

## Performance Verification Plan – Sewells Landing

Client Westbank  
Date February 2021  
Site 6687 – 6609 Nelson Avenue, West Vancouver, BC

Geostratus Consulting Inc. (Geostratus) was retained by Westbank Projects Corporation (Westbank), to investigate and remediate the property at 6687 to 6709 Nelson Avenue, West Vancouver, BC (herein referred to as “the Site”). We understand this work was completed in support of redevelopment of the Site, and, subject to the limitations in this report, can be relied upon by British Columbia Ministry of Environment (MOE) and the Contaminated Sites Approved Professional Society and its reviewers.

### **SITE DESCRIPTION**

The Site comprises two lots with a total area of 9315m<sup>2</sup> at the northeast corner of Nelson Avenue and Wolseley Street in the City of West Vancouver, British Columbia. The Site is bounded by Horseshoe Bay to the northeast. The city lot lines are the Site boundary. The BC MOE SITE ID is 18682.

- 1) 6687, 6691, 6693, 6697, 6699, 6707 and 6709 Nelson Avenue, West Vancouver, BC  
Legal Description: Lot 1, District Lots 430 and 3840, Group 1, New Westminster District Plan EPP64493.  
Parcel Identifier (LTO): 029-978-009
- 2) 6695 Nelson Avenue, West Vancouver, BC  
Legal Description: Lot 2, District Lots 430 and 3840, Group 1, New Westminster District Plan EPP64493.  
Parcel Identifier (LTO): 029-978-017

### **REQUIRED ENGINEERING CONTROL**

A parkade attenuation adjustment divisor (PAAD) was required to estimate vapour concentrations within the parkade. The use of a PAAD constitutes reliance on an engineered system to increase air exchange within the parkade. Therefore, use of the PAAD constitutes risk management for vapours.

Use of an engineered system is a Type 2 risk control and requires a performance verification plan. In the case of the site, the engineering control is parkade ventilation which designed under the BC Building code regulations and is monitored and operated through design details which are enumerated in the building operations manual and design. As such, no independent action by this PVP is anticipated to be required to operate and maintain the system as per design specifications.

The following enumerates specific PVP requirements:

- Necessary risk controls with the rationale for their selection,  
A parking attenuation adjustment divisor (PAAD) was required to achieve additional vapour attenuation in order to successfully model potential exposure to soil vapour within the underground parkade. As per TG4, the use of a PAAD constitutes an engineering control which requires a Performance Verification Plan.
- Actions required to implement, operate and monitor the identified risk controls  
The engineering controls are inherent in the building design and operation. No specific or additional action is required to implement, operate and monitor the risk controls to ensure that the conditions under which the PAAD was used are maintained. The only requirement is that the system be operated as designed.
- Detailed specifications on any engineering work to be implemented  
The detailed specifications of the parkade ventilation are provided on the attached drawings which have been designed as per the relevant BC building code:
- A description of immediate risk of exposure to humans, the aquatic receiving environment and terrestrial non-human receptors to contaminants if there is a sudden failure of risk controls  
The PAAD was used to model potential soil vapour concentrations that a receptor may be exposed to within the parkade. The soil vapour modelling was based only on those confirmatory samples that had detectable concentrations. After a review of the final confirmatory samples only 6 samples out of 127 total samples (~5%) had detectable concentrations. 95% of the samples were non detectable and therefore not a source of vapours. Further and more importantly as it relates to the potential for an ongoing vapour issue, the soils represented by the 6 detectable confirmatory samples have been excavated and removed from the site. **Consequently, there are no longer any sources of vapour on the site.** However, soil vapour measurements and/or additional soil samples were not able to be collected at the base of the excavation and therefore the estimation of soil vapour is based on the highest confirmatory samples collected to date.  
**A sudden failure of the parkade ventilation system, for short- or long-term duration will not result in an adverse exposure to human receptors within the parkade.**
- Schedules for inspection and maintenance of any operations or engineered works  
The parkade ventilation system is a mechanical ventilation demand-based system which utilizes a monitor or sensor to trigger operation of the ventilation system. The systems are checked and calibrated on an annual basis or as specified through the design manual. The only requirement is that the system operate as designed. No separate or additional inspection is required to ensure that the requirements for the continued applicability of the PAAD are needed.

We recommend that records of annual system checks, including calibration of sensors, equipment replacement and general maintenance as and when needed, be maintained by the site owner to be submitted to the Ministry of Environment upon request.

- Contingency plans related to installed engineered works

No specific or additional contingency plan is required to ensure that the conditions under which the PAAD was used are maintained. A failure of the system for short or long term would not pose a risk to human receptors in the parkade from soil vapour as the vapour source was removed during bulk excavation.

In terms of controlling CO and NO2 vapours from vehicles, a partial or complete system failure is accompanied by audible and visual alarms for the building manager to address.

- Notification instructions to the director if performance verification actions indicate that there is a failure of risk controls or contingency action is triggered

The use of a PAAD assumes operation of the building ventilation system as per design guidelines. We anticipate that there are no performance verification actions or notification requirements to the director based on the following:

- 1) the obligations to operate the system are inherent in the design and operation of the parkade as per the BC Building code.
- 2) A partial or total failure of the system would not be a risk to receptors in the garage as there are no longer any sources of vapour on the site as they were removed during bulk excavation.

- Identification and contact information (address and email) of those responsible for the proper operation, maintenance and record-keeping of risk control performance.

Westbank - [renata@westbankcorp.com](mailto:renata@westbankcorp.com)

Address: 1067 W Cordova St #501, Vancouver, BC V6C 1C7

## **LIMITATIONS**

Geostratus Consulting Inc. (Geostratus) prepared this report for Westbank Projects Corporation. for specific application to the subject Site. The material presented in this report reflects Geostratus judgment in light of the information available to Geostratus at the time of preparation. To the fullest extent permitted by law, the total liability, in the aggregate, of Geostratus, Geostratus' officers, directors, partners, employees, agents, and subconsultants, to Client, and anyone claiming by, through, or under Client for any claims, losses, costs, or damages whatsoever arising out of, resulting from or in any way related to this Project or Agreement from any cause or causes, including but not limited to negligence, professional errors and omissions, strict liability, breach of contract, or breach of warranty, shall not exceed the total compensation received by Consultant.

The Ministry of Environment (MOE), the Contaminated Sites Approved Professional Society (CSAP) and the approved professional (AP) making a recommendation regarding this property may rely on the technical data in this report for the purposes of review associated with a certificate of compliance for the subject site. To the fullest extent permitted by law, the total liability, in the aggregate, of Geostratus, Geostratus' officers, directors, partners, employees, agents, and subconsultants, to MOE, CSAP and the AP, and anyone claiming by, through, or under MOE, CSAP and AP for any claims, losses, costs, or damages whatsoever arising out of, resulting from or in any way related to this Project or Agreement from any cause or causes, including but not limited to negligence, professional errors and omissions, strict liability, breach of contract, or breach of warranty, shall not exceed \$1,000.

Any use which a third party makes of this report, or any reliance on, or decisions to be made based on it, are the responsibility of such third parties. Geostratus accepts no responsibility for damages, if any, suffered by any third party because of decisions made or actions based on this report.

The conclusions in this report are based on information collected from the investigation location chosen for this study. The location was selected based on the best information available to us at the time of this study. This does not preclude the possibility that different conditions may be present elsewhere on the property. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce this possibility to an acceptable level.

Third party information reviewed and used to formulate this report is assumed to be complete and correct. Geostratus used this information in good faith and will not accept any responsibility for deficiencies, misinterpretation or incompleteness of the information contained in documents prepared by third parties.

Professional judgment was exercised in gathering and analyzing the information obtained. Like all professional persons rendering advice, we cannot act as absolute insurers of the conclusions we reach; we commit ourselves to care and competence in reaching those conclusions. Our undertaking therefore, is to perform our work, within the limits prescribed by our client, with the usual thoroughness and competence of the profession. No other warranty or representation, express or implied, is included or intended in this report.



Nick Dayal, P.L.Eng  
Environmental Consultant





## RE: parkade ventilation details

1 message

**Murphy, John1** <J.Murphy@ndy.com>

Fri, Feb 26, 2021 at 6:37 PM

To: Nick D <nick@geostratus.ca>

Cc: "Boome, Alexander" <A.Boome@ndy.com>

Hi Nick please find drawings at link below.

<https://sft.ndy.com/link/VVG4qpBx7CQjR81SFILsaM>

This is to confirm that the project "Sewell's Landing" has been designed to conform to exhaust rates for vehicle and emergency smoke evacuation as outlined in BC Building Code.

Parkade exhaust and intake fans are located throughout parking levels P4-P1. Fans are interlocked with CO and combustible gas vapor sensors located within the parkade as per mechanical drawings and manufacturers requirements.

When the CO levels exceed 50 ppm or 10% LEL propane at any of the sensing locations, the digital controller shall start parkade exhaust fans and operate them at minimum speed. If CO levels rise above 70 ppm or 12% LEL propane at any of the sensing locations, fans shall speed up to 60% of full speed. Upon a further rise above 85ppm or 14% LEL, the fans shall be operated at full speed.

The system is programmed to start the parkade transfer, supply and exhaust fans during peak usage times and operate them at minimum speed unless required to increase air volumes to control CO or LEL propane levels.

Alarms have been provided if the concentrations exceed 100 ppm of CO or 20% LEL of propane.

Note: The above is based on drawings and specifications provided by NDY, equipment and airflows indicated on drawings have not been confirmed at this stage. Because balancing, commissioning reports and final "as built" drawings have not been submitted to us at this stage.

Regards,

John Murphy, P.Eng.



**John Murphy** | Project Manager

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**Norman Disney & Young** A Tetra Tech Company

#608 1166 Alberni Street, Vancouver, British Columbia V6E 3Z3, Canada

TETRA TECH HIGH PERFORMANCE BUILDING GROUP

H.V.A.C. LEGEND	
SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER BAFFLED OFF (NO AIR FROM SHADED AREA)
	SUPPLY AIR LINEAR DIFFUSER
	RETURN OR EXHAUST AIR GRILLE
	SUPPLY AIR DIFFUSER
	NEW DUCTWORK (WIDTH X HEIGHT)
	HEAT TRACING & INSULATION
	FLEXIBLE DUCTWORK (SINGLE LINE LAYOUT)
	FLEXIBLE DUCTWORK (DOUBLE LINE LAYOUT)
	ACOUSTIC LINED DUCT
	FLEXIBLE CONNECTION
	SLEEVE
	BALANCING DAMPER
	MOTORIZED DAMPER
	BACKDRAFT DAMPER
	SUPPLY AIR DUCT UP
	SUPPLY AIR DUCT DOWN
	RETURN, RELIEF, OR EXHAUST AIR DUCT UP
	RETURN, RELIEF, OR EXHAUST AIR DUCT DOWN
	EXISTING SUPPLY AIR DUCT UP
	EXISTING SUPPLY AIR DUCT DOWN
	EXISTING RETURN OR EXHAUST AIR DUCT UP
	EXISTING RETURN OR EXHAUST AIR DUCT DOWN
	THERMOSTAT
	THERMOSTAT C/W GUARD
	SMOKE DETECTOR
	WALL SPEED SWITCH
	GAS DETECTOR
	TURNING VANES
	RISE IN DUCT
	DROP IN DUCT

PLUMBING LEGEND	
SYMBOL	DESCRIPTION
	SANITARY ABOVE GRADE OR FLOOR
	SANITARY BELOW GRADE OR FLOOR
	STORM DRAIN ABOVE GRADE OR FLOOR
	STORM DRAIN BELOW GRADE OR FLOOR
	DOMESTIC HOT WATER
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER RECIRCULATION
	RAINWATER LEADER
	IRRIGATION PIPING
	FOOTING DRAIN
	VENT
	PARKING DRAINAGE TREATMENT SYSTEM
	GAS LINE
	GAS LINE (2 PSI)
	GAS LINE (5 PSI)
	GAS VENT
	COMPRESSED AIR
	INDIRECT WASTE
	DISTILLED WATER
	EXISTING PIPING TO REMAIN
	EXISTING PIPING TO BE REMOVED
	CLEAN OUT THRU FLOOR
	CLEAN OUT ABOVE GRADE
	PIPE GUIDE
	SLEEVE THRU BEAM
	PIPE SLOPE
	CAPPED OFF
	TRAP
	PIPE UP
	PIPE DOWN
	BRANCH PIPE BELOW
	PIPE ANCHOR
	HOSE BIBB
	BBO GAS OUTLET
	GAS METER
	WATER METER
	EQUIPMENT DETAIL NO.
	HEAT TRACING & INSULATION
	ACCESS DOOR
	PUMP
	VENT THRU ROOF
	MANHOLE

H.V.A.C. LEGEND	
SYMBOL	DESCRIPTION
	EXISTING DUCTWORK TO REMAIN
	EXISTING DUCTWORK TO BE REMOVED
	ACCESS PANEL
	COMPLETE WITH FIRE DAMPER
	ELECTRIC HEATER BY DIV. 16 (ELECTRICAL)
	HEAT TRACING & INSULATION
	FUEL OIL SUPPLY
	FUEL OIL RETURN
	FUEL OIL VENT
	CONDENSER WATER RETURN
	REFRIGERANT SUCTION
	REFRIGERANT LIQUID
	HEATING WATER SUPPLY
	HEATING WATER RETURN
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	CONDENSER WATER SUPPLY
	STEAM SUPPLY
	STEAM RETURN
	ATMOSPHERIC VENT
	STEAM TRAP
	PRESSURE GAUGE
	THERMOMETER
	AUTOMATIC AIR VENT
	UNION
	WALL CAP
	ROOF CAP
	FIRE AND SMOKE DAMPER IN DUCT OR SHAFT
	PENETRATIONS OF VERTICAL SEPARATIONS
	PENETRATIONS OF SEPARATIONS

PLUMBING LEGEND	
SYMBOL	DESCRIPTION
	CATCH BASIN
	INVERT ELEVATION
	DRAIN FROM ABOVE
	FLOOR DRAIN
	DECK DRAIN
	AREA DRAIN
	FUNNEL FLOOR DRAIN
	UNION
	ISOLATING VALVE
	GLOBE VALVE
	BUTTERFLY VALVE
	PRESSURE REDUCING VALVE
	AUTOMATIC CONTROL VALVE
	SOLENOID VALVE
	PRESSURE AND TEMPERATURE RELIEF VALVE
	CHECK VALVE
	EXPANSION JOINT
	FLOW SWITCH
	DOUBLE CHECK BACKFLOW PREVENTOR
	REDUCED PRESSURE BACKFLOW PREVENTOR
	PRESSURE REDUCING VALVE WITH VENT
	BALANCING VALVE
	PRESSURE GAUGE
	AQUASTAT
	PIPE FLEX CONNECTION
	THERMOMETER
	WATER HAMMER ARRESTOR
	TIMER
	HOT WATER RECIRC.
	HOT WATER
	COLD WATER
	RAIN WATER LEADER
	WATER CLOSET
	BIDET
	URINAL
	LAVATORY
	SHOWER
	DRINKING FOUNTAIN
	JANITOR SINK
	SLOP SINK
	BATH TUB
	CLOTHES WASHER
	WASH BASIN

H.V.A.C. LEGEND	
SYMBOL	DESCRIPTION
	ISOLATING VALVE
	GLOBE VALVE
	BUTTERFLY VALVE
	PRESSURE REDUCING VALVE
	AUTOMATIC CONTROL VALVE
	SOLENOID VALVE
	PRESSURE AND TEMPERATURE RELIEF VALVE
	CHECK VALVE
	EXPANSION JOINT
	FLOW SWITCH
	EXISTING PIPING TO REMAIN
	PUMP
	VENT THRU ROOF
	PRESSURE REDUCING VALVE WITH VENT
	BALANCING VALVE
	PIPE UP
	PIPE DOWN
	BRANCH PIPE BELOW
	AQUASTAT
	ACCESS DOOR
	PIPE FLEX CONNECTION
	Y-STRAINER
	CAPPED OFF
	PIPE ANCHOR
	PIPE GUIDE
	SLEEVE THRU BEAM

## DRAWING LIST

### DRAWING NO

### DESCRIPTION

### SCALE

#### MECHANICAL

M-00	COVER SHEET	NOT TO SCALE
M-100	P4 OVERALL	1/32" = 1'-0"
M-100A	P4 A	1/8" = 1'-0"
M-100B	P4 B	1/8" = 1'-0"
M-100C	P4 C	1/8" = 1'-0"
M-100D	P4 D	1/8" = 1'-0"
M-100E	P4 E	1/8" = 1'-0"
M-101	P3 OVERALL	1/32" = 1'-0"
M-101A	P3 A	1/8" = 1'-0"
M-101B	P3 B	1/8" = 1'-0"
M-101C	P3 C	1/8" = 1'-0"
M-101D	P3 D	1/8" = 1'-0"
M-101E	P3 E	1/8" = 1'-0"
M-102	P2 OVERALL	1/32" = 1'-0"
M-102A	P2 A	1/8" = 1'-0"
M-102B	P2 B	1/8" = 1'-0"
M-102C	P2 C	1/8" = 1'-0"
M-102D	P2 D	1/8" = 1'-0"
M-103	P1 OVERALL	1/32" = 1'-0"
M-103A	P1 A	1/8" = 1'-0"
M-103B	P1 B	1/8" = 1'-0"
M-900	SCHEDULE (FANS)	NOT TO SCALE
M-901	SCHEDULE (EMER.CONTROL)	NOT TO SCALE
M-902	SCHEDULE (FC, MISC.)	NOT TO SCALE
M-903	OVERALL CHILLED HEATING RISER	NOT TO SCALE
M-904	OVERALL CHILLED HEATING RISER	NOT TO SCALE
M-911	STAIR PRESS RISER	NOT TO SCALE
M-912	MEASURE N RISER	NOT TO SCALE
M-913	DETAILS	NOT TO SCALE
M-914	DETAILS	NOT TO SCALE

## DRAWING LIST

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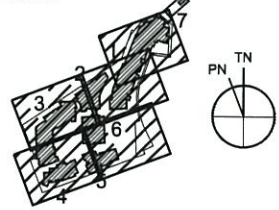
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### SCALE

#### PLUMBING

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P-100	FOUNDATION PLAN	1/32" = 1'-0"
P-100A	FOUNDATION PLAN A	1/8" = 1'-0"
P-100B	FOUNDATION PLAN B	1/8" = 1'-0"
P-100C	FOUNDATION PLAN C	1/8" = 1'-0"
P-100D	FOUNDATION PLAN D	1/8" = 1'-0"
P-100E	FOUNDATION PLAN E	1/8" = 1'-0"
P-101	P4 OVERALL	1/32" = 1'-0"
P-101A	P4 A	1/8" = 1'-0"
P-101B	P4 B	1/8" = 1'-0"
P-101C	P4 C	1/8" = 1'-0"
P-101D	P4 D	1/8" = 1'-0"
P-101E	P4 E	1/8" = 1'-0"
P-102	P3 OVERALL	1/32" = 1'-0"
P-102A	P3 A	1/8" = 1'-0"
P-102B	P3 B	1/8" = 1'-0"
P-102C	P3 C	1/8" = 1'-0"
P-102D	P3 D	1/8" = 1'-0"
P-102E	P3 E	1/8" = 1'-0"
P-103	P2 OVERALL	1/32" = 1'-0"
P-103A	P2 A	1/8" = 1'-0"
P-103B	P2 B	1/8" = 1'-0"
P-103C	P2 C	1/8" = 1'-0"
P-103D	P2 D	1/8" = 1'-0"
P-104	P1 OVERALL	1/32" = 1'-0"
P-104A	P1 A	1/8" = 1'-0"
P-104B	P1 B	1/8" = 1'-0"
P-104C	P1 C	1/8" = 1'-0"
P-104D	P1 D	1/8" = 1'-0"
P-900	SCHEDULE	NOT TO SCALE
P-901	SCHEMATIC	NOT TO SCALE
P-913	DETAILS	NOT TO SCALE

#### Key Plan



#### Revision

No.	Description	Date
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#### Issue

Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2018-03-19
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

#### Consultant



#### Project

## Sewell's Landing

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
WESTBANK

#### Sheet Title

## COVER PAGE

#### Drawn By

JM

#### Checked

AB

#### Project Number

8316

#### Scale

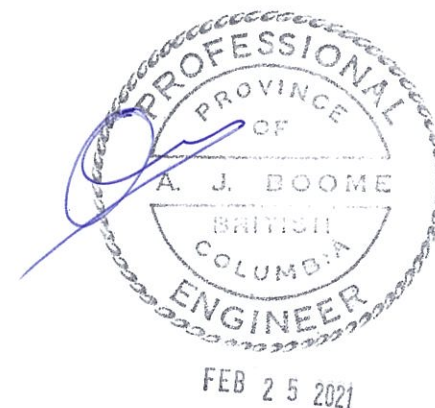
N.T.S

#### Revision

#### Sheet Number

## M-00





- GENERAL NOTES:
- 1 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
  - 2 CO COMBUSTIBLE GAS SENSOR

Key Plan

Revision

No.	Description	Date
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Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2018-03-19
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

Consultant

Project

**Sewell's Landing**

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
WESTBANK

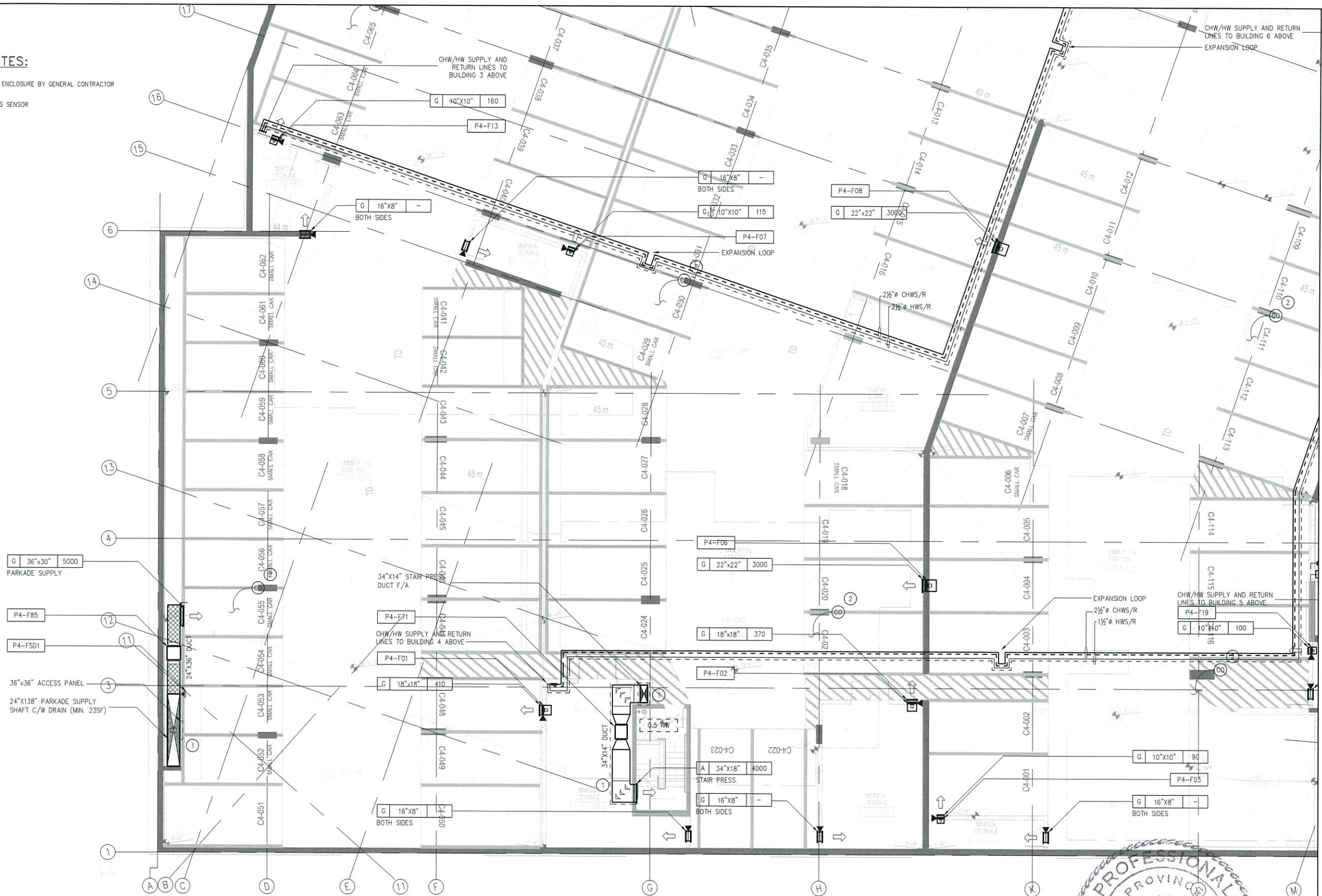
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Drawn By	Checked
JM	AB
Project Number	Scale
8316	1/32" = 1'-0"
Revision	Sheet Number

**M-100**



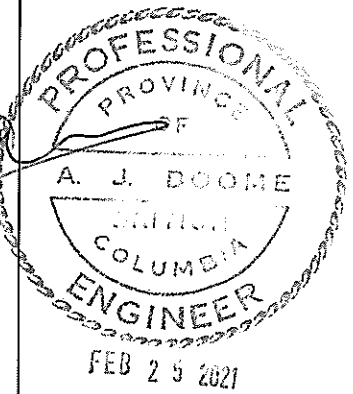
# GENERAL NOTES:

- 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
- CO COMBUSTIBLE GAS SENSOR

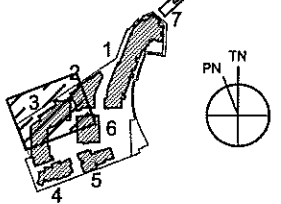


GENERAL NOTES:

- ① 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR  
② CO COMBUSTIBLE GAS SENSOR



Key Plan



Revision No.	Description	Date
MSI-07		2018-11-26
MSI-89		2020-10-02

Below Grade Building Permit	2018-07-13
Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2018-03-19
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-08-01

Consultant



Project

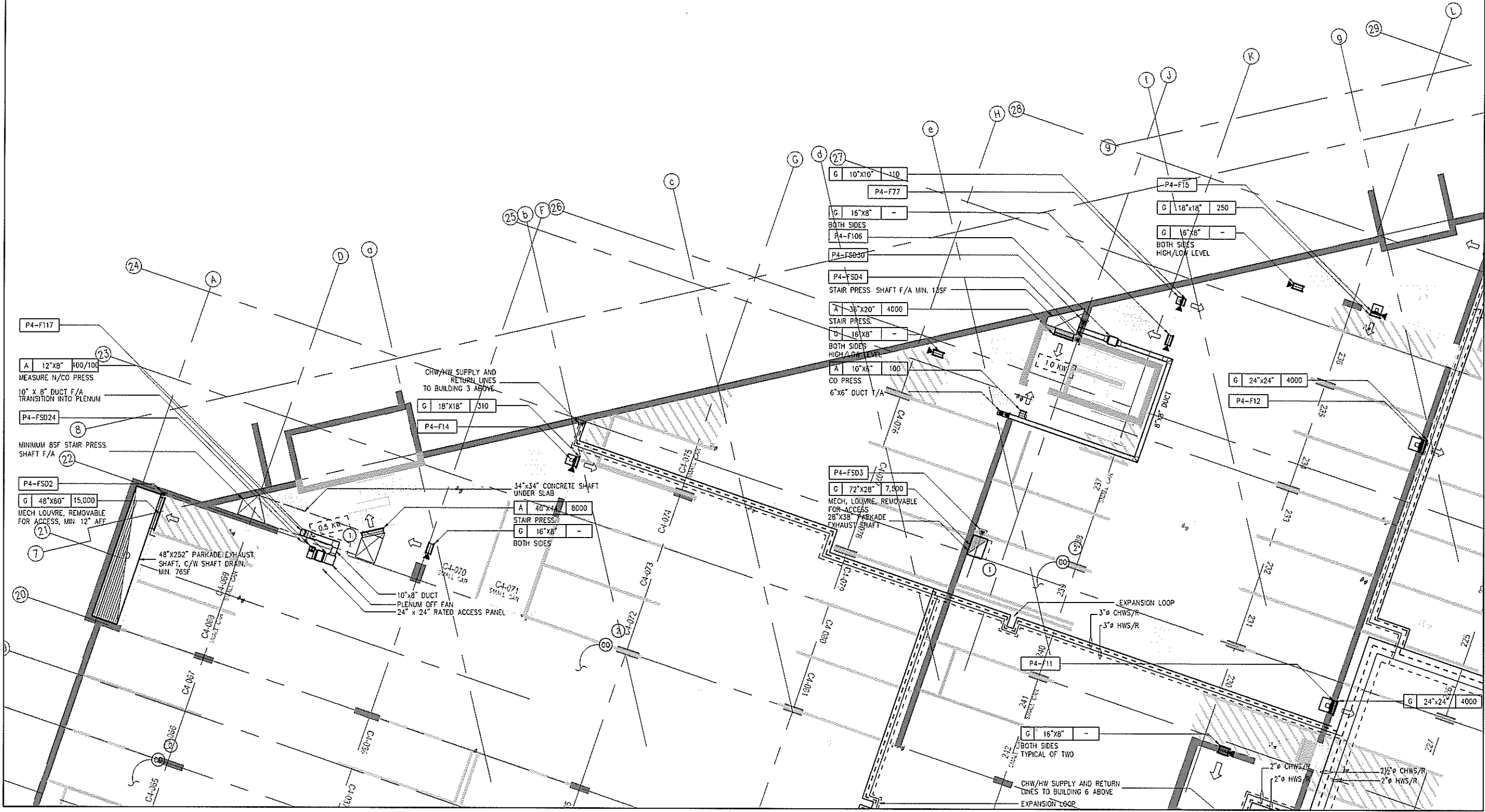
**Sewell's Landing**  
6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
WESTBANK

Sheet Title

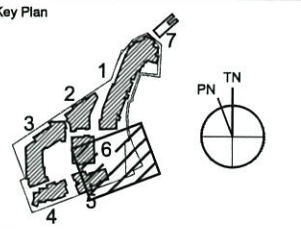
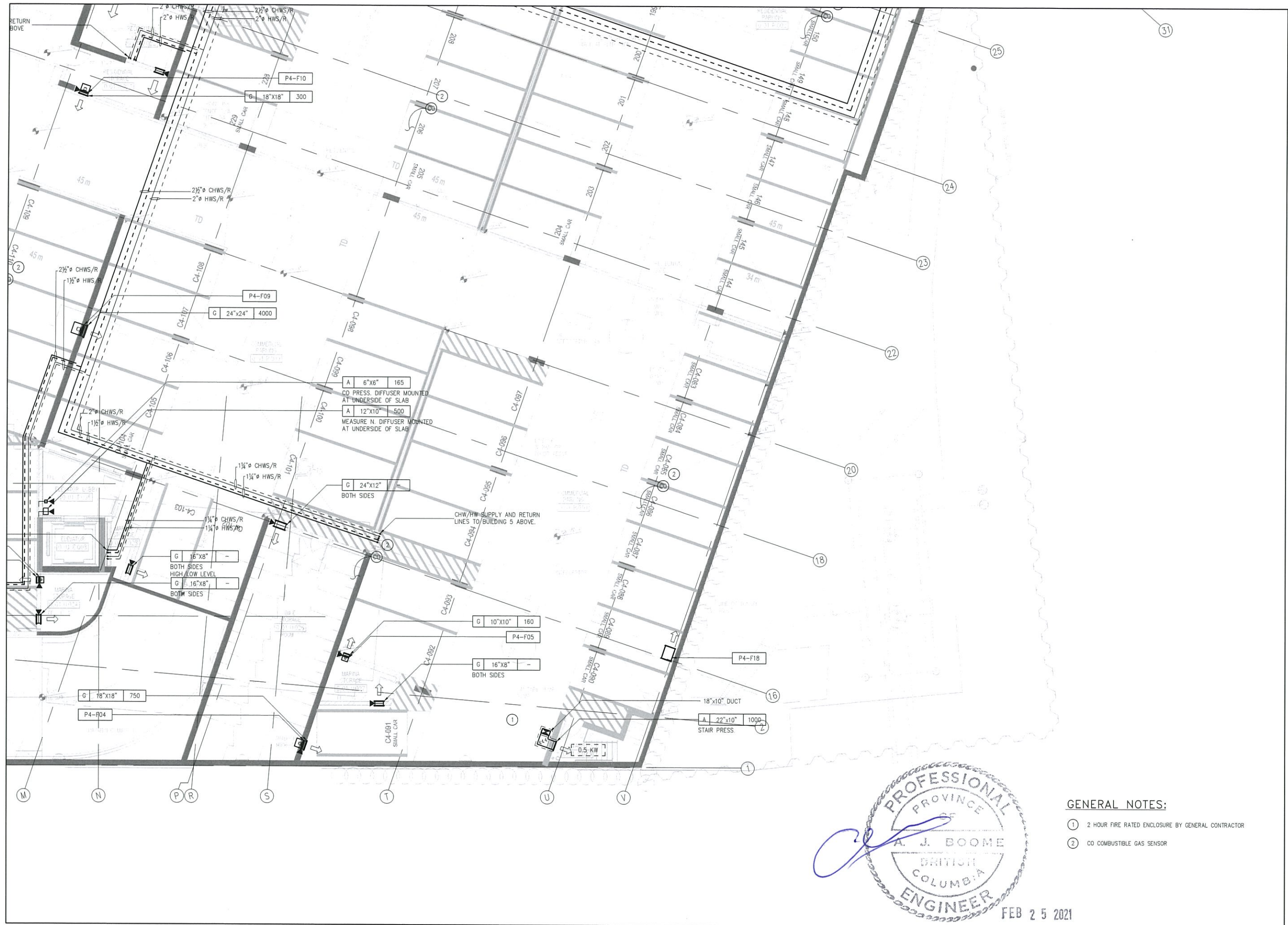
**PARKING P4 PLAN B  
MECHANICAL**

Drawn By	Checked
JM	AB
Project Number	Scale
8316	1/8" = 1'-0"
Revision	Sheet Number

**M-100B**







Revision		
No.	Description	Date
MSI-05		2018-10-26
MSI-07		2018-11-26

Issue		Issue Date
Issued for Tender		2017-01-31
Issued for Below Grade B.P.		2017-02-03
Below Grade Building Permit		2018-03-19
Below Grade Building Permit		2018-05-23
Issued for Construction		2018-06-01

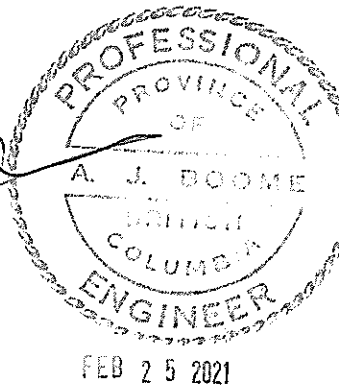
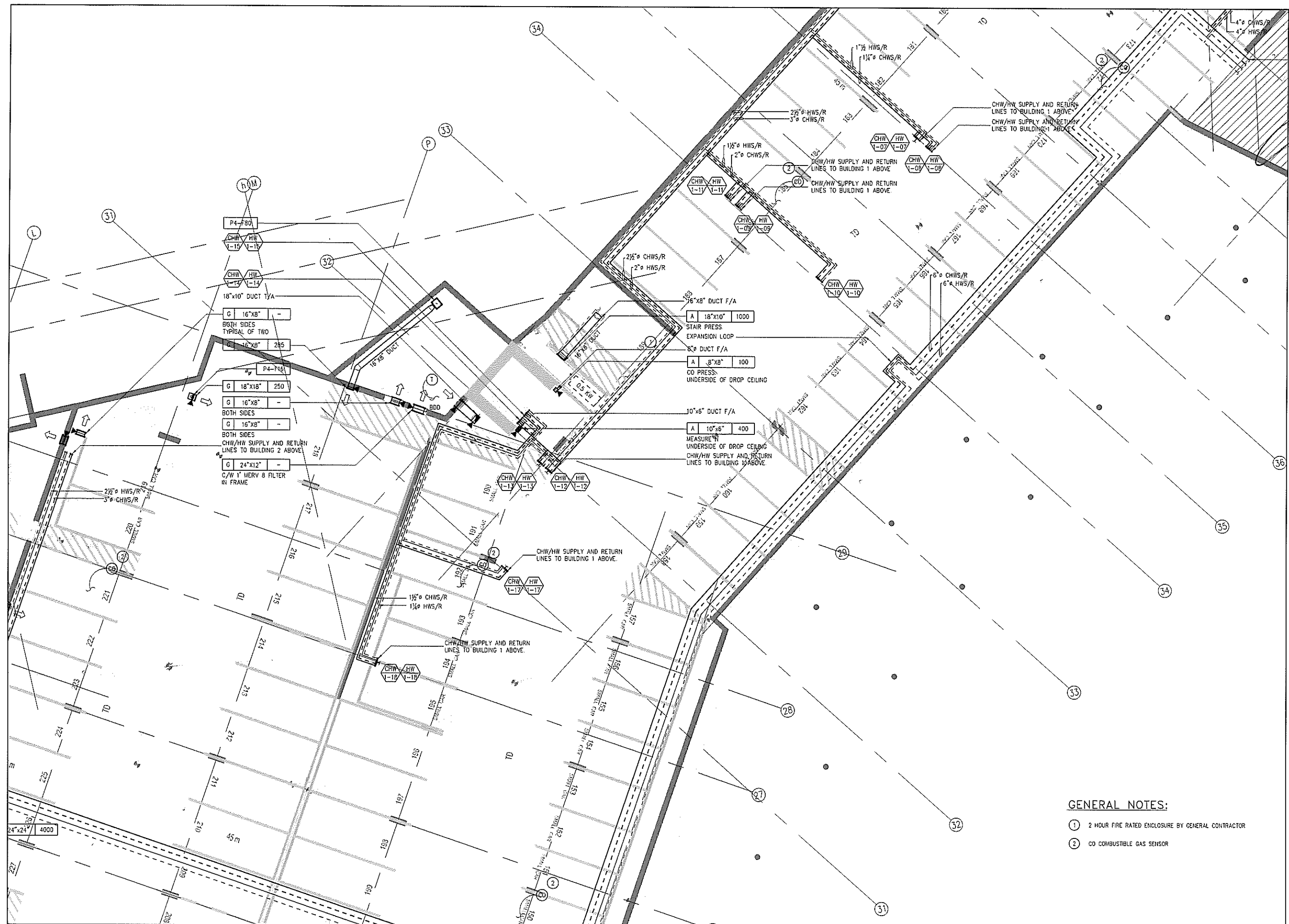


Project  
**Sewell's Landing**  
6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
WESTBANK

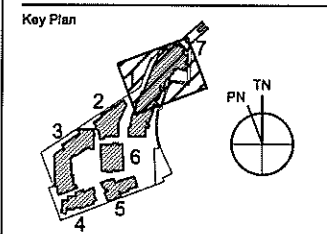
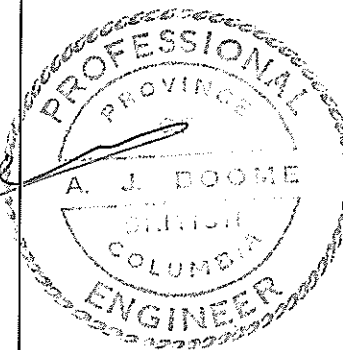
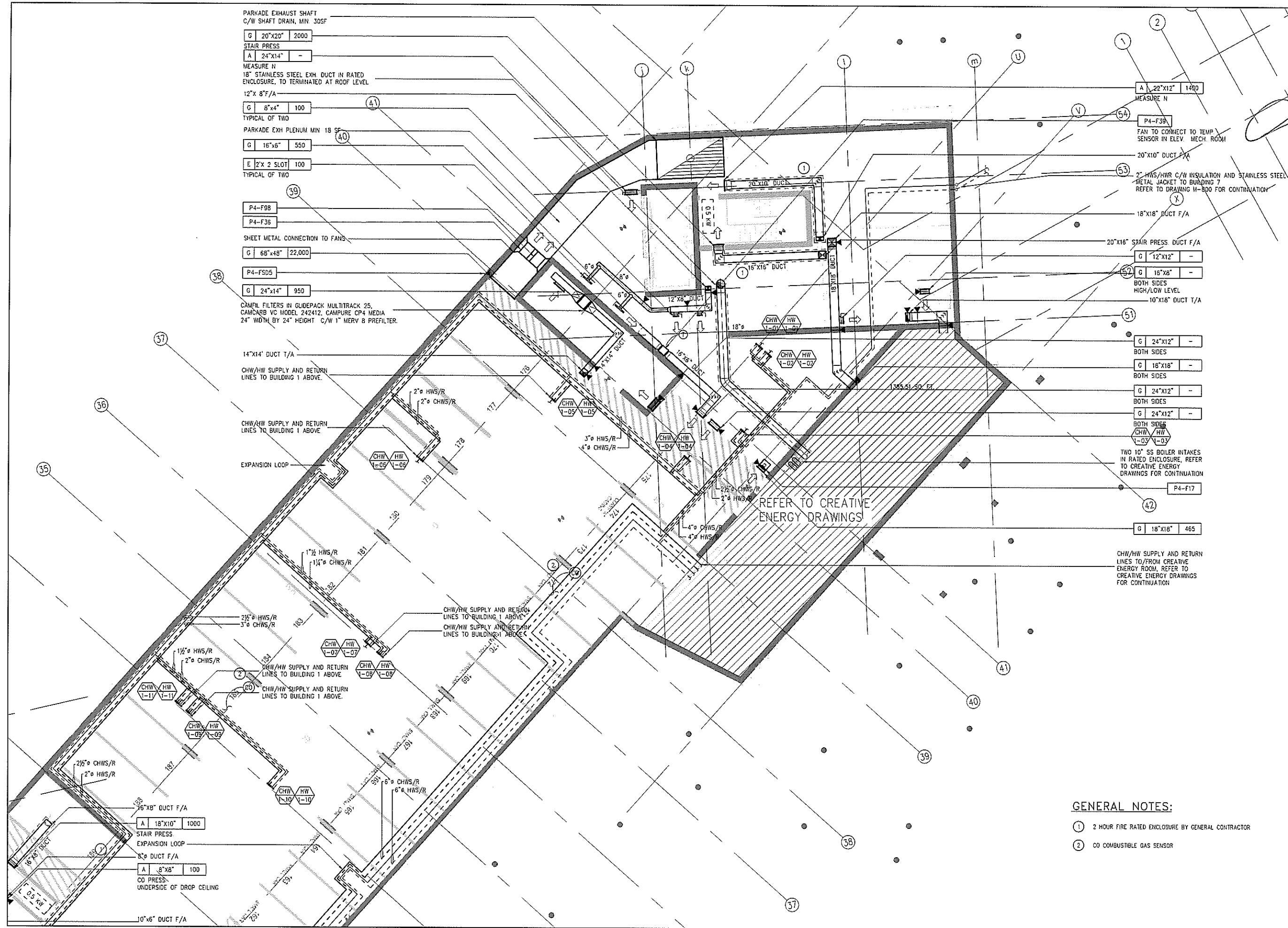
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**PARKING P4 PLAN C  
MECHANICAL**

Drawn By	Checked
JM	AB
Project Number	Scale
8316	1/8" = 1'-0"
Revision	Sheet Number

**M-100C**







Revision No.	Description	Date
Δ MSI-05		2018-10-26
Δ MSI-07		2018-11-28
Δ MSI-10		2019-02-20
Δ MSI-45		2019-10-22

Below Grade Building Permit	2018-07-13
Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2018-03-19
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01



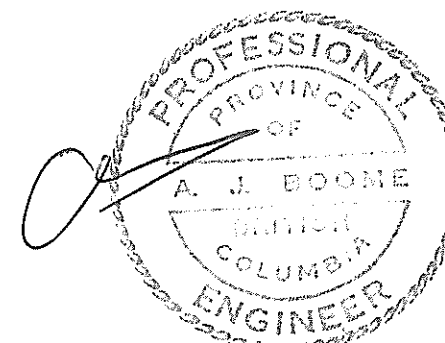
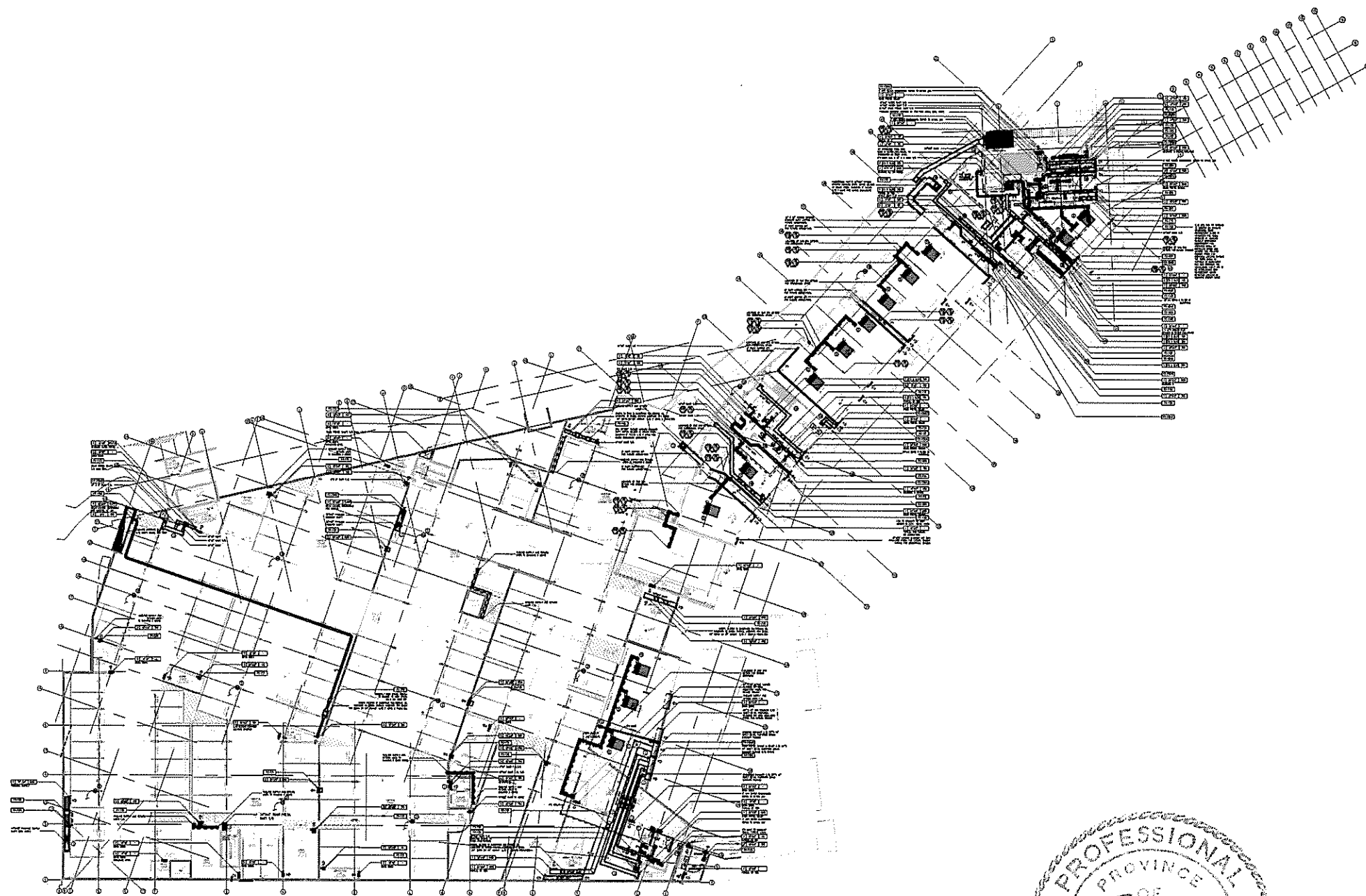
Project  
**Sewell's Landing**  
 6691 NELSON STREET,  
 WEST VANCOUVER, BC  
 FOR  
 WESTBANK

Sheet Title <b>PARKING P4 PLAN E MECHANICAL</b>	
Drawn By JM	Checked AB
Project Number 8316	Scale 1/8" = 1'-0"
Revision	Sheet Number

**M-100E**

- GENERAL NOTES:**
- ① 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
  - ② CO COMBUSTIBLE GAS SENSOR

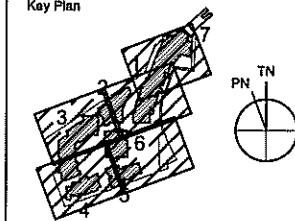




**GENERAL NOTES:**

- ① 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
- ② CO COMBUSTIBLE GAS SENSOR

Key Plan



Revision		
No.	Description	Date

Issue		Issue Date
Issued for Tender		2017-01-31
Issued for Below Grade B.P.		2017-02-03
Below Grade Building Permit		2018-03-19
Below Grade Building Permit		2018-05-23
Issued for Construction		2018-08-01

Consultant



Project

**Sewell's Landing**

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
WESTBANK

Sheet Title

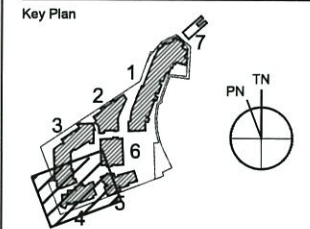
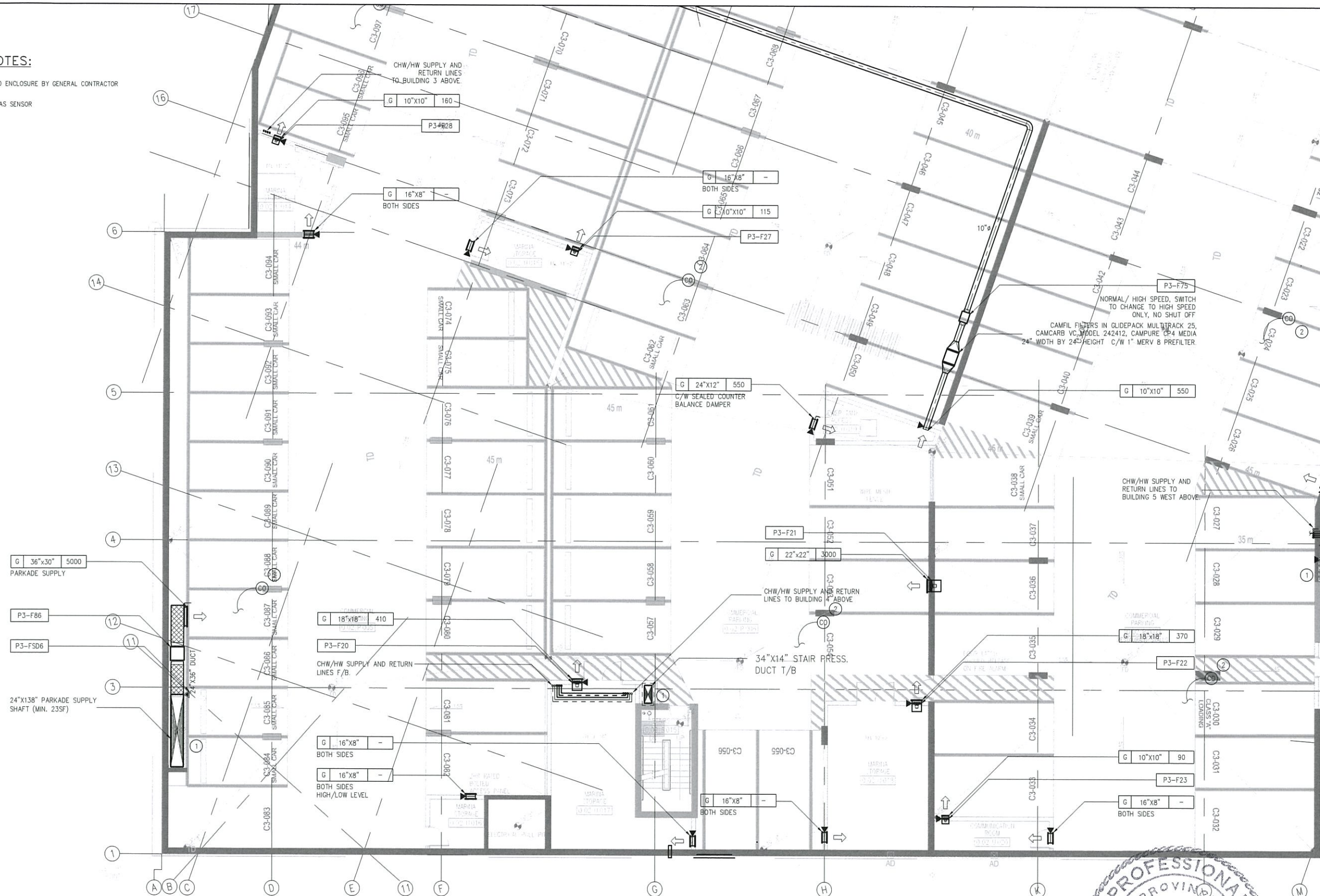
**PARKING P3 PLAN  
MECHANICAL**

Drawn By	Checked
JM	AB
Project Number	Scale
8316	1/32" = 1'-0"
Revision	Sheet Number

**M-101**

# GENERAL NOTES:

- 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
- CO COMBUSTIBLE GAS SENSOR



Revision No.	Description	Date
1	MSI-05	2018-10-26

Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2018-03-19
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

Consultant



Project

**Sewell's Landing**

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FOR  
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Sheet Title

**PARKING P3 PLAN A  
MECHANICAL**

Drawn By	Checked
JM	AB
Project Number	Scale
8316	1/8" = 1'-0"
Revision	Sheet Number

**M-101A**

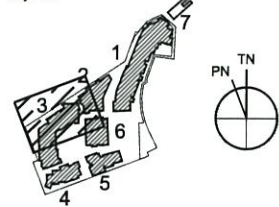


GENERAL NOTES:

- ① 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR  
② CO COMBUSTIBLE GAS SENSOR



Key Plan



Revision		
No.	Description	Date
△ MSI-05		2018-10-26
△ MSI-07		2018-11-26
△ MSI-89		2020-10-02

Below Grade Building Permit	
Issue	2018-07-13
Issue Date	2018-07-13
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2018-03-19
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

Consultant



Project

Sewell's Landing

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
WESTBANK

Sheet Title

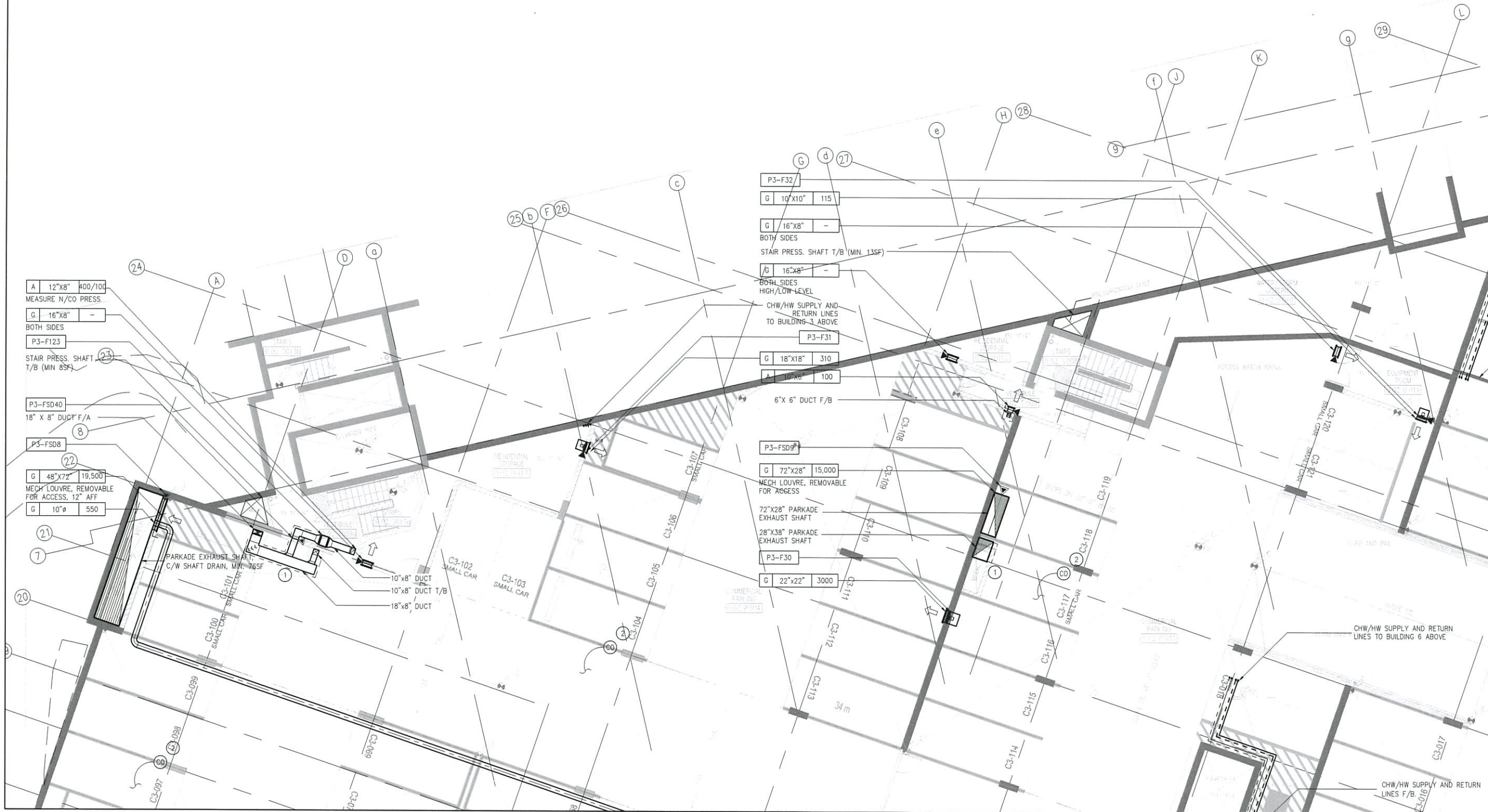
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MECHANICAL

Drawn By JM Checked AB

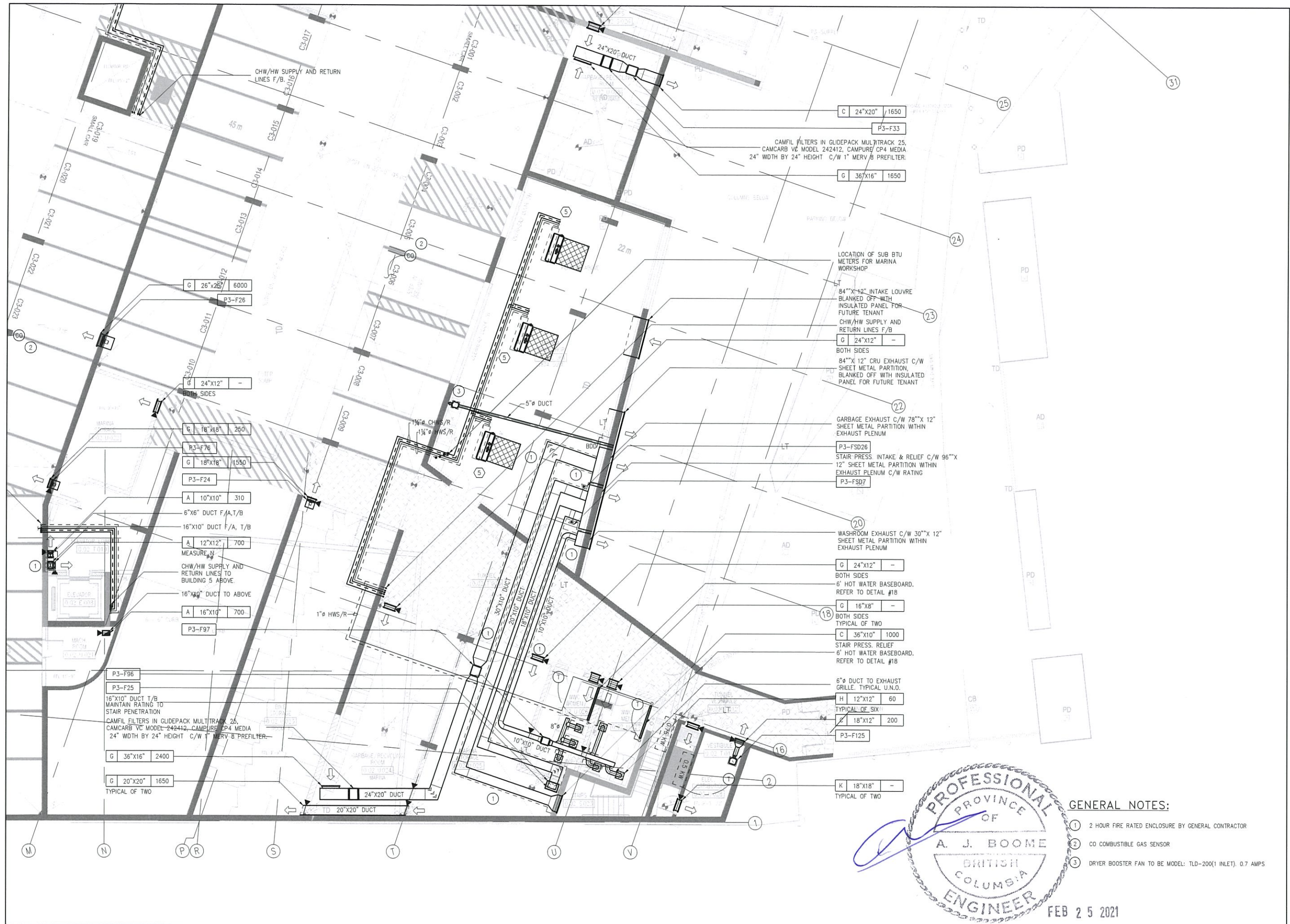
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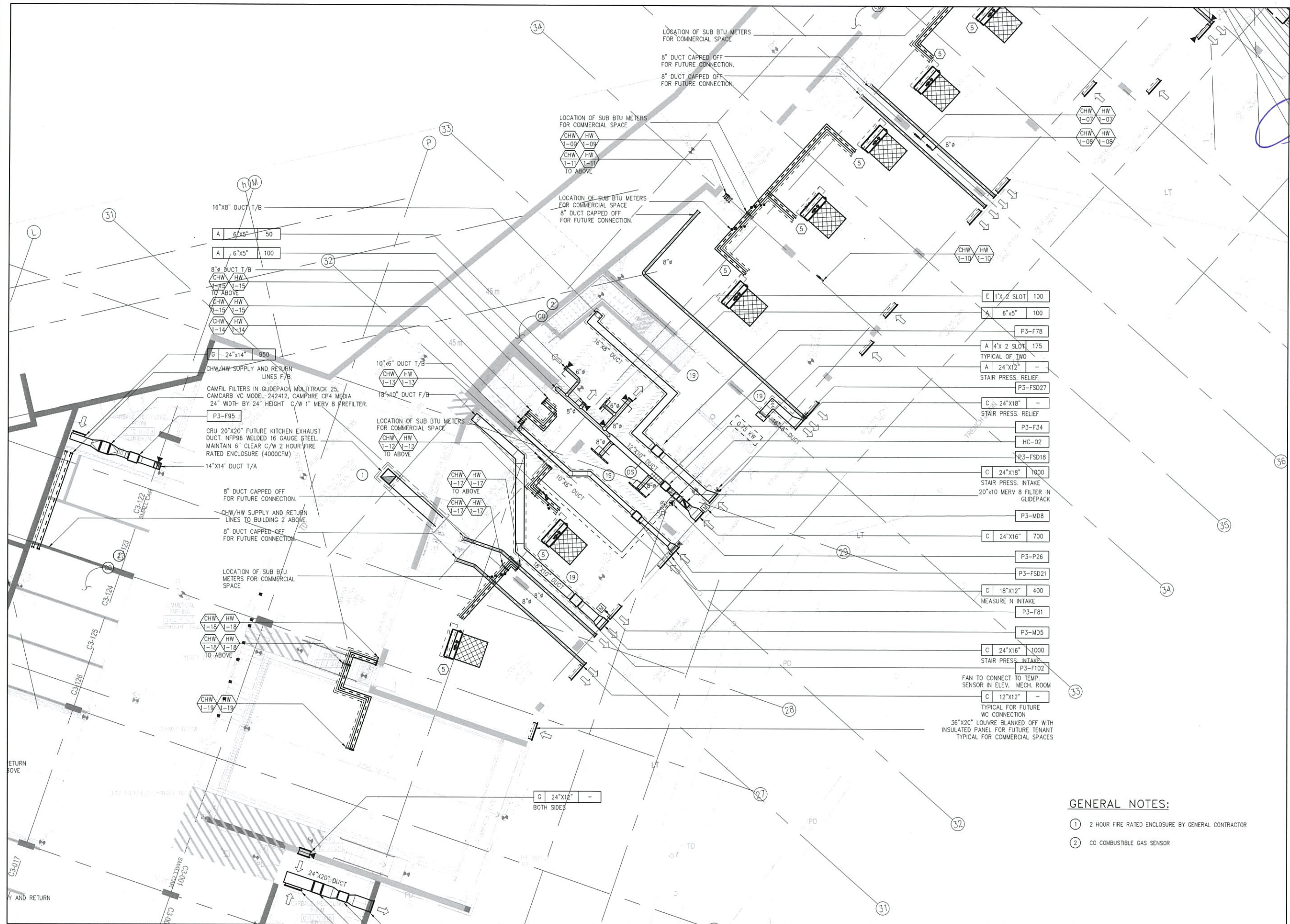
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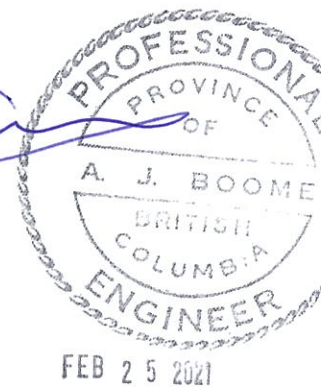








- GENERAL NOTES:
- ① 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
  - ② CO COMBUSTIBLE GAS SENSOR



Key Plan

Revision

No.	Description	Date
Δ MSI-05		2018-10-26
Δ MSI-07		2018-11-26

Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2018-03-19
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01



Project

**Sewell's Landing**

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Sheet Title	
<b>PARKING P3 PLAN D MECHANICAL</b>	
Drawn By	Checked
JM	AB
Project Number	Scale
8316	1/8" = 1'-0"
Revision	Sheet Number

M-101D



GENERAL NOTES:

- 1 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
- 2 CO COMBUSTIBLE GAS SENSOR

P3-FSD16  
6" HOT WATER BASEBOARD. REFER TO DETAIL #18  
C 36"x12" -  
STAIR PRESS. RELIEF  
18"x18" RATED DUCT T/B  
20"x10" RATED DUCT T/B  
16"x16" STAIR PRESS. DUCT T/B  
PARKADE EXHAUST GRATING AT 75% FREE AREA (MIN. 40SF)

P3-F37  
4" HOT WATER BASEBOARD. REFER TO DETAIL #18  
C 42"x18" -

CHW HW  
1-01 1-01  
TO ABOVE  
H 12"x12" 70  
TYPICAL OF 8  
A 6"x5" 50

18" STAINLESS STEEL EXH.  
DUCT IN RATED ENCLOSURE, TO  
TERMINATED AT ROOF LEVEL  
8" DUCT T/A & 12" X 8 DUCT T/B

E 4'X 2 SLOT 200  
A 14'X 14" 1000  
MEASURE N/ CO PRESS.

P3-F38  
E 2'X 2 SLOT 100  
TYPICAL OF TWO  
14'X14" DUCT F/B  
A 6"x5" 100  
A 6"x5" 50

CHW HW  
1-05 1-05  
TO ABOVE  
CHW HW  
1-03 1-03  
TO ABOVE  
CHW HW  
1-04 1-04  
TO ABOVE

38 COMMERCIAL UNIT B 29"x20" FUTURE  
KITCHEN EXHAUST DUCT. NFP96 WELDED  
16 GAUGE STEEL. MAINTAIN 6" CLEAR  
C/W 2 HOUR FIRE RATED ENCLOSURE  
(6800CFM)

29" X 20" FUTURE KITCHEN  
EXHAUST DUCT. CAPPED FOR  
FUTURE CONNECTION.  
8" DUCT CAPPED OFF  
FOR FUTURE CONNECTION.

36 CHW HW  
1-05 1-05  
LOCATION OF SUB BTU METERS  
FOR COMMERCIAL SPACE  
CHW HW  
1-06 1-06  
CHW HW  
1-06 1-06  
TO ABOVE

LOCATION OF SUB BTU METERS  
FOR COMMERCIAL SPACE

8" DUCT CAPPED OFF  
FOR FUTURE CONNECTION.  
8" DUCT CAPPED OFF  
FOR FUTURE CONNECTION.

LOCATION OF SUB BTU METERS  
FOR COMMERCIAL SPACE

CHW HW  
1-09 1-09  
CHW HW  
1-11 1-11  
TO ABOVE

LOCATION OF SUB BTU METERS  
FOR COMMERCIAL SPACE  
8" DUCT CAPPED OFF  
FOR FUTURE CONNECTION.

E 1'X 2 SLOT 100  
A 6"x5" 100

P3-F78  
A 4'X 2 SLOT 175  
TYPICAL OF TWO  
A 24"x12" -

STAIR PRESS. RELIEF  
P3-FSD27  
C 24"x18" -

STAIR PRESS. RELIEF

H 12"x12" 100  
H 12"x12" 200

P3-F121  
P3-FSD36  
C 12"x12" 300  
P3-F82  
P3-F94  
P3-F37  
P3-FSD22

32"x16" 1000  
MEASURE N INTAKE/CREATIVE

6" HOT WATER BASEBOARD. REFER TO DETAIL #18  
P3-MD4  
C 24"x16" 1000  
P3-FSD10

C 36"x22" 2000  
STAIR PRESS. INTAKE  
P3-MD6  
C 18"x12" 600

P3-MD7  
C 24"x16" 1000  
P3-F74  
P3-F93

10"x18" DUCT F/B  
CHW HW  
1-02 1-02  
TO ABOVE

LOCATION OF SUB BTU  
METERS FOR KAYAK STORAGE

P3-P27  
P3-MD20  
CHW HW  
1-02 1-02  
TO ABOVE

C 24"x24" -  
E 3'X 2 SLOT 150  
C 28"x24" 1700

P3-HC07  
P3-F122  
30"x14 MERV 8 FILTER IN  
GLIDEPACK

P3-MD10  
P3-HC01  
P3-F105

C 36"x14" -  
2 X 12" BOILER FLUE  
INTAKES IN RATED ENCLOSURE  
E 2'X 2 SLOT 100  
E 5'X 2 SLOT 250

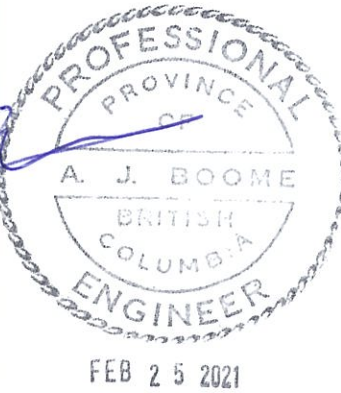
C 24"x14" 950  
P3-F92  
P3-MD18  
E 4'X 2 SLOT 250

P3-FSD38  
C 20"x14" 1000  
MEASURE N

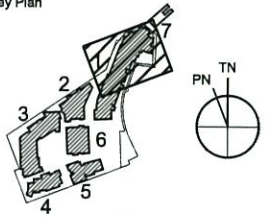
P3-F119  
C 12"x14" 350  
P3-F35

P3-FSD41

C/W VFD, FAN TO OPERATE  
AT 650CFM ON REGULAR  
OPERATION. WHEN  
REFRIGERANT ALARM IS  
ACTIVATED FAN SHALL  
OPERATE AT 1000CFM.  
READILY ACCESSIBLE  
INDEPENDENT FAN  
SWITCHES SHALL BE  
INSTALLED INSIDE AND  
OUTSIDE THE CREATIVE  
ENERGY ROOM. FAN  
SWITCHES LOCATED OUTSIDE  
THE ROOM SHALL BE  
CAPABLE OF INCREASING  
BUT NOT STOPPING THE  
VENTILATION. FAN F-93 TO  
BE INTERLOCKED WITH  
REFRIGERANT VAPOR  
DETECTOR LOCATED IN  
CREATIVE ENERGY ROOM



Key Plan



Revision		
No.	Description	Date
1	MSI-05	2018-10-26
2	MSI-07	2018-11-26

Below Grade Building Permit		2018-07-13
Issue	Issue Date	
Issued for Tender	2017-01-31	
Issued for Below Grade B.P.	2017-02-03	
Below Grade Building Permit	2018-03-19	
Below Grade Building Permit	2018-05-23	
Issued for Construction	2018-06-01	

Consultant



Project

Sewell's Landing

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
WESTBANK

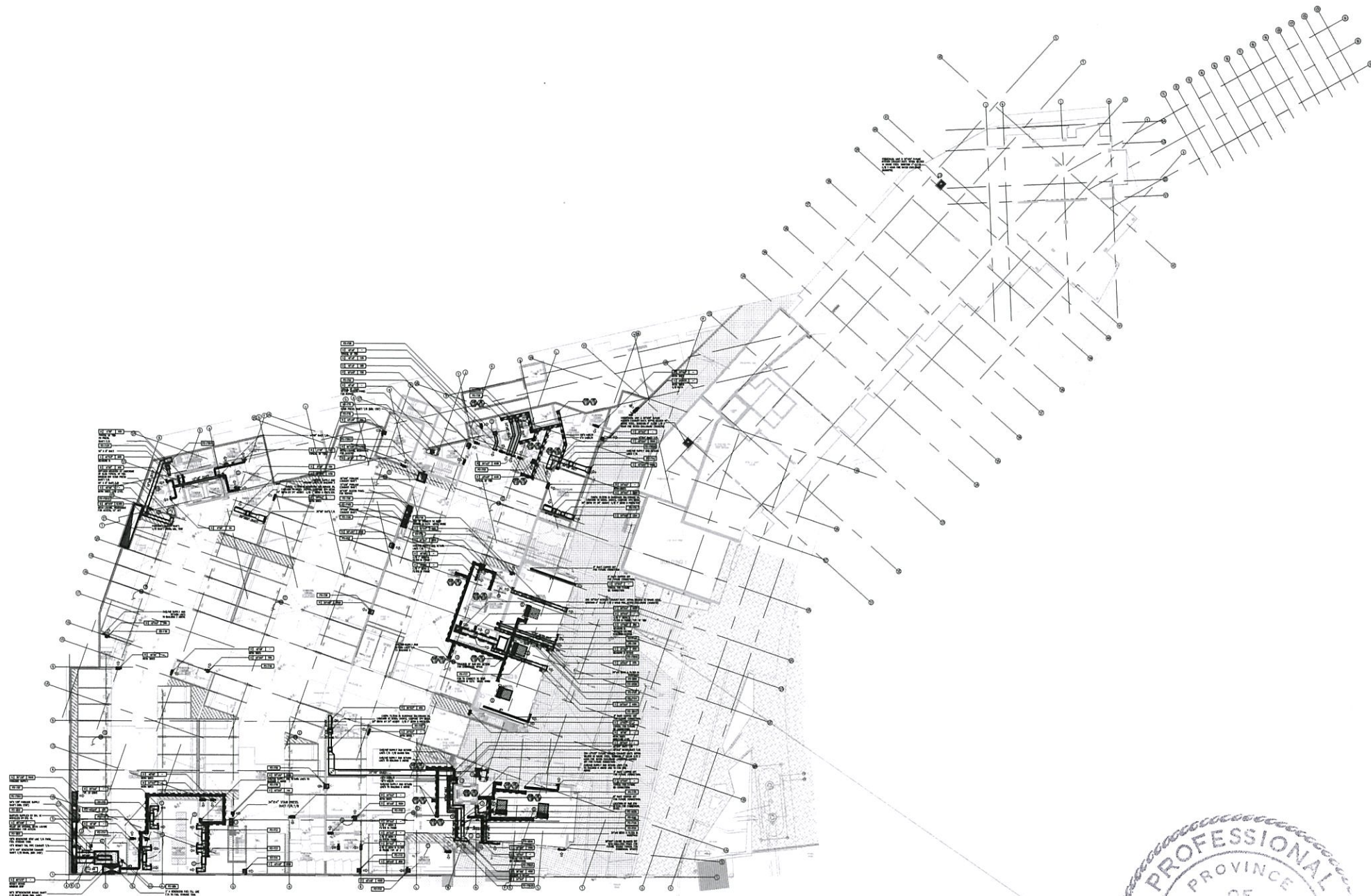
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PARKING P3 PLAN E  
MECHANICAL

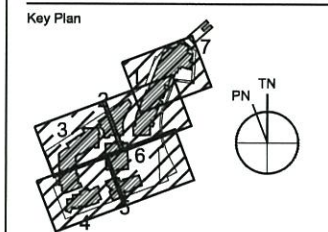
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JM	AB
Project Number	Scale
8316	1/8" = 1'-0"
Revision	Sheet Number

M-101E






- GENERAL NOTES:
- ① 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
  - ② CO COMBUSTIBLE GAS SENSOR



Revision		
No.	Description	Date

Issue		Issue Date
Issued for Tender		2017-01-31
Issued for Below Grade B.P.		2017-02-03
Below Grade Building Permit		2018-03-19
Below Grade Building Permit		2018-05-23
Issued for Construction		2018-06-01

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**Norman  
Disney &  
Young**  
A TETRA TECH COMPANY

Project

**Sewell's Landing**

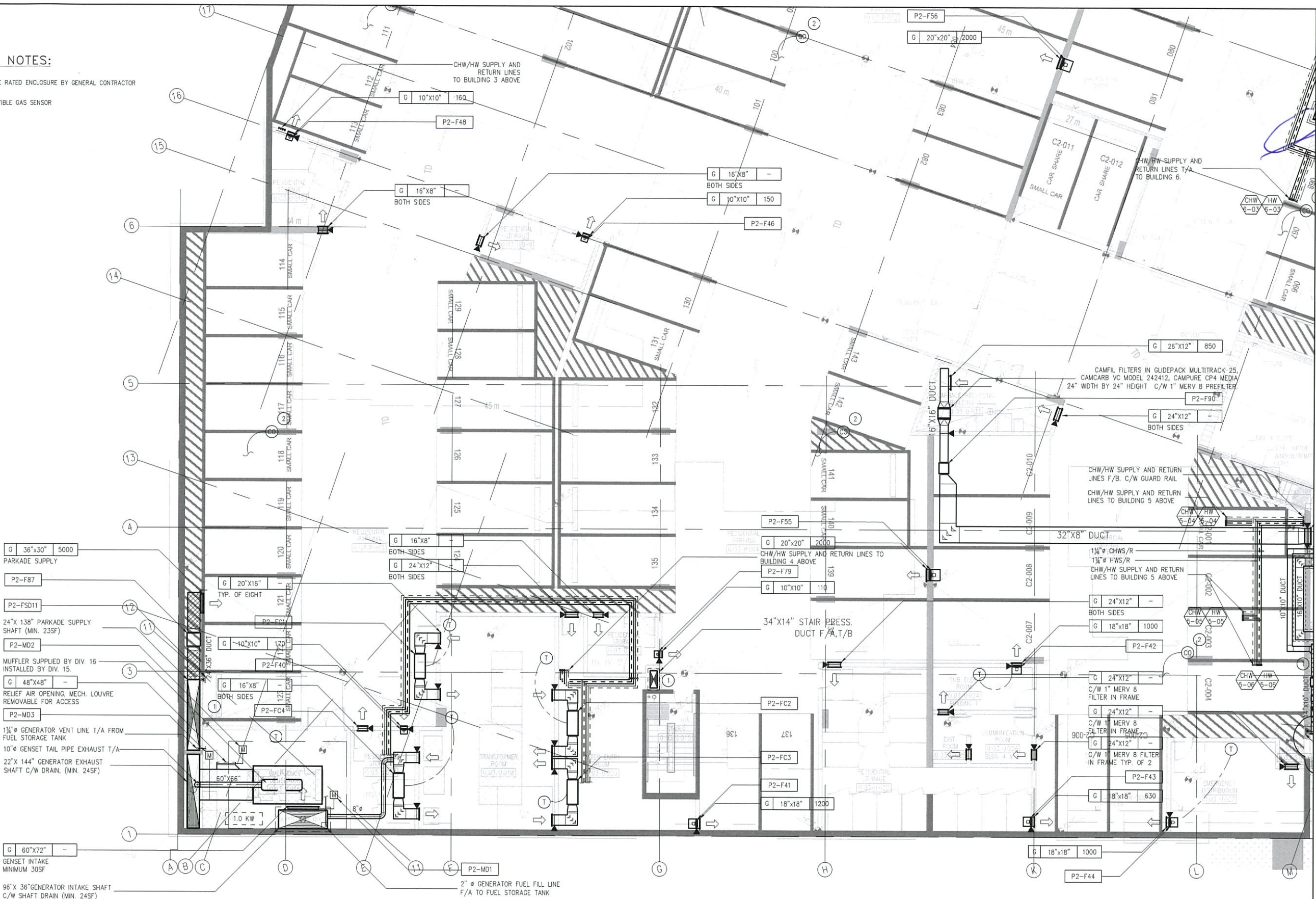
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FOR  
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Sheet Title	
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Drawn By	Checked
JM	AB
Project Number	Scale
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Revision	Sheet Number

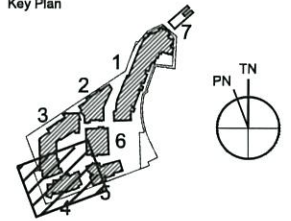
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- ① 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
- ② CO COMBUSTIBLE GAS SENSOR



### Key Plan



Revision		
No.	Description	Date
△	MSI-05	2018-10-26

Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2018-03-19
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

Consultant



Project

## Sewell's Landing

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WEST VANCOUVER, BC  
FOR  
WESTBANK

**Sheet Title**

PARKING P2 PLAN A  
MECHANICAL

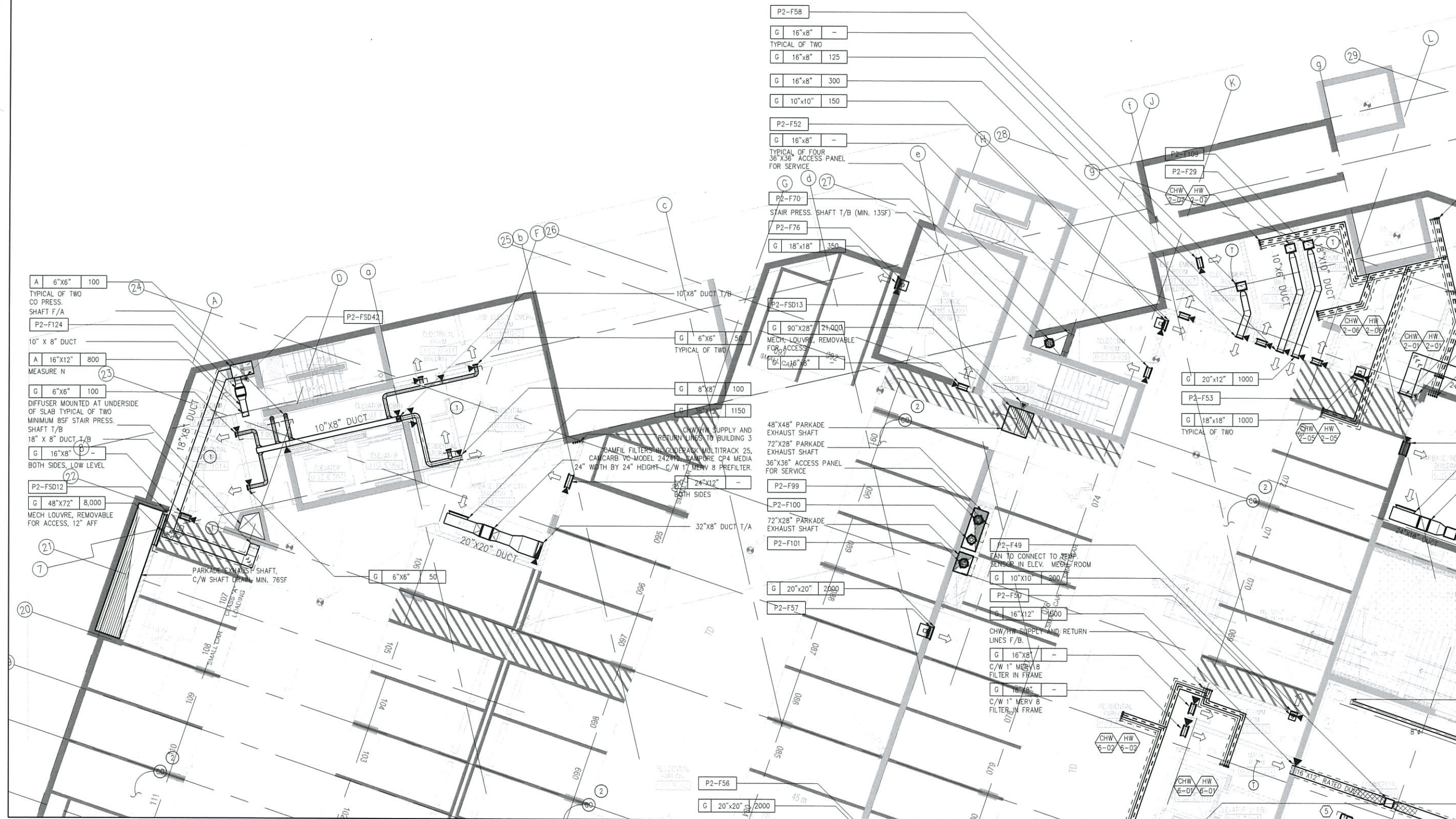
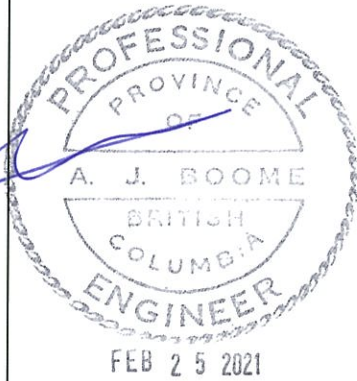
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JM	AB
Project Number	Scale
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Revision	Sheet Number

M-102A



GENERAL NOTES:

- ① 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
- ② CO COMBUSTIBLE GAS SENSOR



Key Plan

Revision

No.	Description	Date
Δ MSI-05		2018-10-26
Δ MSI-07		2018-11-26
Δ MSI-89		2020-09-30

Below Grade Building Permit	2018-07-13
Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2018-03-19
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01



Project

**Sewell's Landing**

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
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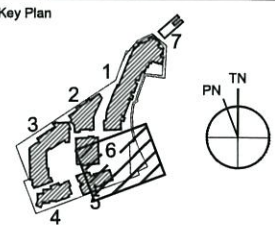
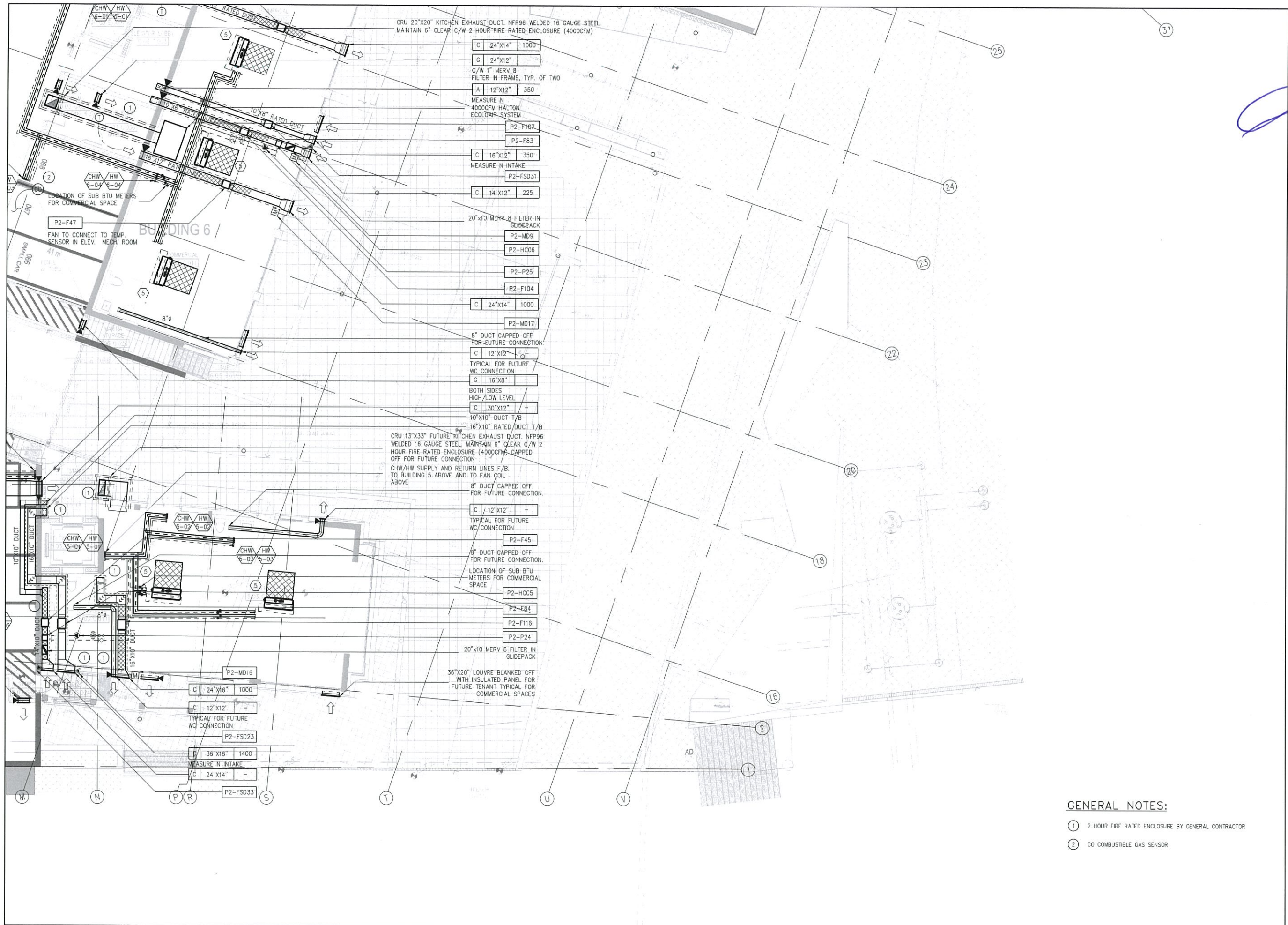
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MECHANICAL**

Drawn By	Checked
JM	AB
Project Number	Scale
8316	1/8" = 1'-0"
Revision	Sheet Number

M-102B





Revision No.	Description	Date
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Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2018-03-19
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

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Project

**Sewell's Landing**

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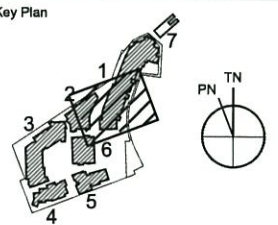
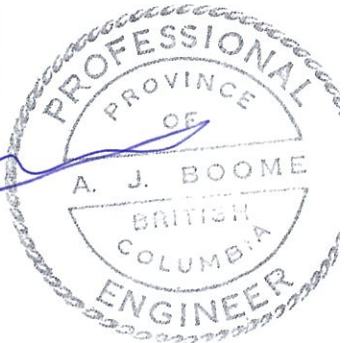
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MECHANICAL**

Drawn By	Checked
JM	AB
Project Number	Scale
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Revision	Sheet Number

**M-102C**





Revision		
No.	Description	Date

Issue		Issue Date
Issued for Tender		2017-01-31
Issued for Below Grade B.P.		2017-02-03
Below Grade Building Permit		2018-03-19
Below Grade Building Permit		2018-05-23
Issued for Construction		2018-06-01

Consultant



Project

**Sewell's Landing**

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
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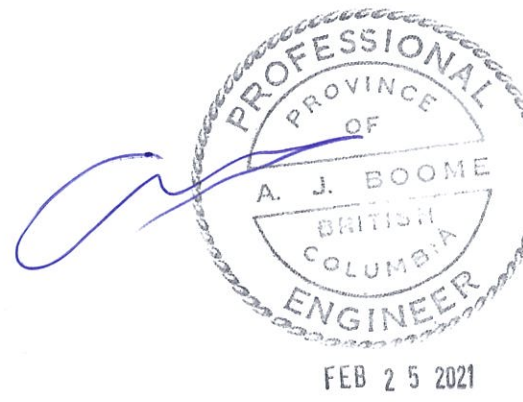
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MECHANICAL**

Drawn By	Checked
JM	AB
Project Number	Scale
8316	1/8" = 1'-0"
Revision	Sheet Number

**M-102D**





- GENERAL NOTES:
- 1 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
  - 2 CO COMBUSTIBLE GAS SENSOR

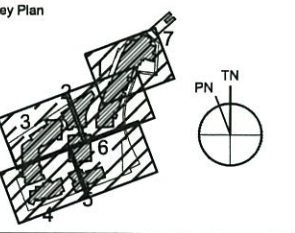


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839 Cambie Street, Suite 300  
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VICTORIA  
18 Bastion Square  
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Revision		
No.	Description	Date

Issue		Issue Date
Issued for Tender		2017-01-31
Issued for Below Grade B.P.		2017-02-03
Below Grade Building Permit		2017-08-18
Below Grade Building Permit		2018-05-23
Issued for Construction		2018-06-01

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Project

Sewell's Landing

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
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Sheet Title

PARKING P1 PLAN  
MECHANICAL

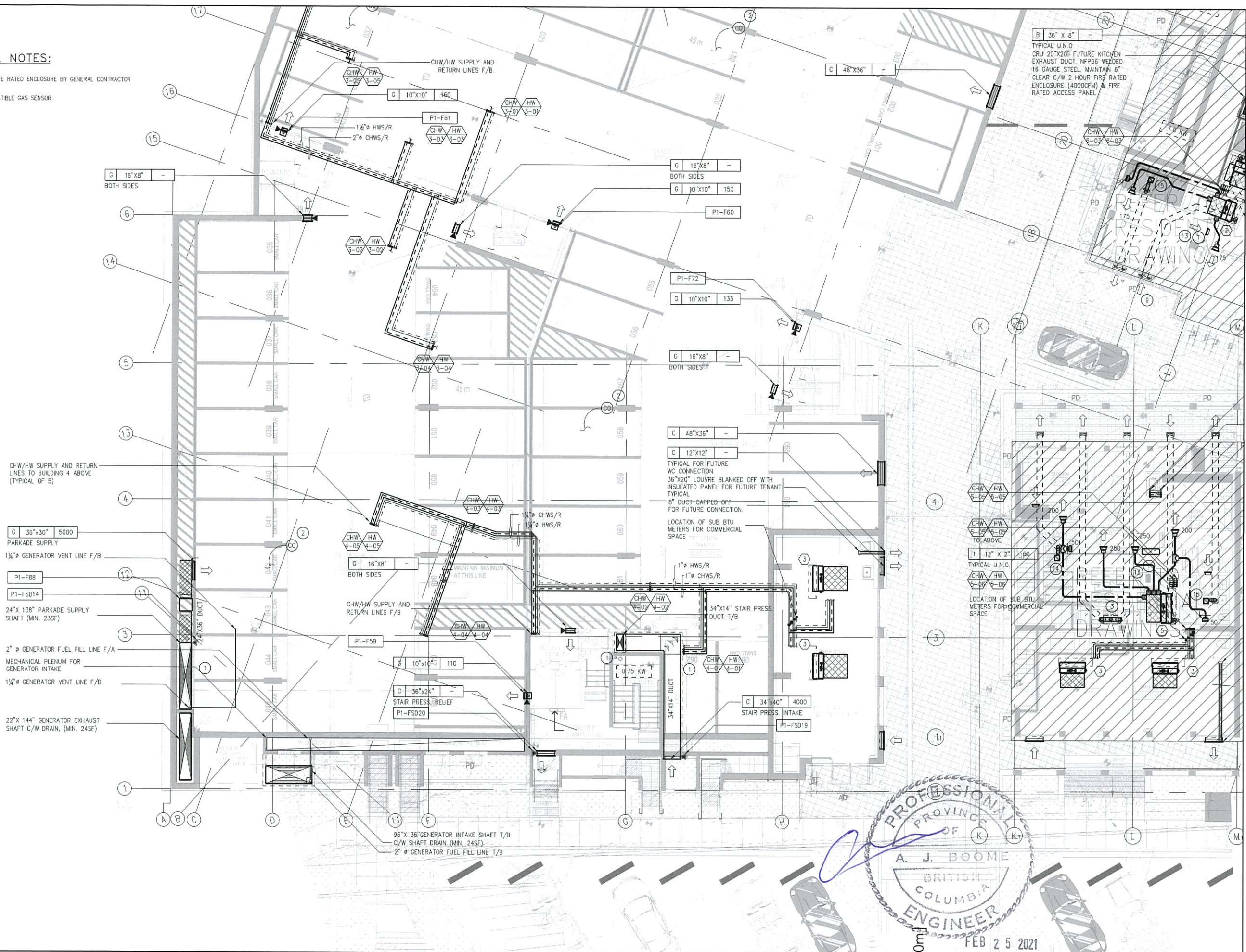
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JM/BN	AB
Project Number	Scale
8316	1/32" = 1'-0"
Revision	Sheet Number

M-103



① 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR

② CO COMBUSTIBLE GAS SENSOR



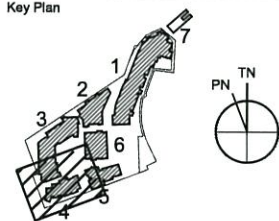
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### Key Plan



Revision		
No.	Description	Date
△	MSI-05	2018-10-26
△	MSI-07	2018-11-26

Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2017-08-18
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

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Project

## Sewell's Landing

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WEST VANCOUVER, BC  
FOR  
WESTBANK

Sheet Title

PARKING P1 PLAN A  
MECHANICAL

Drawn By	Checked
JM/BN	AB
Project Number	Scale
8316	1/8" = 1'-0"
Revision	Sheet Number

**M-103A**

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GENERAL NOTES:

- ① 2 HOUR FIRE RATED ENCLOSURE BY GENERAL CONTRACTOR
- ② CO COMBUSTIBLE GAS SENSOR



MERRICK  
ARCHITECTURE

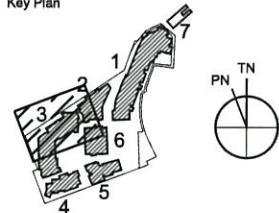
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Key Plan



Revision	No.	Description	Date
Δ	MSI-07		2018-11-28
Δ	MSI-47		2019-11-05

Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2017-08-18
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

Consultant



Project

Sewell's Landing

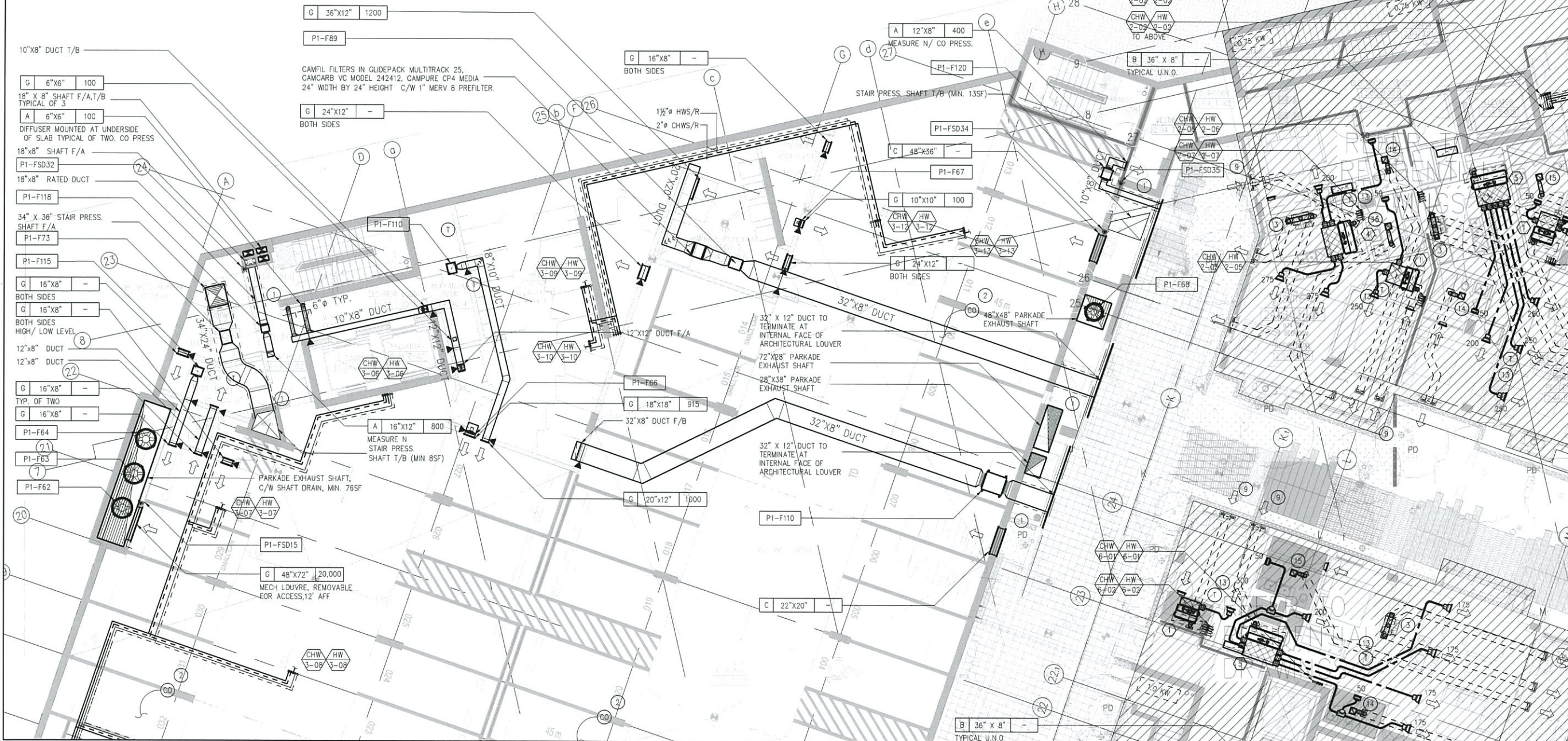
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WEST VANCOUVER, BC  
FOR  
WESTBANK

Sheet Title

PARKING P1 PLAN B  
MECHANICAL

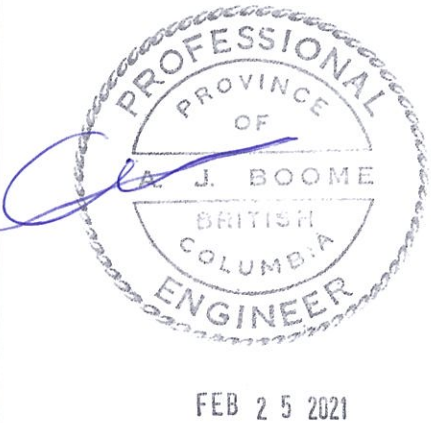
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JM/BN	AB
Project Number	Scale
8316	1/8" = 1'-0"
Revision	Sheet Number

M-103B





FANS																
1. SOLID STATE SPEED CONTROLLER FOR BALANCING			4. HANGING BRACKETS AND BELT TUNNEL			6. AMP SENSOR FOR DRIVER INTERLOCK			9. INLET AND OUTLET BELLS			12. ROOF CURB				
2. INTERNALLY LINED			5. TIME CLOCK CONTROL FOR 2X HOUR (ADJUSTABLE) OPERATION PER 24 HOUR CYCLE			7. VARIABLE FREQUENCY DRIVE			10. REVERSE-ACTING THERMOSTAT			11. VAV-BLOCK MOTOR				
unit	service	type	manuf	model	cfm	esp	fan rpm	motor hp	fan elect	fan accessory	isol. st. def'n	disch arg't	wheel type	drive	motor posit	remarks
F-A	EXHAUST EXHAUST	CEILING	REVERSONATIC	OC7-110	80	0.25"	-	1/90	120/1	5	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	6.4 SONES
F-B	TYP. RR DRAUGHT	CEILING	REVERSONATIC	OC7-110	80	0.25"	-	1/90	120/1	5	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	6.4 SONES CONTINUOUS OPERATION
P4-F01	MARINA STORAGE	PROPELLER	GREENHECK	SEI-12-432-VG	410	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F02	MARINA STORAGE	PROPELLER	GREENHECK	SEI-12-432-VG	370	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F03	MARINA STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	90	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F04	BIKE STORAGE	PROPELLER	GREENHECK	SEI-12-432-VG	750	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F05	MARINA STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	160	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F06	PARKING TRANSFER	PROPELLER	GREENHECK	SSI-16-428-AS	3000	0.25"	-	3/4	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F07	MARINA STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	115	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F08	PARKING TRANSFER	PROPELLER	GREENHECK	SSI-16-428-AS	3000	0.25"	-	3/4	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F09	PARKING TRANSFER	PROPELLER	GREENHECK	SSI-18-424-AS	4000	0.25"	-	3/4	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F10	MARINA STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	300	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F11	PARKING TRANSFER	PROPELLER	GREENHECK	SSI-18-424-AS	4000	0.25"	-	3/4	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F12	PARKING TRANSFER	PROPELLER	GREENHECK	SSI-18-424-AS	4000	0.25"	-	3/4	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F13	MARINA STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	160	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F14	MARINA STORAGE	PROPELLER	GREENHECK	SEI-12-432-VG	310	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F15	BIKE STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	250	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F16	MARINA STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	250	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F17	MECH. RM.	PROPELLER	GREENHECK	SEI-12-432-VG	468	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P4-F18	PARKING TRANSFER	AXIAL	GREENHECK	AX-36-160-0416	3000	0.25"	-	3/4	208/3	3	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	INT.	
P4-F19	MARINE STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	100	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F20	MARINA STORAGE	PROPELLER	GREENHECK	SEI-12-432-VG	410	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F21	PARKING TRANSFER	PROPELLER	GREENHECK	SSI-16-428-AS	3000	0.25"	-	3/4	120/1	8.	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F22	MARINA STORAGE	PROPELLER	GREENHECK	SEI-12-432-VG	370	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F23	MARINA STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	90	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F24	BIKE STORAGE	PROPELLER	GREENHECK	SEI-12-432-VG	1550	0.25"	-	1/2	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F25	STAIR PRESS.	INLINE CABINET	GREENHECK	SQ-100-A	1000	0.5"	-	1/2	120/1	-	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	EP
P3-F26	PARKING TRANSFER	PROPELLER	GREENHECK	SSI-20-428-A10	6000	0.25"	-	1.0	208/3	3	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F27	MARINA STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	115	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F28	MARINA STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	160	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F29	BIKE STORAGE	CABINET	GREENHECK	SP-A190	125	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	
P3-F30	PARKING TRANSFER	PROPELLER	GREENHECK	SSI-16-428-AS	3000	0.25"	-	3/4	120/1	8	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F31	RES. STORAGE	PROPELLER	GREENHECK	SEI-12-432-VG	310	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F32	EQP. RM.	PROPELLER	GREENHECK	SEI-8-440-VG	115	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P3-F33	GARAGE RM.	INLINE CABINET	GREENHECK	SQ-120-V	1850	0.7"	-	3/4	208/1	1	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	
P3-F34	LOBBY PRESS.	INLINE CABINET	GREENHECK	CSP-A1150	700	0.9"	-	3/4	120/1	1	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	
P3-F35	ELEC. RM. DRAUGHT	INLINE CABINET	GREENHECK	CSP-A300	350	0.25"	-	1/4	120/1	1	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	
P4-F36	PARADE EXHAUST	AXIAL	GREENHECK	AX-60-190-0430	14,500	0.5"	-	3	208/3	3,7.9	SEE SPEC	VERTICAL	AXIAL	DIRECT	-	EP
P3-F37	STAIR PRESS.	INLINE CABINET	GREENHECK	SQ-160-A	4600	0.5"	-	2.8	208/3	-	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	EP
P3-F38	PARKING DRAUGHT	AXIAL	GREENHECK	AX-36-160-0417	3000	0.3"	-	3/4	208/3	3.7	SEE SPEC	VERTICAL	AXIAL	DIRECT	INT.	EP
P4-F39	ELEV. MECH. RM.	INLINE CABINET	GREENHECK	CSP-A700	550	0.25"	-	1/2	120/1	1	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	
P2-F40	RES. STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	170	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F41	WATER ENTRY RM.	PROPELLER	GREENHECK	SEI-12-432-VG	1200	0.25"	-	1/2	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F42	SUB ELEC. RM. B4	PROPELLER	GREENHECK	SEI-12-432-VG	1000	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F43	RES. STORAGE	PROPELLER	GREENHECK	SEI-12-432-VG	630	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F44	EMER. DIST. RM.	PROPELLER	GREENHECK	SEI-12-432-VG	1000	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F45	LOBBY PRESS.	INLINE CABINET	GREENHECK	CSP-A700	560	0.7"	-	1/2	120/1	1	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	
P2-F46	RES. STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	150	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F47	SUB ELEC. RM. B6	PROPELLER	GREENHECK	SQ-100-A	1000	0.25"	-	1/2	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F48	RES. STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	160	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F49	ELEV. MECH. RM.	INLINE CABINET	GREENHECK	SQ-100-A	1000	0.25"	-	1/2	120/1	8,11	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	
P2-F50	TEL. RM.	PROPELLER	GREENHECK	SEI-8-440-VG	200	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
L1-F51	CO. PRESS.	INLINE CABINET	GREENHECK	CSP-A1410	800	0.9"	-	1	208/1	1,2.7	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F52	TEL. RM.	PROPELLER	GREENHECK	SEI-8-440-VG	150	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F53	BIKE STORAGE	PROPELLER	GREENHECK	SEI-12-432-VG	1150	0.25"	-	1/2	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F54	PARADE SUPPLY	INLINE CABINET	GREENHECK	SQ-160-VG	3000	0.3"	-	1	208/1	2,11	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	EP
P2-F55	PARKING TRANSFER	AXIAL	GREENHECK	SSI-14-432-A	2000	0.25"	-	1/2	120/1	8	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F56	PARKING TRANSFER	AXIAL	GREENHECK	SSI-14-432-A	2000	0.25"	-	1/2	120/1	8	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F57	PARKING TRANSFER	AXIAL	GREENHECK	SSI-14-432-A	2000	0.25"	-	1/2	120/1	8	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P2-F58	SUB ELEC. RM. B2	CABINET	GREENHECK	SP-A510-VG	300	0.25"	-	1/3	120/1	8,11	SEE SPEC	HORIZONTAL	CENTR	DIRECT	INT.	
P1-F59	RES. STORAGE	PROPELLER	GREENHECK	SEI-8-432-VG	110	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	
P1-F60	RES. STORAGE	PROPELLER	GREENHECK	SEI-8-440-VG	150	0.25"	-	1/6	120/1	8,11	SEE SPEC	HORIZONTAL	AXIAL	DIRECT	EXT.	



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**Key Plan**

The Key Plan diagram illustrates the orientation of the specimen. It features a 3D perspective of a cube with faces numbered 1 through 6. Face 1 is the top, 2 is the front, 3 is the left side, 4 is the bottom, 5 is the right side, and 6 is the back. A circular cross-section of the cube is shown to the right, with a vertical line labeled 'TN' (Transverse) and a horizontal line labeled 'PN' (Posterior-Nasal).

Revision		
No.	Description	Date
△	MSI-07	2018-11-26
△	MSI-21	2019-06-05
△	MSI-54	2020-03-04

Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2017-08-18
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

Consultant



## Project

# Sewell's Landing

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
WESTBANK

Sheet Title

**SCHEDULE (FANS)**

**MECHANICAL**

Drawn By	Checked
JM/BN	AB
Project Number	Scale
8316	N.T.S
Revision	Sheet Number

M-900



## MISCELLANEOUS EQUIPMENT

unit	service	type	manuf	model	unit details	elect		remarks
						hp	volts	
P4-FSD1	PARKING SUPPLY	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P4-F85
P4-FSD2	PARKING EXHAUST	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P1-F62,63,64
P4-FSD3	PARKING EXHAUST	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P2-F101
P4-FSD4	STAIR PRESS.	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P2-F70
P4-FSD5	PARKING EXHAUST	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P4-F98+F36
P3-FSD6	PARKING SUPPLY	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F86
P3-FSD7	STAIR PRESS.	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F25
P3-FSD8	PARKING EXHAUST	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P1-F62,63,64
P3-FSD9	PARKING EXHAUST	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P2-F99+P2-F100
P3-FSD10	STAIR PRESS.	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F37
P2-FSD11	PARKING SUPPLY	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P2-F87
P2-FSD12	PARKING EXHAUST	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P1-F62,63,64
P2-FSD13	PARKING EXHAUST	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P1-F68+P1-F89
P1-FSD14	PARKING SUPPLY	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P1-F88
P1-FSD15	PARKING EXHAUST	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P1-F62,63,64
P3-FSD16	STAIR PRESS. REL	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F37
L1-FSD17	STAIR PRESS. REL	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P2-F70
P3-FSD18	STAIR PRESS.	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F78
P1-FSD19	STAIR PRESS.	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P4-F71
P1-FSD20	STAIR PRESS. REL	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P4-F71
P3-FSD21	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F81
P3-FSD22	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F82
P2-FSD23	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P2-F84
P4-FSD24	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P4-F117
P2-FSD25	PARKADE SUPPLY	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P2-F54
P3-FSD26	STAIR PRESS. REL	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F25
P3-FSD27	STAIR PRESS. REL	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F78
L4-FSD28	STAIR PRESS. REL	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P4-F115
L1-FSD29	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - L1-F65
P4-FSD30	CO PRESS.	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P4-F106
P2-FSD31	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P2-F83
P1-FSD32	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P1-F118
P2-FSD33	STAIR PRESS. REL	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P2-F45
P1-FSD34	PARKADE SUPPLY	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER
P1-FSD35	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P1-F120
P3-FSD36	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F121
P3-FSD37	PARKADE EXH.	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F38
P3-FSD38	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F119
P4-FSD39	CO PRESS.	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P4-F117
P3-FSD40	MEASURE N	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F123
P3-FSD41	ELEC. ROOM EXH.	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P3-F35
P3-FSD42	ELEC. ROOM EXH.	FIRESMOKE	-	-	-	-	120/1	EMERGENCY POWER INTERLOCK WITH FAN - P2-F124
P2-WD1	GENSET SUPPLY	PARALLEL BLADES	-	-	-	-	120/1	EMERGENCY POWER NORMALLY CLOSED
P2-WD2	GENSET RELIEF	PARALLEL BLADES	-	-	-	-	120/1	EMERGENCY POWER NORMALLY CLOSED
P2-WD3	GENSET EXHAUST	PARALLEL BLADES	-	-	-	-	120/1	EMERGENCY POWER NORMALLY CLOSED
P3-WD4	BUILDING 1 NORTH	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P3-F94
P3-WD5	BUILDING 1 SOUTH	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P3-F102

## MISCELLANEOUS EQUIPMENT

unit	service	type	manuf	model	unit details	elect		remarks
						hp	volts	
P3-WD6	BUILDING 1 NORTH	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P3-F74
P3-WD7	MECH.RM. EXH.	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P3-F93
P3-WD8	BUILDING 1 SOUTH	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P3-F34
P2-WD9	BUILDING 6	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P2-F104
P3-WD10	BUILDING 1 NORTH	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P3-F105
L1-WD11	BUILDING 3	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH L1-F51
L2-WD12	BUILDING 7	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH L2-F111
L2-WD13	BUILDING 7	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH L2-F112
L2-WD14	BUILDING 7	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH L2-F113
L2-WD15	BUILDING 7	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH L2-F114
P2-WD16	BUILDING 5	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P2-F116
P2-WD17	BUILDING 6	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P2-F47
P3-WD18	GARBAGE EXH.	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P3-F92
L1-WD19	BUILDING 2	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH L1-F108
L1-WD20	BUILDING 1	PARALLEL BLADES	-	-	-	-	120/1	INTERLOCK WITH P3-F122

## FIRE EMERGENCY CONTROL - Measure

ALL WIRING, INTERLOCKS, AND DETECTION DEVICES BY DIVISION 16										MANUAL CONTROL REQUIREMENTS			CENTRAL CONTROL AND ALARM FACILITY		
item no.	description	location	equip. no.	normal status	emergency		C.C.A.F.			emergency power	remarks				
					status	activated by	on open	off close	plot light						
1	STAIR PRESSURIZATION	-	P3-F25	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	OPEN FIRE/SMOKE DAMPER P3-FSD7 & P3-FSD8				
2	STAIR PRESSURIZATION	-	P3-F37	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	OPEN FIRE/SMOKE DAMPER P3-FSD10 & P3-FSD16				
3	STAIR PRESSURIZATION	-	P2-F70	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	OPEN FIRE/SMOKE DAMPER P4-FSD4 & L1-FSD17				
4	STAIR PRESSURIZATION	-	P4-F71	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	OPEN FIRE/SMOKE DAMPER P1-FSD19 & P1-FSD20				
5	STAIR PRESSURIZATION	-	P1-F73	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	OPEN FIRE/SMOKE DAMPER P4-FSD24 & L1-FSD28				
6	STAIR PRESSURIZATION	-	P3-F78	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	OPEN FIRE/SMOKE DAMPER P3-FSD18 & P3-FSD27				
7	MEASURE N	-	L1-F65	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER L1-FSD29 TO OPEN BEFORE FAN STARTS				
8	MEASURE N	-	P3-F81	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P3-FSD21 TO OPEN BEFORE FAN STARTS				
9	MEASURE N	-	P3-F82	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P3-FSD22 TO OPEN BEFORE FAN STARTS				
10	MEASURE N	-	P2-F83	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P2-FSD31 TO OPEN BEFORE FAN STARTS				
11	MEASURE N	-	P2-F84	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P2-FSD32 TO OPEN BEFORE FAN STARTS				
12	MEASURE N	-	P4-F118	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P4-FSD32 TO OPEN BEFORE FAN STARTS				
13	PARKADE EXHAUST	-	P4-F36	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P4-FSD5 TO OPEN BEFORE FAN STARTS				
14	PARKADE EXHAUST	-	P3-F38	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P4-FSD5 TO OPEN BEFORE FAN STARTS				
15	PARKADE EXHAUST	-	P1-F62	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P4-FSD2,P3-FSD2-FSD12, P1-FSD15 TO OPEN BEFORE FAN STARTS				
16	PARKADE EXHAUST	-	P1-F63	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P4-FSD2,P3-FSD2-FSD12, P1-FSD15 TO OPEN BEFORE FAN STARTS				
17	PARKADE EXHAUST	-	P1-F64	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P4-FSD2,P3-FSD2-FSD12, P1-FSD15 TO OPEN BEFORE FAN STARTS				
18	PARKADE EXHAUST	-	P1-F68	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P2-FSD13 TO OPEN BEFORE FAN STARTS				
19	PARKADE EXHAUST	-	P1-F69	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P2-FSD13 TO OPEN BEFORE FAN STARTS				
20	PARKADE EXHAUST	-	P4-F98	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P4-FSD5 TO OPEN BEFORE FAN STARTS				
21	PARKADE EXHAUST	-	P2-F99	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P3-FSD9 TO OPEN BEFORE FAN STARTS				
22	PARKADE EXHAUST	-	P2-F100	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P3-FSD9 TO OPEN BEFORE FAN STARTS				
23	PARKADE EXHAUST	-	P2-F101	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P4-FSD3 TO OPEN BEFORE FAN STARTS				
24	PARKADE SUPPLY	-	P2-F54	ON/OFF	OFF	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P2-FSD25				
25	PARKADE SUPPLY	-	P4-F85	ON/OFF	OFF	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P4-FSD1				
26	PARKADE SUPPLY	-	P3-F86	ON/OFF	OFF	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P3-FSD6				
27	PARKADE SUPPLY	-	P2-F87	ON/OFF	OFF	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P2-FSD11				
28	PARKADE SUPPLY	-	P1-F88	ON/OFF	OFF	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P1-FSD14				
29	FIRE SMOKE DAMPER	-	P4-FSD2	OPEN/CLOSED	OPEN	SPRINKLER FLOW	OPEN	CLOSED	YES	YES	DAMPER REMAINS OPEN ON P4 SPRINKLER FLOW P3-FSD8, P2-FSD12, P1-FSD15 CLOSSES				
30	FIRE SMOKE DAMPER	-	P3-FSD8	OPEN/CLOSED	OPEN	SPRINKLER FLOW	OPEN	CLOSED	YES	YES	DAMPER REMAINS OPEN ON P3 SPRINKLER FLOW P4-FSD2, P2-FSD12, P1-FSD15 CLOSSES				
31	FIRE SMOKE DAMPER	-	P2-FSD12	OPEN/CLOSED	OPEN	SPRINKLER FLOW	OPEN	CLOSED	YES	YES	DAMPER REMAINS OPEN ON P2 SPRINKLER FLOW P4-FSD2, P3-FSD8, P1-FSD15 CLOSSES				
32	FIRE SMOKE DAMPER	-	P1-FSD15	OPEN/CLOSED	OPEN	SPRINKLER FLOW	OPEN	CLOSED	YES	YES	DAMPER REMAINS OPEN ON P1 SPRINKLER FLOW P4-FSD2, P3-FSD8, P2-FSD12 CLOSSES				
33	PARKADE SUPPLY	-	P1-FSD34	OPEN/CLOSED	CLOSE	FIRE ALARM	OPEN	CLOSED	YES	YES	-				
34	MEASURE N	-	P1-F120	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P2-FSD35 TO OPEN BEFORE FAN STARTS				
35	MEASURE N	-	P3-F119	OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P2-FSD38 TO OPEN BEFORE FAN STARTS				
36	PARKADE EXHAUST	-	P3-F38	ON/OFF	ON	FIRE ALARM	ON	OFF	YES	YES	INTERLOCK WITH FIRE/SMOKE DAMPER P2-FSD37 TO OPEN BEFORE FAN STARTS				
37	WASHROOM EXHAUST	-	P3-FSD36	OPEN/CLOSE	CLOSE	FIRE ALARM	-	-	-	YES	-				

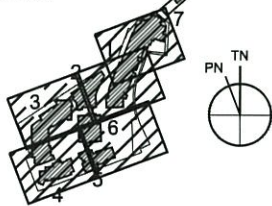
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Key Plan



Revision	No.	Description	Date
Δ	MSI-07		2018-11-26

Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2017-08-18
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

Consultant



Project

Sewell's Landing

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
WESTBANK

Sheet Title

SCHEDULE  
(EMER.CONTOL)  
MECHANICAL

Drawn By	Checked
JM/BN	AB
Project Number	Scale
8316	N.T.S
Revision	Sheet Number

M-901



GRILLES, REGISTERS, AND DIFFUSERS											
mark	function	mounting	manuf	model	material	border	frame	fastening	volume cont.	finish	remarks
A	SUPPLY	SIDEWALL/CEILING	E.H. PRICE	22D-N-L-C-B12	ALUMINUM	22	NARROW	CONCEALED	0 B.D.	B12 WHITE	-
B	EXHAUST/RETURN	SIDEWALL/CEILING	E.H. PRICE	630-N-L-T-#-B12	ALUMINUM	N	-	NO SCREW HOLES	0 B.D. RETURN - NO 0 B.D.	B12 WHITE	-
C	INTAKE/EXHAUST (LOUVRE)	SIDEWALL/CEILING	E.H. PRICE	DE439	ALUMINUM	53.6% F/A	FLANGED	-	-	B.E.F	C/W BIRD SCREEN. COLOR BY ARCHITECT. REFER TO ARCH SPEC. SECTION 099000 3.5.7
D	EXHAUST	PENTHOUSE LOUVRE	E.H. PRICE	BC/E443	ALUMINUM	-	-	CONCEALED	-	-	C/W BIRD SCREEN
E	SUPPLY (SLOT LINEAR)	CEILING	E.H. PRICE	S05100/SDA100	ALUMINUM	2 SLOT U.N.O.	2	CONCEALED	0 B.D.	B12 WHITE	-
F	SUPPLY (HI CAP. SLOT)	CEILING	E.H. PRICE	AS220	ALUMINUM	-	22A	CONCEALED	-	MILL	COMPLETE WITH MUD-IN DRYWALL CONCEALED FRAME
G	SUPPLY/EXHAUST	SIDEWALL	-	EXPANDED MESH	STEEL	-	-	-	-	-	80% FREE AREA
H	EXHAUST (SQUARE)	CEILING	E.H. PRICE	P00R-FR	ALUMINUM	-	-	CONCEALED	-	B12 WHITE	-
I	SUPPLY/ RETURN	SIDE WALL/CEILING	E.H. PRICE	LBPH20B	ALUMINUM	1000	-	TYPE B	-	B15 WHITE	-
J	SUPPLY (LINEAR BAR)	FLOOR	E.H. PRICE	LBPH16A-750-XX-C-3-BEF	ALUMINUM	16A	750(HD)	CONCEALED	0B0	BEF	-
K	SUPPLY/ RETURN	DOOR	AIR LOUVER ACTIVAR INC	1900A 1818B	ALUMINUM	-	-	-	-	-	-

FAN COIL UNITS																	
1. PROGRAMMABLE THERMOSTAT 2. TRY KIT, R410-A 3. ELECTRIC HEAT WITHOUT CIRCUIT BREAKER																	
4. FILTER																	
unit	service	type	manuf	model	cfm	esp	fan rpm	motor		fan accessory	vibr'n iso'n	disch arrgt	elect.coil		unit mca	cooling capacity	remarks
								hp	elect				kw	stage			
P2-FC01	ELECTRICAL RM.	HORIZONTAL	YORK	FNP20	-	-		0.5	208-1	1.4	SEE SPEC.	HORL.	-		1.80 A	4-TON	COOLING ONLY
P2-FC02	ELECTRICAL RM.	HORIZONTAL	YORK	FNP20	-	-		0.5	208-1	1.4	SEE SPEC.	HORL.	-		1.80 A	4-TON	COOLING ONLY
P2-FC03	ELECTRICAL RM.	HORIZONTAL	YORK	FNP20	-	-		0.5	208-1	1.4	SEE SPEC.	HORL.	-		1.80 A	4-TON	COOLING ONLY
P2-FC04	ELECTRICAL RM.	HORIZONTAL	YORK	FNP20	-	-		0.5	208-1	1.4	SEE SPEC.	HORL.	-		1.80 A	4-TON	COOLING ONLY
P2-FC05	ELECTRICAL RM.	HORIZONTAL	YORK	FNP20	-	-		0.5	208-1	1.4	SEE SPEC.	HORL.	-		1.80 A	4-TON	COOLING ONLY
P2-FC06	ELECTRICAL RM.	HORIZONTAL	YORK	FNP20	-	-		0.5	208-1	1.4	SEE SPEC.	HORL.	-		1.80 A	4-TON	COOLING ONLY

2 PIPE FAN COIL UNITS (HORSE POWER NOT TO BE EXCEEDED)																				
1. DRAIN PAN			4. HANGING SUPPORTS			7. 10 FPI HEATING/COOLING COIL			10. HORIZONTAL FAN COIL COOLING CAPACITY BASED ON EWT/LWT=44F/60F, HEATING CAPACITY BASED ON EWT/LWT=108/85.											
2. MERV 8 FILTERS			5. BRAIDED HOSES			8. 6 PORT HEATING/COOLING VALVE - SPARTAN SV 601														
3. 7 DAY PROGRAMMABLE THERMOSTATS			6. ECM FAN MOTOR			9. 4 ROW COMBINED HEATING/COOLING COIL														
unit	service	type	manuf	model	cfm	e.s.p.	electrical		cooling				chill water		heating			hot water		remarks
							hp	voltage	total	sensible	e.a.t	i.a.t	gpm	'p.d.	capacity	e.a.t	i.a.t	gpm	'p.d.	
FC-A	RESIDENTIAL	LOW-PROFILE	E.H. PRICE	HCR-05	300	0.15"	24W	115/1/60	6.76 MBH	6.48 MBH	76/63	57/56	1.0	0.2	7.83 MBH	70	93.4	0.7	0.1	UNIT DEPTH 9.75"
FC-B	RESIDENTIAL	LOW-PROFILE	E.H. PRICE	HCR-06	400	0.15"	32W	115/1/60	7.89 MBH	7.85 MBH	76/63	58/56	1.0	0.2	10.1 MBH	70	93.4	1.0	0.1	UNIT DEPTH 9.75"
FC-C	RESIDENTIAL	LOW-PROFILE	E.H. PRICE	HCR-08	600	0.15"	46W	115/1/60	12.2 MBH	11.6 MBH	76/63	58/56	1.5	0.3	13.5 MBH	70	91.1	1.1	0.2	UNIT DEPTH 9.75"
FC-D	RESIDENTIAL	LOW-PROFILE	E.H. PRICE	HCR-10	800	0.15"	57W	115/1/60	15.3 MBH	15.0 MBH	76/63	59/57	1.8	0.3	18.3 MBH	70	90.9	1.1	0.2	UNIT DEPTH 9.75"
FC-E	RESIDENTIAL	LOW-PROFILE	E.H. PRICE	HCR-12	1000	0.15"	71W	115/1/60	19.3 MBH	17.6 MBH	76/63	60/57	2.4	1.0	21.9 MBH	70	90.3	2.1	0.8	UNIT DEPTH 9.75"

PUMPS																
1. SUCTION GUIDE 2. FLO-TREX VALVE 3. MASON BR MOUNT SUPPORT 4. MASON SUPERFLEX CONNECTORS (UPSTREAM AND DOWNSTREAM) 5. VARIABLE FREQUENCY DRIVE																
unit	service	type	manuf	model	usgpm	hd	motor			casing	impeller	seals	work press	work temp	pump accessory	remarks
							hp	rpm	elect							
L1-P23	BUILDING 3 HC CIRC. PUMP	VERTICAL IN-LINE	GRUNDFOS	MAGNA 3 40-80F	8.0	15	276W	3076	120/1	C.I.	PES		-		1,2,3,4,5	
P2-P24	BUILDING 5 HC CIRC. PUMP	VERTICAL IN-LINE	GRUNDFOS	ALPHA 15-55 F/LC	3.5	10	45W	3076	120/1	C.I.	PES		-		1,2,3,4,5	
P2-P25	BUILDING 6 HC CIRC. PUMP	VERTICAL IN-LINE	GRUNDFOS	ALPHA 15-55 F/LC	1.8	10	45W	3076	120/1	C.I.	PES		-		1,2,3,4,5	
P3-P26	BUILDING 1 SOUTH HC CIRC. PUMP	VERTICAL IN-LINE	GRUNDFOS	ALPHA 15-55 F/LC	4.2	10	45W	3076	120/1	C.I.	PES		-		1,2,3,4,5	
P3-P27	BUILDING 1 NORTH HC CIRC. PUMP	VERTICAL IN-LINE	GRUNDFOS	MAGNA 3 40-80F	8.0	15	276W	3076	120/1	C.I.	PES		-		1,2,3,4,5	
L1-P28	BUILDING 2 HC CIRC. PUMP	VERTICAL IN-LINE	GRUNDFOS	ALPHA 15-55 F/LC	4.1	10	45W	3076	120/1	C.I.	PES		-		1,2,3,4,5	
P1-P29	BUILDING 7 HC CIRC. PUMP	VERTICAL IN-LINE	GRUNDFOS	CRE 5-4 AH-FGJ -A-E-HQOE	40	50	1.5HP	3076	208/1	C.I.	S.S.		-		1,2,3,4,5	

HEATING COILS																
1. MAX 8 FINS PER INCH																
2.																
3.																
unit	service	location	manuf	type	cfm	air		coil cap.	tube length	face area	water		row	usgpm	air pd in	water pd ft
						ent db	lvq db				ent	lvq				
HC-01	ELEV. LOBBY	BUILDING 1 NORTH	ENG. AIR	HOT WATER	1500	15 F	72 F	92.5	-	-	108 F	85 F	-	8.0	0.4	8.0
HC-02	ELEV. LOBBY	BUILDING 1 SOUTH	ENG. AIR	HOT WATER	750	15 F	76 F	49.5	-	-	108 F	84.5 F	-	4	0.5	5.5
HC-03	ELEV. LOBBY	BUILDING 2	ENG. AIR	HOT WATER	700	15 F	77 F	47	-	-	108 F	84.5 F	-	4	0.5	5.5
HC-04	ELEV. LOBBY	BUILDING 3	ENG. AIR	HOT WATER	1500	15 F	72 F	92.5	-	-	108 F	85 F	-	8.0	0.2	3.4
HC-05	ELEV. LOBBY	BUILDING 5	ENG. AIR	HOT WATER	500	15 F	78 F	34	-	-	108 F	88.5 F	-	3.5	0.5	8.0
HC-06	ELEV. LOBBY	BUILDING 6	ENG. AIR	HOT WATER	250	15 F	78.5 F	17	-	-	108 F	89 F	-	2.0	0.2	3
HC-07	ELEV. LOBBY	BUILDING 1	ENG. AIR	HOT WATER	700	15 F	77 F	47	-	-	108 F	84.5 F	-	4	0.5	5.5

FILTER	
unit	merv level provided
FANCOILS (SPACE TERMINAL UNITS)	MERV 8 FILTERS
OUTDOOR AIR UNITS	MERV 13 FILTERS

HOT WATER HEATING BASEBOARD LEGEND			
SLANT/FIN MODEL TX-90			
unit	location	output BTU/HR	flow GPM
-	SEE DRAWINGS	12216	3

MERRICK  
ARCHITECTURE

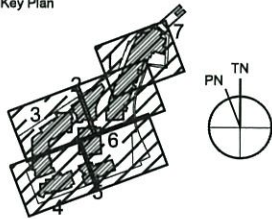
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Key Plan



Revision		
No.	Description	Date
1	MSI-07	2018-11-26
2	MSI-21	2019-06-05

Issue	Issue Date
Issued for Tender	2017-01-31
Issued for Below Grade B.P.	2017-02-03
Below Grade Building Permit	2017-08-18
Below Grade Building Permit	2018-05-23
Issued for Construction	2018-06-01

Consultant



Project

Sewell's Landing

6691 NELSON STREET,  
WEST VANCOUVER, BC  
FOR  
WESTBANK

Sheet Title

SCHEDULE (FC, MISC.)  
MECHANICAL

Drawn By	Checked
JM/BN	AB
Project Number	Scale
8316	N.T.S
Revision	Sheet Number

M-902

March 1, 2019  
PGL File: Number

**Via E-mail: E-mail Address**

Geostratus Consulting Inc.  
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V5V 3E1

**Attention: Nick Dayal, P.L.Eng**

**RE: RISK MANAGEMENT OF VAPOURS, SITE 18682, 6687 – 6609 NELSON AVENUE,  
WEST VANCOUVER, BC**

The purpose of this letter is to provide an approved professional statement to support the use of the parkade attenuation adjustment divisor (PAAD) where risk management via mechanical ventilation is implemented. This statement is required as a condition of Technical Guidance issued by the BC Ministry of Environment and Climate Change Strategy<sup>1</sup>. The following approved professional statement for such a scenario is provided below.

This statement is provided following review of the following design drawings and description of the ventilation system objectives provided by the professional engineering firm Norman, Disney & Young.

Upon review of the design documents, I conclude that the goals and objectives of the ventilation system will mitigate risk. The goal is to ventilate the parkade garage through the use of exhaust fans to maintain safe levels of carbon monoxide. The risk presented by soil vapour is very low in comparison and the risk will be mitigated by the mechanical ventilation system.

I trust that this meets your needs. If you have any questions or require clarification, please contact Duncan Macdonald at 604-895-7639.

**PGL ENVIRONMENTAL CONSULTANTS**

Per:



D. G. MACDONALD  
#29617  
BRITISH COLUMBIA  
ENGINEER

Duncan Macdonald, P.Eng.  
Contaminated Sites Approved Professional

---

<sup>1</sup> *Technical Guidance on Contaminated Sites, Document 4: Vapour Investigation and Remediation, November, 2017*