



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Bid Receiving - PWGSC / Réception des soumissions -
TPSGC

11 Laurier St./11 rue Laurier
Place du Portage, Phase III
Core 0B2 / Noyau 0B2
Gatineau, Québec K1A 0S5

**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise
indicated, all other terms and conditions of the Solicitation
remain the same.

Ce document est par la présente révisé; sauf indication contraire,
les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

THIS DOCUMENT CONTAINS A SECURITY
REQUIREMENT.

Vendor/Firm Name and Address

Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Construction Services Division/Division des services de
construction
140 O'Connor Street
140, rue O'Connor
Ontario
Ottawa
K1A 0S5

Title - Sujet PSPC Swing Space, 50 Victoria	
Solicitation No. - N° de l'invitation EP916-201774/B	Amendment No. - N° modif. 004
Client Reference No. - N° de référence du client 20201774	Date 2021-03-17
GETS Reference No. - N° de référence de SEAG PW-\$\$FG-347-79753	
File No. - N° de dossier fg347.EP916-201774	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Daylight Saving Time EDT on - le 2021-03-30 Heure Avancée de l'Est HAE	
F.O.B. - F.A.B.	
Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Boujenoui, Nabil	Buyer Id - Id de l'acheteur fg347
Telephone No. - N° de téléphone (613) 295-9356 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

The following changes to the tender documents are effective immediately. This amendment will form part of the contract documents.

Amendment 004 is issued for the following:

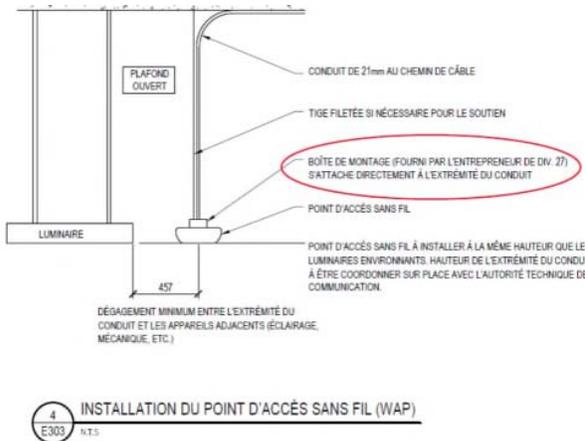
- (1) Include Videos and Images file in the attachments section: and
- (2) Respond to Bidder Questions; and
- (3) Issue Addendum 002

(1) Include Videos and Images file in the attachments section

Refer to section Attachments on Buy and Sell.

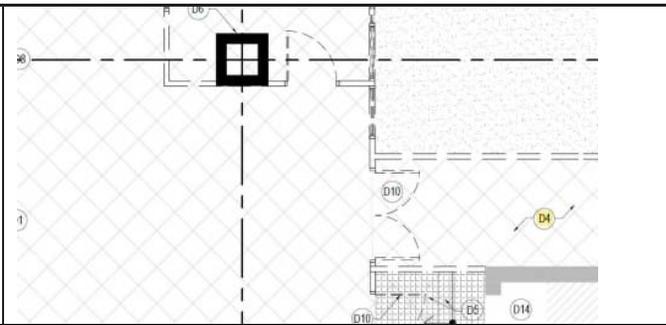
(2) Bidder Questions and Answers

Item No.	QUESTION	ANSWER
28	On the drawings and specifications, WC1 & WC2 do not have the manufacturer, distributor, pattern number or color number. Please provide.	Bid as per plans and specs - Refer to Section 09 72 16.13, 09 84 00 and ID-06.
29	In the specification section 08 80 50 Glazing (item 2.1.2) - There is mention of film on the glazing, on the other hand no indications on the plans? Please clarify.	Bid as per plans and specs- Refer to Drawing ID-06, Note 2 and Addendum no. 002.
30	Is it possible to confirm the type of door for the 900A and 900C openings? The frame is made of steel and the type 1 door with glass insert is not identified, is it steel or wood...?	Refer to Addendum no. 002.
31	Specification 09 84 00 WC2 felt wallcovering is mentioned 2mm thick, is it a felt covering, usually it is produced are 3/8 " (9mm) or 1/2 " (12mm)? Please clarify.	Bid as per plans and specs- Refer to Section 09 84 00.
32	There is no quotation section for the Communication basket Tray section. It only has the Electrical Basket Tray section 26 05 36. So should we conclude that for the installation of the communication basket tray is under the control of the electric basket tray ...?	Bid as per plans and specs- Refer to Section 26 05 36.
33	In the specifications, in section 27 05 26, article 3.1.2 "... connect TGB from room 910 to room 913 electrical distribution panels.... Conductor # 3/0... " but according to note 25, plan E203, the TGB ' '... Conductor # 2/0 to the main grounding point of the building... ' '. So is it a # 3/0 conductor to room 913 or a # 2/0 conductor to the MGB in the main hall, located where ...?	Refer to Addendum no. 002.
34	In the specifications, in section 27 05 28, articles 3.4.1 and 3.4.3, the equipment (room 910) is grounded with a # 3/0 conductor. But according to note 25, Plan E203 the conductor would be # 6. Please clarify.	Refer to Addendum no. 002.
35	In the specifications, in section 27 05 28, article 2.2.3... ceiling distribution network: J-hook. So it is supplied and installed by a structured cabling contractor or by an electrical contractor ..? if by electrical contractor, we need specifications and details of the work and	Refer to Addendum no. 002.

	equipment used.	
36	According to plan SEC-01, there is shared work between Division 26 and Division 28 - Security. But there is no security specification section in Division 28. Based on our understanding of Notes 1 @ 9 to Plan E203, everything in Plan SEC-01, mentioning Division 28, is this done by the Departmental Representative. Please confirm.	Refer to Addendum no. 002.
37	According to note 16, plan E203 "... A connection below the carpet, for connection to the socket on the floor, under the table.... "Is the connection made: a. Core in the concrete slab under the carpet ..? b. Raceway type over floor by wiremold ..? vs. Raceway type under carpet by connectrac ..? Note: There is no estimate section for this portion of the work or plan details ... Note: Need details for the type of recessed box used, is it in the floor or in furniture...?	Refer to Addendum no. 002.
38	According to note 17, in plan E203, same question as for note 16, and also is it only for data-communication and / or also power? Is the raceway multi-channel ..?	Refer to Addendum no. 002.
39	According to note 18, in plan E203, there is no performance specification section, for the floor monument with fire resistance.	Refer to Addendum no. 002.
40	Is it possible to have section details showing the concrete bulkhead on the perimeter of the exterior wall? We have no way of knowing whether the new T-bar ceiling at 2527mm will arrive flush with the perimeter bulkhead. There are no new gypsum bulkheads indicated either, so knowing this height will determine whether or not these are required. If this is not answered, we will simply assume that both levels are flush and exclude any bulkheads for this work.	Refer to Addendum no. 002.
41	Considering that there is no job showing, are there photos, videos, 3D models of this site available?	Refer to Amendment 004, item 1)
42	Need for clarification regarding: At the detail of the plan E303, it is indicated " ... supplied by the contractor of div 27 ...). There is no section for this job in Division 27 : 	Refer to Addendum no. 002.
43	Regarding the door / frame types for openings 900A and 900C, according to the elevation of frames A and D (from page ID-12), the frames are made of aluminum,	Refer to Addendum no. 002.

	<p>but in the table of openings they are mentioned PS (type 16 steel). So please clarify which openings 900A and 900C are made with what materials.</p>	
44	<p>On the floor finish drawing (ID07), there is a note that indicates that brick walls do not require any rubber base. The drawings do not indicate which of the existing walls are masonry or not. Can you please confirm this? Otherwise, we will assume that all existing walls are brick and will not allow for new base other than new drywall partitions.</p>	<p>Bid as per plans and specs- Refer to ID-04, note 3.</p>
45	<p>Need for clarification regarding: According to note 22, plan E202: "Disconnect and remove all fire alarm speakers and keep for installation in new layout" Note 2, from plan E101: 'Typical detail:'... Provide a new fire alarm speaker '' Are the fire alarm speakers: (retained and relocated) OR (remove and provide a new ...) ''?</p>	<p>Refer to Addendum no. 002.</p>
46	<p>In response to amendment no 1, question and answer #9, the section 01 00 10 – 1.12.1 – The existing furniture and equipment shall be removed and disposed by the contractor. That being said, the demolition drawing (ID01) does not show the existing furniture layout. In order to price the demolition of the existing furniture and equipment, we will need more information. Considering that the demolition drawing (ID01) does not show any furniture or equipment to be removed, we will simply assume that there is none in our scope if no additional information is provided.</p>	<p>Refer to upcoming Addendum no. 003.</p>
47	<p>On drawing ID12, for doors 900A and 900C, the schedule indicates GL, however this is not defined. For frame type D, the side lite is shown as 12mm laminate glass. However, when referring to section 08 80 50 – glazing, GL is not defined and the only glass indicated is type-2 tempered, NOT laminate. Can you please clarify which glass type is GL?</p>	<p>Refer to Addendum no. 002.</p>
48	<p>Mistake in the French ITT version</p>	<p>Mistake corrected</p>
49	<p>Addendum # 1 refers to a mandatory supplier for Security (ADSS Security), however there is no quote or product information to provide. Will the safety work be carried out in a separate contract? If they are included in this contract, please provide the necessary information.</p>	<p>Refer to Addendum no. 002.</p>
50	<p>In amendment no 1, question 11 asks for clarification on door operators and the answer is to refer to the hardware schedule on ID12. There is no mention of door operators on this plan, however door operators are indicated in the specifications 08 71 00. Please confirm whether door operators are indeed required, otherwise we will assume that there are none.</p>	<p>Refer to Addendum no. 002.</p>
51	<p>We sent a request last week for specifications for the following materials : Unfortunately, the specifications were not addressed in Addendum # 1. Would it be possible to have additional specifications?</p>	<p>Bid as per plans and specs- Refer to Section 09 72 16.13, 09 84 00 and ID-06.</p>

		WALL COVERING - BLACK HERRINGBONE 3D PATTERN		
		WALL COVERING - DARK GRAY RIBBED FELT		
52	<p>In the Designated Substance Report, article 4.1.1.1 Asbestos Containing Materials, first item is non-friable floor leveling compound, approximately 500 square meters that we have to remove. This is located in the North/East/South section under carpet.</p> <p>Can you please clarify if we are to provide new floor leveling? This is the only area where we are removing the floor leveling compound and only part of this area is going to be covered in new polished concrete. The new flooring finishes do not match up with the existing, so there will be areas with existing (unknown) floor leveling compound and areas with bare concrete slab.</p> <p>If we do not receive clarification we will simply assume that the new floor finishes will not require any additional floor leveling.</p>			Refer to Addendum no. 002 and Section 09 65 16- 3.5.5.
53	<p>Notes 4 & 5 on ID04 indicate that the existing concrete columns are cleaned, patched and repaired. These represent a potentially significant scope of work (approximately 3850 p2). These columns are also covered, so there is no way to determine the extent of concrete repair. The cost for repair can be pretty expensive. Is it possible to provide an allowance of repair (15%)!? Otherwise, we will need confirmation that every square foot of these columns must be repaired. If we do not receive any clarifications, we will assume only minor repairs are required (1 hour per column).</p>			Refer to upcoming Addendum no. 003.
54	<p>01 47 15 ; 3.8.1. indicates for the indoor air quality testing to be performed by a qualified IAQ Testing Departmental Representative. The departmental representative is assumed to be the owner.</p> <p>01 47 15; 3.8.1.2 indicates for the indoor air quality testing to be carried by a qualified IAQ Testing Consultant under the supervision of either a Certified Industrial Hygienist (CIH) or a Professional Engineer (PE) and at the expense of the contractor.</p> <p>Please confirm if the indoor air quality testing after all construction is by the owner or the contractor. If this question is not answered, our interpretation is that this testing is to be by and to the charge of the owner.</p>			Bid as per plans and specs- Refer to Section 01 47 15- 3.8.1.2.
55	Please advise for the material of existing ramp, stairs & raised floor.			Refer to upcoming Addendum no. 003.

		
<p>56</p>	<p>Addendum # 1 refers to a mandatory supplier for security (ADSS Security), however there is no quote or product information to provide. Will the safety work be carried out in a separate contract? If they are included in this contract, please provide the necessary information. After discussion with the company ADDS, they are not able to give a quote for this project, lack of information on the products to be supplied, there is no estimate. Please clarify.</p>	<p>Refer to Addendum no. 002.</p>
<p>57</p>	<p>Estimate 01 00 10 - item 1.7.2 and 1.7.3 (fire protection services and fire surveillance services), it is mentioned to retain the services of manufacturer of fire protection systems once a day or at intervals indicated by the Ministry in order to isolate and protect the works affected by the works and by the very fact of having a " firewatch " while the system is out of service: This type of intervention is difficult to quantify at the submission stage, given that we do not know the number of intervals at which the Ministry will ask us to isolate the system and given that the manufacturer only gives us an hourly rate. In order to be as fair as possible, is it possible to indicate, for submission purposes, an allocation (\$\$\$) for these interventions?</p>	<p>Bid as per plans and specs- Refer to Section 01 00 10- 1.7.</p>
<p>58</p>	<p>The specification for the solar shades is not clear. I cannot figure out which mechanism or canvas fabric requested for the project.</p>	<p>Bid as per plans and specs- Refer to Section 12 24 00- 2.2.</p>

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME

Solicitation No. - N° de l'invitation
EP916-201774/B

Amd. No. - N° de la modif.
004

Buyer ID - Id de l'acheteur
fg347

Client Ref. No. - N° de réf. du client
R.097053.012

File No. - N° du dossier
FG347 / EP916-201774/B

CCC No./N° CCC - FMS No./N° VME

ADDENDUM 002

Date: March 16th, 2021

Addendum Number: 02, REV.01

Project Number: R.097053

The following changes in the bid documents are effective immediately.

This addendum will form part of the construction documents.

DRAWINGS

1 ID-01 9th Floor Demolition Plan

.1 Add Note D20 "All existing floor levelling compound to be removed in areas receiving new CONC. finish- Refer to Floor Finishes Legend."

2 ID-05 9th Floor Reflected Ceiling Plan

.1 Add note #3 "Underside of perimeter concrete bulkhead at 2032mm above finished floor. "

3 ID-12 Door/Frame and Hardware Schedule

.1 Door Schedule Legend delete "GL: Glass" and insert "GL: Tempered Glass".

.2 Door Type 1 Elevation insert "Steel Frame surrounding Insert".

.3 Frame Type A Elevation delete "Aluminium Frame" and insert "Pressed Steel Frame".

.4 Frame Type D Elevation delete "Aluminum Frame and insert "Pressed Steel Frame" and delete "Black hardware and Frames" and insert "Paint Finish as per Schedule".

4 E101 – Lighting Layout

.1 Delete Drawing Note #2. Replace with: Drawing Note #2: "TYPICAL: PROVIDE NEW AND/OR RELOCATED FIRE ALARM SPEAKER AS SHOWN. EXTEND CONDUIT AND WIRING AS REQUIRED. NEW SPEAKERS ARE TO MATCH EXISTING BASE BUILDING STANDARDS. CONNECT TO EXISTING FIRE ALARM CIRCUIT FEEDING THE AREA."

5 E203 – Power & Telecom Layout

.1 Delete Drawing Note #16. Replace with: Drawing Note #16: "PROVIDE A FLOOR TO CEILING SERVICE POLE C/W ONE (1) DUPLEX RECEPTACLE FOR PRINTER. PROVIDE NEW IN-CARPET, SINGLE CHANNEL RACEWAY AS INDICATED C/W ALL REQUIRED HARDWARE AND ACCESSORIES FROM NEW SERVICE POLE

Date: March 16th, 2021

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Project Number: R.097053

TO WORKSTATION TO ALLOW POWER TO BE CONCEALED UNDER FLOOR. CONDUIT SHALL RUN FROM CEILING SPACE, DOWN SERVICE POLE TO WORKSTATION.”

.2 Delete Drawing Note #17. Replace with: Drawing Note #17: “PROVIDE NEW IN-CARPET, DUAL CHANNEL RACEWAY AS INDICATED C/W ALL REQUIRED HARDWARE AND ACCESSORIES FROM COLUMN TO PHONE BOOTHS TO ALLOW POWER AND COMMUNICATION CABLING TO BE CONCEALED UNDER CARPET. PROVIDE NEW DUAL CHANNEL, SURFACE MOUNT RACEWAY FROM CEILING SPACE, DOWN THE COLUMN TO NEW IN-CARPET RACEWAY. PHONE BOOTHS SHALL BE BASE-FED. INTERCONNECT ALL THREE (3) PHONE BOOTHS TO SAME CIRCUIT. REFER TO DETAILS 7, 8 AND 9 ON DRAWING E303.”

.3 Delete Drawing Note #18. Replace with: Drawing Note #18: “PROVIDE NEW 120V, 15A, FIRE RATED POKE-THRU FLOOR MONUMENT C/W TWO (2) DUPLEX RECEPTACLES AND 4 VOICE PORTS, ROUND STAINLESS STEEL COVER PLATE C/W HINGE COVER. PROVIDE ONE (1) 21mm CONDUIT FOR POWER AND ONE (1) 41mm CONDUIT FOR COMMUNICATIONS. CONDUITS SHALL RUN FROM FLOOR MONUMENTS UP TO CEILING SPACE AS SHOWN. EXACT LOCATION TO BE APPROVED ON SITE BY DEPARTMENTAL REPRESENTATIVE AFTER SCANNING. REFERENCE TYPICAL FLOOR MONUMENT DETAIL ON DRAWING E303.”

.4 Delete Drawing Note #25. Replace with: Drawing Note #25: “PROVIDE COPPER GROUND BAR AS INDICATED C/W #2/0 CONDUCTOR BACK TO ROOM 913 ELECTRICAL DISTRIBUTION PANEL GROUND. PROVIDE #6 GROUND CONNECTION FROM GROUND BAR TO EACH SERVER RACKS AND TO COPPER GROUND STRIPS AROUND THE PERIMETER FOR STATIC DISSIPATIVE FLOORING. GROUND CONNECTIONS FOR FLOORING SHALL BE CONCEALED BEHIND BASEBOARDS. COORDINATE ON SITE WITH ALL TRADES. REFERENCE TYPICAL GROUND BAR DETAIL ON DRAWING E303.”

6 E303 – Electrical Details

.1 Delete Drawing E303. Replace with: Drawing E303/R1 attached.

SPECIFICATIONS

1 01 33 00 Submittal Procedures

.1 Delete article 1.1.23.4. “ADSS: Security.” and insert “ADSS: Security. Departmental Representative’s security contractor has been provided for information/reference only. General Contractor to carry a security contractor to provide the scope defined in the Division 28 specifications.”

2 08 71 00 Door Hardware

.1 Delete article 2.2.6. entirely.

Date: March 16th, 2021

Addendum Number: 02, REV.01

Project Number: R.097053

3 08 80 50 Glazing

.1 Delete article 2.1.2. entirely.

4 Section 27 05 26 – Grounding and Bonding for Communication Systems

.1 Delete Section 1.2. Replace with: Section 1.2:

“.1 Telecommunications Industry Association (TIA):

.1 ANSI/TIA-606-B, Administration Standard for Commercial Telecommunications Infrastructure (and all associated addendums).

.2 ANSI/TIA-607-C, Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises.

.3 ANSI/TIA-568.1-D, Commercial Building Telecommunications Infrastructure Standard.

.4 ANSI/TIA-569-D, Telecommunications Pathways and Spaces.

.5 Shared Service Canada Premises Telecommunications Infrastructure Installation in Leased, Owned and Occupied under Shared Service Canada Mandate Performance Requirements for, technical standard TS01.

.6 Power and cooling in Distributor (Telecom) Rooms, technical standard TS09.

.7 Generic Specification for Office Building, Telecommunications Spaces, Pathways and Grounding System.

.8 Telecommunications Infrastructure from Government of Canada GC Workplace Fit-up Standards: Technical Reference Manual.”

.2 Delete Section 2.2, Item .1. Replace with: Section 2.2, Item .1 “2/0 AWG copper conductor, green insulated in accordance with Section 26 05 28 - Grounding - Secondary.

.3 Delete Section 3.1, Item .2. Replace with: Section 3.1, Item .2 “Install 2/0 AWG copper bonding conductor from TGB to alternating current equipment ground (ACEG) of serving electrical power panel (panelboard).”

.4 Delete Section 3.4, Item .1. Replace with: Section 3.4, Item .1 “Bond metallic raceways in to TGB using 2/0 AWG green insulated copper conductor.”

Date: March 16th, 2021

Addendum Number: 02, REV.01

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.5 Delete Section 3.4, Item .2. Replace with: Section 3.4, Item .2 "For cables within telecommunications room having shield or metallic member, bond shield or metallic member to TGB using 2/0 AWG green insulated copper conductor."

.6 Delete Section 3.4, Item .3. Replace with: Section 3.4, Item .3 "Bond equipment rack located in telecommunications room to TGB using 2/0 AWG green insulated copper conductor."

5 Section 27 05 28 – Pathways For Communication Systems

.1 Delete Section 2.2, Item .3.

6 28 13 00 Electronic Security Systems

.1 Add attached Section – 28 13 00 Electronic Security Systems.

1 General**1.1 LOCATION OF WORK**

- .1 Site Address : PdP1, 50 rue Victoria, 9th floor, Gatineau, Québec
- .2 The Departmental Representative is constructing a shared space on the 9th floor of this location and requires security components to be associated to respective point connected and compatible with the base building systems.

1.2 SUMMARY OF WORK

- .1 Products and/or scope of Work supplied by bidder:
 - .1 Provide access control to control doors and camera coverage entering the swing space as per floor plans, schedule, and specifications herein.
 - .2 Provide all associated required device licenses.
 - .3 Integrate components with existing base building Access Control and Video Management System (VMS).
 - .4 Provide new door components, as required, to provide electronic access control for noted doors, inputs, and outputs as per drawings and schedule.
 - .5 Provide new network controllers, door controllers, cabinets and all support equipment as needed for credential access control of all doors as per plans and schedule for the swing space.
 - .6 Provide new power supplies for electronic locking door hardware.
 - .7 Provide interface to electronic door hardware as per plans and schedule.
 - .8 Provide cameras as per plans.
 - .9 Provide all cabling within conduit, as per allocated conduit by Division 26.
 - .10 Work with Door Hardware Contractor to ensure appropriate interfaces, voltages and sequencing modules are added where needed for proper operation of the doors as per order of operation (refer to Door Hardware Specifications and Schedule for additional details).

- .11 Work with base building security to ensure all additional devices are programmed and tested to suit mode of operation as per Departmental Representative's standards.
- .12 Work with base building security to test and configure all devices supplied as part of this project as per Departmental Representative's commissioning standards and schedule.

1.3 CONTRACTOR/BIDDER REQUIREMENTS

- .1 Bidding Integrator (Contractor) must meet the following requirements to be considered for this project:
 - .1 Contractor must have minimum of two (2) local technicians on hand that are fully certified on the make and model of all equipment being supplied by them. Contractor to include proof of certification along with their tender response for each individual being proposed for this project.
 - .2 Active BSP certification for the integrator firm working on this project.
 - .3 Active BSP certifications for all personnel working on this project.
 - .4 Active CCQ license for all personnel working on site on this project.
 - .5 Active ASP certifications for all personnel working on site on this project during construction phase.
 - .6 Active Secret level security clearance for all personnel working on this project as registered with the Federal Government.
 - .7 All certifications must be maintained throughout the project and updated as needed to ensure compliance with requirements.
- .2 Bidding Integrator (Contractor) to include the following personnel for this project:
 - .1 Full-time Project Site Lead (SL)
 - .2 Project Manager (PM) assigned and responsible to ensure compliance with project Schedule.

1.4 PERFORMANCE REQUIREMENTS

- .1 Provide access control and security system devices using only ULC/UL Listed products.
- .2 Provide security access system using company specializing in security access systems and who is certified on all products being provided.

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- .3 Access control systems to meet safety requirements specified in accordance with UL 294.
 - .4 System layout to provide ease of operation, servicing, maintenance, testing and expansion of additional services.
 - .5 Security Control Panel
 - .1 Provide new panels to be fully compatible, compliment and operate doors, security devices and alarm inputs/outputs provided by manufacturer of existing system or OEM supplied operating hardware.
 - .2 Complete with credential reader to release and secure each door.
 - .3 Identify each door and alarm control function with lamp electronically identified on panel or associated display unit.
 - .4 Permanently label (paper labels are not acceptable) or electronically identify each control board location on panel or associated display unit.

1.5 REFERENCES

- .1 Abbreviations and Acronyms

.1	Request to exit Sensor	REX
.2	Door Contact Switch	DC
.3	Security Access Control	SAC
.4	Security Management System	SMS
.5	Video Management System	VMS

1.6 COORDINATION & SCHEDULING OF WORK

- .1 All work to be coordinated to minimize disruption to the ongoing activity of the Building.
- .2 Network LAN for security provided by base building in noted location on respective floor on plans. Network connections of all devices to be based on base building's exiting network switch and coordinated with base building security.
- .3 As the system is being turned over to the Departmental Representative, the SAC components and systems will have existing software and hardware programming parameters that may need to be adjusted during construction to fit with the new operational standards. Where any new equipment will be supplied or affected by the work of this contract, Contractor to work with base building security personnel to ensure that the equipment is properly

setup within the system at the end of each day to operate as needed during phasing of construction.

- .4 Network Security LAN shall need to be maintained for Departmental Representative use including security access control and VMS systems. Therefore, Contractor is to sequence the work in a fashion that allows the critical path will allow successful completion of all components on time and on schedule without interruption of the network and/or connections therein where it may affect the work of other systems.
- .5 It is the responsibility of the Bidding Contractor to coordinate timing of the database updates, reprogramming, communications installation with base building security, prior to programming and installation of hardware and/or software including:
 - .1 Onsite network connection updates and changes as needed.
 - .2 Providing all PoE requirements and IP addresses for IP based devices being installed.
 - .3 Construction noise, dust, and fumes to be completed afterhours where it would interrupt other tenants.
- .6 Power requirements for access controller power supply to be provided under Division 26. Power to be fed on building backup power.
- .7 Bidding Contractor is ultimately responsible for the entirety of all work and components therein, to provide a complete working access control system, even when the necessary part or work may not be specifically listed herein.

1.7 REFERENCE DOCUMENTS

- .1 National Fire Protection Association (NFPA)
 - .1 CSA 22.1-15
 - .2 NFPA 70, Article 517, National Electrical Code
 - .3 NFPA 101, Life Safety Code
- .2 Electronic Industries Association (EIA)
 - .1 REC 12749, Power Supplies
 - .2 RS 16051, Sound Systems
- .3 ANSI/BICSI
 - .1 ANSI/BICSI 007
- .4 TIA/EIA

- .1 TIA/EIA-568-latest version
- .2 TIA/EIA-569-B (and all associated addendums) Commercial Building Standard for Telecommunications Pathways and Spaces
- .3 TIA/EIA-606-B Administration Standard for Commercial Telecommunications Infrastructure (replaces CSA T-528-93)

1.8 REFERENCE STANDARDS

- .1 Underwriters Laboratories of Canada (ULC)
 - .1 CAN/ULC-S319-05. Electronic Access Control Systems
- .2 Underwriters' Laboratories (UL)
 - .1 UL 294-2013, Standard for Access Control System Units.

1.9 SUBMITTALS

- .1 Provide submittals in accordance with specifications herein.
- .2 Within two weeks after Contract award, the Contractor must submit shop drawings, single line diagrams and product data.
 - .1 Include product specification sheets indicating all features and options chosen for the following:
 - .1 SAC control panels and cabinets.
 - .2 Door devices such as credential readers, door contacts, exit request devices, and related end-of-line devices.
 - .3 VMS Hardware and Software licensing information along with all VMS cameras and support equipment (refer to VMS system Specifications for additional detail).
 - .4 All other devices supplied as part of this section.
 - .2 Submit single line diagrams showing all connections between devices including all major components installed, wiring required between each device and approximate location in the building. Single line to show connections to all workstations and SAC controllers via onsite network switches including port designations.
 - .3 Submit equipment schedule providing comprehensive list of all equipment including make, model, options included, and quantity of devices being supplied.
 - .4 Submit device schedule in excel format listing all inputs, outputs, events, alarms, and functionality of the SAC system, to serve as a basis of the system parameters that will be tested after the new system is in place and ready for testing.

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- .3 Prior to commencement of work onsite, provide detailed work schedule outlining each step in the installation of the access control and VMS security systems, showing deliverables from all parties involved.
 - .1 Include in schedule project milestones, critical materials and/or dates for successful completion of the project on time.
 - .4 As-built Records and Drawings:
 - .1 Confirm format with the Departmental Representative prior to preparation of submittals.
 - .2 Provide electronic drawings in PSPC CAD format depicting all as built conditions.
 - .3 Provide three (3) sets of as-built records to the Departmental Representative.
 - .1 Include a floor plan showing the location of all equipment including any devices such as network switches and control panels.
 - .2 Include device names as entered into the database for all related security equipment.
 - .3 Include IP address and port numbers for any related Network LAN devices.
 - .4 Note: two (2) copies to be hard copy printed format and one (1) copy to be scanned electronic format to be included with electronic O&M manuals.
 - .5 Include plastic folder in each control cabinet c/w one physical copy of the O&M submission for the controller including floor plan and single line depiction of everything connected to that controller. Include one copy of service sheet with each cabinet for future annotation of service maintenance performed on each cabinet.

1.10 DELIVERY, STORAGE, AND HANDLING

- .1 Waste Management and Disposal: Contractor is responsible for all proper disposal of waste and recycling products and may not use onsite garbage or recycling bins.
- .2 Store and handle materials to ensure that their performance requirements are not affected by abrasions, dust, or extreme temperatures.
- .3 Follow manufacturer recommendations for handling and storage to ensure that their performance requirements are not affected by abrasions, dust, or

extreme temperatures.

- .4 Do not bring equipment to site until required for use and a suitable storage space has been identified.
- .5 Onsite storage will be limited, and Contractor must safeguard equipment stored onsite as necessary to prevent theft and/or abuse therein.

1.11 WARRANTY

- .1 The Contractor shall replace, without charge to the Departmental Representative, any part supplied and/or installed by them under this contract which may fail or prove defective during the period of one (1) year, commencing on the date of Substantial Completion of the system as accepted by the Departmental Representative.
- .2 Warranty service shall be provided by phone and onsite based on the level of concern/event as follows:
 - .1 For non-critical system failure issues: service is to be provided within eight (8) hours by phone and onsite within twenty-four (24) hours, with resolution of the problem within two (2) business days.
 - .2 For non-critical service issues: service is to be provided within two (2) business days with resolution of the issue within five (5) business days.
- .3 Non-critical system failure issues may include, but are not necessarily limited to:
 - .1 Failure of a panel connected to the communications riser or any portion thereof.
 - .2 Failure of any security camera, access controlled door, access control point, and/or function as designated by the Departmental Representative.
- .4 Non-critical service issues may include, but are not necessarily limited to:
 - .1 Trouble reports and/or erroneous errors of a panel on the main communications riser or any portion thereof.
 - .2 Trouble reports and/or erroneous errors with any security door, control point and/or function as designated by the Departmental Representative.
 - .3 Device software updates, patches and/or other updates that are not required for immediate use in the system to fix/repair problems and/or failures of any kind.

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- .5 Warranty service for all security components supplied as part of this contract, will be handled by one contact number that is to be available 24/7, 365 days per year.
 - .6 A logbook shall be maintained by the contractor onsite with a page for each service call made.
 - .1 Any work completed on a service call will be noted in the log on the day of visit.
 - .2 Any service issue will not be considered resolved until such time as the Departmental Representative signs off on the issue when resolved to their satisfaction.
 - .3 Service work shall be reviewed periodically by the Departmental Representative to ensure that level of service is being maintained and to resolve any outstanding issues from time to time.

2 Products

2.1 OPEN ARCHITECTURE

- .1 All components must be of open architecture and compatible with existing base building systems.

2.2 SYSTEM

- .1 The System is already in place by the base building. All components shall be provided, installed and configured to the integrated system that utilizes a single, industry-standard relational database management system for the storage and manipulation of related data. The system therefore does not include a server with operating system and applications software, operator and administrator terminals with appropriate software, hard copy printers, or fixed magnetic storage media. The security devices shall communicate with the field panels via a dedicated cable network. The field panels shall communicate to the server via a Fast Ethernet 10/100/1000, TCP/IP network or a serial (RS-232, RS-485) connection.
- .2 The Access Control System in place is designed to allow for growth and scalability from a low-end or entry level system to a high end or enterprise system by increasing CPU power, memory, and database. The existing system is modular in nature, allowing system capacities to be easily expanded without requiring major changes to system operation. All defined system data as well as historical information shall be maintained accordingly.

2.3 ACCESS CONTROL SYSTEM

- .1 New Security Access Control (SAC) system

- .1 Contractor to confirm hardware, software, and firmware version to be installed onsite at each location to ensure compatibility with new SAC enterprise operation and functionality and report back any discrepancies to Departmental Representatives prior to issuing shop drawings.
- .2 Use the supplied security network LAN for connectivity to all IP based devices.
- .3 Work with base building security to ensure connectivity to base building SAC if/as needed to allow the base building to program cards on base building doors and view base building VMS.

2.4 ACCESS CONTROL EQUIPMENT

- .1 Database Server
 - .1 Supply all related Feenics Keep Access Control software door licences, as required for the existing system operation and integration.
- .2 Controllers
 - .1 The new SMS shall include the following controller hardware:
 - .1 Network Controllers (latest version)
 - .2 Door Controllers (latest version)
 - .2 Confirm type and configuration of all affected controllers onsite as part of shop drawing preparation phase.

2.5 MATERIALS

- .1 Network controls, items, and panels
 - .1 Provide as required: Equipment panels, AC power strips, power line conditioner, system power supply, junction box, door control panels, door activation units, electronic supervising master panel, electronic supervising remote panels, system connectors, and system cables if required for all locations missing key components to allow for new controllers, workstations and/or Server to form a complete partitioned system.
- .2 Power supplies: if needed, to CAN/ULC-S318 or UL 603.
- .3 Connectors and switches: if needed, to ORD-C634.
 - .1 Supply, install, and terminate all required cabling within conduit provided within Division 26 conduit.

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- .4 Basic System Criteria
 - .1 Credential Readers
 - .1 New HID RP40 MultiClass credential readers with Mapleleaf format support for the door locations shall be supplied by Contractor to suit the location requirement fully compatible with base building security and to match existing building readers in use.
 - .2 Fitted with tri-state LED indicator light.
 - .3 Read capability as per existing base building security requirements (13.56 mHZ iClass SE/SEOS, 125kHz Indala MapleLeaf format).
 - .4 Optical tamper switch.
 - .5 Coordinate delivery of credential readers as single gang, as needed, for each location.
 - .2 Access Credentials
 - .1 Access credential are provided by base building security and therefor not required for this project.
 - .3 Programming & Database
 - .1 Provide all device programming parameters to be entered by base building security.
 - .2 Validate test to the Database prior to upload and turn-over of the system to ensure integrity.
 - .3 Make good any fixes and/or repairs as needed to get the remote devices operational and installed and working.
 - .4 Ensure all doors are programmed to be operational and open for fifteen (15) seconds each before door held alarm will trigger.
 - .4 Language: French/English
 - .5 Acceptable Manufacturer: unless otherwise approved by the Departmental Representative, all access control components shall be standardized and compatible with the existing base building system.
 - .1 Network and Door Controllers
 - .1 Provide new network control modules are using latest version of hardware to link the door hardware to the access control software via the base building provided network PoE switch.

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- .2 Supply, install, and configure universal type access controller panels as required for the doors and I/O points, controllers to be in either a single or two door configurations, to be located in the respective room on the associated floor as per locations on drawings.
 - .3 Controllers must be universal in type and not proprietary, allowing them to operate with multiple access control manufacturers. Including the base building system.
 - .4 All controllers are to be located and wall mounted in their respective room in key locked cabinets. Keys should only be in the possession of the Security Lead and the attending guard. All cabinets to be accessible with the same key.
 - .5 All controllers are to be equipped with internal batteries to provide a minimum of fifty (50) transactions / four (4) hour battery backup for all door and point operation.
 - .6 Departmental Representative to provide emergency power if required.
- .2 Control Cabinet
 - .1 Provide new metal locking cabinet to fit controller modules as needed.
 - .2 Ensure that cabinet is c/w tamper switch and keyed alike to match keys used for power supply cabinets.
- .6 System Accessories
 - .1 Power Supplies
 - .1 Continuous low-voltage operation output
 - .2 Equipped with secondary protection for each output
 - .3 Individual outputs for connection of devices
 - .4 AC power failure output
 - .5 DC power failure output and low battery output
 - .6 Fitted with tamper contact
 - .7 Wall mounted cabinet with locked door complete with two (2) keys that are keyed alike to all other security panels supplied
 - .8 Voltage: 24volt DC or as specified for powering all equipment
- .7 Credential Reader & related devices
 - .1 Supply and install all cabling required for the proper operation of credential readers, door contacts, request to exit devices, electric strikes and to the integrate automatic door operators to the door locations as per drawings and door details.
 - .2 Terminate all cabling to and from access controllers and associated

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- door / access control devices.
 - .3 Supply, install, and configure request to exit detectors to be as per the drawings.
 - .4 Supply, install, and configure cabling and configuration a total of credential readers as per the drawings.
 - .5 Credential readers to be wall mounted credential reader on non-secure side of the door with local sounder that activates if the door is forced open or has an extended opening of the door beyond twenty (20) seconds.
 - .6 Reader light operation must display red for a locked door and green for an unlocked or access granted door. Reader beeper function to be disabled for valid access, but active for door held open alarms during the door opening after twenty (20) seconds.
 - .7 Supply, install, and configure all electrical strikes at doors as listed per the drawings to be connected to the access control system. Mauve/bridge diode to be installed, where required. Door cut-out configuration provided by others and as per associated Division 8 door hardware schedule.
 - .8 Supply, install, and configure all required electrical strikes power supplies, as required.
 - .9 Supply, install, and configure recessed door contacts at doors as listed per the drawings to be connected to the access control system.
 - .10 Supply, install, and configure request to exit device at doors as listed per the drawings to be connected to the access control system.
 - .11 Configure all door components to ensure the proper operation and reporting of each door. Ensure proper door identification and labeling within the system's configuration and documentation.
 - .12 Supply, install, and configure end of line resistors to all associated door input points, at point device.
 - .13 Configure all standard doors within system for five (5) seconds for unlock and additional fifteen (15) seconds for held open.
 - .14 Ensure each request to exit device motion activation only shunts the door forced alarm within the system and does not activate the door's electric strike.
- .8 Programming & Configuration
- .1 Coordinate programming of devices, user access groups, and associated schedule by the Departmental Representative. Coordinate with the Departmental Representative to provide the applicable programming and sample credential for testing.
 - .2 Coordinate programming of all hardware for proper alarm reporting for door held, forced, and invalid credential to workstation.
 - .3 All onsite monitoring is by the on-duty guard on a workstation at the

- base building security post.
- .4 Mobile requirements are not required and all access modifications (disabling credentials, unlocking doors, emergency lockdown...) are to be performed by base building security.
 - .5 Swing space fit-up main entry access point to be on free access schedule during business hours.
 - .6 Swing space fit-up access points for staff access require credential use during all hours, with exception of only non-business hours for the main entry access point.
 - .7 Interior door equipped with access control require credential access at all times.
 - .8 All equipment is required to be CSA approved.
 - .9 Test and commission. Coordinate with Departmental Representative prior to completion for scheduling.

2.6 NETWORK ROUTER/SWITCH

- .1 Provide by base building security in respective room as per plans.

2.7 VIDEO MANAGEMENT SYSTEM

- .1 The VMS system in place is IP-based serving the base building requirements for all applicable floors. The system is capable of expansion with future needs, provide central viewing, management, and auditing capabilities. The base building security will accommodate for their own internal increase of storage requirement for the new cameras.
- .2 Supply all applicable camera licenses for existing Avigilon system.
- .3 Supply, install, and configure 4mp PoE Vandal grade varifocal dome cameras for all locations as listed on the drawings, camera resolution must be minimum 4MP, minimum 0.02lux light rating with infra-red or superior sub lux viewing capability, with a minimum of 20fps capability, as well as an IK08 vandal and an IP65 environmental ratings and internal card memory capability.
- .4 Camera views in accordance with desired view, as per coordination with the Departmental Representative at time of installation.
- .5 Mounting hardware, as required, must respect the camera and application conditions.
- .6 Provide CAT6 to each camera location from the associated room as per plans.
- .7 Terminate all cabling to and from cameras and associate network.

- .8 Test and commission with Departmental Representative.

3 Execution

3.1 GENERAL

- .1 Install system and components in accordance with manufacturer's written installation instructions to locations, heights and surfaces shown on reviewed shop drawings.
- .2 Install any new devices that are required to support the existing software, database, and network connections (e.g. panels, system, and components) secure to walls, ceilings, data racks or other substrates.
- .3 Install any new network or support devices (as required) in pre-approved inconspicuous accessible locations.
- .4 Conceal any new or rerouted conduit and wiring.
- .5 Where new devices are being added to the locations (as indicated on plans and schedule), provide card access control compatible devices, firmware, and software to support the existing server and software model.
- .6 Provide new labeling to match approved naming convention where new designation does not match the old designation. At minimum, allow for new lamacoid labels and p-touch stick on labels for each SAC cabinet and control board including new as-built drawings to be placed in each cabinet (within clear plastic sleeve).
- .7 Additional maintenance period omits the failure cost of equipment outside of the base scope of work performed within this package. All equipment outside of scope is to be priced out separately for their replacement and/or servicing.

3.2 INSTALLATION:

- .1 Install security access systems and components in accordance with relevant CAN/ULC-S302, CAN/ULC-S310, UL 681, UL 1641, and UL 681 standards.
- .2 Install components in accordance with manufacturer's written installation instructions to locations, heights and surfaces shown on reviewed shop drawings.
- .3 Install components secure to walls, ceilings or other substrates.
- .4 Install required boxes in inconspicuous accessible locations.

- .5 Conceal conduit and wiring.

3.3 VERIFICATION

- .1 Perform verification inspections and test in the presence of Departmental Representative.
 - .1 Provide all necessary tools, ladders, and equipment.
 - .2 Ensure appropriate subcontractors, manufacturer's representatives and security specialists are present for verification.
- .2 Measure and record, control (and/or voice) carrier levels of every System channel at each of following points in the system:
 - .1 Door and alarm located devices.
 - .2 Access and alarm control panel functions.
 - .3 Electronic supervisory control units' inputs and outputs.
 - .4 Security workstation alarm system control and monitoring function.
 - .5 Operation under emergency evacuation and/or bypass function.
 - .6 Operation under alarm conditions including standard and lockdown situations.
- .3 Camera Installation:
 - .1 Coordinate programming of initial camera configurations with base building security.
 - .2 Apply labels and designations as directed in consultation with the Departmental Representative.
 - .3 Provide snap shots of all cameras to Departmental Representative for comment and instruction as to final view, angle, field of view, focus and lighting condition settings, prior to final configuration and testing.
 - .4 Adjust views and other factors affecting final view from the camera to suit Departmental Representative requirements.
- .4 Performance testing.
 - .1 Test procedure: perform test on a "go-no-go" basis.
 - .1 Make only operator adjustments required to show proof of performance.
 - .2 Test to demonstrate and verify that installed devices comply with installation and technical requirements of this specification under operating conditions.
 - .3 Test results to be evaluated by Departmental Representative as either acceptable or unacceptable using following procedures.

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- .2 Documentation review
 - .1 This review will determine if information provided is sufficient to meet requirements of this specification.
 - .2 Provide for review all associated component manuals, as installed drawings, pre-test forms, equipment cabinet pictorials and network equipment details.
 - .3 Mechanical inspection
 - .1 Departmental Representatives and Contractor to tour all areas, to ensure that all devices are installed in place for proof of performance testing.
 - .2 Take system inventory at this time. Verify following items before beginning proof of performance tests:
 - .1 All electrical power circuits designated for system equipment are properly labeled, wired, phased, protected, and grounded.
 - .2 Conductor ends are protected by heat shrink wrap; audio spade lugs, barrier strips and punch blocks are used.
 - .3 Dust, debris, solder splatter, etc. are cleaned and removed from site.
 - .4 All equipment is properly labelled.
 - .5 All equipment identified in System's equipment lists are in place and properly installed.
 - .6 Each device and System ground method are installed in accordance with manufacturer's instructions and this specification.
 - .4 The Contractor shall perform all tests, furnish all test equipment and consumable supplies necessary and perform any work as required to establish performance levels for the system in accordance with the specifications.
 - .5 Each device shall be tested as a working component of the completed system. All system controls shall be inspected for proper operation and response.
 - .6 Tests shall demonstrate the response time and display format of each different type of input sensor and output control device. Response time shall be measured with the system functioning at full capacity. Computer operation shall be tested with the complete data file.
 - .7 The Contractor shall maintain a complete log of all inspections and tests. Upon final completion of system tests, a copy of the log records

shall be submitted as part of the as-built documentation.

3.4 CLEANING

- .1 Leave site clean and tidy at the end of each workday.
- .2 Any remedial work by onsite property manager to clean up project debris or mess left overnight, shall be charged back to the Contractor.
- .3 Contractor may not use onsite garbage bins for project waste and/or recycling and is responsible for taking all waste/recycling offsite for proper disposal.
- .4 At end of project, but before final inspection, clean and leave in good condition all components installed and/or serviced as part of this contract.

3.5 PROTECTION

- .1 Provide physical protection for detection devices & controls from construction dust & debris to ensure a completely new working system at final acceptance.

3.6 MAINTENANCE

- .1 For the duration of the warranty period, the Contractor shall offer a Support Agreement in order for the Technical Support Specialists to reactively troubleshoot system problems.
- .2 As part of the warranty agreement, access to patches and firmware release updates shall be provided and installed at not further cost to contract along with updates to training if/as required to suit the firmware patch updates.
- .3 Contractor shall maintain the system during the warranty period including all scheduled preventative maintenance as recommended by manufacturer.
- .4 Within one month of the expiry date of the warranty period, the Contractor shall perform a warranty inspection including cleaning and adjustment of the security system components supplied under this contract. Provide a report to the Departmental Representative indicating the condition of all equipment installed.

3.7 TRAINING

- .1 As this is an addition to an existing system, no training is required.

END OF SECTION



Contractor to verify all dimensions & conditions on site and immediately notify the departmental representative.

NO.	REVISION	DATE
1	ISSUED FOR REVIEW	2016-12-23
2	ISSUED FOR TENDER	2016-12-23
3	ISSUED FOR TENDER	2016-12-23
4	ISSUED FOR TENDER	2016-12-23
5	ISSUED FOR TENDER	2016-12-23

PROJECT: PSPC SWING SPACE 9TH FLOOR

DESIGNED BY: [Signature]

DATE: 04/11/2016

PROJECT NO: 16-001

CLIENT: PSPC

LOCATION: 1000 SHEPPARD AVENUE EAST, SUITE 200, SCARBOROUGH, ONTARIO M1S 1T7

SCALE: AS SHOWN

PROJECT NO: 16-001

CLIENT: PSPC

LOCATION: 1000 SHEPPARD AVENUE EAST, SUITE 200, SCARBOROUGH, ONTARIO M1S 1T7

DESIGNED BY: [Signature]

DATE: 04/11/2016

PROJECT NO: 16-001

CLIENT: PSPC

LOCATION: 1000 SHEPPARD AVENUE EAST, SUITE 200, SCARBOROUGH, ONTARIO M1S 1T7

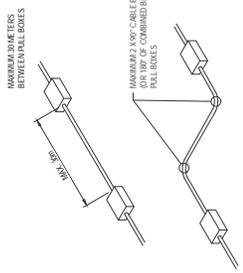
DESIGNED BY: [Signature]

DATE: 04/11/2016

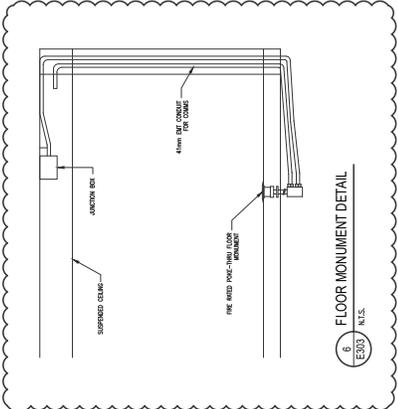
PROJECT NO: 16-001

CLIENT: PSPC

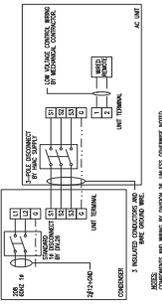
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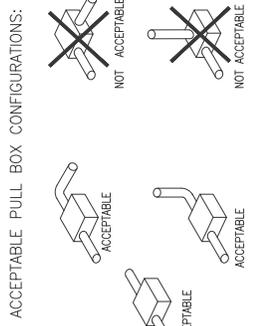
3 TYPICAL PULL BOX INSTALLATION
 E303 N.T.S.



6 FLOOR MONUMENT DETAIL
 E303 N.T.S.



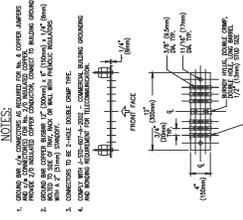
2 HVAC WIRING DETAIL
 E303 N.T.S.



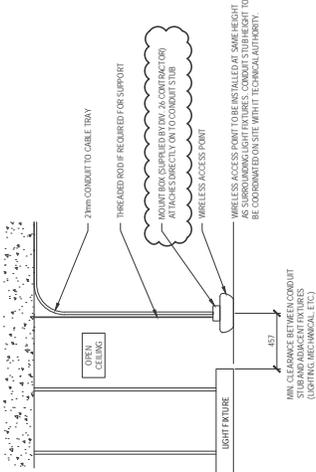
ACCEPTABLE PULL BOX CONFIGURATIONS:

PULL BOXES SHALL NOT BE USED FOR 90° BENDS OR FOR T-JUNCTIONS

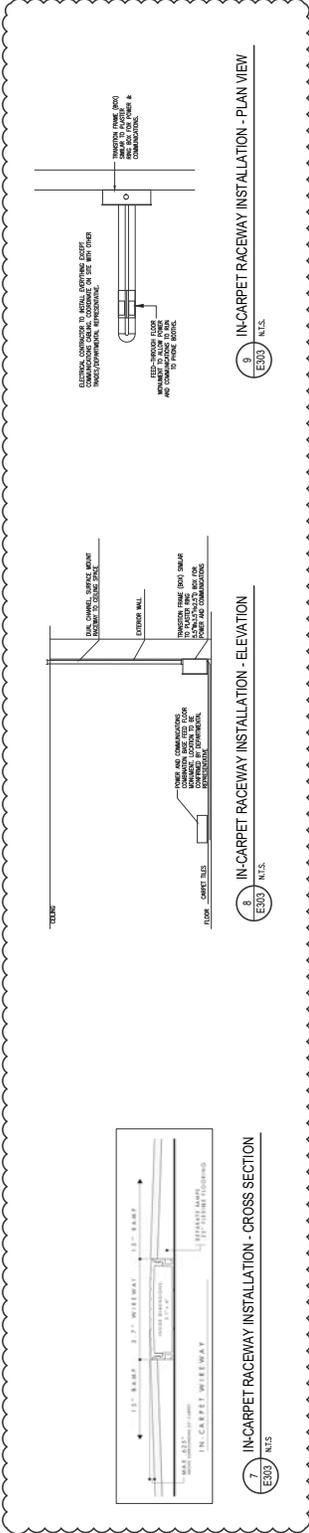
5 ACCEPTABLE PULL BOX CONFIGURATIONS
 E303 N.T.S.



1 TYPICAL GROUND BAR DETAIL
 E303 N.T.S.



4 TYPICAL WIRELESS ACCESS POINT (WAP) INSTALLATION
 E303 N.T.S.



9 IN-CARPET RACEWAY INSTALLATION - PLAN VIEW
 E303 N.T.S.

8 IN-CARPET RACEWAY INSTALLATION - ELEVATION
 E303 N.T.S.

7 IN-CARPET RACEWAY INSTALLATION - CROSS SECTION
 E303 N.T.S.