# GULF OF GEORGIA CANNERY ADMINISTRATION BUILDING

BUILDING ENCLOSURE RENEWALS

# ADMINISTRATION

# ADDRESS:

12138 Fourth Avenue, RICHMOND, BC

### **ARCHITECTURAL DRAWINGS:**

A-0.0 COVER SHEE
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SITE AND EXTERIOR DEMOLITION PLAN

FLOOR PLAN

**ROOF PLAN** 

REFLECTED CEILING PLAN

**BUILDING ELEVATIONS** 

WINDOW & DOOR SCHEDULE

SCHEDULES AND DETAIL DRAWINGS

DETAIL DRAWINGS **DETAIL DRAWINGS** 

DETAIL DRAWINGS

### STRUCTURAL DRAWINGS:

STRUCTURAL SCHEDULES AND NOTES

FOUNDATION PLAN

ROOF FRAMING PLAN

**DETAIL DRAWINGS** 

**DETAIL DRAWINGS** 

### **MECHANICAL DRAWINGS:**

MECHANICAL DEMOLITION PLAN

MECHANICAL FLOOR PLAN

MECHANICAL ROOM PLAN

MECHANICAL ROOM SECTIONS

MECHANICAL ROOM SECTIONS MECHANICAL ROOM DETAILS

### **ELECTRICAL DRAWINGS:**

**ELECTRICAL COVER SHEET** 

ELECTRICAL SITE PLAN ELECTRICAL PLAN LIGHTING

ELECTRICAL PLAN LIGHTING

ELECTRICAL PLAN

ELECTRICAL MECHANICAL ROOM MECHANICAL ROOM SECTIONS

ELECTRICAL POWER ROUTING MUSEUM TO ADMINISTRATION BUILDING

PANEL SCHEDULES, LIGHTING SCHEDULES AND LEGENDS

ELECTRICAL BUILDING SECTION EAST ELEVATION

ELECTRICAL NOTES - SHEET 1 OF 2 E11

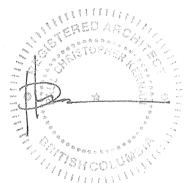
ELECTRICAL NOTES - SHEET 2 OF 2

Public Works And Travaux publics et Services gouvernementau

SERVICES IMMOBILIERS



- APPLICABLE PROJECT CODE AND STANDARDS FOR ARCHITECTURAL AND BUILDING ENCLOSURE DESIGN: 2015 NBC, PARTS 9 AND 5, RESPECTIVELY.
- DRAWINGS WERE PREPARED BASED ON ORIGINAL ARCHITECTURAL DRAWINGS DATED APRIL 1967. ORIGINAL ARCHITECT UNKNOWN.
- . CONTRACTOR TO VERIFY ALL DIMENSIONS AND WORK. CONSULTANT SHALL BE INFORMED OF ANY VARIATIONS AS SHOWN ON THE DRAWINGS. DIMENSIONS SHOWN ON THE DRAWINGS ARE BASED ON EXISTING DRAWING INFORMATION. CONTRACTORS AND TRADES ARE RESPONSIBLE TO PRICING PURPOSES. THE BUILDING IS EXISTING AND AVAILABLE FOR REVIEW.
- 4. IT IS NOT THE INTENTION OF THE PROJECT TO UPGRADE THE EXISTING BUILDING OUTSIDE THE SCOPE OF WORK DESCRIBED BY THIS SET OF



4	ISSUED FOR TENDER	APR. 10, 2017		
3	ISSUED FOR TENDER	FEB. 22, 2017		
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PARKS CANADA WESTERN REGION STEVESTON, B.C. NATIONAL HISTORIC SITE

**GULF OF GEORGIA CANNERY** ADMINISTRATION BUILDING

12138 Fourth Ave., Richmond B.C.

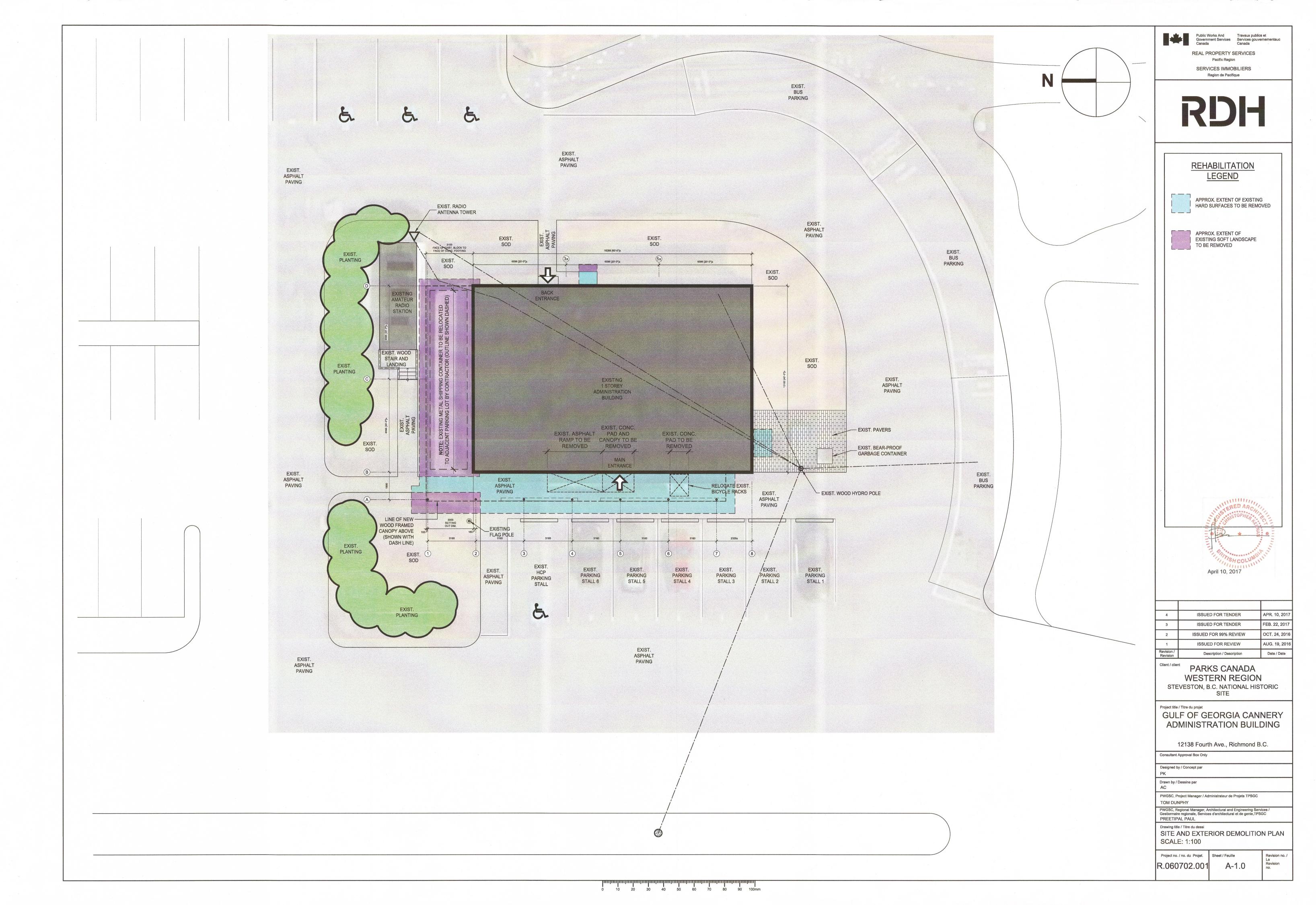
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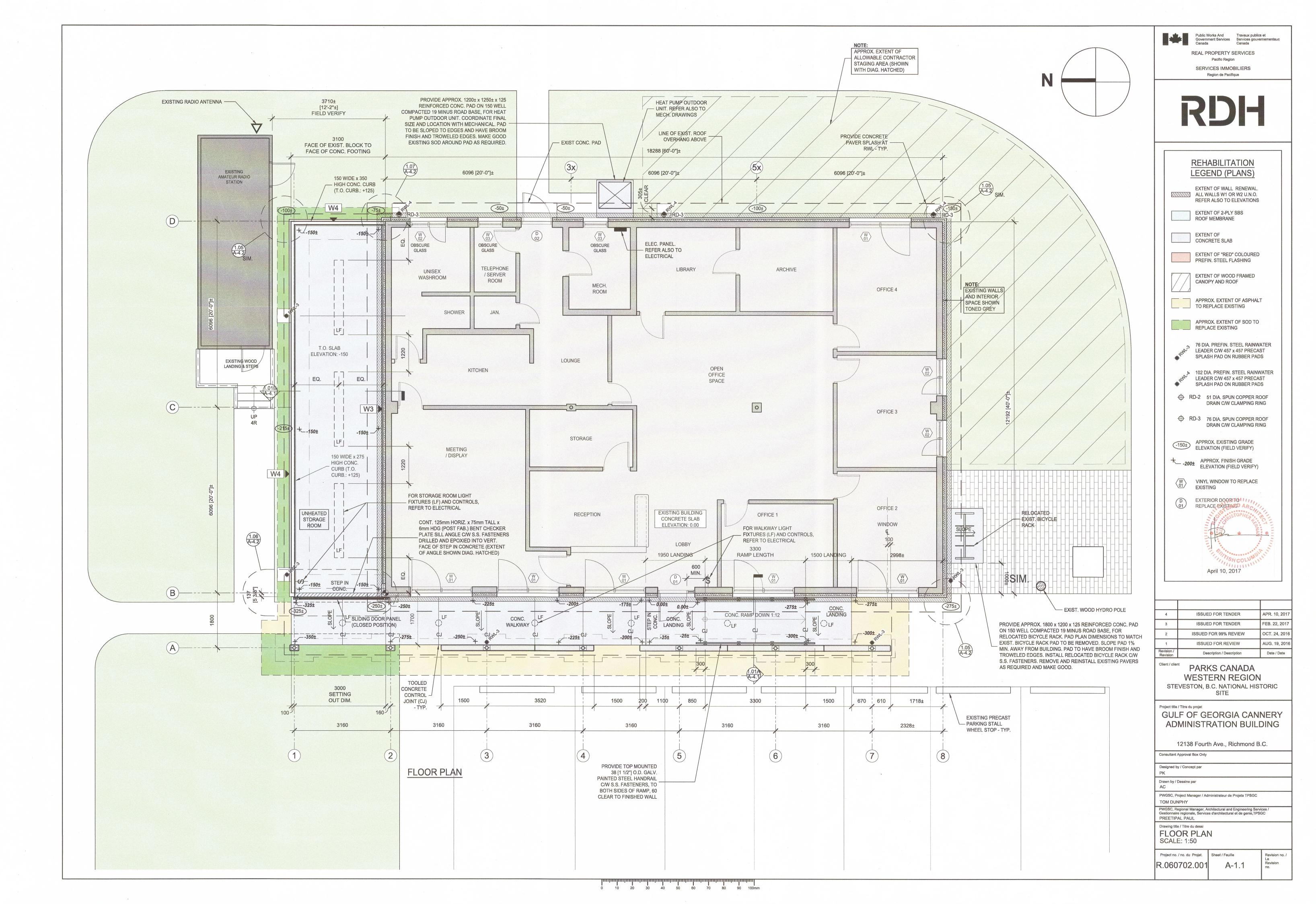
Designed by / Concept par

PREETIPAL PAUL

COVER SHEET SCALE: ---

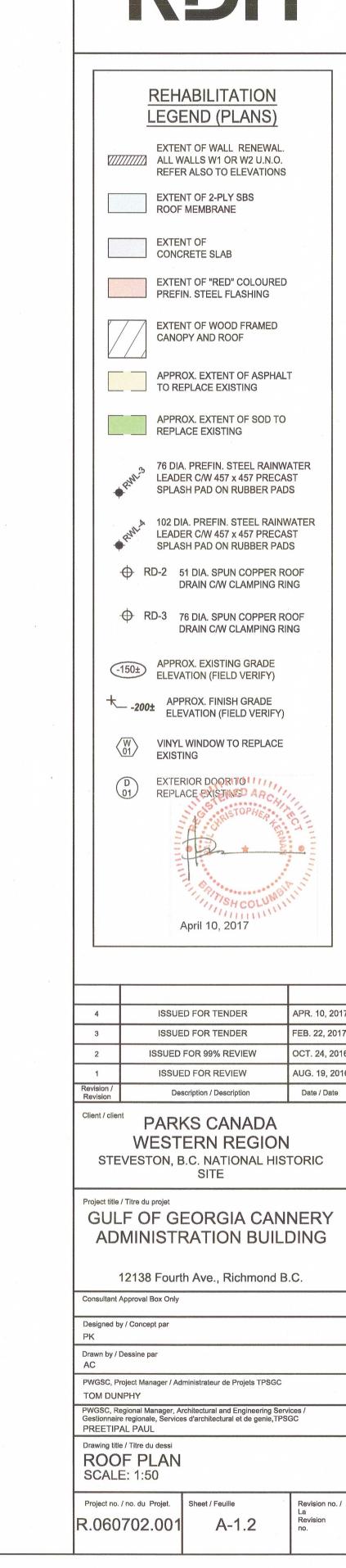
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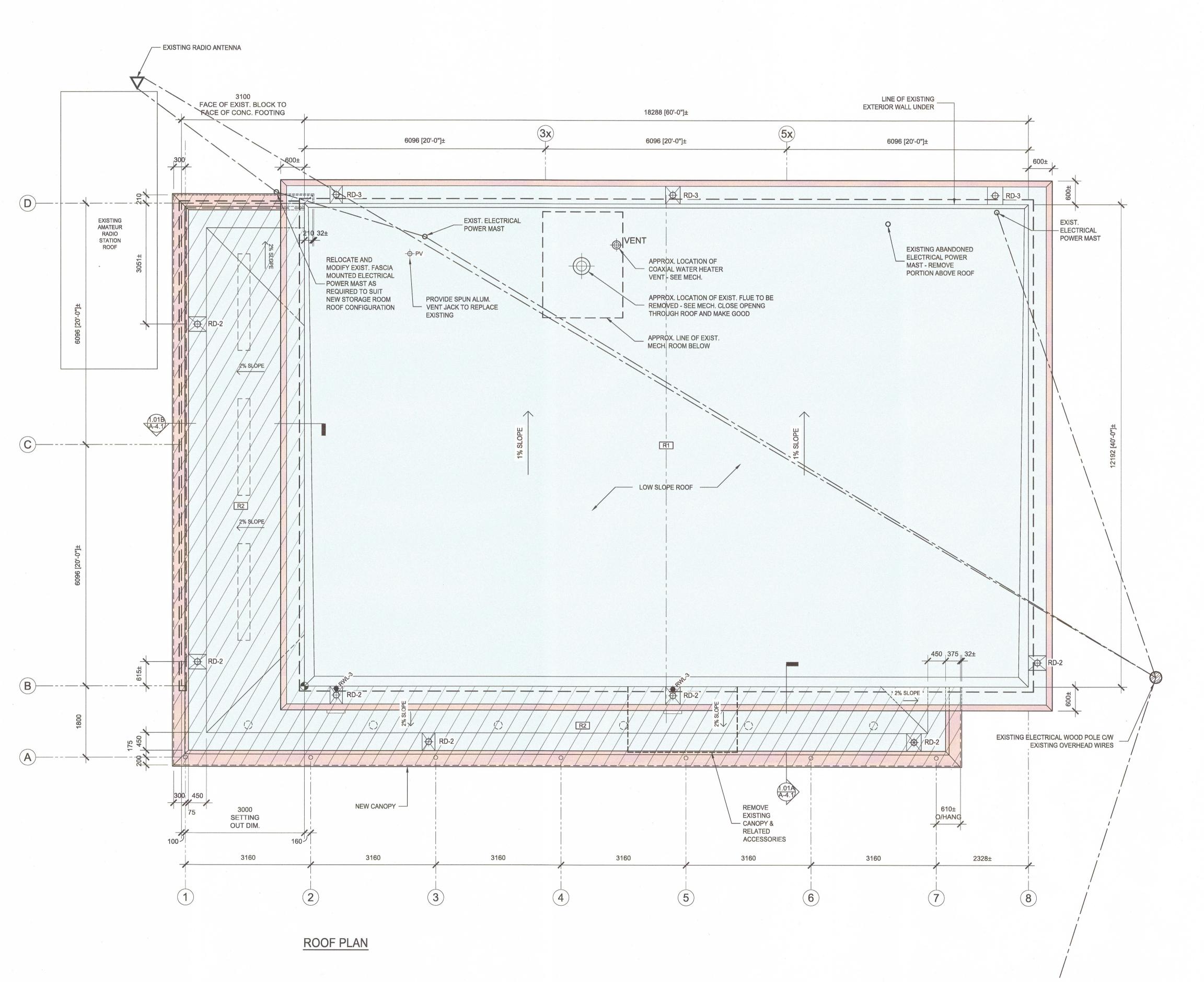




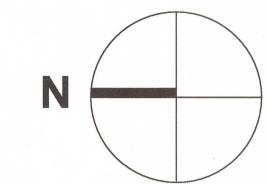
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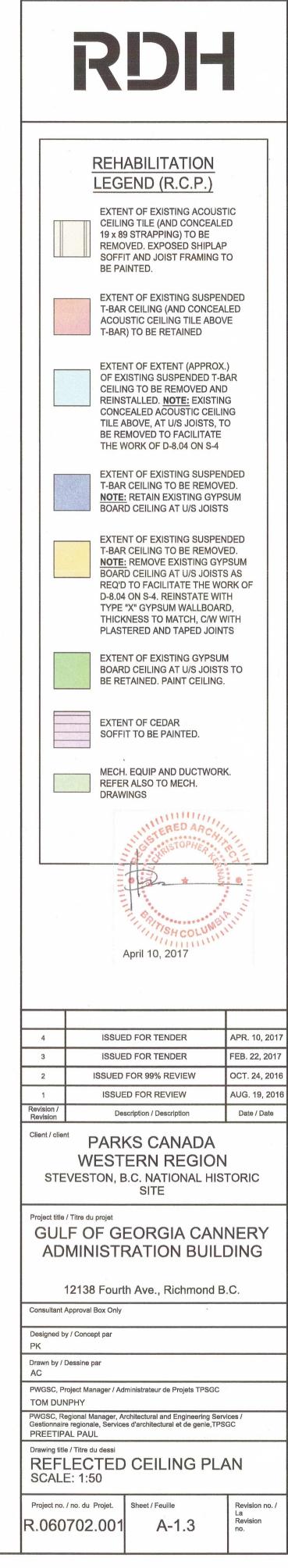
REAL PROPERTY SERVICES Pacific Region SERVICES IMMOBILIERS Region de Pacifique





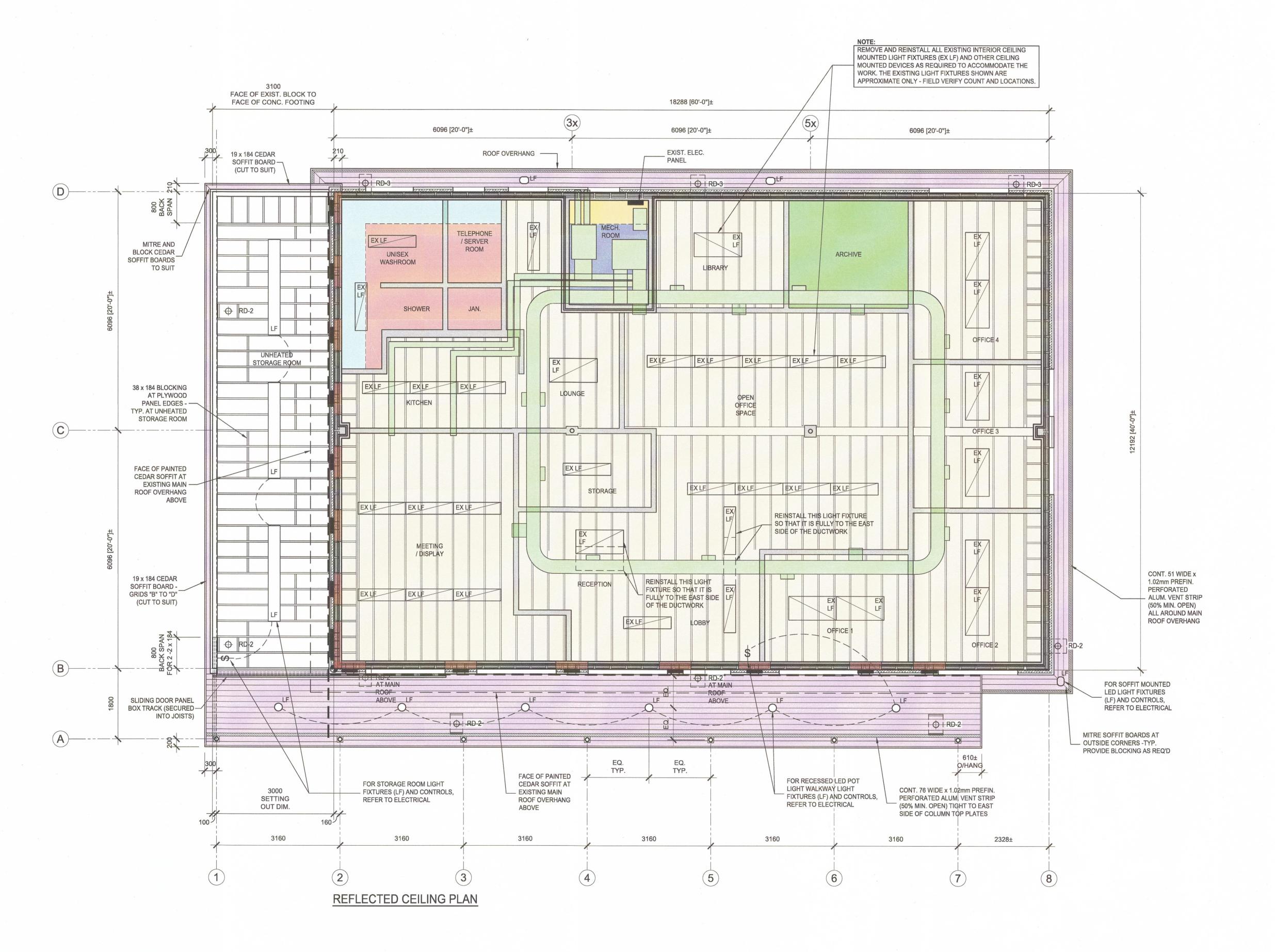


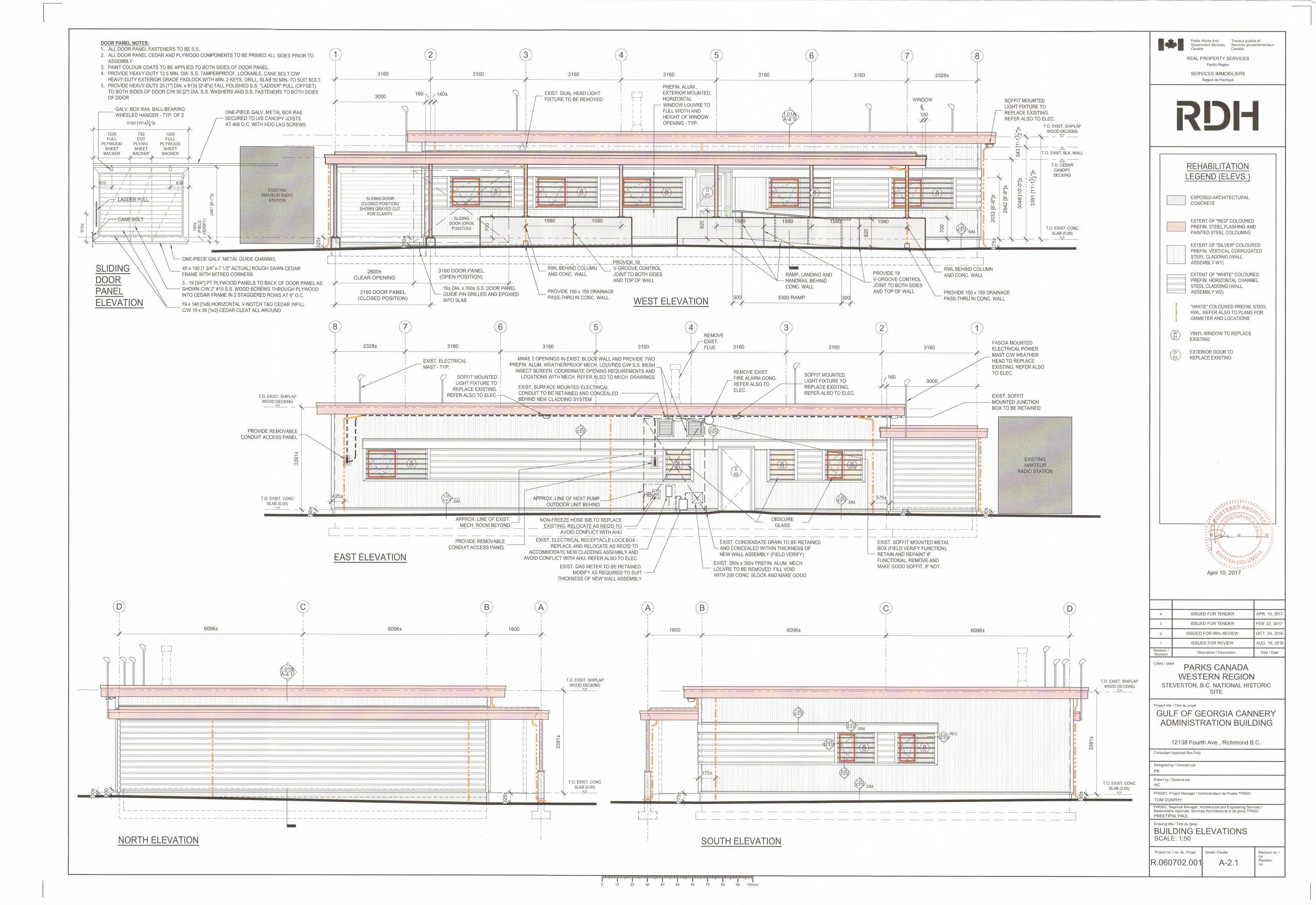


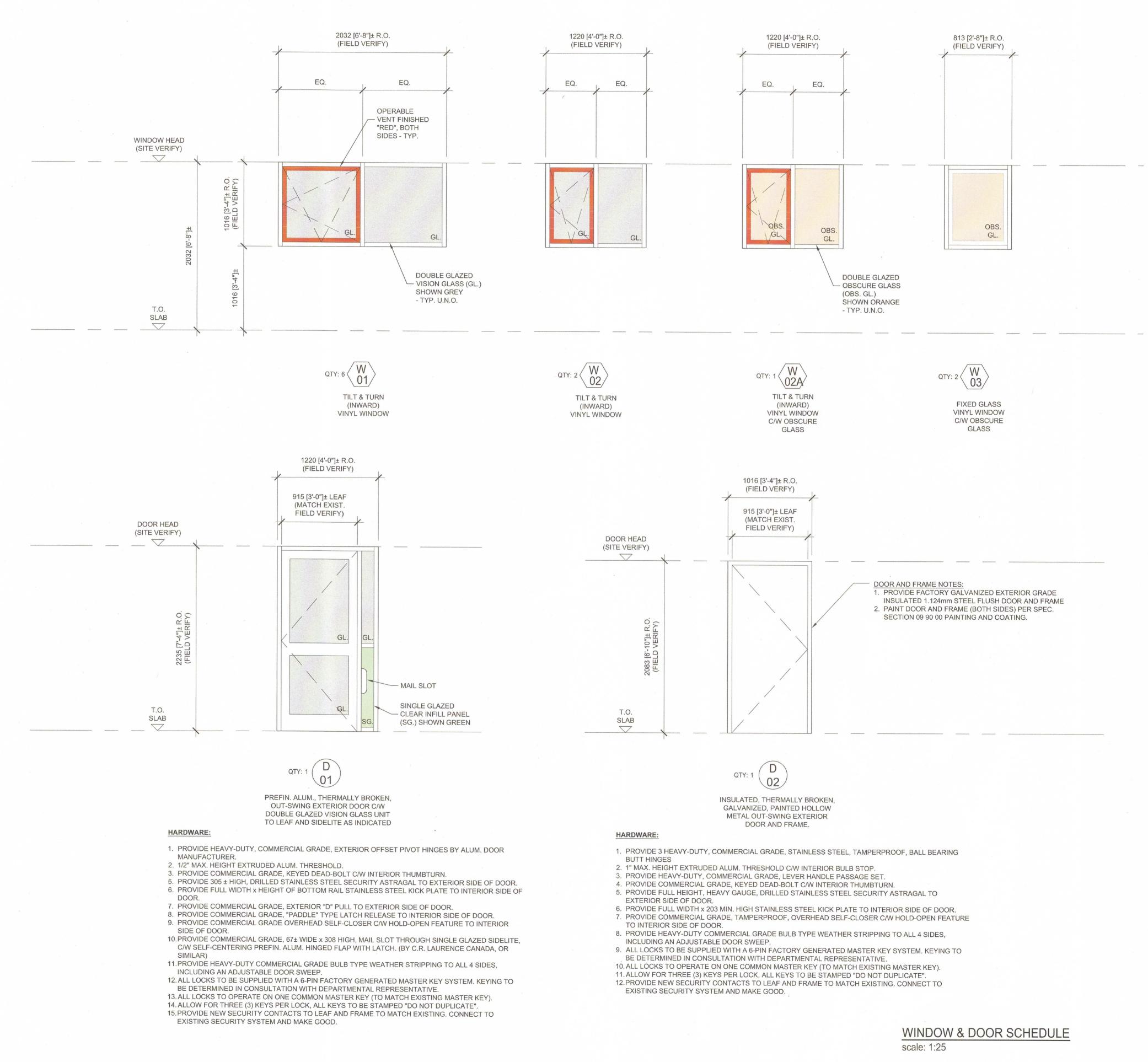


Public Works And Government Services Services gouvernementauc Canada

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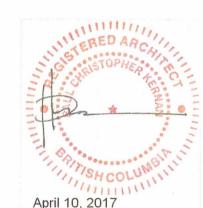
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Region de Pacifique

- THIS WINDOW SCHEDULE AS SHOWN IS TO BE FIELD VERIFIED BY THE WINDOW SUPPLIER.
- THE FENESTRATION PATTERN WILL VARY AS NOTED IN THIS SCHEDULE WITH A "\* ".
- WHEREVER THE CONFIGURATION OF OPERABLE VENTS NEEDS TO BE MODIFIED BY THE WINDOW SUPPLIER TO MEET PRODUCT LIMITATIONS, THIS MUST BE
- FIELD MEASUREMENTS ARE REQUIRED OF MULLION SPACING, ROUGH OPENINGS, VENT POSITIONS AND HIDDEN CONDITIONS.

NOTED ON THE SHOP DRAWINGS.

- FIELD MEASUREMENTS ARE THE RESPONSIBILITY OF THE WINDOW SUPPLIER WITH ACCESS PROVIDED BY RDH.
- WHERE ASSEMBLIES ARE HIDDEN. RDH WILL ARRANGE TO HAVE THE ASSEMBLY DISMANTLED FOR REVIEW AND MEASUREMENTS.
- CORNER POSTS, COUPLERS AND OTHER WINDOW AND DOOR HARDWARE AND ACCESSORIES NOT SHOWN FOR CLARITY. WINDOW SUPPLIER TO SITE VERIFY AND PROVIDE ALL REQUIRED WINDOW AND DOOR HARDWARE AND ACCESSORIES.



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PARKS CANADA WESTERN REGION STEVESTON, B.C. NATIONAL HISTORIC

Project title / Titre du projet **GULF OF GEORGIA CANNERY** ADMINISTRATION BUILDING

12138 Fourth Ave., Richmond B.C.

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Drawn by / Dessine par

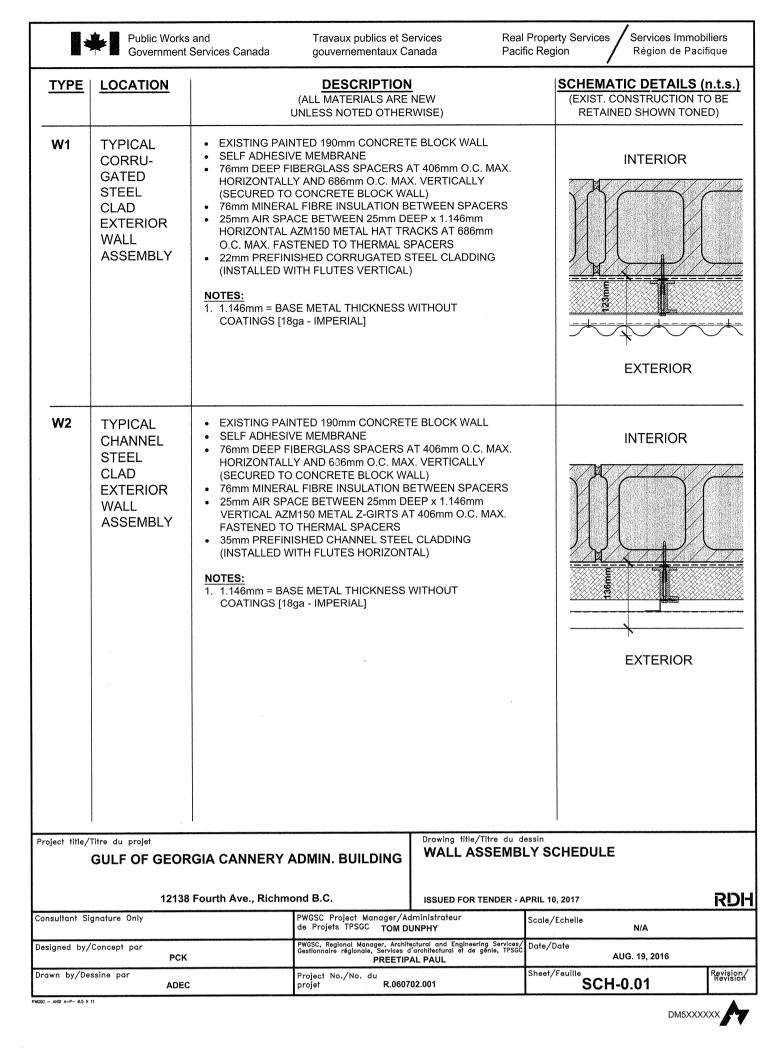
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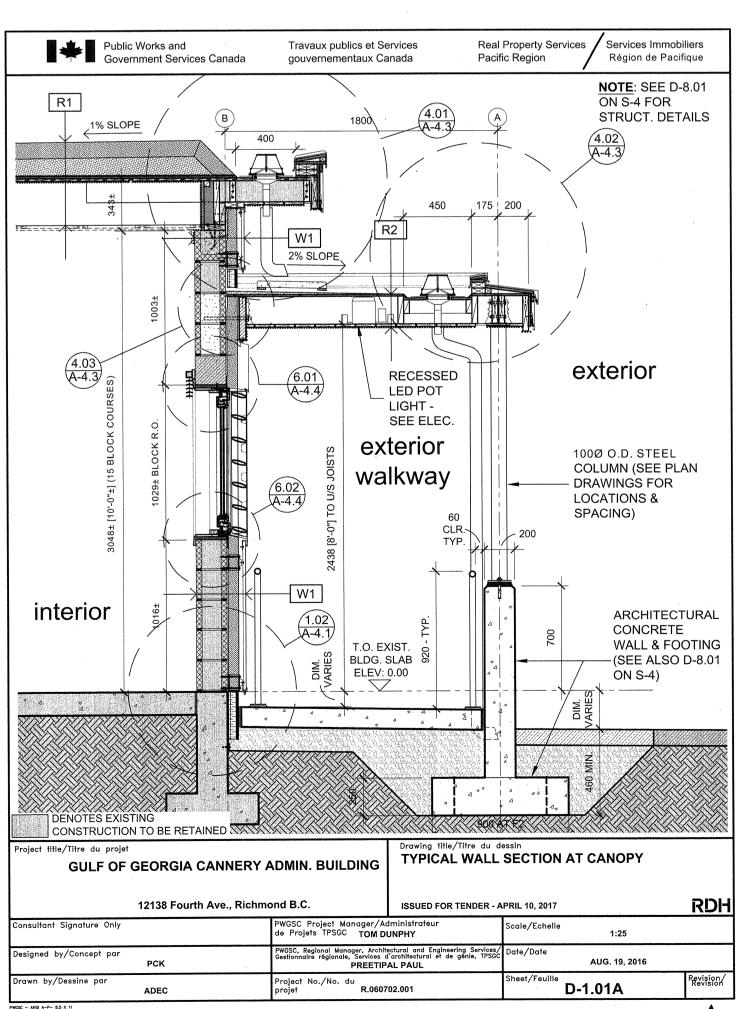
PWGSC, Regional Manager, Architectural and Engineering Services / Gestionnaire regionale, Services d'architectural et de genie,TPSGC PREETIPAL PAUL

Drawing title / Titre du dessi WINDOW & DOOR SCHEDULE SCALE: 1:25

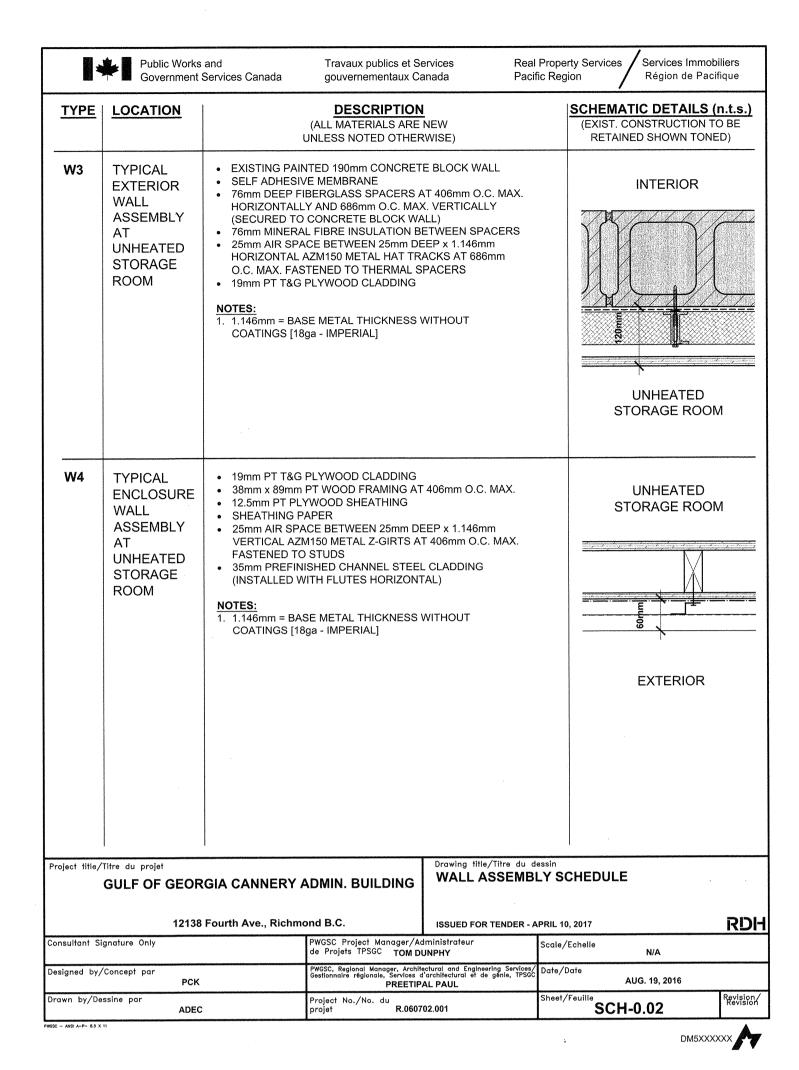
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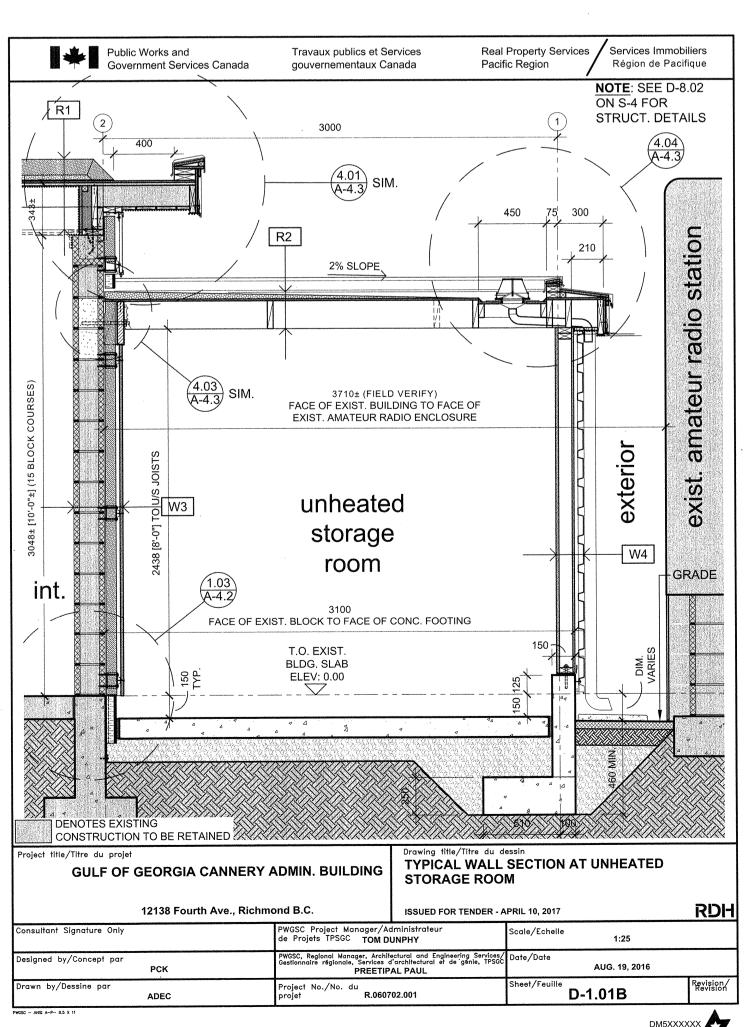
Sheet / Feuille Revision no. A-3.1

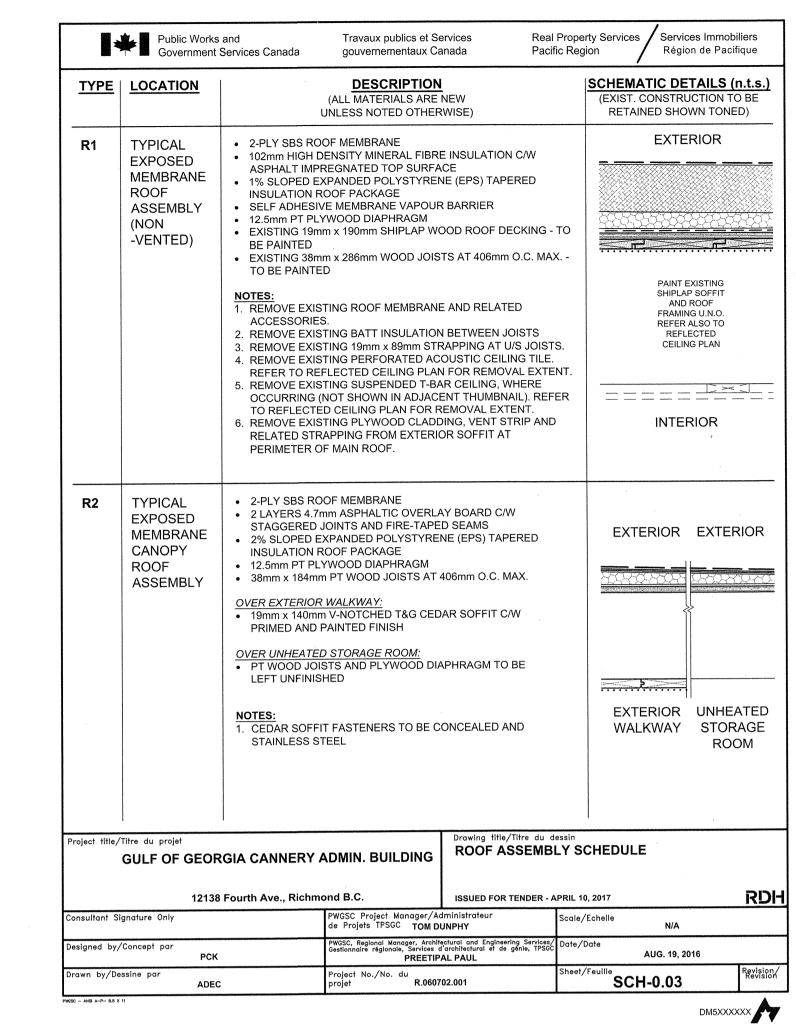


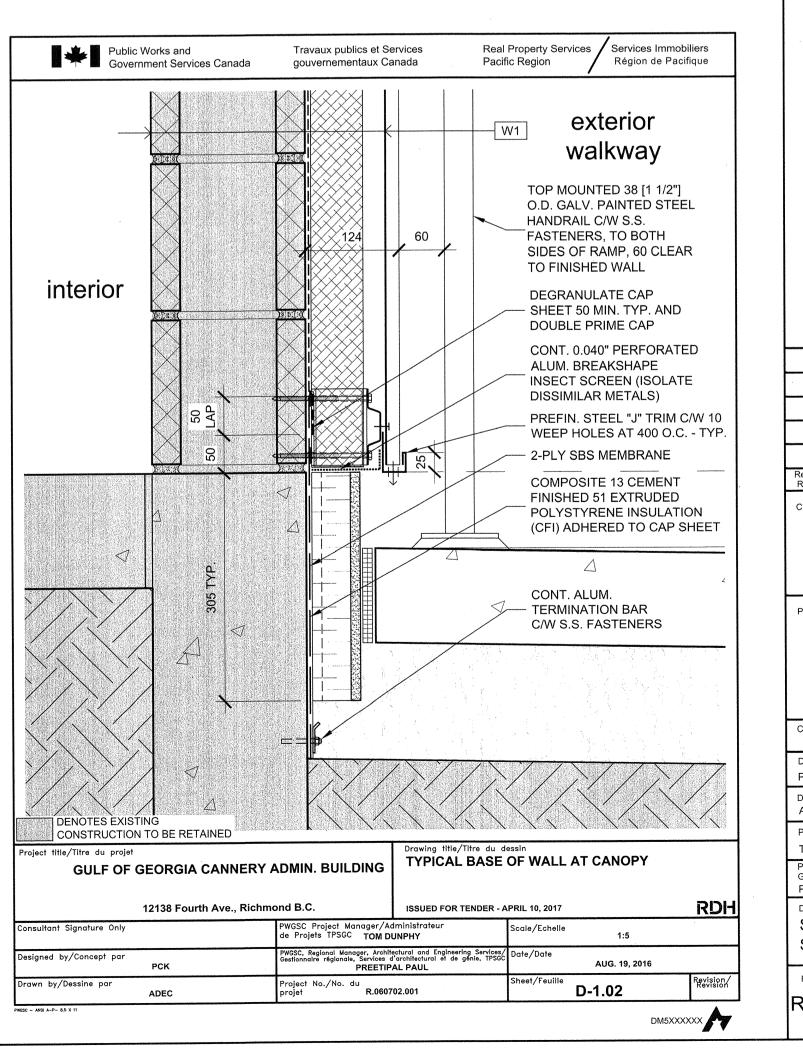


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Revision / Revision	Description / Description	Date / Date
Revision		1

PARKS CANADA
WESTERN REGION
STEVESTON, B.C. NATIONAL HISTORIC
SITE

Project title / Titre du projet
GULF OF GEORGIA CANNERY
ADMINISTRATION BUILDING

12138 Fourth Ave Richmond B.C.

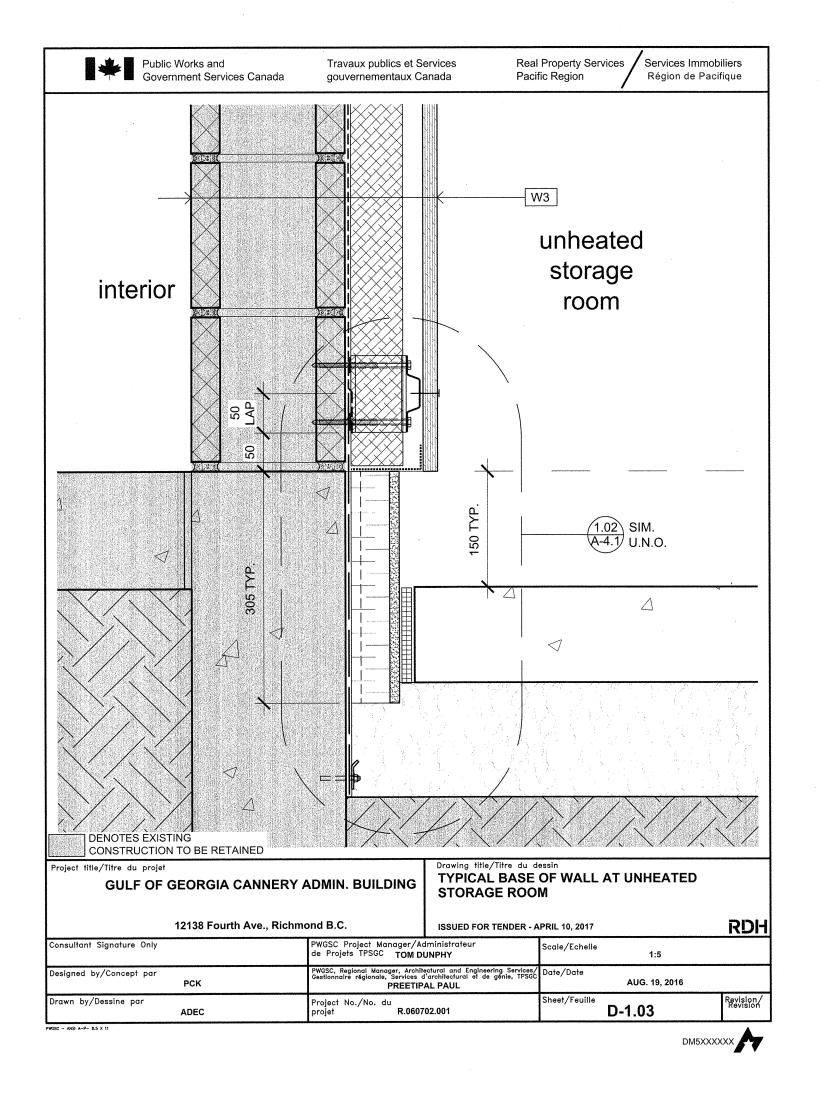
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PWGSC, Project Manager / Administrateur de Projets TPSGC TOM DUNPHY
PWGSC, Regional Manager, Architectural and Engineering Services / Gestionnaire regionale, Services d'architectural et de genie,TPSGC PREETIPAL PAUL
Drawing title / Titre du dessi SCHEDULES AND DETAIL DRAWINGS

Drawing title / Titre du dessi
SCHEDULES AND DETAIL DRAWINGS
SCALE: AS INDICATED

Project no. / no. du Projet.

R.060702.001

A-4.1



Travaux publics et Services

gouvernementaux Canada

unheated

storage

room

EXTENT OF GALV.

CHECKER PLATE ANGLE BELOW -

HATECHED (REFER

SHOWN DIAG.

ALSO TO A-1.1)

STEP IN SLAB

100

LADDER PULLS

- (REFER ALSO

exterior

WGSC Project Manager/Administr e Projets TPSGC **TOM DUNPHY** 

SSC, Regional Manager, Architectural and Engineering Services/ tionnaire régionale, Services d'architectural et de génie, TPSGC PREETIPAL PAUL

Drawing title/Titre du dessir GATE OPENING

ISSUED FOR TENDER - APRIL 10, 2017

TO DWG. BE2.1)

W3 —

Real Property Services / Services Immobiliers

Région de Pacifique

W2

LINE OF W1 WALL

ABOVE. PROVIDE

HOOK-STRIP TO

RECEIVE CORNER

CLOSURE (BOTH

SHOWN DASHED)

**GATE PANEL** 

- (REFER ALSO

TO A-2.1)

NOV. DD, 2016

DM5XXXXXX

D-1.06

CLADDING BELOW /

CONT. "J" CLOSURE

Public Works and
Government Services Canada

[4 3/4"]

O/LAP

100

GULF OF GEORGIA CANNERY ADMIN. BUILDING

12138 Fourth Ave., Richmond B.C.

W4 -

EXTENT OF CONC.

CURB

BELOW

(TONED)

1.05 A-4.2

25± CLR.

PROVIDE 2 ADDITIONAL

38x89 PT

STUDS AS

BLOCKING

TO SUIT

CONT. PREFIN.

STEEL CORNER CLOSURE C/W \_

HEMMED EDGES

AND S.S. RIVET

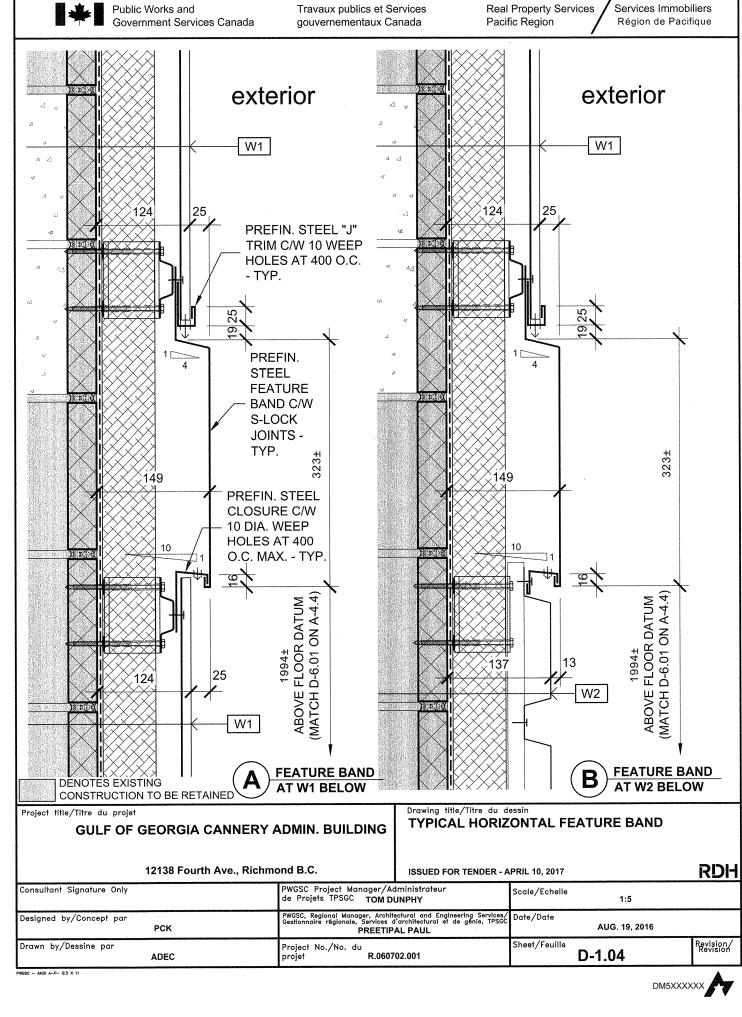
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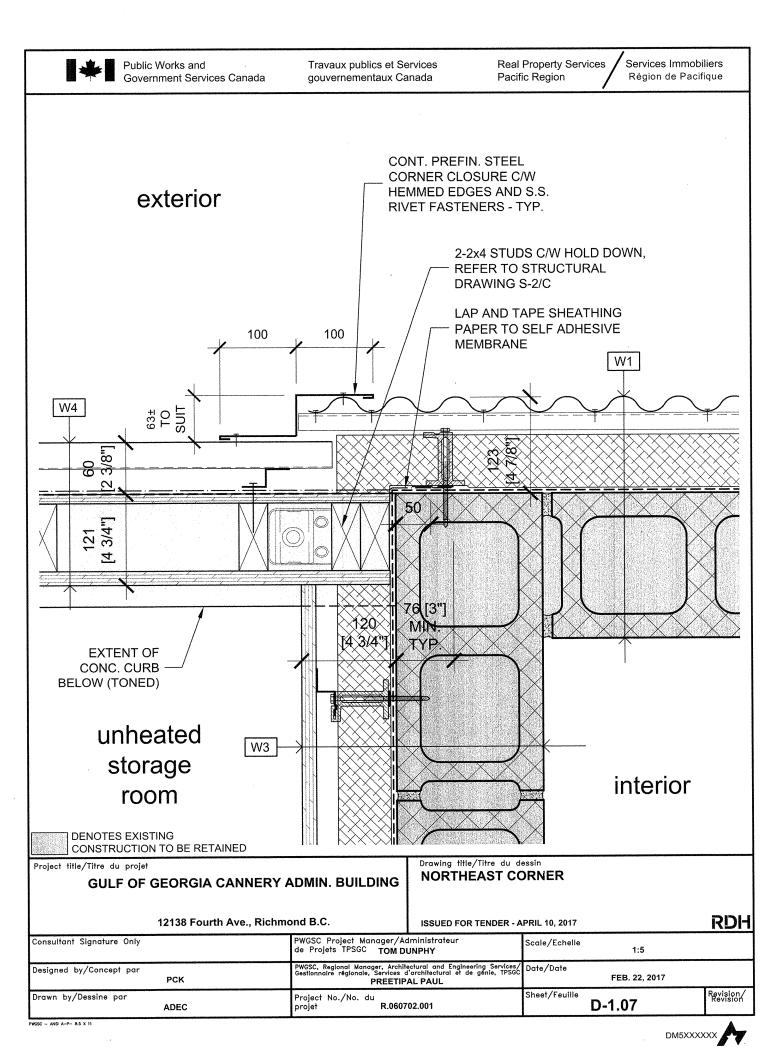
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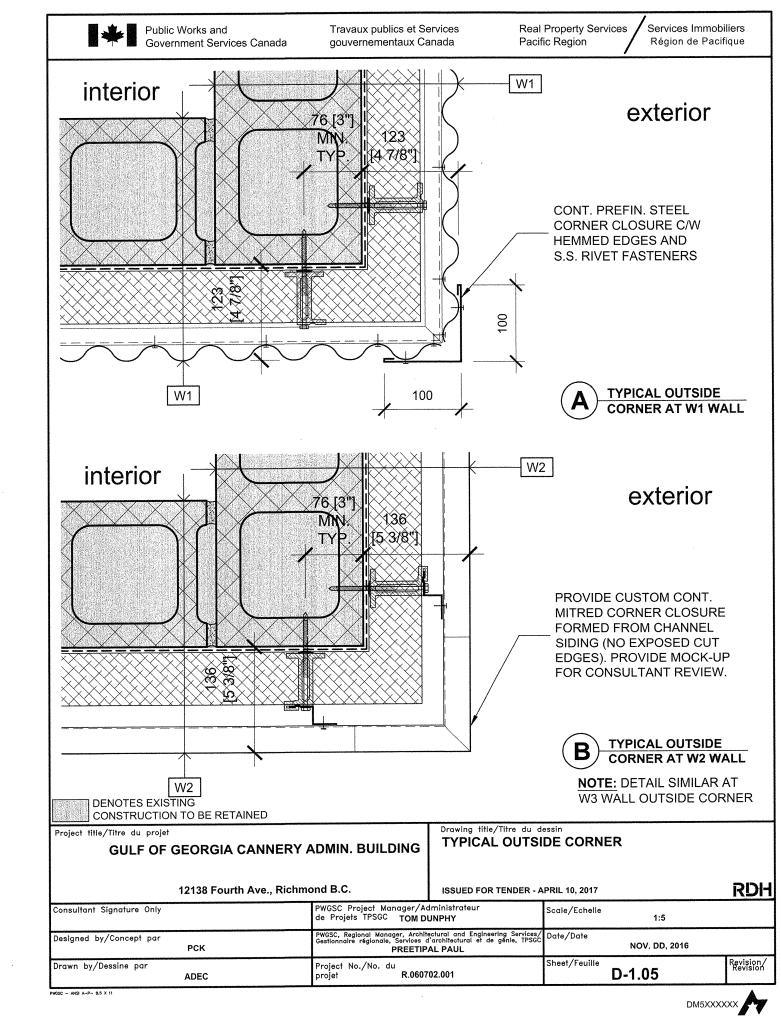
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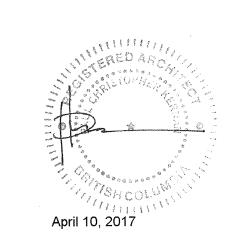
CONSTRUCTION TO BE RETAINED











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12138 Fourth Ave., Richmond B.C.

Consultant Approval Box Only Designed by / Concept par Drawn by / Dessine par

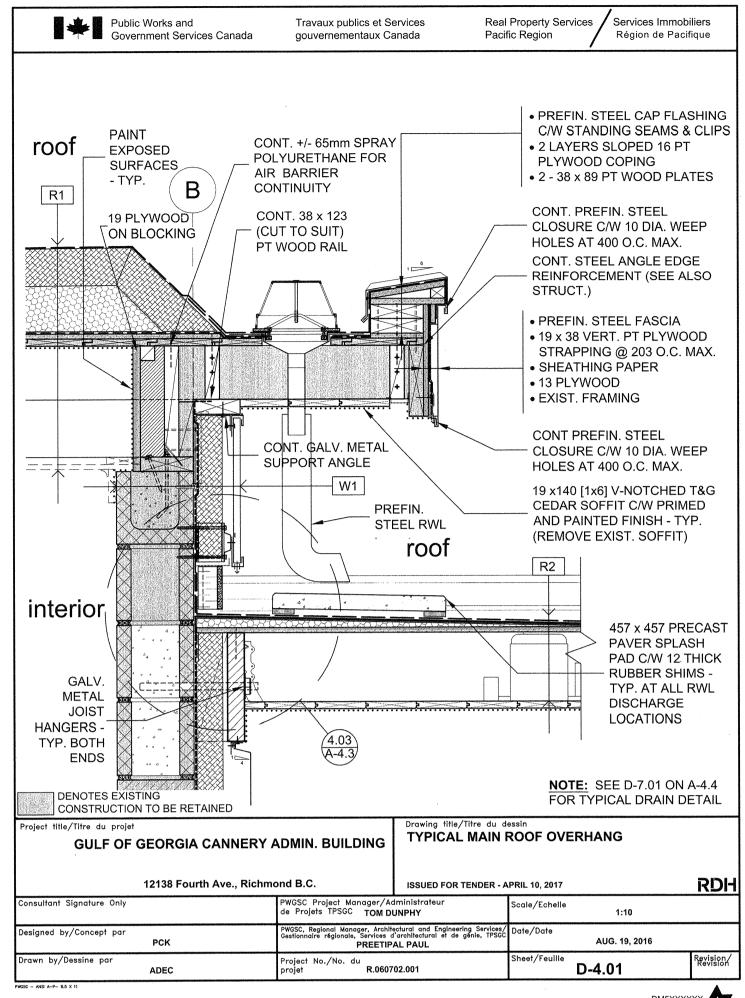
> PWGSC, Project Manager / Administrateur de Projets TPSGC TOM DUNPHY

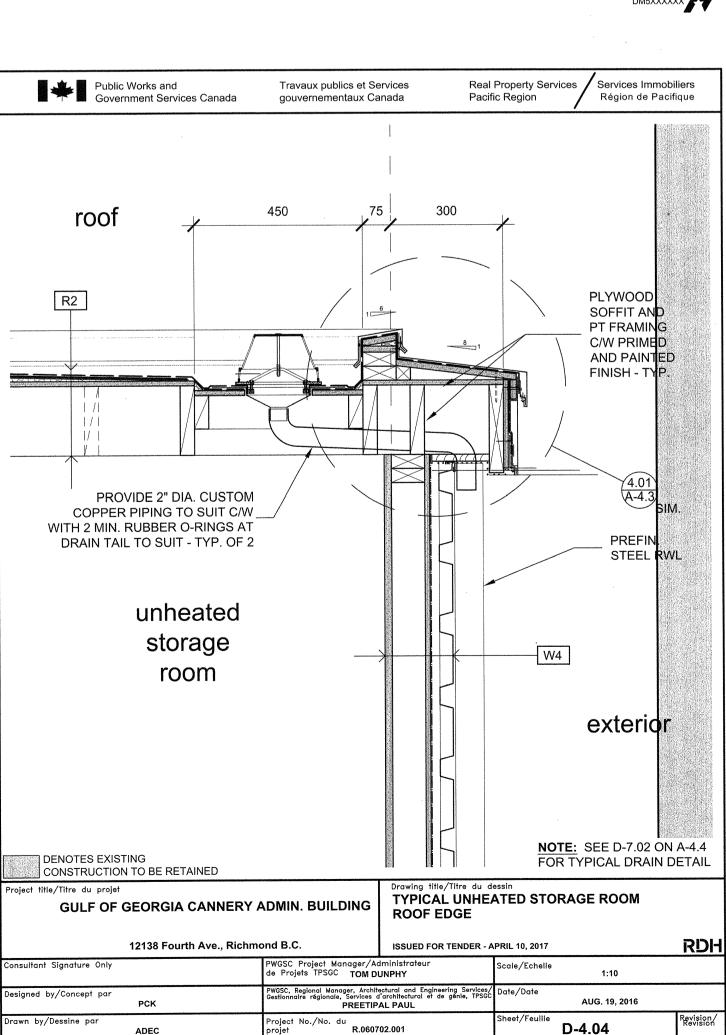
PWGSC, Regional Manager, Architectural and Engineering Services Gestionnaire regionale, Services d'architectural et de genie,TPSGC PREETIPAL PAUL Drawing title / Titre du dessi DETAIL DRAWINGS

Project no. / no. du Projet. R.060702.001 A-4.2

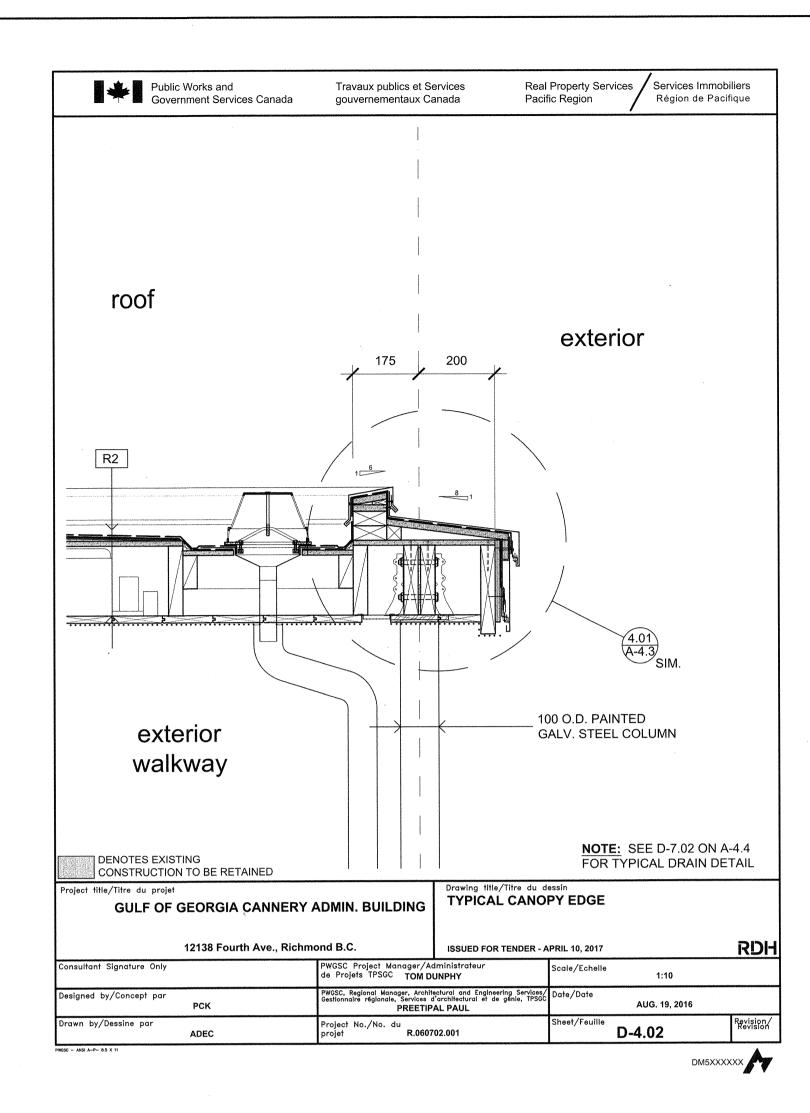
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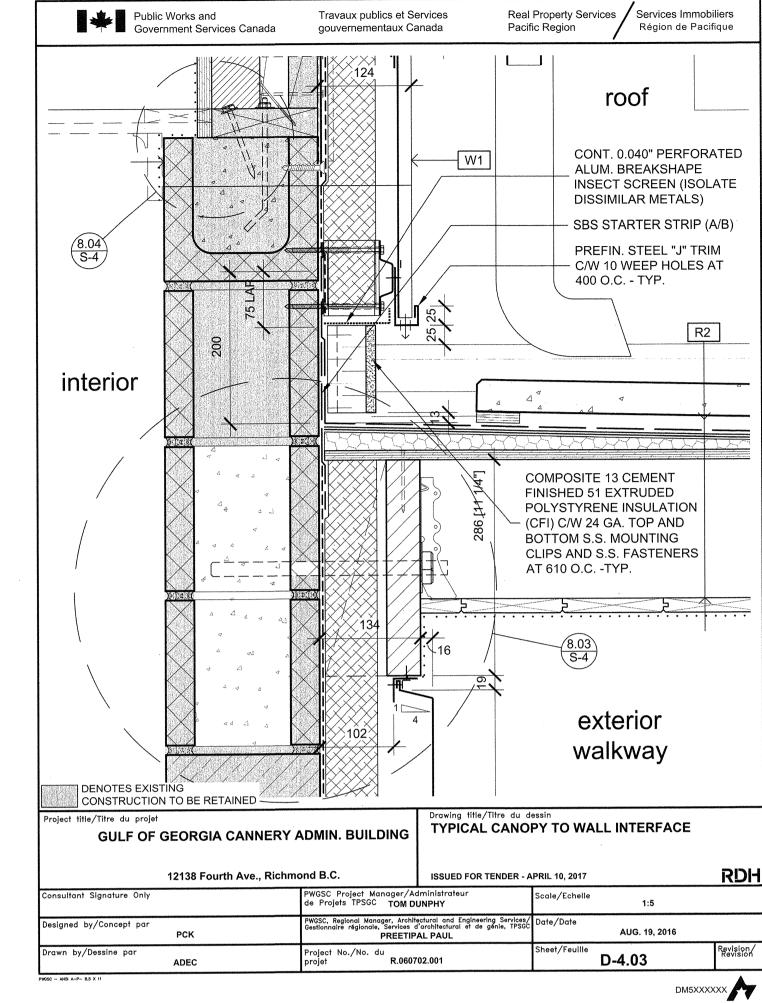
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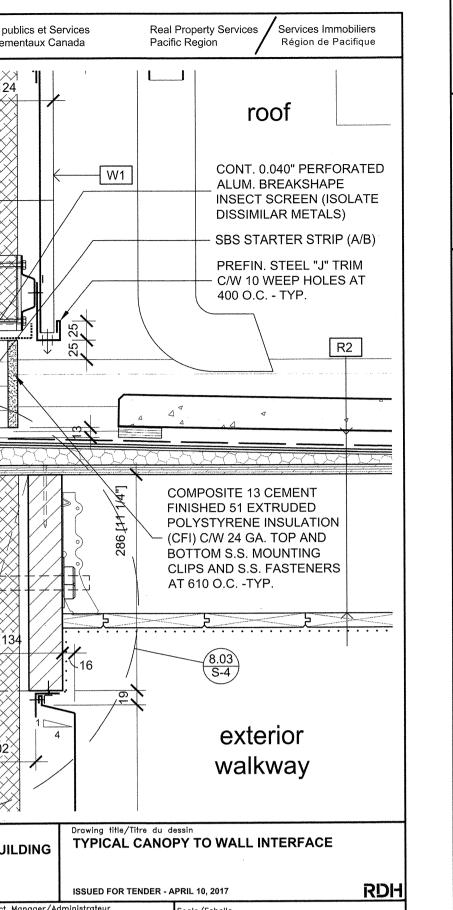


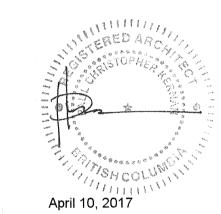


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Public Works And Travaux publics et Government Services Services gouvernementauc

REAL PROPERTY SERVICES

Pacific Region

SERVICES IMMOBILIERS Region de Pacifique

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12138 Fourth Ave., Richmond B.C.

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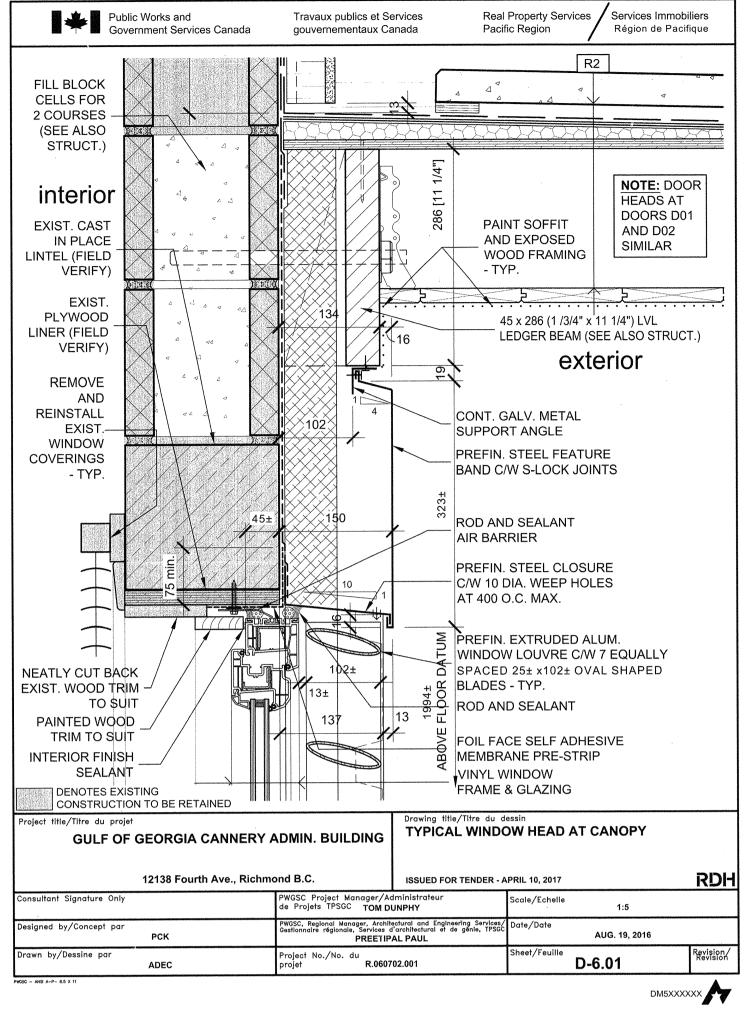
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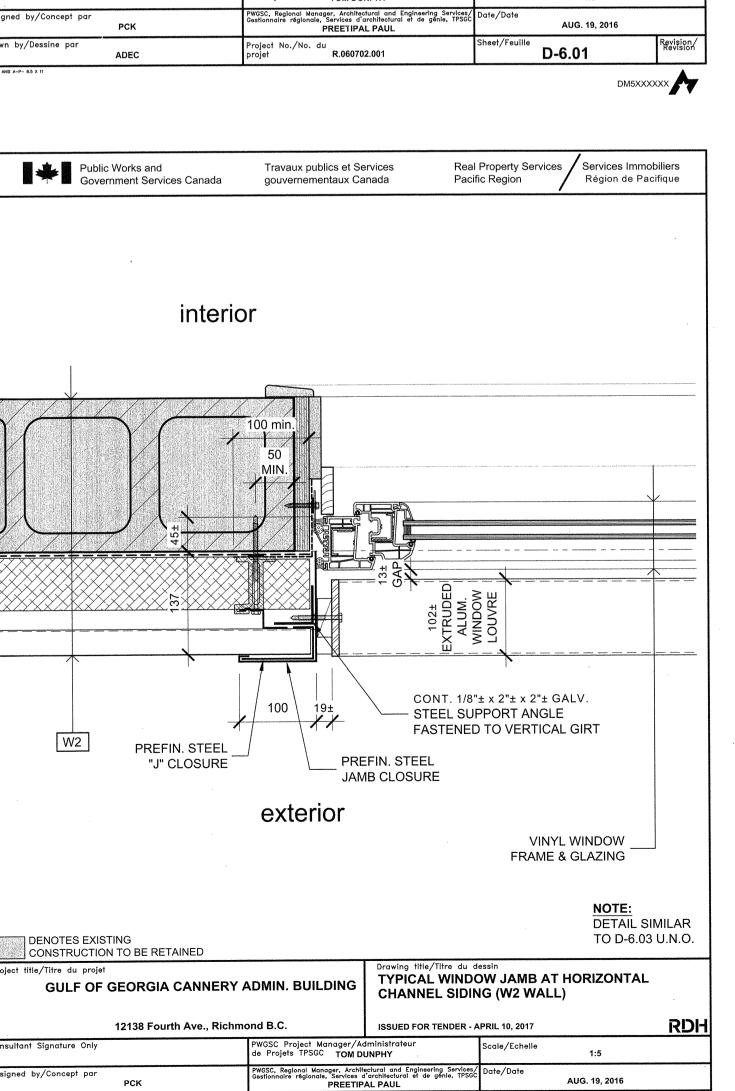
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Drawing title / Titre du dessi DETAIL DRAWINGS SCALE: AS INDICATED

Project no. / no. du Projet. Sheet / Feuille R.060702.001

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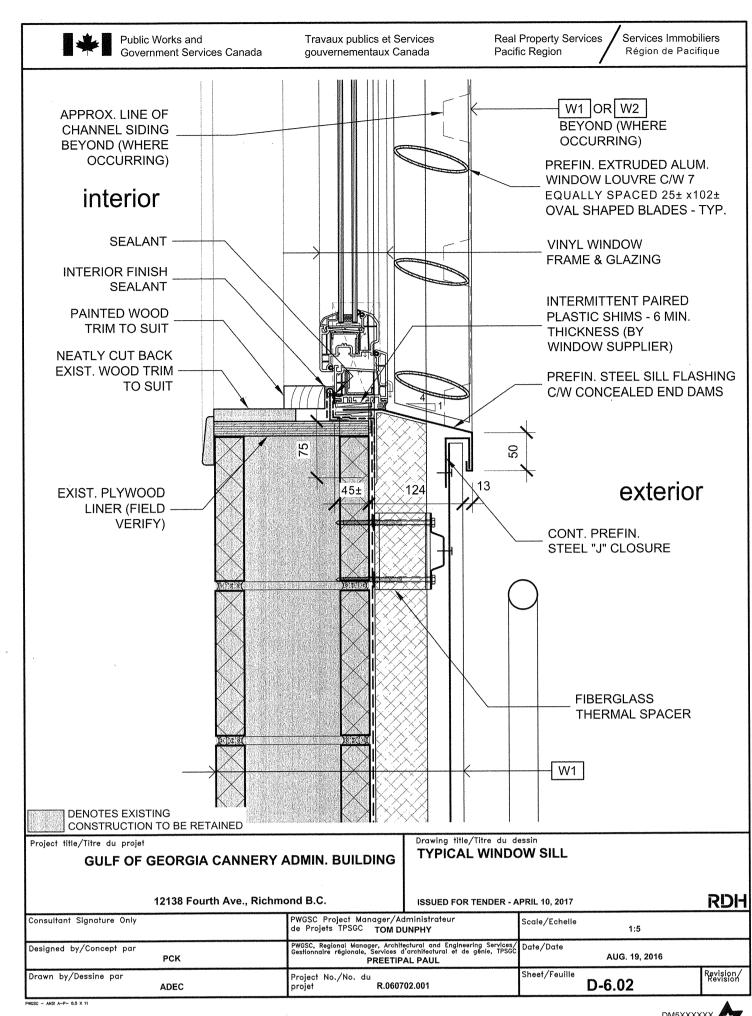
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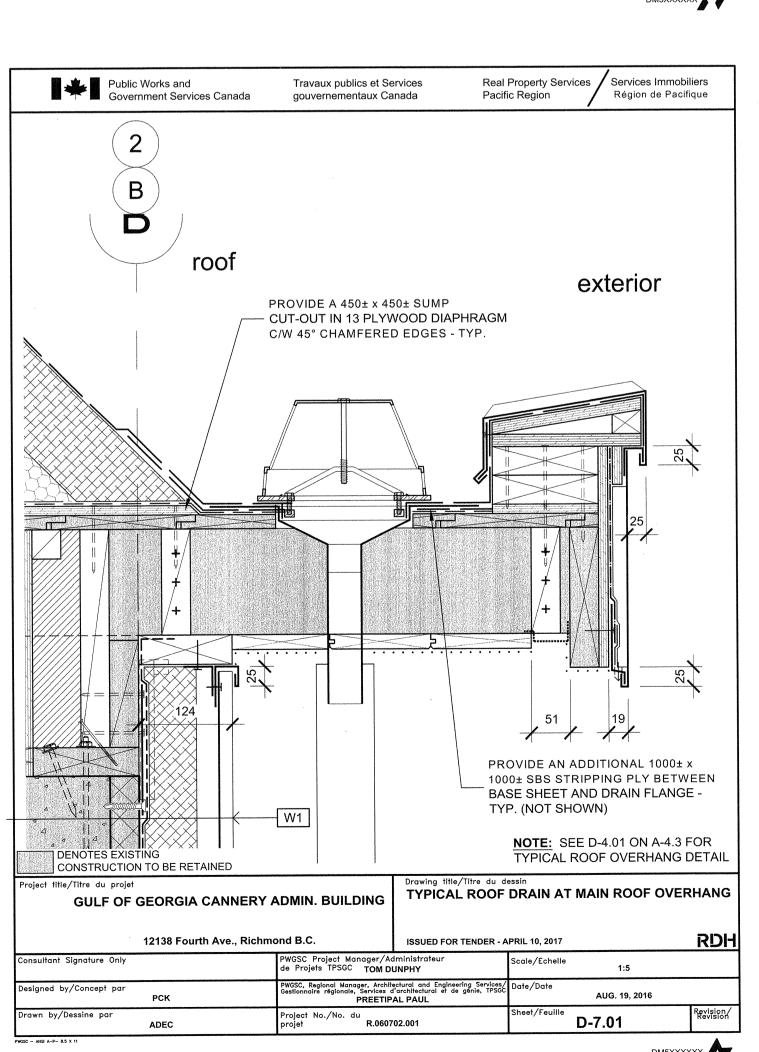
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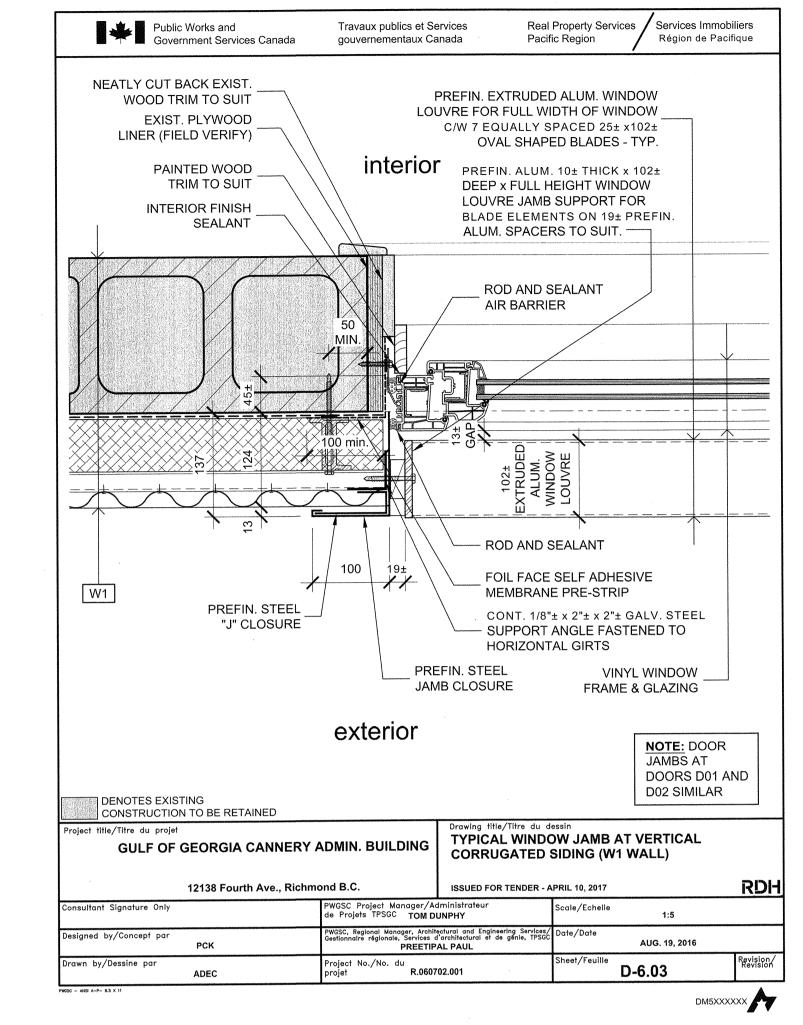
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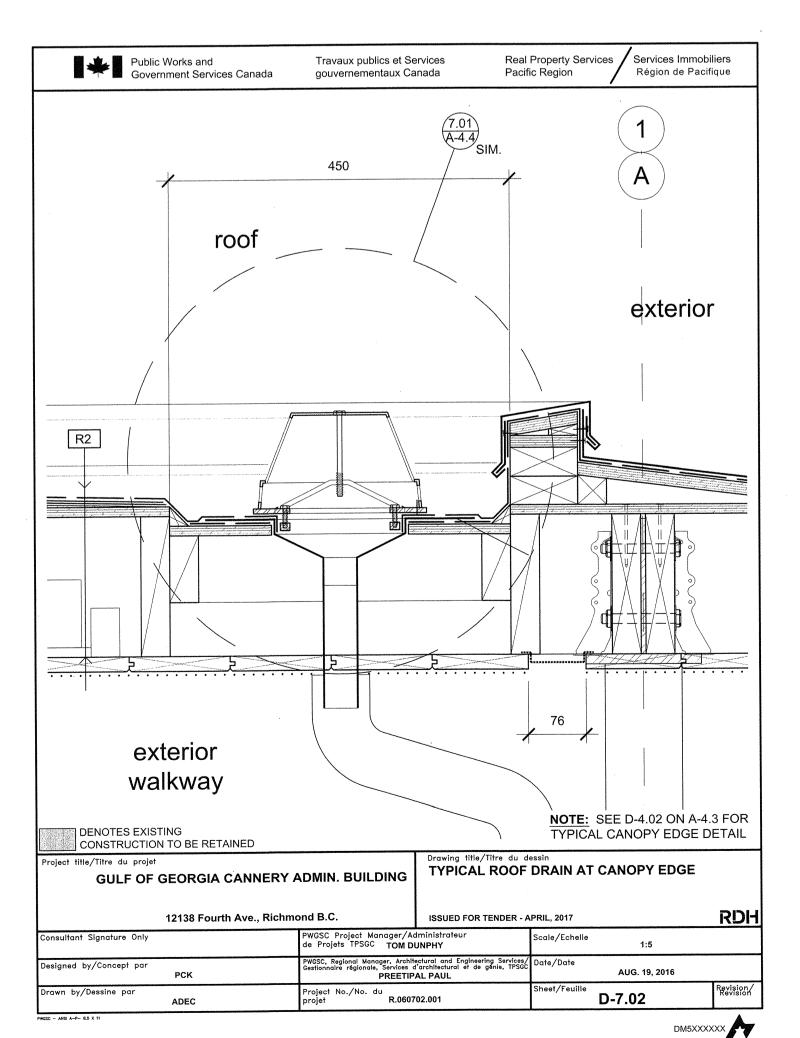
W2

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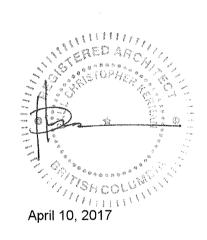






SERVICES IMMOBILIERS Region de Pacifique





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PARKS CANADA WESTERN REGION STEVESTON, B.C. NATIONAL HISTORIC SITE

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12138 Fourth Ave., Richmond B.C.

Designed by / Concept par Drawn by / Dessine par

PWGSC, Project Manager / Administrateur de Projets TPSGC TOM DUNPHY PWGSC, Regional Manager, Architectural and Engineering Services Gestionnaire regionale, Services d'architectural et de genie,TPSGC

PREETIPAL PAUL Drawing title / Titre du dessi **DETAIL DRAWINGS** SCALE: AS INDICATED

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Project no. / no. du Projet. Sheet / Feuille Revision no. / Revision R.060702.001 A-4.4

### STRUCTURAL NOTES:

### **GENERAL:**

The structural portions of this project have been designed in accordance with the 2015 National Building Code of Canada, Part 4.

- 1. Drawings were prepared based on original architectural drawings dated April 1967. Original architect unknown.
- 2. Contractor to verify all dimensions and conditions on site prior to commencement of work. Departmental Representative shall be informed of any variations as shown on the drawings. Dimensions shown on the drawings are based on existing drawing information. Contractors and trades are responsible to confirm any dimensions relied upon for pricing purposes. The building is existing and available for review.

### CLIMATIC / LOADING DATA:

**Snow Loading:** Ss = 1.5 kPa Sr = 0.2 kPa Cb = 0.80  $I_s = 1.0$ 

snow

Roofs have been designed to support the above noted snow loading plus

accumulation as indicated on the roof plans.

Wind (q/50):

0.45 kPa I<sub>w</sub>= 1.0

Seismic:

Sa(0.2) = 0.885PGA = 0.383Sa(0.5) = 0.787 PGV = 0.578 Sa(1.0) = 0.443 Site Class E

Sa(2.0) = 0.266  $R_D = R_o = 1.0$  Unreinforced Masonry Construction

Sa(5.0) = 0.083  $I_E = 1$ 

New construction (the canopy and the unheated storage room) has been designed to resist seismic loading that has been determined in accordance with Part 4, 2015 NBC. Upgrades to the existing building (administration building) have been designed to resist at least 60% of the seismic loading that has been determined in accordance with Part 4, 2015 NBC.

Roof Dead Loads: Canopy & Unheated Storage Room: 0.72 kPa

Admin Building: 0.6 kPa

Roof Live Loads: Canopy & Unheated Storage Room:

No allowance for live loads - roofs have been designed to support

dead and snow loads only.

Administration Building Roof:

Roof has been designed to support a live load of 0.35 kPa in addition

to dead and snow loads.

### TIMBER FRAMING:

- Refer to project specifications.
- 2. Laminate built-up beams as follows:
- Up to three plies nail each ply together with 3 rows of 75mm common nails at 300 mm o.c.
- Four plies shall be bolted with 2 rows of 12.5 mm diam. bolts, each row at 300 mm o.c., stagger rows.
- 3. All built-up studs to be laminated together with 2 rows of 75 mm common nails at 225 mm o.c.
- 4. Studs supporting built-up beams shall have the same thickness, or the equivalent number of laminations as the built-up beam, unless noted otherwise.
- 5. Posts and built-up studs are to be continuous to the foundation unless noted otherwise.
- 6. All flush framed members shall be supported by appropriate steel hangers. Submit proposed hangers to Departmental Representative for approval.

### 7. Fasteners:

NAILS		SCREWS		
Designation Diameter (mm)		Designation	Diameter (mm)	
65mm Common	3.25	#6 Wood Screw	3.50	
75mm Wire	3.66	#8 Wood Screw	4.16	
89mm Wire	4.06	#10 Wood Screw 4.82		
8d Common	3.32	#12 Wood Screw	5.48	
10d Common	3.76			
16d Common	4.11			

### **CONCRETE WORK:**

- Refer to project specifications.
- 2. Concrete shall be mixed and placed in accordance with CSA A23.1
- 3. All new concrete shall conform to the following requirements:

	FOOTINGS	EXTERIOR SLAB ON GRADE	INTERIOR SLAB ON GRADE	WALLS / PIERS
CSA Exposure Class:	N	C-1	N	F-2
Min. 28 Day Compressive Strength:	25 MPa	35 MPa	30 MPa	25 MPa
Max. W/C Ratio:	As required	0.4	As required	0.55
Max. Aggregate Size:	19mm	19mm	19mm	19mm
Cement Type:	GU	GU	GU	GU
Air Content:	As required	5 - 8%	As required	4 - 7%
Curing:	Type 1	Type 1	Type 1	Type 1

- 4. Unless noted otherwise, provide clear concrete cover to rebar as follows:
- Surfaces poured against ground: 75mm
- Formed surfaces exposed to ground or weather: 50mm
- Other formed surfaces: 25mm
- 5. Reinforcing steel to be fabricated from deformed billet steel of the following grades:
- 10M and larger bars: CSA G30.18 Grade 400 MPa
- Welded Wire Mesh: CSA G30.15 Grade 300 MPa

### **MASONRY:**

- 1. Refer to project specifications.
- 2. Masonry mortar to be Type S.
- 3. Masonry block units to be hollow concrete 20 MPa.
- 4. Masonry grout to be 20 MPa concrete 9mm aggregate, 150 mm slump.
- 5. Reinforcing steel to be CSA G30.18 Grade 400 MPa.

### **GEOTECHNICAL:**

- 1. Refer to Geotechnical Report Number 14364 Revision 1, Dated November 25, 2016, prepared by Geopacific Consultants inc.
- 2. Footings have been designed based on the following:
- Service Limit State Bearing Capacity: 75 kPa
- Ultimate Limit State Bearing Capacity: 150 kPa
- 3. Bearing Strata to be reviewed by geotechnical engineer prior to casting.

### FIELD REVIEWS:

- 1. Refer to project specifications.
- 2. Field review is at the professional discretion of the Departmental Representative and is to ascertain general compliance with the structural plans and supporting documents for the integrity of the primary structural components of the building only. Field review does not make the Departmental Representative guarantors of the contractor's work. Field review is not for the benefit of the contractor(s) and may not form part of the contractor's construction quality control, which shall remain the responsibility of the contractor(s). The Departmental Representative shall not be responsible for the acts or omissions of the contractor(s) or for their failure to fulfill the intent of the design drawings.
- 3. The Departmental Representative is to be notified 24 hours in advance of any work requiring a field review.
- 4. The following items shall be reviewed by the Departmental Representative:
- All rebar prior to pouring of concrete or grout. Copies of concrete delivery slips also shall be forwarded to the Departmental Representative within 24 hours of pour.
- Structural steel prior to covering up.
- Timber framing prior to sheathing;
- Sheathing prior to finishing

### TABLE 1: FOOTING SCHEDULE

	SIZE & THICKNESS	REINFORCING
F1	610 WIDE x 250 THICK CONTINUOUS STRIP FOOTING	10M x 460 @ 200 o.c. BLL PLUS 3-10M CONTINUOUS BUL
F2	900 WIDE x 1250 LONG x 250 THICK	SEE S-2 7-10M x 750 BOTTOM BLL +3 - 10M CONT. BUL +2 - 10M x 1100 BUL
F3	610 WIDE x 250 THICK CONTINUOUS STRIP FOOTING	3-10M CONT. BUL + 10M @ 200 DOWELS SEE D-8.02

### ABBREVIATIONS:

HEF HORIZONTAL EACH FACE VEF VERTICAL EACH FACE BEW BOTTOM EACH WAY CONT. CONTINUOUS SHORT DIRECTION LONG DIRECTION BOTTOM LOWER LAYER BOTTOM UPPER LAYER TOP UPPER LAYER TOP LOWER LAYER

**NOTE**: LAP CONTINUOUS BARS AT CORNERS AND SPLICES IN ACCORDANCE WITH TABLES 2, 3 & 4

### TABLE 2: TYPICAL REBAR SPLICE LENGTHS

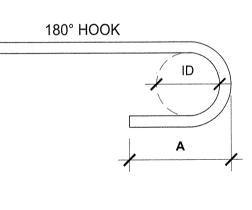
28 DAY CONCRETE		BAR SIZE					
OR MORTAR STR.,   MPa (fc)	10M	15M	20M	25M	30M	35M	
20	475 (19")	675 (27")	825 (33")	1325 (53")	1575 (62")	1875 (74")	
25	425 (17")	600 (24")	725 (29")	1175 (47")	1400 (56")	1675 (66")	
30	400 (16")	550 (22")	675 (27")	1075 (43")	1275 (50")	1525 (60")	
35	375 (15")	500 (20")	625 (25")	1000 (40")	1200 (48")	1425 (56")	

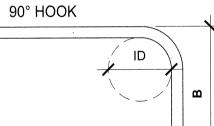
### TABLE 3: SPLICES FOR HORIZONTAL BARS WITH >300mm OF CONCRETE CAST BELOW

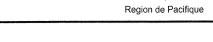
28 DAY CONCRETE		BAR SIZE						
OR MORTAR STR., MPa (fc)	10M	15M	20M	25M	30M	35M		
20	550 (22")	800 (32")	1075 (43")	1700 (67")	2050 (81")	2375 (94")		
25	500 (20")	725 (29")	975 (39")	1525 (60")	1825 (72")	2125 (84")		
30	450 (18")	650 (26")	900 (36")	1375 (54")	1675 (66")	1950 (77")		
35	400 (16")	625 (25")	825 (33")	1275 (51")	1525 (60")	1800 (71")		
40	400 (16")	575 (23")	775 (31")	1200 (48")	1425 (56")	1700 (67")		

### TABLE 4: STANDARD HOOK DETAILING & DIMENSIONS

DETAILING & DIMENSIONS							
BAR SIZE	INNER DIAMETER mm (in)	180° HOOK LENGTH <b>A</b> mm (in)	90° HOOK LENGTH <b>B</b> mm (in)				
10M	70 (2¾")	125 (5")	150 (6")				
15M	100 (4")	125 (5")	225 (9")				
20M	120 (4¾")	175 (7")	260 (10")				
25M	150 (6")	200 (8")	350 (14")				
30M	250 (10")	275 (11")	425 (17")				
35M	300 (12")	325 (13")	525 (21")				
			<u> </u>				



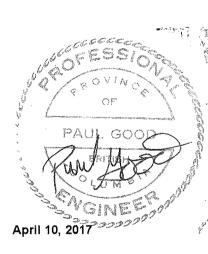




Public Works And
Government Services
Canada

Travaux publics et
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Canada REAL PROPERTY SERVICES SERVICES IMMOBILIERS





-			
	5	ISSUED FOR TENDER	APR.10, 2017
	4	RE-ISSUED FOR STRUCT. REVIEW	APR.03, 2017
	3	ISSUED FOR TENDER	FEB. 22, 2017
	2	ISSUED FOR 99% REVIEW	OCT. 24, 2016
	1	ISSUED FOR REVIEW	AUG. 19, 2016
	Revision / Revision	Description / Description	Date / Date

PARKS CANADA WESTERN REGION STEVESTON, B.C. NATIONAL HISTORIC

**GULF OF GEORGIA CANNERY** ADMINISTRATION BUILDING

12138 Fourth Ave., Richmond B.C.

Consultant Approval Box Only Designed by / Concept par Drawn by / Dessine par

PWGSC, Project Manager / Administrateur de Projets TPSGC TOM DUNPHY

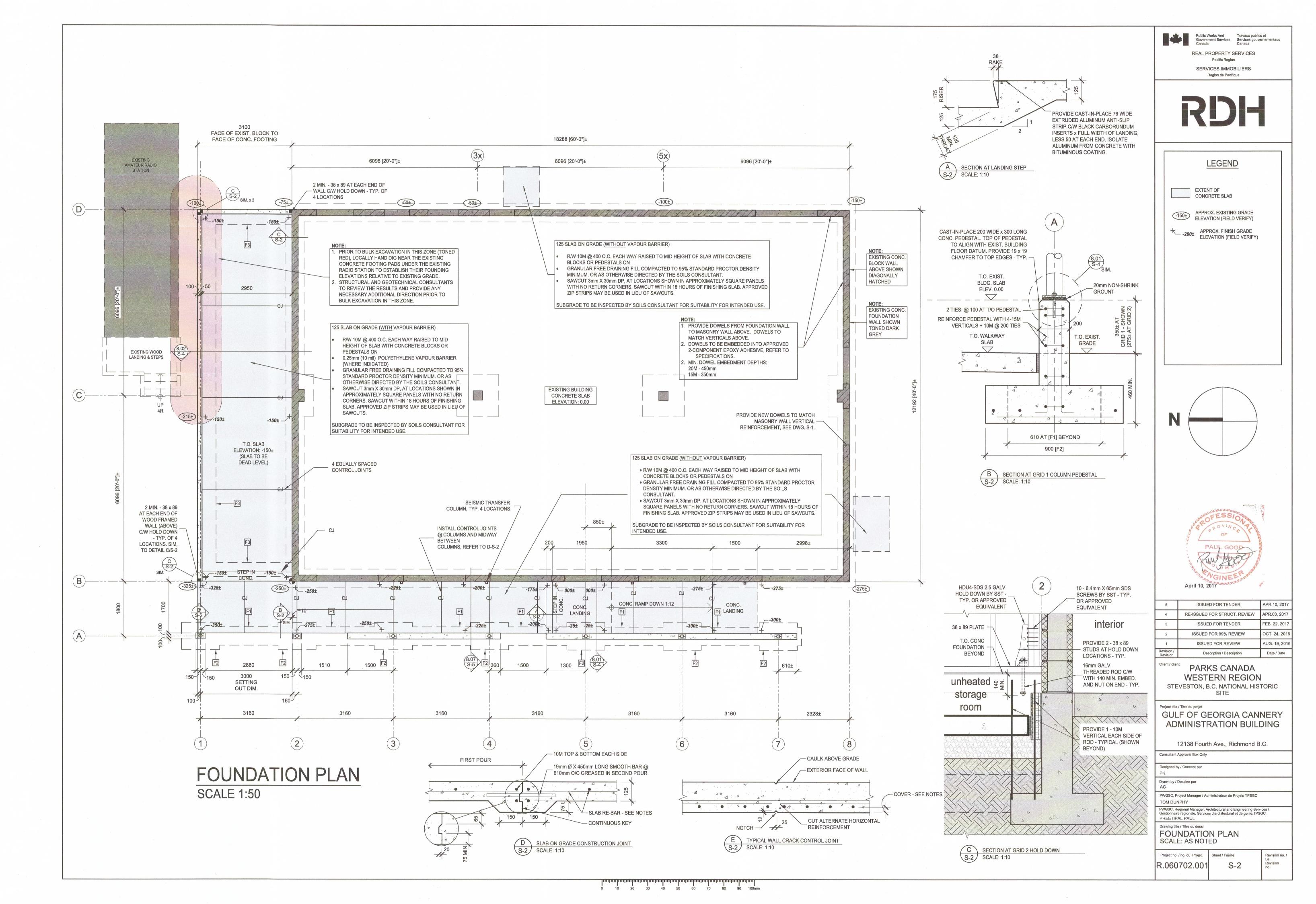
PWGSC, Regional Manager, Architectural and Engineering Services / Gestionnaire regionale, Services d'architectural et de genie,TPSGC PREETIPAL PAUL Drawing title / Titre du dessi STRUCTURAL SCHEDULES AND NOTES SCALE: AS NOTED

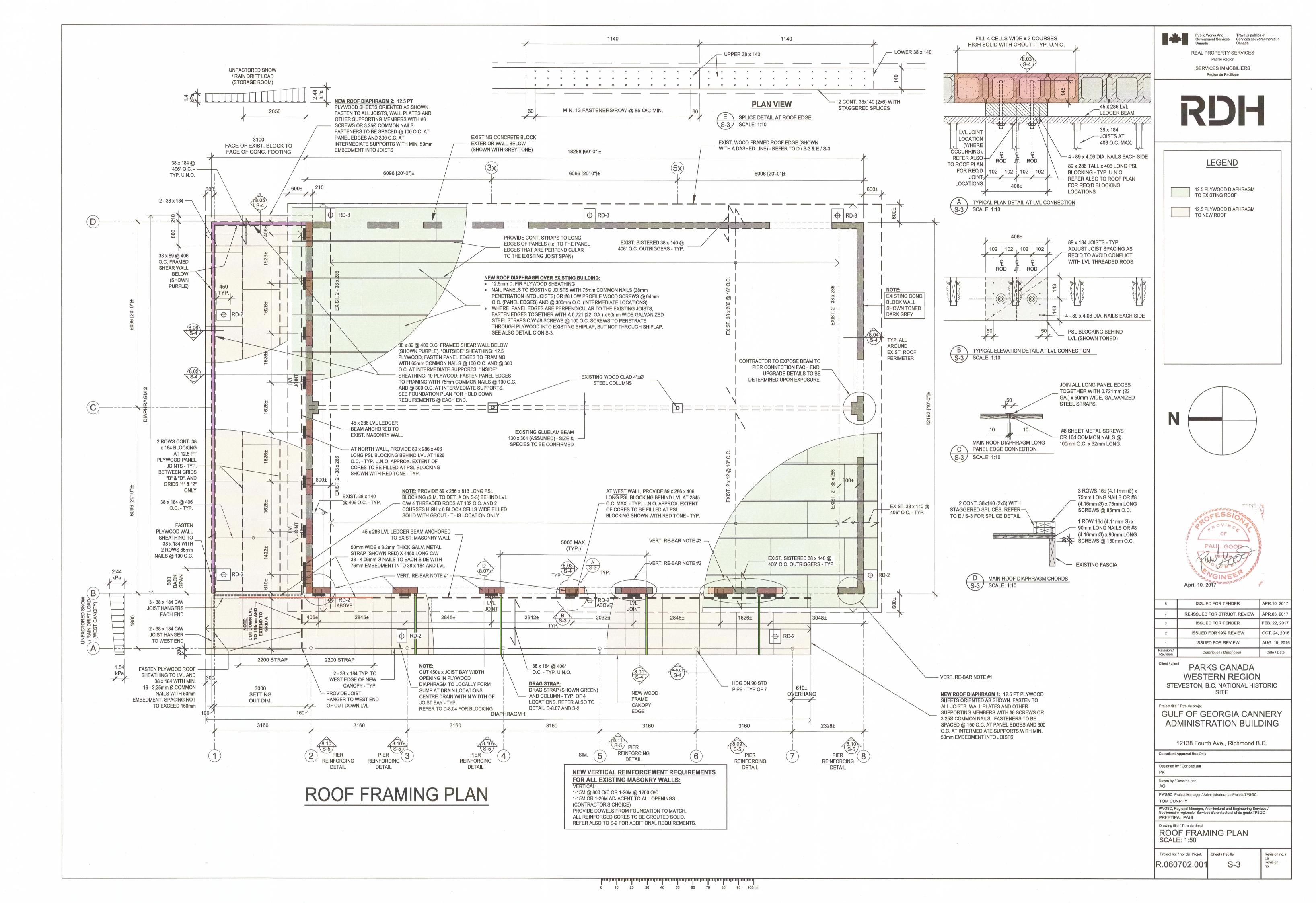
Project no. / no. du Projet. R.060702.001

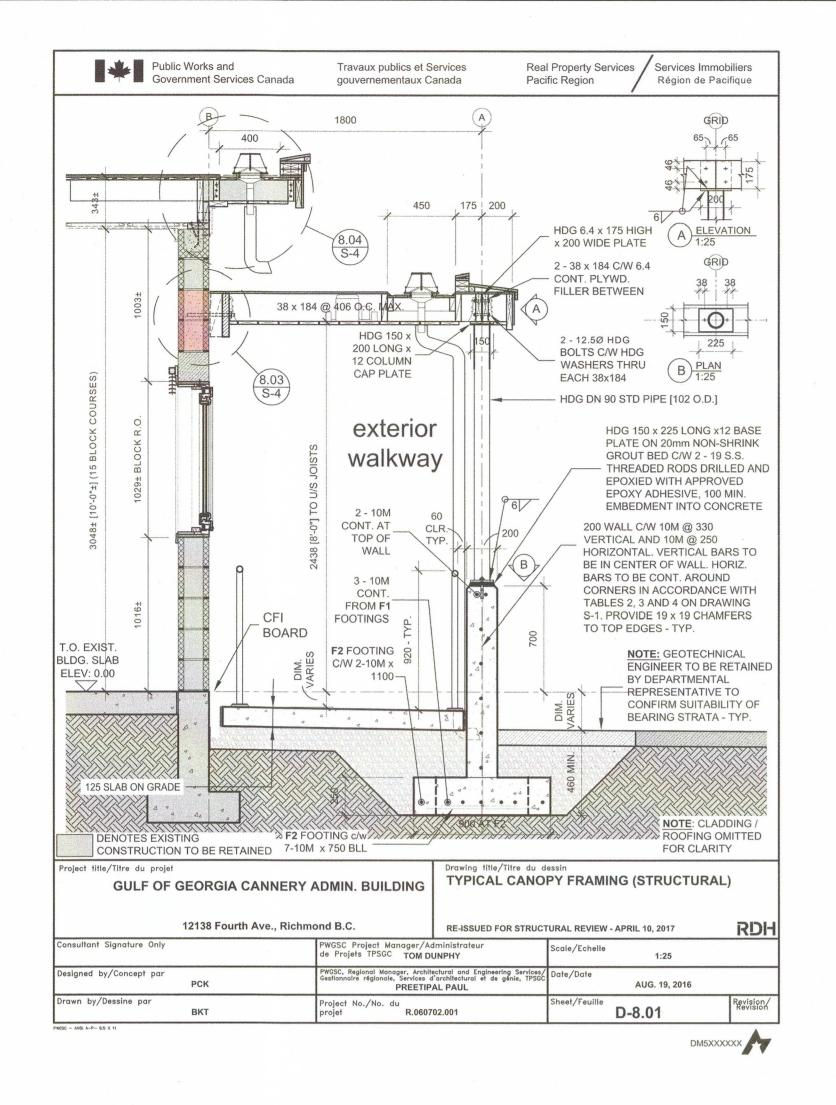
Project title / Titre du projet

Sheet / Feuille S-1

Revision no. /







Travaux publics et Services

PROVIDE CONT. 38 x 286 WOOD

BLOCKING BETWEEN EXIST. JOISTS.

SNUG TO EXIST. OUTRIGGERS - TYP.

COPE BLOCKING AS REQ'D TO FIT

EXIST. 38 x 140

EXISTING 9.5 DIA.

ANCHOR BOLTS

@ 1220 O.C. MAX. - FIELD VERIFY

PROVIDE 2 - 6.4 APPROVED CONCRETE

SCREWS AT 1/3 POINTS BETWEEN EACH EXIST ANCHOR BOLT C/W 45 MIN. EMBED. INTO SOLID MASONRY. CONTACT

SC, Regional Manager, Architectural and Engineering Services/ Doctonaire régionale, Services d'architectural et de génie, TPSGC PREETIPAL PAUL

MASONRY NOT ENCOUNTERED.

WGSC Project Manager/Administra de Projets TPSGC TOM DUNPHY

Project No./No. du projet R.060702.001

DEPARTMENTAL REPRESENTATIVE IF SOLID

Drawing title/Titre du dessin

(STRUCTURAL)

TYPICAL MAIN ROOF DIAPHRAGM

RE-ISSUED FOR STRUCTURAL REVIEW - APRIL 10, 2017

PLATE C/W

Government Services Canada gouvernementaux Canada Pacific Region / Région de Pacifique

FASTEN PLYWOOD TO BLOCKING PER S-3

CONT. PLYWOOD ROOF

SHEATHING BEYOND

Real Property Services / Services Immobiliers

PROVIDE 38 x 140 BLOCKING

(EXISTING ROOF) OR 38X184

BLOCKING (CANOPY ROOF)

SUMP CUTOUT, FASTEN

**BLOCKING TO JOISTS AT** 

EACH END WITH 3 - #10

SCREWS x 76 LONG

TO JOIST BAY WITH PLYWOOD

#12 SCREWS x 25

LONG @ 300 O.C.

NOV. DD, 2016

D-8.04

NOTE: CLADDING /
ROOFING OMITTED

RDH

FOR CLARITY

Public Works and

12.5 PT PLYWOOD

DIAPHRAGM

FASTENERS -

REFER TO S-3

DENOTES EXISTING

Project title/Titre du projet

onsultant Signature Only

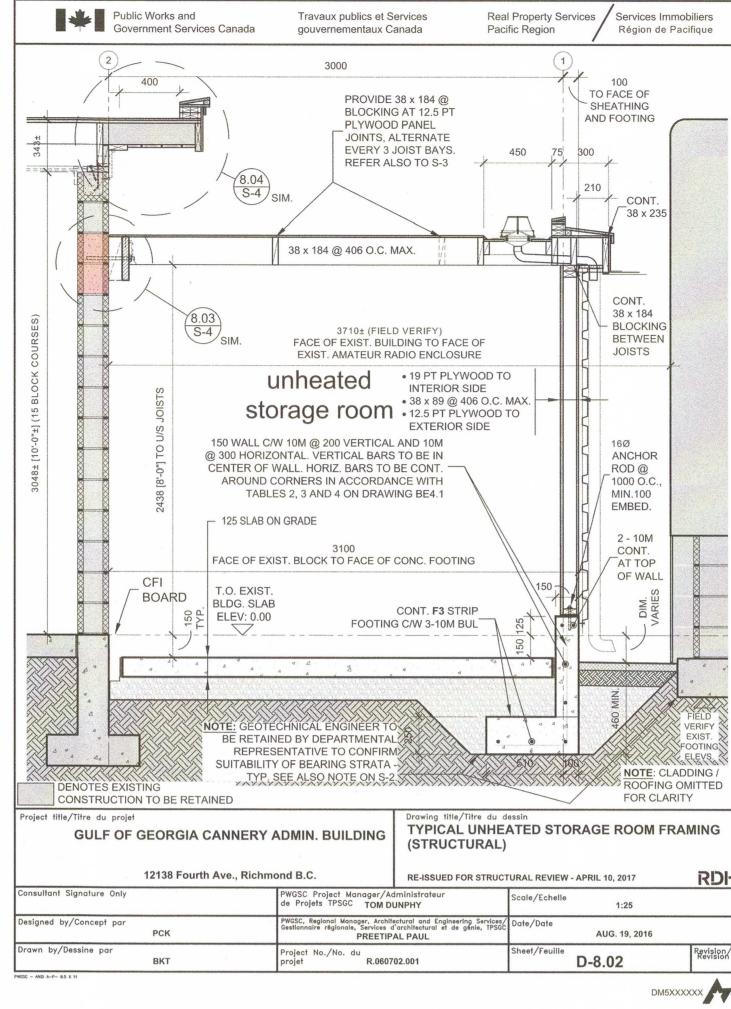
signed by/Concept par

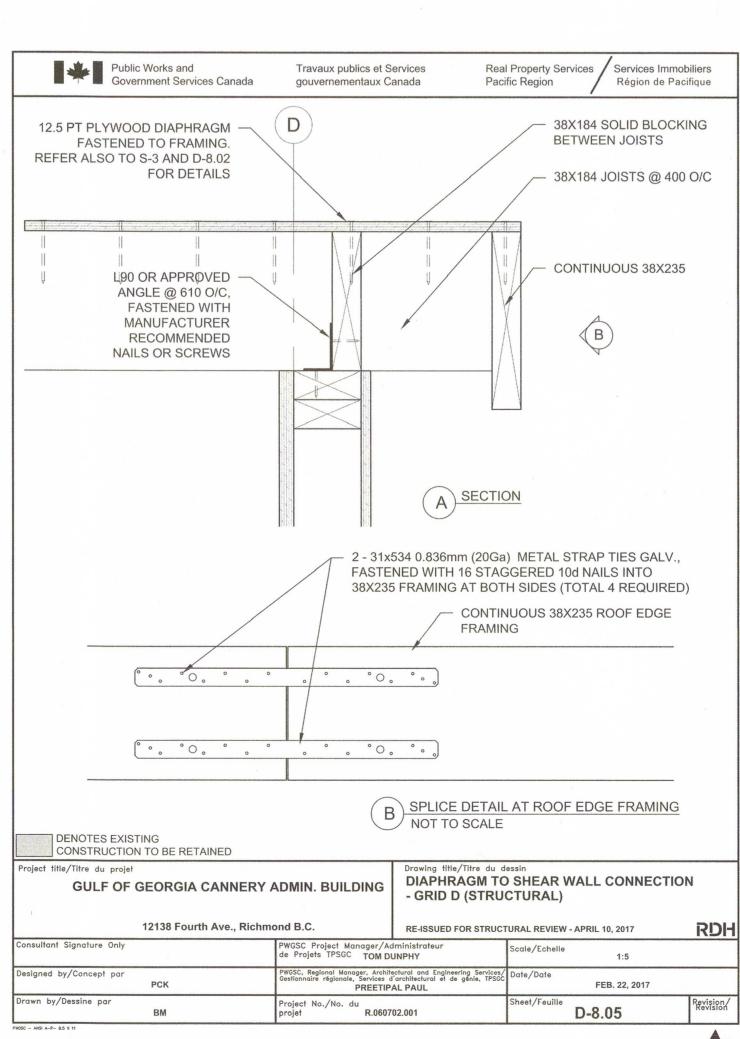
awn by/Dessine par

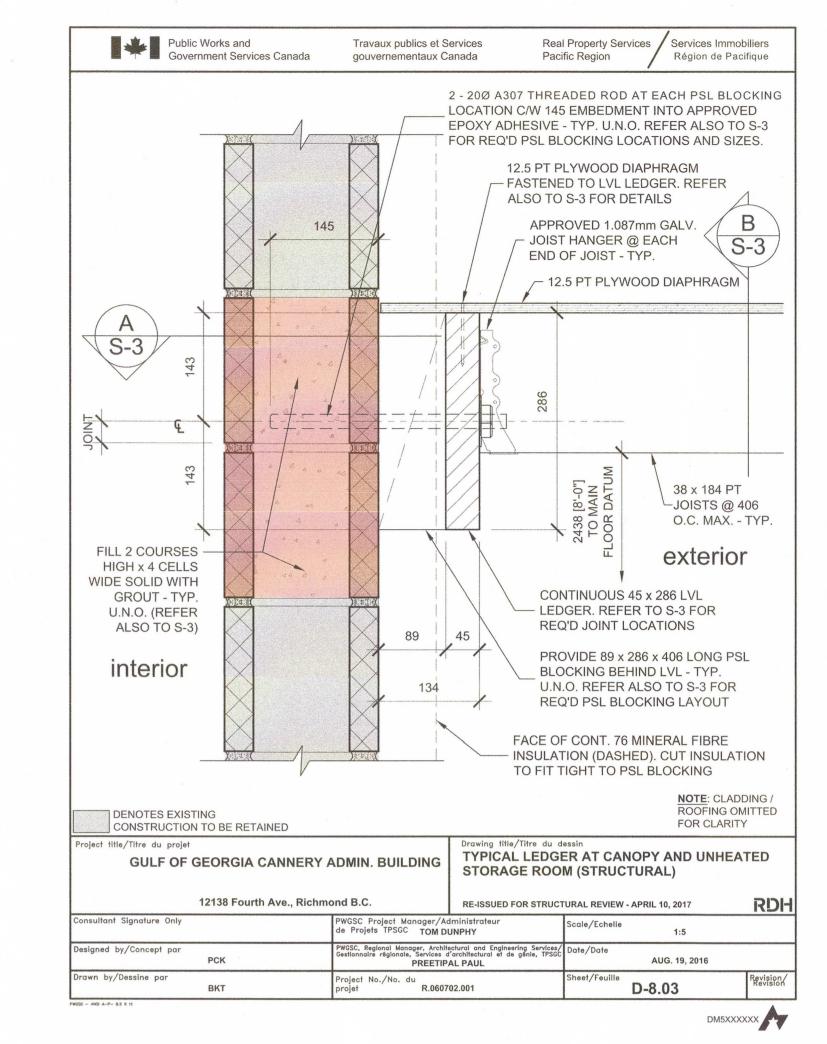
CONSTRUCTION TO BE RETAINED

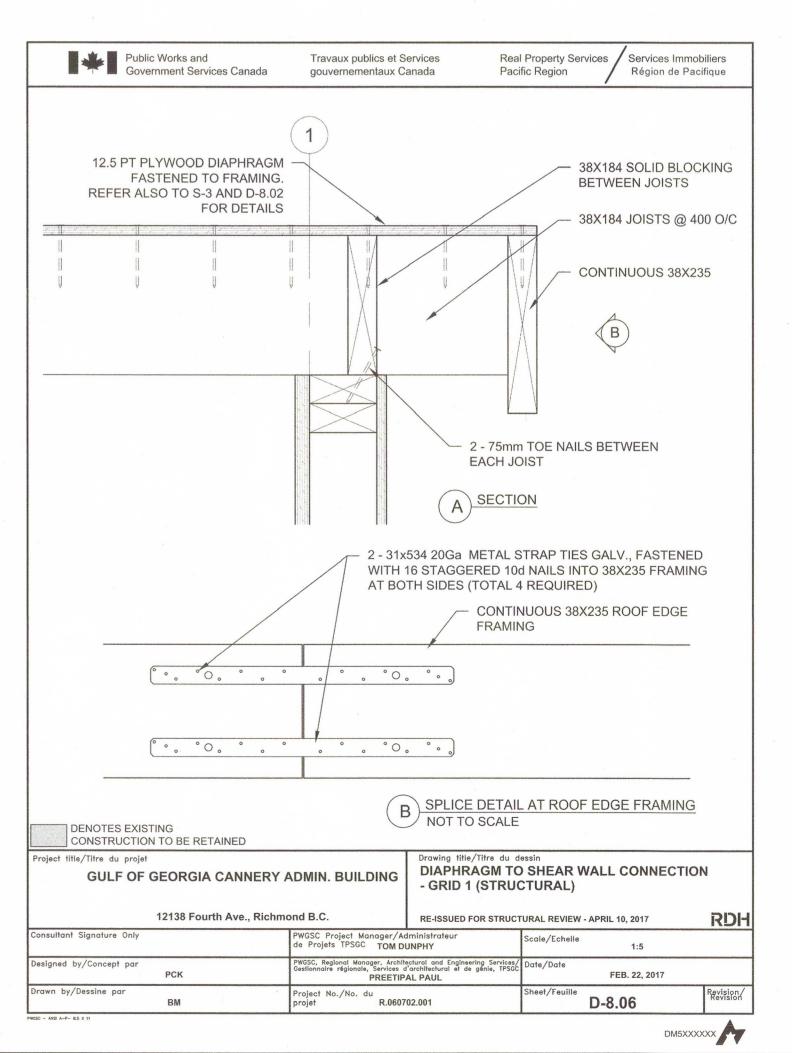
GULF OF GEORGIA CANNERY ADMIN. BUILDING

12138 Fourth Ave., Richmond B.C.





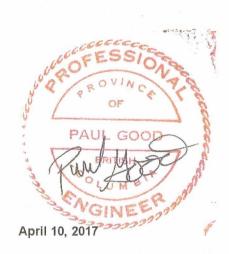








Public Works And Travaux publics et Services gouvernementauc



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Revision / Revision	Description / Description	Date / Date
		General contract and the contract and th

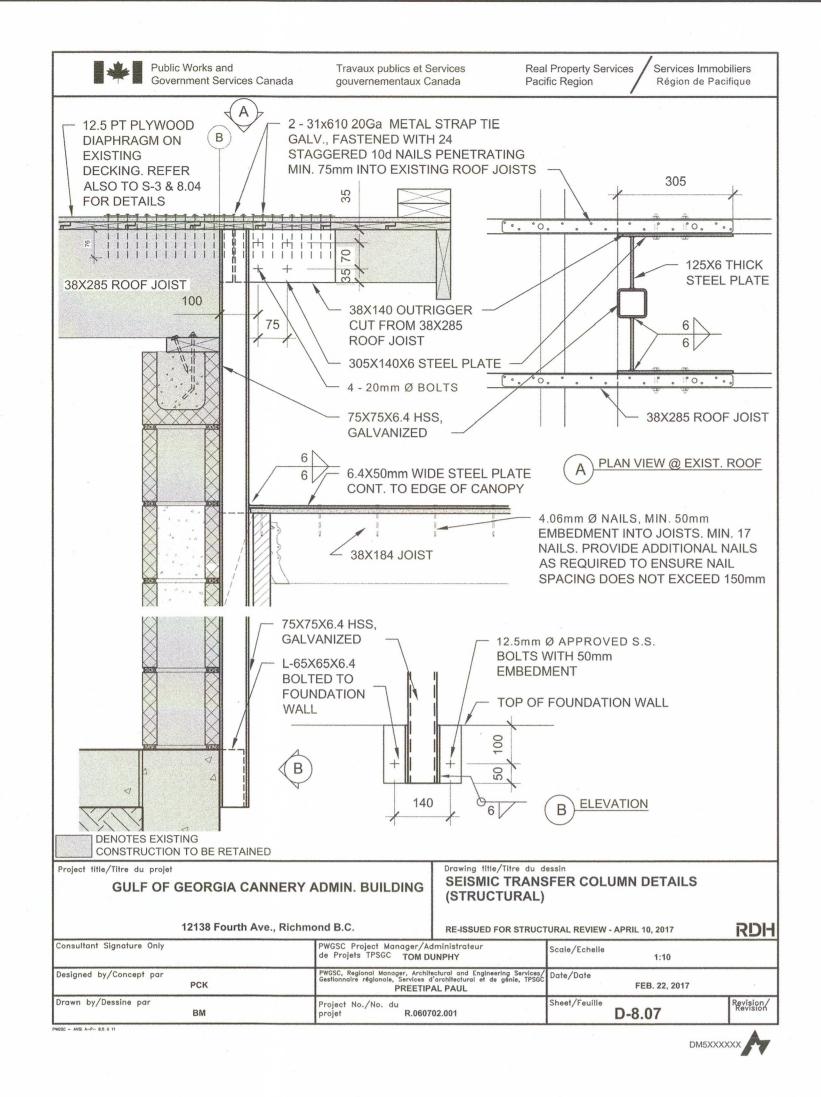
PARKS CANADA WESTERN REGION STEVESTON, B.C. NATIONAL HISTORIC

Project title / Titre du projet **GULF OF GEORGIA CANNERY** ADMINISTRATION BUILDING

12138 Fourth Ave., Richmond B.C.
Consultant Approval Box Only
Designed by / Concept par PK
Drawn by / Dessine par AC
PWGSC, Project Manager / Administrateur de Projets TPSGC TOM DUNPHY
PWGSC, Regional Manager, Architectural and Engineering Services /

PREETIPAL PAUL Drawing title / Titre du dessi **DETAIL DRAWINGS** SCALE: AS INDICATED

Project no. / no. du Projet. Sheet / Feuille Revision no. / R.060702.001



Travaux publics et Services

Real Property Services / Services Immobiliers

NOTE: DETAIL OCCURS

NOTE: DETAIL SIMILAR

TO D-8.09 U.N.O.

APR. 03, 2017

D-8.10

IN 4 LOCATIONS

ALONG GRID B

TOP AND BOTTOM PLATE: 100 x 3.2mm

x 800. FASTEN TO SOLID FILLED CORES

WITH 12.5mm Ø BOLTS EMBEDDED

115mm INTO EPOXY ADHESIVE

75 x 3.2mm

- FLAT PLATE

**CROSS BRACE** 

BLDG. SLAB

AS SHOWN

(STRUCTURAL)

2 - 15m BARS IN SOLID

GROUTED CELLS C/W

FOUNDATION DOWELS

ISSUED FOR STRUCTURAL REVIEW - APRIL 10, 2017

TYPICAL 800mm WIDE GRID B PIER UPGRADE

ELEV: 0.00

800±

PARTIAL EXTERIOR ELEVATION

SC, Regional Manager, Architectural and Engineering Services ionnaire régionale, Services d'architectural et de génie, TPSG PREETIPAL PAUL

WGSC Project Manager/Administrate Projets TPSGC TOM DUNPHY

Project No./No. du R.060702.001

Public Works and

DENOTES EXISTING

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rawn by/Dessine par

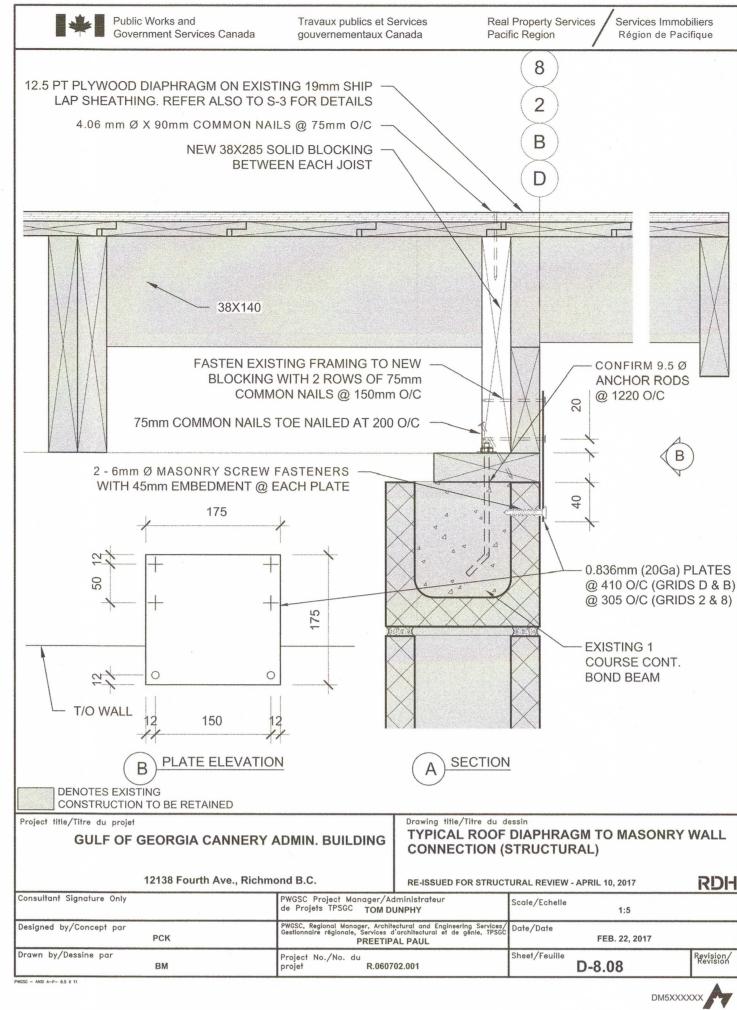
CONSTRUCTION TO BE RETAINED

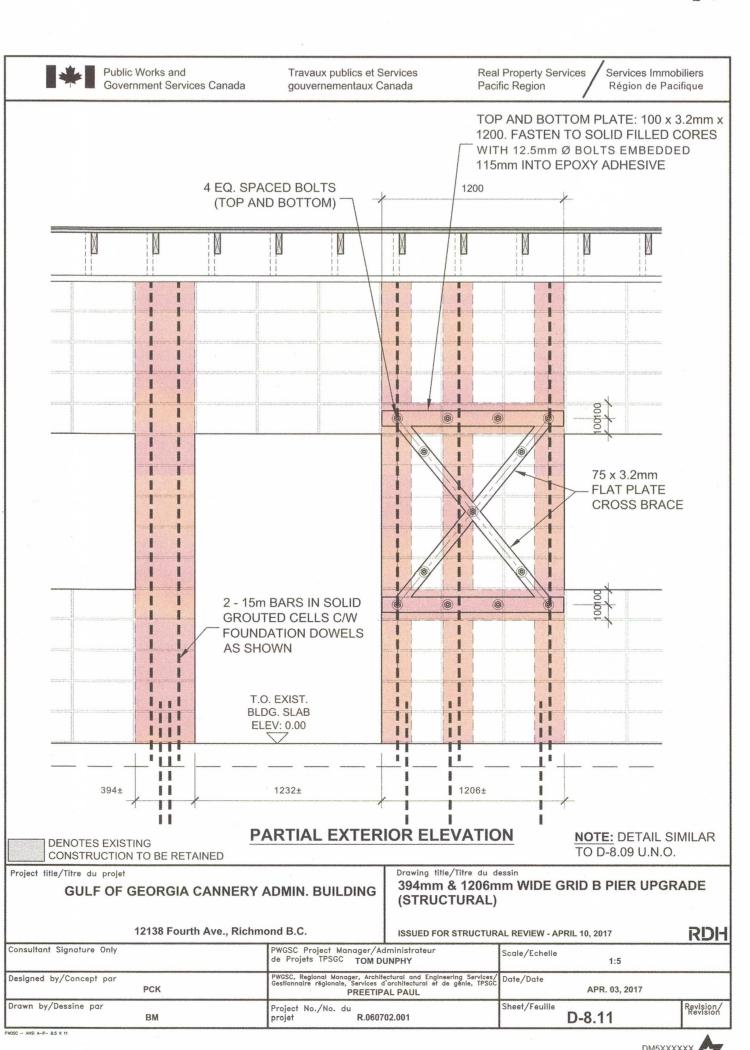
**GULF OF GEORGIA CANNERY ADMIN. BUILDING** 

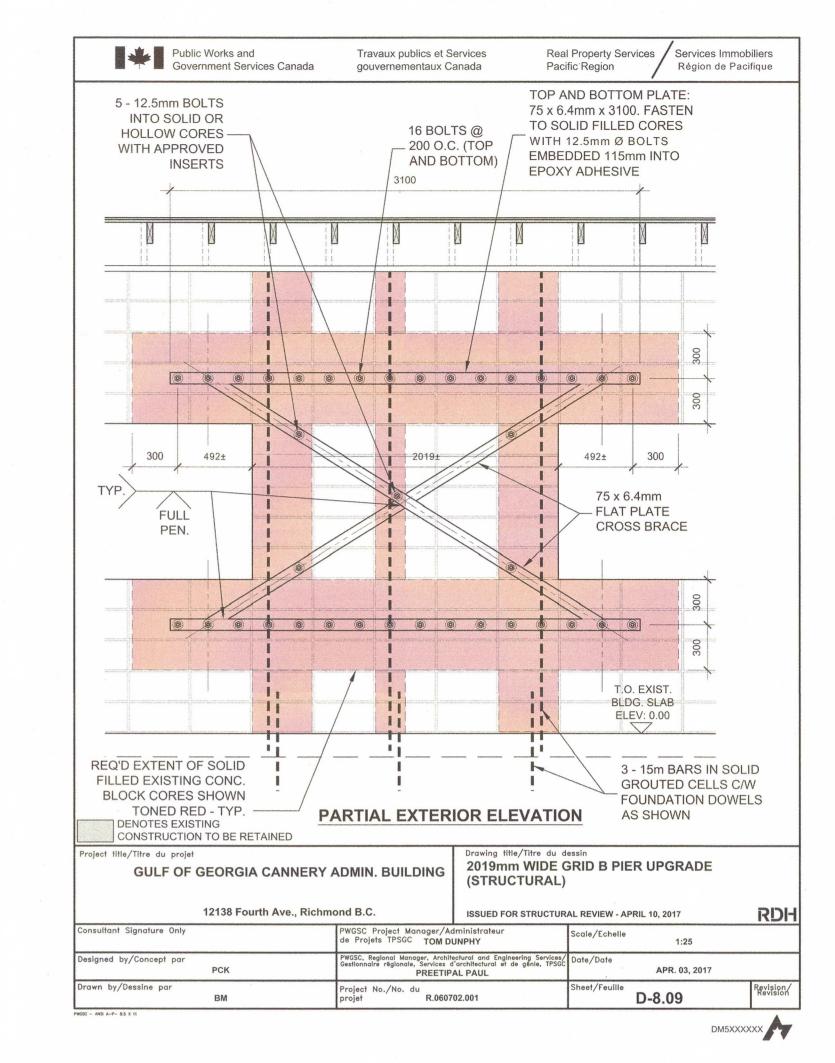
12138 Fourth Ave., Richmond B.C.

2 BOLTS (TOP

AND BOTTOM) -









REAL PROPERTY SERVICES
Pacific Region

SERVICES IMMOBILIERS
Region de Pacifique





3	ISSUED FOR TENDER	APR.10, 2017
2	RE-ISSUED FOR STRUCT. REVIEW	APR. 03, 2017
1	ISSUED FOR TENDER	FEB. 22, 2017
Revision / Revision	Description / Description	Date / Date

PARKS CANADA
WESTERN REGION
STEVESTON, B.C. NATIONAL HISTORIC
SITE

Project title / Titre du projet
GULF OF GEORGIA CANNERY
ADMINISTRATION BUILDING

12138 Fourth Ave., Richmond B.C.

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AC

PWGSC, Project Manager / Administrateur de Projets TPSGC
TOM DUNPHY

PWGSC, Regional Manager, Architectural and Engineering Services /
Gestionnaire regionale, Services d'architectural et de genie, TPSGC
PREETIPAL PAUL

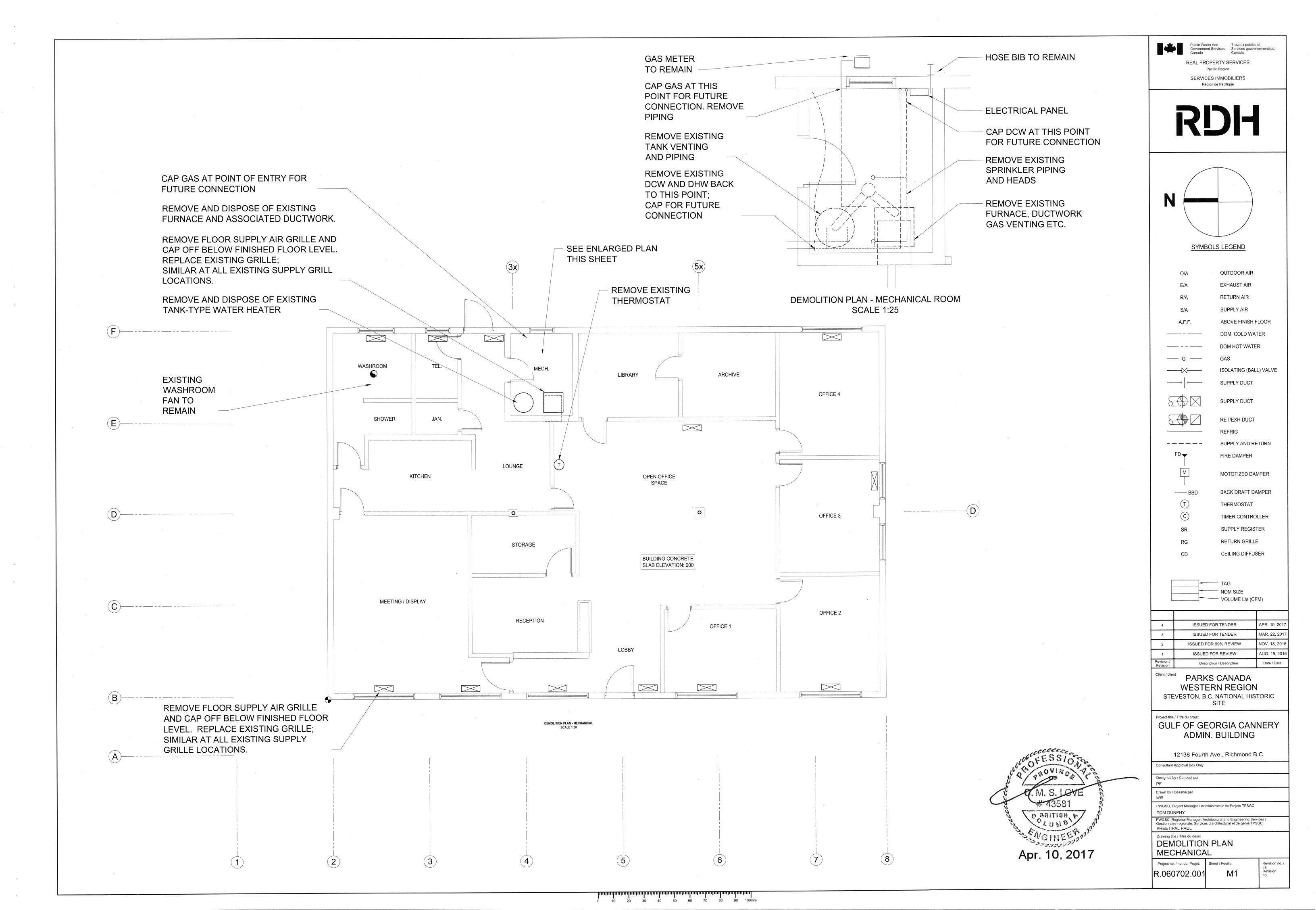
Drawing title / Titre du dessi

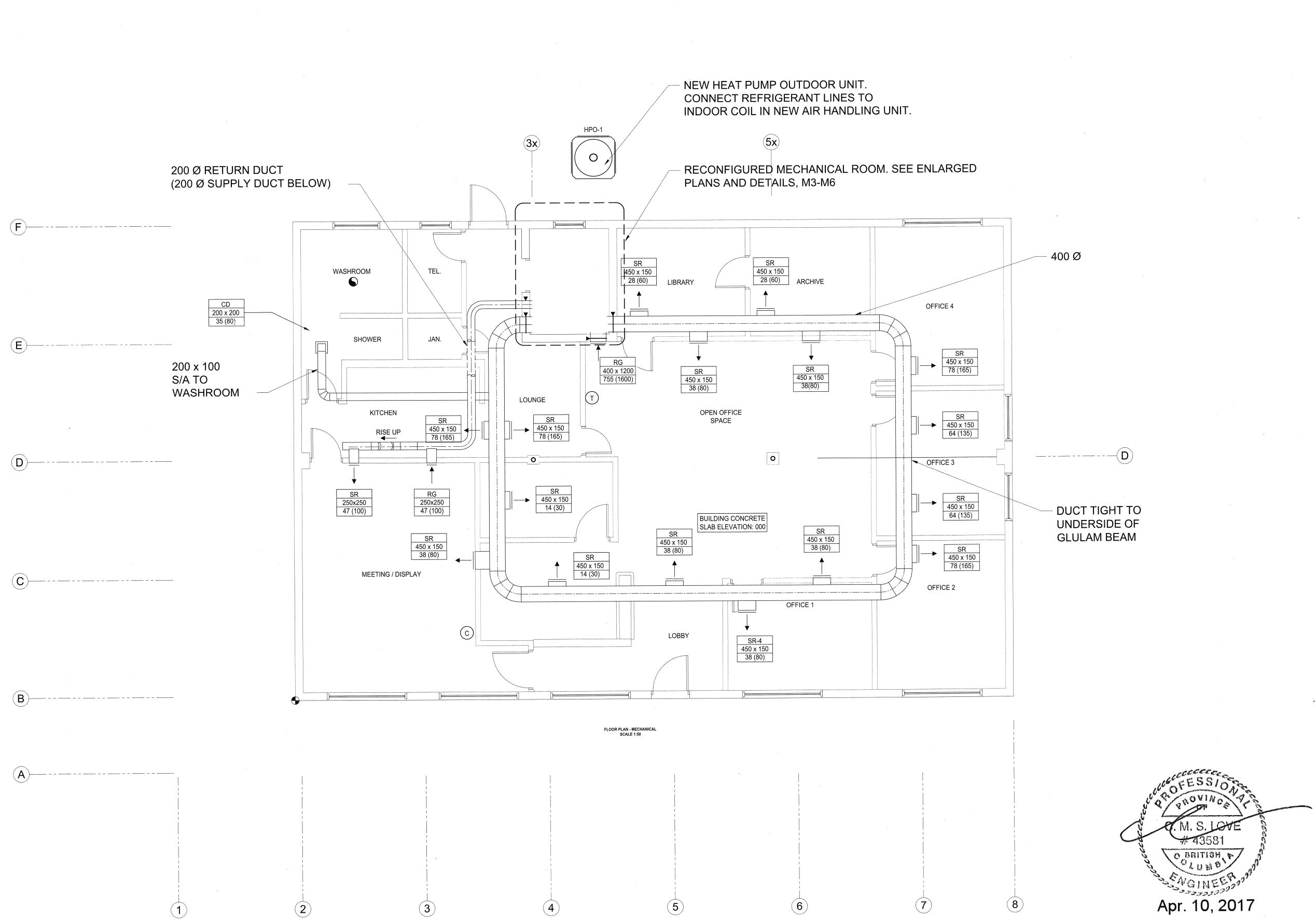
Revision no.

Drawing title / Titre du dessi
DETAIL DRAWINGS
SCALE: AS INDICATED

Project no. / no. du Projet.

R.060702.001 S-5



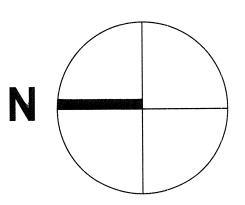


Public Works And
Government Services
Canada

REAL PROPERTY SERVICES
Pacific Region

SERVICES IMMOBILIERS
Region de Pacifique





SYMBO	LS LEGEND	
O/A	OUTDOOR AIR	
E/A	EXHAUST AIR	
R/A	RETURN AIR	
S/A	SUPPLY AIR	
A.F.F.	ABOVE FINISH F	LOOR
	DOM. COLD WA	TER
	DOM HOT WATE	R
G	GAS	
<del></del>	ISOLATING (BAL	L) VALVE
	SUPPLY DUCT	
	SUPPLY DUCT	
	RET/EXH DUCT	
	REFRIG	
	SUPPLY AND RE	TURN
FD 🕎	FIRE DAMPER	
   M	MOTOTIZED DAI	MPER
BBD	BACK DRAFT DA	MPER
T	THERMOSTAT	
C	TIMER CONTRO	LLER
SR	SUPPLY REGIS	ΓER
RG	RETURN GRILLE	=
CD	CEILING DIFFUS	SER
	TAG NOM SIZE VOLUME L/s (CF	FM)
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4	ISSUED FOR TENDER	APR. 10, 201
3	ISSUED FOR TENDER	MAR. 22, 201
2	ISSUED FOR 99% REVIEW	NOV. 18, 201
1	ISSUED FOR REVIEW	AUG. 19, 201
Revision /	Description / Description	Date / Date

PARKS CANADA
WESTERN REGION
STEVESTON, B.C. NATIONAL HISTORIC
SITE

GULF OF GEORGIA CANNERY
ADMIN. BUILDING

12138 Fourth Ave., Richmond B.C.

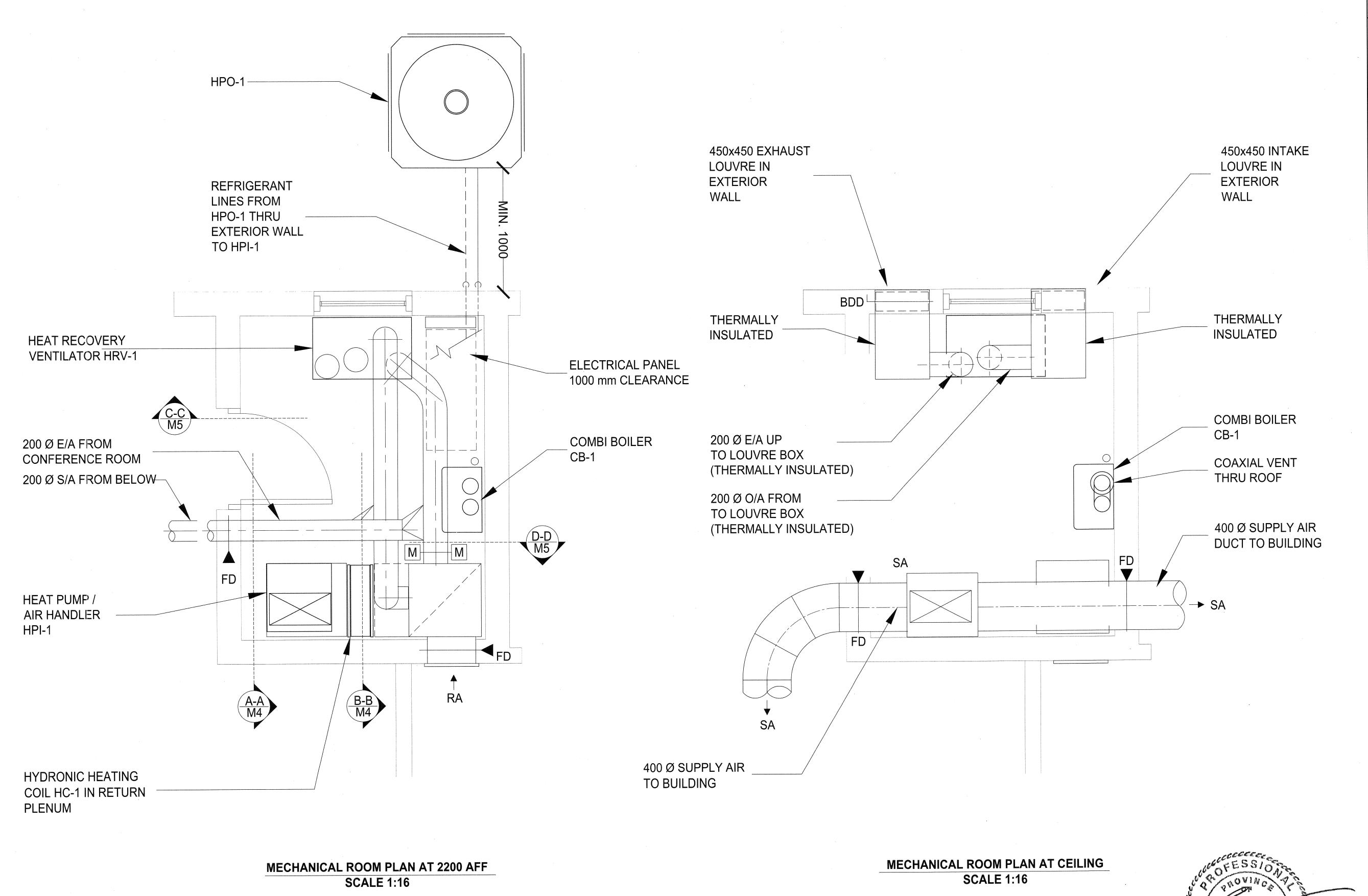
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Drawn by / Dessine par EW
PWGSC, Project Manager / Administrateur de Projets TPSGC TOM DUNPHY
PWGSC, Regional Manager, Architectural and Engineering Services / Gestionnaire regionale, Services d'architectural et de genie,TPSGC PREETIPAL PAUL

Drawing title / Titre du dessi
FLOOR PLAN
MECHANICAL

Project no. / no. du Projet. Sheet / Feuille
R.060702.001 M2

M2

Revision no. / La Revision no.

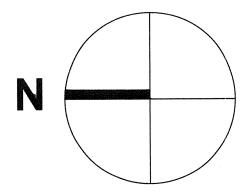


Public Works And
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Canada

REAL PROPERTY SERVICES
Pacific Region

SERVICES IMMOBILIERS
Region de Pacifique

RDH



SYMBOLS LEGEND OUTDOOR AIR EXHAUST AIR RETURN AIR SUPPLY AIR ABOVE FINISH FLOOR A.F.F. DOM. COLD WATER DOM HOT WATER ISOLATING (BALL) VALVE SUPPLY DUCT SUPPLY DUCT RET/EXH DUCT SUPPLY AND RETURN FIRE DAMPER MOTOTIZED DAMPER BACK DRAFT DAMPER THERMOSTAT TIMER CONTROLLER SUPPLY REGISTER RETURN GRILLE CEILING DIFFUSER

Γ	4	ISSUED FOR TENDER	APR. 10, 2017
	3	ISSUED FOR TENDER	MAR. 22, 2017
2	2	ISSUED FOR 99% REVIEW	NOV. 18, 2016
	1	ISSUED FOR REVIEW	AUG. 19, 2016
	Revision / Revision	Description / Description	Date / Date

NOM SIZE

VOLUME L/s (CFM)

PARKS CANADA
WESTERN REGION
STEVESTON, B.C. NATIONAL HISTORIC
SITE

Project title / Titre du projet

GULF OF GEORGIA CANNERY ADMIN. BUILDING

12138 Fourth Ave., Richmond B.C.

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Designed by / Concept par

PF

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Apr. 10, 2017

Drawn by / Dessine par EW PWGSC, Project Manager / Administrateur de Projets TPSGC

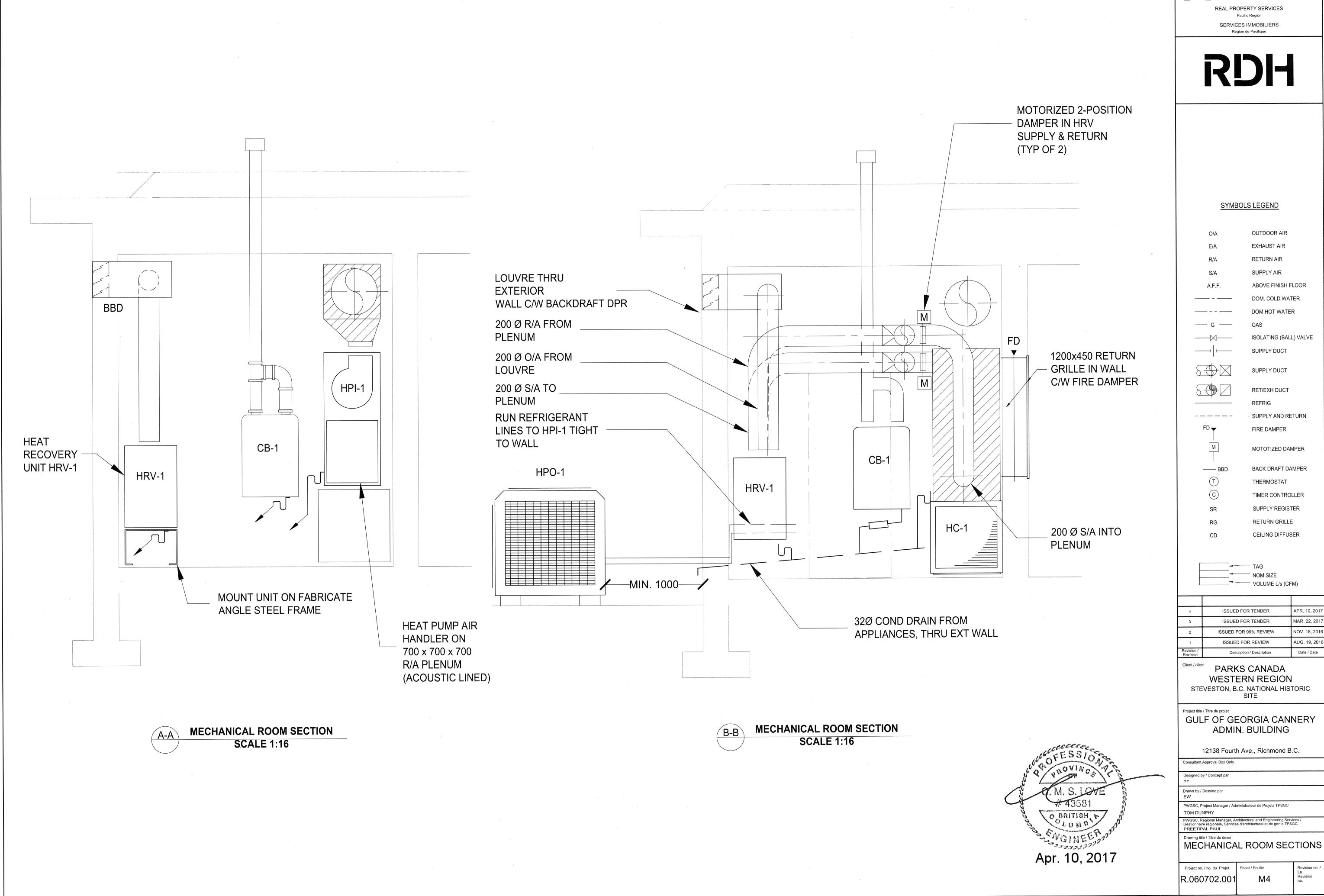
OM DUNPHY

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estionnaire regionale, Services d'architectural et de genie,TPSGC

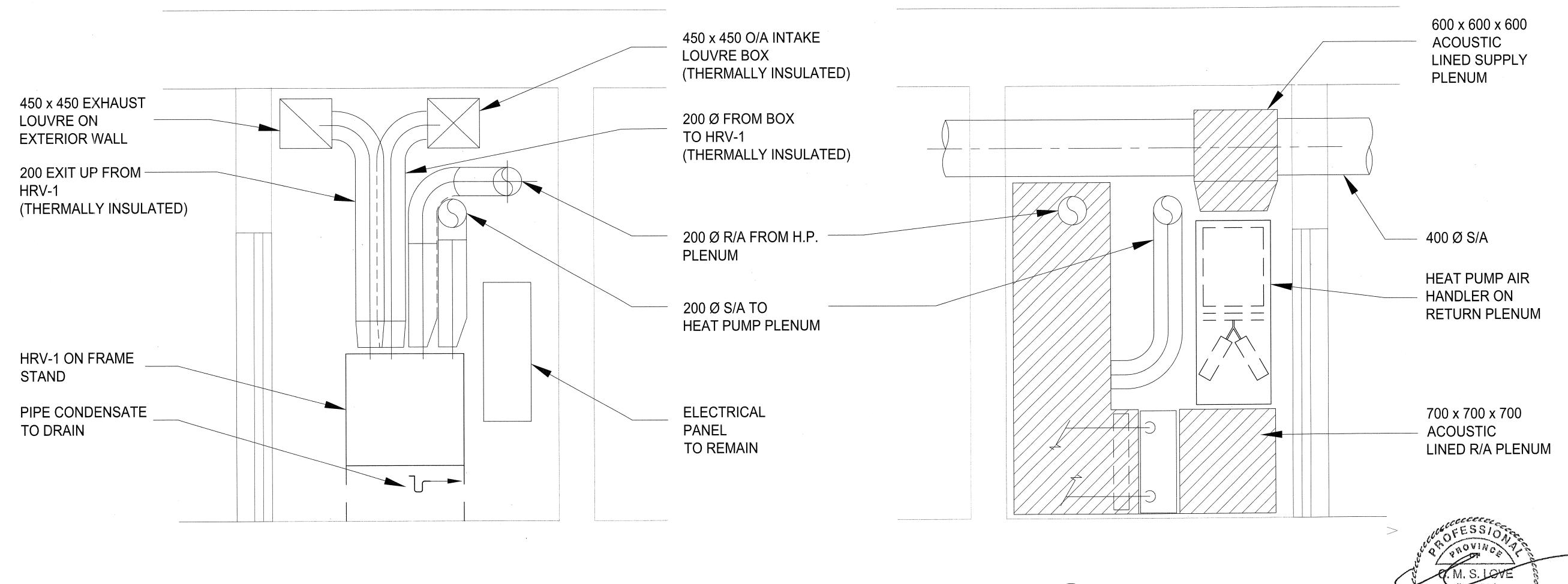
REETIPAL PAUL

Drawing title / Titre du dessi
MECHANICAL ROOM PLAN

Project no. / no. du Projet.
R.060702.001 M3



4	ISSUED FOR TENDER	APR. 10, 2017
3	ISSUED FOR TENDER	MAR. 22, 2017
2	ISSUED FOR 99% REVIEW	NOV. 18, 2016
1	ISSUED FOR REVIEW	AUG. 19, 2016
Revision / Revision	Description / Description	Date / Date



	HVAC EQUIPMENT LIST								
TAG	G DESCRIPTION CAPACITY EFFICIENCY					ELECTRICAL		REMARKS	
		NOMINAL HEATING kW (MBH)	NOMINAL COOLING kW (MBH)	L/s (CFM)		V.P.C.	MIN CIRCUIT AMPS	FAN MOTOR kW (HP)	
HPI-1	HEAT PUMP INDOOR SECTION	<del>-</del>	-	755 (1600)		240-1-60	9.0	0.6 (3/4)	INSULATED CABINET AND FLEX CONNECTIONS AT DUCTS
HPO-1	HEAT PUMP OUTDOOR SECTION	10 (33.0)	13 (44.0) (1)		SEER 18	240-1-60	29.2		MOUNTED AT GRADE LEVEL
HRV-1	AIR TO AIR HEAT RECOVERY UNIT	-	-	113 (239)	66% SENS RECOVERY	120-1-60	6	2 @ 0.2 (2@1/4)	ALUMINUM CORE ASSEMBLY AND MERV 8 FILTER, ON ANKLE FRAME STAND
CB-1	COMBI HTG AND DOM WATER BOILER	58 (199)	-	<u>-</u>	92% CONDENSING	120-1-60	-		SEALED COMBUSTION UNIT WITH COAXIAL VENT PACKAGE AND CONDENSATE NEUTRALIZER
HWC-1	HYDRONIC HEATING COIL	13 @ 0.2 L/s (44.3 @ 3GPM)	-	755 (1600)	-	-	-	-	-

MECHANICAL ROOM SECTION

**SCALE 1:16** 

(1) TOTAL COOLING CAPACITY @ 29°C DB/19°C WB (85°F DB/67°F WB)



AIR TERMINALS						
TYPE	DRAWING SYMBOL	DESCRIPTION	MANUFACTURER AND MODEL			
RETURN RG, RR CENTRES, BLADES PARALLEL TO LONG DIMENSION;		TITUS 272 FL				
		ALUMINUM, SINGLE DEFLECTION, FIXED BARS @ 18MM CENTRES, BLADES PARALLEL TO LONG DIMENSION; VOLUME DAMPER; 32MM WIDE BORDER; WHITE FINISH	TITUS 350 FL			
EXHAUST GRILLE	EG	ALUMINUM. SINGLE DEFLECTION, FIXED BARS @ 18MM CENTRES, BLADES PARALLEL TO LONG DIMENSION; 32MM WIDE BORDER; WHITE FINISH	TITUS 350 FL			
EXHAUST REGISTER ER ALUMINUM, SINGLE DEFLECT CENTRES, BLADES PARALL VOLUME DAMPER, 32MM WID INVERTED VEE STYLE ALUM GRILLE WITH BACK		ALUMINUM, SINGLE DEFLECTION, FIXED BARS @ 18MM CENTRES, BLADES PARALLEL TO LONG DIMENSION; VOLUME DAMPER, 32MM WIDE BORDER; WHITE FINISH	TITUS 350 FL			
		INVERTED VEE STYLE ALUMINUM DOOR TRANSFER GRILLE WITH BACKING FLANGE 600 X 300 UNLESS OTHERWISE NOTED	TITUS CT700L-AF			
TRANSFER GRILLE	TG	SAME AS RG (NO DAMPER)	TITUS 350 FL			





	SYMBOLS	S LEGEND	
	O/A	OUTDOOR AIR ·	
	E/A	EXHAUST AIR	
	R/A	RETURN AIR	
	S/A	SUPPLY AIR	
	A.F.F.	ABOVE FINISH F	LOOR
nada salah sal		DOM. COLD WA	TER
		DOM HOT WATE	R
	— G ——	GAS	
<u></u>	<del></del>	ISOLATING (BAL	L) VALVE
		SUPPLY DUCT	
8		SUPPLY DUCT	
5		RET/EXH DUCT	
		REFRIG	
	ensity specialists represent resources communications	SUPPLY AND RE	TURN
	FD	FIRE DAMPER	
	M	MOTOTIZED DAI	MPER
	BBD	BACK DRAFT DA	AMPER
	T	THERMOSTAT	
	C	TIMER CONTRO	LLER
	SR	SUPPLY REGIST	TER
	RG	RETURN GRILLE	Ē
	CD	CEILING DIFFUS	SER
		TAG NOM SIZE VOLUME L/s (CF	FM)
4	ISSUED FOR		APR. 10, 2017
3	ISSUED FOR	TENDER	MAR. 22, 2017

Ŭ	1000227 011 12112	
2	ISSUED FOR 99% REVIEW	NOV. 18, 20 <sup>-</sup>
1	ISSUED FOR REVIEW	AUG. 19, 20
Revision / Revision	Description / Description	Date / Date
Client / clier	PARKS CANADA	I

O BRITISH, P

Apr. 10, 2017

PARKS CANADA
WESTERN REGION
STEVESTON, B.C. NATIONAL HISTORIC
SITE

Project title / Titre du projet

GULF OF GEORGIA CANNERY

ADMIN. BUILDING

12138 Fourth Ave., Richmond B.C.

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PF

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EW

PWGSC, Project Manager / Administrateur de Projets TPSGC
TOM DUNPHY

PWGSC, Regional Manager, Architectural and Engineering Services /
Gestionnaire regionale, Services d'architectural et de genie,TPSGC
PREETIPAL PAUL

Drawing title / Titre du dessi

MECHANICAL ROOM SECTIONS

Project no. / no. du Projet.

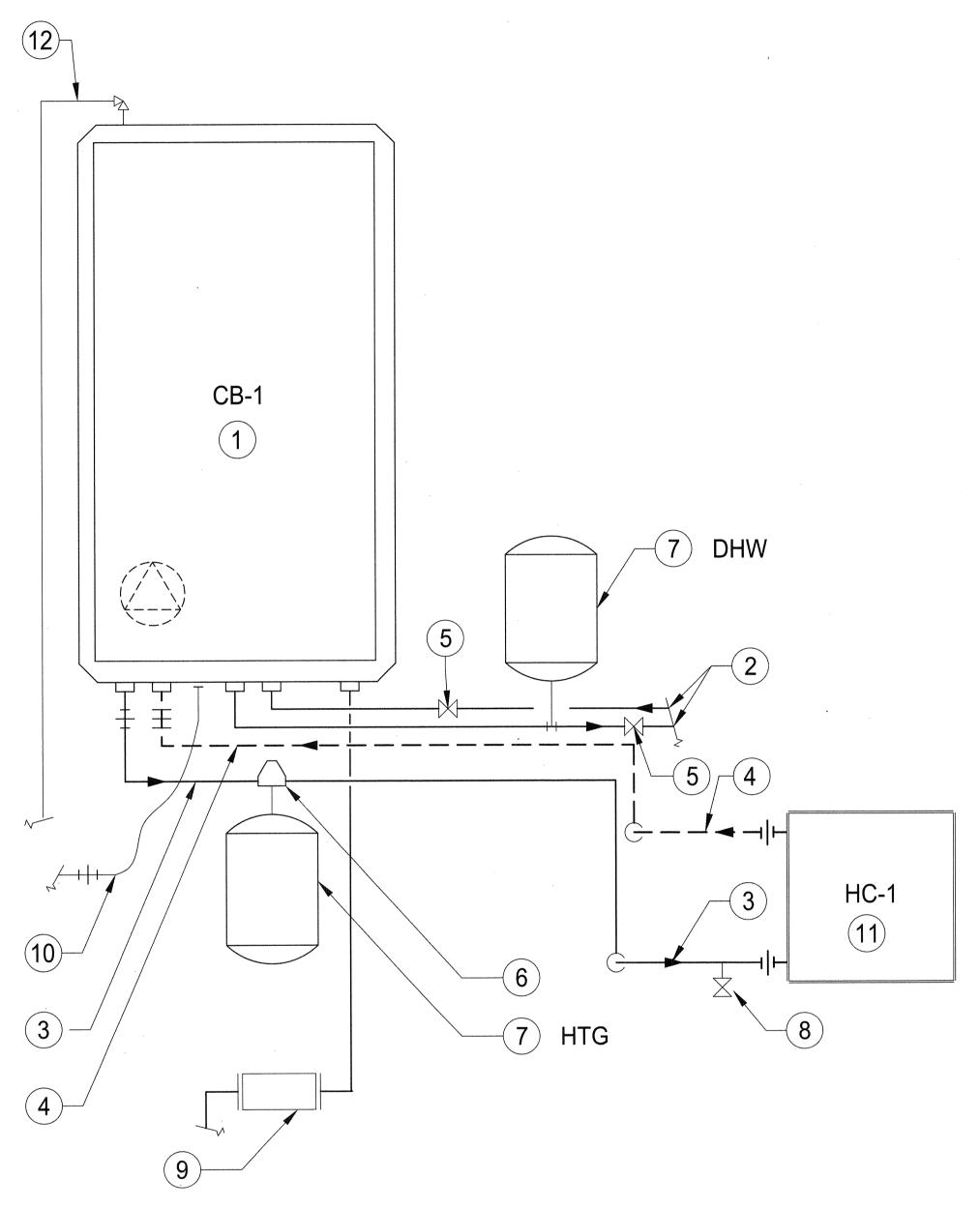
R.060702.001

Sheet / Feuille

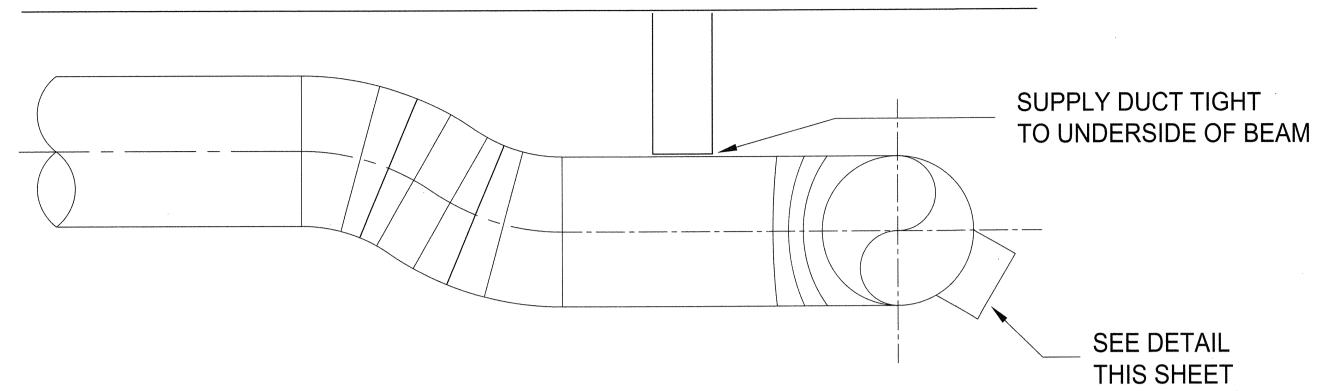
Sheet / Feuille

M5

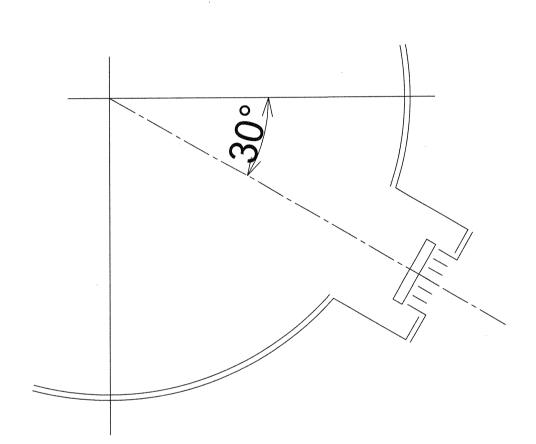
Revision no. /
La
Revision
no.



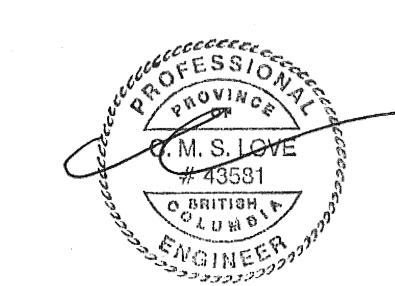
- 1 COMBI BOILER CB-1
- (2) EXTEND & CONNECT TO EXISTING DHW & DCW SYSTEM
- 3 25 HWS TO HEATING COIL HC-1
- 4) 25 HWR FROM HEATING COIL HC-1
- (5) ISOLATING (BALL) VALVE
- (6) AIR SEPARATOR
- (7) DIAPHRAGM EXPANSION TANK
- (8) STOP & DRAIN
- (9) CONDENSATE DRAIN C/W NEUTRALIZER PIPE TO DRAIN
- (10) CONNECT TO EXISTING GAS SUPPLY C/W FLEX CONN.
- (11) HEATING COIL HC-1
- 12) T&P VALVE. PIPE TO DRAIN



DETAIL - SUPPLY DUCT AT BEAM SCALE 1:10



DETAIL - SUPPLY REGISTER TAKEOFF
NTS



Apr. 10, 2017





	S	Y	M	В	O	L	S	L	Ε	G	Ε	N	D
,		-		_		-				-		-	

SYMBOL	5 LEGEND
O/A	OUTDOOR AIR
E/A	EXHAUST AIR
R/A	RETURN AIR
S/A	SUPPLY AIR
A.F.F.	ABOVE FINISH FLOOR
	DOM. COLD WATER
	DOM HOT WATER
G	GAS
	ISOLATING (BALL) VALVE
	SUPPLY DUCT
	SUPPLY DUCT
	RET/EXH DUCT
***************************************	REFRIG
and sample action similar scanes and	SUPPLY AND RETURN
FD 🕎	FIRE DAMPER
M	MOTOTIZED DAMPER
—— ВВD	BACK DRAFT DAMPER
T	THERMOSTAT
C	TIMER CONTROLLER
SR	SUPPLY REGISTER
RG	RETURN GRILLE
CD	CEILING DIFFUSER
	TAG
	- 1014 0175

4	ISSUED FOR TENDER	APR. 10, 2017
3	ISSUED FOR TENDER	MAR. 22, 2017
2	ISSUED FOR 99% REVIEW	NOV. 18, 2016
1	ISSUED FOR REVIEW	AUG. 19, 2016
Revision /	Description / Description	Date / Date

VOLUME L/s (CFM)

PARKS CANADA
WESTERN REGION
STEVESTON, B.C. NATIONAL HISTORIC
SITE

GULF OF GEORGIA CANNERY
ADMIN. BUILDING

12138 Fourth Ave., Richmond B.C.

Consultant Approval Box Only

Designed by / Concept par

Drawn by / Dessine par

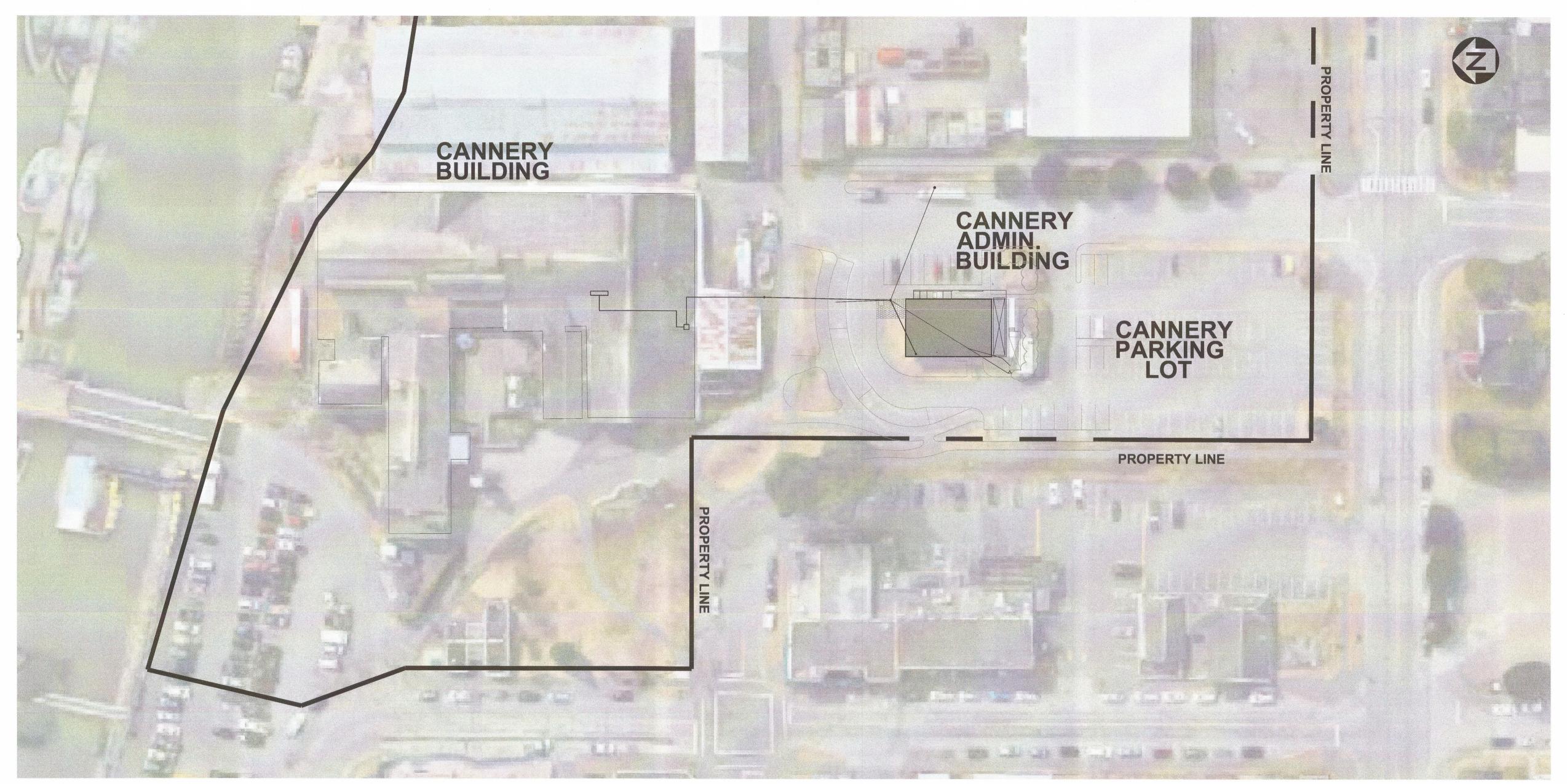
PWGSC, Project Manager / Administrateur de Projets TPSGC TOM DUNPHY

PWGSC, Regional Manager, Architectural and Engineeri Gestionnaire regionale, Services d'architectural et de ger PREETIPAL PAUL

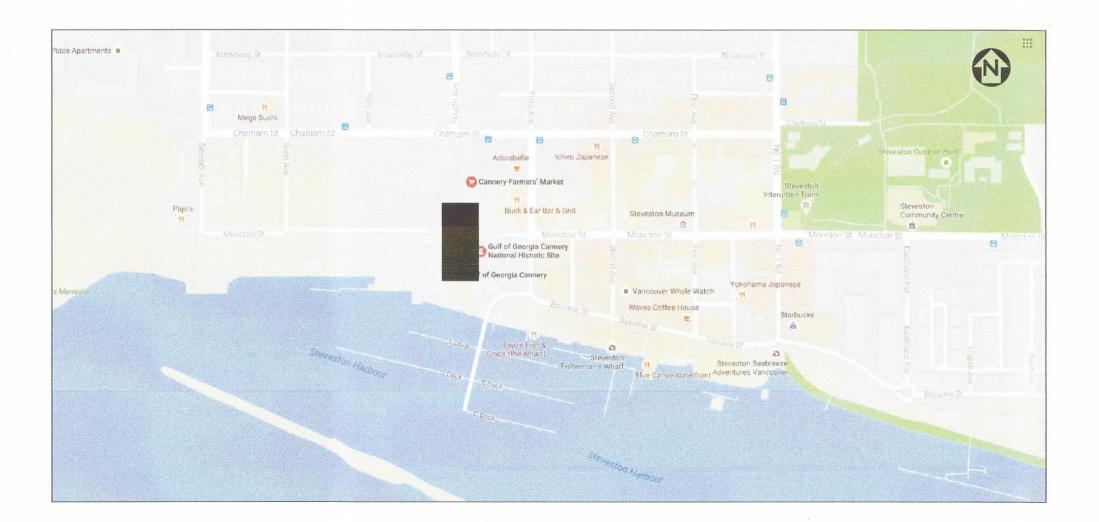
Drawing title / Titre du dessi

MECHANICAL ROOM DETAILS

Project no. / no. du Projet. Sheet / Feuille
R.060702.001 M6



SITE PLAN



LOCATION PLAN
NTS

ID	NAME	DATE	ISSUE	REV.
E1	ELECTRICAL COVERSHEET	04/10/2017	FOR TENDER	2
E2	SITE PLAN	04/10/2017	FOR TENDER	2
E3	ELECTRICAL PLAN - LIGHTING	04/10/2017	FOR TENDER	2
E4	LIGHTING PLAN	04/10/2017	FOR TENDER	2
E5	ELECTRICAL PLAN	04/10/2017	FOR TENDER	2
E6	MECHANICAL ROOM PLAN	04/10/2017	FOR TENDER	2
E7	MECHANICAL ROOM SECTIONS	04/10/2017	FOR TENDER	2
E8	ELECTRICAL POWER ROUTING - MUSEUM TO ADMIN	04/10/2017	FOR TENDER	2
E8	PANEL SCHEDULE, LIGHTING SCHEDULE AND LEGEND	04/10/2017	FOR TENDER	2
E9	BUILDING ELEVATION — EAST	04/10/2017	FOR TENDER	2
E10	ELECTRICAL NOTES SH. 1 of 2	04/10/2017	FOR TENDER	2
E11	ELECTRICAL NOTES SH. 2 of 2	04/10/2017	FOR TENDER	2

Public Works a Government S Canada

Canada

REAL PROPERTY SERVICES

Pacific Region

SERVICES IMMOBILIERS

Région de Pacifique





2	ISSUED FOR TENDER	04/10/17
1	ISSUED FOR TENDER	02/22/17
Revision/ Revision	Description/Description	Date/Dat
Client/cli	ent	

PARKS CANADA WESTERN REGION
STEVESTON, B.C. NATIONAL HISTORIC SITE

Project title/Titre du projet

GULF OF GEORGIA CANNERY ADMINISTRATION BUILDING

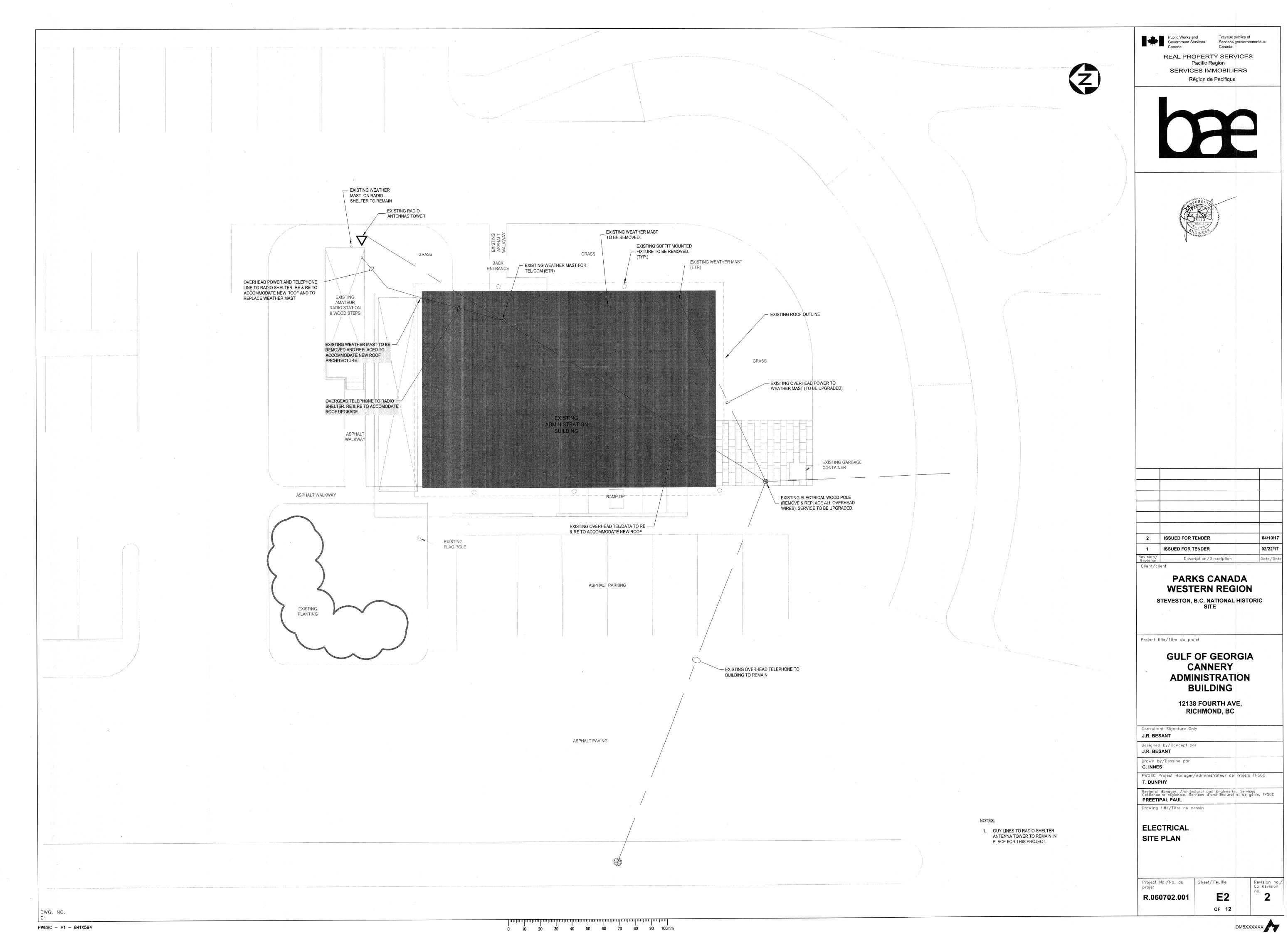
> 12138 FOURTH AVE, RICHMOND, BC

*
Consultant Signature Only
J.R. BESANT
Designed by/Concept par  J.R. BESANT
Drawn by/Dessine par C. INNES
PWGSC Project Manager/Administrateur de Projets TPSGC
T. DUNPHY
Regional Manager, Architectural and Engineering Services Cestionnaire régionale, Services d'architectural et de génie, TPSGC PREETIPAL PAUL
Drawing title/Titre du dessin

ELECTRICAL

COVERSHEET

R.060702.001	<b>E</b> 1
Project No./No. du projet	Sheet/ Feuille



DM5XXXXXX



LEGEND:

WALL SCONCE

WALL POT OR HID LUMINAIRE

POLE MOUNTED LUMINAIRE

SINGLE POLE SWITCH

THREE WAY SWITCH

LUMINAIRE (TYPE)

DUPLEX RECEPTACLE

SINGLE RECEPTACLE

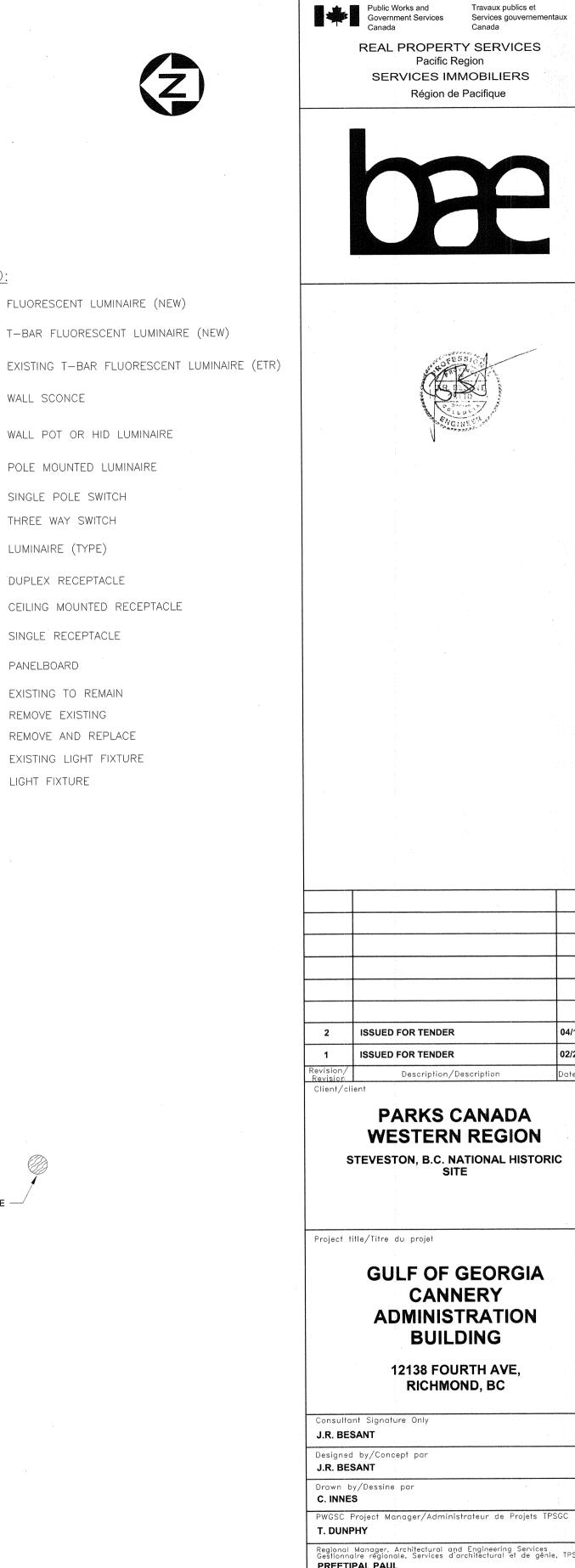
EXISTING TO REMAIN

REMOVE AND REPLACE

REMOVE EXISTING

PANELBOARD

EX LF EXISTING LIGHT FIXTURE LIGHT FIXTURE



FLUORESCENT LUMINAIRE (NEW) T-BAR FLUORESCENT LUMINAIRE (NEW) EXISTING T-BAR FLUORESCENT LUMINAIRE (ETR)

02/22/17 Description/Description

> PARKS CANADA **WESTERN REGION** STEVESTON, B.C. NATIONAL HISTORIC

**GULF OF GEORGIA CANNERY ADMINISTRATION** 

> 12138 FOURTH AVE, RICHMOND, BC

Drawn by/Dessine par		*	
C. INNES			
PWGSC Project Manager/A	dministrateur	de Projets	TPSGC
T. DUNPHY			
Regional Manager, Architectu Gestionnaire régionale, Servi PREETIPAL PAUL	ral and Engin ces d'architect	eering Servic ural et de g	es énie, TPS(

ELECTRICAL PLAN LIGHTING

Project No./No. du projet Sheet/ Feuille **E**3 R.060702.001

OF 12

DM5XXXXXX

- EXISTING FIRE ALARM GONG TO BE EXISTING RADIO ANTENNA REMOVED (NO LONGER REQUIRED). RE-VERIFY FIRE ALARM SYSTEM. EXISTING 10, 100A DISTRIBUTION PANEL EXISTING EXISTING TANK. SEE MECHANICAL — DRAWINGS FOR DETAILS, REMOVE AMATEUR RADIO - EXISTING FURNACE. SEE MECHANICAL DRAWINGS FOR DETAILS, REMOVE STATION ELECTRICAL WIRING. ELECTRICAL WIRING. ROOF OVERHANG OUTLINE (EX) EX LF EX LF TEL. MECH. WASHROOM LIBRARY ARCHIVE SHOWER (E)OFFICE 4 EX LF\_\_\_\_\_EX LF\_\_\_\_EX LF\_\_\_\_EX LF\_\_\_\_ EX LF\_\_\_\_EX LF\_\_\_ OPEN OFFICE LOUNGE SPACE KITCHEN OFFICE 3 \ EX EX LF STORAGE — THESE FIXTURES TO BE RELOCATED TO EX LF\_\_\_\_EX LF\_\_\_\_EX LF\_\_\_ DUCTWORK. \ EX MEETING / DISPLAY OFFICE 1 RECEPTION [EXTLESS CENTER TO THE TEXT CENT OFFICE 2 0 .5m 1m <u>LIGHTING PLAN - DEMOLITION</u>

NOTES:

EXISTING WOODEN POLE

 REMOVE EXTERIOR LIGHTING UNDER SOFFITS. THESE FIXTURES ARE TO BE REPLACED.

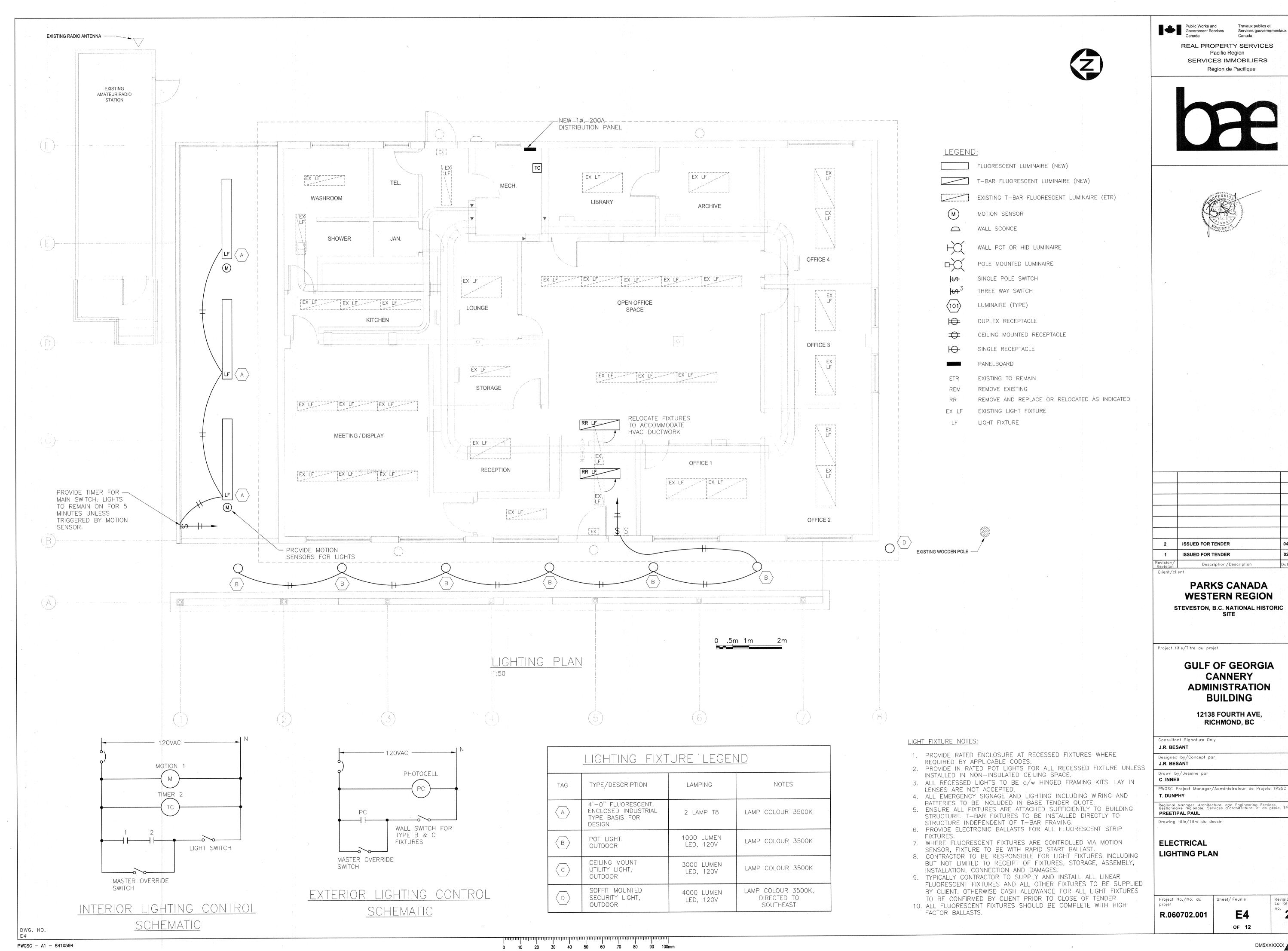
2. ALL LIGHT FIXTURES TO BE REMOVED AND REPLACED IN BUILDING UNLESS NOTED OTHERWISE THE LIGHTS HAVE TO BE TAKEN DOWN TO ACCOMMODATE NEW OPEN CEILING PLAN. THEY ARE TO BE SCREWED DIRECTLY TO THE EXPOSED FRAMING IN THEIR EXISTING LOCATIONS.

3. LOCATE FIXTURES TO SUIT LIGHTING REQUIREMENTS AND TO ACCOMMODATE NEW MECHANICAL SYSTEMS.

0 10 20 30 40 50 60 70 80 90 100mm

PWGSC - A1 - 841X594

DWG. NO.



PWGSC - A1 - 841X594

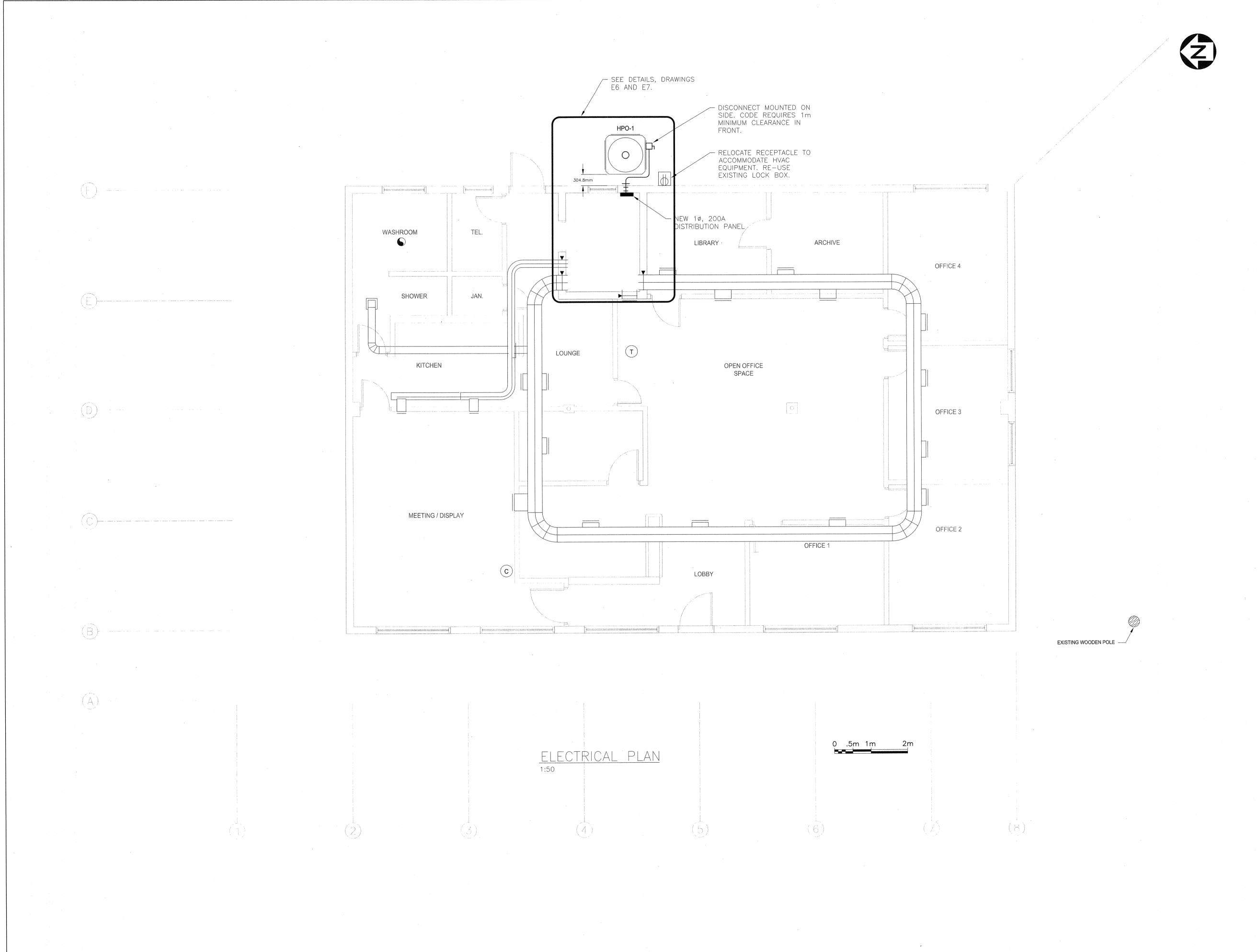


04/10/17 02/22/17

Regional Manager, Architectural and Engineering Services Gestionnaire régionale, Services d'architectural et de génie, TPSCC

Revision no. La Révision

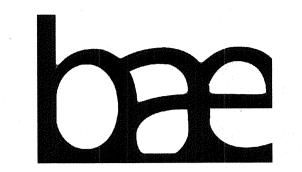
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Public Works and Government Services Canada

Public Works and Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region SERVICES IMMOBILIERS Région de Pacifique





10 April 2017

2 ISSUED FOR TENDER 04/10/17 02/22/17 ISSUED FOR TENDER Client/client

> PARKS CANADA **WESTERN REGION** STEVESTON, B.C. NATIONAL HISTORIC SITE

Project title/Titre du projet

**GULF OF GEORGIA** CANNERY **ADMINISTRATION** BUILDING

> 12138 FOURTH AVE, RICHMOND, BC

Consultant Signature Only J.R. BESANT Designed by/Concept par J.R. BESANT

Drawn by/Dessine par C. INNES

T. DUNPHY Regional Manager, Architectural and Engineering Services Gestionnaire régionale, Services d'architectural et de génie, TPSGC PREETIPAL PAUL

Drawing title/Titre du dessin

ELECTRICAL PLAN

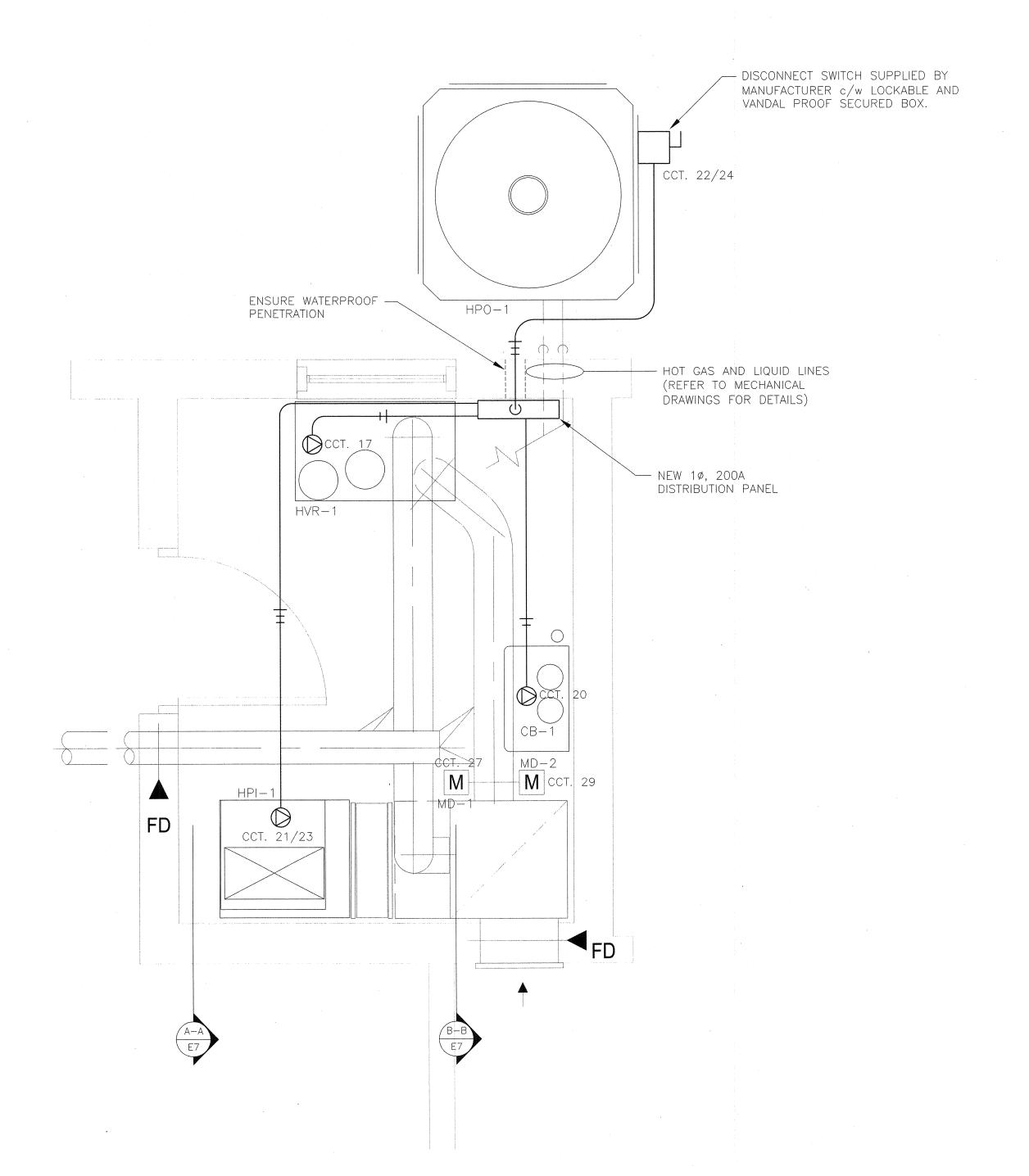
**E**5 R.060702.001 OF 12

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DWG. NO.

PWGSC - A1 - 841X594



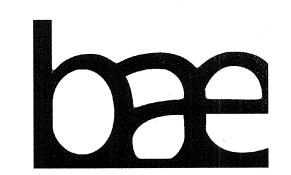


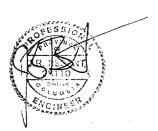
MECHANICAL ROOM PLAN AT RETURN PLENUM
1:16

Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region SERVICES IMMOBILIERS Région de Pacifique





10 April 2017

			- '
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2	ISSUED FOR TENDER		04/10/17
1	ISSUED FOR TENDER		02/22/17
Revision/ Revision	Description/Description		Date/Date
Client/cli	ent		

PARKS CANADA **WESTERN REGION** STEVESTON, B.C. NATIONAL HISTORIC SITE

Project title/Titre du projet

**GULF OF GEORGIA CANNERY ADMINISTRATION** BUILDING

12138 FOURTH AVE, RICHMOND, BC

Consultant Signature Only
J.R. BESANT
Designed by/Concept par
J.R. BESANT
. /6

Drawn by/Dessine par
C. INNES

PWGSC Project Manager/Administrateur de Projets TPSGC T. DUNPHY

Regional Manager, Architectural and Engineering Services Gestionnaire régionale, Services d'architectural et de génie, TPSGC PREETIPAL PAUL Drawing title/Titre du dessin

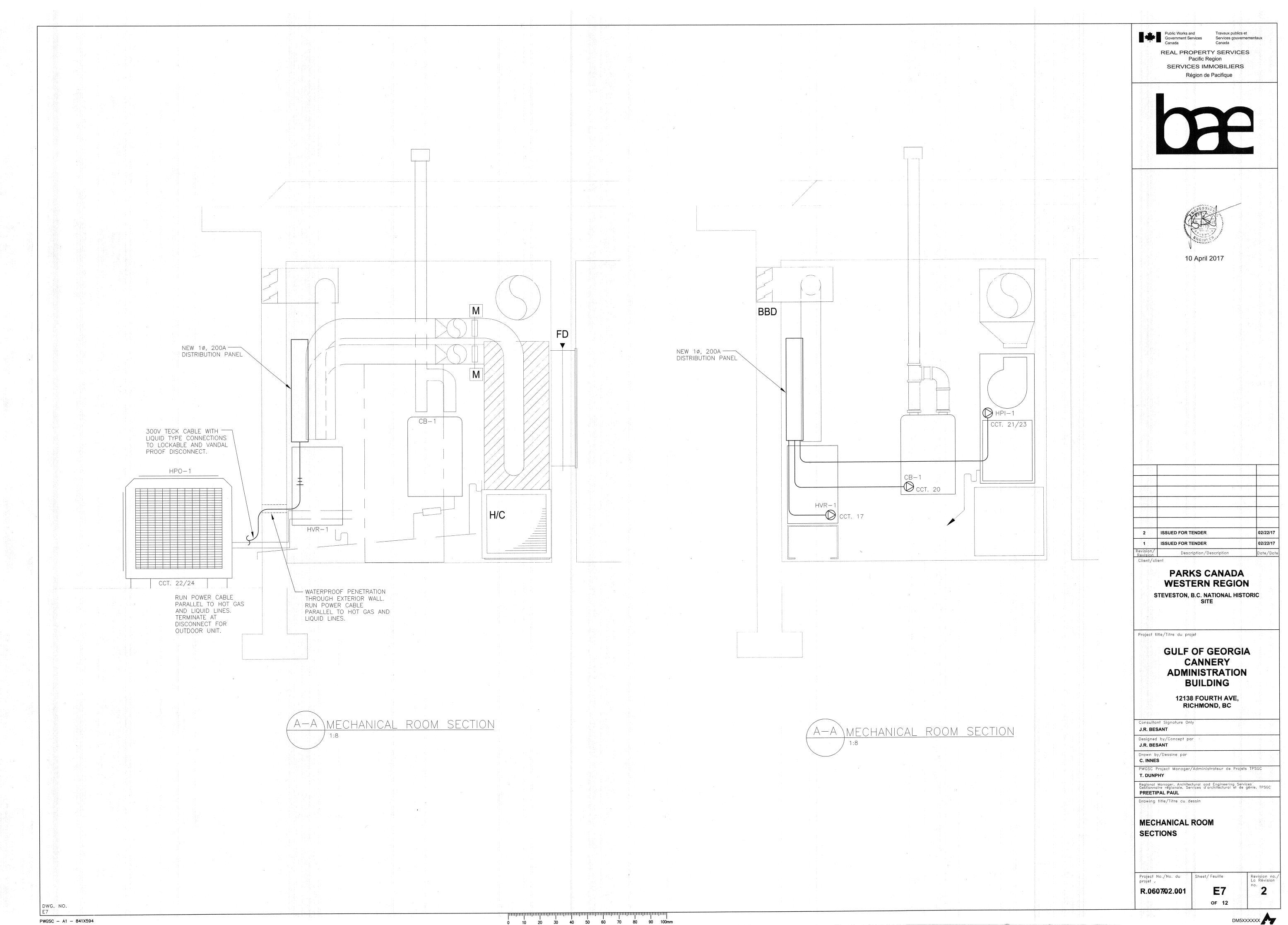
ELECTRICAL MECHANICAL ROOM

R.060702.001

**E**6 OF 12 Revision no. La Révision

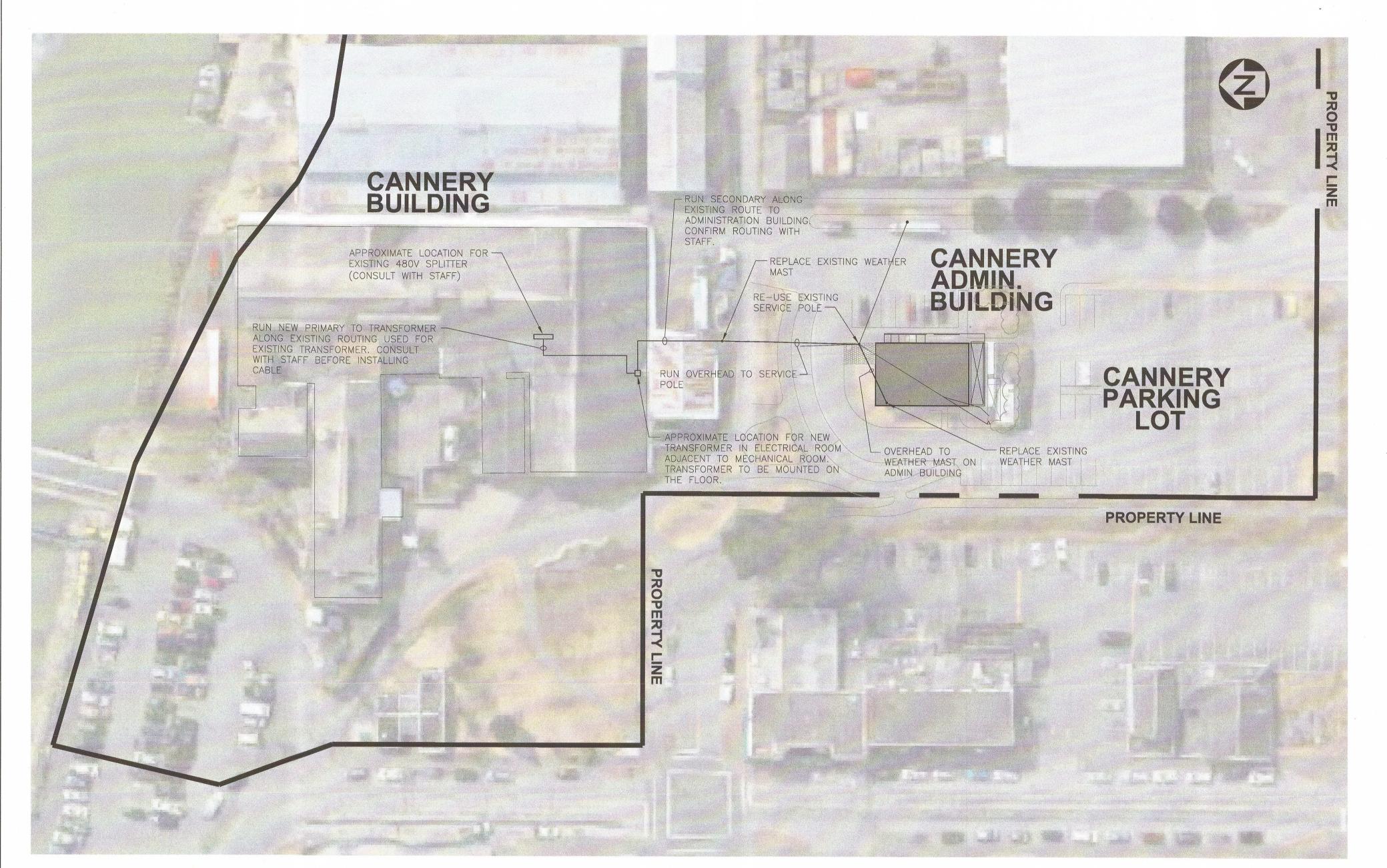
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DWG. NO. R.023478.001-EC1 PWGSC - A1 - 841X594



PWGSC - A1 - 841X594

DM5XXXXXX



POWER ROUTING FOR ADMINISTRATION BUILDING

Public Works and Travaux publics et Services gouvernementaux Canada

Canada Canada

REAL PROPERTY SERVICES
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EXISTING SPLITTER, 480V

EXISTING 100A, 600V FUSED DISCONNECT. PROVIDE 80A

- 4/0 TRIPLEX WITH PVC

JÁCKET RATED FOR

WEATHER MAST ON ROOF OF BUILDING. RE-USE EXISTING LOCATION.

WALL ASSEMBLY

SERVICE ROOM

SINGLE LINE

---- 3c#4/O IN 2" RIGID CONDUIT TO

CONCEALED IN EXTERIOR WALL.

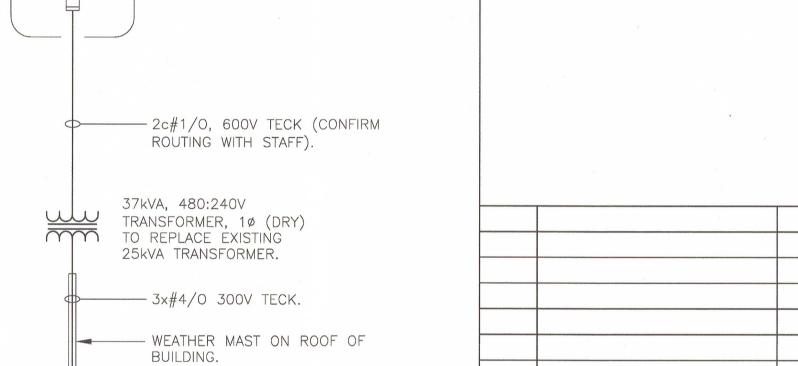
DISTRIBUTION PANEL. CONDUIT TO BE

- WEATHERPROOF PENETRATION THROUGH

200A, 42CCT. COMBINATION

DISTRIBUTION PANEL WITH 200A MAIN BREAKER

OUTDOOR USE.



1 ISSUED FOR TENDER

Revision Description/Description

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WESTERN REGION
STEVESTON, B.C. NATIONAL HISTORIC
SITE

PARKS CANADA

02/22/17

Date/Date

**ISSUED FOR TENDER** 

Project title/Titre du projet

GULF OF GEORGIA
CANNERY
ADMINISTRATION
BUILDING

12138 FOURTH AVE, RICHMOND, BC

Consultan	t Sign	ature	Only				
J.R. BES	ANT						
Designed J.R. BESA		ncept	par		***************************************		
Drawn by		ne pai	r				
PWGSC Pr		Manag	er/Admini	strateur	de	Projets	TPS
5		-					-

Regional Manager, Architectural and Engineering Services
Gestionnaire régionale, Services d'architectural et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin

ELECTRICAL
POWER ROUTING
MUSEUM TO ADMINISTRATION
BUILDING

Project No./No. du projet

R.060702.001

Sheet/Feuille

Feuille
Revision no., La Révision no., no.

Compared to the co

DM5XXXXXX

DWG. NO.

						L1 Y	L2 Y						
REMARKS	SERVICE	WIRE SIZE	LOAD #A	(W) #B	AMPS	2 POLE 200A )	)	AMPS	LOA[ #B	(W) #A	WIRE SIZE	SERVICE	REMARK
	EXTERIOR LIGHTING				15		2	1.5				DADIO GUARIA	
	OUTDOOR LIGHTING				15	-0 -3	4	15				RADIO SHACK	ETR
ETR	TELEPHONE ROOM WALL RECEPTACLE				15	5	6 0	15				LIBRARY & ARCHIVE	ETR
ETR	MAIN SERVER COMPUTER				15	7	8 0	15				LIBRARY & ARCHIVE	ETR
ETR	ELECTRICAL ROOM WALL RECEPTACLE				15	9	10	15				OFFICE	ETR
ETR	OFFICE AREA LIGHTS				15	-0 11	12	15				OFFICE	ETR
ETR	FLOOR AND WALL RECEPTACLES				15	13	14 00	15				OFFICE	ETR
ETR	FLOOR AND WALL RECEPTACLES				15	15	16	15				OFFICE RECEPTACLES	ETR
	HVR-1	#12			15	17	18	15				OFFICE RECEPTACLES	ETF
ETR	OUTLET RECEPTACLE				15		20	15			#12	CB-1	
	HPI-1	#12			15	21 23	22 0 0 0	15			#8	HPO-1	
	HWC-1	#12			15	25	26	15				SPARE	
	MD-1	#14			15	27	28					SPACE	
	MD-2	#14			15		30 0					SPACE	
	SPACE	·				31	32			-		SPACE	
	SPACE					33	34					SPACE	
	SPACE					35	36					SPACE	
	SPACE					37	38					SPACE	
	SPACE					39	40					SPACE	
	SPACE					41	42					SPACE	
	SUB-TOTAL												1

## POWER DISTRIBUTION PANEL - P1

		MECHA	anical e	QUIPMENT	LIST	
TAG	DESCRIPTION			ELECTRICAL:		
		V.P.C.	MIN. CIRCUIT AMPS	FAN MOTOR kW (HP)	CIRCUIT No.	WIRE SIZE
HPI-1	HEAT PUMP INDOOR SECTION	240-1-60	9.0	0.6 (3/4)	21/23	#12
HP0-1	HEAT PUMP OUTDOOR SECTION	240-1-60	29.2	_	22/24	#8
HRV-1	AIR TO AIR HEAT RECOVERY UNIT	120-1-60	6	2 @ 0.2 (2@1/4)	17	#12
CB-1	COMBI HTG AND DOM WATER BOILER	120-1-60	_	_	20	#12
MD-1	MOTORIZED DAMPER	120-1-60	_	_		#14
MD-1	MOTORIZED DAMPER	120-1-60	_	_	_	#14

(1) TOTAL COOLING CAPACITY @ 29°C. DB/19°C. WB (85°F. DB/67°F WB)

### ELECTRICAL LEGEND

FLUORESCENT LUMINAIRE T-BAR FLUORESCENT LUMINAIRE

WALL SCONCE

- UNFUSED DISCONNECT SWITCH

- FUSED DISCONNECT SWITCH

WALL POT OR HID LUMINAIRE

POLE MOUNTED LUMINAIRE SINGLE POLE SWITCH THREE WAY SWITCH

LUMINAIRE (TYPE)

DUPLEX RECEPTACLE CEILING MOUNTED RECEPTACLE

SINGLE RECEPTACLE

SWITCH

BREAKER NORMALLY CLOSED CONTACT

NORMALLY OPEN CONTACT

DIRECT CONNECTION

DISCONNECT SWITCH

PANELBOARD

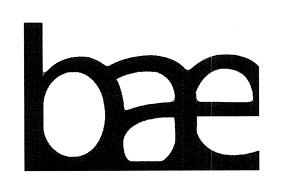
SPEAKER

THERMOSTAT EXIT LIGHTS GENERAL NOTES

- A. PROVIDE CIRCUITS SIZED AT 2#14, 1#14, OR BX 20 (3/4) C UNLESS OTHERWISE NOTED ON THE DRAWINGS ÒR IN THE SPECIFICATIONS.
- B. PERMANENTLY LABEL ALL MOTORS, POWER DISCONNECTS, AND REMOTE LOADS WITH THE PANEL AND CIRCUIT NUMBER SERVING THE DEVICE.
- C. UNLESS OTHERWISE NOTED, ALL CONDUCTORS ARE TYPE RW90, RATED FOR 90°C.
- D. PROVIDE A FUSED DISCONNECT SWITCH FOR HVAC AND OTHER EQUIPMENT WHERE REQUIRED BY MANUFACTURER AND NOT INCLUDED IN SUPPLY PACKAGE.
- E. REFER TO ARCHITECTURAL, STRUCTURAL, PROCESS AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS AND SYSTEMS COORDINATION.
- F. BRANCH CIRCUIT NOT ALWAYS SHOWN ON DRAWINGS BUT IS IMPLIED BY THE PANEL CIRCUIT NUMBER.
- G. THIS IS A GENERAL LEGEND SHEET. SOME SYMBOLS AND ABBREVIATIONS MAY NOT BE UTILIZED ON THIS SPECIFIC
- H. REFER TO MECHANICAL DRAWINGS.

Public Works and Government Services Services gouvernementaux Canada

REAL PROPERTY SERVICES Pacific Region SERVICES IMMOBILIERS Région de Pacifique





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2	ISSUED FOR TENDER	04/10/17
1	ISSUED FOR TENDER	02/22/17
Revision/ Revision	Description/Description	Date/Date
Client/cli	ent ·	

**PARKS CANADA WESTERN REGION** STEVESTON, B.C. NATIONAL HISTORIC SITE

Project title/Titre du projet

**GULF OF GEORGIA CANNERY ADMINISTRATION BUILDING** 

> 12138 FOURTH AVE, RICHMOND, BC

Consultant Signature Only J.R. BESANT

J.R. BESANT Drawn by/Dessine par

C. INNES PWGSC Project Manager/Administrateur de Projets TPSGC T. DUNPHY

Regional Manager, Architectural and Engineering Services Gestionnaire régionale, Services d'architectural et de génie, TPSGC PREETIPAL PAUL Drawing title/Titre du dessin

PANEL SCHEDULES, LIGHTING SCHEDULES AND LEGENDS

Project No./No. du Sheet/Feuille projet **E9** R.060702.001 OF 12

DM5XXXXXX

DWG. NO.

PWGSC - A1 - 841X594

Public Works and Government Services Canada

Public Works and Travaux publics et Services gouvernementaux Canada REAL PROPERTY SERVICES Pacific Region SERVICES IMMOBILIERS Région de Pacifique NEW OVERHEAD POWER — AND EXISTING TELEPHONE \_\_\_ EXISTING TEL/DATA OVERHEAD POWER TO LINE SERVICE POLE LINE TO RADIO SHELTER 10 April 2017 - EXISTING TEL/DATA LINE \_ EXISTING WEATHER MAST FOR TEL/COM - EXISTING WEATHER - EXISTING WEATHER - NEW WEATHER MAST - EXISTING WEATHER TO SERVICE POLE -MAST TO BE REMOVED MAST UN RADIO MAST TO BE REMOVED SOFFIT TYPE
FIXTURE TO BE AND REPLACED TO SHELTER (TO REMAIN) ACCOMMODATE NEW REMOVED (TYP) EXISTING FIRE ALARM — ROOF ARCHITECTURE GONG TO BE REMOVED (NO LONGER REQUIRED. C-CLAMP WEATHER
MAST TO ROOF IN
TWO LOCATIONS - NEW ELECTRICAL RE-VERIFY FIRE CONDUIT CONCEALED IN IN RAIN SCREEN ALARM SYSTEM). WALL CAVITY. - RUN NEW CONDUIT FOR POWER TO RADIO SHELTER WITHIN WITH RAIN CONDUIT -SCREEN WALL CAVITY. RUN POWER PENETRATION TO CABLES TO RADIO SHELTER. SERVICE ROOM **EXISTING** AMATEUR RADIO STATION PROVIDE MOUNT PHOTOELECTRIC SENSOR FOR WEATHERPROOF LIGHTS ON EAST WALL OUTSIDE OF ACCESS PANEL FOR JB (ETR) WAETHERPROOF ACCESS PANEL FOR Les montanes de la constitución EXISTING GAS METER 2 ISSUED FOR TENDER 04/10/17 ISSUED FOR TENDER 02/22/17 Description/Description EXISTING 240V, 10 RECEPTACLE IN -Client/client LOCK BOX. REMOVE AND REPLACE TO ACCOMMODATE ENVELOPE
UPGRADES. PLACE RECEPTACLE SO
THAT IT DOES NOT INTERFERE WITH PARKS CANADA NOTES: **WESTERN REGION** CONDENSING UNIT. 1. ALL CONDUIT RUNS TO BE CONCEALED WITHIN RAIN EAST ELEVATION STEVESTON, B.C. NATIONAL HISTORIC SCREEN WALL CAVITY. PROVIDE WAETHERPROOF ACCESS PANEL WHERE JUNCTION BOXES ARE 1:40 LOCATED FOR ACCESS. 2. REFER TO RDH DRAWINGS FOR DETAILS ON WEATHERPROOF ACCESS PANELS AND SUPPORTS FOR WEATHERMAST. Project title/Titre du projet **GULF OF GEORGIA** CANNERY **ADMINISTRATION** BUILDING 12138 FOURTH AVE, RICHMOND, BC Consultant Signature Only J.R. BESANT Designed by/Concept par J.R. BESANT Drawn by/Dessine par C. INNES PWGSC Project Manager/Administrateur de Projets TPSGC Regional Manager, Architectural and Engineering Services Gestionnaire régionale. Services d'architectural et de génie, TPSGC PREETIPAL PAUL Drawing title/Titre ou dessin ELECTRICAL **BUILDING SECTION** EAST ELEVATION R.060702.001 E10 OF 12 DWG. NO.

OM5XXXXXX

PWGSC - A1 - 841X594

- 16.18.12 PROVIDE PERMANENT LAMICOID LABELS ON FUSED SWITCHES THAT INCORPORATE A REDUCED FUSE RATING INDICATING THE MAXIMUM FUSE PERMITTED IN THAT SWITCH.
- 16.18.13 SUITE PANELBOARD/LOADCENTRES SHALL BE c/w MAIN BREAKER.
- 16.18.14 SUITE PANELBOARDS/LOADCENTRES SHALL BE INSTALLED AS HIGH AS POSSIBLE WITH NO OVERCURRENT DEVICE OPERATING HANDLE BEING MORE THAN 1.7m ABOVE THE FINISHED FLOOR LEVEL.
- 16.18.15 THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 20% SPARE CAPACITY FOR ALL COMMON AREA PANELBOARD.
- 16.18.16 URGENT ATTENTION FOR SERIES RATED COMBINATION CRITERIA: OVER CURRENT DEVICES SHALL MEET THE SERIES RATED COMBINATION CRITERIA PER CEC RULE 14-014 & SHALL BE FULLY RATED OR USING SERIES RATED COMBINATIONS/INTERGRATED EQUIPMENT RATED
- 16.18.17 LOW VOLTAGE TRANSFORMERS: SHALL BE BOTTOM OR SIDE ENTRY ONLY.
- 16.18.18 SERVICE AND DISTRIBUTION: ENSURE THERE IS ADEQUATE CLEARANCE TO ESCAPE AROUND EQUIPMENT WITH EQUIPMENT DOOR FULLY OPEN. ALSO ENSURE THERE IS PROVISION FOR REMOVAL AND READY REPLACEMENT OF THE EQUIPMENT.
- 16.18.19 ALL PANELBOARDS AND SUITE LOAD CENTRE LOCATIONS MUST BE CONFIRMED WITH ELECTRICAL INSPECTOR BEFORE ROUGH-IN.
- 16.19. MOTORS AND MECHANICAL EQUIPMENT
- 16.19.1 PROVIDE COMPLETE WIRING FOR MOTORS AND EQUIPMENT AS SHOWN ON THE CONTRACT DOCUMENTS.
- 16.19.2 EQUIPMENT WILL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SHALL MEET THE REQUIREMENTS OF ALL NECESSARY CODES AND REGULATIONS.
- 16.19.3 FOR EXACT LOCATIONS AND REQUIREMENTS OF MOTORS AND EQUIPMENT SEE SUB CONSULTANTS DRAWINGS (i.e. MECHANICAL, SPRINKLER, KITCHEN SUPPLIER ETC.)
- 16.19.4 MOTORS WILL BE SUPPLIED AND INSTALLED BY OTHERS UNLESS OTHERWISE INDICATED.
- 16.19.5 EACH MOTOR SHALL BE ADEQUATELY BONDED.
- 16.19.6 CONNECTIONS TO MOTORS SHALL BE MADE WITH SOLDERLESS CONNECTORS WHICH CAN BE REMOVED TO ALLOW SERVICING OF MOTORS.
- 16.19.7 MOTORS SHALL BE CHECKED FOR PERFORMANCE, ROTATION, DIRECTION, VIBRATION, SOUND, NO-LOAD CURRENT AND THE CURRENT ON EACH PHASE SHALL BE COMPARED WITH THE NAMEPLATE CURRENT. THE MECHANICAL CONTRACTOR SHALL DISCONNECT ANY DRIVE COMPONENTS AS REQUIRED TO FACILITATE THESE TESTS.
- 16.19.8 CONFIRM THE SIZE OF OVERLOAD HEATERS IN EACH STARTER TO BE APPROPRIATE TO PROTECT THE CONTROLLED MOTOR.
- 16.19.9 SUPPLY AND INSTALL MOTOR STARTERS, AND/OR SOLID BLADE DISCONNECT SWITCHES AS REQUIRED BY CODE.
- 16.19.10 PROVIDE WEATHERPROOF ENCLOSURE FOR STARTERS AND SWITCHES EXPOSED TO OUTDOOR CONDITIONS. DISCONNECT SWITCH SHALL BE INDUSTRIAL GRADE (H.P. RATED) AS REQUIRED BY CODE.
- 16.19.11 SUPPLY AND INSTALL ALL THE CONTROL DEVICES AS INDICATED ON THE DRAWINGS.
- 16.19.12 PROVIDE ALL CONDUITS REQUIRED BY MECHANICAL CONTRACTOR, FOR LOW VOLTAGE CONTRO WIRING OF H.V.A.C. EQUIPMENT.
- 16.19.13 CHECK WITH MECHANICAL CONTRACTOR REGARDING INTERLOCKING REQUIREMENTS. LINE VOLTAGE INTERLOCKING IS RESPONSIBILITY OF ELECTRICAL CONTRACTOR.
- 16.19.14 IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RECOGNIZE THAT THE MATERIAL COVERED UNDER THE MECHANICAL SECTION IS SUBJECT TO CHANGE AS A RESULT OF SUSTITUTION. THE CONTRACTOR SHALL MAKE WHATEVER MODIFIACTION NECESSARY e.g. FEEDER SIZE, O/C PROTECTION INTERLOCKING, ETC. TO ENSURE A COMPLETE INSTALLATION.
- 16.19.15 A MANUALLY OPERATED ACROSS  $\Omega$  THE  $\Omega$  LINE TYPE OF MOTOR STARTER MARKED "SUITABLE FOR MOTOR DISCONNECT" SHALL BE PERMITTED TO SERVE AS BOTH STARTER AND DISCONNECT IF COMPLIES WITH CEC RULE 28-602-3-B
- 16.20. LIGHTING AND LIGHTING CONTROL:

DWG. NO.

PWGSC - A1 - 841X594

- 16.20.1 A) UNLESS OTHERWISE ARRANGED WITH THE OWNER OR NOTED ELSEWHERE IN THE SPECIFICATION/DRAWINGS, LIGHTING FIXTURES SHALL BE SUPPLIED BY THE OWNER OR HIS REPRESENTATIVE BUT INSTALLED (i.e. INSTALLATION AND WIRING) UNDER THIS CONTRACT.
  - B) THE ELECTRICAL CONTRACTOR SHALL ALSO INCLUDE IN HIS QUOTE FOR ADMINISTRATION OF FIXTURE PURCHASE, i.e. ENSURING LIGHTING FIXTURE(S) SELECTED MEET ALL ENERGY BY-LAW AND LOCAL AUTHORITY REQUIREMENTS, ETC ..
  - C) ADEQUATE ILLUMINATION MUST BE PROVIDED IN ALL AREAS. LIGHTING TO CONFORM TO THE MOST STRINGENT REQUIREMENTS OF ASHRAE 90.1, B.C. BUILDING CODE AND ALL OTHER APPLICABLE FEDERAL, PROVINCIAL AND MUNICIPAL LAWS AND REGULATIONS.
  - D) THE LIGHT METHODS CHOSEN MUST CONFORM TO THE RECOMMENDATIONS AND PERFORMANCE CRITERIA SET OUT IN B.C. HYDRO POWER SMART PROGRAM SPECIFICATIONS, IF APPLICABLE.
- 16.20.2 INSTALLATION OF LIGHTING FIXTURE/EQUIPMENT INCLUDING: VOLTAGE; O/C PROTECTION: LOCATION; SUPPORTS; MINIMUM HEIGHT OF LOW LUMINAIRES; LUMINAIRES IN RESIDENTIAL OCCUPANCY ETC. SHALL BE PER CEC CODE SECTION 12, BUILDING CODE AND ALL AUTHORITIES HAVING JURISDICTION.

- 16.20.3 MINIMUM HEIGHT OF LOW LUMINAIRES (i.e. HEIGHT LESS THAN 2.1 METERS ABOVE THE FLOOR) SHALL COMPLY WITH CEC CODE SECTION 30-314.
- 16.20.4 ALL LAMPHOLDERS, SHALL BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNDER THIS CONTRACT
- 16.20.5 THE ELECTRICAL CONTRACTOR SHALL ENSURE THAT FLUORESCENT FIXTURES TO BE USED IN UNHEATED AREA ARE ORDERED WITH O DEGREE FAHRENHEIT BALLASTS. ALL FLUORESCENT FIXTURES SHALL HAVE HPF. BALLASTS.
- 16.20.6 NOT USED.
- 16.20.7 A) RECESSED LIGHTING FIXTURES SHALL NOT BE LOCATED IN INSULATED CEILINGS UNLESS THE FIXTURES ARE DESIGNED FOR SUCH INSTALLATION.
  - B) CEC RULES 30-900 TO 30-910 SHALL APPLY TO INSTALLATION OF LIGHT FIXTURES IN CAVITIES IN CEILINGS OR WALLS.
  - C) THE CONTRACTOR MUST ENSURE ALL FIRE RESISTANCE RATED ASSEMBLIES (i.e. WALLS, CEILINGS, ETC.) WHICH CONTAIN RECESSED LUMINAIRES MUST BE c/w RATED BACKING TO MAINTAIN THE INTEGRITY OF THE FIRE RESISTANCE.
- 16.20.8 THE CONTRACTOR SHALL SUPPLY AND INSTALL PHOTOCELL(S) AND CONTACTOR(S) FOR THE CONTROL OF ALL OUTDOOR AND BUILDING PERIMETER LIGHTS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 16.20.9 <u>DESIGN/LIGHTING CRITERIA:</u>
  - a) MINIMUM LIGHTING LEVELS FOR ALL ROOMS OR SPACES FOR THE ENTIRE BUILDING(S) SHALL BE PER BUILDING CODE RULE 3.2.7.1 AND TABLE 9.34.2.7 AND ALL AUTHORITIES HAVING JURISDICTION.
  - b) RECESSED LIGHTING FIXTURES PER BUILDING CODE RULE 3.2.7.2 c) LIGHT DIFFUSER AND LENSES SHALL BE PER BUILDING CODE RULE 3.1.13.4
- 16.20.10 NOT USED.
- 16.20.11 NOT USED.
- 16.20.12 LIGHTING EFFICIENCES AND ENERGY CONSUMPTION THE ELECTRICAL WIRING AND INSTALLATION SHALL CONFORM TO THE B.C. BUILDING CODE (ALSO REF: ASHRE/IES 90.1.).
- 16.20.13 VOLTAGE: IN A BUILDING OR PREMISES WHERE A TRAINED AND QUALIFIED ELECTRICAL MAINTENANCE PERSON IS RETAINED, THE VOLTAGE SHALL BE PERMITTED TO EXCEED 150 VOLTS TO GROUND, BUT IT SHALL NOT EXCEED THE VOLTAGE TO GROUND OF A NOMINAL SYSTEM VOLTAGE OF 347/600 Y.
- 16.20.14 LUMINAIRES IN BUILDING OF RESIDENTIAL OCCUPANCY SHALL COMPLY WITH CEC SECTION 30 AND SHALL INCLUDE BUT NOT LIMITED TO ENTRANCES, DWELLING UNITS, STAIRWAYS, BASEMENTS, STORAGE ROOMS AND GARAGES AND/OR CARPORTS.
- 16.20.15 INSTALLATION, WIRING AND TYPE OF RECESSED LUMINAIRES IN CEILING AND WALLS COMPLY WITH SECTION 30-900 OF CEC.
- 16.20.16 CONTRACTOR PROPOSED ALTERNATE LIGHTING FIXTURES: ANY CONTRACTOR PROPOSED ALTERNATE LIGHTING FIXTURE IN LIEU OF specified shall be subject by the engineer's approval. The CONTRACTOR TO SUBMIT A BREAKDOWN OF COST SHOWING THE NET DIFFERENCE THAT HAS TO BE DEDUCTED OR ADDED TO THE TENDER PRICE, IF ACCEPTED. THE CONTRACTOR TO INCLUDE FOR AND SHALL TAKE RESPONSIBILITY FOR ANY ADDITIONAL COST INCURRED BY OTHER DISCIPLINES AND TRADES, RESULTING FROM SUBSTITUTION AND SHALL ALSO INCLUDE FOR LIGHTING SYSTEM PERFORMANCE.
- 16.20.17 EXTRA LOW VOLTAGE LIGHTING: FXTRA LOW VOLTAGE LIGHTING SYSTEMS (<30V) MUST MEET THE REQUIREMENTS OF C.E.C. 30-1200 TO 30-1208.
- 16.21. NOT USED.
- 16.22. GROUNDING AND BONDING
- 16.22.1 PROVIDE A COMPLETE AND ADEQUATE GROUNDING AND BONDING SYSTEM AS REQUIRED BY THE LATEST CODES/BULLETINS, AS SHOWN ON THE DRAWINGS AND PER THE REQUIREMENTS OF ALL AUTHORITIES HAVING THE JURISDICTION. (GUIDLINES: CEC SECTION 10/BULLETIN 2003-002 EL).
- 16.22.2 ALL NON-CURRENT CARRYING METAL PARTS SHALL BE INTERCONNECTED AND GROUNDED AND/OR BONDED AS PER CODE.
- 16.22.3 MATERIAL FOR BONDING CONDUCTORS FOR EQUIPMENT, METAL RACEWAY AND CONDUCTOR ENCLOSURES SHALL BE PER SEC 10-804 OF CEC.
- 16.22.4 SEPERATE GREEN GROUND WIRE (PER CODE) MUST BE INSTALLED IN ALL NON-METALLIC CONDUITS.
- 16.22.5 GROUNDING ELECTRODE: THE ELECTRICAL CONTRACTOR SHALL PROVIDE MINIMUM (3) 10FT. GROUND RODS, SPACED 10FT. APART MINIMUM; TO BE USED AS GROUNDING ELECTRODE.
- 16.22.6 GROUNDING CONDUCTORS SHALL BE FREE FROM JOINTS AND CONNECTIONS SHALL BE SOLDERLESS PRESSURE CONNECTORS.
- 16.22.7 METALLIC WATER SYSTEM, WASTE WATER SYSTEMS AND METALLIC GAS PIPING SYSTEMS USED IN CONNECTION WITH THESE PREMISES SHALL BE BONDED TO THE SYSTEM GROUND AS PER CODE.
- 16.22.8 PROVIDE 1" PVC CONDUIT c/w GROUND WIRE FROM TELEPHONE TERMINAL BOARD TO MAIN METAL WATER SHUT-OFF OR ACCEPTED GROUND GRID FOR TELEPHONE SYSTEMS GROUND/BOND.
- 16.22.9 PROVIDE 1"PVC CONDUIT c/w GROUND WIRE FROM CATV TERMINAL BOARD TOO MAIN METAL WATER SHUT-OFF OR ACCEPTED GROUND GRID FOR CATV SYSTEMS GROUND/BOND.
- 16.22.10 TEL/CATV SHALL BE GROUNDED/BONDED PER THE REQUIREMENTS OF ALL AUTHORITIES.

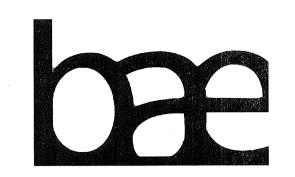
- 16.22.11 BONDING:
  - a) METALLIC WATER SUPPLY SYSTEM, METALLIC WASTE SYSTEM AND GAS PIPING IN INDIVIDUAL TOWNHOUSE UNITS SHALL BE BONDED TO THE SYSTEM GROUNDING CONDUCTOR BY MEANS OF COPPER BONDING CONDUCTOR NOT SMALLER THAN #6AWG. OR GROUNDED TO TWO (2) SUPPLEMENTARY 10 FOOT GROUND RODS.
  - b) GROUNDING AND BONDING OF INDIVIDUAL TOWNHOUSE UNITS SHALL BE PER CANADIAN ELECTRICAL CODE. SECTION 10 LATEST BULLETINS AND ALL AUTHORITIES HAVING THE JURISDICTION.
- 16.22.12 GROUND HYDRO PULL BOXES PER CODE REQUIREMENTS (i.e. TABLE
- 16.23. <u>UTILITIES REQUIREMENTS:</u>
- 16.23.1 ALL WORK MUST SATISFY THE REQUIREMENTS OF THE POWER, TELEPHONE AND CABLEVISION COMPANIES, AND THE AUTHORITIES HAVING JURIDICTION.
- 16.23.2 CONFIRM ROUTING OF TELEPHONE AND POWER SERVICE WITH SUPPLY AUTHORITIES USEING JOINT TRENCH WHERE POSSIBLE. GENERAL CONTRACTOR IS RESPONSIBLE FOR TRENCHING, BACKFILLING, AND ALL CONCRETE WORK. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SUPPLYING AND INSTALLING ALL DUCTS C/W NYLON PULLING CORD.
- 16.23.3 THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO CO-ORDINATE ALL UTILITY WORK/REQUIREMENTS WITH THE GENERAL CONTRACTOR, UTILITIES COMPANY AND MECHANICAL/CIVIL/LANDSCAPE CONTRACTOR AND ALL AUTHORITIES HAVING JURISDICTION.
- 16.23.4 a) PROVIDE TERMINATION FOR INCOMMING POWER, TELEPHONE AND CATV DUCTS AND CABLES.
  - b) OBTAIN SERVICE CONNECTION POINT AND LOCATION OF ALL DUCTS WITH SUPPLY AUTHORITIES BEFORE INSTALLATION.
  - c) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION OF UNDERGROUND UTILITIES BEFORE EXCAVATING.
- 16.23.5 NOT USED
- 16.23.6 NOT USED
- 16.23.7 NOT USED
- ELECTRICAL EQUIPMENT/METERS NEAR COMBUSTIBLE GAS METERS AND OTHER DEVICES
  - REFER TO CODE SECTION 2-322
  - ii) INDOOR INSTALLATION ARC PRODUCING ELECTRICAL EQUIPMENT SHALL NOT BE INSTALLED WITHING 900mm OF EQUIPMENT USED TO MEASURE COMBUSTIBLE GASES.
  - iii) OUTDOOR INSTALLATION ARC PRODUCING ELECTRICAL EQUIPMENT SHALL NOT BE INSTALLED WITHIN 1m OF A COMBUSTIBLE GAS METER/GAS RELIEF DEVICE OR VENT.
- POWER, TELEPHONE AND CABLEVISION INCOMMING SERVICES
- 16.24.1 CONFIRM AND PROVE LOCATIONS OF OTHER UTILITIES BEFORE CONSTRUCTION.
- 16.24.2 SERVICE DUCTS SHALL BE RIGID STEEL, WHERE EXPOSED INSIDE THE BUILDING.
- 16.24.3 ALL UNDERGROUND DUCTS SHALL BE HEAVY WALLED RIGID PVC AND ENCASED IN CONCRETE THROUGHOUT UNLESS OTHERWISE NOTED. PROVIDE IDENTIFICATION MARKER PER CODE AND UTILITIES REQUIREMENTS.
- 16.24.4 THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLY AND INSTALLATION OF ALL PRECAST PULL-BOXES, JUNCTION BOXES.AND DUCTS. SEPERATE DUCT SYSTEM SHALL BE PROVIDED FOR POWER, TELEPHONE AND CABLEVISION.
- 16.24.5 POWER COMPANY WILL SUPPLY AND INSTALL TRANSFORMER KIOSK AND SECONDARY WIRING TO THE LINE SIDE OF MAIN SWITCH.
- 16.24.6 TELEPHONE CABLES SHALL BE SUPPLIED AND INSTALLED BY TELEPHONE COMPANY TO THE DEMARCATION DEVICE AT THE MAIN TELEPHONE TERMINAL BOARD. ELECTRICAL CONTRACTOR RESPONSIBLE TO COORDINATE ALL TELEPHONE WORK AND SHALL PROVIDE SEPARATE DUCT SYSTEM AS NECESSARY FOR TELEPHONE CABLES.
- 16.24.7 CATV CABLES SHALL BE SUPPLIED AND INSTALLED BY THE CATV COMPANY TO THE DEMARCATION DEVICE AT THE MAIN CATY TERMINAL BOARD. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL CATV WORK AND SHALL PROVIDE SEPARATE DUCT SYSTEM AS NECESSARY FOR CATV CABLES.
- 16.24.8 ELECTRICAL CONTRACTOR SHALL CONFIRM POWER, TELEPHONE AND CABLEVISION ENTRY AND DISTRIBUTION, AND SHALL ALSO ARRANGE FOR ALL PERMITS AND INSPECTIONS BY BOTH THE ELECTRICAL INSPECTION AND UTILITY AUTHORITIES.
- 16.24.9 THE OWNER WILL MAINTAIN THE CIVIL WORK ON PRIVATE PROPERTY. POWER COMPANY WILL MAINTAIN WORK ON PUBLIC PROPERTY. POWER COMPANY WILL OWN AND MAINTAIN TRANSFORMER KIOSK, PRIMARY HV CABLES AND SECONDARY CABLES TO THE LINE SIDE OF MAIN SWITCH.
- 16.24.10 PROVIDE PROTECTION POSTS AND/OR RETAINING WALLS TO PROTECT POWER EQUIPMENT PER POWER COMPANY INSPECTOR'S AND THE ELECTRICAL CODE REQUIREMENTS.
- 16.24.11 MINIMUM SEPARATION SHALL BE MAINTAINED BETWEEN TELEPHONE, CABLEVISION AND POWER DUCTS PER UTILITY REQUIREMENTS.
- 16.24.12 PLACE CONDUIT MARKERS FLUSH WITH GRADE OR FLOOR SLAB INDICATING THE ROUTING AND DEPTH OF UNDERGROUND PRIMARY SERVICE CONDUITS/CABLES.
- 16.24.13 HYDRO PULL-BOXES SHALL BE GROUNDED PER C.E.C. REQUIREMENTS.
- 16.24.14 CONSUMER'S SERVICE EQUIPMENT & CONDUCTORS LOCATION SHALL BE PER CEC 5-206 & 6-208.

Government Services

Travaux publics et Services gouvernementaux

Région de Pacifique

REAL PROPERTY SERVICES Pacific Region SERVICES IMMOBILIERS





10 April 2017

ISSUED FOR TENDER 04/10/17 02/22/17 ISSUED FOR TENDER Description/Description Date/Date Client/client

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Consultant Signature Only

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**ELECTRICAL NOTES** 

SH. 1 of 2

PREETIPAL PAUL

)rawing title/Titre du dessin

Project No./No. du E11 R.060702.001

CONTINUED ON E10

OF 12

Revision na La Révision

### ELECTRICAL NOTES SH. 2:

- 16.25. <u>TELEPHONE SYSTEM</u>
- 16.25.1 a) PROVIDE AND INSTALL CONDUIT c/w WIRING SYSTEM FOR TELEPHONE SERVICES, AS SHOWN ON THE DRAWINGS AND PER THE RECOMMENDATIONS OF THE TELEPHONE COMPANY AND INCLUDING ALL NECESSARY TELEPHONE SERVICE VAULT.
- b) A COMPLETE OUTLET AND WIRING SYSTEM FOR TELEPHONE SERVICE MUST BE PROVIDED. ALL WORK MUST BE IN ACCORDANCE WITH THE RECOMMENDED STANDARDS OF CAN/CSA T529, T530, M91, TELUS SYSTEM MANUAL, CEC AND EIA/TIA 568 STANDARDS.
- 16.25.2 PROVIDE 3/4" x 8' HIGH x LENGTH SHOWN, PAINTED PLYWOOD AND RECEPTACLE AND POWER AS REQUIRED FOR TELEPHONE EQUIPMENT IN THE ELECTRICAL/TELEPHONE ROOM. PLYWOOD TO BE FIRE RETARDANT TREATED.
- 16.25.3 RUN 1" EMT CONDUIT FROM THE TELEPHONE DISTRIBUTION BOARD TO EACH INDIVIDUAL SUITE AND TERMINATE CONDUIT IN A 100mm x 100mm (4" x 4") OUTLET BOX.
- 16.25.4 a) ALL CONDUIT SHALL BE CONNECTED USING APPROVED COUPLINGS AND FITTINGS AND SHALL CONFORM TO THE LATEST EXISTING BUILDING/ELECTRICAL CODES.
- b) CONDUITS SHALL NOT EXCEED TWO (2) 90 DEGREE SWEEP BENDS OR THE EQUIVALENT WITHOUT THE USE OF A PULL—BOX. TWO OFFSETS EQUAL ONE (1) 90 DEGREE BEND.
- c) <u>NO CONDUIT RUN SHALL BE LONGER THAN 30.5m (100')</u>
  <u>BETWEEN PULL-BOXES OR TELEPHONE TERMINATING POINTS.</u>
- 16.25.5 THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL WIRING BEYOND THE TELEPHONE DEMARCATION POINT TO TELEPHONE COMPANY RECOMMENDATIONS. THIS PORTION OF THE WORK MUST BE COORDINATED WITH THE OWNER AND THE TELEPHONE COMPANY REPRESENTATIVE.
- 16.25.6 <u>WIRING GUIDELINE:</u> WIRING SHALL BE "CAT. 6" OR BETTER (NOTE: BETTER TRANSMISSION PERFORMANCE) FROM THE TELEPHONE DISTRIBUTION BOARD TO EACH TELEPHONE 4" x 4" OUTLET BOX IN EACH INDIVIDUAL SUITE. LEAVE 6FT. SPARE LOOPS OF WIRE IN THE OUTLET BOX. WIRING FROM THE OUTLET BOX TO EACH TELEPHONE OUTLET IN THE SUITE SHALL BE "CAT. 6" OR BETTER WIRING. ALL UNIT WIRING (i.e. NO OF PAIRS REQUIRED) SHALL BE PER TABLE BELOW: MINIMUM PAIRS REQUIRED FOR SUITES ONE BEDROOM 6 PAIRS 6 PAIRS TWO BEDROOM THREE BEDROOMS 10 PAIRS FOUR BEDROOMS 10 PAIRS 10 PAIRS PENTHOUSE TOWNHOUSE 10 PAIRS (MINIMUM PAIRS SHOWN ABOVE SHALL BE SOLID TWISTED PAIRS CAT.
- THE WIRING GUIDELINE ABOVE INDICATS MINIMUM REQUIREMENTS ONLY. THE CONTRACTOR SHALL INCLUDE IN HIS PRICE TO ENGAGE THE SERVICES OF A REPUTABLE TELECOMMUNICATIONS CONSULTING COMPANY TO CONFIRM EXACT WIRING REQUIREMENTS TO MEET THE REQUIREMENTS OF THE TELEPHONE SYSTEM WIRING FOR THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT TERMINATION, LABELLING AND TESTING IS PERFORMED BY THE TELCOMMUNICATION CONSULTANT. THE TELECOMMUNICATIONS CONSULTANT MUST CERTIFY THAT THE TELEPHONE SYSTEM AND WIRING CONFORMS TO THE REQUIREMENTS OF TELUS AND ALL APPLICABLE CODES.
- 16.25.8 PROVIDE PLASTER RINGS FOR ALL TELEPHONE OUTLETS. FOR TELEPHONE OUTLETS IN COMMON OR PARTY WALLS. PROVIDE STEEL BOX AND EXTRA GYPSUM BOARD IN WALL CAVITY BEHIND OUTLET. TELEPHONE OUTLETS SHALL BE "RJ45" TYPE AND "CAT.5" OUTLET.
- 16.25.9 PROVIDE TELEPHONE COVER PLATES.

5, FT4 OR FT6 AS REQUIRED.)

- 16.25.10 THE CONTRACTOR SHALL PROVIDE NUMBER OF PAIRS FOR THE SUITES AS INDICATED IN THE SPECIFICATION PLUS 25% SPARE CAPACITY FOR EACH SUB CLOSET TELEPHONE CABLING SYSTEM.
- 16.25.11 TELEPHONE OUTLETS SHALL NOT BE PLACED IN THE SAME STUD CAVITY AS ELECTRICAL OUTLET. ALSO WHERE TELEPHONE OUTLETS ARE REQUIRED TO BE BACK TO BACK IN A PARTY WALL, THEY SHALL NOT BE LOCATED WITHIN THE SAME STUD CAVITY.
- 16.25.12 a) PROVIDE TELEPHONE OUTLETS IN AREA/SPACES AS SHOWN ON THE DRAWINGS AND FOR EACH RESIDENTIAL UNIT
- b) NOT WITHSTANDING (a) ABOVE, EACH RESIDENTIAL SUITE MUST BE PROVIDED WITH A MINIMUM OF TWO (2) TELEPHONE OUTLETS. ONE IN THE MASTER BEDROOM AND ONE OUTLET IN THE LIVING ROOM.
- 16.25.13 COIN TELEPHONE FACILITIES: WIRING SHALL BE PER TELEPHONE COMPANY RECOMMENDATIONS/REQUIREMENTS AND TELEPHONE INSTALLATION SHALL BE PER BUILDING CODE SECTION 3.7. PUBLIC TELEPHONES SHALL BE INSTALLED TO MEET THE REQUIREMENTS OF BUILDING CODE 3.8.3.16.

### 16.1. SMOKE ALARM (SELF CONTAINED, 120 VOLT A.C.):

16.28.1 THE CONTRACTOR SHALL PROVIDE SMOKE ALARM (CONFORMING TO LATEST ULC STANDARDS) IN EACH DWELLING UNIT/SLEEPING AREAS PER REQUIREMENTS OF THE BUILDING CODE AND AS SHOWN ON THE DRAWINGS. NOTE THE FOLLOWING:

SMOKE ALARM SHALL BE INSTALLED BY PERMANENT CONNECTION TO A 120V A.C. CIRCUIT SUPPLYING ADJACENT LIGHTING CIRCUITS. THE ALARM SHALL NOT BE CONNECTED TO ANY CIRCUIT SERVING EQUIPMENT CONTAINING MOTORS (eg. EXHAUST FANS AND HEATERS) OR WALL RECEPTACLES OR ANY CIRCUIT WHERE GFCI PROTECTION IS PROVIDED.
 NO DISCONNECT SWITCH BETWEEN O/C DEVICE AND SMOKE ALARM(S)
 LOCATION OF SMOKE ALARMS AND QUANTITY PER CODE REQUIREMENTS. LOCATE CENTRALLY, BUT AWAY FROM KITCHEN, BATHROOM AND DINING AREAS TO AVOID FALSE ALARMS.

 MORE THAN ONE SMOKE ALARM IN THE SAME DWELLING UNIT SHALL BE TANDEM CONNECTED.

- <u>Caution:</u> smoke alarms <u>must be provided on each storey of a</u> <u>Dwelling unit:</u>
- a) REGARDLESS OF WHETHER OR NOT THERE ARE SLEEPING AREAS ON ALL STOREYS.
- b) REGARDLESS WHETHER OR NOT SHOWN ON THE DRAWINGS.

   A SMOKE ALARM SHALL BE SUPPLIED FROM A LIGHTING CIRCUIT, OR FROM A CIRCUIT THAT SUPPLIES A MIX OF LIGHTING AND RECEPTACLES AND IN ANY CASE SHALL NOT BE INSTALLED:

a) WHERE CIRCUIT IS PROTECTED BY GFCI AND AFCI

- b) WHERE PROHIBITED BY CEC OTHER RULES (ie. RULE 26-720 TO
  - 26-724 ETC.)

     SMOKE ALARM SHALL ALSO CONFORM TO THE ULC STANDARD CAN/ULC-S531
  - <u>Warranty:</u> Smoke alarms must be provided with a minimum of five (5) years warranty.
- 16.29. FUNCTIONAL TESTING OF ELECTRICAL RELATED FIRE EMERGENCY
  SYSTEMS AND DEVICES:
  THIS SHALL BE CARRIED OUT BY THE SYSTEM SUPPLIER (FEE FOR
  THIS TO BE INCLUDED IN ELECTRICAL CONTRACT PRICE) IN THE
  PRESENCE OF REPRESENTATIVE(S) OF THE FIRE MARSHALL, AND
- 16.30. NOT USED.
- 16.31. <u>ELECTRICAL ROOM GENERAL:</u>
- 16.31.1 <u>CLEAR HEIGHT AND DIMENSIONS:</u> (ie. LENGTH x WIDTH) OF THE ELECTRICAL ROOM(S) MUST BE CONFIRMED WITH ARCHITECT OR HIS REPRESENTATIVE <u>BEFORE</u> ORDERING ANY ELECTRICAL EQUIPMENT.

ELECTRICAL AND MECHANICAL CONTRACTOR/CONSULTANTS.

- 16.31.2 <u>CAUTION:</u> ELECTRICAL EQUIPMENT DIMENSIONS SHOWN ON THE LAYOUTS ARE <u>MAXIMUM ACCEPTABLE</u> DIMENSIONS. THE CONTRACTOR MUST ENSURE THAT EQUIPMENT ORDERED DOES NOT EXCEED THESE DIMENSIONS.
- MINIMUM WORKING SPACE AND EXIT PATHWAYS SHALL BE PROVIDED ABOUT ELECTRICAL EQUIPMENT AS REQUIRED BY C.E.C. RULE 2-308 AND C.E.C. RULE 2-310. MINIMUM 1.5 METER UNOBSTRUCTED WIDTH REQUIRED FOR THE PATH OF TRAVEL IN THE DIRECTION OF EXIT FROM EQUIPMENT RATED 1200A OR MORE, OR RATED OVER 750V. MINIMUM ONE (1) METER WORKING SPACE REQUIRED FOR EQUIPMENT RATED LESS THAN 1200A AND RATED LESS THAN 750V
- 16.31.4 <u>CAUTION:</u> THE ELECTRICAL CONTRACTOR TO COORDINATE WITH THE SITE SUPERVISOR, MECHANICAL CONTRACTOR AND OTHER SUB-TRADES TO ENSURE:
  - a) NO PLUMBING PIPES OR OTHER TYPES OF PIPES SHALL PENETRATE OR BE INSTALLED IN ELECTRICAL ROOMS, EXCEPT THOSE SUPPLYING SPRINKLER HEADS IN THESE ROOMS, IF REQUIRED.
  - b) NO TOILET, BATHTUB OR ANY DRAIN/PLUMBING ON FLOOR AREA ABOVE THE ELECTRICAL ROOM.
  - c) ANY DISCREPENCIES BETWEEN THE DRAWINGS (ie. ARCHITECT/ALL SUB CONSULTANTS) AND SPECIFICATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND CLARIFIED IN WRITING ONLY PRIOR TO THE CONTRACTOR SUBMITTING HIS BID.
- 16.31.5 THE ELECTRICAL ROOM SHALL BE SEPARATED FROM THE REMAINDER OF THE BUILDING BY A FIRE SEPARATION HAVING FIRE—RESISTANT RATING PER BUILDING CODE REQUIREMENT.
- 16.31.6 THE FLOOR OF THE ELECTRICAL ROOM SHALL BE SLOPED DOWN (MINIMUM 1% SLOPE) TOWARDS THE LOCATION OF THE DOOR.
- 16.31.7 <u>ELECTRICAL CONTRACTOR ATTENTION:</u>
  - A) THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT THE ELECTRICAL EQUIPMENT TO BE INSTALLED IN THE ELECTRICAL ROOM MEETS ALL NECESSARY CODE CLEARANCE AND REQUIREMENTS.
  - B) ANY DISCREPENCIES BETWEEN DRAWINGS, SPECIFICATION, EQUIPMENT, DIMENSIONS CLEARANCES, ETC. SHALL BE BROUGHT TO THE ENGINEER AND CLARIFIED IN ONLY WRITING PRIOR TO THE TENDER/PRICING ACCEPTANCE. IF THIS IS NOT DONE, IT SHALL BE PRESUMED THAT THE MOST EXPENSIVE ALTERNATIVE HAVE BEEN INCLUDED IN THE TENDER/PRICING.
- 16.1. NOT USED
- 16.2. FIRE SPREAD/FLAME SPREAD REQUIREMENTS
- 16.33.1 <u>FIRE SPREAD:</u>
  - a) TO REDUCE THE POSSIBILITY OF FIRE SPREAD; FIRE SPREAD REQUIREMENTS FOR ELECTRICAL INSTALLATIONS SHALL BE PER C.E.C. RULE 2-124 WHERE A FIRE SEPARATION HAS BEEN PIERCED, THE EFFECTIVENESS OF CLOSING SHOULD BE TO THE SATISFACTION OF BUILDING AUTHORITY HAVING JURISDICTION.

16.33.2 FLAME SPREAD REQUIREMENTS:

- a) FLAME SPREAD REQUIREMENTS FOR ELECTRICAL WIRING/MATERIALS AND CABLES AND THEIR USE IN BUILDINGS SHALL BE PER C.E.C. RULES 2-126, 2-128, BULLETIN 2-8-0, APPLICABLE BUILDING CODE ARTICLES AND SHALL MEET FLAME SPREAD RATING REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION. (ie. INTENT IS THAT WIRING, CABLES ETC. INSTALLED IN BUILDING SHALL MEET THE SAME MINIMUM REQUIREMENTS AS BUILDING MATERIALS FOR FLAME SPREAD, SO THAT THEY DO NOT INCREASE THE FIRE RISK.
- b) ENSURE THAT ALL CABLES AND WIRES ARE RATED EITHER FT1 FOR BUILDINGS CLASSIFIED AS COMBUSTIBLE, FT4 FOR NON-COMBUSTIBLE BUILDINGS AND FT6 FOR PLENUM USE ASE REQUIRED BY THE BUILDING CODE.
- 16.33.3 ALL FIRE RESISTANCE RATED ASSEMBLIES (ie. WALLS, CEILINGS, ETC.)
  WHICH CONTAIN RECESSED LUMINAIRES MUST BE c/w FIRE RATED
  BACKING TO MAINTAIN THE FIRE INTEGRITY OF THE FIRE RESISTANCE.
- 16.34. BRANCH CIRCUIT LOADING
  UNLESS SPECIFICALLY NOTED ELSEWHERE IN THE
  DRAWINGS/SPECIFICATIONS, CIRCUIT LOADING SHALL NOT EXCEED THE
  FOLLOWING CRITERIA:

16.34.1 <u>GENERAL</u>

a) LIGHTING

15AMP/1P BREAKER; MAXIMUM 1000 WATTS
 PER CIRCUIT (120V) AND NOT TO

EXCEED - SIZ

(10) OUTLET PER CIRCUIT.

- SIZE OF WIRING TO LIMIT VOLTAGE DROP TO 3% MAXIMUM.

b) RECEPTACLES - 15AMP/1P BREAKER; MAXIMUM 5 OUTLETS
PER CIRCUIT (120V)

PER CIRCUIT (120V). 15AMP/1P BREAKER; 1 OUTLET PER CIRCUIT

FOR "DEDICATED".

c) MOTOR - NAMEPLATE RATING/CODE REQUIREMENTS

- 16.34.2. HVAC EQUIPMENT, APPLIANCES, ELECTRIC HEATING EQUIPMENT, MECHANICAL EQUIPMENT: CIRCUIT LOADING PER CODE REQUIREMENTS/NAMEPLATE INFORMATION/MANUFACTURER'S INFORMATION.
- 16.34.3 <u>VOLTAGE DROP:</u> DO <u>NOT</u> EXCEED THE MAXIMUM VOLTAGE DROP ALLOWED PER CEC CODE (SEE RULE 8-102); ELECTRICAL CONTRACTOR'S RESPONSIBILITY: WIRING SIZE MUST BE INCREASED TO ACHIEVE THIS RESULT.

16.1. NOT USED

Public Works and Government Services

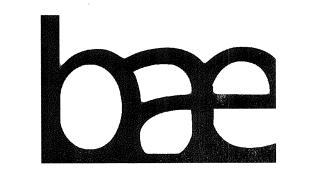
Travaux publics et Services gouvernementaux

Canada Canada

REAL PROPERTY SERVICES

Pacific Region

SERVICES IMMOBILIERS



Région de Pacifique



10 April 2017

2 ISSUED FOR TENDER 04/10/17
1 ISSUED FOR TENDER 02/22/17
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levision Description/Description Date/Date

PARKS CANADA WESTERN REGION STEVESTON, B.C. NATIONAL HISTORIC SITE

Project title/Titre du projet

GULF OF GEORGIA
CANNERY
ADMINISTRATION
BUILDING

12138 FOURTH AVE, RICHMOND, BC

J.R. BESANT	
Designed by/Con	cept par
J.R. BESANT	

C. INNES

PWGSC Project Manager/Administrateur de Projets TPSGC

T. DUNPHY

Regional Manager, Architectural and Engineering Services Gestionnaire régionale, Services d'architectural et de génie, TPSGC PREETIPAL PAUL

Drawing title/Titre du dessin

NOTES
SH. 2 of 2

Project No./No. du projet Sheet/Feuille R.060702.001

**E12**of 12

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PWGSC - A1 - 841X594

DWG. NO.