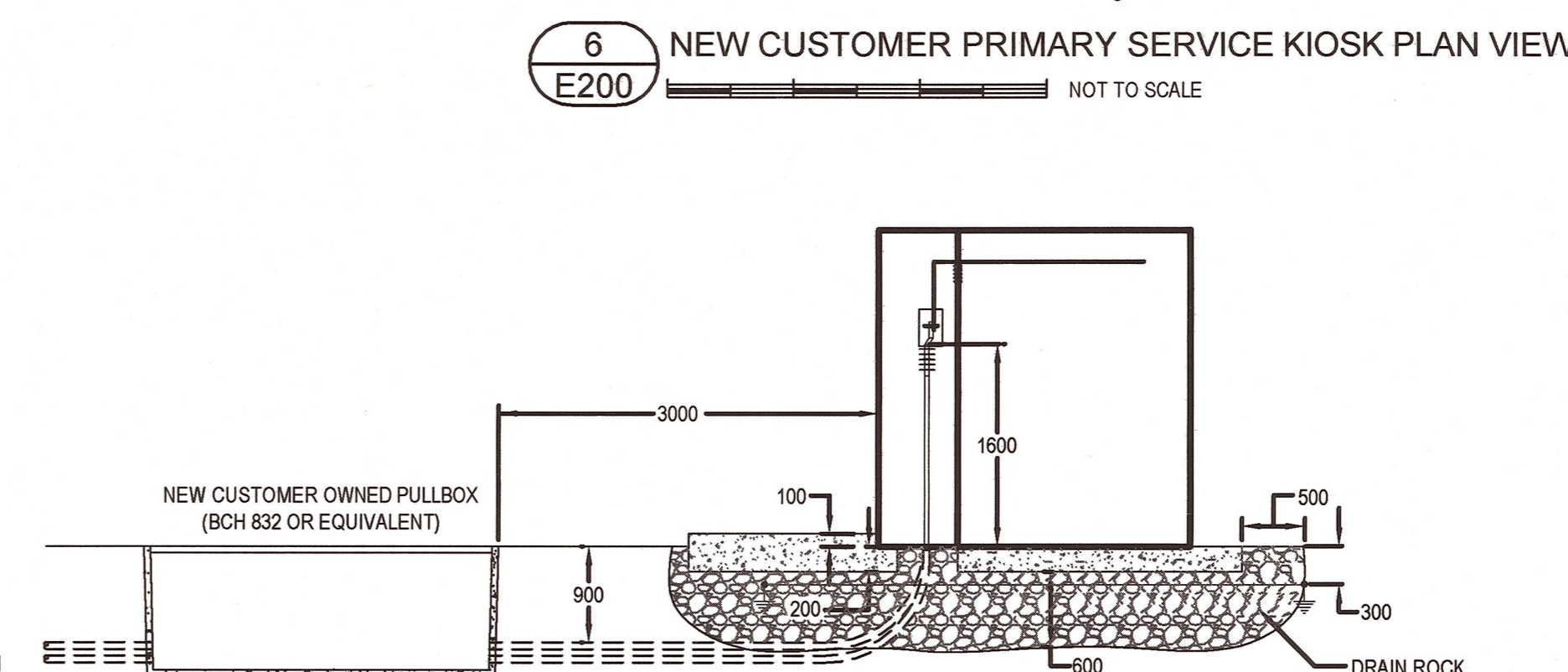
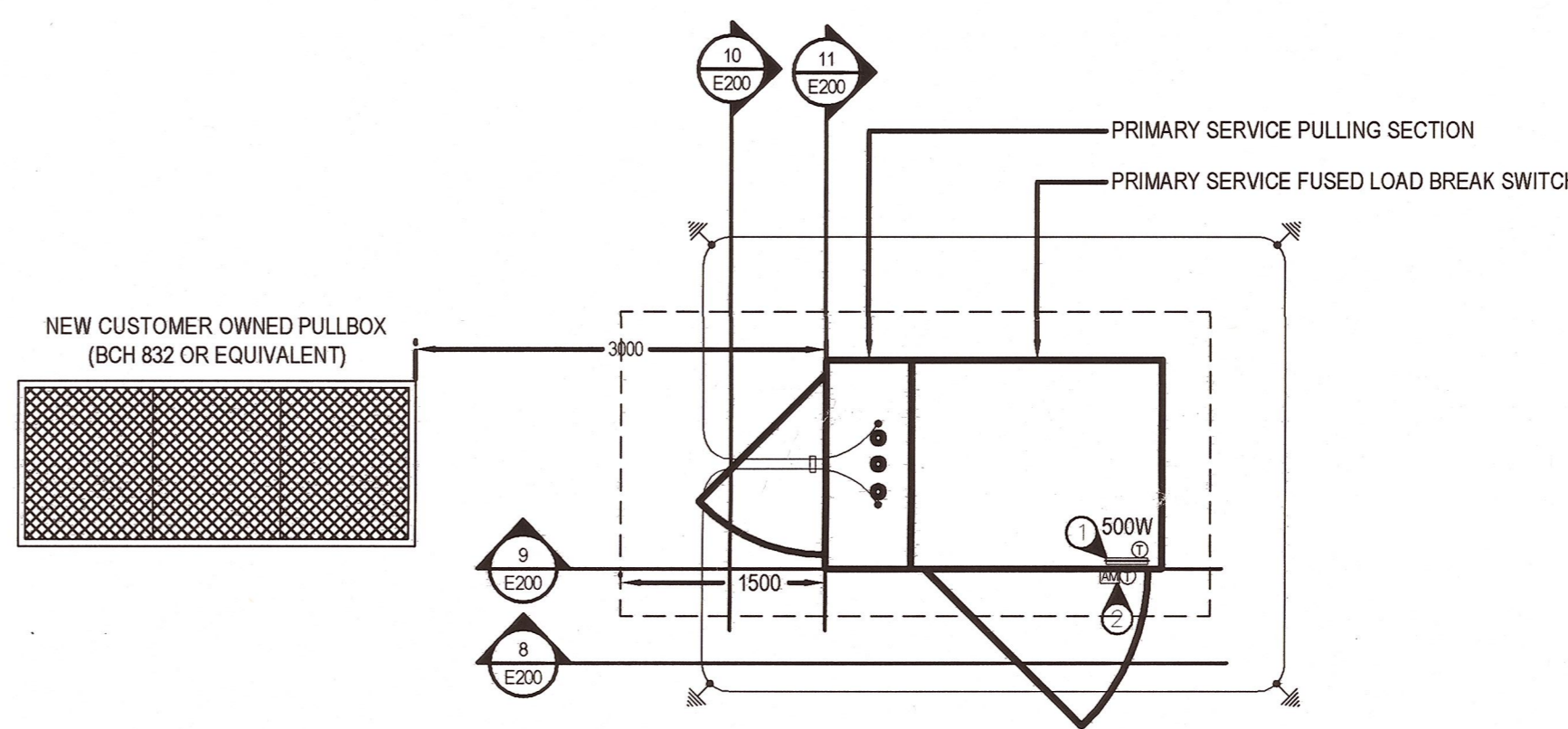
10 NEW CUSTOMER PRIMARY SERVICE KIOSK DETAIL #3 E200



REVISED SITE PLAN KEYNOTES

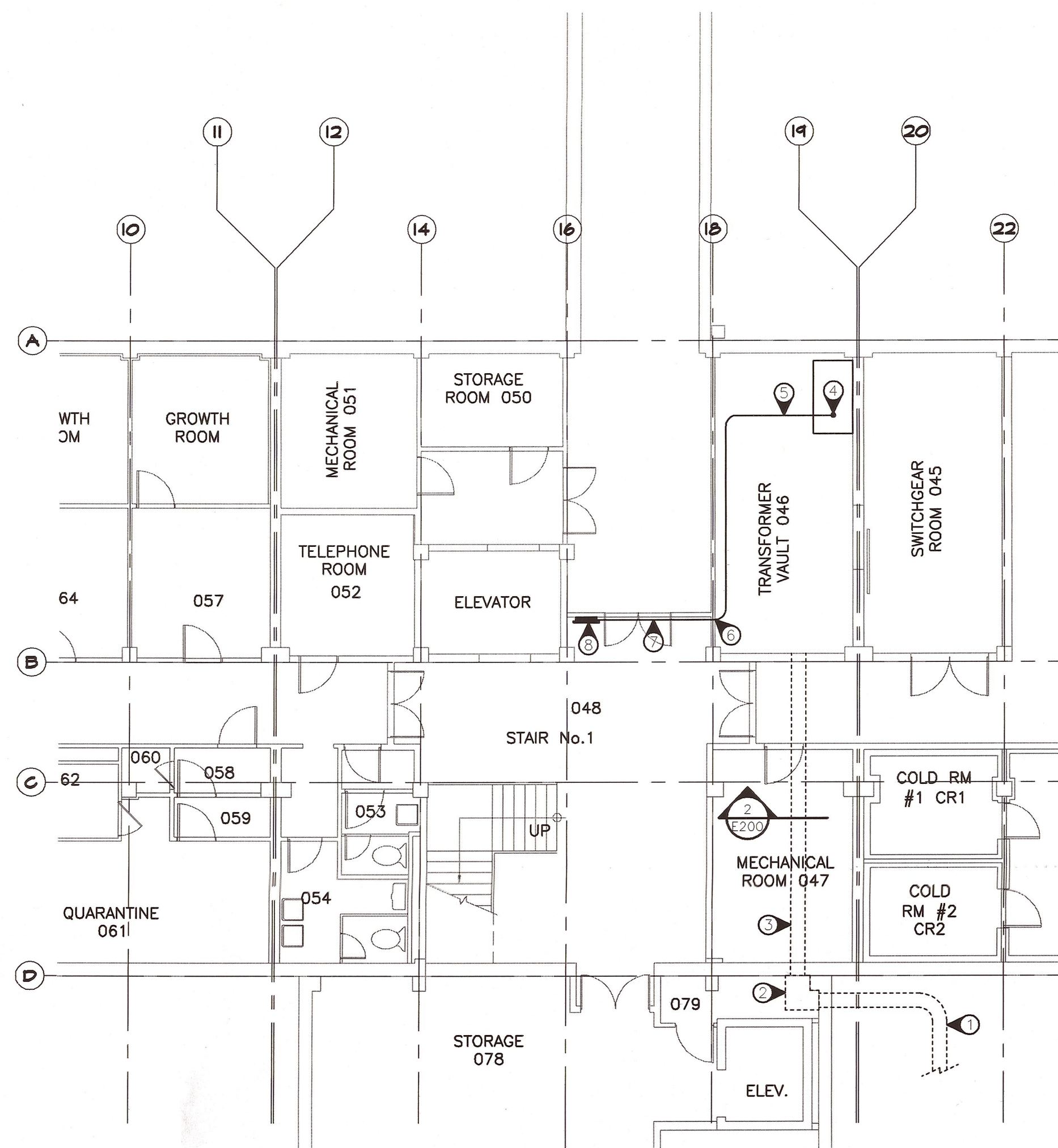
- INSTALL NEW 3x78mm CONCRETE ENCASED RPVC CONDUITS TO NEW CUSTOMER PRIMARY SERVICE KIOSK FROM BC HYDRO PILASTER. CONDUITS TO BE INSTALLED TO BC HYDRO PRIMARY UNDERGROUND SERVICE STANDARD.
- INSTALL NEW 832 OR EQUIVALENT PULLBOX FOR CUSTOMER PRIMARY SERVICE KIOSK.
- NEW PRIMARY SERVICE KIOSK. REFER TO DETAILS 8-11/E200, FOR ADDITIONAL INFORMATION.
- INSTALL NEW 4x78mm RPVC CONDUITS FROM EXISTING PULLBOX TO NEW PRIMARY SERVICE KIOSK.

2 REVISED SITEPLAN E200




NEW CUSTOMER PRIMARY SERVICE KIOSK KEYNOTES

- INSTALL NEW 500W BASE BOARD HEATER WITH INTEGRAL T-STAT INSIDE SERVICE KIOSK. POWER VIA SPARE 78mm CONDUIT.
- INSTALL ANALOG AMMETER IN SERIES WITH BASE BOARD HEATER TO ALLOW CONFIRMATION OF OPERATIONS. INSTALL EXTERIOR T-STAT TO ALLOW TO ADJUSTMENT WITHOUT ENTERING KIOSK. AMMETER AND T-STAT TO BE INSTALLED IN TYPE 3R BOX WITH LOCKABLE LATCHES.



1
E300
LEVEL 0 ELECTRICAL WORK
SCALE 1:100



EXISTING PANELBOARD SCHEDULE

JOB NO./NAME	:	1-15-018/PACIFIC FORESTRY CENTRE
PANEL	:	EXISTING BX-3
SYSTEM	:	120/208V, 3Ø, 4W EMERGENCY POWER
TYPE	:	FEDERAL PIONEER NBC324
LOCATION	:	CORRIDOR 048
MOUNTING	:	SURFACE
NO. CIRCUITS	:	24
BUS SIZE	:	225A
SYM. FAULT RATING	:	10kA

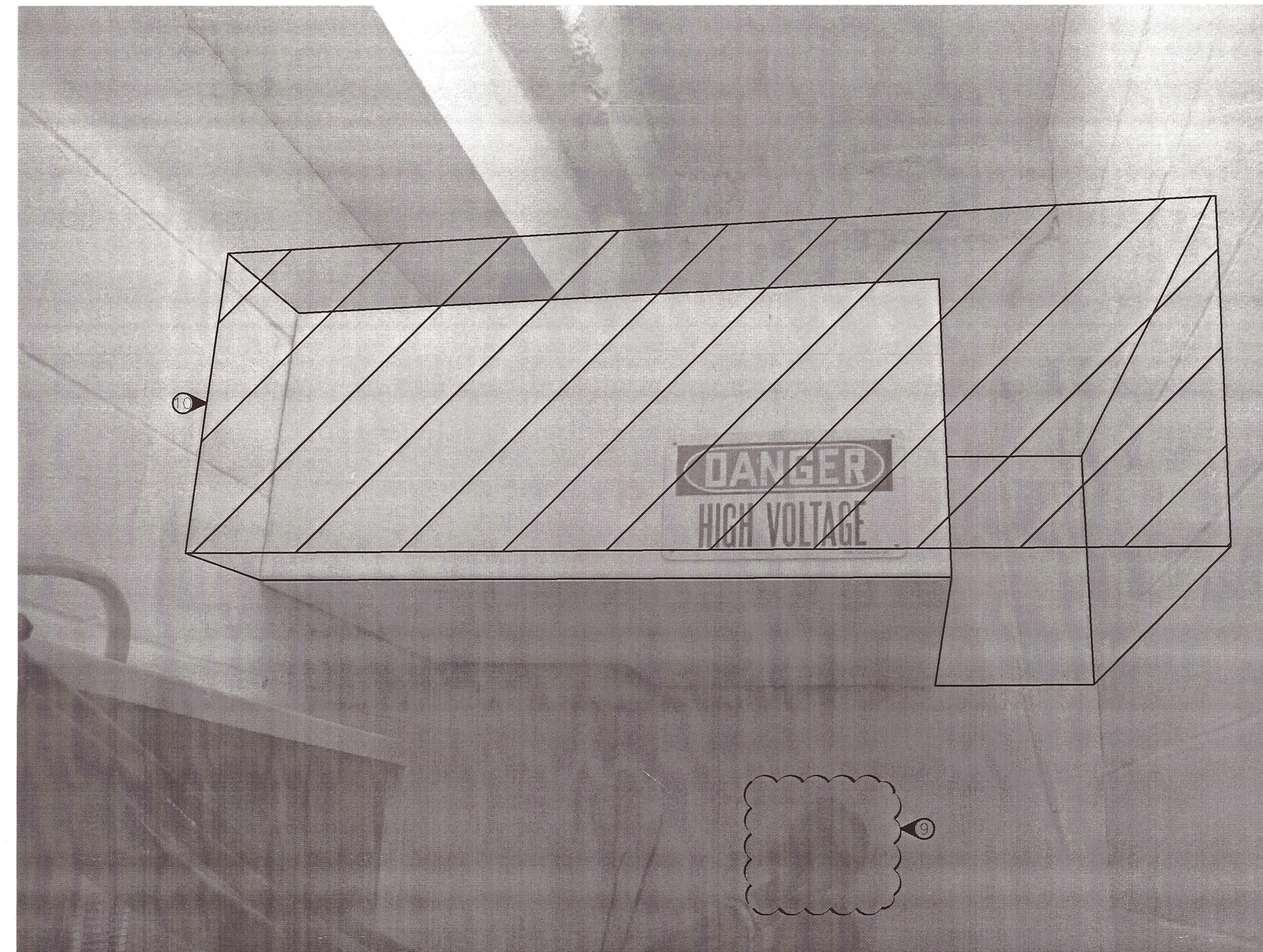
DESCRIPTION	BRK	POLE	CCT	CCT	POLE	BRK	DESCRIPTION
UPS ROOM	*	2	01	02	2	*	RECEPTACLE RM 040
			03	04			
SECURITY PANEL	*	1	05	06	1	*	RECEPTACLE RM 040
CORRIDOR LIGHTS	*	1	07	08	2	*	RECEPTACLE RM 040
STAIR LIGHTS NORTH	*	1	09	10			
RECEPTACLE RM 040	*	2	11	12	1	*	TEL ROOM LIGHT
			13	14	2	*	220V PLUG BY STAIRS
RECEPTACLE RM 040	*	2	15	16			
			17	18	2	*	BIOTRONIC SUB PANEL
TURBO PANEL 7	*	1	19	20			
SECURITY POWER ROOM 047	*	1	21	22	2	*	FREEZER RECEPTACLE RM 040
UPS RM 52	*	1	23	24			

* BREAKER SIZE TO BE CONFIRMED

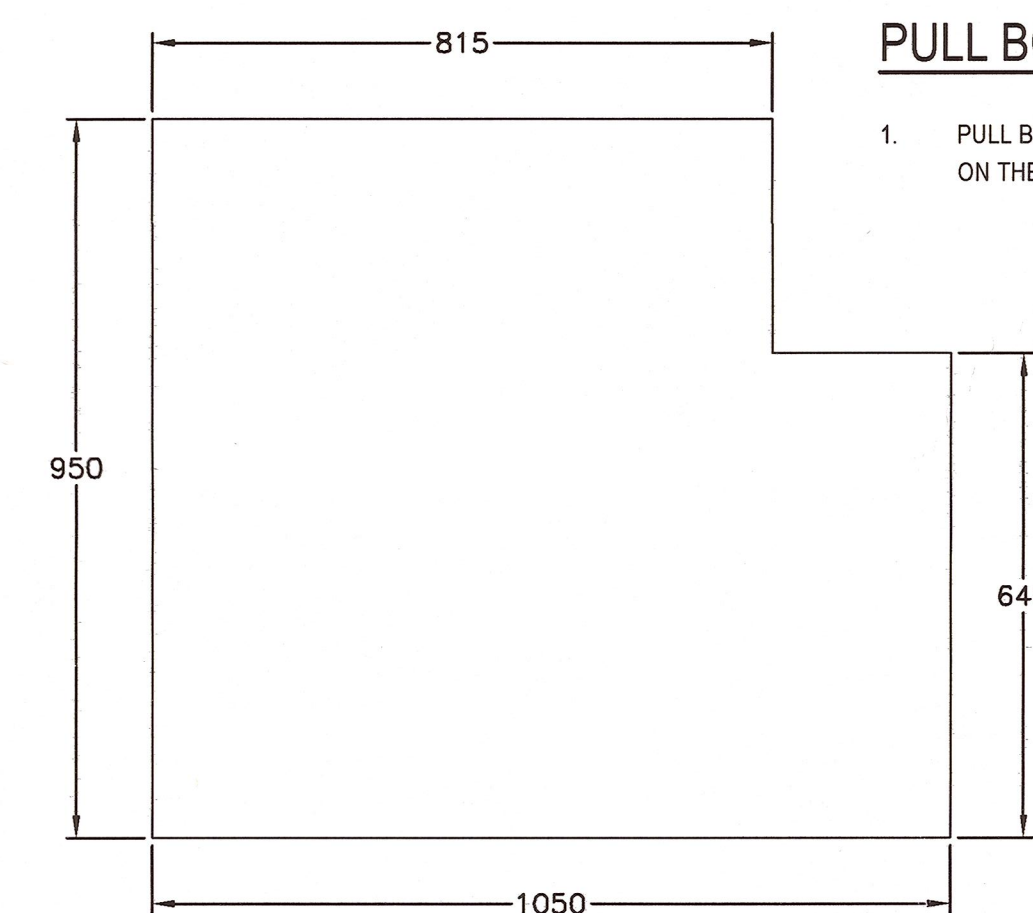
REVISED PANELBOARD SCHEDULE									
JOB NO./NAME	:	1-15-018/PACIFIC FORESTRY CENTRE							
PANEL	:	BX-3							
SYSTEM	:	120/208V, 3Ø, 4W EMERGENCY POWER							
TYPE	:	CDP							
LOCATION	:	CORRIDOR 048							
MOUNTING	:	SURFACE							
NO. CIRCUITS	:	42							
BUS SIZE	:	225A							
SYM. FAULT RATING	:	10kA							
DESCRIPTION		BRK	POLE	CCT	CCT	POLE	BRK	DESCRIPTION	
UPS ROOM		*	2	01	02	2	*	RECEPTACLE RM 040	
				03	04				
SECURITY PANEL		*	1	05	06	1	*	RECEPTACLE RM 040	
CORRIDOR LIGHTS		*	1	07	08	2	*	RECEPTACLE RM 040	
STAIR LIGHTS NORTH		*	1	09	10				
RECEPTACLE RM 040		*	2	11	12	1	*	TEL ROOM LIGHT	
				13	14	2	*	220V PLUG BY STAIRS	
RECEPTACLE RM 040		*	2	15	16				
				17	18	2	*	BIOTRONIC SUB PANEL	
TURBO PANEL 7		*	1	19	20				
SECURITY POWER ROOM 047		*	1	21	22	2	*	FREEZER RECEPTACLE RM 040	
UPS RM 52		*	1	23	24				
				25	26	1	15	MFPR UPS CIRCUIT	
				27	28				
				29	30				
				31	32				
				33	34				
				35	36				
				37	38				
				39	40				
				41	42				
* BREAKER SIZE TO BE CONFIRMED									

KEYNOTES

- EXISTING DUCT BANK TO BE REUSED. REFER TO SITE PLAN 2/E200 FOR ROUTE AND DETAILS.
- EXISTING HIGH VOLTAGE PULL BOX TO BE REPLACED. REFER TO 2/E300 FOR NEW PULL BOX DIMENSIONS.
- EXISTING INDOOR CONCRETE ENCASED DUCT BANK TO REMAIN. REFER TO 3/E300 FOR DUCT BANK DIMENSIONS AND CONSTRUCTION DETAILS.
- MFPR UPS UNIT POWER CONNECTION IN NEW 25kV VACUUM CIRCUIT BREAKER CELL.
- 4x10 UPS POWER CIRCUIT IN 1/2"1mm EMT CONDUIT MOUNTED TO CEILING.
- CORE THROUGH EXISTING CONCRETE WALL SEAL AND FIRESTOP WALL PENETRATION.
- NEW CONDUIT VIA OVERHEAD SUPPORT BRACKETS TO PANEL 'BX-3'.
- EXISTING EMERGENCY POWER PANEL 'BX-3'. REPLACE EXISTING PANEL WITH NEW 42 CIRCUIT PANEL. RECONNECT EXISTING LOADS AND UPDATE PANEL SCHEDULE. COORDINATE WITH PWGSC DEPARTMENTAL REPRESENTATIVE FOR REQUIRED SHUT DOWNS. INSTALL NEW 15A-1P BREAKER IN NEW PANEL FOR MFPR UPS CIRCUIT.
- EXISTING COMMUNICATIONS CABLES. CONTRACTOR TO ENSURE EXISTING TEL/COMM. INFRASTRUCTURE IS NOT DISTURBED BY NEW HIGH VOLTAGE WORK.
- ISOMETRIC VIEW OF NEW HIGH VOLTAGE PULL BOX. FRONT PANEL WILL BE MOUNTED WITH REMOVABLE SCREWS FOR PULL BOX ACCESS.



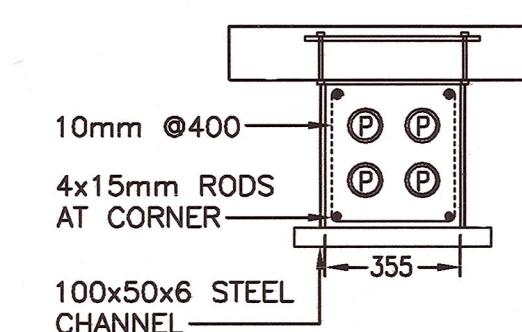
2
E300
HIGH VOLTAGE PULL BOX IN ROOM 029
SCALE NTS



PULL BOX NOTES

- PULL BOX TO BE ACCESSED VIA SCREWS LOCATED ON THE FRONT FACE OF THE NEW PULL BOX.

3
E300
NEW HIGH VOLTAGE PULL BOX DIMENSIONS
SCALE 1:10



4
E300
EXISTING INDOOR HIGH VOLTAGE DUCT BANK
SCALE NTS

Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES

Pacific Region

SERVICES IMMOBILIERS

Région de Pacifique

Victoria Office

2nd Floor 1815 Blenheim St.

Victoria, B.C. V8M 5M4

Tel: 250.381.6121

Fax: 250.381.6811

www.appliedengineering.ca

KEYPLAN

PROJECT NORTH

5		
4		
3		
2	ISSUED FOR TENDER	2015/06/02
1	ISSUED FOR 100% TENDER	2015/03/31
0	ISSUED FOR 66% REVIEW	2015/02/26
Revision/Revision	Description/Description	Date/Date
Client/client		
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA		
506 BURNSIDE ROAD VICTORIA, BC, V8Z 1M5		
Project title/Titre du projet PACIFIC FORESTRY CENTRE 506 WEST BURNSIDE MAIN BREAKER REPLACEMENT		
PACIFIC FORESTRY CENTRE MAIN BREAKER REPLACEMENT		
Consultant Signature Box Only		
Designed by/Concept par I.A.B.		
Drawn by/Dessiné par J.B. / S.S.		
PWGSC Project Manager/Administrateur de Projets TP5GC Ken Nielson		
PWGSC, Regional Manager, Architectural and Engineering Services/ Gestionnaire régionale, Services d'architecture et de génie, TP5GC Froestipal Paul		
Drawing title/Titre du dessin LEVEL 0 ELECTRICAL WORK DETAILS		
Project No./No. du projet R.075164.001	Sheet/Fauille E300	Revision no./ La Révision no. 2



KEYPLAN



5		
4		
3		
2	ISSUED FOR TENDER	2015/06/02
1	ISSUED FOR 100% TENDER	2015/03/31
0	ISSUED FOR 66% REVIEW	2015/02/26
Revision/ Revision	Description/Description	Date/Date

Client/client
**PUBLIC WORKS AND
GOVERNMENT SERVICES
CANADA**

506 BURNSIDE ROAD
VICTORIA, BC, V8Z 1M5

Project title/Titre du projet
**PACIFIC FORESTRY CENTRE
506 WEST BURNSIDE MAIN
BREAKER REPLACEMENT**

**PACIFIC FORESTRY
CENTRE MAIN BREAKER
REPLACEMENT**

Consultant Signature Box Only

Designed by/Concept par
I.A.B.
Drawn by/Dessiné par
J.B./S.S.

PWGSC Project Manager/Administrateur de Projets TPSCG
Ken Nielson

PWGSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architectural et de génie, TPSCG
Prestipal Paul

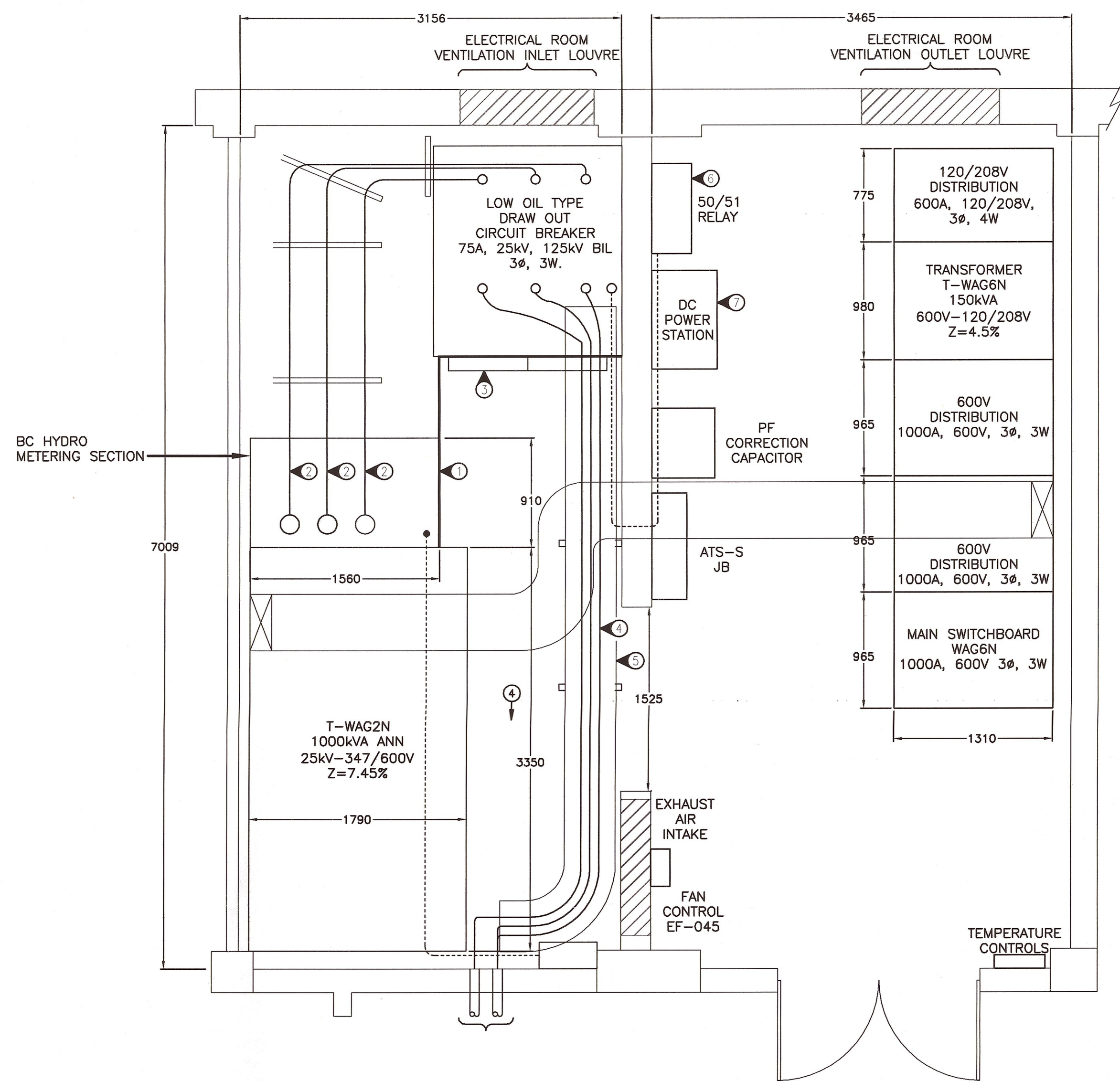
Drawing title/Titre du dessin

**PACIFIC FORESTRY CENTRE
EXISTING AND REVISED
ELECTRICAL ROOM**

Project No./No. du projet
R.075164.001

Sheet/Feuille
E400

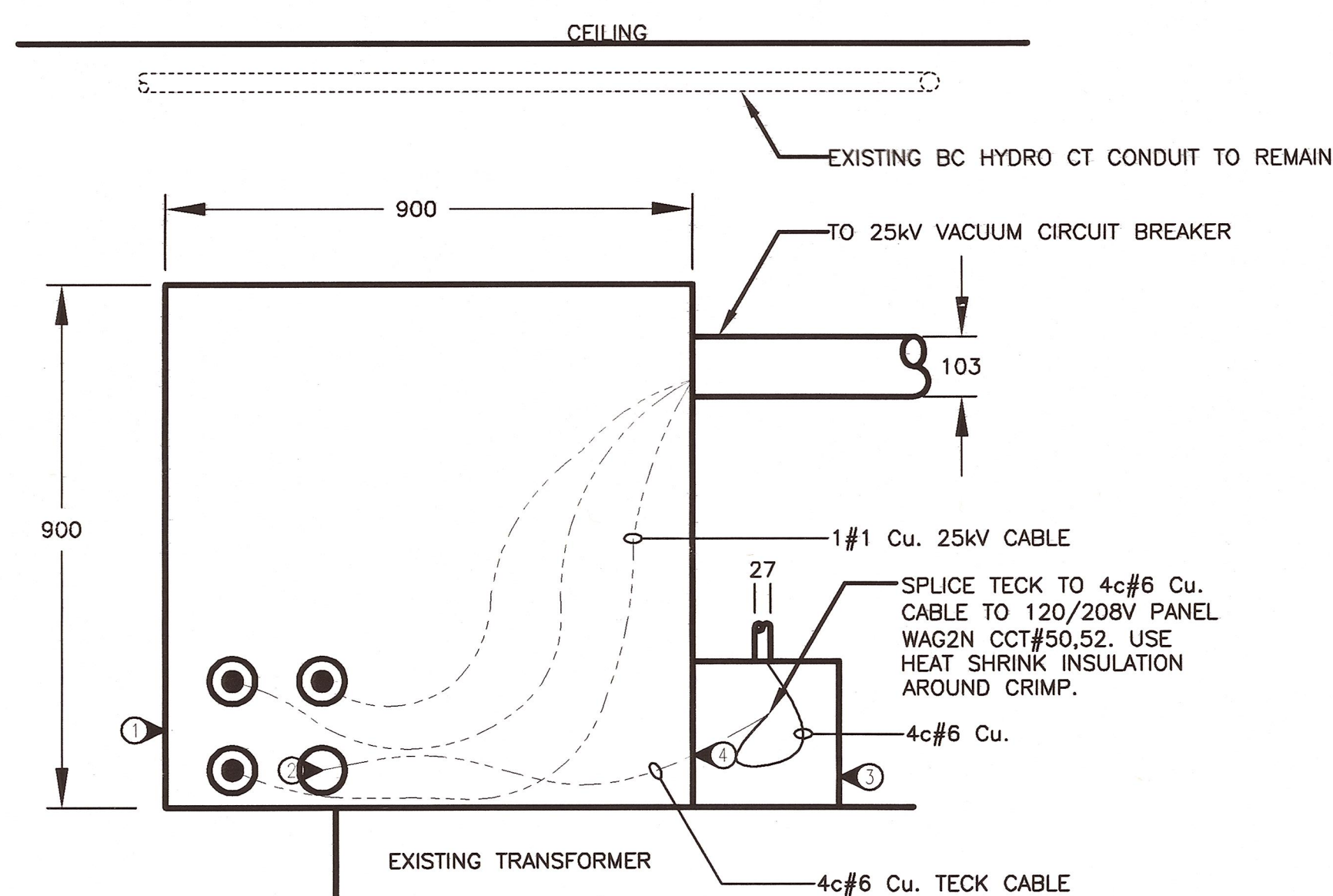
Revision no./
La Révision
no.
2



1
E400 EXISTING ELECTRICAL ROOM LAYOUT
SCALE 1:30

EXISTING ELECTRICAL NOTES

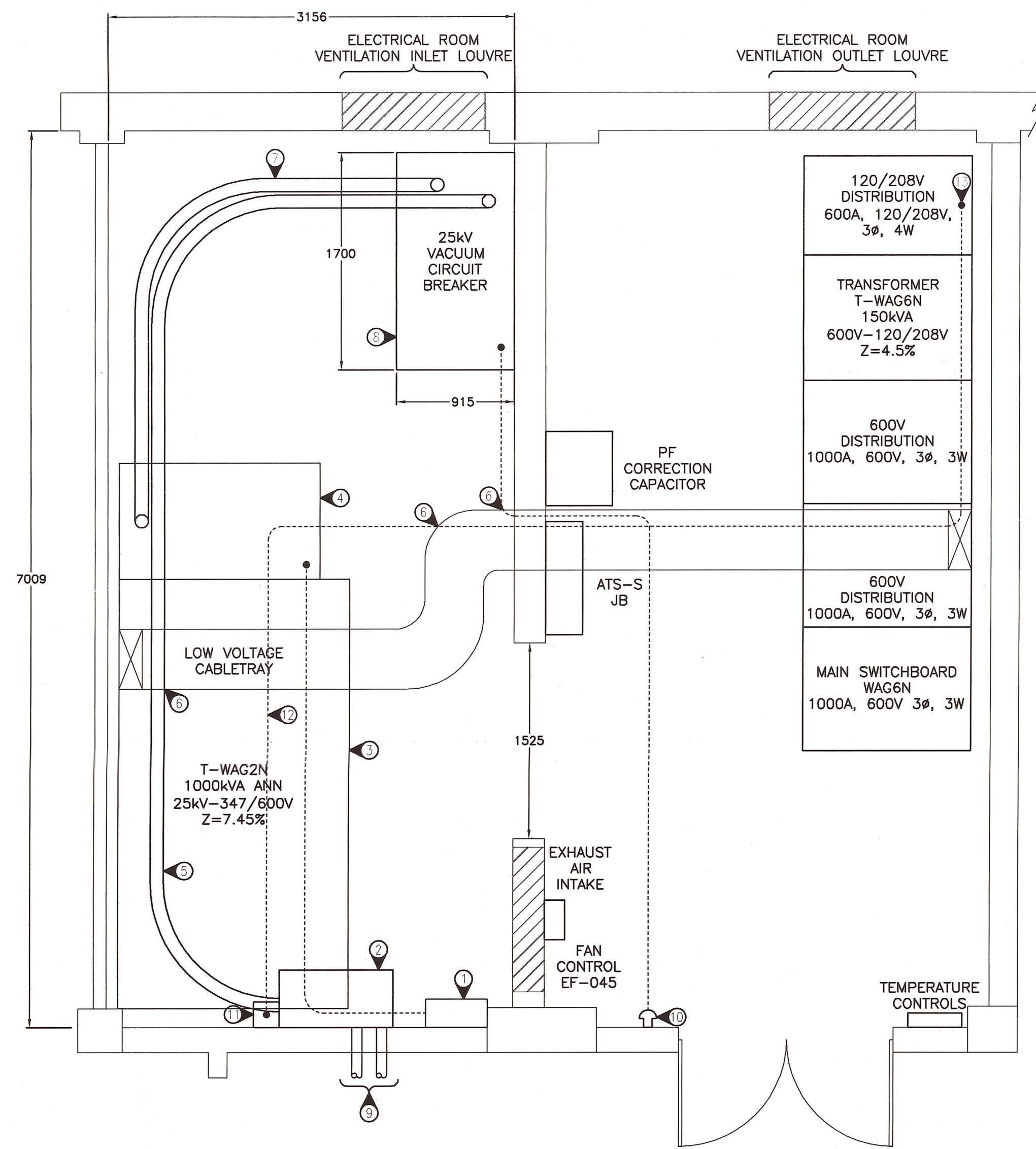
- REMOVE EXISTING METAL GRILL BARRIER BETWEEN HIGH VOLTAGE BREAKER AND BC HYDRO METERING SECTION AND DISPOSE OF.
- DISCONNECT AND DISPOSE OF EXISTING HIGH VOLTAGE CONDUCTORS, INSULATORS, BRACKETS AND NEUTRAL CONNECTIONS. CONTRACTOR TO PROVIDE PCB TESTING ON BREAKER OIL AND DISPOSE OF EQUIPMENT AS REQUIRED.
- EXISTING FPE OIL FILLED BREAKER TO BE DISCONNECTED. BREAKER MUST REMAIN IN ROOM UNTIL ALL OIL IS REMOVED. CONTRACTOR TO TEST OIL PCB LEVELS PRIOR TO REMOVING OIL AND DISPOSE OF AS REQUIRED BY TEST RESULTS.
- BC HYDRO TO DISCONNECT AND REMOVE EXISTING SINGLE CONDUCTOR 25KV CONCENTRIC NEUTRAL CABLES FROM MAIN ELECTRICAL ROOM TO PULL PIT LOCATED NEAR BASE OF EXISTING HYDRO SERVICE POLE. CONTRACTOR TO LOCATED AND EXPOSE ALL PULL BOXES FOR BC HYDRO CREWS.
- REMOVE AND DISPOSE OF EXISTING HIGH VOLTAGE CABLE TRAY AND ASSOCIATED MOUNTING HARDWARE.
- REMOVE EXISTING PROTECTION RELAYS AND TURN OVER TO DEPARTMENTAL REPRESENTATIVE, AND DISPOSE OF ASSOCIATED WIRING, CONDUITS AND ENCLOSURES.
- REMOVE AND DISPOSE OF EXISTING DC POWER SUPPLY. REMOVE ASSOCIATED WIRING AND CONDUITS. TURN OFF AND MARK 120/208V SUPPLY BREAKER IN PANEL WAG2N AS SPARE.



3
E400 PULL BOX DETAIL
NTS

NEW PULL BOX NOTES

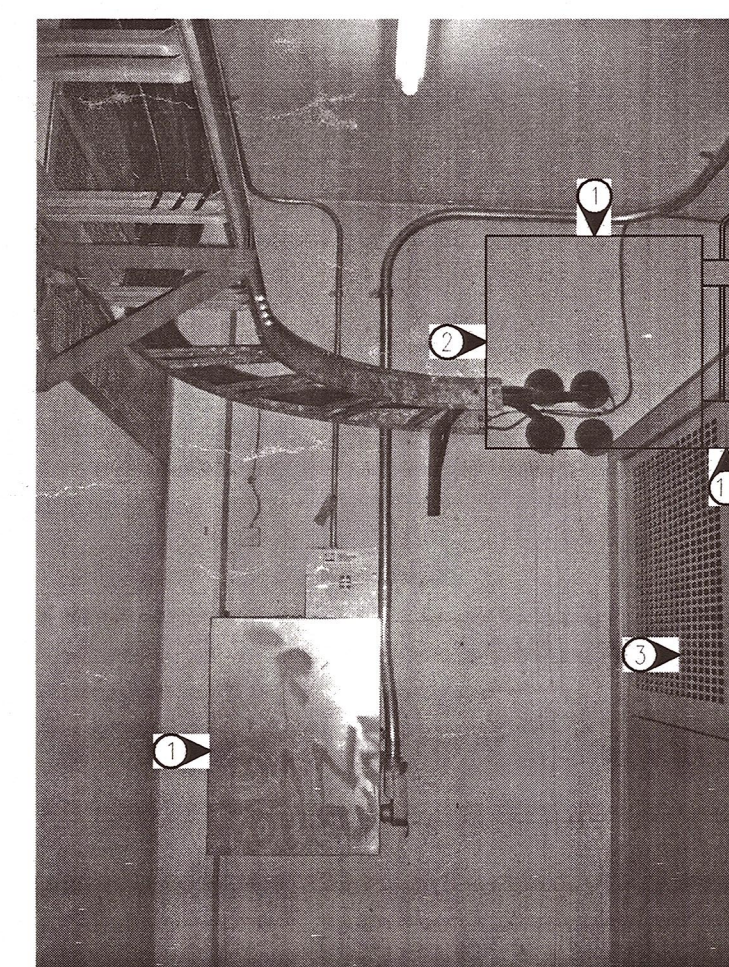
- ELECTRICAL CONTRACTOR TO OBTAIN VARIANCE FROM BC SAFETY AUTHORITY TO ALLOW FOR NEW CONSTRUCTION TO BE UNDERTAKEN AS SHOWN.
- PULL NEW 4c#6 TECK CABLE IN SPARE 78mm CONDUIT FOR SERVICE ENTRANCE KIOSK POWER CIRCUITS.
- 200x200x200mm SPLICE BOX
- SEAL PENETRATION BETWEEN NEW PULL BOX AND SPLICE BOX TO MAINTAIN SYSTEM SEPARATIONS.



2
E400 REVISED ELECTRICAL ROOM LAYOUT
SCALE 1:30

REVISED ELECTRICAL NOTES

- EXISTING BC HYDRO METER TO AND CONDUIT TO REMAIN. NEW HV CONDUITS AND PULL BOXES TO BE INSTALLED BELOW EXISTING CEILING MOUNTED CT CONDUIT.
- INSTALL NEW 900mm WIDE x 900mm TALL x 450mm DEEP, HIGH VOLTAGE PULL BOX. MOUNT TO WALL ABOVE EXISTING TRANSFORMER. SEE 3/E400 FOR PULL BOX DETAIL.
- EXISTING 1000kVA TRANSFORMER. RE-ESTABLISH X₀ GROUNDING INSIDE EXISTING TRANSFORMER AND RECONNECT TO EXISTING GROUND BUS AND GROUND GRID. REPLACE EXISTING TRANSFORMER THERMAL OVERLOAD AND TEMPERATURE INDICATOR DEVICE AND CONNECT TO EXISTING EF-05 FAN CONTROL PANEL AND NEW MFPR IN 25kV VACUUM CIRCUIT BREAKER. WHILE SYSTEM IS DE-ENERGIZED CLEAN AND TEST EXISTING TRANSFORMER. TEST CORE, COILS, BUS BARS, INSULATORS AND TORQUE ON BOLTS.
- EXISTING BC HYDRO METERING SECTION, WHILE SYSTEM IS DE-ENERGIZED CLEAN AND TEST EQUIPMENT. CLEAN AND TEST BUS BARS, INSULATORS AND TORQUE ON BOLTS. REPLACE EXISTING FIBRE GLASS ENTRY PLATE ON CELL ROOF WITH NEW STEEL PLATE SIZED TO MATCH NEW 103mm CONDUIT.
- 1x103mm GRS CONDUIT MOUNTED TO CEILING, USE CANTRUS SPACERS TO TO AVOID EXISTING CEILING MOUNTED CONDUITS. CONDUIT TO FOLLOW ROUTE AS SHOWN AND ENTER TOP OF NEW 25kV VACUUM CIRCUIT BREAKER. ENSURE CONDUIT BENDS MEET MINIMUM BENDING RADII FOR HIGH VOLTAGE CONDUCTORS AS DEFINED IN CANADIAN ELECTRICAL CODE.
- ENSURE NEW CONDUITS DO NOT INTERFERE WITH EXISTING LOW VOLTAGE CABLETRAY.
- 1x103mm GRS CONDUIT CEILING MOUNTED CONDUIT, TO FOLLOW ROUTE AS SHOWN AND ENTER TOP OF EXISTING BC HYDRO METERING COMPARTMENT. PULL NEW 3x1c#1 Cu. 25kV CABLE FROM VACUUM CIRCUIT BREAKER SECONDARY TO TERMINAL LUGS IN HYDRO METERING SECTION.
- NEW 25kV, 75A RATED VACUUM CIRCUIT BREAKER WITH LINE AND LOAD SIDE TOP FEED CONFIGURATION. NEW BREAKER TO BE PROTECTED BY TYPE 1 MFPR. REFER TO SINGLE LINE AND THREE LINE DIAGRAM FOR MFPR WIRING INFORMATION. MFPR TO BE POWERED FROM EMERGENCY CIRCUIT FROM PANEL 'BX-3'. SEE SHEET 1/300 FOR PANEL LOCATION. BREAKER TO BE EQUIPPED WITH HINGED, ACCESSIBLE LOW VOLTAGE COMPARTMENT THAT ALLOWS WORK ON LOW VOLTAGE DEVICES AND WIRING WITHOUT EXPOSURE TO HIGH VOLTAGE COMPONENTS. BREAKER TO HAVE TIME DELAY OPEN/CLOSE FUNCTIONALITY ON BREAKER OPEN/CLOSE BUTTONS ON FRONT PANEL. INSTALL KEY INTERLOCK BETWEEN VACUUM CIRCUIT BREAKER AND EXISTING BC HYDRO METERING COMPARTMENT.
- PULL AND CONNECT NEW 3x1c#1, 25kV CABLE FROM NEW VACUUM CIRCUIT BREAKER PRIMARY LUGS TO NEW CUSTOMER PRIMARY SERVICE KIOSK. REFER TO SHEET E200 FOR KIOSK AND SITE PLAN DETAILS. INSTALL NEW KEY INTERLOCK BETWEEN BC HYDRO METERING SECTION AND NEW VACUUM CIRCUIT BREAKER.
- HARDWIRED REMOTE OPERATOR. ROTARY OPEN/TRIP SWITCH MOUNTED Ø1500mm A.F.F. WIRE BACK IN 21mm EMT CONDUIT TO NEW 25kV BREAKER RELAY. TO BE EQUIPPED WITH LOCKABLE COVER PLATE WITH "MAIN BREAKER TRIP/CLOSE" CLEARLY WRITTEN ON COVER PLATE.
- 200x200x200mm SPLICE BOX.
- 1x27mm CONDUIT MOUNTED TO CEILING FROM NEW SPLICE BOX TO EXISTING 120/208V PANEL WAG2N.
- INSTALL NEW 15A 2P BREAKER AND MARK WITH LAMACOID LABEL 'SERVICE ENTRANCE KIOSK'



4
E400 PULL BOX LOCATION
NTS



5		
4		
3		
2	ISSUED FOR TENDER	2015/0
1	ISSUED FOR 100% TENDER	2015/0
0	ISSUED FOR 66% REVIEW	2015/0
Revision/ Sequence	Description/Description	Date/Date

506 BURNSIDE ROAD
VICTORIA, BC, V8Z 1M5

PACIFIC FORESTRY CENTRE MAIN BREAKER REPLACEMENT

Consultant Signature Box Only

Designed by/Concept par
I.A.B.

Drawn by/Dessine par
J.B. / S.S.

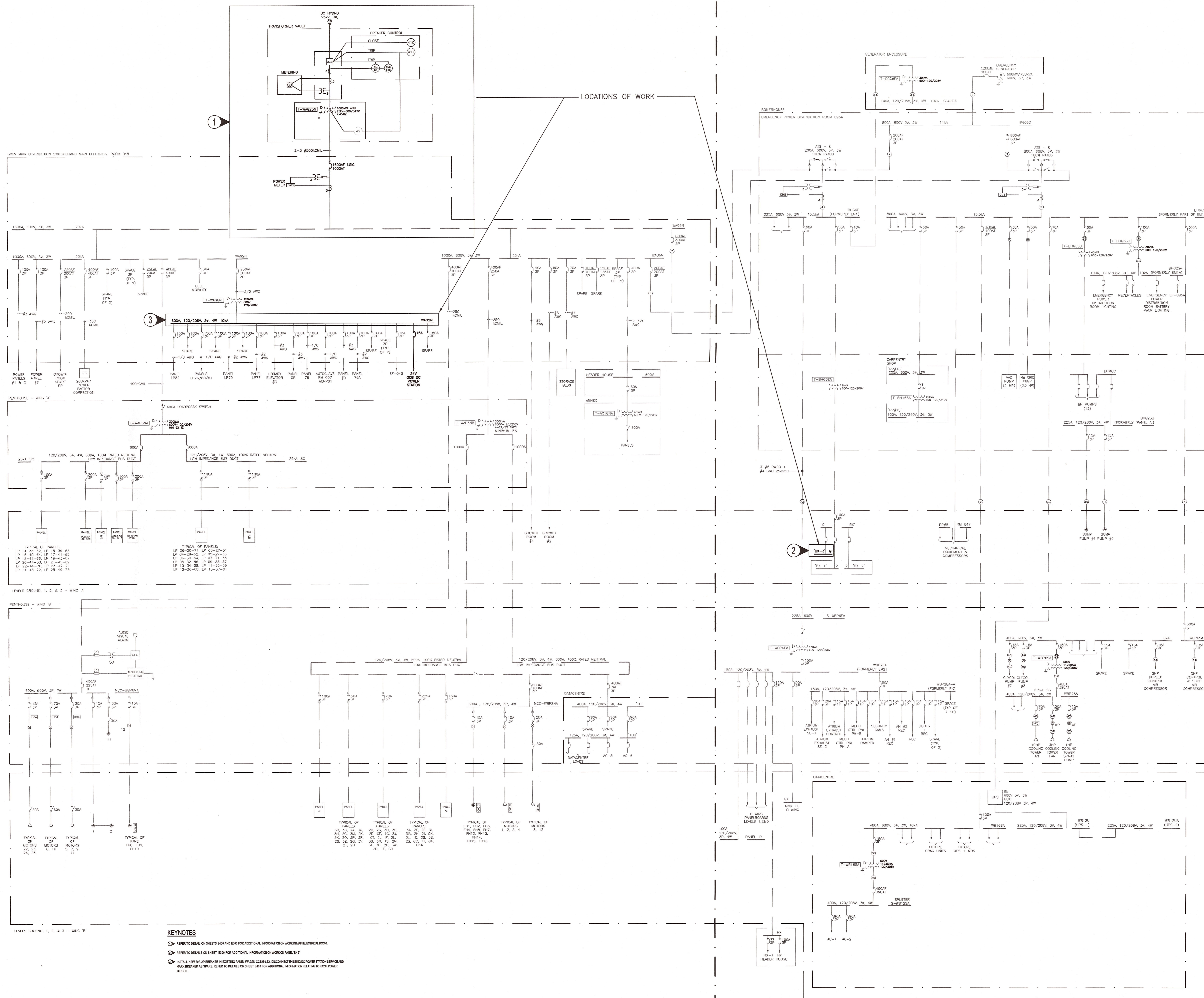
PWGSC Project Manager/Administrateur de Projets TPSGC
Ken Nielson

PWGSC, Regional Manager, Architectural and Engineering Services/
 Gestionnaire régionale, Services d'architecture et de génie, TPSGC
Preetipal Paul

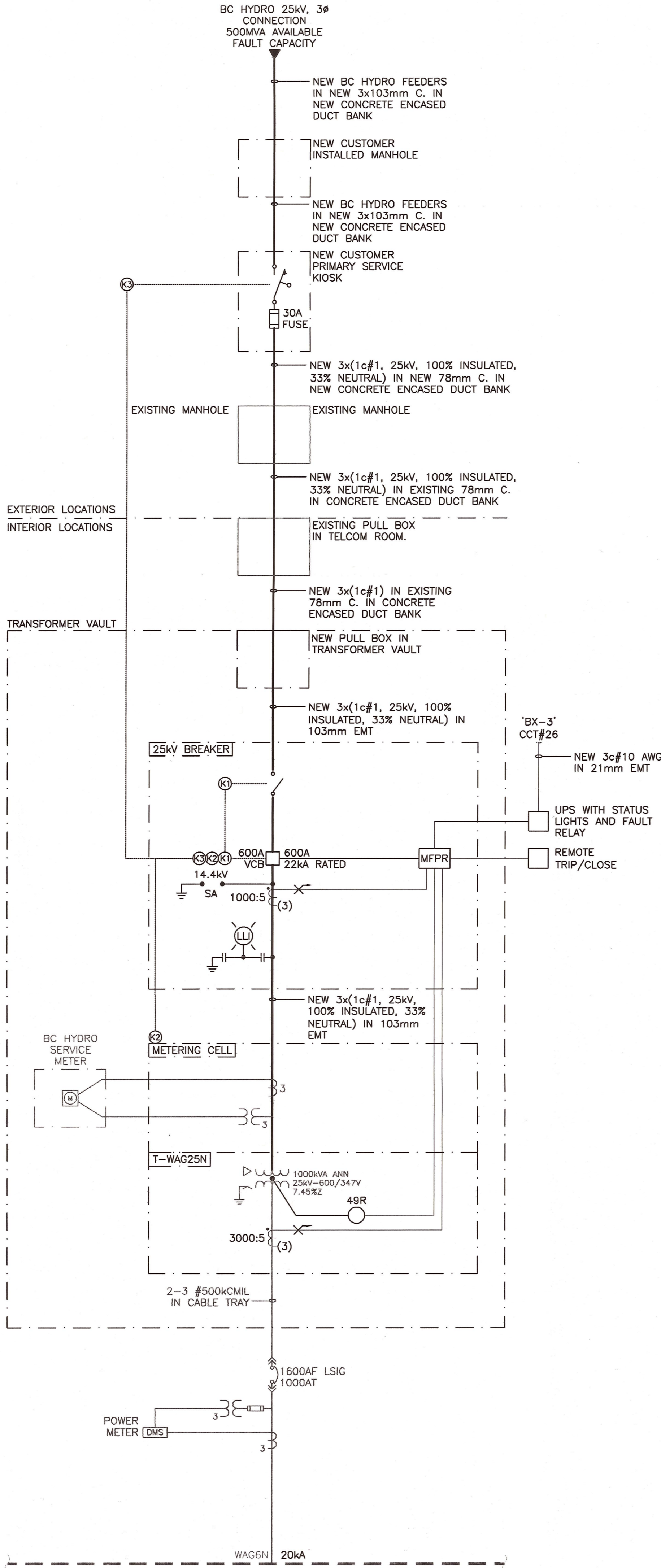
Drawing title/Titre du dessin

EXISTING SINGLE LINE DIAGRAM

Project No./No. du projet	Sheet/Feuille	Revision no. La Révision no.
R.075164.001	E500	2



Plot Date: September 8, 2015 10:21 AM Printed by: Shawn Seymour
File Name: H:\PROJECTS\2015\1-15-018\DWG\1-15-018 - E600 - REV_SINGLE LINE.DWG
PWSC - B1 - 1000707



NOTE

CONTRACTOR TO DOCUMENT EXISTING POWER METER AND PROTECTION CIRCUITS
AND PROVIDE THREE LINE AS BUILT CAD DRAWINGS. CONTRACTOR TO PROVIDE
AUTOCAD SHOP DRAWINGS OF ALL NEW + EXISTING METERING AND PROTECTION
THREE LINE DIAGRAMS.



KEYPLAN



5		
4		
3		
2	ISSUED FOR TENDER	2015/06/02
1	ISSUED FOR 100% TENDER	2015/03/31
0	ISSUED FOR 66% REVIEW	2015/02/26

Revision/Revision Description/Description Date/Date

Client/client

PUBLIC WORKS AND
GOVERNMENT SERVICES
CANADA

506 BURNSIDE ROAD
VICTORIA, BC, V8Z 1M5

Project title/Titre du projet
PACIFIC FORESTRY CENTRE
506 WEST BURNSIDE MAIN
BREAKER REPLACEMENT

PACIFIC FORESTRY
CENTRE MAIN BREAKER
REPLACEMENT

Consultant Signature Box Only

Designed by/Concept par
I.A.B.

Drawn by/Dessiné par
J.B. / S.S.

PWSC Project Manager/Administrateur de Projets TPSCG
Ken Nielson

PWSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSCG
Prestipal Paul

Drawing title/Titre du dessin

REVISED SINGLE LINE DIAGRAM

Project No./No. du projet	Sheet/Fauille	Revision no./ La Révision no.
R.075164.001	E600	2